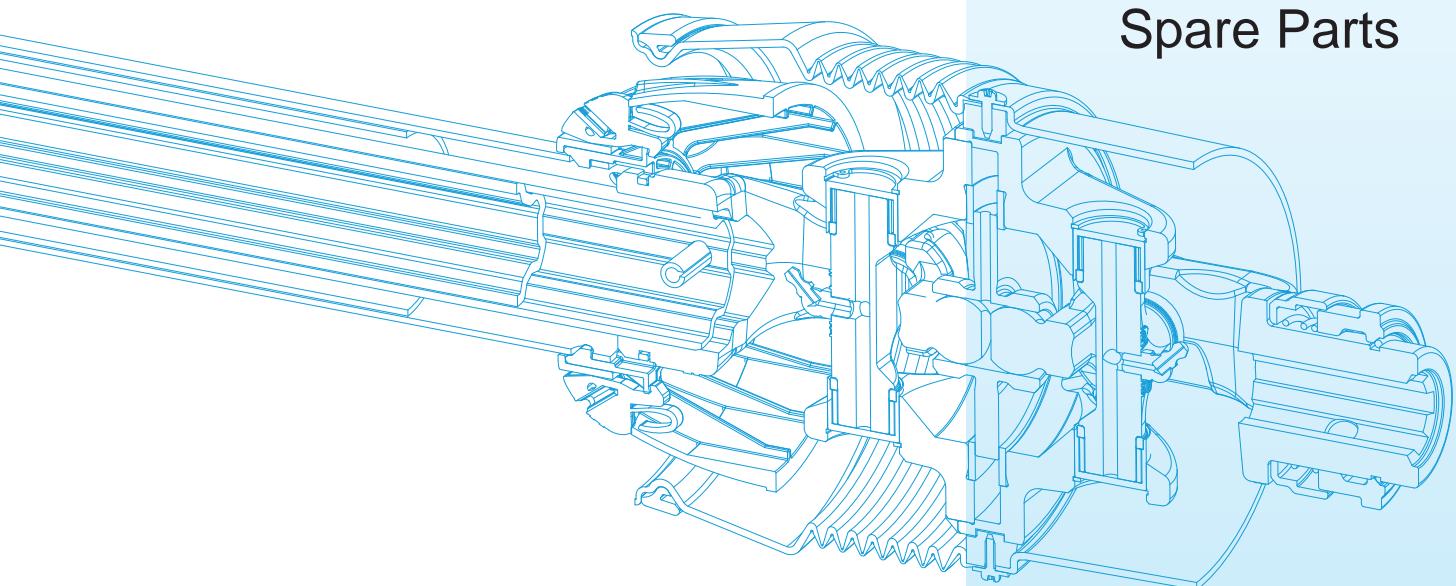




DRIVESHAFTS

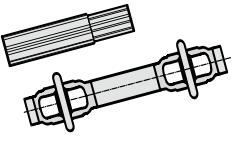
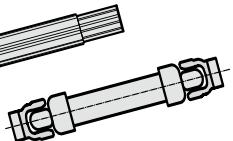
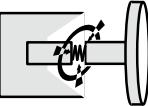
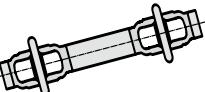
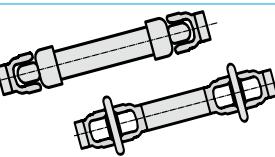
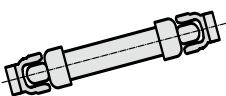
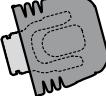
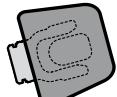
Spare Parts



The easiest way to go far in agriculture

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Comer Industries è leader globale nelle **soluzioni di meccatronica** e nei **sistemi integrati per la trasmissione di potenza**, destinati ai **principali costruttori mondiali di macchine** per l'agricoltura e l'industria.

L'attività produttiva è strutturata su **cinque stabilimenti in Italia** nelle province di Reggio Emilia, Mantova e Matera, a cui si aggiungono uno stabilimento in **Cina** (Pinghu) e uno in **India** (Bangalore).

Per sviluppare e testare soluzioni all'avanguardia, Comer Industries si avvale del proprio **Centro Ricerche di Meccatronica**, nato nel 1996 e dotato delle ultime tecnologie e strumenti di sperimentazione.

Comer Industries progetta, realizza e si propone al mercato con un'ampia gamma di **trasmissioni standard e soluzioni per la trasmissione di potenza personalizzate**, come gearboxes, driveshafts, planetary gearboxes e powertrain per applicazioni industriali e agricole.

Comer Industries propone un'ampia gamma di **cardani standard e omocinetici** per potenze trasmissibili da 12 KW a 144 KW. L'offerta di prodotti si completa con **dispositivi di sicurezza**, tra cui frizioni, ruote libere e limitatori di coppia.

La **gamma di alberi cardanici** è adatta a varie applicazioni e tipologie di macchine agricole. Le soluzioni possono essere integrate con altri prodotti Comer Industries di gamma quali Gearboxes e Planetary Drives per formare una **soluzione completa della trasmissione di potenza** richiesta dall'applicazione.

Comer Industries presidia i principali mercati esteri con le proprie **filiali commerciali** in Francia, Germania, Regno Unito, Stati Uniti, Brasile, Cina e India.



Comer Industries is a global leader in **mechatronic solutions** and **integrated systems for power transmission**, supplied to **major manufacturers of agricultural and industrial machinery** worldwide.

Industrial operations are structured in five plants in **Italy**, one facility in **China** (Pinghu) and one in **India** (Bangalore).

To develop and test advanced product solutions, Comer Industries relies on its **Mechatronics Research Center**, established in 1996 and equipped with the latest technologies and experimental tools.

Comer Industries designs, manufactures and offers a wide product range of **standard and highly customized advanced power transmissions** such as gearboxes, driveshafts, planetary gearboxes and powertrain for agricultural and industrial applications.

Comer Industries offers an extensive range of **standard driveshafts and constant velocity joints** for transmissible power from 12 KW to 144 KW. **Safety devices**, such as clutches, free wheels and torque limiters, complete the offer.

Driveshafts series is suitable for a wide variety of applications and agricultural equipment. These solutions can be integrated with other Comer Industries standard products from the ranges Gearboxes and Planetary Drives to form a **complete power transmission solution** as required by the specific application.

The company operates in the major world markets through its own **sales subsidiaries** in France, Germany, United Kingdom, United States, Brazil, China and India.



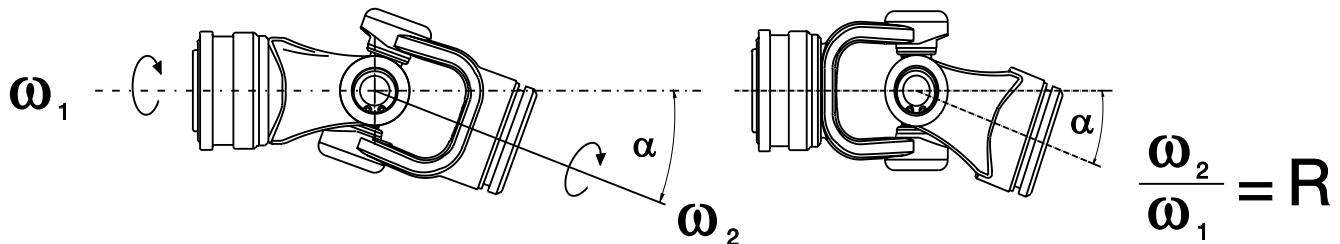


Fig.1

L'albero cardanico per uso agricolo è costituito da due giunti cardanici e da un accoppiamento telescopico.

Il giunto cardanico, composto da due forcelle e una crociera, è l'elemento che consente di trasmettere il moto fra due assi inclinati. La costruzione del giunto cardanico è tale che durante la rotazione la velocità dell'albero in uscita non è sempre uguale a quella dell'albero in ingresso e questa differenza di velocità dipende dall'angolo di snodo del giunto (Fig1).

Il rapporto di trasmissione in funzione dell'angolo di snodo e dell'angolo di rotazione è rappresentato in Fig.2. Più il rapporto si discosta dal valore 1 e più cresce l'irregolarità del moto con conseguente generazione di effetti indesiderati (vibrazioni, rumorosità, sollecitazioni inerziali).

The PTO driveshaft for agricultural applications consists of two cardan joints and a telescopic coupling.

The cardan joint, consisting of two yokes and a cross, is the element used to transmit the motion between two tilted axles. The cardan joint construction is designed so that during rotation, the speed of the output shaft is not always equal to that of the input shaft and this difference in speed depends on the articulation angle of the joint (Fig. 1).

The transmission ratio versus the articulation angle and the rotation angle is represented in Fig. 2. The more the ratio deviates from 1 the greater becomes the irregularity of the motion, thus generating undesirable effects (vibrations, noise, inertial stress).

Rapporto di trasmissione istantaneo Instantaneous transmission ratio

α = angolo di snodo
= articulation angle

β = angolo di rotazione
= rotation angle

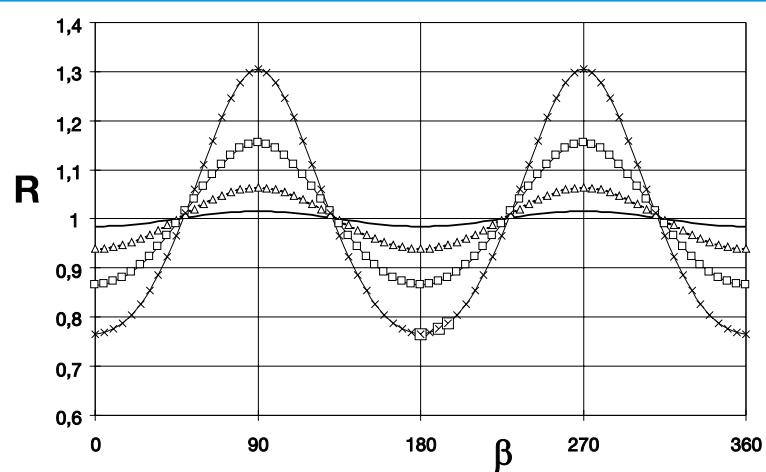


Fig.2

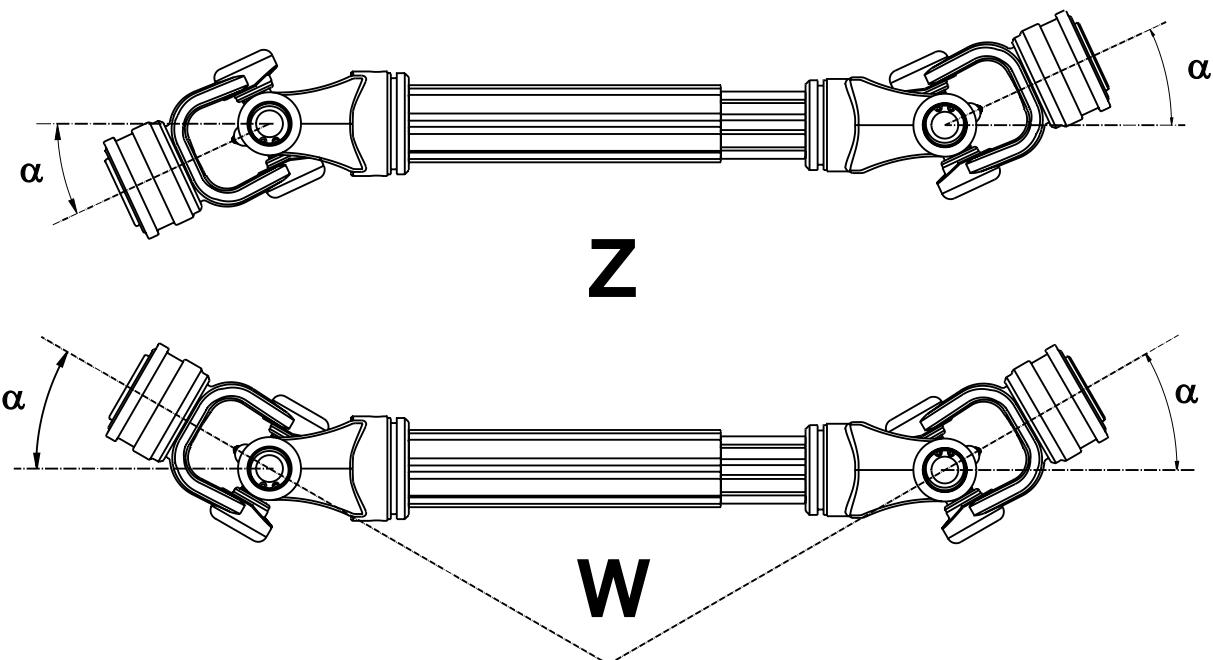


Fig.3

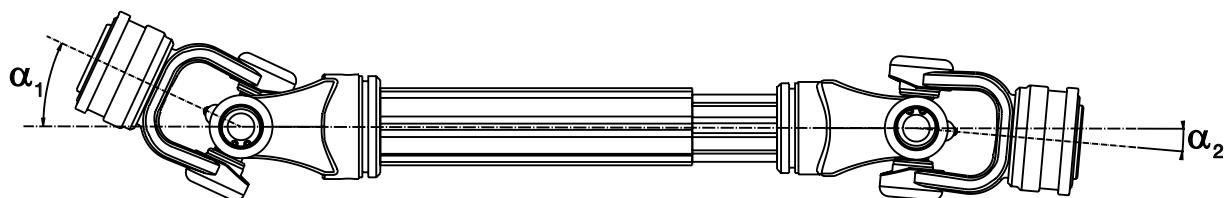


Fig.4

L'albero cardanico è composto da due giunti cardanici. Le irregolarità dei singoli giunti possono quindi eliminarsi o comporsi reciprocamente.

Quando gli angoli di snodo dei due giunti sono uguali, vedi disposizione W o disposizione Z (Fig.3), la trasmissione è omocinetica, cioè la velocità della forcella in uscita è sempre uguale a quella in ingresso, eliminando quindi gli effetti indesiderati.

In tutte le altre angolazioni (Fig.4) rimane sempre una irregolarità che può essere valutata con il grafico della pagina seguente (Fig.5).

The PTO driveshaft consists of two cardan joints. The irregularities of the single joints thus can be cancelled or mutually combined.

When the articulation angles of the two joints are equal (see configuration W or Z in Fig. 3) the transmission is uniform, i.e. the speed of the output yoke is always equal to the speed of the input yoke, thus eliminating the undesirable effects.

In all the other angulations (Fig. 4), an irregularity always remains that can be evaluated with the graph on the following page (Fig. 5).

NOMOGRAMMA IRREGOLARITA' DI ROTAZIONE DELL'ALBERO CARDANICO

PTO DRIVESHAFT ROTATION IRREGULARITY ALIGNMENT CHART

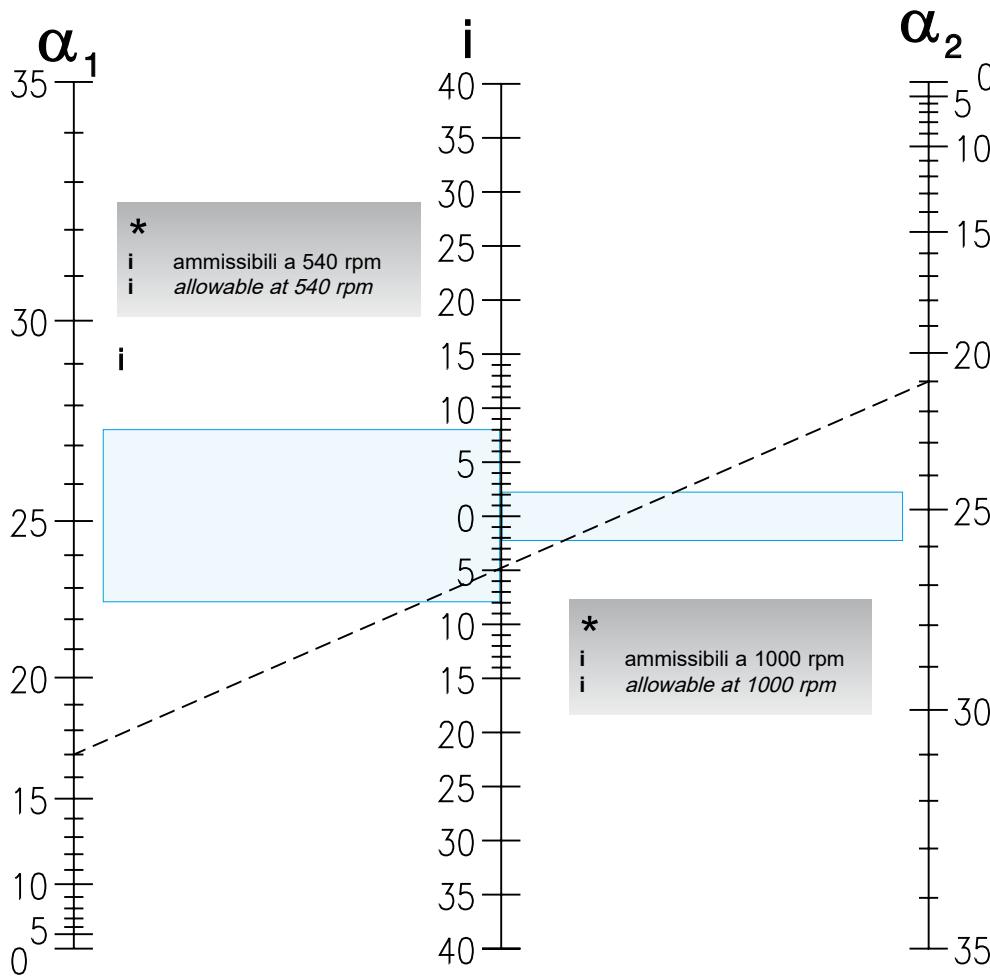
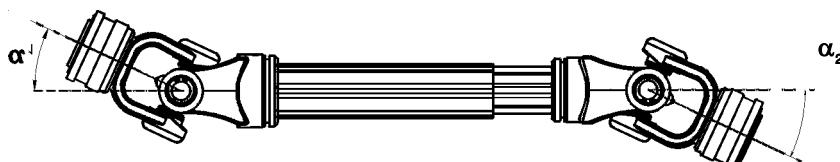


Fig. 5



Esempio / Example:

$\alpha_1 = 0^\circ, \alpha_2 = 4^\circ, \alpha_1 - \alpha_2 = 4^\circ$
 $i = 0,5\%$
 $\alpha_1 = 21^\circ, \alpha_2 = 25^\circ, \alpha_1 - \alpha_2 = 4^\circ$
 $i = 6\%$

L'irregolarità "i" del moto dipende dall'inclinazione dei due snodi cardanici e dalla differenza fra le angolazioni dei due snodi (vedi es.: a parità di differenza angolare l'irregolarità è maggiore se le inclinazioni dei singoli snodi sono maggiori).

Irregularity "i" of the motion depends on the articulation of the two cardan joints and on the difference between the articulations of the two joints (see the example: with angular difference being equal, the irregularity is greater if the articulations of the single joints are greater).

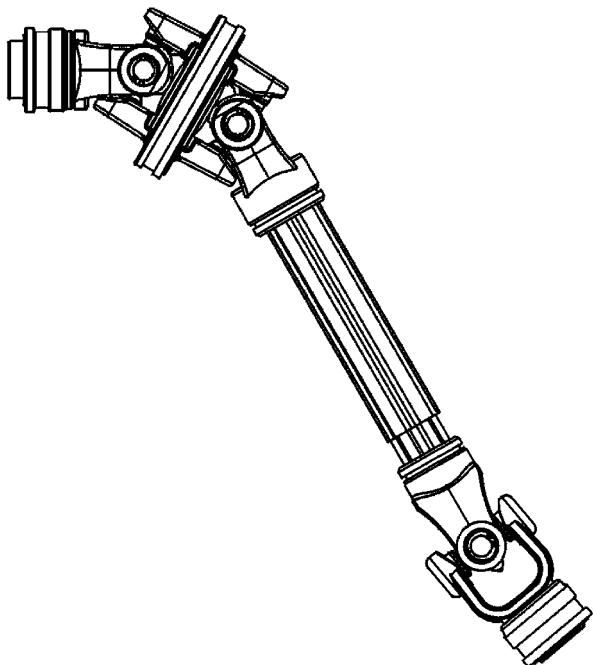


Fig. 6

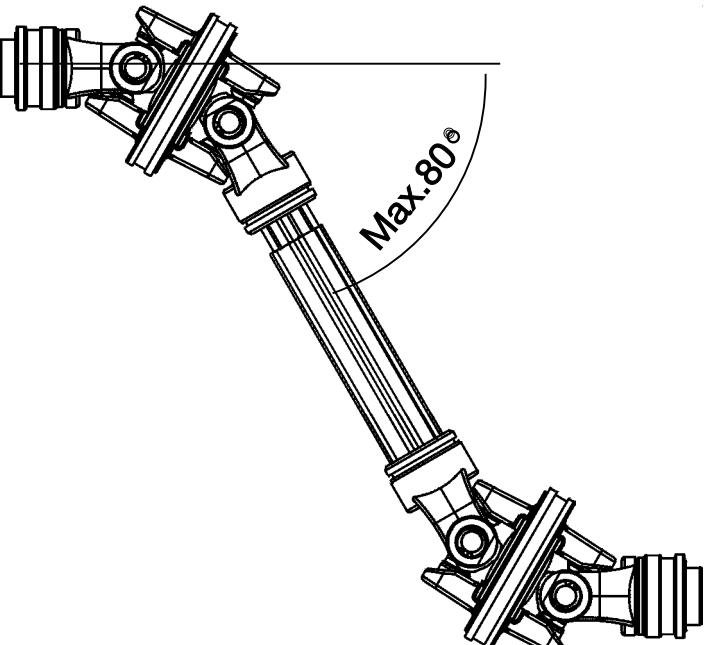


Fig. 7

Il giunto omocinetico (giunto a velocità costante) è un doppio snodo con un sistema di centraggio che garantisce una eguale ripartizione dell'angolo di snodo fra le due forcelle (disposizione a W). La velocità della forcella in uscita è sempre uguale a quella in ingresso e non vi sono irregolarità di rotazione.

In un albero cardanico con giunto omocinetico e un giunto standard (Fig.6), l'irregolarità totale è dovuta al solo giunto standard, che perciò deve lavorare a piccoli angoli di snodo. Nel caso di elevati angoli di lavoro alle due estremità dell'albero è necessario utilizzare due snodi omocinetici (Fig.7).

Il giunto omocinetico può lavorare ad elevati angoli di snodo solo per brevi periodi (es. durante una sterzata). Caratteristica costruttiva di assoluta qualità ed affidabilità del giunto omocinetico è l'adozione di un ponte sfera saldato alla forcella, che permette di ridurre consistentemente le sollecitazioni e quindi le usure nella zona di contatto sfera-cilindro e nell'accoppiamento scanalato tra albero e forcella.

The CVJ joint (Constant Velocity Joint) is a double universal joint with a centering system that equally divides the articulation angle between the two yokes (W configuration). The speed of the output yoke is always equal to the input speed and there are no rotation irregularities.

In a PTO driveshaft with a CVJ joint and a standard joint (Fig. 6), the total irregularity is caused only by the standard joint, that therefore must work with small articulation angles. For high work angles at the two ends of the shaft, two CVJ joints must be used (Fig. 7).

The CVJ joint can work with high articulation angles only for brief periods (ex.: while steering). Absolute quality and reliability of the CVJ construction are ensured by the ball bridge welded to the yoke which considerably reduces stress and consequently wears in the ball-cylinder contact zone and in the splined coupling between the shaft and the yoke.

POTENZE E COPPIE TRASMISSIBILI
POWER AND TORQUE RATINGS

| Type | | 540 [rpm] | | | | 1000 [rpm] | | | | * Coppia dinamica max. Max. Dynamic Torque | |
|------|-----|-----------|------|--------|----------|------------|------|--------|----------|---|----------|
| | | Power | | Torque | | Power | | Torque | | | |
| | | [kW] | [cv] | [Nm] | [in.lb.] | [kW] | [cv] | [Nm] | [in.lb.] | [Nm] | [in.lb.] |
| V | 20 | 17 | 23 | 300 | 2650 | 26 | 36 | 250 | 2200 | 460 | 4050 |
| | 40 | 28 | 38 | 490 | 4310 | 43 | 58 | 410 | 3600 | 850 | 7530 |
| | 50 | 37 | 50 | 650 | 5750 | 57 | 77 | 540 | 4750 | 1100 | 9740 |
| | 60 | 50 | 68 | 880 | 7790 | 77 | 105 | 740 | 6510 | 1510 | 13360 |
| | 80 | 74 | 100 | 1300 | 11500 | 113 | 154 | 1080 | 9550 | 2390 | 21150 |
| | 90 | 88 | 120 | 1560 | 13800 | 140 | 190 | 1340 | 11850 | 2900 | 25700 |
| T | 10 | 12 | 16 | 210 | 1850 | 18 | 25 | 172 | 1500 | 320 | 2850 |
| | 20 | 15 | 21 | 270 | 2400 | 23 | 31 | 220 | 1950 | 450 | 4000 |
| | 40 | 26 | 35 | 460 | 4050 | 40 | 55 | 380 | 3350 | 780 | 6900 |
| | 50 | 35 | 47 | 620 | 5500 | 54 | 74 | 520 | 4600 | 1050 | 9300 |
| | 60 | 47 | 64 | 830 | 7350 | 74 | 100 | 710 | 6259 | 1450 | 12850 |
| | 80 | 70 | 95 | 1240 | 10950 | 110 | 150 | 1050 | 9300 | 2250 | 19900 |
| | 90 | 88 | 120 | 1560 | 13800 | 140 | 190 | 1340 | 11850 | 2900 | 25700 |
| E | 40 | 26 | 35 | 460 | 4050 | 40 | 55 | 380 | 3350 | 780 | 6900 |
| | 50 | 35 | 47 | 620 | 5500 | 54 | 74 | 520 | 4600 | 1050 | 9300 |
| | 60 | 47 | 64 | 830 | 7350 | 74 | 100 | 710 | 6259 | 1450 | 12850 |
| | 80 | 70 | 95 | 1240 | 10950 | 110 | 150 | 1050 | 9300 | 2250 | 19900 |
| | 90 | 88 | 120 | 1560 | 13800 | 140 | 190 | 1340 | 11850 | 2900 | 25700 |
| D | 120 | 144 | 196 | 2546 | 22535 | 221 | 300 | 2110 | 18675 | 6500 | 57530 |

* E' la massima coppia trasmissibile in rotazione. Rappresenta il massimo valore di coppia applicabile per il quale la durata può essere determinata mediante il nomogramma.

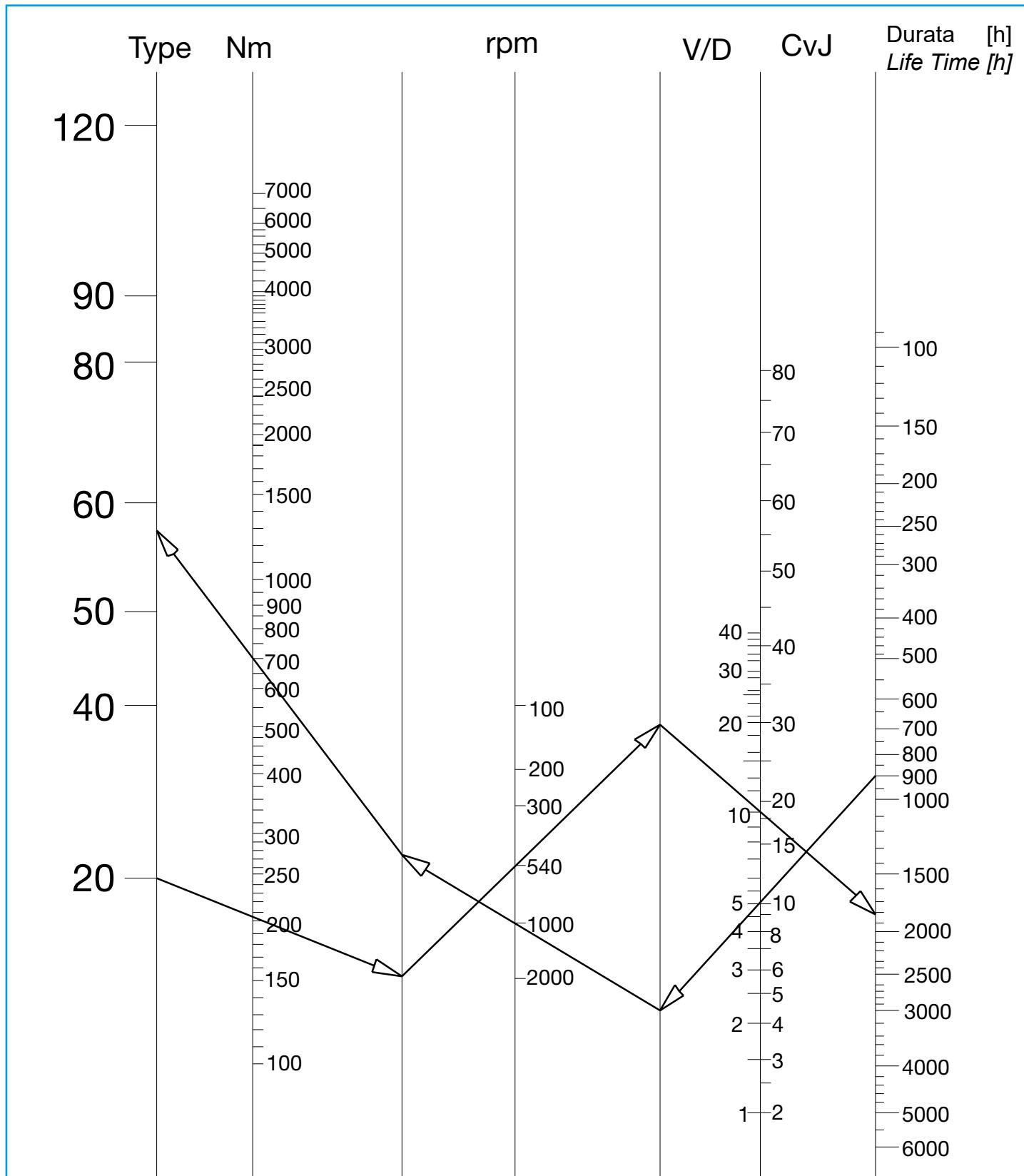
Valori e condizioni di lavoro continuo, angolo di snodo 5°, durata 1000 ore.

* It is the max. transmissible torque during the rotation. It represents the max. applicable torque value whom duration can be determined through the alignment chart.

Continuous operation data and conditions, working angle 5°, average life 1000 hours.

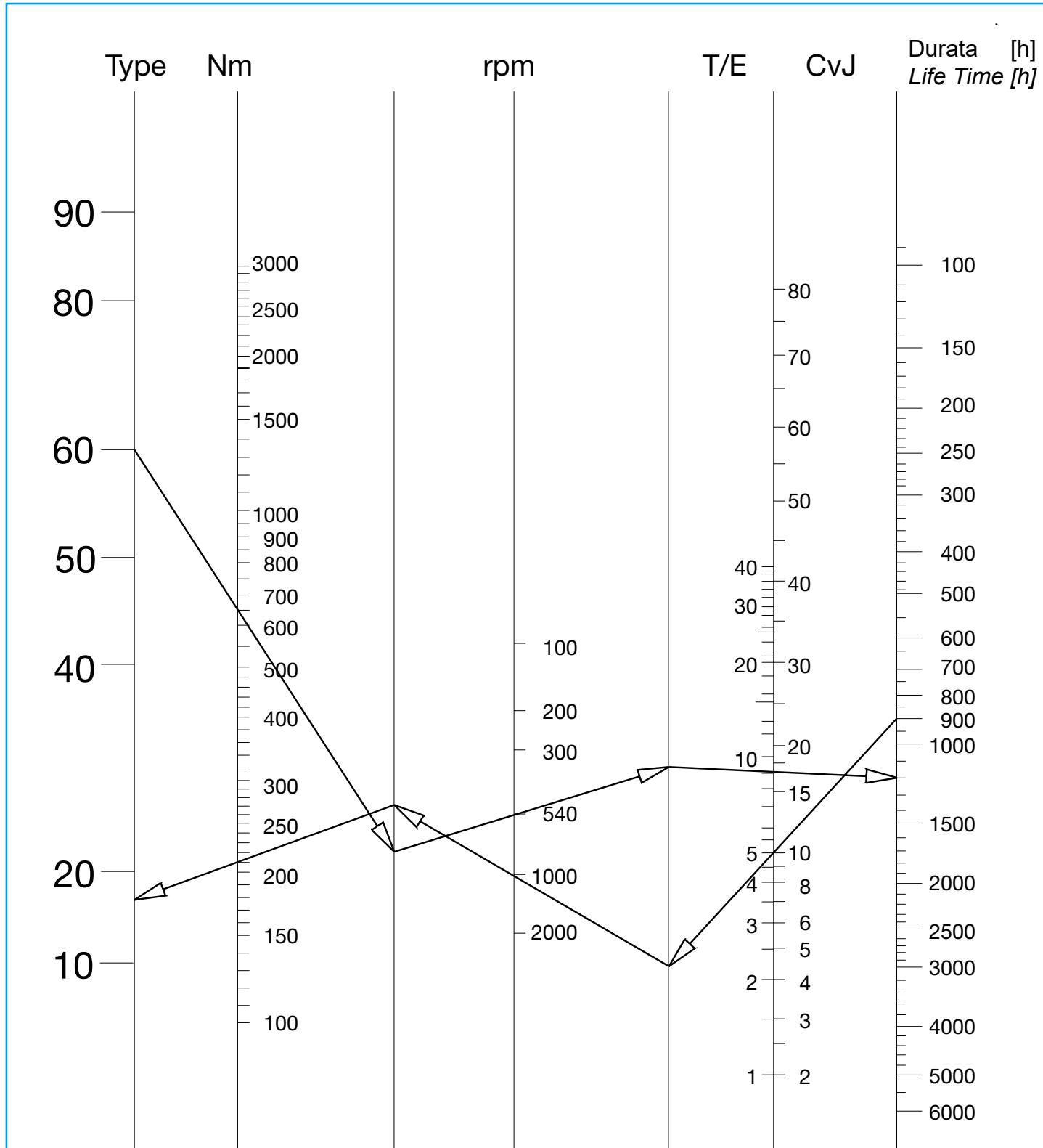
CALCOLO DURATA CROCIERE SERIE V-D

CALCULATION OF CROSS AND BEARING KIT LIFE V-D SERIES



| | | | | | | |
|--------------------|---------------|----------------------|-------------------------|---|----------------------------|----------------|
| Esempio Example | V 20 900 h | 210 Nm. 10° 5° | 540 rpm (CVJ) (V) | 10° 1000 rpm 700 Nm 1000 rpm 700 Nm | 1800 h 700 Nm 700 Nm | CVJ V60 V60 |
|--------------------|---------------|----------------------|-------------------------|---|----------------------------|----------------|

CALCOLO DURATA CROCIERE SERIE T-E
CALCULATION OF CROSS AND BEARING KIT LIFE T-E SERIES



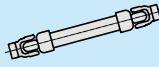
Esempio
Example

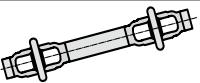
| | | | | | |
|-------|---------|---------|----------|--------|---------|
| T 60 | 650 Nm. | 540 rpm | 9° | 1200 h | CVJ T20 |
| 900 h | 10° | (CVJ) | 1000 rpm | 210 Nm | T20 |
| 900 h | 5° | (T) | 1000 rpm | 210 Nm | |

PARTI DI RICAMBIO

SPARE PARTS

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| Serie T singolo CVJ | T Series single CVJ | 20 |
| Serie T doppio CVJ | T Series double CVJ | 21 |

| | | |
|---|---|-----------|
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| Serie T | T Series | 16 |
| Serie E | E Series | 17 |
| Serie D | D Series | 17 |
| Parti di ricambio | Spare Parts | |
| Serie V | V Series | 22 |
| Serie T | T Series | 23 |
| Serie E | E Series | 24 |
| Serie D | D Series | 25 |



| Type | Crociera Cross and bearing kit | Corpo centrale Double yoke | Forcella per tubo esterno Outer tube yoke | Tubo interno Inner tube | Forcella per tubo interno Inner tube yoke |
|---------------------------|-----------------------------------|-------------------------------|--|----------------------------|--|
| serie V series | | | | | |
| 20 | Code 180.012.161 | Code 141.022.160.1 | | | |
| 40 | Code 180.014.260 | Code 141.024.259.1 | | | |
| 60 | Code 180.016.228 | Code 141.026.224.1 | | | |
| 80 | Code 180.018.158 | Code 141.028.157.1 | | | |
| serie V series | | | | | |
| 20 | Code 180.012.161 | Code 141.022.160.1 | | | |
| 40 | Code 180.014.260 | Code 141.024.259.1 | | | |
| 60 | Code 180.016.228 | Code 141.026.224.1 | | | |
| 80 | Code 180.018.158 | Code 141.028.157.1 | | | |

CVJ

**serie V
series**



**serie V
series**



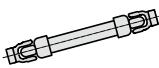
PROGRAMMA DI PRODUZIONE
PRODUCTION PROGRAM

Parti di ricambio
Spare Parts

| Type | Crociera Cross and bearing kit | Corpo centrale Double yoke | Forcella per tubo esterno Outer tube yoke | Tubo interno Inner tube | Forcella per tubo interno Inner tube yoke |
|---------------------------------|---|-------------------------------|--|----------------------------|--|
| serie T series | snodo singolo single joint | | | | |
| 20 | Code 180.012.161 | Code 141.022.160.1 | Code 141.022.166.1 | Code 141.022.166.1 | Code 151.012.002.1 |
| 40 | Code 180.014.260 | Code 141.024.259.1 | Code 141.024.263.1 | Code 141.024.263.1 | Code 151.014.007.1 |
| 60 | Code 180.016.228 | Code 141.026.224.1 | Code 141.026.229.1 | Code 141.026.229.1 | Code 151.016.029.1 |
| 80 | Code 180.018.158 | Code 141.028.157.1 | Code 141.028.152.1 | Code 141.028.152.1 | Code 151.018.134.1 |
| 20 | Code 180.012.161 | Code 141.022.160.1 | Code 141.022.166.1 | Code 141.022.166.1 | Code 141.022.172.1 |
| 40 | Code 180.014.260 | Code 141.024.259.1 | Code 141.024.263.1 | Code 141.024.263.1 | Code 141.024.269.1 |
| 60 | Code 180.016.228 | Code 141.026.224.1 | Code 141.026.229.1 | Code 141.026.229.1 | Code 141.026.249.1 |
| 80 | Code 180.018.158 | Code 141.028.157.1 | Code 141.028.152.1 | Code 141.028.152.1 | Code 141.028.165.1 |

PROGRAMMA DI PRODUZIONE

PRODUCTION PROGRAM



| Type | Crociera Cross and bearing kit | Forcella per tubo esterno Outer tube yoke | Tubo esterno Outer tube | Tubo interno Inner tube | Forcella per tubo interno Inner tube yoke |
|-----------|-----------------------------------|--|----------------------------|----------------------------|--|
| 20 | | | | | |
| 40 | | | | | |
| 50 | | | | | |
| 60 | | | | | |
| 80 | | | | | |
| 90 | | | | | |
| 10 | | | | | |
| 20 | | | | | |
| 40 | | | | | |
| 50 | | | | | |
| 60 | | | | | |

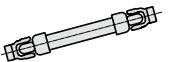
STANDARD

serie V



serie T





| | | | | | |
|-----------|--|--|------------------|--------------------|---------|
| 80 | | | Code 180.018.130 | Code 151.018.133.1 | pag. 57 |
| 90 | | | Code 180.019.130 | Code 151.019.127.1 | pag. 57 |

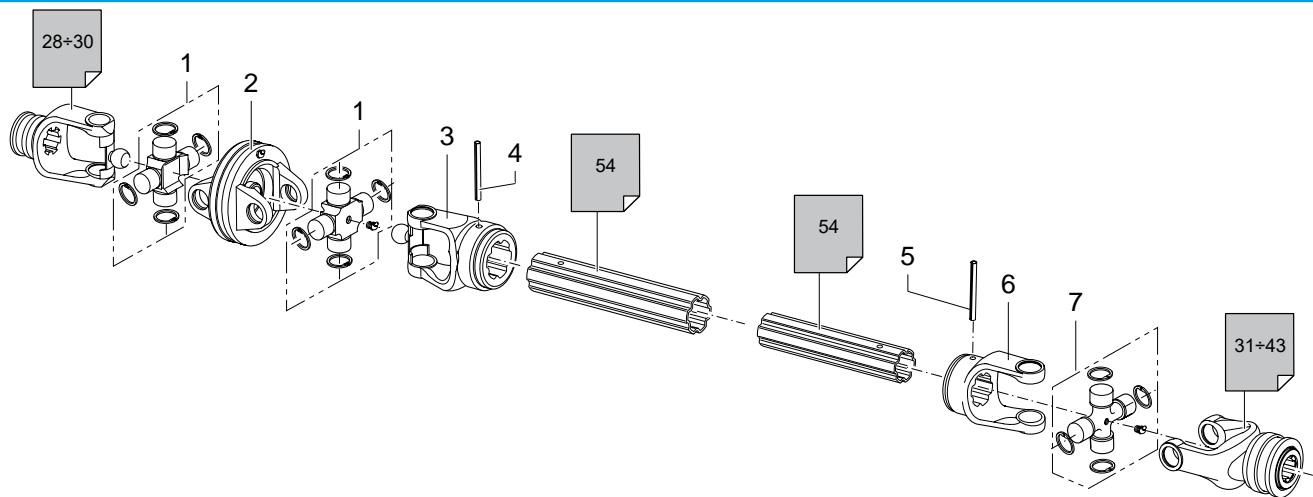
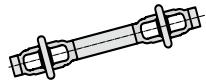
| E | | D | |
|-----------|--|----------|-------------|
| 40 | | | DIN 5482-24 |
| 50 | | | DIN 5482-24 |
| 60 | | | DIN 5482-24 |
| 80 | | | DIN 5482-24 |
| 90 | | | DIN 5482-24 |



serie
series



serie
series

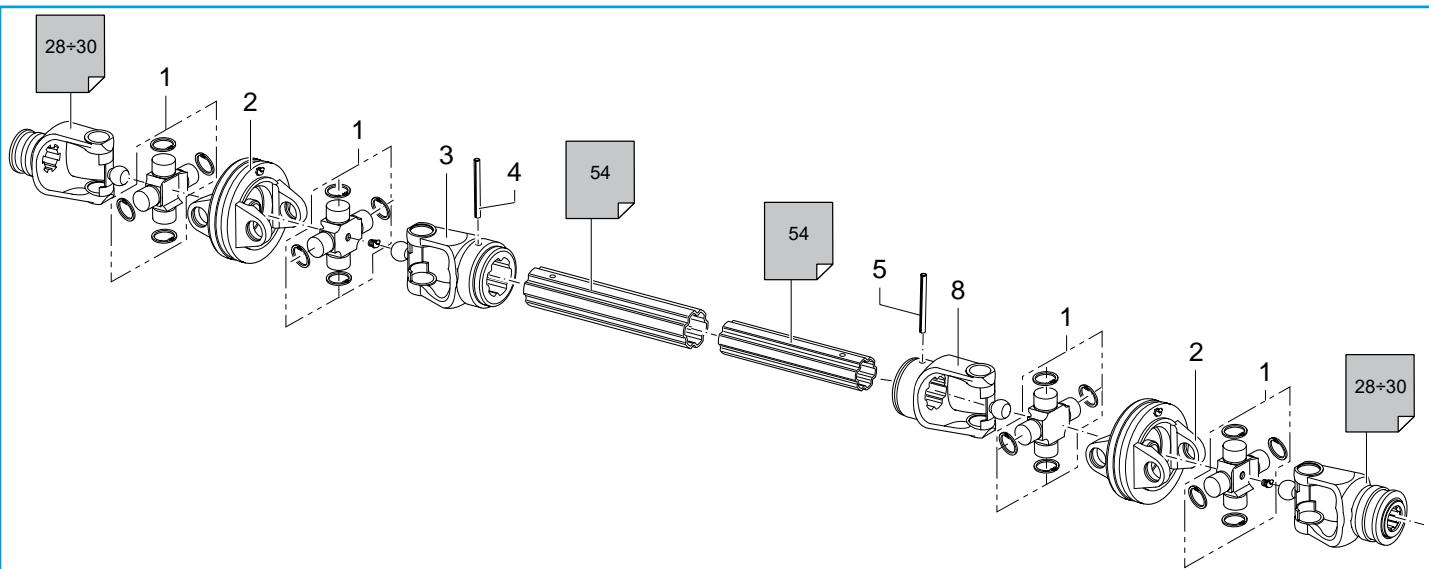
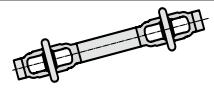


| Pos. | | | | |
|------|---------------------------------|--|--|------------------------------------|
| 1 | Crociera completa (CVJ) | | | <i>Cross and bearing kit (CVJ)</i> |
| 2 | Corpo centrale | | | <i>Double yoke</i> |
| 3 | Forcella per tubo esterno (CVJ) | | | <i>Outer tube yoke (CVJ)</i> |
| 4 | Spina elastica esterna | | | <i>Outer roll pin</i> |
| 5 | Spina elastica interna | | | <i>Inner roll pin</i> |
| 6 | Forcella per tubo interno (std) | | | <i>Inner tube yoke (std)</i> |
| 7 | Crociera completa (std) | | | <i>Cross and bearing kit (std)</i> |

| Pos. | | Type | | | | Qty* | |
|------|--|------|--|--|---|--|---|
| | | 20 | 40 | 60 | 80 | | |
| 1 | | [mm] | A = ø 23.8 B = 74.1 C = 82.1 | A = ø 27 B = 85.8 C = 91.2 | A = ø 30.2 B = 95.4 C = 101.4 | A = ø 35 B = 106.3 C = 113.8 | 2 |
| | | Code | 180.012.161 | 180.014.260 | 180.016.228 | 180.018.158 | |
| 2 | | [mm] | A = 86 | A = 95 | A = 104 | A = 118 | 1 |
| | | Code | 141.022.160.1 | 141.024.259.1 | 141.026.224.1 | 141.028.157.1 | |
| 3 | | [mm] | A = 23.8 B = 76.5 C = 80 D = 22 E = 22 F = ø 42 | A = 27 B = 88.2 C = 91.5 D = 24 E = 24 F = ø 45.7 | A = 30.2 B = 98.4 C = 104 D = 24 E = 27 F = ø 57.6 | A = 35 B = 109.3 C = 120 D = 27 E = 30 F = ø 66.5 | 1 |
| | | Code | 141.022.325.1 | 141.024.433.1 | 141.026.390.1 | 141.028.248.1 | |
| 4 | | [mm] | A = 55 B = ø 8 | A = 65 B = ø 8 | A = 80 B = ø 10 | A = 90 B = ø 12 | 1 |
| | | Code | 190.000.012 | 190.000.014 | 190.000.018 | 190.000.243 | |
| 5 | | [mm] | A = 50 B = ø 8 | A = 55 B = ø 8 | A = 70 B = ø 10 | A = 80 B = ø 12 | 1 |
| | | Code | 190.000.011 | 190.000.012 | 190.000.016 | 190.000.271 | |
| 6 | | [mm] | A = 23.8 B = 63.9 C = 80 D = 21 F = ø 36.2 | A = 27 B = 77.2 C = 91.5 D = 24 F = ø 39.3 | A = 30.2 B = 94.6 C = 104 D = 24 F = ø 50.2 | A = 35 B = 109.6 C = 116 D = 24 F = ø 58.1 | 1 |
| | | Code | 151.012.320.1 | 151.014.428.1 | 151.016.389.1 | 151.018.242.1 | |
| 7 | | [mm] | A = ø 23.8 B = 61.3 | A = ø 27 B = 74.6 | A = ø 30.2 B = 92 | A = ø 35 B = 106.5 | 1 |
| | | Code | 180.012.004 | 180.014.004 | 180.016.004 | 180.018.004 | |

* Quantità presente nel cardano / Quantity in the PTO driveshaft

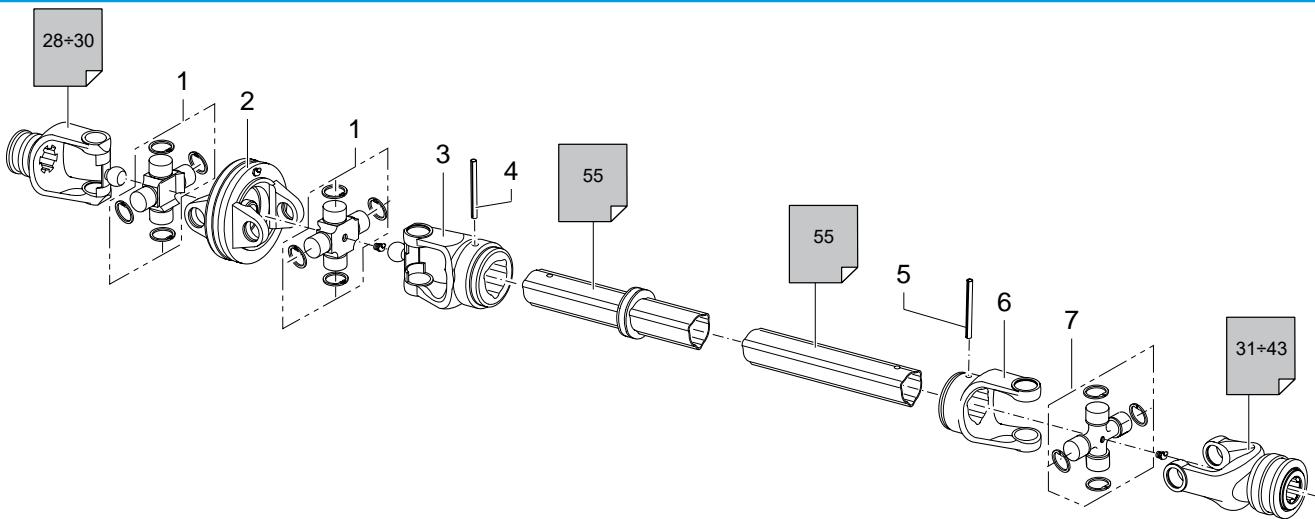
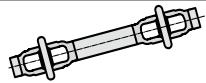
SERIE V DOPPIO CVJ
V SERIES DOUBLE CVJ



| Pos. | | | |
|------|---------------------------------|--|------------------------------------|
| 1 | Crociera completa (CVJ) | | <i>Cross and bearing kit (CVJ)</i> |
| 2 | Corpo centrale | | <i>Double yoke</i> |
| 3 | Forcella per tubo esterno (CVJ) | | <i>Outer tube yoke (CVJ)</i> |
| 4 | Spina elastica esterna | | <i>Outer roll pin</i> |
| 5 | Spina elastica interna | | <i>Inner roll pin</i> |
| 8 | Forcella per tubo interno (std) | | <i>Inner tube yoke (std)</i> |

| Pos. | | Type | | | | Qty* | |
|------|--|------|--|--|---|--|---|
| | | 20 | 40 | 60 | 80 | | |
| 1 | | [mm] | A = ø 23.8 B = 74.1 C = 82.1 | A = ø 27 B = 85.8 C = 91.2 | A = ø 30.2 B = 95.4 C = 101.4 | A = ø 35 B = 106.3 C = 113.8 | 4 |
| | | Code | 180.012.161 | 180.014.260 | 180.016.228 | 180.018.158 | |
| 2 | | [mm] | A = 86 | A = 95 | A = 104 | A = 118 | 1 |
| | | Code | 141.022.160.1 | 141.024.259.1 | 141.026.224.1 | 141.028.157.1 | |
| 3 | | [mm] | A = 23.8 B = 76.5 C = 80 D = 22 E = 22 F = ø 42 | A = 27 B = 88.2 C = 91.5 D = 24 E = 24 F = ø 45.7 | A = 30.2 B = 98.4 C = 104 D = 24 E = 27 F = ø 57.6 | A = 35 B = 109.3 C = 120 D = 27 E = 30 F = ø 66.5 | 1 |
| | | Code | 141.022.325.1 | 141.024.433.1 | 141.026.390.1 | 141.028.248.1 | |
| 4 | | [mm] | A = 55 B = ø 8 | A = 65 B = ø 8 | A = 80 B = ø 10 | A = 90 B = ø 12 | 1 |
| | | Code | 190.000.012 | 190.000.014 | 190.000.018 | 190.000.243 | |
| 5 | | [mm] | A = 50 B = ø 8 | A = 55 B = ø 8 | A = 70 B = ø 10 | A = 80 B = ø 12 | 1 |
| | | Code | 190.000.011 | 190.000.012 | 190.000.016 | 190.000.271 | |
| 8 | | [mm] | A = 23.8 B = 76.5 C = 80 D = 21 E = 22 F = ø 36.2 | A = 27 B = 88.2 C = 91.5 D = 24 E = 24 F = ø 39.3 | A = 30.2 B = 98.4 C = 104 D = 24 E = 27 F = ø 50.2 | A = 35 B = 109.3 C = 120 D = 24 E = 30 F = ø 58.1 | 1 |
| | | Code | 141.022.326.1 | 141.024.434.1 | 141.026.391.1 | 141.028.249.1 | |

* Quantità presente nel cardano / Quantity in the PTO driveshaft

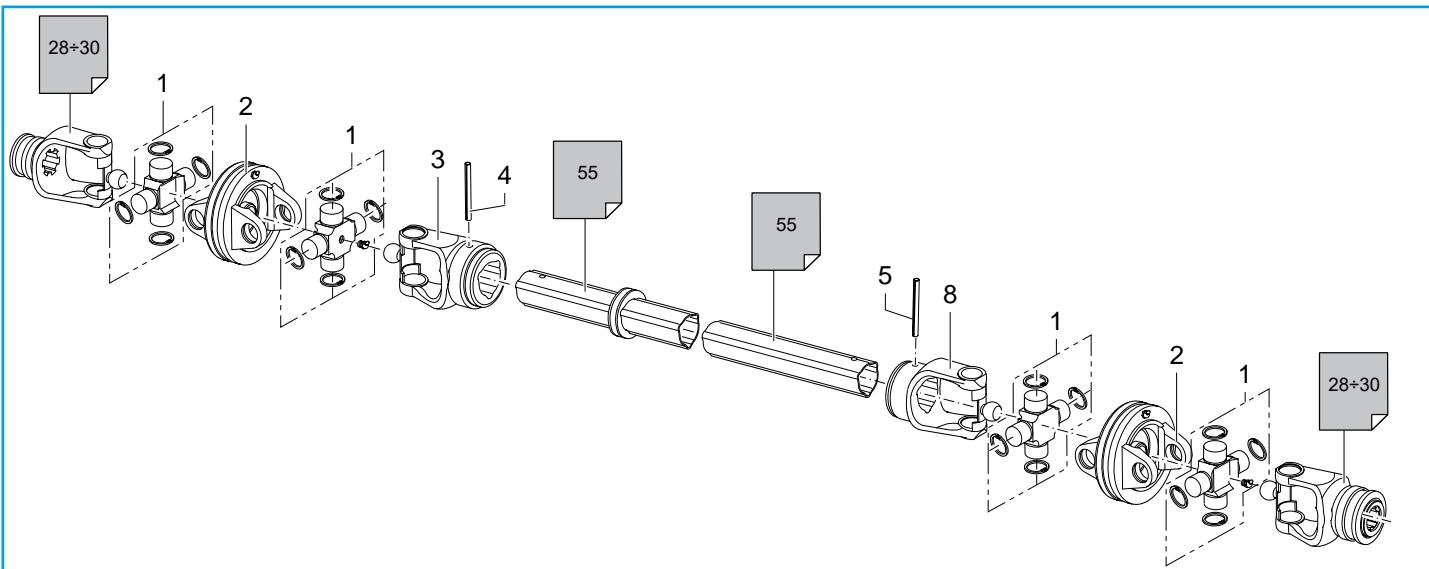
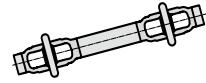


| Pos. | | | | |
|------|---------------------------------|--|-----------------------------|--|
| 1 | Crociera completa (CVJ) | | Cross and bearing kit (CVJ) | |
| 2 | Corpo centrale | | Double yoke | |
| 3 | Forcella per tubo esterno (CVJ) | | Outer tube yoke (CVJ) | |
| 4 | Spina elastica esterna | | Outer roll pin | |
| 5 | Spina elastica interna | | Inner roll pin | |
| 6 | Forcella per tubo interno (std) | | Inner tube yoke (std) | |
| 7 | Crociera completa (std) | | Cross and bearing kit (std) | |

| Pos. | | Type | | | | Qty* |
|------|------|--|--|---|--|------|
| | | 20 | 40 | 60 | 80 | |
| 1 | [mm] | A = ø 23.8 B = 74.1 C = 82.1 | A = ø 27 B = 85.8 C = 91.2 | A = ø 30.2 B = 95.4 C = 101.4 | A = ø 35 B = 106.3 C = 113.8 | 2 |
| | Code | 180.012.161 | 180.014.260 | 180.016.228 | 180.018.158 | |
| 2 | [mm] | A = 86 | A = 95 | A = 104 | A = 118 | 1 |
| | Code | 141.022.160.1 | 141.024.259.1 | 141.026.224.1 | 141.028.157.1 | |
| 3 | [mm] | A = 23.8 B = 76.5 C = 80 D = 22 E = 22 F = 36 | A = 27 B = 88.2 C = 91.5 D = 24 E = 24 F = 43.5 | A = 30.2 B = 98.4 C = 104 D = 24 E = 27 F = 54 | A = 35 B = 109.3 C = 120 D = 27 E = 30 F = 63 | 1 |
| | Code | 141.022.166.1 | 141.024.263.1 | 141.026.229.1 | 141.028.152.1 | |
| 4 | [mm] | A = 55 B = ø 8 | A = 65 B = ø 8 | A = 80 B = ø 10 | A = 90 B = ø 12 | 1 |
| | Code | 190.000.012 | 190.000.014 | 190.000.018 | 190.000.243 | |
| 5 | [mm] | A = 50 B = ø 8 | A = 55 B = ø 8 | A = 70 B = ø 10 | A = 80 B = ø 12 | 1 |
| | Code | 190.000.011 | 190.000.012 | 190.000.016 | 190.000.271 | |
| 6 | [mm] | A = 23.8 B = 63.9 C = 80 D = 21 F = 29 | A = 27 B = 77.2 C = 91.5 D = 24 F = 36 | A = 30.2 B = 94.6 C = 104 D = 24 F = 45 | A = 35 B = 109.6 C = 116 D = 24 F = 54 | 1 |
| | Code | 151.012.002.1 | 151.014.007.1 | 151.016.029.1 | 151.018.134.1 | |
| 7 | [mm] | A = ø 23.8 B = 61.3 | A = ø 27 B = 74.6 | A = ø 30.2 B = 92 | A = ø 35 B = 106.5 | 1 |
| | Code | 180.012.004 | 180.014.004 | 180.016.004 | 180.018.004 | |

* Quantità presente nel cardano / Quantity in the PTO driveshaft

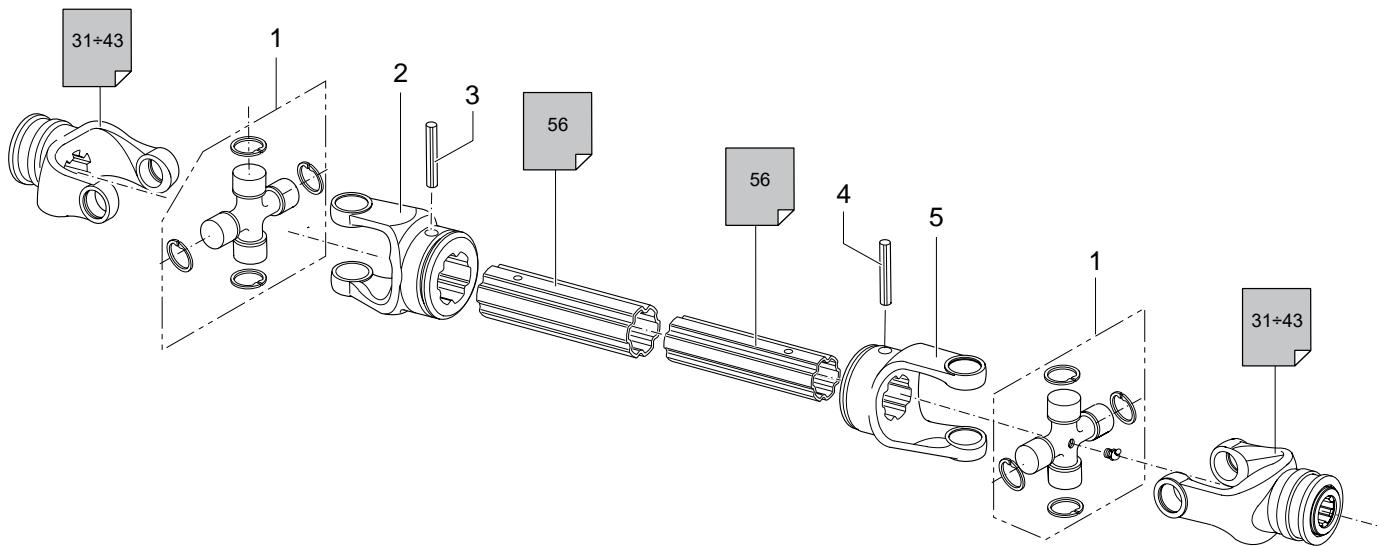
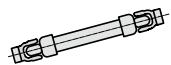
SERIE T DOPPIO CVJ
T SERIES DOUBLE CVJ



| Pos. | | | |
|------|---------------------------------|--|------------------------------------|
| 1 | Crociera completa (CVJ) | | <i>Cross and bearing kit (CVJ)</i> |
| 2 | Corpo centrale | | <i>Double yoke</i> |
| 3 | Forcella per tubo esterno (CVJ) | | <i>Outer tube yoke (CVJ)</i> |
| 4 | Spina elastica esterna | | <i>Outer roll pin</i> |
| 5 | Spina elastica interna | | <i>Inner roll pin</i> |
| 8 | Forcella per tubo interno (std) | | <i>Inner tube yoke (std)</i> |

| Pos. | | Type | | | | Qty* | |
|------|--|------|--|--|---|--|---|
| | | 20 | 40 | 60 | 80 | | |
| 1 | | [mm] | A = ø 23.8 B = 74.1 C = 82.1 | A = ø 27 B = 85.8 C = 91.2 | A = ø 30.2 B = 95.4 C = 101.4 | A = ø 35 B = 106.3 C = 113.8 | 4 |
| | | Code | 180.012.161 | 180.014.260 | 180.016.228 | 180.018.158 | |
| 2 | | [mm] | A = 86 | A = 95 | A = 104 | A = 118 | 1 |
| | | Code | 141.022.160.1 | 141.024.259.1 | 141.026.224.1 | 141.028.157.1 | |
| 3 | | [mm] | A = 23.8 B = 76.5 C = 80 D = 22 E = 22 F = 36 | A = 27 B = 88.2 C = 91.5 D = 24 E = 24 F = 43.5 | A = 30.2 B = 98.4 C = 104 D = 24 E = 27 F = 54 | A = 35 B = 109.3 C = 120 D = 27 E = 30 F = 63 | 1 |
| | | Code | 141.022.166.1 | 141.024.263.1 | 141.026.229.1 | 141.028.152.1 | |
| 4 | | [mm] | A = 55 B = ø 8 | A = 65 B = ø 8 | A = 80 B = ø 10 | A = 90 B = ø 12 | 1 |
| | | Code | 190.000.012 | 190.000.014 | 190.000.018 | 190.000.243 | |
| 5 | | [mm] | A = 50 B = ø 8 | A = 55 B = ø 8 | A = 70 B = ø 10 | A = 80 B = ø 12 | 1 |
| | | Code | 190.000.011 | 190.000.012 | 190.000.016 | 190.000.271 | |
| 8 | | [mm] | A = 23.8 B = 76.5 C = 80 D = 21 E = 22 F = 29 | A = 27 B = 88.2 C = 91.5 D = 24 E = 24 F = 36 | A = 30.2 B = 98.4 C = 104 D = 24 E = 27 F = 45 | A = 35 B = 109.3 C = 120 D = 24 E = 30 F = 54 | 1 |
| | | Code | 141.022.172.1 | 141.024.269.1 | 141.026.249.1 | 141.028.165.1 | |

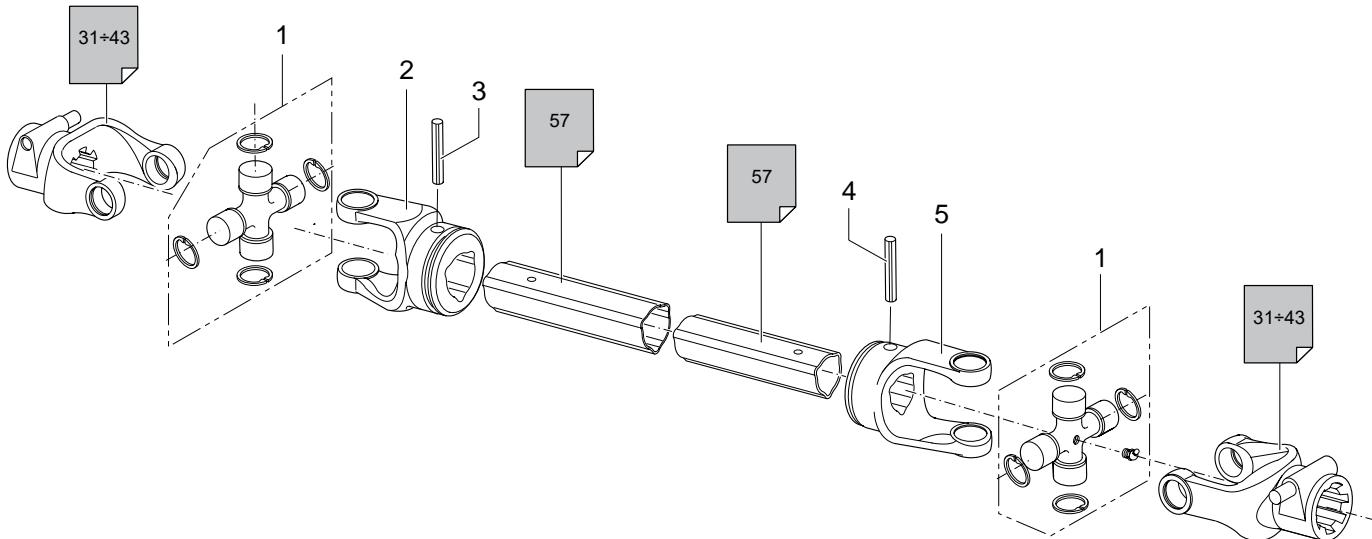
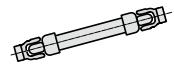
* Quantità presente nel cardano / Quantity in the PTO driveshaft



| Pos. | | | |
|------|---------------------------|--|-----------------------|
| 1 | Crociera completa | | Cross and bearing kit |
| 2 | Forcella per tubo esterno | | Outer tube yoke |
| 3 | Spina elastica esterna | | Outer roll pin |
| 4 | Spina elastica interna | | Inner roll pin |
| 5 | Forcella per tubo interno | | Inner tube yoke |

| Pos. | Type | | | | | | | Qty* | |
|------|------|------|--|--|--|---|--|--|---|
| | | 20 | 40 | 50 | 60 | 80 | 90 | | |
| 1 | | [mm] | A = ø 23.8 B = 61.3 | A = ø 27 B = 74.6 | A = ø 30.2 B = 80 | A = ø 30.2 B = 92 | A = ø 35 B = 106.5 | A = ø 41 B = 108 | 2 |
| | | Code | 180.012.004 | 180.014.004 | 180.015.004 | 180.016.004 | 180.018.004 | 180.019.043 | |
| 2 | | [mm] | A = 23.8 B = 63.9 C = 80 D = 22 F = ø 42 | A = 27 B = 77.2 C = 91.5 D = 24 F = ø 45.7 | A = 30.2 B = 82.6 C = 97 D = 24 F = ø 57.6 | A = 30.2 B = 94.6 C = 104 D = 24 F = ø 57.6 | A = 35 B = 109.6 C = 120 D = 27 F = ø 66.5 | A = 41 B = 111.6 C = 124 D = 27 F = ø 66.5 | 1 |
| | | Code | 151.012.319.1 | 151.014.427.1 | 151.015.361.1 | 151.016.388.1 | 151.018.241.1 | 151.019.166.1 | |
| 3 | | [mm] | A = 55 B = ø 8 | A = 65 B = ø 8 | A = 70 B = ø 10 | A = 80 B = ø 10 | A = 90 B = ø 12 | A = 90 B = ø 12 | 1 |
| | | Code | 190.000.012 | 190.000.014 | 190.000.016 | 190.000.018 | 190.000.243 | 190.000.243 | |
| 4 | | [mm] | A = 50 B = ø 8 | A = 55 B = ø 8 | A = 65 B = ø 10 | A = 70 B = ø 10 | A = 80 B = ø 12 | A = 90 B = ø 12 | 1 |
| | | Code | 190.000.011 | 190.000.012 | 190.000.394 | 190.000.016 | 190.000.271 | 190.000.243 | |
| 5 | | [mm] | A = 23.8 B = 63.9 C = 80 D = 21 F = ø 36.2 | A = 27 B = 77.2 C = 91.5 D = 24 F = ø 39.3 | A = 30.2 B = 82.6 C = 97 D = 24 F = ø 50.2 | A = 30.2 B = 94.6 C = 104 D = 24 F = ø 50.2 | A = 35 B = 109.6 C = 116 D = 24 F = ø 58.1 | A = 41 B = 111.6 C = 124 D = 27 F = ø 58.1 | 1 |
| | | Code | 151.012.320.1 | 151.014.428.1 | 151.015.362.1 | 151.016.389.1 | 151.018.242.1 | 151.019.167.1 | |

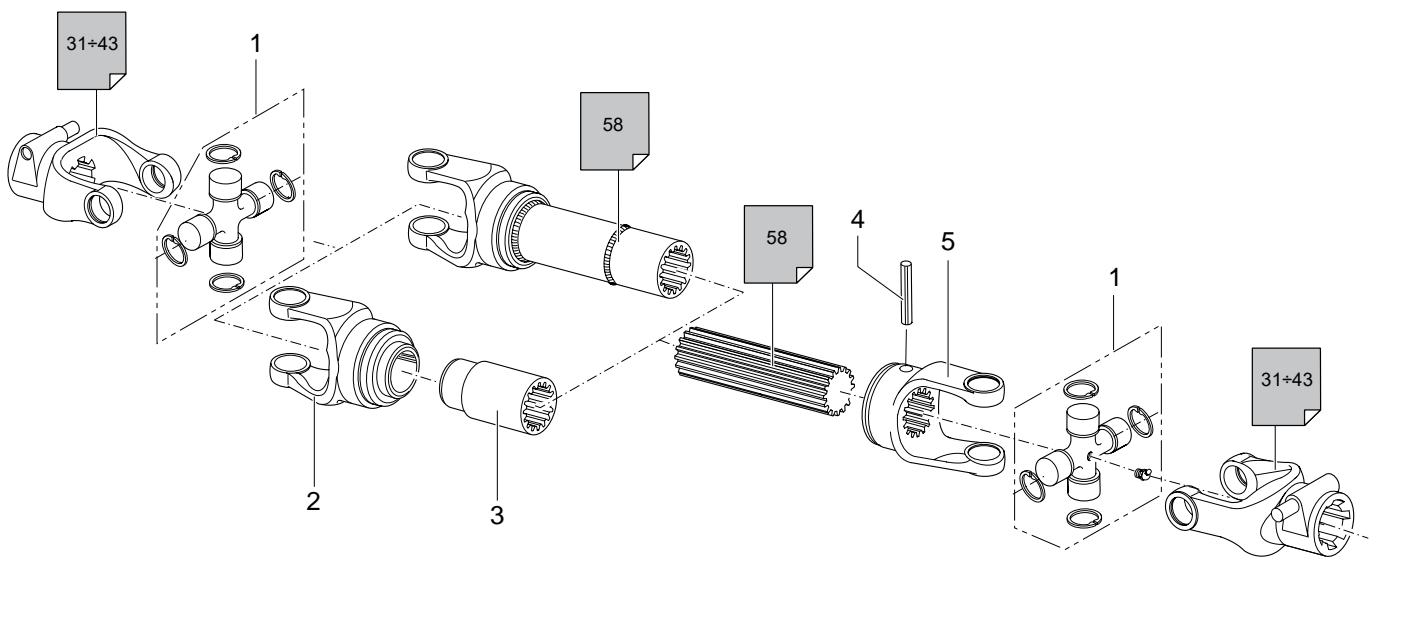
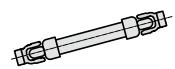
* Quantità presente nel cardano / Quantity in the PTO driveshaft



| Pos. | | | |
|------|---------------------------|--|-----------------------|
| 1 | Crociera completa | | Cross and bearing kit |
| 2 | Forcella per tubo esterno | | Outer tube yoke |
| 3 | Spina elastica esterna | | Outer roll pin |
| 4 | Spina elastica interna | | Inner roll pin |
| 5 | Forcella per tubo interno | | Inner tube yoke |

| Pos. | | Type | | | | | | | Qty* | |
|------|--|------|--|--|--|--|---|--|--|---|
| | | 10 | 20 | 40 | 50 | 60 | 80 | 90 | | |
| 1 | | [mm] | A = ø 22 B = 54 | A = ø 23.8 B = 61.3 | A = ø 27 B = 74.6 | A = ø 30.2 B = 80 | A = ø 30.2 B = 92 | A = ø 35 B = 106.5 | A = ø 41 B = 108 | 2 |
| | | Code | 180.011.130 | 180.012.130 | 180.014.130 | 180.015.130 | 180.016.130 | 180.018.130 | 180.019.130 | |
| 2 | | [mm] | A = 22 B = 56.2 C = 80 D = 22 F = 32.5 | A = 23.8 B = 63.9 C = 80 D = 22 F = 36 | A = 27 B = 77.2 C = 91.5 D = 24 F = 43.5 | A = 30.2 B = 82.6 C = 97 D = 24 F = 51.6 | A = 30.2 B = 94.6 C = 104 D = 24 F = 54 | A = 35 B = 109.6 C = 120 D = 27 F = 63 | A = 41 B = 111.6 C = 124 D = 27 F = 63 | 1 |
| | | Code | 151.011.003.1 | 151.012.003.1 | 151.014.006.1 | 151.015.011.1 | 151.016.028.1 | 151.018.133.1 | 151.019.127.1 | |
| 3 | | [mm] | A = 50 B = ø 8 | A = 55 B = ø 8 | A = 65 B = ø 8 | A = 70 B = ø 10 | A = 80 B = ø 10 | A = 90 B = ø 12 | A = 90 B = ø 12 | 1 |
| | | Code | 190.000.011 | 190.000.012 | 190.000.014 | 190.000.016 | 190.000.018 | 190.000.243 | 190.000.243 | |
| 4 | | [mm] | A = 45 B = ø 8 | A = 50 B = ø 8 | A = 55 B = ø 8 | A = 65 B = ø 10 | A = 70 B = ø 10 | A = 80 B = ø 12 | A = 90 B = ø 12 | 1 |
| | | Code | 190.000.010 | 190.000.011 | 190.000.012 | 190.000.394 | 190.000.016 | 190.000.271 | 190.000.243 | |
| 5 | | [mm] | A = 22 B = 56.2 C = 80 D = 22 F = 26.5 | A = 23.8 B = 63.9 C = 80 D = 21 F = 29 | A = 27 B = 77.2 C = 91.5 D = 24 F = 36 | A = 30.2 B = 82.6 C = 97 D = 24 F = 45 | A = 30.2 B = 94.6 C = 104 D = 24 F = 54 | A = 35 B = 109.6 C = 116 D = 24 F = 54 | A = 41 B = 111.6 C = 124 D = 24 F = 54 | 1 |
| | | Code | 151.011.002.1 | 151.012.002.1 | 151.014.007.1 | 151.015.012.1 | 151.016.029.1 | 151.018.134.1 | 151.019.128.1 | |

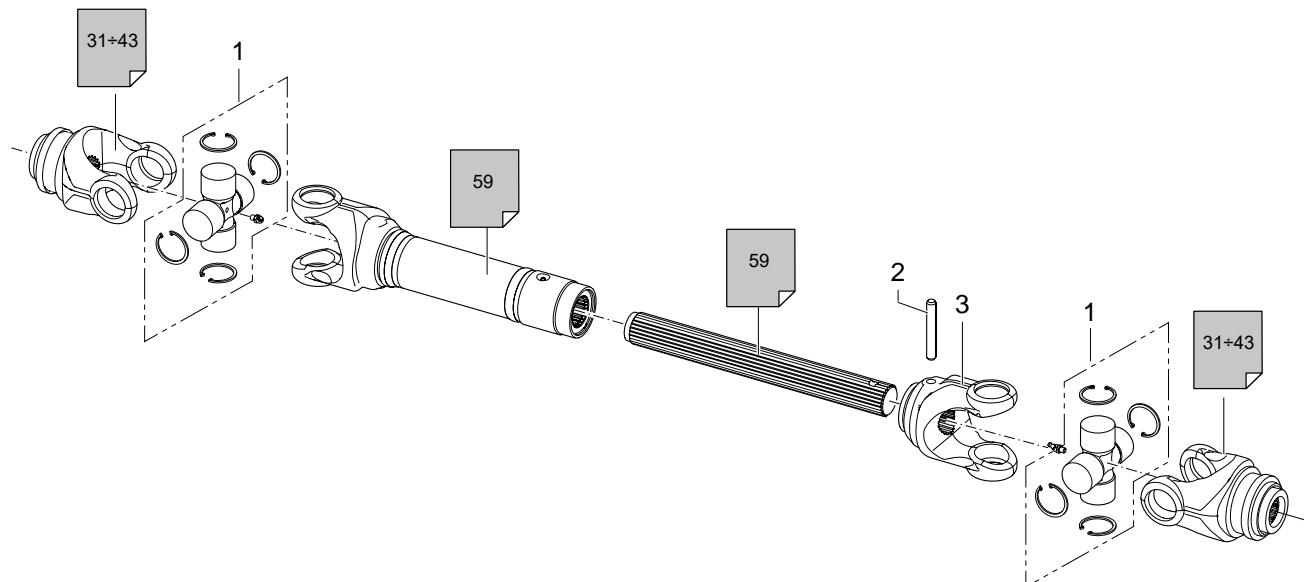
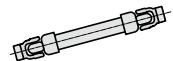
* Quantità presente nel cardano / Quantity in the PTO driveshaft



| Pos. | | | | | |
|------|---------------------------|--|--|--|-----------------------|
| 1 | Crociera completa | | | | Cross and bearing kit |
| 2 | Forcella per tubo esterno | | | | Outer tube yoke |
| 3 | Bussola scanalata | | | | Splined Sleeve |
| 4 | Spina elastica interna | | | | Inner roll pin |
| 5 | Forcella per tubo interno | | | | Inner tube yoke |

| Pos. | | Type | | | | | Qty* | |
|------|--|------|---|---|--|---|---|---|
| | | 40 | 50 | 60 | 80 | 90 | | |
| 1 | | [mm] | A = ø 27 B = 74.6 | A = ø 30.2 B = 80 | A = ø 30.2 B = 92 | A = ø 35 B = 106.5 | A = ø 41 B = 108 | 2 |
| | | Code | 180.014.130 | 180.015.130 | 180.016.130 | 180.018.130 | 180.019.130 | |
| 2 | | [mm] | A = 27 B = 77.2 C = 91.5 D = 42 | A = 30.2 B = 82.6 C = 97 D = 42 | A = 30.2 B = 94.6 C = 104 D = 42 | A = 35 B = 109.6 C = 120 D = 50 | A = 41 B = 111.6 C = 124 D = 52.5 | 1 |
| | | Code | 151.014.003.1 | 151.015.003.1 | 151.016.035.1 | 151.018.144.1 | 151.019.055.1 | |
| 3 | | [mm] | A = 30 CUNA Z10 | A = 35 CUNA Z12 | A = 35 CUNA Z12 | A = 40 CUNA Z14 | A = 45 CUNA Z16 | 1 |
| | | Code | 151.014.249 | 151.016.032 | 151.016.032 | 151.018.014 | 151.019.056 | |
| 4 | | [mm] | A = 55 B = ø 8 | A = 65 B = ø 10 | A = 70 B = ø 10 | A = 80 B = ø 10 | A = 90 B = ø 12 | 1 |
| | | Code | 190.000.012 | 190.000.394 | 190.000.016 | 190.000.018 | 190.000.243 | |
| 5 | | [mm] | A = 27 B = 77.2 C = 91.5 D = 24 F = 30 CUNA | A = 30.2 B = 82.6 C = 97 D = 24 F = 35 CUNA | A = 30.2 B = 94.6 C = 104 D = 24 F = 35 CUNA | A = 35 B = 109.6 C = 116 D = 24 F = 40 CUNA | A = 41 B = 111.6 C = 124 D = 27 F = 45 CUNA | 1 |
| | | Code | 151.014.250.1 | 151.015.014.1 | 151.016.031.1 | 151.018.145.1 | 151.019.054.1 | |

* Quantità presente nel cardano / Quantity in the PTO driveshaft



| Pos. | | |
|------|---------------------------|------------------------------|
| 1 | Crociera completa | <i>Cross and bearing kit</i> |
| 2 | Spina elastica interna | <i>Inner roll pin</i> |
| 3 | Forcella per tubo interno | <i>Inner tube yoke</i> |

| Pos. | | Type | Qty* |
|------|--|---|---------------|
| | | 120 | |
| 1 | | [mm] | 2 |
| | | A = ø 52 B = 125 | |
| 2 | | Code | 1 |
| | | A = 100 B = ø 14 | |
| 3 | | Code | 1 |
| | | A = 52 B = 130 C = 141 D = 36 E = DIN5482 F = A50x45 Z24 | |
| | | Code | 151.120.003.1 |

* Quantità presente nel cardano / Quantity in the PTO driveshaft



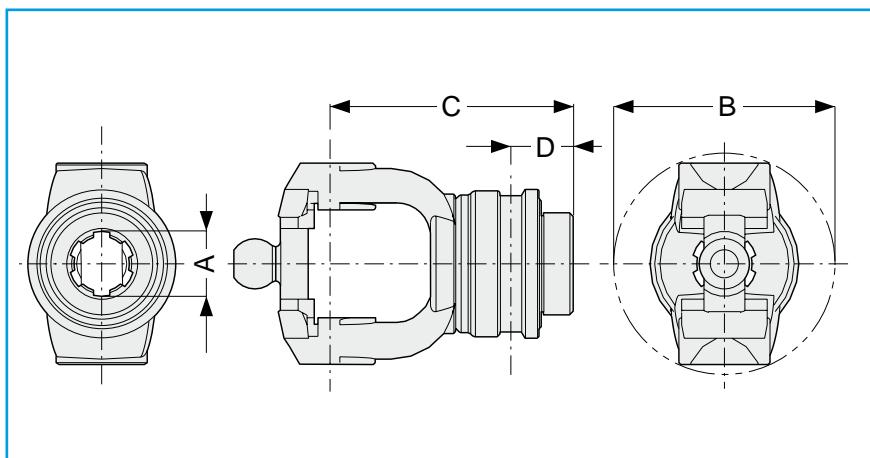
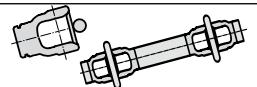
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FORCELLE PER CARDANI OMOCINETICI CVJ E STANDARD YOKES FOR PTO DRIVESHAFTS CVJ AND STANDARD

| | | p. |
|---|--|---|
| FORCELLE PER CARDANI OMOCINETICI CVJ YOKES FOR PTO DRIVESHAFTS CVJ | |  |
| Collar | <i>Collar</i> | 28 |
| Pulsante | <i>Push-pin</i> | 29 |
| Bullone interferente | <i>Interfering Clamp Bolt</i> | 30 |
| FORCELLE PER CARDANI STANDARD YOKES FOR PTO DRIVESHAFTS | |  |
| Collar | <i>Collar</i> | 31 |
| Pulsante | <i>Push-pin</i> | 32 |
| Calettata | <i>Splined</i> | 33 |
| Calettata bullone interferente | <i>Splined Interfering Clamp Bolt</i> | 34 |
| Calettata bullone interferente incassato | <i>Splined Interfering Recessed Clamp Bolt</i> | 35 |
| Calettata bullone non interferente | <i>Splined Not Interfering Clamp Bolt</i> | 36 |
| Foro liscio - chiavetta - bullone interferente | <i>Round Bore - Keyway - Interfering Clamp Bolt</i> | 37 |
| Foro liscio - chiavetta - bullone interferente incassato | <i>Round Bore - Keyway - Interfering Recessed Clamp Bolt</i> | 38 |
| Foro liscio - chiavetta - bullone non interferente | <i>Round Bore - Keyway - Not Interfering Clamp Bolt</i> | 39 |
| Foro liscio - chiavetta | <i>Round Bore - Keyway</i> | 40 |
| Foro liscio - chiavetta - foro spina | <i>Round Bore - Keyway - Pin Hole</i> | 41 |
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| Flangia C04 | <i>Flange C04</i> | 43 |
| Flangia FGL | <i>Flange FGL</i> | 43 |
| Kit ricambi | <i>Spare Parts Kit</i> | 44 |

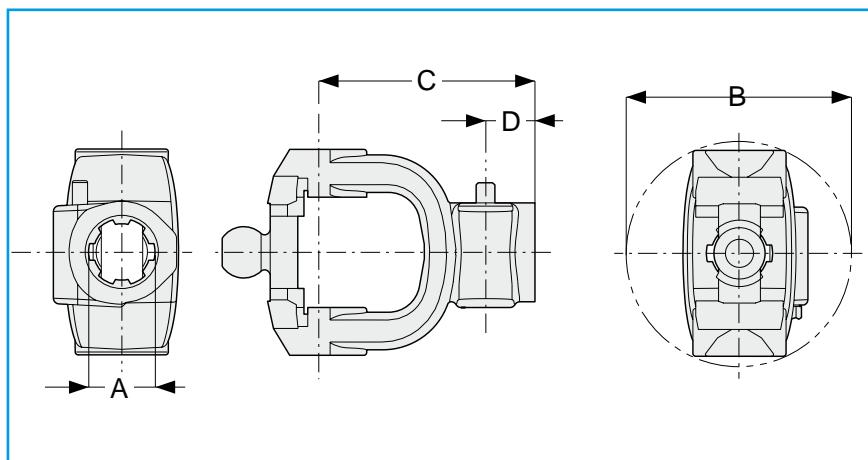
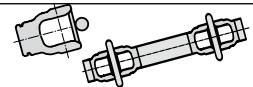
Forcelle per cardani
Yokes for PTO driveshafts

**COLLAR
COLLAR**



| Type | Ref. | A [mm] | B [mm] [inch] | C [mm] [inch] | D [mm] [inch] | Code | | | |
|-----------|------------|-------------|---------------------|---------------------|---------------------|----------|------|----------|----------------------|
| 20 | C02 | 1 3/8" Z 6 | 94 | 3 45/64" | 107 | 4 7/32" | 26 | 1 1/32" | 141.022.330.1 |
| | C03 | 1 3/8" Z 21 | 94 | 3 45/64" | 107 | 4 7/32" | 26 | 1 1/32" | 141.022.331.1 |
| 40 | C02 | 1 3/8" Z 6 | 105 | 4 9/64" | 115 | 4 17/32" | 26 | 1 1/32" | 141.024.439.1 |
| | C03 | 1 3/8" Z 21 | 105 | 4 9/64" | 115 | 4 17/32" | 26 | 1 1/32" | 141.024.441.1 |
| 60 | C02 | 1 3/8" Z 6 | 117 | 4 39/64" | 131 | 5 5/32" | 38 | 1 31/64" | 141.026.503.1 |
| | C03 | 1 3/8" Z 21 | 117 | 4 39/64" | 131 | 5 5/32" | 38 | 1 31/64" | 141.026.504.1 |
| | C07 | 1 3/4" Z 6 | 117 | 4 39/64" | 136 | 5 23/64" | 38 | 1 31/64" | 141.026.557.1 |
| | C05 | 1 3/4" Z 20 | 117 | 4 39/64" | 136 | 5 23/64" | 38 | 1 31/64" | 141.026.505.1 |
| 80 | C02 | 1 3/8" Z 6 | 130 | 5 1/8" | 136 | 5 23/64" | 38 | 1 31/64" | 141.028.358.1 |
| | C03 | 1 3/8" Z 21 | 130 | 5 1/8" | 136 | 5 23/64" | 38 | 1 31/64" | 141.028.359.1 |
| | C07 | 1 3/4" Z 6 | 130 | 5 1/8" | 138 | 5 7/16" | 35.5 | 1 13/32" | 141.028.361.1 |
| | C05 | 1 3/4" Z 20 | 130 | 5 1/8" | 138 | 5 7/16" | 35.5 | 1 13/32" | 141.028.360.1 |

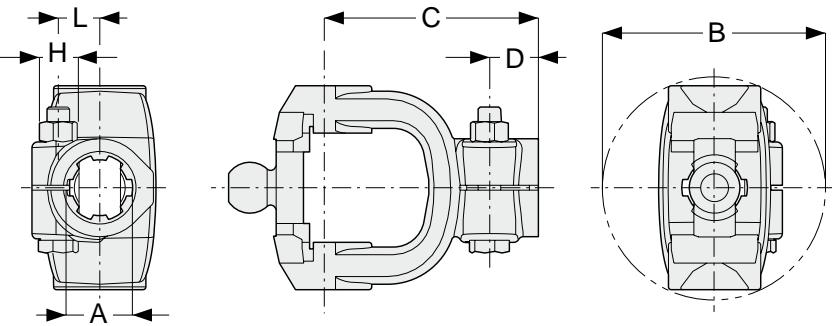
**PULSANTE
PUSH-PIN**



Forcelle per cardani
Yokes for PTO driveshafts

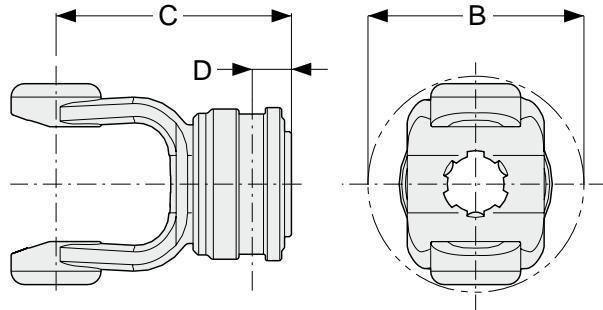
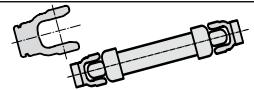
| Type | Ref. | A [mm] | B [mm] | C [mm] | D [mm] | Code | | | |
|-----------|------|-------------|-----------|-----------|-----------|----------|----|----------|----------------------|
| 20 | 112 | 1 3/8" Z 6 | 94 | 3 45/64" | 99 | 3 57/64" | 19 | 3/4" | 141.022.162.1 |
| | 113 | 1 3/8" Z 21 | 94 | 3 45/64" | 99 | 3 57/64" | 19 | 3/4" | 141.022.356.1 |
| 40 | 112 | 1 3/8" Z 6 | 105 | 4 9/64" | 107 | 4 7/32" | 19 | 3/4" | 141.024.261.1 |
| | 113 | 1 3/8" Z 21 | 105 | 4 9/64" | 107 | 4 7/32" | 36 | 1 27/64" | 141.024.272.1 |
| 60 | 112 | 1 3/8" Z 6 | 117 | 4 39/64" | 113 | 4 29/64" | 26 | 1 1/32" | 141.026.230.1 |
| | 113 | 1 3/8" Z 21 | 117 | 4 39/64" | 113 | 4 29/64" | 36 | 1 27/64" | 141.026.256.1 |
| | 114 | 1 3/4" Z 6 | 117 | 4 39/64" | 114 | 4 31/64" | 26 | 1 1/32" | 141.026.266.1 |
| | 115 | 1 3/4" Z 20 | 117 | 4 39/64" | 114 | 4 31/64" | 26 | 1 1/32" | 141.026.267.1 |
| 80 | 112 | 1 3/8" Z 6 | 130 | 5 1/8" | 118 | 4 41/64" | 26 | 1 1/32" | 141.028.151.1 |
| | 113 | 1 3/8" Z 21 | 130 | 5 1/8" | 118 | 4 41/64" | 36 | 1 27/64" | 141.028.177.1 |
| | 114 | 1 3/4" Z 6 | 130 | 5 1/8" | 118 | 4 41/64" | 26 | 1 1/32" | 141.028.178.1 |
| | 115 | 1 3/4" Z 20 | 130 | 5 1/8" | 118 | 4 41/64" | 26 | 1 1/32" | 141.028.170.1 |

BULLONE INTERFERENTE
INTERFERING CLAMP SHAFT



| Type | Ref. | A [mm] | B [mm] | C [mm] | D [mm] | H M..x..cl.8.8 | Qty | L [mm] | L [inch] | Code | |
|-----------|------|-------------|-----------|-----------|-----------|-------------------|-----|-----------|-------------|------|----------------------------------|
| 20 | 132 | 1 3/8" Z 6 | 94 | 3 45/64" | 99 | 3 57/64" | 19 | 3/4" | M12x1.25x65 | 1 | 21.0 53/64" 141.022.359.1 |
| | 133 | 1 3/8" Z 21 | 94 | 3 45/64" | 99 | 3 57/64" | 19 | 3/4" | M12x1.25x65 | 1 | 21.0 53/64" 141.022.360.1 |
| 40 | 132 | 1 3/8" Z 6 | 105 | 4 9/64" | 107 | 4 7/32" | 19 | 3/4" | M12x1.25x65 | 1 | 21.0 53/64" 141.024.436.1 |
| | 133 | 1 3/8" Z 21 | 105 | 4 9/64" | 107 | 4 7/32" | 36 | 1 27/64" | M12x1.25x65 | 1 | 21.0 53/64" 141.024.474.1 |
| 60 | 132 | 1 3/8" Z 6 | 117 | 4 39/64" | 113 | 4 29/64" | 26 | 1 1/32" | M12x1.25x65 | 1 | 21.0 53/64" 141.026.532.1 |
| | 133 | 1 3/8" Z 21 | 117 | 4 39/64" | 113 | 4 29/64" | 36 | 1 27/64" | M12x1.25x65 | 1 | 21.0 53/64" 141.026.533.1 |
| | 134 | 1 3/4" Z 6 | 117 | 4 39/64" | 114 | 4.31/64" | 26 | 1 1/32" | M16x80 | 1 | 27.2 5/64" 141.026.620.1 |
| | 135 | 1 3/4" Z 20 | 117 | 4 39/64" | 114 | 4.31/64" | 26 | 1 1/32" | M16x80 | 1 | 27.2 5/64" 141.026.534.1 |
| 80 | 132 | 1 3/8" Z 6 | 130 | 5 1/8" | 118 | 4 41/64" | 26 | 1 1/32" | M12x1.25x65 | 2 | 21.0 53/64" 141.028.476.1 |
| | 133 | 1 3/8" Z 21 | 130 | 5 1/8" | 118 | 4 41/64" | 36 | 1 27/64" | M12x1.25x65 | 2 | 21.0 53/64" 141.028.475.1 |
| | 134 | 1 3/4" Z 6 | 130 | 5 1/8" | 118 | 4 41/64" | 26 | 1 1/32" | M16x80 | 2 | 27.2 5/64" 141.028.480.1 |
| | 135 | 1 3/4" Z 20 | 130 | 5 1/8" | 118 | 4 41/64" | 26 | 1 1/32" | M16x80 | 2 | 27.2 5/64" 141.028.481.1 |

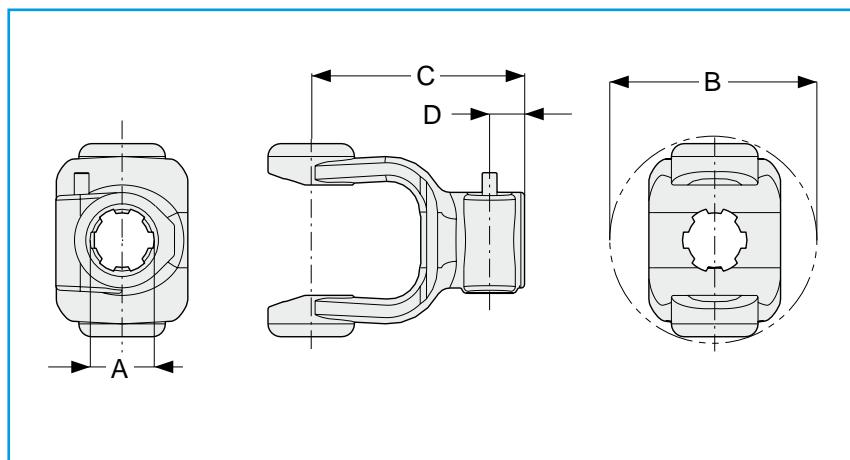
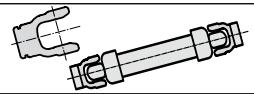
COLLARE
COLLAR



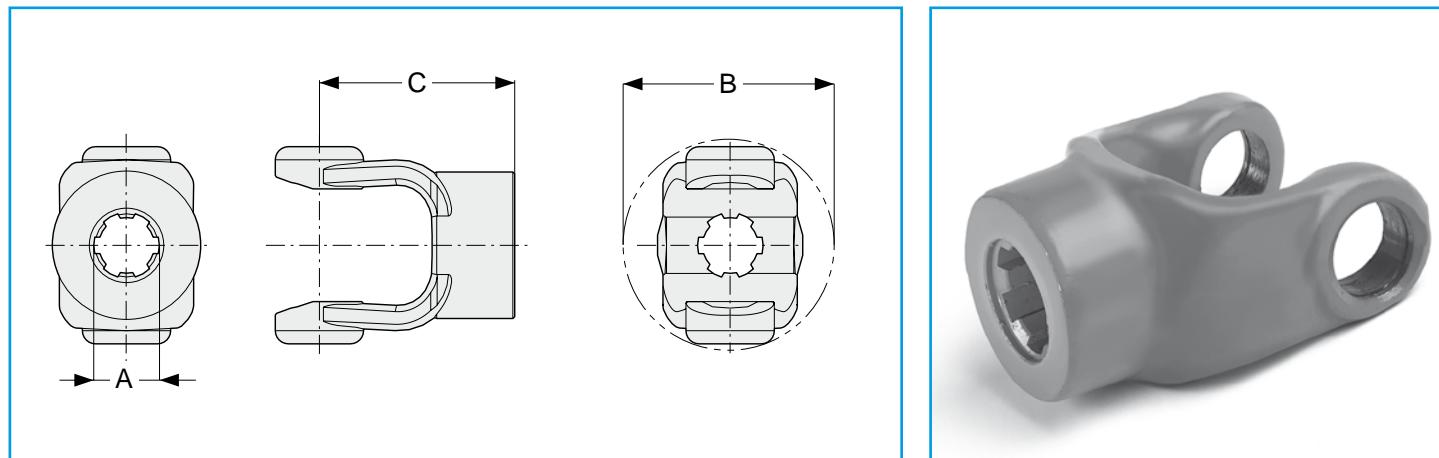
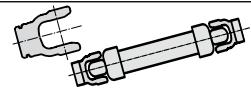
Forcelle per cardani
Yokes for PTO driveshafts

| Type | Ref. | A [mm] | B [inch] | C [mm] | C [inch] | D [mm] | D [inch] | Code |
|------------|------|-------------|-------------|-----------|-------------|-----------|-------------|----------|
| 10 | C12 | 1 3/8" Z 6 | 73 | 2 7/8" | 102 | 4.02" | 26 | 1 1/32" |
| | C13 | 1 3/8" Z 21 | 73 | 2 7/8" | 102 | 4.02" | 26 | 1 1/32" |
| 20 | C12 | 1 3/8" Z 6 | 80 | 3 5/32" | 109 | 4 19/64" | 26 | 1 1/32" |
| | C13 | 1 3/8" Z 21 | 80 | 3 5/32" | 109 | 4 19/64" | 26 | 1 1/32" |
| 40 | C12 | 1 3/8" Z 6 | 94 | 3 45/64" | 111 | 4 3/8" | 26 | 1 1/32" |
| | C13 | 1 3/8" Z 21 | 94 | 3 45/64" | 111 | 4 3/8" | 26 | 1 1/32" |
| 50 | C12 | 1 3/8" Z 6 | 100 | 3 15/16" | 117 | 4 39/64" | 26 | 1 1/32" |
| | C13 | 1 3/8" Z 21 | 100 | 3 15/16" | 117 | 4 39/64" | 26 | 1 1/32" |
| 60 | C12 | 1 3/8" Z 6 | 115 | 4 17/32" | 123 | 4 27/32" | 26 | 1 1/32" |
| | C13 | 1 3/8" Z 21 | 115 | 4 17/32" | 123 | 4 27/32" | 26 | 1 1/32" |
| | C17 | 1 3/4" Z 6 | 115 | 4 17/32" | 131 | 5 5/32" | 29.5 | 1 5/32" |
| | C15 | 1 3/4" Z 20 | 115 | 4 17/32" | 131 | 5 5/32" | 29.5 | 1 5/32" |
| 80 | C12 | 1 3/8" Z 6 | 132 | 5 13/64" | 137 | 5 25/64" | 26 | 1 1/32" |
| | C13 | 1 3/8" Z 21 | 132 | 5 13/64" | 137 | 5 25/64" | 26 | 1 1/32" |
| | C17 | 1 3/4" Z 6 | 132 | 5 13/64" | 142 | 5 19/32" | 29.5 | 1 5/32" |
| | C15 | 1 3/4" Z 20 | 132 | 5 13/64" | 142 | 5 19/32" | 29.5 | 1 5/32" |
| 90 | C12 | 1 3/8" Z 6 | 137 | 5 25/64" | 144 | 5 43/64" | 26 | 1 1/32" |
| | C13 | 1 3/8" Z 21 | 137 | 5 25/64" | 144 | 5 43/64" | 26 | 1 1/32" |
| | C17 | 1 3/4" Z 6 | 137 | 5 25/64" | 152 | 5 63/64" | 29.5 | 1 5/32" |
| | C15 | 1 3/4" Z 20 | 137 | 5 25/64" | 152 | 5 63/64" | 29.5 | 1 5/32" |
| 120 | C27 | 1 3/4" Z 6 | 155 | 6 7/64" | 162 | 6 3/8" | 45.5 | 1 51/64" |
| | C25 | 1 3/4" Z 20 | 155 | 6 7/64" | 162 | 6 3/8" | 45.5 | 1 51/64" |

**PULSANTE
PUSH-PIN**



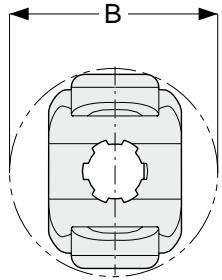
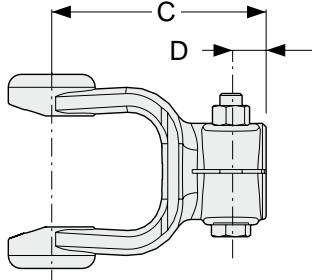
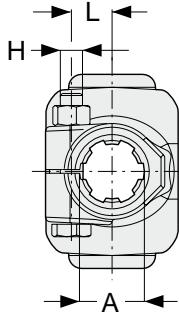
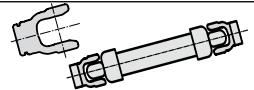
| Type | Ref. | A [mm] | B [mm] [inch] | C [mm] [inch] | D [mm] [inch] | Code |
|------|------|-------------|------------------|------------------|------------------|---------------|
| 10 | 112 | 1 3/8" Z 6 | 73 2 7/8" | 90 3 35/64" | 19 3/4" | 141.021.001.1 |
| | 113 | 1 3/8" Z 21 | 73 2 7/8" | 90 3 35/64" | 19 3/4" | 141.021.002.1 |
| | PZ8 | 32 UNI 221 | 73 2 7/8" | 90 3 35/64" | 19 3/4" | 141.021.264.1 |
| 20 | 112 | 1 3/8" Z 6 | 80 3 5/32" | 99 3 57/64" | 19 3/4" | 141.022.001.1 |
| | 113 | 1 3/8" Z 21 | 80 3 5/32" | 99 3 57/64" | 19 3/4" | 141.022.002.1 |
| | PZ8 | 32 UNI 221 | 80 3 5/32" | 99 3 57/64" | 19 3/4" | 141.022.449.1 |
| 40 | 112 | 1 3/8" Z 6 | 94 3 45/64" | 107 4 7/32" | 19 3/4" | 141.024.001.1 |
| | 113 | 1 3/8" Z 21 | 94 3 45/64" | 107 4 7/32" | 19 3/4" | 141.024.002.1 |
| | PZ8 | 32 UNI 221 | 94 3 45/64" | 107 4 7/32" | 19 3/4" | 141.024.266.1 |
| 50 | 112 | 1 3/8" Z 6 | 100 3 15/16" | 109 4 19/64" | 19 3/4" | 141.025.001.1 |
| | 113 | 1 3/8" Z 21 | 100 3 15/16" | 109 4 19/64" | 19 3/4" | 141.025.002.1 |
| | PZ8 | 32 UNI 221 | 100 3 15/16" | 109 4 19/64" | 19 3/4" | 141.025.414.1 |
| 60 | 112 | 1 3/8" Z 6 | 115 4 17/32" | 116 4 9/16" | 19 3/4" | 141.026.001.1 |
| | 113 | 1 3/8" Z 21 | 115 4 17/32" | 116 4 9/16" | 19 3/4" | 141.026.002.1 |
| | PZ8 | 32 UNI 221 | 115 4 17/32" | 116 4 9/16" | 19 3/4" | 141.026.199.1 |
| | 114 | 1 3/4" Z 6 | 115 4 17/32" | 124 4 7/8" | 24 7/8" | 141.026.003.1 |
| | 115 | 1 3/4" Z 20 | 115 4 17/32" | 124 4 7/8" | 24 7/8" | 141.026.008.1 |
| 80 | 112 | 1 3/8" Z 6 | 132 5 13/64" | 124 4 7/8" | 19 3/4" | 141.028.001.1 |
| | 113 | 1 3/8" Z 21 | 132 5 13/64" | 124 4 7/8" | 19 3/4" | 141.028.002.1 |
| | PZ8 | 32 UNI 221 | 132 5 13/64" | 124 4 7/8" | 19 3/4" | 141.028.146.1 |
| | 114 | 1 3/4" Z 6 | 132 5 13/64" | 128 5 3/64" | 24 7/8" | 141.028.003.1 |
| | 115 | 1 3/4" Z 20 | 132 5 13/64" | 128 5 3/64" | 24 7/8" | 141.028.004.1 |
| 90 | 112 | 1 3/8" Z 6 | 137 5 25/64" | 133 5 15/64" | 24 7/8" | 141.029.039.1 |
| | 113 | 1 3/8" Z 21 | 137 5 25/64" | 133 5 15/64" | 24 7/8" | 141.029.040.1 |
| | PZ8 | 32 UNI 221 | 137 5 25/64" | 133 5 15/64" | 24 7/8" | 141.029.373.1 |
| | 114 | 1 3/4" Z 6 | 137 5 25/64" | 133 5 15/64" | 24 7/8" | 141.029.057.1 |
| | 115 | 1 3/4" Z 20 | 137 5 25/64" | 133 5 15/64" | 24 7/8" | 141.029.058.1 |



Forcelle per cardani
Yokes for PTO driveshafts

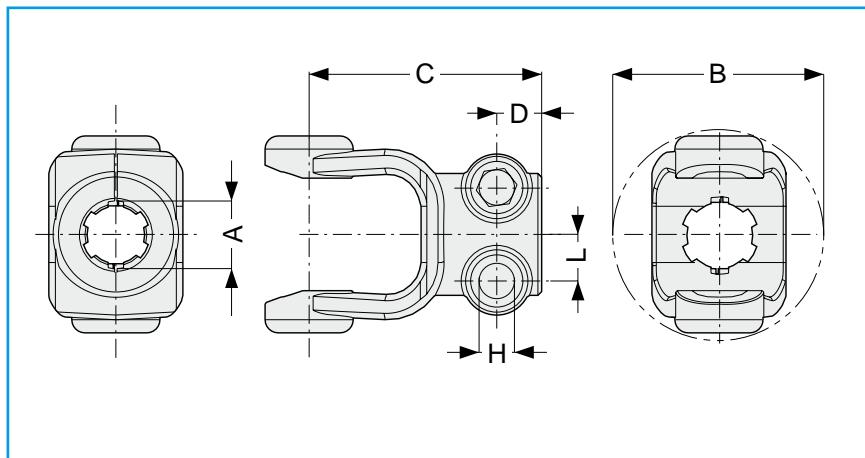
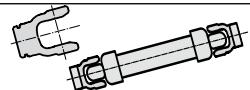
| Type | Ref. | A [mm] | B [inch] | C [mm] | [inch] | Code |
|-----------|------|-------------|-------------|-----------|--------|----------|
| 10 | 122 | 1 3/8" Z 6 | 73 | 2 7/8" | 80 | 3 5/32" |
| | 123 | 1 3/8" Z 21 | 73 | 2 7/8" | 80 | 3 5/32" |
| 20 | 122 | 1 3/8" Z 6 | 80 | 3 5/32" | 80 | 3 5/32" |
| | 123 | 1 3/8" Z 21 | 80 | 3 5/32" | 80 | 3 5/32" |
| 40 | 122 | 1 3/8" Z 6 | 94 | 3 45/64" | 91.5 | 3 39/64" |
| | 123 | 1 3/8" Z 21 | 94 | 3 45/64" | 91.5 | 3 39/64" |
| 50 | 122 | 1 3/8" Z 6 | 100 | 3 15/16" | 97 | 3 13/16" |
| | 123 | 1 3/8" Z 21 | 100 | 3 15/16" | 97 | 3 13/16" |
| 60 | 122 | 1 3/8" Z 6 | 115 | 4 17/32" | 104 | 4 3/32" |
| | 123 | 1 3/8" Z 21 | 115 | 4 17/32" | 104 | 4 3/32" |
| | 124 | 1 3/4" Z 6 | 115 | 4 17/32" | 104 | 4 3/32" |
| | 125 | 1 3/4" Z 20 | 115 | 4 17/32" | 104 | 4 3/32" |
| 80 | 122 | 1 3/8" Z 6 | 132 | 5 13/64" | 116 | 4 9/16" |
| | 123 | 1 3/8" Z 21 | 132 | 5 13/64" | 116 | 4 9/16" |
| | 124 | 1 3/4" Z 6 | 132 | 5 13/64" | 116 | 4 9/16" |
| | 125 | 1 3/4" Z 20 | 132 | 5 13/64" | 116 | 4 9/16" |
| 90 | 122 | 1 3/8" Z 6 | 137 | 5 25/64" | 124 | 4 7/8" |
| | 123 | 1 3/8" Z 21 | 137 | 5 25/64" | 124 | 4 7/8" |
| | 124 | 1 3/4" Z 6 | 137 | 5 25/64" | 124 | 4 7/8" |
| | 125 | 1 3/4" Z 20 | 137 | 5 25/64" | 124 | 4 7/8" |

CALETTATA - BULLONE INTERFERENTE
SPLINED - INTERFERING CLAMP BOLT



| Type | Ref. | A [mm] [inch] | B [mm] [inch] | C [mm] [inch] | D [mm] [inch] | H M..x..cl.8.8 | Qty | L [mm] [inch] | Code |
|------------|------|---------------------|---------------------|---------------------|---------------------|-------------------|-----|---------------------|----------------------|
| 10 | 132 | 1 3/8" Z 6 | 73 | 2 7/8" 90 | 3 35/64" 19 | 3/4" M12x1.25x65 | 1 | 21 53/64" | 141.021.056.1 |
| | 133 | 1 3/8" Z 21 | 73 | 2 7/8" 90 | 3 35/64" 19 | 3/4" M12x1.25x65 | 1 | 21 53/64" | 141.021.057.1 |
| 20 | 132 | 1 3/8" Z 6 | 80 | 3 5/32" 99 | 3 57/64" 19 | 3/4" M12x1.25x65 | 1 | 21 53/64" | 141.022.008.1 |
| | 133 | 1 3/8" Z 21 | 80 | 3 5/32" 99 | 3 57/64" 19 | 3/4" M12x1.25x65 | 1 | 21 53/64" | 141.022.051.1 |
| 40 | 132 | 1 3/8" Z 6 | 94 | 3 45/64" 107 | 4 7/32" 19 | 3/4" M12x1.25x65 | 1 | 21 53/64" | 141.024.014.1 |
| | 133 | 1 3/8" Z 21 | 94 | 3 45/64" 107 | 4 7/32" 19 | 3/4" M12x1.25x65 | 1 | 21 53/64" | 141.024.059.1 |
| 50 | 132 | 1 3/8" Z 6 | 100 | 3 15/16" 109 | 4 19/64" 19 | 3/4" M12x1.25x65 | 1 | 21 53/64" | 141.025.027.1 |
| | 133 | 1 3/8" Z 21 | 100 | 3 15/16" 109 | 4 19/64" 19 | 3/4" M12x1.25x65 | 2 | 21 53/64" | 141.025.063.1 |
| 60 | 132 | 1 3/8" Z 6 | 115 | 4 17/32" 116 | 4 9/16" 19 | 3/4" M12x1.25x65 | 1 | 21 53/64" | 141.026.047.1 |
| | 133 | 1 3/8" Z 21 | 115 | 4 17/32" 116 | 4 9/16" 19 | 3/4" M12x1.25x65 | 2 | 21 53/64" | 141.026.048.1 |
| | 134 | 1 3/4" Z 6 | 115 | 4 17/32" 124 | 4 7/8" 24 | 7/8" M16x80 | 1 | 27.2 1 5/64" | 141.026.049.1 |
| | 135 | 1 3/4" Z 20 | 115 | 4 17/32" 124 | 4 7/8" 24 | 7/8" M16x80 | 1 | 27.2 1 5/64" | 141.026.083.1 |
| 80 | 132 | 1 3/8" Z 6 | 132 | 5 13/64" 124 | 4 7/8" 19 | 3/4" M12x1.25x65 | 2 | 21 53/64" | 141.028.028.1 |
| | 133 | 1 3/8" Z 21 | 132 | 5 13/64" 124 | 4 7/8" 19 | 3/4" M12x1.25x65 | 2 | 21 53/64" | 141.028.029.1 |
| | 134 | 1 3/4" Z 6 | 132 | 5 13/64" 128 | 5 3/64" 24 | 7/8" M16x80 | 2 | 27.2 1 5/64" | 141.028.030.1 |
| | 135 | 1 3/4" Z 20 | 132 | 5 13/64" 128 | 5 3/64" 24 | 7/8" M16x80 | 2 | 27.2 1 5/64" | 141.028.065.1 |
| 90 | 132 | 1 3/8" Z 6 | 137 | 5 25/64" 133 | 5 15/64" 24 | 7/8" M14x1.5x80 | 2 | 22 55/64" | 141.029.022.1 |
| | 133 | 1 3/8" Z 21 | 137 | 5 25/64" 133 | 5 15/64" 24 | 7/8" M14x1.5x80 | 2 | 22 55/64" | 141.029.023.1 |
| | 134 | 1 3/4" Z 6 | 137 | 5 25/64" 133 | 5 15/64" 24 | 7/8" M16x80 | 2 | 27.2 1 5/64" | 141.029.024.1 |
| | 135 | 1 3/4" Z 20 | 137 | 5 25/64" 133 | 5 15/64" 24 | 7/8" M16x80 | 2 | 27.2 1 5/64" | 141.029.068.1 |
| 120 | 134 | 1 3/4" Z 6 | 155 | 6 7/64" 168 | 3 39/64" 45.5 | 1 51/64" M16x90 | 2 | 27.2 1 5/64" | 141.220.035.1 |
| | 135 | 1 3/4" Z 20 | 155 | 6 7/64" 168 | 3 39/64" 45.5 | 1 51/64" M16x90 | 2 | 27.2 1 5/64" | 141.220.038.1 |

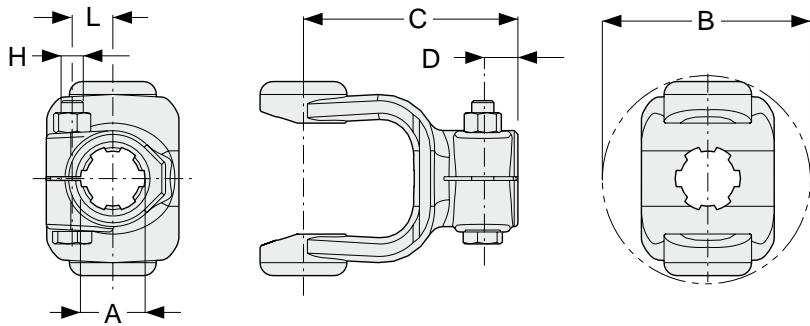
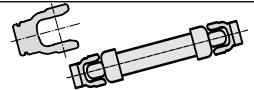
CALETTATA -BULLONE INTERFERENTE INCASSATO
SPLINED - INTERFERING RECESSED CLAMP BOLT



Forcelle per cardani
Yokes for PTO driveshafts

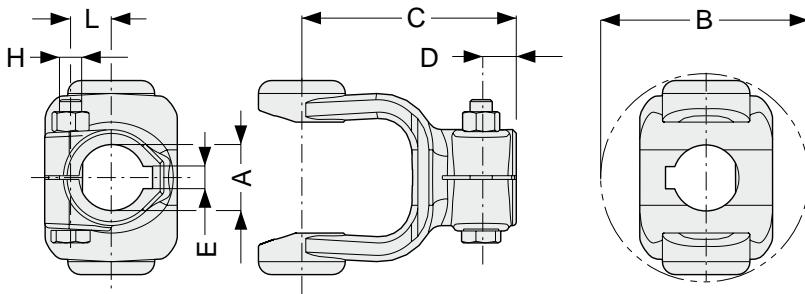
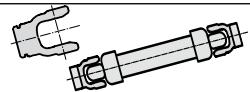
| Type | Ref. | A | B | C | D | H | L | Code | | | | | | |
|-----------|------|--------|--------|------|----------|--------------|----------|------|--------|-------------|---|----|--------|----------------------|
| | | [mm] | [inch] | [mm] | [inch] | M..x..cl.8.8 | Qty | [mm] | [inch] | | | | | |
| 10 | 162 | 1 3/8" | Z 6 | 104 | 4 3/32" | 101 | 3 31/32" | 24 | 15/16" | M12x1.25x55 | 1 | 21 | 53/64" | 141.021.333.1 |
| | 163 | 1 3/8" | Z 21 | 104 | 4 3/32" | 101 | 3 31/32" | 24 | 15/16" | M12x1.25x55 | 1 | 21 | 53/64" | 141.021.334.1 |
| 20 | 162 | 1 3/8" | Z 6 | 104 | 4 3/32" | 104 | 4 3/32" | 24 | 15/16" | M12x1.25x55 | 1 | 21 | 53/64" | 141.022.361.1 |
| | 163 | 1 3/8" | Z 21 | 104 | 4 3/32" | 104 | 4 3/32" | 24 | 15/16" | M12x1.25x55 | 1 | 21 | 53/64" | 141.022.362.1 |
| 40 | 162 | 1 3/8" | Z 6 | 104 | 4 3/32" | 113 | 4 29/64" | 24 | 15/16" | M12x1.25x55 | 1 | 21 | 53/64" | 141.024.475.1 |
| | 163 | 1 3/8" | Z 21 | 104 | 4 3/32" | 113 | 4 29/64" | 24 | 15/16" | M12x1.25x55 | 1 | 21 | 53/64" | 141.024.476.1 |
| 50 | 162 | 1 3/8" | Z 6 | 110 | 4 21/64" | 116 | 4 9/16" | 24 | 15/16" | M12x1.25x55 | 2 | 21 | 53/64" | 141.025.379.1 |
| | 163 | 1 3/8" | Z 21 | 110 | 4 21/64" | 116 | 4 9/16" | 24 | 15/16" | M12x1.25x55 | 2 | 21 | 53/64" | 141.025.380.1 |
| | 164 | 1 3/4" | Z 6 | 110 | 4 21/64" | 116 | 4 9/16" | 24 | 15/16" | M12x1.25x55 | 2 | 25 | 63/64" | 141.025.381.1 |
| | 165 | 1 3/4" | Z 20 | 110 | 4 21/64" | 116 | 4 9/16" | 24 | 15/16" | M12x1.25x55 | 2 | 25 | 63/64" | 141.025.346.1 |
| 60 | 162 | 1 3/8" | Z 6 | 115 | 4 17/32" | 124 | 4 7/8" | 24 | 15/16" | M12x1.25x55 | 2 | 21 | 53/64" | 141.026.621.1 |
| | 163 | 1 3/8" | Z 21 | 115 | 4 17/32" | 124 | 4 7/8" | 24 | 15/16" | M12x1.25x55 | 2 | 21 | 53/64" | 141.026.459.1 |
| | 164 | 1 3/4" | Z 6 | 115 | 4 17/32" | 124 | 4 7/8" | 24 | 15/16" | M12x1.25x55 | 2 | 25 | 63/64" | 141.026.622.1 |
| | 165 | 1 3/4" | Z 20 | 115 | 4 17/32" | 124 | 4 7/8" | 24 | 15/16" | M12x1.25x55 | 2 | 25 | 63/64" | 141.026.374.1 |
| 80 | 162 | 1 3/8" | Z 6 | 132 | 5 13/64" | 128 | 5 3/64" | 24 | 15/16" | M12x1.25x55 | 2 | 21 | 53/64" | 141.028.339.1 |
| | 163 | 1 3/8" | Z 21 | 132 | 5 13/64" | 128 | 5 3/64" | 24 | 15/16" | M12x1.25x55 | 2 | 21 | 53/64" | 141.028.340.1 |
| | 164 | 1 3/4" | Z 6 | 132 | 5 13/64" | 128 | 5 3/64" | 24 | 15/16" | M12x1.25x55 | 2 | 25 | 63/64" | 141.028.482.1 |
| | 165 | 1 3/4" | Z 20 | 132 | 5 13/64" | 128 | 5 3/64" | 24 | 15/16" | M12x1.25x55 | 2 | 25 | 63/64" | 141.028.301.1 |
| 90 | 162 | 1 3/8" | Z 6 | 137 | 5 25/64" | 136 | 5 23/64" | 24 | 15/16" | M12x1.25x55 | 2 | 21 | 53/64" | 141.029.342.1 |
| | 163 | 1 3/8" | Z 21 | 137 | 5 25/64" | 136 | 5 23/64" | 24 | 15/16" | M12x1.25x55 | 2 | 21 | 53/64" | 141.029.343.1 |
| | 164 | 1 3/4" | Z 6 | 137 | 5 25/64" | 136 | 5 23/64" | 24 | 15/16" | M12x1.25x55 | 2 | 25 | 63/64" | 141.029.344.1 |
| | 165 | 1 3/4" | Z 20 | 137 | 5 25/64" | 136 | 5 23/64" | 24 | 15/16" | M12x1.25x55 | 2 | 25 | 63/64" | 141.029.345.1 |

CALETTATA - BULLONE NON INTERFERENTE
SPLINED - NOT INTERFERING CLAMP BOLT



| Type | Ref. | A [mm] [inch] | B [mm] [inch] | C [mm] [inch] | D [mm] [inch] | H M..x..cl.8.8 | Qty | L [mm] [inch] | Code |
|-----------|------|---------------------|---------------------|---------------------|---------------------|-------------------|-----|---------------------|----------------------|
| 10 | 142 | 1 3/8" Z 6 | 73 | 2 7/8" 90 | 3 55/64" 19 | 3/4" M10x1.25x65 | 1 | 23.5 59/64" | 141.021.059.1 |
| | 143 | 1 3/8" Z 21 | 73 | 2 7/8" 90 | 3 55/64" 19 | 3/4" M10x1.25x65 | 1 | 23.5 59/64" | 141.021.060.1 |
| 20 | 142 | 1 3/8" Z 6 | 80 | 3 5/32" 99 | 3 57/64" 19 | 3/4" M10x1.25x65 | 1 | 23.5 59/64" | 141.022.052.1 |
| | 143 | 1 3/8" Z 21 | 80 | 3 5/32" 99 | 3 57/64" 19 | 3/4" M10x1.25x65 | 1 | 23.5 59/64" | 141.022.053.1 |
| 40 | 142 | 1 3/8" Z 6 | 94 | 3 45/64" 107 | 4 7/32" 19 | 3/4" M10x1.25x65 | 1 | 23.5 59/64" | 141.024.060.1 |
| | 143 | 1 3/8" Z 21 | 94 | 3 45/64" 107 | 4 7/32" 19 | 3/4" M10x1.25x65 | 1 | 23.5 59/64" | 141.024.061.1 |
| 50 | 142 | 1 3/8" Z 6 | 100 | 3 15/16" 109 | 4 19/64" 19 | 3/4" M10x1.25x65 | 1 | 23.5 59/64" | 141.025.064.1 |
| | 143 | 1 3/8" Z 21 | 100 | 3 15/16" 109 | 4 19/64" 19 | 3/4" M10x1.25x65 | 2 | 23.5 59/64" | 141.025.065.1 |
| 60 | 142 | 1 3/8" Z 6 | 115 | 4 17/32" 116 | 4 9/16" 19 | 3/4" M10x1.25x65 | 1 | 23.5 59/64" | 141.026.084.1 |
| | 143 | 1 3/8" Z 21 | 115 | 4 17/32" 116 | 4 9/16" 19 | 3/4" M10x1.25x65 | 2 | 23.5 59/64" | 141.026.085.1 |
| | 144 | 1 3/4" Z 6 | 115 | 4 17/32" 124 | 4 7/8" 24 | 7/8" M12x1.25x80 | 1 | 29.5 1 1/32" | 141.026.086.1 |
| | 145 | 1 3/4" Z 20 | 115 | 4 17/32" 124 | 4 7/8" 24 | 7/8" M12x1.25x80 | 1 | 29.5 1 1/32" | 141.026.087.1 |
| 80 | 142 | 1 3/8" Z 6 | 132 | 5 13/64" 124 | 4 7/8" 19 | 3/4" M10x1.25x65 | 2 | 23.5 59/64" | 141.028.066.1 |
| | 143 | 1 3/8" Z 21 | 132 | 5 13/64" 124 | 4 7/8" 19 | 3/4" M10x1.25x65 | 2 | 23.5 59/64" | 141.028.067.1 |
| | 144 | 1 3/4" Z 6 | 132 | 5 13/64" 128 | 5 3/64" 24 | 7/8" M12x1.25x80 | 2 | 29.5 1 1/32" | 141.028.068.1 |
| | 145 | 1 3/4" Z 20 | 132 | 5 13/64" 128 | 5 3/64" 24 | 7/8" M12x1.25x80 | 2 | 29.5 1 1/32" | 141.028.069.1 |
| 90 | 142 | 1 3/8" Z 6 | 137 | 5 25/64" 133 | 5 15/64" 24 | 7/8" M14x1.5x80 | 2 | 25.5 1" | 141.029.069.1 |
| | 143 | 1 3/8" Z 21 | 137 | 5 25/64" 133 | 5 15/64" 24 | 7/8" M14x1.5x80 | 2 | 25.5 1" | 141.029.070.1 |
| | 144 | 1 3/4" Z 6 | 137 | 5 25/64" 133 | 5 15/64" 24 | 7/8" M12x1.25x65 | 2 | 29.5 1 1/32" | 141.029.071.1 |
| | 145 | 1 3/4" Z 20 | 137 | 5 25/64" 133 | 5 15/64" 24 | 7/8" M12x1.25x65 | 2 | 29.5 1 1/32" | 141.029.072.1 |

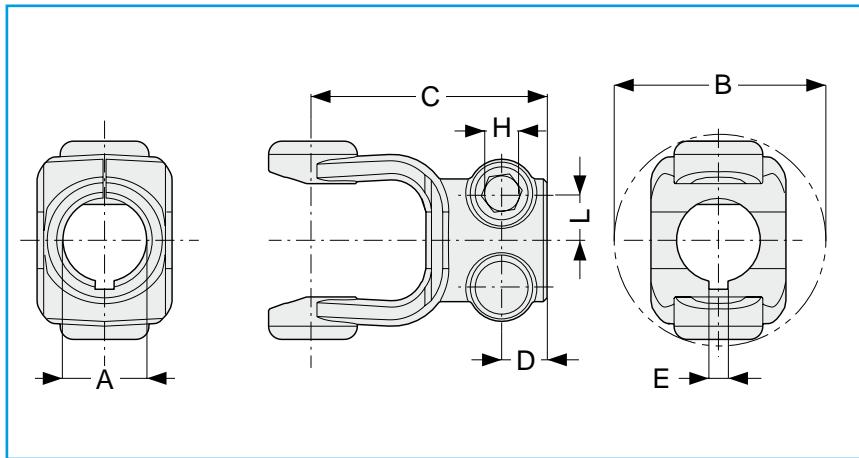
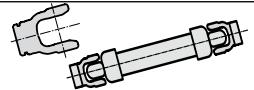
FORO LISCIO - CHIAVETTA - BULLONE INTERFERENTE
ROUND BORE - KEYWAY - INTERFERING CLAMP BOLT



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 Yokes for PTO driveshafts

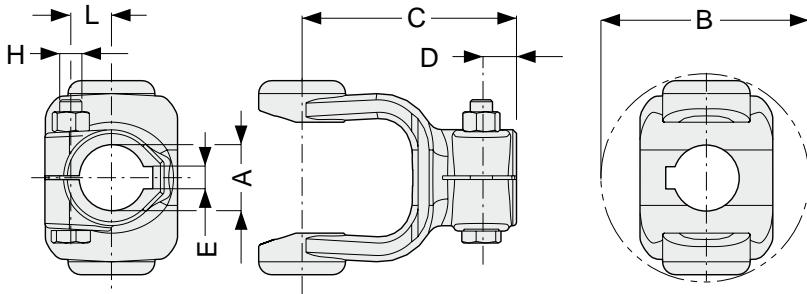
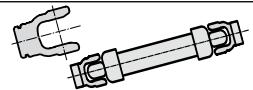
| Type | Ref. | A | B | C | D | E | H | L | Code | |
|------|------|--------|--------|----------|--------|----------|--------|------|-------|-------------|
| | | [mm] | [inch] | [mm] | [inch] | [mm] | [inch] | Qty | [mm] | [inch] |
| 10 | 331 | 20 | 73 | 2 7/8" | 90 | 3 35/64" | 19 | 3/4" | 6 | M10x1.25x65 |
| | 332 | 25 | 73 | 2 7/8" | 90 | 3 35/64" | 19 | 3/4" | 8 | M10x1.25x65 |
| | 333 | 30 | 73 | 2 7/8" | 90 | 3 35/64" | 19 | 3/4" | 8 | M12x1.25x65 |
| | 431 | 3/4" | 73 | 2 7/8" | 90 | 3 35/64" | 19 | 3/4" | 3/16" | M10x1.25x65 |
| | 432 | 1" | 73 | 2 7/8" | 90 | 3 35/64" | 19 | 3/4" | 1/4" | M10x1.25x65 |
| 20 | 331 | 20 | 80 | 3 5/32" | 99 | 3 57/64" | 19 | 3/4" | 6 | M10x1.25x65 |
| | 332 | 25 | 80 | 3 5/32" | 99 | 3 57/64" | 19 | 3/4" | 8 | M10x1.25x65 |
| | 333 | 30 | 80 | 3 5/32" | 99 | 3 57/64" | 19 | 3/4" | 8 | M12x1.25x65 |
| | 431 | 3/4" | 80 | 3 5/32" | 99 | 3 57/64" | 19 | 3/4" | 3/16" | M10x1.25x65 |
| | 432 | 1" | 80 | 3 5/32" | 99 | 3 57/64" | 19 | 3/4" | 1/4" | M10x1.25x65 |
| | 433 | 1 1/4" | 80 | 3 5/32" | 99 | 3 57/64" | 19 | 3/4" | 5/16" | M12x1.25x65 |
| 40 | 332 | 25 | 94 | 3 45/64" | 107 | 4 7/32" | 19 | 3/4" | 8 | M10x1.25x65 |
| | 333 | 30 | 94 | 3 45/64" | 107 | 4 7/32" | 19 | 3/4" | 8 | M12x1.25x65 |
| | 334 | 35 | 94 | 3 45/64" | 107 | 4 7/32" | 19 | 3/4" | 10 | M12x1.25x65 |
| | 433 | 1 1/4" | 94 | 3 45/64" | 107 | 4 7/32" | 19 | 3/4" | 5/16" | M12x1.25x65 |
| | 434 | 1 3/8" | 94 | 3 45/64" | 107 | 4 7/32" | 19 | 3/4" | 5/16" | M12x1.25x65 |
| 50 | 333 | 30 | 100 | 3 5/16" | 109 | 4 19/64" | 19 | 3/4" | 8 | M12x1.25x65 |
| | 334 | 35 | 100 | 3 5/16" | 109 | 4 19/64" | 19 | 3/4" | 10 | M12x1.25x65 |
| | 433 | 1 1/4" | 100 | 3 5/16" | 109 | 4 19/64" | 19 | 3/4" | 5/16" | M12x1.25x65 |
| | 434 | 1 3/8" | 100 | 3 5/16" | 109 | 4 19/64" | 19 | 3/4" | 5/16" | M12x1.25x65 |
| 60 | 333 | 30 | 115 | 4 17/32" | 116 | 4 9/16" | 19 | 3/4" | 8 | M12x1.25x65 |
| | 334 | 35 | 115 | 4 17/32" | 116 | 4 9/16" | 19 | 3/4" | 10 | M12x1.25x65 |
| | 335 | 40 | 115 | 4 17/32" | 124 | 4 7/8" | 24 | 7/8" | 12 | M12x1.25x75 |
| | 433 | 1 1/4" | 115 | 4 17/32" | 116 | 4 9/16" | 19 | 3/4" | 5/16" | M12x1.25x65 |
| | 434 | 1 3/8" | 115 | 4 17/32" | 116 | 4 9/16" | 19 | 3/4" | 5/16" | M12x1.25x65 |
| | 435 | 1 3/4" | 115 | 4 17/32" | 124 | 4 7/8" | 24 | 7/8" | 3/8" | M12x1.25x75 |
| 80 | 333 | 30 | 132 | 5 13/64" | 124 | 4 7/8" | 19 | 3/4" | 8 | M12x1.25x65 |
| | 334 | 35 | 132 | 5 13/64" | 128 | 5 3/64" | 24 | 7/8" | 10 | M12x1.25x80 |
| | 335 | 40 | 132 | 5 13/64" | 128 | 5 3/64" | 24 | 7/8" | 12 | M14x1.5x80 |
| | 336 | 45 | 132 | 5 13/64" | 128 | 5 3/64" | 24 | 7/8" | 14 | M12x1.25x80 |
| 90 | 335 | 40 | 137 | 5 25/64" | 133 | 5 15/64" | 24 | 7/8" | 12 | M14x1.5x80 |
| | 336 | 45 | 137 | 5 25/64" | 133 | 5 15/64" | 24 | 7/8" | 14 | M12x1.25x80 |

FORO LISCIO - CHIAVETTA - BULLONE INTERFERENTE INCASSATO
ROUND BORE - KEYWAY - INTERFERING RECESSED CLAMP BOLT



| Type | Ref. | A [mm] [inch] | B [mm] [inch] | C [mm] [inch] | D [mm] [inch] | E | H M...x..cl.8.8 | Qty | L [mm] [inch] | Code | | | | |
|------|------|---------------------|---------------------|---------------------|---------------------|----------|--------------------|------|---------------------|-------------|---|------|---------|---------------|
| 10 | 361 | 20 | 104 | 4 /32" | 101 | 3 31/32" | 24 | 7/8" | 6 | M12x1.25x55 | 1 | 14.5 | 37/64" | 141.021.335.1 |
| | 362 | 25 | 104 | 4 /32" | 101 | 3 31/32" | 24 | 7/8" | 8 | M12x1.25x55 | 1 | 17 | 43/64" | 141.021.336.1 |
| | 363 | 30 | 104 | 4 /32" | 101 | 3 31/32" | 24 | 7/8" | 8 | M12x1.25x55 | 1 | 19 | 3/4" | 141.021.337.1 |
| | 461 | 3/4" | 104 | 4 /32" | 101 | 3 31/32" | 24 | 7/8" | 3/16" | M12x1.25x55 | 1 | 13.5 | 37/64" | 141.021.338.1 |
| | 462 | 1" | 104 | 4 /32" | 101 | 3 31/32" | 24 | 7/8" | 1/4" | M12x1.25x55 | 1 | 17 | 43/64" | 141.021.339.1 |
| | 361 | 20 | 104 | 4 /32" | 104 | 4 /32" | 24 | 7/8" | 6 | M12x1.25x55 | 1 | 14.5 | 37/64" | 141.022.363.1 |
| 20 | 362 | 25 | 104 | 4 /32" | 104 | 4 /32" | 24 | 7/8" | 8 | M12x1.25x55 | 1 | 17 | 43/64" | 141.022.364.1 |
| | 363 | 30 | 104 | 4 /32" | 104 | 4 /32" | 24 | 7/8" | 8 | M12x1.25x55 | 1 | 19 | 3/4" | 141.022.365.1 |
| | 461 | 3/4" | 104 | 4 /32" | 104 | 4 /32" | 24 | 7/8" | 3/16" | M12x1.25x55 | 1 | 13.5 | 37/64" | 141.022.366.1 |
| | 462 | 1" | 104 | 4 /32" | 104 | 4 /32" | 24 | 7/8" | 1/4" | M12x1.25x55 | 1 | 17 | 43/64" | 141.022.367.1 |
| | 463 | 1 1/4" | 104 | 4 /32" | 104 | 4 /32" | 24 | 7/8" | 5/16" | M12x1.25x55 | 1 | 19 | 3/4" | 141.022.368.1 |
| | 362 | 25 | 104 | 4 /32" | 113 | 4 29/64" | 24 | 7/8" | 8 | M12x1.25x55 | 1 | 17 | 43/64" | 141.024.477.1 |
| 40 | 363 | 30 | 104 | 4 /32" | 113 | 4 29/64" | 24 | 7/8" | 8 | M12x1.25x55 | 1 | 19 | 3/4" | 141.024.478.1 |
| | 364 | 35 | 104 | 4 /32" | 113 | 4 29/64" | 24 | 7/8" | 10 | M12x1.25x55 | 1 | 21.5 | 27/32" | 141.024.479.1 |
| | 463 | 1 1/4" | 104 | 4 /32" | 113 | 4 29/64" | 24 | 7/8" | 5/16" | M12x1.25x55 | 1 | 19 | 3/4" | 141.024.480.1 |
| | 464 | 1 3/8" | 104 | 4 /32" | 113 | 4 29/64" | 24 | 7/8" | 5/16" | M12x1.25x55 | 1 | 21.5 | 27/32" | 141.024.481.1 |
| | 363 | 30 | 110 | 3 15/16" | 116 | 4 9/16" | 24 | 7/8" | 8 | M12x1.25x55 | 1 | 19 | 3/4" | 141.025.382.1 |
| 50 | 364 | 35 | 110 | 3 15/16" | 116 | 4 9/16" | 24 | 7/8" | 10 | M12x1.25x55 | 1 | 21.5 | 27/32" | 141.025.383.1 |
| | 463 | 1 1/4" | 110 | 3 15/16" | 116 | 4 9/16" | 24 | 7/8" | 5/16" | M12x1.25x55 | 1 | 19 | 3/4" | 141.025.384.1 |
| | 464 | 1 3/8" | 110 | 3 15/16" | 116 | 4 9/16" | 24 | 7/8" | 5/16" | M12x1.25x55 | 1 | 21.5 | 27/32" | 141.025.385.1 |
| | 363 | 30 | 115 | 4 17/32" | 124 | 4 7/8" | 24 | 7/8" | 8 | M12x1.25x55 | 1 | 19 | 3/4" | 141.026.623.1 |
| | 364 | 35 | 115 | 4 17/32" | 124 | 4 7/8" | 24 | 7/8" | 10 | M12x1.25x55 | 1 | 21.5 | 27/32" | 141.026.624.1 |
| 60 | 365 | 40 | 115 | 4 17/32" | 124 | 4 7/8" | 24 | 7/8" | 12 | M12x1.25x55 | 1 | 24 | 7/8" | 141.026.625.1 |
| | 366 | 45 | 115 | 4 17/32" | 124 | 4 7/8" | 24 | 7/8" | 14 | M12x1.25x55 | 1 | 26.5 | 1 3/64" | 141.026.626.1 |
| | 463 | 1 1/4" | 115 | 4 17/32" | 124 | 4 7/8" | 24 | 7/8" | 5/16" | M12x1.25x55 | 1 | 19 | 3/4" | 141.026.627.1 |
| | 464 | 1 3/8" | 115 | 4 17/32" | 124 | 4 7/8" | 24 | 7/8" | 5/16" | M12x1.25x55 | 1 | 21.5 | 27/32" | 141.026.628.1 |
| | 465 | 1 3/4" | 115 | 4 17/32" | 124 | 4 7/8" | 24 | 7/8" | 3/8" | M12x1.25x55 | 1 | 26.5 | 1 3/64" | 141.026.629.1 |
| | 363 | 30 | 132 | 5 13/64" | 128 | 5 3/64" | 24 | 7/8" | 8 | M12x1.25x55 | 1 | 19 | 3/4" | 141.028.483.1 |
| 80 | 364 | 35 | 132 | 5 13/64" | 128 | 5 3/64" | 24 | 7/8" | 10 | M12x1.25x55 | 1 | 21.5 | 27/32" | 141.028.484.1 |
| | 365 | 40 | 132 | 5 13/64" | 128 | 5 3/64" | 24 | 7/8" | 12 | M12x1.25x55 | 1 | 24 | 7/8" | 141.028.485.1 |
| | 366 | 45 | 132 | 5 13/64" | 128 | 5 3/64" | 24 | 7/8" | 14 | M12x1.25x55 | 1 | 26.5 | 1 3/64" | 141.028.486.1 |
| 90 | 365 | 40 | 137 | 5 25/64" | 136 | 5 23/64" | 24 | 7/8" | 12 | M12x1.25x55 | 1 | 24 | 7/8" | 141.029.346.1 |
| | 366 | 45 | 137 | 5 25/64" | 136 | 5 23/64" | 24 | 7/8" | 14 | M12x1.25x55 | 1 | 26.5 | 1 3/64" | 141.029.347.1 |

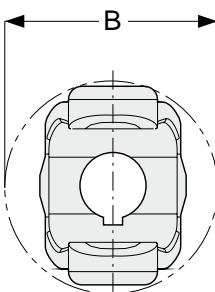
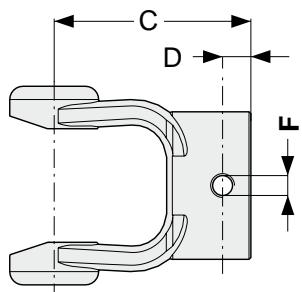
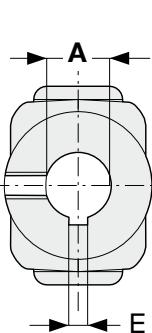
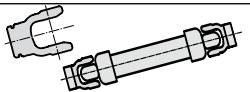
FORO LISCIO - CHIAVETTA - BULLONE NON INTERFERENTE
ROUND BORE - KEYWAY - NOT INTERFERING CLAMP BOLT



Forcelle per cardani
 Yokes for PTO driveshaft

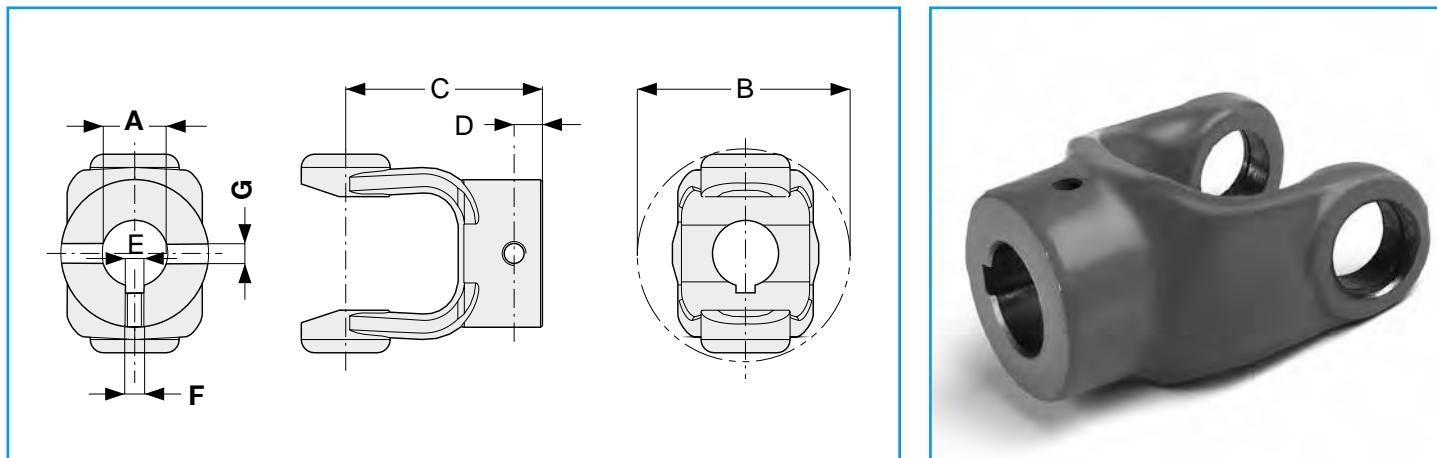
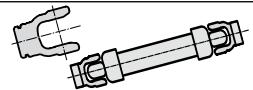
| Type | Ref. | A | B | C | D | E | H | L | Code | |
|------|------|--------|--------|----------|--------|----------|--------|--------|-------|-------------|
| | | [mm] | [inch] | [mm] | [inch] | [mm] | [inch] | Qty | [mm] | [inch] |
| 10 | 341 | 20 | 73 | 2 7/8" | 90 | 3 35/64" | 19 | 3/4" | 6 | M10x1.25x65 |
| | 342 | 25 | 73 | 2 7/8" | 90 | 3 35/64" | 19 | 3/4" | 8 | M10x1.25x65 |
| | 343 | 30 | 73 | 2 7/8" | 90 | 3 35/64" | 19 | 3/4" | 8 | M10x1.25x65 |
| | 441 | 3/4" | 73 | 2 7/8" | 90 | 3 35/64" | 19 | 3/4" | 3/16" | M10x1.25x65 |
| | 442 | 1" | 73 | 2 7/8" | 90 | 3 35/64" | 19 | 3/4" | 1/4" | M10x1.25x65 |
| 20 | 341 | 20 | 80 | 3 5/32" | 99 | 3 57/64" | 19 | 3/4" | 6 | M10x1.25x65 |
| | 342 | 25 | 80 | 3 5/32" | 99 | 3 57/64" | 19 | 3/4" | 8 | M10x1.25x65 |
| | 343 | 30 | 80 | 3 5/32" | 99 | 3 57/64" | 19 | 3/4" | 8 | M10x1.25x65 |
| | 441 | 3/4" | 80 | 3 5/32" | 99 | 3 57/64" | 19 | 3/4" | 3/16" | M10x1.25x65 |
| | 442 | 1" | 80 | 3 5/32" | 99 | 3 57/64" | 19 | 3/4" | 1/4" | M10x1.25x65 |
| | 443 | 1 1/4" | 80 | 3 5/32" | 99 | 3 57/64" | 19 | 3/4" | 5/16" | M10x1.25x65 |
| 40 | 342 | 25 | 94 | 3 45/64" | 107 | 4 7/32" | 19 | 3/4" | 8 | M10x1.25x65 |
| | 343 | 30 | 94 | 3 45/64" | 107 | 4 7/32" | 19 | 3/4" | 8 | M10x1.25x65 |
| | 344 | 35 | 94 | 3 45/64" | 107 | 4 7/32" | 19 | 3/4" | 10 | M10x1.25x65 |
| | 443 | 1 1/4" | 94 | 3 45/64" | 107 | 4 7/32" | 19 | 3/4" | 5/16" | M10x1.25x65 |
| | 444 | 1 3/8" | 94 | 3 45/64" | 107 | 4 7/32" | 19 | 3/4" | 5/16" | M10x1.25x65 |
| 50 | 343 | 30 | 100 | 3 15/16" | 109 | 4 19/64" | 19 | 3/4" | 8 | M10x1.25x65 |
| | 344 | 35 | 100 | 3 15/16" | 109 | 4 19/64" | 19 | 3/4" | 10 | M10x1.25x65 |
| | 345 | 40 | 100 | 3 15/16" | 109 | 4 19/64" | 19 | 3/4" | 12 | M10x1.25x65 |
| | 443 | 1 1/4" | 100 | 3 15/16" | 109 | 4 19/64" | 19 | 3/4" | 5/16" | M10x1.25x65 |
| | 444 | 1 3/8" | 100 | 3 15/16" | 109 | 4 19/64" | 19 | 3/4" | 5/16" | M10x1.25x65 |
| 60 | 343 | 30 | 115 | 4 7/32" | 116 | 4 9/16" | 19 | 3/4" | 8 | M10x1.25x65 |
| | 344 | 35 | 115 | 4 7/32" | 116 | 4 9/16" | 19 | 3/4" | 10 | M10x1.25x65 |
| | 345 | 40 | 115 | 4 7/32" | 124 | 4 7/8" | 24 | 15/16" | 12 | M12x1.25x75 |
| | 346 | 45 | 115 | 4 7/32" | 124 | 4 7/8" | 24 | 15/16" | 14 | M14x1.5x80 |
| | 443 | 1 1/4" | 115 | 4 7/32" | 116 | 4 9/16" | 19 | 3/4" | 5/16" | M10x1.25x65 |
| | 444 | 1 3/8" | 115 | 4 7/32" | 116 | 4 9/16" | 19 | 3/4" | 5/16" | M10x1.25x65 |
| | 445 | 1 3/4" | 115 | 4 7/32" | 124 | 4 7/8" | 24 | 15/16" | 3/8" | M12x1.25x75 |
| 80 | 344 | 35 | 132 | 5 13/64" | 124 | 4 7/8" | 19 | 3/4" | 10 | M12x1.25x80 |
| | 345 | 40 | 132 | 5 13/64" | 128 | 5 3/64" | 24 | 15/16" | 12 | M12x1.25x80 |
| | 346 | 45 | 132 | 5 13/64" | 128 | 5 3/64" | 24 | 15/16" | 14 | M12x1.25x80 |
| 90 | 345 | 40 | 137 | 5 25/64" | 133 | 5 15/64" | 24 | 7/8" | 12 | M14x1.5x80 |
| | 346 | 45 | 137 | 5 25/64" | 133 | 5 15/64" | 24 | 7/8" | 14 | M14x1.5x80 |

FORO LISCIO - CHIAVETTA
ROUND BORE - KEYWAY



| Type | Ref. | A [mm] | B [mm] | C [mm] | D [mm] | E | F | Code |
|------|------|-----------|-----------|-----------|-----------|----------|----|---------------------------------------|
| 10 | 311 | 20 | 73 | 2 7/8" | 80 | 3 5/32" | 20 | 25/32" M8 151.011.061.1 |
| | 312 | 25 | 73 | 2 7/8" | 80 | 3 5/32" | 20 | 25/32" M10 151.011.062.1 |
| | 313 | 30 | 73 | 2 7/8" | 80 | 3 5/32" | 20 | 25/32" M10 151.011.063.1 |
| | 411 | 3/4" | 73 | 2 7/8" | 80 | 3 5/32" | 20 | 25/32" 3/16" 3/8" 16UNC 151.011.064.1 |
| | 412 | 1" | 73 | 2 7/8" | 80 | 3 5/32" | 20 | 25/32" 1/4" 3/8" 16UNC 151.011.065.1 |
| | 413 | 1 1/4" | 73 | 2 7/8" | 80 | 3 5/32" | 20 | 25/32" 5/16" 3/8" 16UNC 151.011.270.1 |
| 20 | 311 | 20 | 80 | 3 5/32" | 80 | 3 5/32" | 20 | 25/32" M8 151.012.054.1 |
| | 312 | 25 | 80 | 3 5/32" | 80 | 3 5/32" | 20 | 25/32" M10 151.012.055.1 |
| | 313 | 30 | 80 | 3 5/32" | 80 | 3 5/32" | 20 | 25/32" M10 151.012.056.1 |
| | 411 | 3/4" | 80 | 3 5/32" | 80 | 3 5/32" | 20 | 25/32" 3/16" 3/8" 16UNC 151.012.057.1 |
| | 412 | 1" | 80 | 3 5/32" | 80 | 3 5/32" | 20 | 25/32" 1/4" 3/8" 16UNC 151.012.058.1 |
| | 413 | 1 1/4" | 80 | 3 5/32" | 80 | 3 5/32" | 20 | 25/32" 5/16" 3/8" 16UNC 151.012.059.1 |
| 40 | 312 | 25 | 94 | 3 45/64" | 91.5 | 3 39/64" | 20 | 25/32" 8 M12 151.014.062.1 |
| | 313 | 30 | 94 | 3 45/64" | 91.5 | 3 39/64" | 20 | 25/32" 8 M12 151.014.063.1 |
| | 314 | 35 | 94 | 3 45/64" | 91.5 | 3 39/64" | 20 | 25/32" 10 M12 151.014.064.1 |
| | 413 | 1 1/4" | 94 | 3 45/64" | 91.5 | 3 39/64" | 20 | 25/32" 5/16" 3/8" 16UNC 151.014.065.1 |
| | 414 | 1 3/8" | 94 | 3 45/64" | 91.5 | 3 39/64" | 20 | 25/32" 5/16" 3/8" 16UNC 151.014.066.1 |
| 50 | 313 | 30 | 100 | 3 15/16" | 97 | 3 13/16" | 20 | 25/32" 8 M12 151.015.066.1 |
| | 314 | 35 | 100 | 3 15/16" | 97 | 3 13/16" | 20 | 25/32" 10 M12 151.015.067.1 |
| | 315 | 40 | 100 | 3 15/16" | 97 | 3 13/16" | 20 | 25/32" 12 M12 151.015.068.1 |
| | 413 | 1 1/4" | 100 | 3 15/16" | 97 | 3 13/16" | 20 | 25/32" 5/16" 3/8" 16UNC 151.015.069.1 |
| | 414 | 1 3/8" | 100 | 3 15/16" | 97 | 3 13/16" | 20 | 25/32" 5/16" 3/8" 16UNC 151.015.070.1 |
| 60 | 313 | 30 | 115 | 4 17/32" | 104 | 4 3/32" | 20 | 25/32" 8 M12 151.016.088.1 |
| | 314 | 35 | 115 | 4 17/32" | 104 | 4 3/32" | 20 | 25/32" 10 M12 151.016.089.1 |
| | 315 | 40 | 115 | 4 17/32" | 104 | 4 3/32" | 20 | 25/32" 12 M12 151.016.090.1 |
| | 413 | 1 1/4" | 115 | 4 17/32" | 104 | 4 3/32" | 20 | 25/32" 5/16" 3/8" 16UNC 151.016.091.1 |
| | 414 | 1 3/8" | 115 | 4 17/32" | 104 | 4 3/32" | 20 | 25/32" 5/16" 3/8" 16UNC 151.016.092.1 |
| | 415 | 1 3/4" | 115 | 4 17/32" | 104 | 4 3/32" | 20 | 25/32" 3/8" 3/8" 16UNC 151.016.093.1 |
| 80 | 314 | 35 | 132 | 5 13/64" | 116 | 4 9/16" | 20 | 25/32" 10 M14 151.018.070.1 |
| | 315 | 40 | 132 | 5 13/64" | 116 | 4 9/16" | 20 | 25/32" 12 M14 151.018.071.1 |
| | 316 | 45 | 132 | 5 13/64" | 116 | 4 9/16" | 20 | 25/32" 14 M14 151.018.072.1 |
| 90 | 315 | 40 | 137 | 5 25/64" | 124 | 4 7/8" | 25 | 63/64" 12 M14 151.019.073.1 |
| | 316 | 45 | 137 | 5 25/64" | 124 | 4 7/8" | 25 | 63/64" 14 M14 151.019.074.1 |

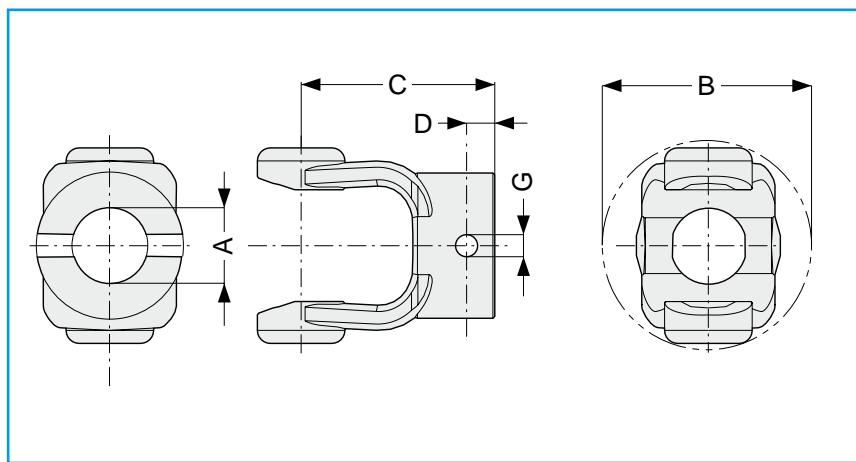
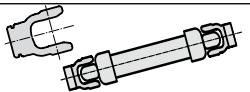
FOR LISCIO - CHIAVETTA - FORO SPINA
ROUND BORE - KEYWAY - PIN HOLE



Forcelle per cardani
 Yokes for PTO driveshafts

| Type | Ref. | A | B | C | D | E | F | L | Code |
|------|------|-------|--------|----------|--------|----------|--------|--------|--------|
| | | [mm] | [inch] | [mm] | [inch] | [mm] | [inch] | [mm] | [inch] |
| 10 | 500 | 19.05 | 73 | 2 7/8" | 80 | 3 5/32" | 20 | 25/32" | 4.76 |
| | 510 | 25.4 | 73 | 2 7/8" | 80 | 3 5/32" | 20 | 25/32" | 6.35 |
| | 511 | 25.4 | 73 | 2 7/8" | 80 | 3 5/32" | 20 | 25/32" | 6.35 |
| | 520 | 31.75 | 73 | 2 7/8" | 80 | 3 5/32" | 20 | 25/32" | 6.35 |
| 20 | 510 | 25.4 | 80 | 3 5/32" | 80 | 3 5/32" | 20 | 25/32" | 6.35 |
| | 511 | 25.4 | 80 | 3 5/32" | 80 | 3 5/32" | 20 | 25/32" | 6.35 |
| | 520 | 31.75 | 80 | 3 5/32" | 80 | 3 5/32" | 20 | 25/32" | 6.35 |
| | 530 | 25.4 | 80 | 3 5/32" | 80 | 3 5/32" | 20 | 25/32" | 6.35 |
| 40 | 511 | 25.4 | 94 | 3 45/64" | 91.5 | 3 39/64" | 20 | 25/32" | 6.35 |
| | 520 | 31.75 | 94 | 3 45/64" | 91.5 | 3 39/64" | 20 | 25/32" | 6.35 |
| | 540 | 31.75 | 94 | 3 45/64" | 91.5 | 3 39/64" | 20 | 25/32" | 7.93 |
| | 550 | 34.92 | 94 | 3 45/64" | 91.5 | 3 39/64" | 20 | 25/32" | 7.93 |
| | 560 | 38.1 | 94 | 3 45/64" | 91.5 | 3 39/64" | 20 | 25/32" | 9.52 |
| 50 | 520 | 31.75 | 100 | 3 15/16" | 97 | 3 13/16" | 20 | 25/32" | 6.35 |
| | 540 | 31.75 | 100 | 3 15/16" | 97 | 3 13/16" | 20 | 25/32" | 7.93 |
| | 550 | 34.92 | 100 | 3 15/16" | 97 | 3 13/16" | 20 | 25/32" | 7.93 |
| | 560 | 38.1 | 100 | 3 15/16" | 97 | 3 13/16" | 20 | 25/32" | 9.52 |
| 60 | 520 | 31.75 | 115 | 4 17/32" | 104 | 4 3/32" | 20 | 25/32" | 6.35 |
| | 540 | 31.75 | 115 | 4 17/32" | 104 | 4 3/32" | 20 | 25/32" | 7.93 |
| | 550 | 34.92 | 115 | 4 17/32" | 104 | 4 3/32" | 20 | 25/32" | 7.93 |
| | 560 | 38.1 | 115 | 4 17/32" | 104 | 4 3/32" | 20 | 25/32" | 9.52 |
| | 570 | 44.45 | 115 | 4 17/32" | 104 | 4 3/32" | 25.4 | 1" | 9.52 |
| | 580 | 49.2 | 115 | 4 17/32" | 104 | 4 3/32" | 20 | 25/32" | 12.7 |
| | 590 | 38.1 | 115 | 4 17/32" | 104 | 4 3/32" | 20 | 25/32" | 9.52 |
| 80 | 550 | 34.92 | 132 | 5 13/64" | 116 | 4 9/16" | 25 | 63/64" | 7.93 |
| | 580 | 49.2 | 132 | 5 13/64" | 116 | 4 9/16" | 25 | 63/64" | 12.7 |
| | 590 | 38.1 | 132 | 5 13/64" | 116 | 4 9/16" | 25 | 63/64" | 9.52 |
| | 600 | 44.45 | 132 | 5 13/64" | 116 | 4 9/16" | 25 | 63/64" | 9.52 |
| | 610 | 50.8 | 132 | 5 13/64" | 116 | 4 9/16" | 25 | 63/64" | 12.7 |
| 90 | 580 | 49.2 | 137 | 5 25/64" | 124 | 4 7/8" | 25 | 63/64" | 12.7 |
| | 590 | 38.1 | 137 | 5 25/64" | 124 | 4 7/8" | 25 | 63/64" | 9.52 |
| | 600 | 44.45 | 137 | 5 25/64" | 124 | 4 7/8" | 25 | 63/64" | 9.52 |
| | 610 | 50.8 | 137 | 5 25/64" | 124 | 4 7/8" | 25 | 63/64" | 12.7 |

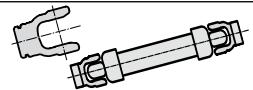
FORO LISIO - FORO SPINA
ROUND BORE - PINE HOLE



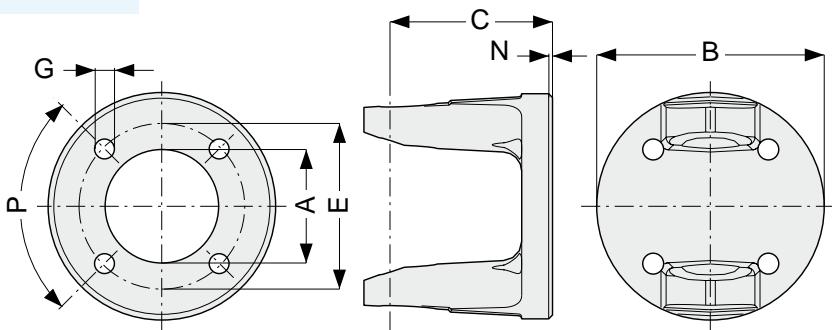
| Type | Ref. | A [mm] | B [mm] [inch] | C [mm] [inch] | D [mm] | G [inch] | Code |
|------|------|-----------|---------------------|---------------------|-----------|-------------|-----------------------|
| 10 | 321 | 20 | 73 2 7/8" | 80 3 5/32" | 15 | 19/32" | 6 151.011.066.1 |
| | 322 | 25 | 73 2 7/8" | 80 3 5/32" | 15 | 19/32" | 8 151.011.067.1 |
| | 323 | 30 | 73 2 7/8" | 80 3 5/32" | 15 | 19/32" | 10 151.011.068.1 |
| | 421 | 3/4" | 73 2 7/8" | 80 3 5/32" | 15 | 19/32" | 3/8" 151.011.069.1 |
| | 422 | 1" | 73 2 7/8" | 80 3 5/32" | 15 | 19/32" | 3/8" 151.011.070.1 |
| 20 | 321 | 20 | 80 3 5/32" | 80 3 5/32" | 15 | 19/32" | 6 151.012.060.1 |
| | 322 | 25 | 80 3 5/32" | 80 3 5/32" | 15 | 19/32" | 8 151.012.061.1 |
| | 323 | 30 | 80 3 5/32" | 80 3 5/32" | 15 | 19/32" | 10 151.012.062.1 |
| | 421 | 3/4" | 80 3 5/32" | 80 3 5/32" | 15 | 19/32" | 3/8" 151.012.063.1 |
| | 422 | 1" | 80 3 5/32" | 80 3 5/32" | 15 | 19/32" | 3/8" 151.012.064.1 |
| | 423 | 1 1/4" | 80 3 5/32" | 80 3 5/32" | 15 | 19/32" | 3/8" 151.012.065.1 |
| 40 | 322 | 25 | 94 3 45/64" | 91.5 3 39/64" | 20 | 25/32" | 8 151.014.067.1 |
| | 323 | 30 | 94 3 45/64" | 91.5 3 39/64" | 20 | 25/32" | 10 151.014.068.1 |
| | 324 | 35 | 94 3 45/64" | 91.5 3 39/64" | 20 | 25/32" | 13 151.014.069.1 |
| | 423 | 1 1/4" | 94 3 45/64" | 91.5 3 39/64" | 20 | 25/32" | 3/8" 151.014.070.1 |
| | 424 | 1 3/8" | 94 3 45/64" | 91.5 3 39/64" | 20 | 25/32" | 3/8" 151.014.071.1 |
| 50 | 323 | 30 | 100 3 15/16" | 97 3 13/16" | 20 | 25/32" | 10 151.015.071.1 |
| | 324 | 35 | 100 3 15/16" | 97 3 13/16" | 20 | 25/32" | 13 151.015.072.1 |
| | 325 | 40 | 100 3 15/16" | 97 3 13/16" | 20 | 25/32" | 13 151.015.073.1 |
| | 423 | 1 1/4" | 100 3 15/16" | 97 3 13/16" | 20 | 25/32" | 3/8" 151.015.074.1 |
| | 424 | 1 3/8" | 100 3 15/16" | 97 3 13/16" | 20 | 25/32" | 3/8" 151.015.075.1 |
| 60 | 323 | 30 | 115 4 17/32" | 104 4 3/32" | 20 | 25/32" | 10 151.016.094.1 |
| | 324 | 35 | 115 4 17/32" | 104 4 3/32" | 20 | 25/32" | 13 151.016.095.1 |
| | 325 | 40 | 115 4 17/32" | 104 4 3/32" | 20 | 25/32" | 13 151.016.096.1 |
| | 423 | 1 1/4" | 115 4 17/32" | 104 4 3/32" | 20 | 25/32" | 3/8" 151.016.097.1 |
| | 424 | 1 3/8" | 115 4 17/32" | 104 4 3/32" | 20 | 25/32" | 3/8" 151.016.098.1 |
| | 425 | 1 3/4" | 115 4 17/32" | 104 4 3/32" | 20 | 25/32" | 3/8" 151.016.099.1 |
| 80 | 324 | 35 | 132 5 13/64" | 116 4 9/16" | 25 | 63/64" | 13 151.018.073.1 |
| | 325 | 40 | 132 5 13/64" | 116 4 9/16" | 25 | 63/64" | 13 151.018.074.1 |
| | 326 | 45 | 132 5 13/64" | 116 4 9/16" | 25 | 63/64" | 13 151.018.075.1 |
| 90 | 325 | 40 | 137 5 25/64" | 124 4 7/8" | 25 | 63/64" | 13 151.019.075.1 |
| | 326 | 45 | 137 5 25/64" | 124 4 7/8" | 25 | 63/64" | 13 151.019.076.1 |

FLANGIA C04

FLANGE C04



C04



Forcelle per cardani
Yokes for PTO driveshafts

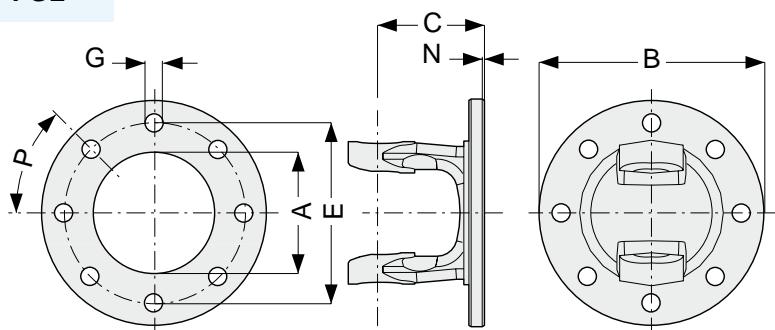
| Type | Ref. | A | | B | | C | | N | | E | | P | G | | Code |
|-----------|------|----------|----------|----------|----------|----------|----------|----------|--------|----------|----------|----------|----------|--------|---------------|
| | | [mm] | [inch] | [mm] | [inch] | [mm] | [inch] | [mm] | [inch] | [mm] | [inch] | [deg] | [mm] | [inch] | |
| 10 | C04 | 47 | 1 27/32" | 90 | 3 35/64" | 48 | 1 57/64" | 2.5 | 3/32" | 74.5 | 2 15/16" | 90° | 8.5 | 21/64" | 151.011.097.1 |
| 20 | C04 | 47 | 1 27/32" | 90 | 3 35/64" | 53 | 2 3/32" | 2.5 | 3/32" | 74.5 | 2 15/16" | 90° | 8.5 | 21/64" | 151.012.083.1 |
| 40 | C04 | 57 | 2 1/4" | 100 | 3 15/16" | 64 | 2 33/64" | 2.5 | 3/32" | 84 | 3 5/16" | 90° | 10.5 | 13/32" | 151.014.101.1 |
| 50 | C04 | 57 | 2 1/4" | 100 | 3 15/16" | 66 | 2 19/32" | 2.5 | 3/32" | 84 | 3 5/16" | 90° | 10.5 | 13/32" | 151.015.097.1 |
| 60 | C04 | 57 | 2 1/4" | 110 | 4 21/64" | 74 | 2 29/32" | 2.5 | 3/32" | 94 | 3 45/64" | 90° | 10.5 | 13/32" | 151.016.114.1 |
| 80 | C04 | 85 | 3 11/32" | 125 | 4 59/64" | 79 | 3 7/64" | 3.5 | 9/64" | 100 | 3 15/16" | 90° | 14.5 | 37/64" | 151.018.083.1 |

FLANGIA FGL

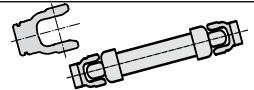
FLANGE FGL



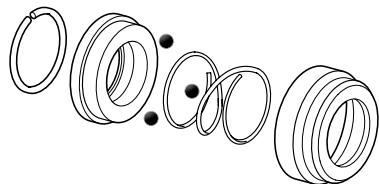
FGL



| Type | Ref. | A | | B | | C | | N | | E | | P | G | | Code |
|------------|------|----------|----------|----------|----------|----------|----------|----------|--------|----------|----------|----------|----------|--------|---------------|
| | | [mm] | [inch] | [mm] | [inch] | [mm] | [inch] | [mm] | [inch] | [mm] | [inch] | [deg] | [mm] | [inch] | |
| 60 | FGL | 90 | 3 35/64" | 168 | 6 39/64" | 77 | 3 1/32" | 4 | 5/32" | 133 | 5 15/64" | 45° | 13 | 33/64" | 151.016.543.1 |
| 80 | FGL | 90 | 3 35/64" | 168 | 6 39/64" | 96 | 3 25/32" | 4 | 5/32" | 133 | 5 15/64" | 45° | 13 | 33/64" | 151.018.417.1 |
| 90 | FGL | 90 | 3 35/64" | 168 | 6 39/64" | 101 | 3 31/32" | 4 | 5/32" | 133 | 5 15/64" | 45° | 13 | 33/64" | 151.019.316.1 |
| 120 | FGL | 90 | 3 35/64" | 168 | 6 39/64" | 138 | 5 7/16" | 4 | 5/32" | 133 | 5 15/64" | 45° | 13 | 33/64" | 141.220.011.1 |

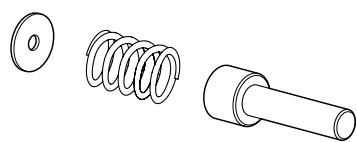


KIT COLLAR PER FORCELLE / COLLAR SET FOR YOKES



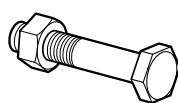
| | A | Code |
|----|----------|--------------------|
| C1 | 1 3/8" | 165.000.628 |
| | 1 3/4" | 165.000.629 |
| C2 | 1 3/4" | 165.000.766 |

KIT PULSANTE / PUSH-PIN SET



| A | Code |
|----------|--------------------|
| 1 3/8" | 166.026.004 |
| 1 3/4" | 166.026.005 |

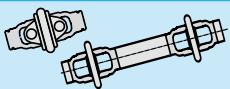
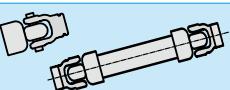
KIT BULLONI STRINGIMENTO / BOLT AND Nut SET

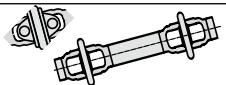


Kit composti da nr. 1 vite + nr. 1 dado
Sets included nr. 1 bolt and nr. 1 nut

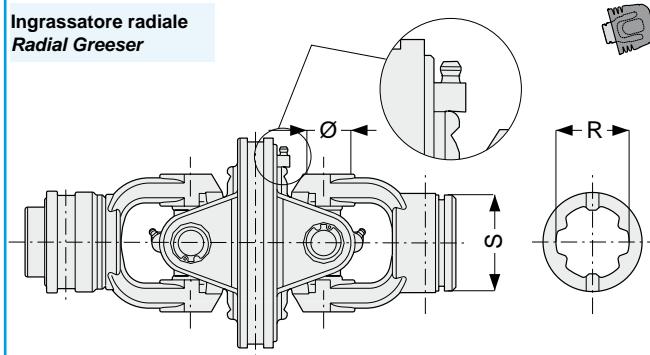
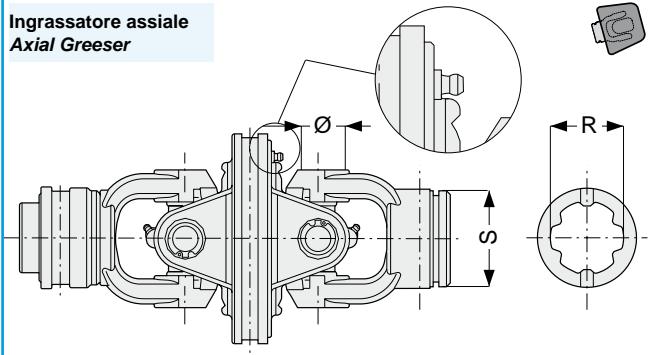
| M...x...cl.8.8 | [Nm.Max] | Code |
|----------------|-----------|--------------------|
| M10x1.25x65 | 55 ÷ 60 | 165.000.510 |
| M12x1.25x55 | 90 ÷ 100 | 165.000.617 |
| M12x1.25x65 | 90 ÷ 100 | 165.000.502 |
| M12x1.25x70 | 90 ÷ 100 | 165.000.525 |
| M12x1.25x75 | 90 ÷ 100 | 165.000.598 |
| M12x1.25x80 | 90 ÷ 100 | 165.000.555 |
| M14x1.5x80 | 145 ÷ 155 | 165.000.691 |
| M16x2x80 | 210 ÷ 220 | 165.000.576 |
| M16x2x90 | 210 ÷ 220 | 165.000.767 |

SNODI E FORCELLE DOPPIE JOINTS AND DOUBLE YOKES

| | p. |
|--|--|
| SNODI PER CARDANI OMOCINETICI CVJ JOINT FOR PTO DRIVESHAFTS CVJ |  46 |
| Serie V | V Series 46 |
| Serie T | T Series 46 |
| SNODI PER CARDANI JOINT FOR PTO DRIVESHAFTS |  47 |
| Serie V | V Series 47 |
| Serie T | T Series 47 |
| Serie E | E Seires 48 |
| Serie D | D Seires 49 |
| FORCELLE DOPPIE DOUBLE YOKES |  50 |
| SD | SD 50 |
| SH | SH 50 |
| SF | SF 51 |
| Parti di ricambio SF | SF Spare Parts 52 |

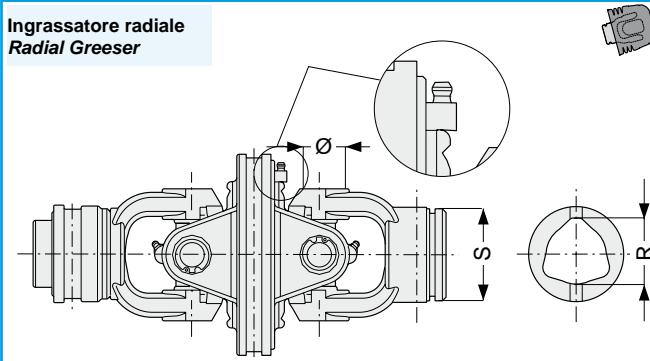
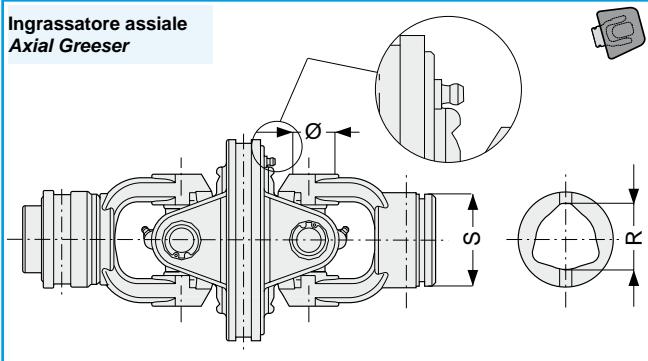


SERIE V / V SERIES



| | | | | Snodo esterno Outer Joint | | | | Snodo interno Inner Joint | | | | | | | |
|------|------|-------------|----------|------------------------------|----------|------|----------|---|--------------------------|------|----------|------|----------|---|--------------------------|
| Type | Ref. | \emptyset | | R | | S | | Posizione ingassatore Greaser Position | | R | | S | | Posizione ingassatore Greaser Position | |
| | | [mm] | [inch] | [mm] | [inch] | [mm] | [inch] | Assiale / Axial Code | Radiale / Radial Code | [mm] | [inch] | [mm] | [inch] | Assiale / Axial Code | Radiale / Radial Code |
| 20 | C02 | 23.8 | 15/16" | 42 | 1 21/32" | 53.9 | 2 1/8" | 121.022.670.01 | 121.022.720.01 | 36.2 | 1 27/64" | 46.9 | 1 27/32" | 121.022.671.01 | 121.022.729.01 |
| 40 | C02 | 27 | 1 51/64" | 45.7 | 1 51/64" | 61 | 2 13/32" | 121.024.786.01 | 121.024.893.01 | 39.3 | 1 35/64" | 53.9 | 2 1/8" | 121.024.792.01 | 121.024.862.01 |
| 60 | C02 | 30.2 | 2 17/64" | 57.6 | 2 17/64" | 75.5 | 2 31/32" | 121.026.930.01 | 121.026.102.01 | 50.2 | 1 31/32" | 67 | 2 41/64" | 121.026.941.01 | 121.026.304.01 |
| 80 | C02 | 35 | 2 5/8" | 66.5 | 3 15/32" | 88 | 3 15/32" | 121.028.812.01 | 121.028.969.01 | 58.1 | 2 9/32" | 76 | 2 63/64" | 121.028.851.01 | 121.028.131.01 |

SERIE T / T SERIES



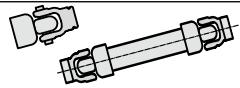
| | | | | Snodo esterno Outer Joint | | | | Snodo interno Inner Joint | | | | | | | |
|------|------|-------------|----------|------------------------------|----------|------|----------|---|--------------------------|------|----------|------|----------|---|--------------------------|
| Type | Ref. | \emptyset | | R | | S | | Posizione ingassatore Greaser Position | | R | | S | | Posizione ingassatore Greaser Position | |
| | | [mm] | [inch] | [mm] | [inch] | [mm] | [inch] | Assiale / Axial Code | Radiale / Radial Code | [mm] | [inch] | [mm] | [inch] | Assiale / Axial Code | Radiale / Radial Code |
| 20 | C02 | 23.8 | 15/16" | 36 | 1 27/64" | 53.9 | 2 1/8" | 121.022.641.01 | 121.022.730.01 | 29 | 1 9/64" | 46.9 | 1 27/32" | 121.022.659.01 | 121.022.731.01 |
| 40 | C02 | 27 | 1 51/64" | 43.5 | 1 23/32" | 61 | 2 13/32" | 121.024.630.01 | 121.024.909.01 | 36 | 1 27/64" | 53.9 | 2 1/8" | 121.024.629.01 | 121.024.910.01 |
| 60 | C02 | 30.2 | 2 17/64" | 54 | 2 1/8" | 75.5 | 2 31/32" | 121.026.658.01 | 121.026.062.01 | 45 | 1 49/64" | 67 | 2 41/64" | 121.026.950.01 | 121.026.316.01 |
| 80 | C02 | 35 | 2 5/8" | 63 | 3 31/64" | 88 | 3 15/32" | 121.028.657.01 | 121.028.132.01 | 54 | 2 1/8" | 76 | 2 63/64" | 121.028.836.01 | 121.028.133.01 |

I codici indicati si riferiscono a giunti che prevedono da un lato una forcella scanalata ad attacco rapido 1 3/8" Z6 (Ref. C02) e dall'altro lato una forcella per il tubo sagomato. A richiesta i giunti possono essere forniti con estremità di tipo diverso previste nella gamma di produzione Comer Industries driveshafts. In tal caso per effettuare l'ordine specificare la referenza della forcella che si vuole sia fornita con la forcella per il tubo sagomato.

Es.: Snodo CVJ esterno T80 ~~C02~~ C03

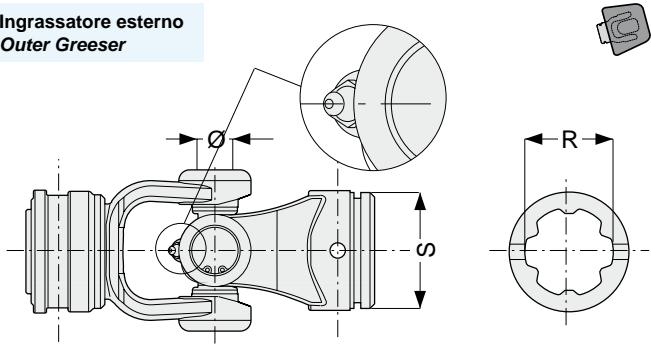
The codes indicated refer to joints with a grooved yoke and 1 3/8" Z6 rapid connector (Ref. C02) on one end and a yoke for the shaped tube on the other. On request, joints can be supplied with different terminals than those available in the Comer Industries driveshafts. line. In that case, when ordering specify the yoke reference to be supplied with the yoke for the shaped tube.

Ex.: Outer joint CVJ T80 ~~C02~~ C03

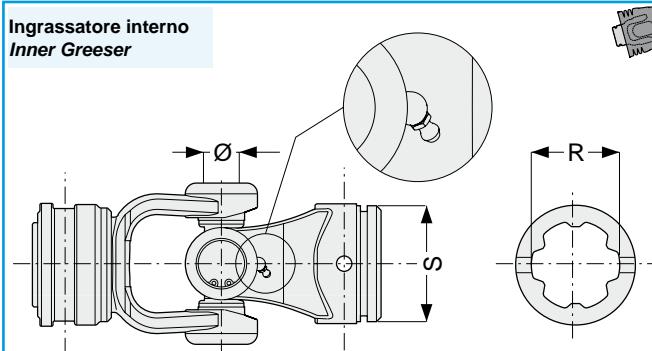


SERIE V / V SERIES

Ingrassatore esterno
Outer Greaser



Ingrassatore interno
Inner Greaser



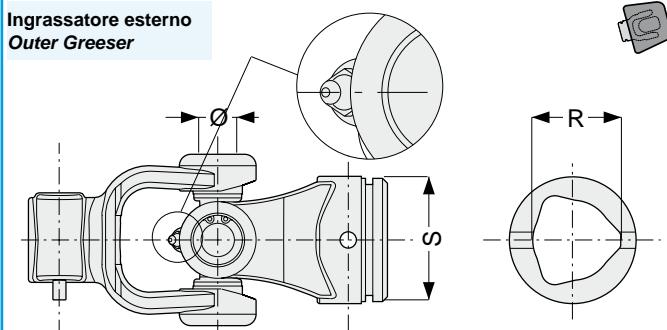
Snodo esterno
Outer Joint

Snodo interno
Inner Joint

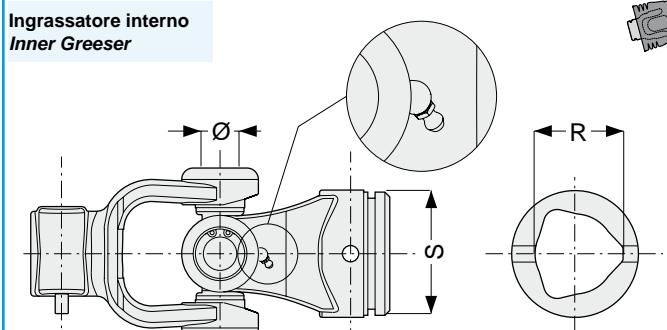
| Type | Ref. | Ø | | R | | S | | Posizione ingassatore Greaser Position | | R | | S | | Posizione ingassatore Greaser Position | |
|------|------|----------|----------|----------|----------|----------|----------|---|-------------------------|----------|----------|----------|----------|---|-------------------------|
| | | [mm] | [inch] | [mm] | [inch] | [mm] | [inch] | Esterno / Outer Code | Interno / Inner Code | [mm] | [inch] | [mm] | [inch] | Esterno / Outer Code | Interno / Inner Code |
| 20 | C12 | 23.8 | 15/16" | 42 | 1 21/32" | 53.9 | 2 1/8" | 121.022.654.01 | 121.022.718.01 | 36.2 | 1 27/64" | 46.9 | 1 27/32" | 121.022.660.01 | 121.022.719.01 |
| 40 | C12 | 27 | 1 1/16" | 45.7 | 1 51/64" | 61 | 2 13/32" | 121.024.771.01 | 121.024.830.01 | 39.3 | 1 35/64" | 53.9 | 2 1/8" | 121.024.772.01 | 121.024.884.01 |
| 50 | C12 | 30.2 | 1 3/16" | 57.6 | 2 17/64" | 70 | 2 3/4" | 121.025.656.01 | 121.025.721.01 | 50.2 | 1 31/32" | 61 | 2 13/32" | 121.025.657.01 | 121.025.731.01 |
| 60 | C12 | 30.2 | 1 3/16" | 57.6 | 2 17/64" | 75.5 | 2 31/32" | 121.026.911.01 | 121.026.116.01 | 50.2 | 1 31/32" | 67 | 2 41/64" | 121.026.912.01 | 121.026.230.01 |
| 80 | C12 | 35 | 1 3/8" | 66.5 | 3 15/32" | 88 | 3 15/32" | 121.028.804.01 | 121.028.099.01 | 58.1 | 2 9/32" | 76 | 2 63/64" | 121.028.813.01 | 121.028.110.01 |
| 90 | C12 | 41 | 1 39/64" | 66.5 | 3 15/32" | 88 | 3 15/32" | 121.029.552.01 | 121.029.663.01 | 58.1 | 2 9/32" | 76 | 2 63/64" | 121.029.569.01 | 121.029.666.01 |

SERIE T / T SERIES

Ingrassatore esterno
Outer Greaser



Ingrassatore interno
Inner Greaser



Snodo esterno
Outer Joint

Snodo interno
Inner Joint

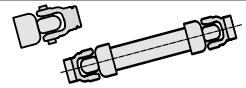
| Type | Ref. | Ø | | R | | S | | Posizione ingassatore Greaser Position | | R | | S | | Posizione ingassatore Greaser Position | |
|------|------|----------|----------|----------|----------|----------|----------|---|-------------------------|----------|----------|----------|----------|---|-------------------------|
| | | [mm] | [inch] | [mm] | [inch] | [mm] | [inch] | Esterno / Outer Code | Interno / Inner Code | [mm] | [inch] | [mm] | [inch] | Esterno / Outer Code | Interno / Inner Code |
| 10 | 112 | 22 | 55/64" | 32.5 | 1 9/32" | 46.9 | 1 27/32" | 121.021.501.11 | 121.021.652.11 | 26.5 | 1 3/64" | 40.9 | 1 39/64" | 121.021.500.11 | 121.021.651.11 |
| 20 | 112 | 23.8 | 15/16" | 36 | 1 27/64" | 53.9 | 2 1/8" | 121.022.501.11 | 121.022.715.11 | 29 | 1 9/64" | 46.9 | 1 27/32" | 121.022.500.11 | 121.022.714.11 |
| 40 | 112 | 27 | 1 51/64" | 43.5 | 1 23/32" | 61 | 2 13/32" | 121.024.507.11 | 121.024.621.11 | 36 | 1 27/64" | 53.9 | 2 1/8" | 121.024.506.11 | 121.024.622.11 |
| 50 | 112 | 30.2 | 2 17/64" | 51.6 | 2 1/32" | 70 | 2 3/4" | 121.025.506.11 | 121.025.602.11 | 45 | 1 49/64" | 61 | 2 13/32" | 121.025.507.11 | 121.025.726.11 |
| 60 | 112 | 30.2 | 2 17/64" | 54 | 2 1/8" | 75.5 | 2 31/32" | 121.026.516.11 | 121.026.187.11 | 45 | 1 49/64" | 67 | 2 41/64" | 121.026.515.11 | 121.026.231.11 |
| 80 | 112 | 35 | 2 5/8" | 63 | 3 31/64" | 88 | 3 15/32" | 121.028.593.11 | 121.028.083.11 | 54 | 2 1/8" | 76 | 2 63/64" | 121.028.592.11 | 121.028.112.11 |
| 90 | 112 | 41 | 1 39/64" | 63 | 3 31/64" | 88 | 3 15/32" | 121.029.505.11 | 121.029.667.11 | 54 | 2 1/8" | 76 | 2 63/64" | 121.029.504.11 | 121.029.668.11 |

I codici indicati si riferiscono a giunti che prevedono da un lato una forcella scanalata ad attacco rapido 1 3/8" Z6 (Ref. 112) e dall'altro lato una forcella per il tubo sagomato. A richiesta i giunti possono essere forniti con estremità di tipo diverso previste nella gamma di produzione Comer Industries driveshafts. In tal caso per effettuare l'ordine specificare la referenza della forcella che si vuole sia fornita con la forcella per il tubo sagomato.

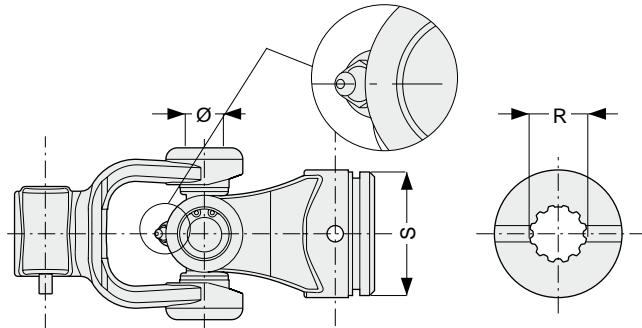
Es.: Snodo CVJ esterno T80 113

The codes indicated refer to joints with a grooved yoke and 1 3/8" Z6 rapid connector (Ref. 112) on one end and a yoke for the shaped tube on the other. On request, joints can be supplied with different terminals than those available in the Comer Industries driveshafts. line. In that case, when ordering specify the yoke reference to be supplied with the yoke for the shaped tube.

Ex.: Outer joint CVJ T80 113



SERIE E / E SERIES



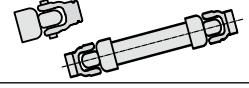
| Snodo interno Inner Joint | | | | | | | |
|------------------------------|------|---------------|----------|---------|------|----------|-----------------------|
| Type | Ref. | \varnothing | | R | S | | Code |
| | | [mm] | [inch] | | [mm] | [inch] | |
| 40 | 112 | 27 | 1 1/16" | 30 CUNA | 53.9 | 2 1/8" | 121.024.601.11 |
| 50 | 112 | 30.2 | 1 3/16" | 35 CUNA | 61 | 2 13/32" | 121.025.512.11 |
| 60 | 112 | 30.2 | 1 3/16" | 35 CUNA | 67 | 2 41/64" | 121.026.526.11 |
| 80 | 112 | 35 | 1 3/8" | 40 CUNA | 76 | 2 63/64 | 121.028.619.11 |
| 90 | 112 | 41 | 1 39/64" | 45 CUNA | 76 | 2 63/64 | 121.029.515.11 |

I codici indicati si riferiscono a giunti che prevedano da un lato una forcella scanalata ad attacco rapido 1 3/8" Z6 (Ref. 112) e dall'altro lato una forcella per il tubo sagomato. A richiesta i giunti possono essere forniti con estremità di tipo diverso previste nella gamma di produzione Comer Industries driveshafts. In tal caso per effettuare l'ordine specificare la referenza della forcella che si vuole sia fornita con la forcella per il tubo sagomato.

Es.: Snodo CVJ esterno T80 ~~113~~ 113

The codes indicated refer to joints with a grooved yoke and 1 3/8" Z6 rapid connector (Ref. 112) on one end and a yoke for the shaped tube on the other. On request, joints can be supplied with different terminals than those available in the Comer Industries driveshafts. line. In that case, when ordering specify the yoke reference to be supplied with the yoke for the shaped tube.

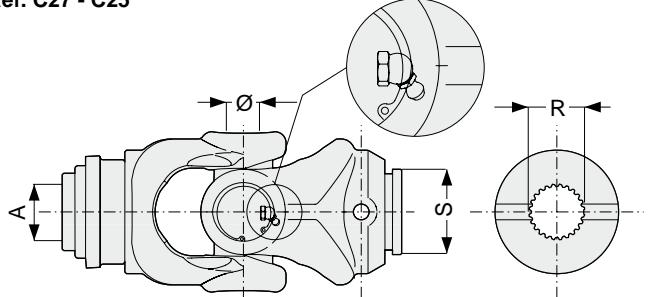
Ex.: Outer joint CVJ T80 ~~113~~ 113



SERIE D / D SERIES

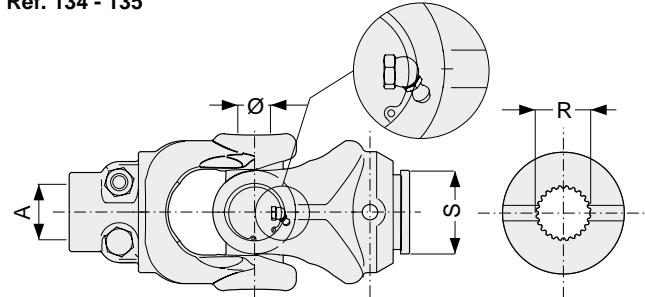
Snodo interno D120 con forcella collar
D120 inner joint with collar yoke

Ref. C27 - C25



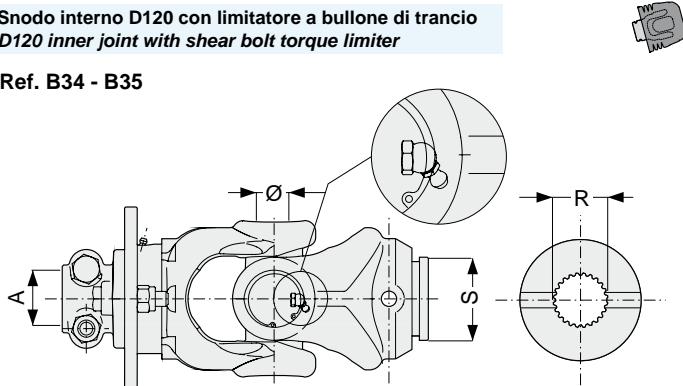
Snodo interno D120 con forcella a bulloni interferenti
D120 inner joint with interfering clamp bolts yoke

Ref. 134 - 135



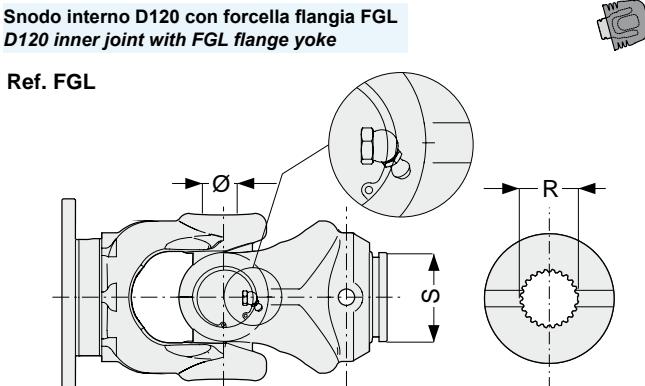
Snodo interno D120 con limitatore a bullone di tracchio
D120 inner joint with shear bolt torque limiter

Ref. B34 - B35



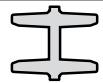
Snodo interno D120 con forcella flangia FGL
D120 inner joint with FGL flange yoke

Ref. FGL

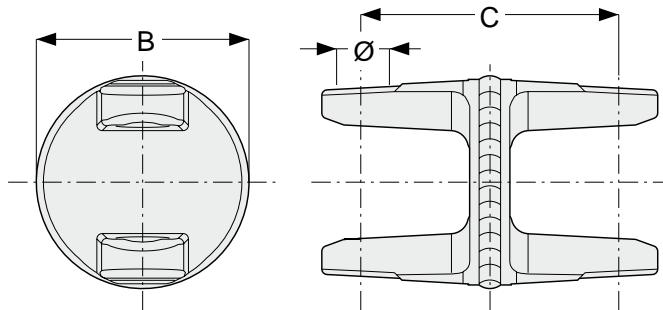


Snodi e forcelle doppie
Joint and Double Yokes

| Type | Ref. | A | Ø | R | S | Code |
|------|------|--------|-------------|----|-----------------------|----------------|
| | | | [mm] [inch] | | [mm] [inch] | |
| 120 | C27 | 1 3/4" | z6 | 52 | DIN 5482 - A50x45 z24 | 121.020.010.01 |
| | C25 | | z20 | | | 121.020.002.01 |
| | 134 | 1 3/4" | z6 | | | 121.020.017.01 |
| | 135 | | z20 | | | 121.020.018.01 |
| | B34 | 1 3/4" | z6 | | | 121.020.005.01 |
| | B35 | | z20 | | | 121.020.004.01 |
| | FGL | - | - | | | 121.020.003.01 |

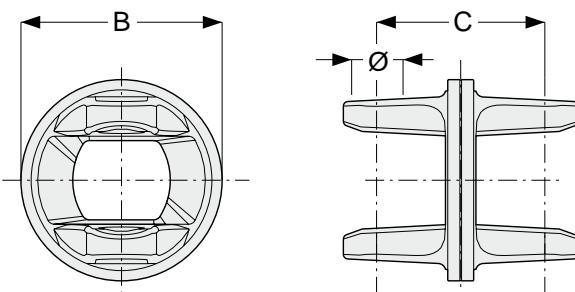


SD



| Type | Ref. | Ø | | B | | C | | Code |
|-----------|-------------|----------|---------|----------|----------|----------|----------|----------------------|
| | | [mm] | [inch] | [mm] | [inch] | [mm] | [inch] | |
| 10 | SD10 | 22 | 55/64" | 100 | 3 15/16" | 93 | 3 21/32" | 141.021.095.1 |
| 20 | SD20 | 23.8 | 15/16" | 100 | 3 15/16" | 103 | 4 1/16" | 151.012.350.1 |
| 40 | SD40 | 27 | 1 1/16" | 100 | 3 15/16" | 125 | 4 59/64" | 141.024.099.1 |
| 50 | SD50 | 30.2 | 1 3/16" | 100 | 3 15/16" | 129 | 5 5/64" | 141.025.095.1 |
| 60 | SD60 | 30.2 | 1 3/16" | 120 | 4 23/32" | 145 | 5 45/64" | 141.026.112.1 |

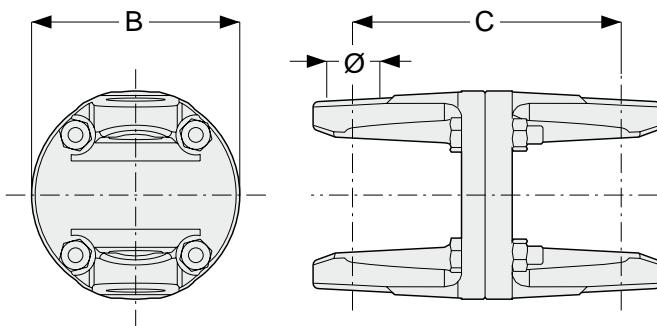
SH



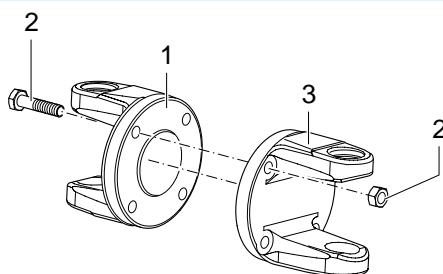
| Type | Ref. | Ø | | B | | C | | Code |
|-----------|-------------|----------|---------|----------|----------|----------|----------|----------------------|
| | | [mm] | [inch] | [mm] | [inch] | [mm] | [inch] | |
| 10 | SH10 | 22 | 55/64" | 75 | 2 61/64" | 68 | 2 43/64" | 151.011.340.1 |
| 20 | SH20 | 23.8 | 15/16" | 80 | 3 5/32" | 78 | 3 5/64" | 151.012.115.1 |
| 40 | SH40 | 27 | 1 1/16" | 105 | 4 9/64" | 90 | 3 35/64" | 151.014.483.1 |
| 50 | SH50 | 30.2 | 1 3/16" | 125 | 4 59/64" | 106 | 4 11/64" | 151.015.386.1 |
| 60 | SH60 | 30.2 | 1 3/16" | 132 | 5 13/64" | 108 | 4 1/4" | 151.016.591.1 |
| 80 | SH80 | 35 | 1 3/8" | 148 | 5 53/64" | 92 | 3 5/8" | 151.018.562.1 |



SF



| Type | Ref. | Ø [mm] | Ø [inch] | B [mm] | B [inch] | C [mm] | C [inch] | Code |
|------|------|-----------|-------------|-----------|-------------|-----------|-------------|---------------|
| 10 | SF10 | 22 | 55/64" | 90 | 3 35/64" | 93 | 3 21/32" | 141.021.098.1 |
| 20 | SF20 | 23.8 | 15/16" | 90 | 3 35/64" | 103 | 4 1/16" | 141.022.084.1 |
| 40 | SF40 | 27 | 1 1/16" | 100 | 3 15/16" | 125 | 4 59/64" | 141.024.102.1 |
| 50 | SF50 | 30.2 | 1 3/16" | 100 | 3 15/16" | 129 | 5 5/64" | 141.025.098.1 |
| 60 | SF60 | 30.2 | 1 3/16" | 110 | 4 21/32" | 146 | 5 3/4" | 141.026.115.1 |
| 80 | SF80 | 35 | 1 3/8" | 128 | 5 3/64"" | 159 | 6 17/64" | 141.028.084.1 |



| Pos. | Type | Parti di ricambio forcelle SF/ SF Yokes Spare parts | Code | Qty * |
|------|--------------|---|---------------------|-------|
| 1 | 10 | Forc. flangia maschio | Male flanged yoke | 1 |
| | 20 | Forc. flangia maschio | Male flanged yoke | 1 |
| | 40 | Forc. flangia maschio | Male flanged yoke | 1 |
| | 50 | Forc. flangia maschio | Male flanged yoke | 1 |
| | 60 | Forc. flangia maschio | Male flanged yoke | 1 |
| | 80 | Forc. flangia maschio | Male flanged yoke | 1 |
| 2 | 10 - 20 | Kit vite M8x1,25x35+dado | Bolt M8x1,25x35+nut | 4 |
| | 40 - 50 - 60 | Kit vite M10x1,5x45+dado | Bolt M10x1,5x45+nut | 4 |
| | 80 | Kit vite M14x1,5x45+dado | Bolt M14x1,5x45+nut | 4 |
| 3 | 10 | Forc. flangia femmina | Female flanged yoke | 1 |
| | 20 | Forc. flangia femmina | Female flanged yoke | 1 |
| | 40 | Forc. flangia femmina | Female flanged yoke | 1 |
| | 50 | Forc. flangia femmina | Female flanged yoke | 1 |
| | 60 | Forc. flangia femmina | Female flanged yoke | 1 |
| | 80 | Forc. flangia femmina | Female flanged yoke | 1 |

* Quantità presente nella forcella SF / Quantity in the SF yoke



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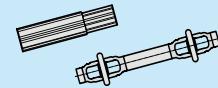
PROFILI PER CARDANI

PROFILES FOR PTO DRIVESHAFTS

p.

PROFILI PER CARDANI OMOCINETICI CVJ

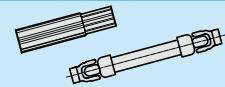
PROFILES FOR PTO DRIVESHAFTS CVJ



| | | |
|---------|----------|----|
| Serie V | V Series | 54 |
| Serie T | T Series | 55 |

PROFILI PER CARDANI

PROFILES FOR PTO DRIVESHAFTS

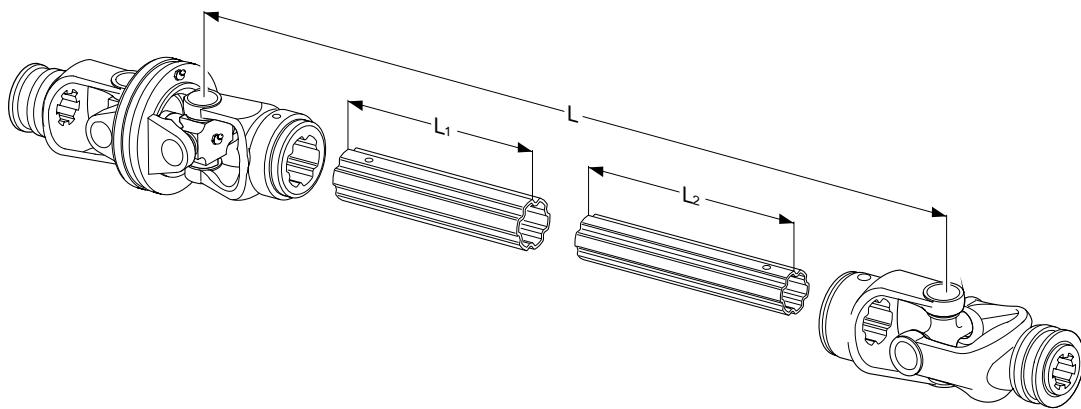
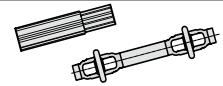


| | | |
|---------|----------|----|
| Serie V | V Series | 56 |
| Serie T | T Series | 57 |
| Serie E | E Seires | 58 |
| Serie D | D Seires | 59 |

NOTE

NOTES

60

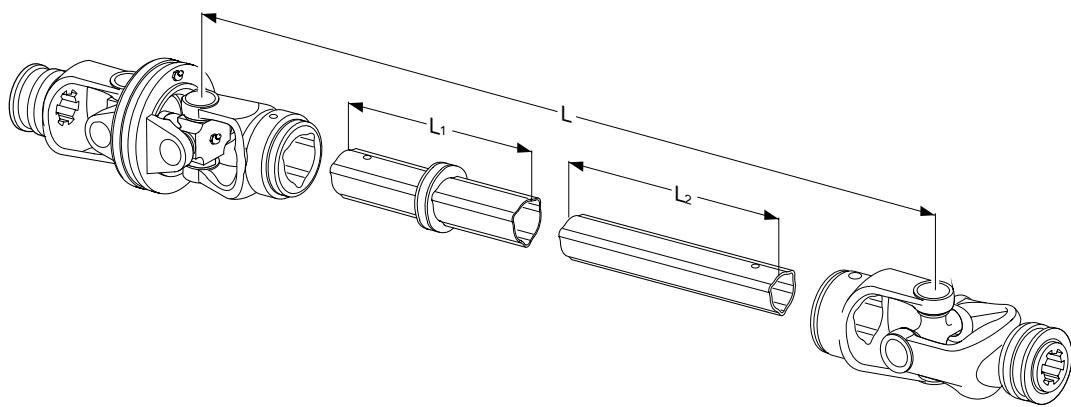
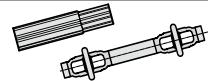


| Type | 20 | | | | 40 | | | |
|----------|------------------------|------------------|------------------------|-------------|------------------------|------------------|------------------------|-------------|
| | L ₁ [mm] | Code | L ₂ [mm] | Code | L ₁ [mm] | Code | L ₂ [mm] | Code |
| L = 410 | 285 | 159.420.006.0700 | 300 | 159.220.006 | 265 | 159.440.006.0700 | 280 | 159.240.006 |
| L = 460 | 335 | 159.420.001.0700 | 350 | 159.220.001 | 315 | 159.440.001.0700 | 330 | 159.240.001 |
| L = 510 | 385 | 159.420.007.0700 | 400 | 159.220.007 | 365 | 159.440.007.0700 | 380 | 159.240.007 |
| L = 560 | 435 | 159.420.002.0700 | 450 | 159.220.002 | 415 | 159.440.002.0700 | 430 | 159.240.002 |
| L = 610 | 485 | 159.420.008.0700 | 500 | 159.220.008 | 465 | 159.440.008.0700 | 480 | 159.240.008 |
| L = 660 | 535 | 159.420.003.0700 | 550 | 159.220.003 | 515 | 159.440.003.0700 | 530 | 159.240.003 |
| L = 710 | 585 | 159.420.009.0700 | 600 | 159.220.009 | 565 | 159.440.009.0700 | 580 | 159.240.009 |
| L = 760 | 635 | 159.420.004.0700 | 650 | 159.220.004 | 615 | 159.440.004.0700 | 630 | 159.240.004 |
| L = 810 | 685 | 159.420.010.0700 | 700 | 159.220.010 | 665 | 159.440.010.0700 | 680 | 159.240.010 |
| L = 860 | 735 | 159.420.005.0700 | 750 | 159.220.005 | 715 | 159.440.005.0700 | 730 | 159.240.005 |
| L = 910 | 785 | 159.420.011.0700 | 800 | 159.220.011 | 765 | 159.440.011.0700 | 780 | 159.240.011 |
| L = 1010 | 885 | 159.420.012.0700 | 900 | 159.220.012 | 865 | 159.440.012.0700 | 880 | 159.240.012 |
| L = 1110 | 985 | 159.420.013.0700 | 1000 | 159.220.013 | 965 | 159.440.013.0700 | 980 | 159.240.013 |
| L = 1210 | 1085 | 159.420.014.0700 | 1100 | 159.220.014 | 1065 | 159.440.014.0700 | 1080 | 159.240.014 |
| L = 1310 | 1185 | 159.420.015.0700 | 1200 | 159.220.015 | 1165 | 159.440.015.0700 | 1180 | 159.240.015 |
| L = 1410 | 1285 | 159.420.016.0700 | 1300 | 159.220.016 | 1265 | 159.440.016.0700 | 1280 | 159.240.016 |

| Type | 60 | | | | 80 | | | |
|----------|------------------------|------------------|------------------------|-------------|------------------------|------------------|------------------------|-------------|
| | L ₁ [mm] | Code | L ₂ [mm] | Code | L ₁ [mm] | Code | L ₂ [mm] | Code |
| L = 410 | 250 | 152.260.501.0700 | 265 | 159.260.144 | 220 | 152.280.501.0700 | 235 | 159.280.180 |
| L = 460 | 300 | 152.260.507.0700 | 315 | 159.260.160 | 270 | 152.280.507.0700 | 285 | 159.280.171 |
| L = 510 | 350 | 152.260.502.0700 | 365 | 159.260.140 | 320 | 152.280.502.0700 | 335 | 159.280.137 |
| L = 560 | 400 | 152.260.508.0700 | 415 | 159.260.137 | 370 | 152.280.508.0700 | 385 | 159.280.134 |
| L = 610 | 450 | 152.260.503.0700 | 465 | 159.260.135 | 420 | 152.280.503.0700 | 435 | 159.280.133 |
| L = 660 | 500 | 152.260.509.0700 | 515 | 159.260.138 | 470 | 152.280.509.0700 | 485 | 159.280.135 |
| L = 710 | 550 | 152.260.504.0700 | 565 | 159.260.161 | 520 | 152.280.504.0700 | 535 | 159.280.179 |
| L = 760 | 600 | 152.260.510.0700 | 615 | 159.260.124 | 570 | 152.280.510.0700 | 585 | 159.280.123 |
| L = 810 | 650 | 152.260.505.0700 | 665 | 159.260.133 | 620 | 152.280.505.0700 | 635 | 159.280.166 |
| L = 860 | 700 | 152.260.511.0700 | 715 | 159.260.147 | 670 | 152.280.511.0700 | 685 | 159.280.118 |
| L = 910 | 750 | 152.260.517.0700 | 765 | 159.260.118 | 720 | 152.280.517.0700 | 735 | 159.280.143 |
| L = 1010 | 850 | 152.260.512.0700 | 865 | 159.260.151 | 820 | 152.280.512.0700 | 835 | 159.280.161 |
| L = 1110 | 950 | 152.260.513.0700 | 965 | 159.260.148 | 920 | 152.280.513.0700 | 935 | 159.280.181 |
| L = 1210 | 1050 | 152.260.514.0700 | 1065 | 159.260.152 | 1020 | 152.280.514.0700 | 1035 | 159.280.168 |
| L = 1310 | 1150 | 152.260.515.0700 | 1165 | 159.260.155 | 1120 | 152.280.515.0700 | 1135 | 159.280.182 |
| L = 1410 | 1250 | 152.260.516.0700 | 1265 | 159.260.150 | 1220 | 152.280.516.0700 | 1235 | 159.280.183 |

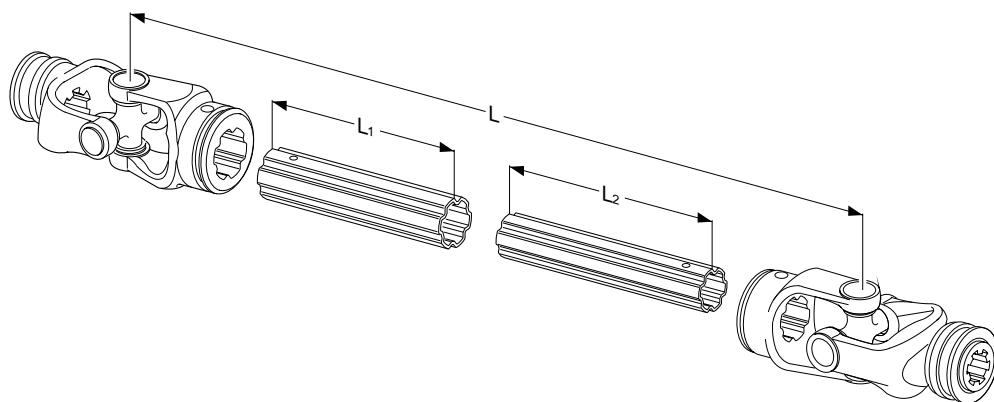
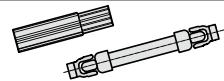
I profili 20 e 40 sono trattati **NITREG**.
I profili 60 e 80 sono rivestiti **RILSAN**.

Profiles type 20 and 40 have **NITREG** treatment.
Inner profiles type 60 and 80 coated with **RILSAN** treatment.



| Type | L ₁ [mm] | Code | L ₂ [mm] | Code | L ₁ [mm] | Code | L ₂ [mm] | Code |
|----------|------------------------|------------------|------------------------|-------------|------------------------|------------------|------------------------|-------------|
| L = 410 | 285 | 152.120.501.7800 | 300 | 159.120.248 | 265 | 152.140.522.7800 | 280 | 159.140.542 |
| L = 460 | 335 | 152.120.502.7800 | 350 | 159.120.249 | 315 | 152.140.546.7800 | 330 | 159.140.579 |
| L = 510 | 385 | 152.120.503.7800 | 400 | 159.120.250 | 365 | 152.140.521.7800 | 380 | 159.140.539 |
| L = 560 | 435 | 152.120.504.7800 | 450 | 159.120.243 | 415 | 152.140.537.7800 | 430 | 159.140.576 |
| L = 610 | 485 | 152.120.505.7800 | 500 | 159.120.251 | 465 | 152.140.523.7800 | 480 | 159.140.546 |
| L = 660 | 535 | 152.120.506.7800 | 550 | 159.120.252 | 515 | 152.140.510.7800 | 530 | 159.140.511 |
| L = 710 | 585 | 152.120.507.7800 | 600 | 159.120.253 | 565 | 152.140.517.7800 | 580 | 159.140.535 |
| L = 760 | 635 | 152.120.508.7800 | 650 | 159.120.241 | 615 | 152.140.519.7800 | 630 | 159.140.537 |
| L = 810 | 685 | 152.120.509.7800 | 700 | 159.120.247 | 665 | 152.140.513.7800 | 680 | 159.140.526 |
| L = 860 | 735 | 152.120.510.7800 | 750 | 159.120.255 | 715 | 152.140.520.7800 | 730 | 159.140.538 |
| L = 910 | 785 | 152.120.511.7800 | 800 | 159.120.256 | 765 | 152.140.518.7800 | 780 | 159.140.536 |
| L = 1010 | 885 | 152.120.512.7800 | 900 | 159.120.257 | 865 | 152.140.512.7800 | 880 | 159.140.522 |
| L = 1110 | 985 | 152.120.513.7800 | 1000 | 159.120.258 | 965 | 152.140.515.7800 | 980 | 159.140.528 |
| L = 1210 | 1085 | 152.120.514.7800 | 1100 | 159.120.259 | 1065 | 152.140.514.7800 | 1080 | 159.140.527 |
| L = 1310 | 1185 | 152.120.515.7800 | 1200 | 159.120.260 | 1165 | 152.140.516.7800 | 1180 | 159.140.532 |
| L = 1410 | 1285 | 152.120.526.7800 | 1300 | 159.120.261 | 1265 | 152.140.544.7800 | 1280 | 159.140.577 |

| Type | L ₁ [mm] | Code | L ₂ [mm] | Code | L ₁ [mm] | Code | L ₂ [mm] | Code |
|----------|------------------------|------------------|------------------------|-------------|------------------------|------------------|------------------------|-------------|
| L = 410 | 250 | 152.160.585.7800 | 265 | 159.160.898 | 220 | 152.180.501.7800 | 235 | 159.190.027 |
| L = 460 | 300 | 152.160.537.7800 | 315 | 159.160.837 | 270 | 152.180.502.7800 | 285 | 159.190.028 |
| L = 510 | 350 | 152.160.561.7800 | 365 | 159.160.865 | 320 | 152.180.503.7800 | 335 | 159.190.029 |
| L = 560 | 400 | 152.160.551.7800 | 415 | 159.160.875 | 370 | 152.180.504.7800 | 385 | 159.190.030 |
| L = 610 | 450 | 152.160.540.7800 | 465 | 159.160.822 | 420 | 152.180.505.7800 | 435 | 159.190.031 |
| L = 660 | 500 | 152.160.538.7800 | 515 | 159.160.836 | 470 | 152.180.506.7800 | 485 | 159.190.032 |
| L = 710 | 550 | 152.160.532.7800 | 565 | 159.160.826 | 520 | 152.180.507.7800 | 535 | 159.190.033 |
| L = 760 | 600 | 152.160.539.7800 | 615 | 159.160.356 | 570 | 152.180.508.7800 | 585 | 159.190.034 |
| L = 810 | 650 | 152.160.542.7800 | 665 | 159.160.840 | 620 | 152.180.509.7800 | 635 | 159.190.035 |
| L = 860 | 700 | 152.160.533.7800 | 715 | 159.160.832 | 670 | 152.180.510.7800 | 685 | 159.190.036 |
| L = 910 | 750 | 152.160.543.7800 | 765 | 159.160.841 | 720 | 152.180.511.7800 | 735 | 159.190.037 |
| L = 1010 | 850 | 152.160.544.7800 | 865 | 159.160.842 | 820 | 152.180.512.7800 | 835 | 159.190.038 |
| L = 1110 | 950 | 152.160.536.7800 | 965 | 159.160.855 | 920 | 152.180.513.7800 | 935 | 159.190.039 |
| L = 1210 | 1050 | 152.160.535.7800 | 1065 | 159.160.834 | 1020 | 152.180.514.7800 | 1035 | 159.190.040 |
| L = 1310 | 1150 | 152.160.545.7800 | 1165 | 159.160.843 | 1120 | 152.180.515.7800 | 1135 | 159.190.041 |
| L = 1410 | 1250 | 152.160.547.7800 | 1265 | 159.160.847 | 1220 | 152.180.538.7800 | 1235 | 159.190.529 |

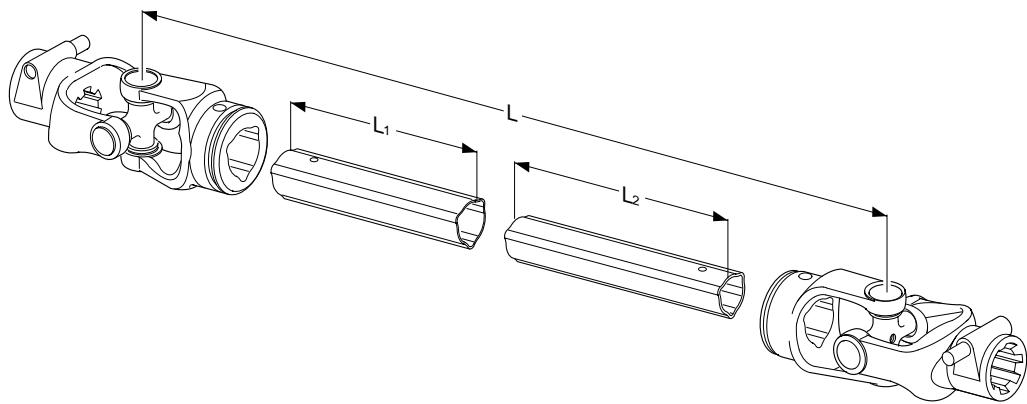
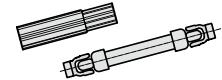


| Type | L ₁ [mm] | Code | L ₂ [mm] | Code | L ₁ [mm] | Code | L ₂ [mm] | Code | L ₁ [mm] | Code | L ₂ [mm] | Code |
|----------|------------------------|------------------|------------------------|-------------|------------------------|------------------|------------------------|-------------|------------------------|------------------|------------------------|-------------|
| L = 410 | 285 | 152.220.006.0700 | 300 | 153.220.006 | 265 | 152.240.006.0700 | 280 | 153.240.006 | 260 | 152.260.259.0700 | 275 | 153.260.173 |
| L = 460 | 335 | 152.220.001.0700 | 350 | 153.220.001 | 315 | 152.240.001.0700 | 330 | 153.240.001 | 310 | 152.260.260.0700 | 325 | 153.260.174 |
| L = 510 | 385 | 152.220.007.0700 | 400 | 153.220.007 | 365 | 152.240.007.0700 | 380 | 153.240.007 | 360 | 152.260.234.0700 | 375 | 153.260.147 |
| L = 560 | 435 | 152.220.002.0700 | 450 | 153.220.002 | 415 | 152.240.002.0700 | 430 | 153.240.002 | 410 | 152.260.261.0700 | 425 | 153.260.175 |
| L = 610 | 485 | 152.220.008.0700 | 500 | 153.220.008 | 465 | 152.240.008.0700 | 480 | 153.240.008 | 460 | 152.260.252.0700 | 475 | 153.260.166 |
| L = 660 | 535 | 152.220.003.0700 | 550 | 153.220.003 | 515 | 152.240.003.0700 | 530 | 153.240.003 | 510 | 152.260.251.0700 | 525 | 153.260.165 |
| L = 710 | 585 | 152.220.009.0700 | 600 | 153.220.009 | 565 | 152.240.009.0700 | 580 | 153.240.009 | 560 | 152.260.262.0700 | 575 | 153.260.176 |
| L = 760 | 635 | 152.220.004.0700 | 650 | 153.220.004 | 615 | 152.240.004.0700 | 630 | 153.240.004 | 610 | 152.260.257.0700 | 625 | 153.260.171 |
| L = 810 | 685 | 152.220.010.0700 | 700 | 153.220.010 | 665 | 152.240.010.0700 | 680 | 153.240.010 | 660 | 152.260.263.0700 | 675 | 153.260.177 |
| L = 860 | 735 | 152.220.005.0700 | 750 | 153.220.005 | 715 | 152.240.005.0700 | 730 | 153.240.005 | 710 | 152.260.235.0700 | 725 | 153.260.148 |
| L = 910 | 785 | 152.220.011.0700 | 800 | 153.220.011 | 765 | 152.240.011.0700 | 780 | 153.240.011 | 760 | 152.260.264.0700 | 775 | 153.260.178 |
| L = 1010 | 885 | 152.220.012.0700 | 900 | 153.220.012 | 865 | 152.240.012.0700 | 880 | 153.240.012 | 860 | 152.260.233.0700 | 875 | 153.260.145 |
| L = 1110 | 985 | 152.220.013.0700 | 1000 | 153.220.013 | 965 | 152.240.013.0700 | 980 | 153.240.013 | 960 | 152.260.265.0700 | 975 | 153.260.180 |
| L = 1210 | 1085 | 152.220.014.0700 | 1100 | 153.220.014 | 1065 | 152.240.014.0700 | 1080 | 153.240.014 | 1060 | 152.260.266.0700 | 1075 | 153.260.181 |
| L = 1310 | 1185 | 152.220.015.0700 | 1200 | 153.220.015 | 1165 | 152.240.015.0700 | 1180 | 153.240.015 | 1160 | 152.260.267.0700 | 1175 | 153.260.182 |
| L = 1410 | 1285 | 152.220.016.0700 | 1300 | 153.220.016 | 1265 | 152.240.016.0700 | 1280 | 153.240.016 | 1260 | 152.260.268.0700 | 1275 | 153.260.183 |

| Type | L ₁ [mm] | Code | L ₂ [mm] | Code | L ₁ [mm] | Code | L ₂ [mm] | Code | L ₁ [mm] | Code | L ₂ [mm] | Code |
|----------|------------------------|------------------|------------------------|-------------|------------------------|------------------|------------------------|-------------|------------------------|------------------|------------------------|-------------|
| L = 410 | 250 | 152.260.201.0700 | 265 | 153.260.101 | 220 | 152.280.201.0700 | 235 | 153.280.101 | 215 | 152.280.245.0700 | 230 | 159.280.174 |
| L = 460 | 300 | 152.260.207.0700 | 315 | 153.260.107 | 270 | 152.280.207.0700 | 285 | 153.280.107 | 265 | 152.280.239.0700 | 280 | 159.280.150 |
| L = 510 | 350 | 152.260.202.0700 | 365 | 153.260.102 | 320 | 152.280.202.0700 | 335 | 153.280.102 | 315 | 152.280.228.0700 | 330 | 159.280.164 |
| L = 560 | 400 | 152.260.208.0700 | 415 | 153.260.108 | 370 | 152.280.208.0700 | 385 | 153.280.108 | 365 | 152.280.236.0700 | 380 | 159.280.151 |
| L = 610 | 450 | 152.260.203.0700 | 465 | 153.260.103 | 420 | 152.280.203.0700 | 435 | 153.280.103 | 415 | 152.280.240.0700 | 430 | 159.280.152 |
| L = 660 | 500 | 152.260.209.0700 | 515 | 153.260.109 | 470 | 152.280.209.0700 | 485 | 153.280.109 | 465 | 152.280.231.0700 | 480 | 159.280.149 |
| L = 710 | 550 | 152.260.204.0700 | 565 | 153.260.104 | 520 | 152.280.204.0700 | 535 | 153.280.104 | 515 | 152.280.250.0700 | 530 | 159.280.159 |
| L = 760 | 600 | 152.260.210.0700 | 615 | 153.260.110 | 570 | 152.280.210.0700 | 585 | 153.280.110 | 565 | 152.280.264.0700 | 580 | 159.280.175 |
| L = 810 | 650 | 152.260.205.0700 | 665 | 153.260.105 | 620 | 152.280.205.0700 | 635 | 153.280.105 | 615 | 152.280.265.0700 | 630 | 159.280.170 |
| L = 860 | 700 | 152.260.211.0700 | 715 | 153.260.111 | 670 | 152.280.211.0700 | 685 | 153.280.111 | 665 | 152.280.266.0700 | 680 | 159.280.156 |
| L = 910 | 750 | 152.260.217.0700 | 765 | 153.260.117 | 720 | 152.280.217.0700 | 735 | 153.280.117 | 715 | 152.280.251.0700 | 730 | 159.280.160 |
| L = 1010 | 850 | 152.260.212.0700 | 865 | 153.260.112 | 820 | 152.280.212.0700 | 835 | 153.280.112 | 815 | 152.280.242.0700 | 830 | 159.280.157 |
| L = 1110 | 950 | 152.260.213.0700 | 965 | 153.260.113 | 920 | 152.280.213.0700 | 935 | 153.280.113 | 915 | 152.280.267.0700 | 930 | 159.280.176 |
| L = 1210 | 1050 | 152.260.214.0700 | 1065 | 153.260.114 | 1020 | 152.280.214.0700 | 1035 | 153.280.114 | 1015 | 152.280.232.0700 | 1030 | 159.280.177 |
| L = 1310 | 1150 | 152.260.215.0700 | 1165 | 153.260.115 | 1120 | 152.280.215.0700 | 1135 | 153.280.115 | 1115 | 152.280.259.0700 | 1130 | 159.280.167 |
| L = 1410 | 1250 | 152.260.216.0700 | 1265 | 153.260.116 | 1220 | 152.280.216.0700 | 1235 | 153.280.116 | 1215 | 152.280.268.0700 | 1230 | 159.280.178 |

I profili 90 interni sono cementati.

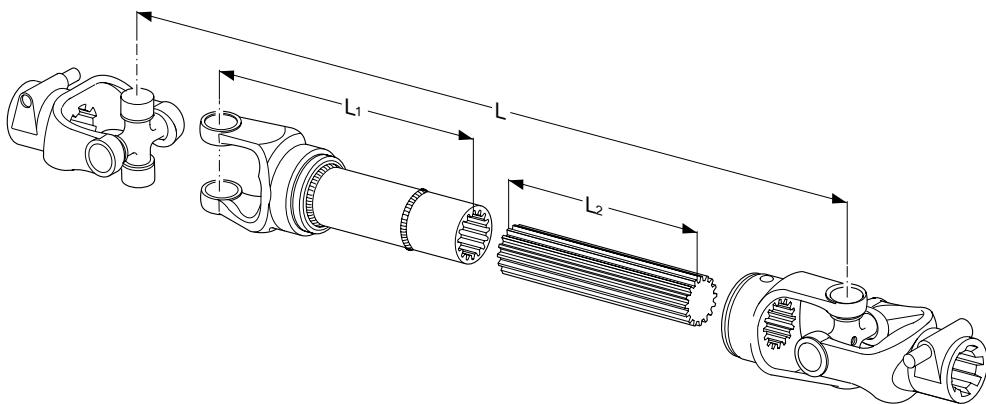
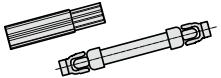
Inner profiles type 90 has hardness treatment



| Type | 10 | | | | 20 | | | | 40 | | | | 50 | | | |
|----------|------------------------|------------------|------------------------|-------------|------------------------|------------------|------------------------|-------------|------------------------|------------------|------------------------|-------------|------------------------|------------------|------------------------|-------------|
| | L ₁ [mm] | Code | L ₂ [mm] | Code | L ₁ [mm] | Code | L ₂ [mm] | Code | L ₁ [mm] | Code | L ₂ [mm] | Code | L ₁ [mm] | Code | L ₂ [mm] | Code |
| L = 410 | 290 | 152.110.206.0700 | 305 | 153.110.106 | 285 | 152.120.206.0700 | 300 | 153.120.106 | 265 | 152.140.206.0700 | 280 | 153.140.106 | 260 | 152.150.206.0700 | 275 | 153.150.106 |
| L = 460 | 340 | 152.110.346.0700 | 355 | 153.110.192 | 335 | 152.120.323.0700 | 350 | 153.120.216 | 315 | 152.140.278.0700 | 330 | 153.140.184 | 310 | 152.150.343.0700 | 325 | 153.150.345 |
| L = 510 | 390 | 152.110.207.0700 | 405 | 153.110.107 | 385 | 152.120.207.0700 | 400 | 153.120.107 | 365 | 152.140.207.0700 | 380 | 153.140.107 | 360 | 152.150.207.0700 | 375 | 153.150.107 |
| L = 560 | 440 | 152.110.243.0700 | 455 | 153.110.137 | 435 | 152.120.289.0700 | 450 | 153.120.181 | 415 | 152.140.280.0700 | 430 | 153.140.188 | 410 | 152.150.344.0700 | 425 | 153.150.346 |
| L = 610 | 490 | 152.110.208.0700 | 505 | 153.110.108 | 485 | 152.120.208.0700 | 500 | 153.120.108 | 465 | 152.140.208.0700 | 480 | 153.140.108 | 460 | 152.150.208.0700 | 475 | 153.150.108 |
| L = 660 | 540 | 152.110.344.0700 | 555 | 153.110.186 | 535 | 152.120.325.0700 | 550 | 153.120.223 | 515 | 152.140.292.0700 | 530 | 153.140.200 | 510 | 152.150.329.0700 | 525 | 153.150.347 |
| L = 710 | 590 | 152.110.209.0700 | 605 | 153.110.109 | 585 | 152.120.209.0700 | 600 | 153.120.109 | 565 | 152.140.209.0700 | 580 | 153.140.109 | 560 | 152.150.209.0700 | 575 | 153.150.109 |
| L = 760 | 640 | 152.110.219.0700 | 655 | 153.110.232 | 635 | 152.120.262.0700 | 650 | 153.120.160 | 615 | 152.140.296.0700 | 630 | 153.140.401 | 610 | 152.150.345.0700 | 625 | 153.150.348 |
| L = 810 | 690 | 152.110.210.0700 | 705 | 153.110.110 | 685 | 152.120.210.0700 | 700 | 153.120.110 | 665 | 152.140.210.0700 | 680 | 153.140.110 | 660 | 152.150.210.0700 | 675 | 153.150.110 |
| L = 860 | 740 | 152.110.347.0700 | 755 | 153.110.189 | 735 | 152.120.326.0700 | 750 | 153.120.224 | 715 | 152.140.258.0700 | 730 | 153.140.165 | 710 | 152.150.337.0700 | 725 | 153.150.349 |
| L = 910 | 790 | 152.110.211.0700 | 805 | 153.110.111 | 785 | 152.120.211.0700 | 800 | 153.120.111 | 765 | 152.140.211.0700 | 780 | 153.140.111 | 760 | 152.150.211.0700 | 775 | 153.150.111 |
| L = 1010 | 890 | 152.110.212.0700 | 905 | 153.110.112 | 885 | 152.120.212.0700 | 900 | 153.120.112 | 865 | 152.140.212.0700 | 880 | 153.140.112 | 860 | 152.150.212.0700 | 875 | 153.150.112 |
| L = 1110 | 990 | 152.110.213.0700 | 1005 | 153.110.113 | 985 | 152.120.213.0700 | 1000 | 153.120.113 | 965 | 152.140.213.0700 | 980 | 153.140.113 | 960 | 152.150.213.0700 | 975 | 153.150.113 |
| L = 1210 | 1090 | 152.110.214.0700 | 1105 | 153.110.114 | 1085 | 152.120.214.0700 | 1100 | 153.120.114 | 1065 | 152.140.214.0700 | 1080 | 153.140.114 | 1060 | 152.150.214.0700 | 1075 | 153.150.114 |
| L = 1310 | 1190 | 152.110.215.0700 | 1205 | 153.110.115 | 1185 | 152.120.215.0700 | 1200 | 153.120.115 | 1165 | 152.140.215.0700 | 1080 | 153.140.115 | 1160 | 152.150.215.0700 | 1175 | 153.150.115 |
| L = 1410 | 1290 | 152.110.339.0700 | 1305 | 153.110.230 | 1285 | 152.120.335.0700 | 1300 | 153.120.239 | 1265 | 152.140.662.0700 | 1280 | 153.140.519 | 1260 | 152.150.340.0700 | 1275 | 153.150.342 |

Profilii per cardani
Profiles for PTO drives/hafts

| Type | 60 | | | | 80 | | | | 90 | | | |
|----------|------------------------|------------------|------------------------|-------------|------------------------|------------------|------------------------|-------------|------------------------|------------------|------------------------|-------------|
| | L ₁ [mm] | Code | L ₂ [mm] | Code | L ₁ [mm] | Code | L ₂ [mm] | Code | L ₁ [mm] | Code | L ₂ [mm] | Code |
| L = 410 | 250 | 152.160.476.0700 | 265 | 153.160.823 | 220 | 152.198.136.0700 | 235 | 153.190.001 | 215 | 152.198.501.0700 | 230 | 153.190.501 |
| L = 460 | 300 | 152.160.207.0700 | 315 | 153.160.107 | 270 | 152.198.137.0700 | 285 | 153.190.002 | 265 | 152.198.502.0700 | 280 | 153.190.502 |
| L = 510 | 350 | 152.180.298.0700 | 365 | 153.160.148 | 320 | 152.198.138.0700 | 335 | 153.190.003 | 315 | 152.198.503.0700 | 330 | 153.190.503 |
| L = 560 | 400 | 152.160.208.0700 | 415 | 153.160.108 | 370 | 152.198.139.0700 | 385 | 153.190.004 | 365 | 152.198.504.0700 | 380 | 153.190.504 |
| L = 610 | 450 | 152.160.475.0700 | 465 | 153.160.150 | 420 | 152.198.140.0700 | 435 | 153.190.005 | 415 | 152.198.505.0700 | 430 | 153.190.505 |
| L = 660 | 500 | 152.160.209.0700 | 515 | 153.160.109 | 470 | 152.198.117.0700 | 485 | 153.190.006 | 465 | 152.198.506.0700 | 480 | 153.190.506 |
| L = 710 | 550 | 152.160.473.0700 | 565 | 153.160.174 | 520 | 152.198.141.0700 | 535 | 153.190.007 | 515 | 152.198.507.0700 | 530 | 153.190.507 |
| L = 760 | 600 | 152.160.210.0700 | 615 | 153.160.110 | 570 | 152.198.142.0700 | 585 | 153.190.008 | 565 | 152.198.508.0700 | 580 | 153.190.508 |
| L = 810 | 650 | 152.160.472.0700 | 665 | 153.160.738 | 620 | 152.198.143.0700 | 635 | 153.190.009 | 615 | 152.198.509.0700 | 630 | 153.190.509 |
| L = 860 | 700 | 152.160.211.0700 | 715 | 153.160.111 | 670 | 152.198.144.0700 | 685 | 153.190.010 | 665 | 152.198.510.0700 | 680 | 153.190.510 |
| L = 910 | 750 | 152.160.477.0700 | 765 | 153.160.798 | 720 | 152.198.135.0700 | 735 | 153.190.011 | 715 | 152.198.511.0700 | 730 | 153.190.511 |
| L = 1010 | 850 | 152.160.212.0700 | 865 | 153.160.112 | 820 | 152.198.145.0700 | 835 | 153.190.012 | 815 | 152.198.512.0700 | 830 | 153.190.512 |
| L = 1110 | 950 | 152.160.213.0700 | 965 | 153.160.113 | 920 | 152.198.146.0700 | 935 | 153.190.013 | 915 | 152.198.513.0700 | 930 | 153.190.513 |
| L = 1210 | 1050 | 152.160.214.0700 | 1065 | 153.160.114 | 1020 | 152.198.147.0700 | 1035 | 153.190.014 | 1015 | 152.198.514.0700 | 1030 | 153.190.514 |
| L = 1310 | 1150 | 152.160.215.0700 | 1165 | 153.160.115 | 1120 | 152.198.131.0700 | 1135 | 153.190.015 | 1115 | 152.198.515.0700 | 1130 | 153.190.515 |
| L = 1410 | 1250 | 152.160.461.0700 | 1265 | 153.150.334 | 1220 | 152.198.149.0700 | 1235 | 153.190.018 | 1215 | 152.198.538.0700 | 1230 | 153.190.523 |

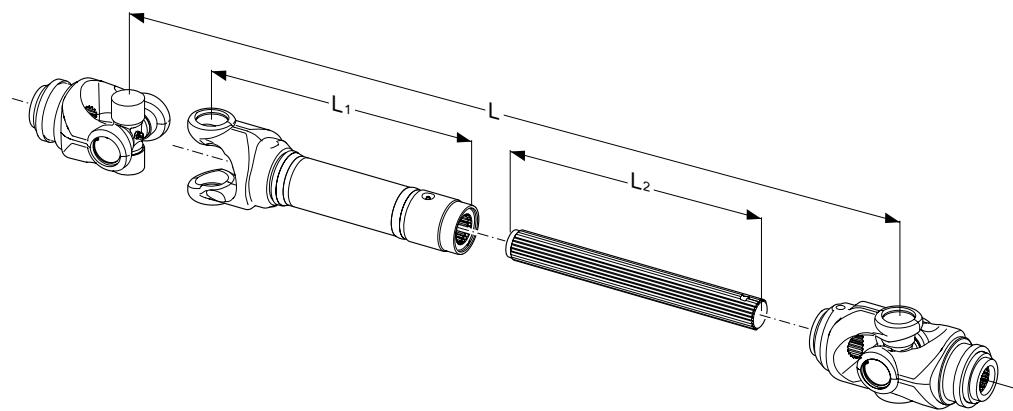
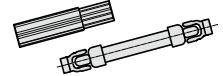


| Type | 40 | | | | 50 | | | | 60 | | | |
|----------|------------------------|---------------|------------------------|-------------|------------------------|---------------|------------------------|-------------|------------------------|---------------|------------------------|-------------|
| | L ₁ [mm] | Code | L ₂ [mm] | Code | L ₁ [mm] | Code | L ₂ [mm] | Code | L ₁ [mm] | Code | L ₂ [mm] | Code |
| L = 410 | 320 | 122.240.806.1 | 280 | 155.140.606 | 315 | 122.250.806.1 | 275 | 155.150.606 | 305 | 122.260.825.1 | 265 | 155.150.654 |
| L = 460 | 370 | 122.240.801.1 | 330 | 155.140.601 | 365 | 122.250.818.1 | 325 | 155.150.624 | 355 | 122.260.807.1 | 315 | 155.160.607 |
| L = 510 | 420 | 122.240.807.1 | 380 | 155.140.607 | 415 | 122.250.807.1 | 375 | 155.150.607 | 405 | 122.260.826.1 | 365 | 155.150.634 |
| L = 560 | 470 | 122.240.802.1 | 430 | 155.140.602 | 465 | 122.250.819.1 | 425 | 155.150.625 | 455 | 122.260.808.1 | 415 | 155.160.608 |
| L = 610 | 520 | 122.240.808.1 | 480 | 155.140.608 | 515 | 122.250.808.1 | 475 | 155.150.608 | 505 | 122.260.827.1 | 465 | 155.150.645 |
| L = 660 | 570 | 122.240.803.1 | 530 | 155.140.603 | 565 | 122.250.820.1 | 525 | 155.150.626 | 555 | 122.260.809.1 | 515 | 155.160.609 |
| L = 710 | 620 | 122.240.809.1 | 580 | 155.140.609 | 615 | 122.250.809.1 | 575 | 155.150.609 | 605 | 122.260.828.1 | 565 | 155.150.679 |
| L = 760 | 670 | 122.240.804.1 | 630 | 155.140.604 | 665 | 122.250.821.1 | 625 | 155.150.627 | 655 | 122.260.810.1 | 615 | 155.160.610 |
| L = 810 | 720 | 122.240.810.1 | 680 | 155.140.610 | 715 | 122.250.810.1 | 675 | 155.150.610 | 705 | 122.260.829.1 | 665 | 155.150.685 |
| L = 860 | 770 | 122.240.805.1 | 730 | 155.140.605 | 765 | 122.250.822.1 | 725 | 155.150.628 | 755 | 122.260.811.1 | 715 | 155.150.611 |
| L = 910 | 820 | 122.240.811.1 | 780 | 155.140.611 | 815 | 122.250.811.1 | 775 | 155.160.611 | 805 | 122.260.003.1 | 765 | 155.150.715 |
| L = 1010 | 920 | 122.240.812.1 | 780 | 155.140.611 | 915 | 122.250.812.1 | 775 | 155.160.611 | 905 | 122.260.812.1 | 765 | 155.150.715 |
| L = 1110 | 1020 | 122.240.813.1 | 780 | 155.140.611 | 1015 | 122.250.813.1 | 775 | 155.160.611 | 1005 | 122.260.813.1 | 765 | 155.150.715 |
| L = 1210 | 1120 | 122.240.814.1 | 780 | 155.140.611 | 1115 | 122.250.814.1 | 775 | 155.160.611 | 1105 | 122.260.814.1 | 765 | 155.150.715 |
| L = 1310 | 1220 | 122.240.815.1 | 780 | 155.140.611 | 1215 | 122.250.815.1 | 775 | 155.160.611 | 1205 | 122.260.815.1 | 765 | 155.150.715 |
| L = 1410 | 1320 | 122.240.818.1 | 780 | 155.140.611 | 1315 | 122.250.816.1 | 775 | 155.160.611 | 1305 | 122.260.816.1 | 765 | 155.150.715 |

| Type | 80 | | | | 90 | | | |
|----------|------------------------|---------------|------------------------|-------------|------------------------|---------------|------------------------|-------------|
| | L ₁ [mm] | Code | L ₂ [mm] | Code | L ₁ [mm] | Code | L ₂ [mm] | Code |
| L = 410 | 295 | 122.280.966.1 | 235 | 155.170.677 | 285 | 122.290.801.1 | 230 | 155.190.601 |
| L = 460 | 345 | 122.280.970.1 | 285 | 155.180.607 | 335 | 122.290.807.1 | 280 | 155.190.607 |
| L = 510 | 395 | 122.280.965.1 | 335 | 155.170.633 | 385 | 122.290.802.1 | 330 | 155.190.602 |
| L = 560 | 445 | 122.280.963.1 | 385 | 155.180.608 | 435 | 122.290.808.1 | 380 | 155.190.608 |
| L = 610 | 495 | 122.280.967.1 | 435 | 155.170.635 | 485 | 122.290.803.1 | 430 | 155.190.603 |
| L = 660 | 545 | 122.280.964.1 | 485 | 155.180.609 | 535 | 122.290.809.1 | 480 | 155.190.609 |
| L = 710 | 595 | 122.280.968.1 | 535 | 155.170.636 | 585 | 122.290.804.1 | 530 | 155.190.604 |
| L = 760 | 645 | 122.280.971.1 | 585 | 155.180.610 | 635 | 122.290.810.1 | 580 | 155.190.610 |
| L = 810 | 695 | 122.280.969.1 | 635 | 155.170.647 | 685 | 122.290.805.1 | 630 | 155.190.605 |
| L = 860 | 745 | 122.280.972.1 | 685 | 155.180.611 | 735 | 122.290.811.1 | 680 | 155.190.611 |
| L = 910 | 795 | 122.280.973.1 | 735 | 155.170.688 | 785 | 122.290.806.1 | 730 | 155.190.617 |
| L = 1010 | 895 | 122.480.011.1 | 735 | 155.170.688 | 885 | 122.290.812.1 | 730 | 155.190.617 |
| L = 1110 | 995 | 122.480.006.1 | 735 | 155.170.688 | 985 | 122.290.813.1 | 730 | 155.190.617 |
| L = 1210 | 1095 | 122.480.017.1 | 735 | 155.170.688 | 1085 | 122.290.814.1 | 730 | 155.190.617 |
| L = 1310 | 1195 | 122.480.018.1 | 735 | 155.170.688 | 1185 | 122.290.815.1 | 730 | 155.190.617 |
| L = 1410 | 1295 | 122.480.019.1 | 735 | 155.170.688 | 1285 | 122.490.002.1 | 730 | 155.190.617 |

I profili scanalati sono forniti alla lunghezza richiesta,
con foro per spina elastica e trattati termicamente

Splined profiles are supplied with the requested
length, with pin hole yoke and with heat treatment.



120

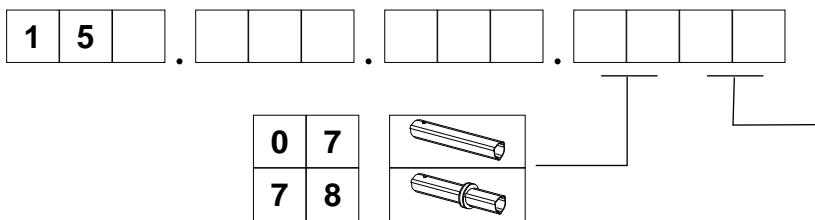
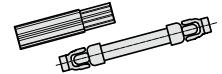
| Type | L ₁ [mm] | Code | L ₂ [mm] | Code |
|----------|------------------------|---------------|------------------------|-------------|
| L = 460 | 316 | 122.120.001.1 | 300 | 155.100.011 |
| L = 510 | 366 | 122.120.002.1 | 350 | 155.100.012 |
| L = 560 | 416 | 122.120.003.1 | 400 | 155.100.006 |
| L = 610 | 466 | 122.120.004.1 | 450 | 155.100.001 |
| L = 660 | 516 | 122.120.005.1 | 500 | 155.100.004 |
| L = 710 | 566 | 122.120.006.1 | 550 | 155.100.005 |
| L = 760 | 616 | 122.120.007.1 | 600 | 155.100.013 |
| L = 810 | 666 | 122.120.008.1 | 650 | 155.100.014 |
| L = 860 | 716 | 122.120.009.1 | 700 | 155.100.007 |
| L = 910 | 766 | 122.120.010.1 | 750 | 155.100.002 |
| L = 1010 | 866 | 122.120.011.1 | 850 | 155.100.009 |
| L = 1110 | 966 | 122.120.012.1 | 900 | 155.100.008 |
| L = 1210 | 1066 | 122.120.013.1 | 900 | 155.100.008 |
| L = 1310 | 1166 | 122.120.014.1 | 900 | 155.100.008 |
| L = 1410 | 1266 | 122.120.015.1 | 900 | 155.100.008 |

I profili scanalati sono forniti alla lunghezza richiesta, con foro per spina elastica e trattati termicamente.

Forcella tubo esterna fornita completa di ingassatore e parapolvere.

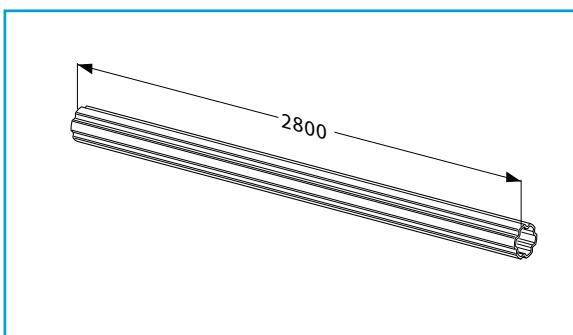
Splined profiles are supplied with the requested length, with pin hole yoke and with heat treatment.

Outer tube yoke fitted with grease nipple and dust seal



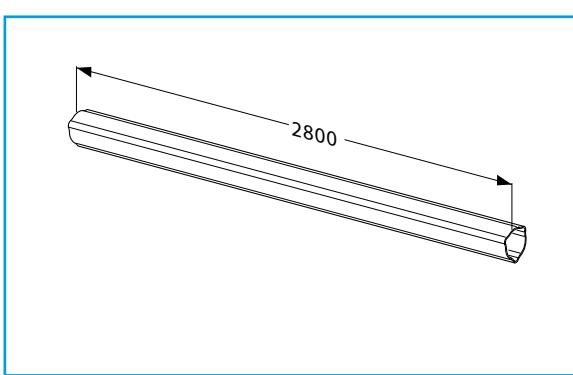
| | |
|----------|----------|
| 0 | 0 |
| 1 | 0 |
| 2 | 0 |
| 3 | 0 |

Barre profili serie V - Profiles Bars V Series



| Type | Profilo esterno Outer profile | | Profilo interno Inner Profile |
|------|----------------------------------|---|----------------------------------|
| | Standard Code | con trattamento RILSAN with RILSAN treatment Code | |
| 20 | 191.120.800 | - | 191.120.700 |
| 40 | 191.140.800 | - | 191.140.700 |
| 50 | 191.160.800 | 191.160.850 | 191.160.700 |
| 60 | 191.160.800 | 191.160.850 | 191.160.700 |
| 80 | 191.190.800 | 191.190.850 | 191.190.700 |
| 90 | 191.190.800 | 191.190.850 | - |

Barre profili serie T - Profiles Bars T Series



| Type | Profilo esterno Outer profile | | Profilo interno Inner Profile |
|------|----------------------------------|---|----------------------------------|
| | Standard Code | con trattamento RILSAN with RILSAN treatment Code | |
| 10 | 191.110.200 | - | 191.110.100 |
| 20 | 191.120.200 | 191.120.500 | 191.120.100 |
| 40 | 191.130.200 | 191.140.500 | 191.140.100 |
| 50 | 191.150.200 | - | 191.150.100 |
| 60 | 191.160.200 | 191.160.500 | 191.150.100 |
| 80 | 191.198.850 | 191.180.500 | 191.190.300 |
| 90 | 191.198.850 | 191.180.500 | 191.190.300 |

Tutte le misure, ove non specificatamente indicato, sono espresse in millimetri.

I profili esterni o le forcelle tubo a misura sono fornibili a richiesta, con applicate decalcomanie tipo:

- CE - USA - CANADA -

A richiesta sono disponibili profili interni a misura, rivestiti **RILSAN** o con trattamento indurente.

Il profilo interno rivestito **RILSAN** necessita del suo profilo esterno specifico. Per tubi con trattamenti termici contattare il nostro Ufficio Tecnico.

All sizes, unless otherwise specified, are expressed in millimetres.

The outer profiles or fitted tube yokes can be supplied on request with the following decals included:

- CE - USA - CANADA -

***RILSAN** coated or hardened fitted inner profiles are available on request.*

*The **RILSAN** coated inner profile requires its own specific outer profile. For tubes with heat treatments contact our Technical Department.*

DISPOSITIVI DI SICUREZZA INTEGRALI

INTEGRAL SAFETY DEVICES

| | | p. |
|-------------------------------------|---|-------------|
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| | Parti di ricambio | Spare Parts |
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| | Parti di ricambio | Spare Parts |
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| | Parti di ricambio | Spare Parts |
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| | Parti di ricambio | Spare Parts |
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| | Parti di ricambio | Spare Parts |
| FM MM RM | DISPOSITIVI CON ALBERO MASCHIO DEVICES WITH MALE SHAFT | 95 |

PROGRAMMA DI PRODUZIONE
PRODUCTION PROGRAM



P.

| Type | Ref. | | | | | | P. |
|----------|-----------|--------------------|------------|-------------------|-------------------|--------------|--------------------------|
| B | 10 | B02 B03 | mm inch | B 120 4 23/32" | C 95 3 47/64" | D 19 3/4" | Nm 650 in. lb. 5700 |
| | 20 | B02 B03 | mm inch | B 120 4 23/32" | C 97 3 13/16" | D 19 3/4" | Nm 900 in. lb. 7950 |
| | 40 | B02 B03 | mm inch | B 134 5 9/32" | C 118 4 41/64" | D 19 3/4" | Nm 1700 in. lb. 15000 |
| | 50 | B02 B03 | mm inch | B 134 5 9/32" | C 118 4 41/64" | D 19 3/4" | Nm 2100 in. lb. 18500 |
| | 60 | B02-B03 B04-B05 | mm inch | B 162 6 3/8" | C 137 5 25/64" | D 22 7/8" | Nm 2500 in. lb. 22100 |
| | 80 | B02-B03 B04-B05 | mm inch | B 162 6 3/8" | C 146 5 3/4" | D 22 7/8" | Nm 3500 in. lb. 30900 |
| | 90 | B02-B03 B04-B05 | mm inch | B 162 6 3/8" | C 152 6" | D 22 7/8" | Nm 4000 in. lb. 35400 |

66

| M | | | B | C | D | Nm | in. lb. | |
|-----------|--|------------|-----------------|-----------------|---------------|------|---------|--|
| 10 | M14 M15 M24 M25 | mm inch | 100 3 5/16" | 121 4 49/64" | 26 1 1/32" | 300 | 2650 | |
| | M14 M15 M24 M25 | mm inch | 100 3 5/16" | 141 5 35/64" | 26 1 1/32" | 600 | 5300 | |
| | M14 M15 M24 M25 M34 M35 | mm inch | 100 3 5/16" | 126 4 61/64" | 26 1 1/32" | 300 | 2650 | |
| | M14 M15 M24 M25 M34 M35 | mm inch | 100 3 5/16" | 146 5 3/4" | 26 1 1/32" | 600 | 5300 | |
| 20 | M24 M25 M34 M35 | mm inch | 100 3 5/16" | 166 6 17/32" | 26 1 1/32" | 900 | 7950 | |
| | M24 M25 M34 M35 M44 M45 | mm inch | 100 3 5/16" | 157 6 3/16" | 26 1 1/32" | 600 | 5300 | |
| | M24 M25 M34 M35 M44 M45 | mm inch | 100 3 5/16" | 177 6 31/32" | 26 1 1/32" | 900 | 7950 | |
| | M24 M25 M34 M35 M44 M45 | mm inch | 100 3 5/16" | 197 7 3/4" | 26 1 1/32" | 1200 | 10600 | |
| 40 | M24 M25 M34 M35 M44 M45 | mm inch | 100 3 5/16" | 159 6 17/64" | 26 1 1/32" | 600 | 5300 | |
| | M24 M25 M34 M35 M44 M45 | mm inch | 100 3 5/16" | 179 7 3/64" | 26 1 1/32" | 900 | 7950 | |
| | M24 M25 M34 M35 M44 M45 | mm inch | 100 3 5/16" | 199 7 53/64" | 26 1 1/32" | 1200 | 10600 | |
| | M34 M35 M44 M45 | mm inch | 115 4 17/32" | 187 7 23/64" | 26 1 1/32" | 900 | 7950 | |
| 50 | M34 M35 M44 M45 | mm inch | 115 4 17/32" | 207 8 5/32" | 26 1 1/32" | 1200 | 10600 | |
| | M34 M35 M44 M45 | mm inch | 115 4 17/32" | 199 7 53/64" | 26 1 1/32" | 900 | 7950 | |
| | M34 M35 M44 M45 | mm inch | 115 4 17/32" | 177 7 3/16" | 26 1 1/32" | 1200 | 10600 | |
| | M34 M35 M44 M45 | mm inch | 115 4 17/32" | 157 6 31/32" | 26 1 1/32" | 900 | 7950 | |
| 60 | M34 M35 M44 M45 | mm inch | 115 4 17/32" | 177 7 3/16" | 26 1 1/32" | 1200 | 10600 | |

68

| R R12-R13 | | | B | C | D | Nm | in. lb. | |
|-----------|------------|------------|-----------------|-----------------|---------------|------|---------|--|
| 10 | R12 R13 | mm inch | 96 3 25/32" | 141 5 35/64" | 26 1 1/32" | 3800 | 33630 | |
| 20 | R12 R13 | mm inch | 96 3 25/32" | 146 5 3/4" | 26 1 1/32" | 3800 | 33630 | |
| 40 | R12 R13 | mm inch | 96 3 25/32" | 157 6 3/16" | 26 1 1/32" | 3800 | 33630 | |
| 50 | R12 R13 | mm inch | 100 3 15/16" | 159 6 17/64" | 26 1 1/32" | 3800 | 33630 | |
| 60 | R12 R13 | mm inch | 115 4 17/32" | 167 6 37/64" | 26 1 1/32" | 3800 | 33630 | |
| 80 | R12 R13 | mm inch | 127 5" | 176 6 59/64" | 26 1 1/32" | 3800 | 33630 | |

70

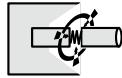


| Type | Ref. |  | | | MAX | P. |
|--------------------------|-----------|--|------------|---|---------------|----------------------|
| R R14-R15 | 40 | R14 R15 | mm inch | B 140 5 33/64" C 157 6 3/16" D 28 1 7/64" | Nm in. lb. | 3800 33630 |
| | 50 | R14 R15 | mm inch | B 140 5 33/64" C 159 6 17/64" D 28 1 7/64" | Nm in. lb. | 3800 33630 |
| | 60 | R14 R15 | mm inch | B 140 5 33/64" C 167 6 37/64" D 28 1 7/64" | Nm in. lb. | 3800 33630 |
| | 80 | R14 R15 | mm inch | B 140 5 33/64" C 176 6 59/64" D 28 1 7/64" | Nm in. lb. | 3800 33630 |
| 70 | | | | | | |
| F | 20 | F02 F03 F04 F05 | mm inch | B 153 6 1/32" C 120 4 23/32" D 22 7/8" | Nm in. lb. | 650 5750 |
| | 40 | F02 F03 F04 F05 F12 F13 | mm inch | B 153 6 1/32" C 133 5 15/64" D 22 7/8" | Nm in. lb. | 650 5750 |
| | | F02 F03 F04 F05 F12 F13 | mm inch | B 153 6 1/32" C 157 6 3/16" D 26 1 1/32" | Nm in. lb. | 900 7950 |
| | | F12 F13 F22-F23 F24-F25 | mm inch | B 180 7 3/32" C 135 5 5/16" D 19 3/4" | Nm in. lb. | 900 7950 |
| | | F12 F13 F22-F23 F24-F25 | mm inch | B 180 7 3/32" C 135 5 5/16" D 19 3/4" | Nm in. lb. | 900 7950 |
| | 60 | F12 F13 F22-F23 F24-F25 F42-F43 F44-F45 | mm inch | B 195 7 43/64" C 146 5 3/4" D 26 1 1/32" | Nm in. lb. | 1200 10600 |
| | | F12 F13 F22-F23 F24-F25 F42-F43 F44-F45 | mm inch | B 195 7 43/64" C 135 5 5/16" D 19 3/4" | Nm in. lb. | 900 7950 |
| | | F12 F13 F22-F23 F24-F25 F42-F43 F44-F45 | mm inch | B 195 7 43/64" C 146 5 3/4" D 26 1 1/32" | Nm in. lb. | 1200 10600 |
| | | F12 F13 F22-F23 F24-F25 F42-F43 F44-F45 | mm inch | B 195 7 43/64" C 169 6 21/32" D 26 1 1/32" | Nm in. lb. | 2000 17700 |
| | | F42-F43 F44-F45 | mm inch | B 195 7 43/64" C 169 6 21/32" D 26 1 1/32" | Nm in. lb. | 2000 17700 |
| 72 | | | | | | |
| W W22-W23-W42-W43 | 20 | W22 W23 | mm inch | B 173 6 13/16" C 133.5 5 1/4" D 26 1 1/32" | Nm in. lb. | 600 5300 |
| | 40 | W22 W23 | mm inch | B 173 6 13/16" C 140 5 33/64" D 26 1 1/32" | Nm in. lb. | 600÷900 5300÷7950 |
| | 50 | W22 W23 W42 W43 | mm inch | B 173 6 13/16" C 143.5 5 21/32" D 26 1 1/32" | Nm in. lb. | 900 7950 |
| | | W22 W23 W42 W43 | mm inch | B 173 6 13/16" C 158.5 6 15/64" D 26 1 1/32" | Nm in. lb. | 1100 9700 |
| | | W22 W23 W42 W43 | mm inch | B 173 6 13/16" C 150.5 5 59/64" D 26 1 1/32" | Nm in. lb. | 900 7950 |
| | 60 | W22 W23 W42 W43 | mm inch | B 173 6 13/16" C 165.5 6 33/64" D 26 1 1/32" | Nm in. lb. | 1100÷1500 9700÷13250 |
| | | W42 W43 | mm inch | B 173 6 13/16" C 173.5 6 33/64" D 26 1 1/32" | Nm in. lb. | 1100÷1800 9700÷15900 |
| | | W42 W43 | mm inch | B 173 6 13/16" C 173.5 6 33/64" D 26 1 1/32" | Nm in. lb. | 1100÷1800 9700÷15900 |
| 78 | | | | | | |



Tutti i dispositivi di sicurezza devono essere montati lato macchina operatrice.

All safety devices must be installed on the implement side of the PTO driveshaft.



| Type | Ref. | C | | | MAX | | P. |
|-------------------|-----------|--|------------|----------------------|--|--------------------|-----------------|
| W W44-W45 | 50 | W44 W45 | mm inch | B 173 6 13/16" | C 183.5 7 15/64" | D 28 1 7/64" | Nm 1100 |
| | 60 | W44 W45 | mm inch | B 173 6 13/16" | C 190.5 7 1/2" | D 28 1 1/32" | Nm 1100÷1500 |
| | 80 | W44 W45 | mm inch | B 173 6 13/16" | C 198.5 7 13/16" | D 28 1 1/32" | Nm 1100÷1800 |
| RB RB2-RB3 | 40 | RB2 RB3 | mm inch | B 134 5 9/32" | C 180 7 3/32" | D 26 1 1/32" | Nm 1700 |
| | 50 | RB2 RB3 | mm inch | B 134 5 9/32" | C 180 7 3/32" | D 26 1 1/32" | Nm 2100 |
| | 60 | RB2 RB3 | mm inch | B 162 6 3/8 | C 187 7 23/64" | D 26 1 1/32" | Nm 2500 |
| | 80 | RB2 RB3 | mm inch | B 162 6 3/8 | C 197 7 3/4" | D 26 1 1/32" | Nm 3500 |
| RB RB4-RB5 | 60 | RB4 RB5 | mm inch | B 162 6 3/8 | C 187 7 23/64" | D 28 1 7/64" | Nm 2500 |
| | 80 | RB4 RB5 | mm inch | B 162 6 3/8 | C 197 7 3/4" | D 28 1 7/64" | Nm 3500 |



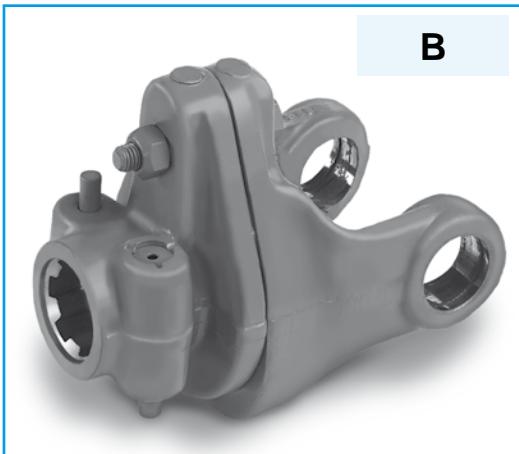
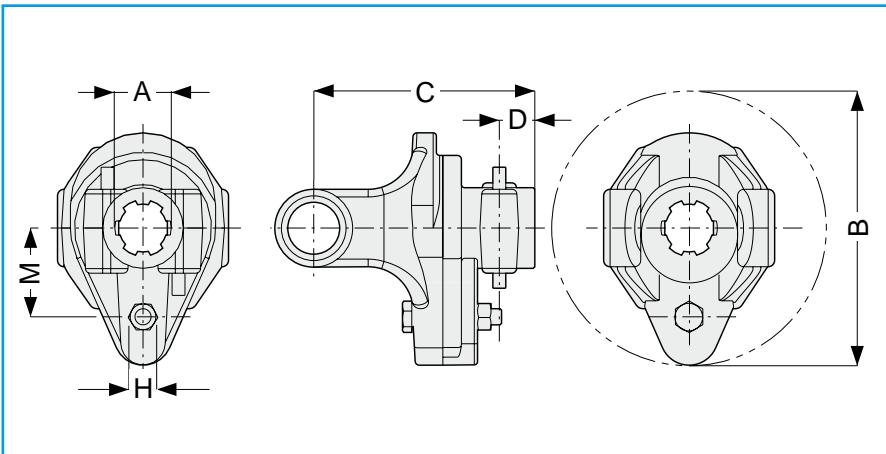
| Type | Ref. | | | | | | P. |
|---------------------------|-----------|--|--|--|---|---|--------------------------|
| RF RF2-RF3-RF6-RF7 | 40 | RF2 RF3 | mm inch | B 195 7 43/64" | C 175 6 57/64" | D 26 1 3/32" | Nm 900 in. lb. 7950 |
| | 50 | RF2 RF3 RF6 RF7 | mm inch | B 195 7 43/64" | C 175 6 57/64" | D 26 1 3/32" | Nm 900 in. lb. 7950 |
| | 60 | RF6 RF7 | mm inch | B 195 7 43/64" | C 190 7 31/64" | D 26 1 3/32" | Nm 1200 in. lb. 10600 |
| | 80 | RF6 RF7 | mm inch | B 195 7 43/64" | C 203 7 63/64" | D 26 1 3/32" | Nm 1400 in. lb. 12400 |
| | 90 | RF6 RF7 | mm inch | B 195 7 43/64" | C 203 7 63/64" | D 26 1 3/32" | Nm 1400 in. lb. 12400 |
| RF RF4-RF5-RF8-RF9 | 40 | RF4 RF5 | mm inch | B 195 7 43/64" | C 175 6 57/64" | D 28 1 7/64" | Nm 900 in. lb. 10600 |
| | 50 | RF4 RF5 RF8 RF9 | mm inch | B 195 7 43/64" | C 190 7 31/64" | D 28 1 7/64" | Nm 900 in. lb. 7950 |
| | 60 | RF8 RF9 | mm inch | B 195 7 43/64" | C 190 7 31/64" | D 28 1 7/64" | Nm 1200 in. lb. 12400 |
| | 80 | RF8 RF9 | mm inch | B 195 7 43/64" | C 203 7 63/64" | D 28 1 7/64" | Nm 1400 in. lb. 12400 |
| | 90 | RF8 RF9 | mm inch | B 195 7 43/64" | C 203 7 63/64" | D 28 1 7/64" | Nm 1400 in. lb. 12400 |
| RW | 20 | RW2 RW3 | mm inch | B ø173 6 13/16" | C 149 5 7/8" | D 26 1 1/32" | Nm 600 in. lb. 5300 |
| | 40 | RW2 RW3 RW2 RW3 RW2 RW3 | mm inch mm inch mm inch | B ø173 6 13/16" ø173 6 13/16" ø173 6 13/16" | C 161 6 3/8" 161 6 3/8" 161 6 3/8" | D 26 1 1/32 26 1 1/32 26 1 1/32" | Nm 600 in. lb. 5300 |
| | 50 | RW2 RW3 RW6 RW7 | mm inch mm inch | B ø173 6 13/16" ø173 6 13/16" | C 179.5 7 3/32" 179.5 7 3/32" | D 26 1 1/32 26 1 1/32" | Nm 750 in. lb. 6630 |
| | 60 | RW2 RW3 RW6 RW7 RW6 RW7 | mm inch mm inch mm inch | B ø173 6 13/16" ø173 6 13/16" ø173 6 13/16" | C 186.5 7 23/64" 186.5 7 23/64" 186.5 7 23/64" | D 26 1 1/32 26 1 1/32 26 1 1/32" | Nm 900 in. lb. 7950 |
| | 80 | RW2 RW3 RW6 RW7 RW6 RW7 | mm inch mm inch mm inch | B ø173 6 13/16" ø173 6 13/16" ø173 6 13/16" | C 189.5 7 31/64" 189.5 7 31/64" 189.5 7 31/64" | D 26 1 1/32 26 1 1/32 26 1 1/32" | Nm 1200 in. lb. 10600 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |



Tutti i dispositivi di sicurezza devono essere montati lato macchina operatrice.

All safety devices must be installed on the implement side of the PTO driveshaft.

LIMITATORE A BULLONE DI TRANCIO SHEAR BOLT TORQUE LIMITER



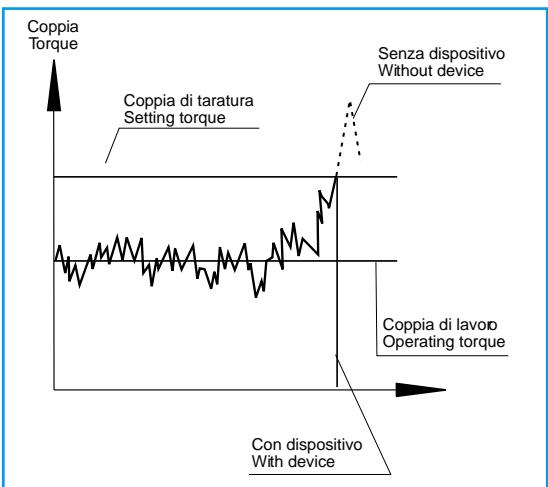
| Type | Ref. | A | B | | C | | D | | M | | MAX | H | Code |
|------|------|-------------|------|----------|------|----------|------|--------|------|----------|------|---------|-----------------------------|
| | | | [mm] | [inch] | [mm] | [inch] | [mm] | [inch] | [mm] | [inch] | [Nm] | [in.lb] | |
| 10 | B02 | 1 3/8" z.6 | 120 | 4 23/32" | 95 | 3 47/64" | 19 | 3/4" | 36 | 1 27/64" | 650 | 5700 | M6x45 143.210.001.1 |
| | B03 | 1 3/8" z.21 | 120 | 4 23/32" | 95 | 3 47/64" | 19 | 3/4" | 36 | 1 27/64" | 650 | 5700 | M6x45 143.210.002.1 |
| 20 | B02 | 1 3/8" z.6 | 120 | 4 23/32" | 97 | 3 13/16" | 19 | 3/4" | 48 | 1 57/64" | 900 | 7950 | M6x40 143.220.001.1 |
| | B03 | 1 3/8" z.21 | 120 | 4 23/32" | 97 | 3 13/16" | 19 | 3/4" | 48 | 1 57/64" | 900 | 7950 | M6x40 143.220.002.1 |
| 40 | B02 | 1 3/8" z.6 | 134 | 5 9/32" | 118 | 4 41/64" | 19 | 3/4" | 55 | 2 11/64" | 1700 | 15000 | M8x50 143.240.001.1 |
| | B03 | 1 3/8" z.21 | 134 | 5 9/32" | 118 | 4 41/64" | 19 | 3/4" | 55 | 2 11/64" | 1700 | 15000 | M8x50 143.240.002.1 |
| 50 | B02 | 1 3/8" z.6 | 134 | 5 9/32" | 118 | 4 41/64" | 19 | 3/4" | 46 | 1 13/16" | 2100 | 18500 | M10x55 143.250.001.1 |
| | B03 | 1 3/8" z.6 | 134 | 5 9/32" | 118 | 4 41/64" | 19 | 3/4" | 46 | 1 13/16" | 2100 | 18500 | M10x55 143.250.002.1 |
| 60 | B02 | 1 3/8" z.6 | 162 | 6 3/8" | 137 | 5 25/64" | 22 | 7/8" | 55 | 2 11/64" | 2500 | 22100 | M10x60 143.260.001.1 |
| | B03 | 1 3/8" z.21 | 162 | 6 3/8" | 137 | 5 25/64" | 22 | 7/8" | 55 | 2 11/64" | 2500 | 22100 | M10x60 143.260.003.1 |
| | B04 | 1 3/4" z.6 | 162 | 6 3/8" | 137 | 5 25/64" | 22 | 7/8" | 55 | 2 11/64" | 2500 | 22100 | M10x60 143.260.002.1 |
| | B05 | 1 3/4" z.20 | 162 | 6 3/8" | 137 | 5 25/64" | 22 | 7/8" | 55 | 2 11/64" | 2500 | 22100 | M10x60 143.260.004.1 |
| 80 | B02 | 1 3/8" z.6 | 162 | 6 3/8" | 146 | 5 3/4" | 22 | 7/8" | 57 | 2 1/4" | 3500 | 30900 | M12x65 143.280.001.1 |
| | B03 | 1 3/8" z.21 | 162 | 6 3/8" | 146 | 5 3/4" | 22 | 7/8" | 57 | 2 1/4" | 3500 | 30900 | M12x65 143.280.003.1 |
| | B04 | 1 3/4" z.6 | 162 | 6 3/8" | 146 | 5 3/4" | 22 | 7/8" | 57 | 2 1/4" | 3500 | 30900 | M12x65 143.280.002.1 |
| | B05 | 1 3/4" z.20 | 162 | 6 3/8" | 146 | 5 3/4" | 22 | 7/8" | 57 | 2 1/4" | 3500 | 30900 | M12x65 143.280.004.1 |
| 90 | B02 | 1 3/8" z.6 | 162 | 6 3/8" | 152 | 6" | 22 | 7/8" | 65 | 2 9/16" | 4000 | 35400 | M12x65 143.290.001.1 |
| | B03 | 1 3/8" z.21 | 162 | 6 3/8" | 152 | 6" | 22 | 7/8" | 65 | 2 9/16" | 4000 | 35400 | M12x65 143.290.002.1 |
| | B04 | 1 3/4" z.6 | 162 | 6 3/8" | 152 | 6" | 22 | 7/8" | 65 | 2 9/16" | 4000 | 35400 | M12x65 143.290.003.1 |
| | B05 | 1 3/4" z.20 | 162 | 6 3/8" | 152 | 6" | 22 | 7/8" | 65 | 2 9/16" | 4000 | 35400 | M12x65 143.290.004.1 |

NOTA: fornibile a richiesta con bullone interferente

NOTE: available on demand with interfering clamp bolt

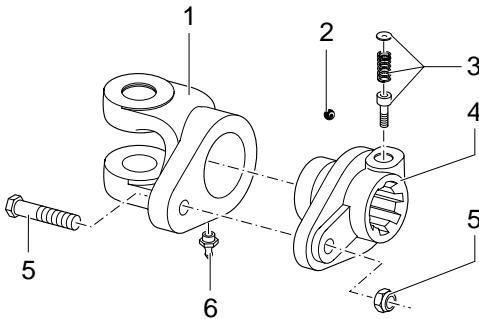
Il limitatore interviene interrompendo la trasmissione di potenza quando la coppia supera il limite di taratura mediante la rottura del bullone. La trasmissione viene ripristinata inserendo un nuovo bullone nel dispositivo.

The torque limiter interrupts the power transmission when the torque exceeds the setting value, by shearing the bolt. Transmission is restored by inserting a new bolt in the device.



LIMITATORE A BULLONE DI TRANCIO

SHEAR BOLT TORQUE LIMITER



B

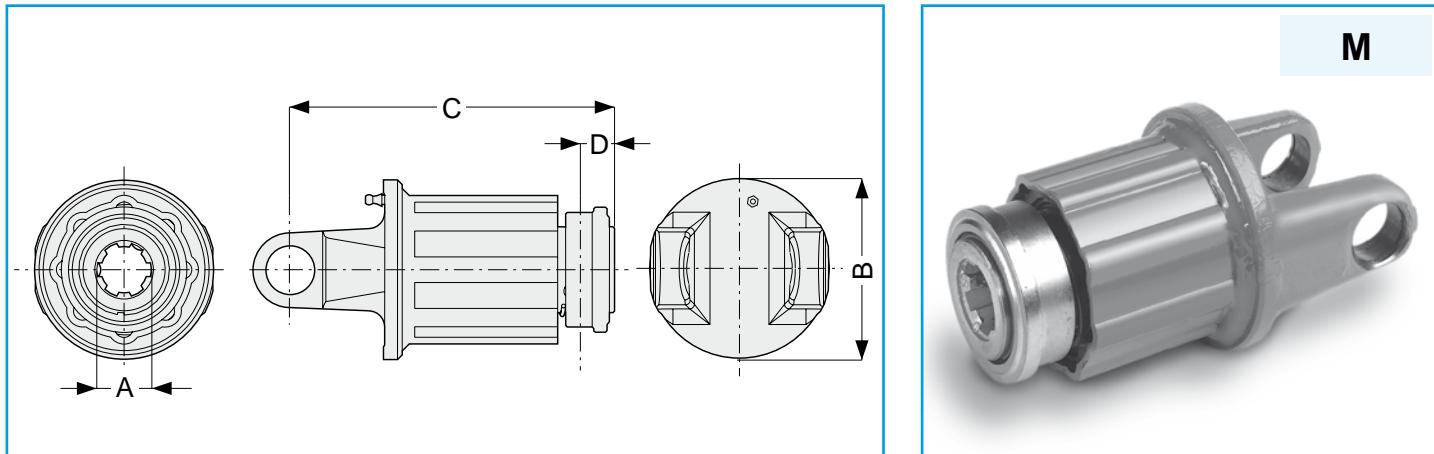
| Pos. | Description | | Code | Qty * |
|------|---------------------------------|-----------------------------|---------------|-------|
| 1 | Forcella B (tipo 10) | Yoke B (type 10) | 151.011.205.1 | 1 |
| | Forcella B (tipo 20) | Yoke B (type 20) | 151.012.005.1 | 1 |
| | Forcella B (tipo 40) | Yoke B (type 40) | 151.014.012.1 | 1 |
| | Forcella B (tipo 50) | Yoke B (type 50) | 151.015.024.1 | 1 |
| | Forcella B (tipo 60) | Yoke B (type 60) | 151.016.042.1 | 1 |
| | Forcella B (tipo 80) | Yoke B (type 80) | 151.018.023.1 | 1 |
| | Forcella B (tipo 90) | Yoke B (type 90) | 151.019.136.1 | 1 |
| 2 | Sfera 7/32" (tipo 10-20) | Ball 7/32" (type 10-20) | 190.000.024 | 24 |
| | Sfera 1/4" (tipo 40-50) | Ball 1/4" (type 40-50) | 190.000.022 | 23 |
| | Sfera 5/16" (tipo 60-80-90) | Ball 5/16 " (type 60-80-90) | 190.000.023 | 24 |
| → 3 | Kit pulsante 1 3/8" | Push-pin set 1 3/8" | 166.026.004 | 1 ÷ 2 |
| | Kit pulsante 1 3/4" | Push-pin set 1 3/4" | 166.026.005 | 1 ÷ 2 |
| 4 | Mozzo B02 (tipo 10) | Hub B02 (type 10) | 141.021.201.1 | 1 |
| | Mozzo B03 (tipo 10) | Hub B03 (type 10) | 141.021.332.1 | 1 |
| | Mozzo B02 (tipo 20) | Hub B02 (type 20) | 141.022.010.1 | 1 |
| | Mozzo B03 (tipo 20) | Hub B03 (type 20) | 141.022.017.1 | 1 |
| | Mozzo B02 (tipo 40) | Hub B02 (type 40) | 141.024.013.1 | 1 |
| | Mozzo B03 (tipo 40) | Hub B03 (type 40) | 141.024.026.1 | 1 |
| | Mozzo B02 (tipo 50) | Hub B02 (type 50) | 141.025.025.1 | 1 |
| | Mozzo B03 (tipo 50) | Hub B03 (type 50) | 141.025.013.1 | 1 |
| | Mozzo B02 (tipo 60) | Hub B02 (type 60) | 141.026.043.1 | 1 |
| | Mozzo B03 (tipo 60) | Hub B03 (type 60) | 141.026.026.1 | 1 |
| | Mozzo B04 (tipo 60) | Hub B04 (type 60) | 141.026.044.1 | 1 |
| | Mozzo B05 (tipo 60) | Hub B05 (type 60) | 141.026.027.1 | 1 |
| | Mozzo B02 (tipo 80) | Hub B02 (type 80) | 141.028.024.1 | 1 |
| | Mozzo B03 (tipo 80) | Hub B03 (type 80) | 141.028.037.1 | 1 |
| | Mozzo B04 (tipo 80) | Hub B04 (type 80) | 141.028.025.1 | 1 |
| | Mozzo B05 (tipo 80) | Hub B05 (type 80) | 141.028.038.1 | 1 |
| | Mozzo B02 (tipo 90) | Hub B02 (type 90) | 141.029.137.1 | 1 |
| | Mozzo B03 (tipo 90) | Hub B03 (type 90) | 141.029.142.1 | 1 |
| | Mozzo B04 (tipo 90) | Hub B04 (type 90) | 141.029.141.1 | 1 |
| | Mozzo B05 (tipo 90) | Hub B05 (type 90) | 141.029.140.1 | 1 |
| 5 | Vite M6x45 + dado | Bolt M6x45+nut | 165.000.597 | 1 |
| | Vite M6x40 + dado | Bolt M6x40+nut | 165.000.509 | 1 |
| | Vite M8x50 + dado | Bolt M8x50+nut | 165.000.505 | 1 |
| | Vite M10x55 + dado | Bolt M10x55+nut | 165.000.511 | 1 |
| | Vite M10x60 + dado | Bolt M10x60+nut | 165.000.507 | 1 |
| | Vite M12x65 + dado | Bolt M12x65+nut | 165.000.512 | 1 |
| 6 | Ingrassatore M8x1 (tipo 10-50) | Greaser M8x1 (type 10-50) | 190.000.020 | 1 |
| | Ingrassatore M10x1 (tipo 60-90) | Greaser M10x1 (type 60-90) | 190.000.021 | 1 |



Contattare ufficio tecnico per l'esatta indicazione del n. kit pulsante da ordinare.
Please contact Comer Technical Dept. for the exact number of push-pin set to be ordered.

* Quantità presente nel dispositivo
Quantity in the Safety Device

LIMITATORE A NOTTOLINI BIDIREZIONALE
BI-DIRECTIONAL RATCHET CLUTCH TORQUE LIMITER

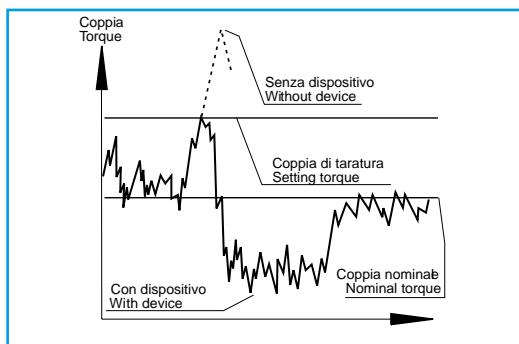


M

| Type | Ref. | A | B | | C | | D | | MAX | | Code |
|------|------|-------------|------|----------|------|----------|------|---------|------|---------|---------------|
| | | | [mm] | [inch] | [mm] | [inch] | [mm] | [inch] | [Nm] | [in.lb] | |
| 10 | M14 | 1 3/8" z.6 | 100 | 3 15/16" | 121 | 4 49/64" | 26 | 1 1/32" | 300 | 2650 | 144.216.062.1 |
| | M15 | 1 3/8" z.21 | 100 | 3 15/16" | 121 | 4 49/64" | 26 | 1 1/32" | 300 | 2650 | 144.216.069.1 |
| | M24 | 1 3/8" z.6 | 100 | 3 15/16" | 141 | 5 35/64" | 26 | 1 1/32" | 600 | 5300 | 144.216.070.1 |
| | M25 | 1 3/8" z.21 | 100 | 3 15/16" | 141 | 5 35/64" | 26 | 1 1/32" | 600 | 5300 | 144.216.071.1 |
| 20 | M14 | 1 3/8" z.6 | 100 | 3 15/16" | 126 | 4 61/64" | 26 | 1 1/32" | 300 | 2650 | 144.226.041.1 |
| | M15 | 1 3/8" z.21 | 100 | 3 15/16" | 126 | 4 61/64" | 26 | 1 1/32" | 300 | 2650 | 144.226.053.1 |
| | M24 | 1 3/8" z.6 | 100 | 3 15/16" | 146 | 5 3/4" | 26 | 1 1/32" | 600 | 5300 | 144.226.042.1 |
| | M25 | 1 3/8" z.21 | 100 | 3 15/16" | 146 | 5 3/4" | 26 | 1 1/32" | 600 | 5300 | 144.226.054.1 |
| | M34 | 1 3/8" z.6 | 100 | 3 15/16" | 166 | 6 17/32" | 26 | 1 1/32" | 900 | 7950 | 144.226.044.1 |
| | M35 | 1 3/8" z.21 | 100 | 3 15/16" | 166 | 6 17/32" | 26 | 1 1/32" | 900 | 7950 | 144.226.055.1 |
| 40 | M24 | 1 3/8" z.6 | 100 | 3 15/16" | 157 | 6 3/16" | 26 | 1 1/32" | 600 | 5300 | 144.246.051.1 |
| | M25 | 1 3/8" z.21 | 100 | 3 15/16" | 157 | 6 3/16" | 26 | 1 1/32" | 600 | 5300 | 144.246.056.1 |
| | M34 | 1 3/8" z.6 | 100 | 3 15/16" | 177 | 6 31/32" | 26 | 1 1/32" | 900 | 7950 | 144.246.049.1 |
| | M35 | 1 3/8" z.21 | 100 | 3 15/16" | 177 | 6 31/32" | 26 | 1 1/32" | 900 | 7950 | 144.246.057.1 |
| | M44 | 1 3/8" z.6 | 100 | 3 15/16" | 197 | 7 3/4" | 26 | 1 1/32" | 1200 | 10600 | 144.246.048.1 |
| | M45 | 1 3/8" z.21 | 100 | 3 15/16" | 197 | 7 3/4" | 26 | 1 1/32" | 1200 | 10600 | 144.246.058.1 |
| 50 | M24 | 1 3/8" z.6 | 100 | 3 15/16" | 159 | 6 17/64" | 26 | 1 1/32" | 600 | 5300 | 144.256.028.1 |
| | M25 | 1 3/8" z.21 | 100 | 3 15/16" | 159 | 6 17/64" | 26 | 1 1/32" | 600 | 5300 | 144.256.029.1 |
| | M34 | 1 3/8" z.6 | 100 | 3 15/16" | 179 | 7 3/64" | 26 | 1 1/32" | 900 | 7950 | 144.256.030.1 |
| | M35 | 1 3/8" z.21 | 100 | 3 15/16" | 179 | 7 3/64" | 26 | 1 1/32" | 900 | 7950 | 144.256.031.1 |
| | M44 | 1 3/8" z.6 | 100 | 3 15/16" | 199 | 7 53/64" | 26 | 1 1/32" | 1200 | 10600 | 144.256.032.1 |
| | M45 | 1 3/8" z.21 | 100 | 3 15/16" | 199 | 7 53/64" | 26 | 1 1/32" | 1200 | 10600 | 144.256.033.1 |
| 60 | M34 | 1 3/8" z.6 | 115 | 4 17/32" | 187 | 7 23/64" | 26 | 1 1/32" | 900 | 7950 | 144.266.030.1 |
| | M35 | 1 3/8" z.21 | 115 | 4 17/32" | 187 | 7 23/64" | 26 | 1 1/32" | 900 | 7950 | 144.266.033.1 |
| | M44 | 1 3/8" z.6 | 115 | 4 17/32" | 207 | 8 5/32" | 26 | 1 1/32" | 1200 | 10600 | 144.266.029.1 |
| | M45 | 1 3/8" z.21 | 115 | 4 17/32" | 207 | 8 5/32" | 26 | 1 1/32" | 1200 | 10600 | 144.266.034.1 |

Il dispositivo limitatore interviene quando la coppia di funzionamento supera il valore di taratura. Durante la fase di limitazione il dispositivo trasmette una potenza ridotta e in modo impulsivo. L'eliminazione della causa esterna e la diminuzione della velocità della PTO fa riprendere la normale trasmissione di potenza. All'atto dell'intervento del limitatore è bene staccare la presa di forza per evitare inutili usure e riscaldamenti.

The torque limiter is activated when the operating torque exceeds the setting value. During the limiting phase, the device transmits reduced power in pulses. The elimination of the external cause and the reduction of the PTO speed allows the normal power transmission to be re-established. When the limiter is activated, it is recommended to disconnect the PTO to avoid unnecessary wear and overheating.

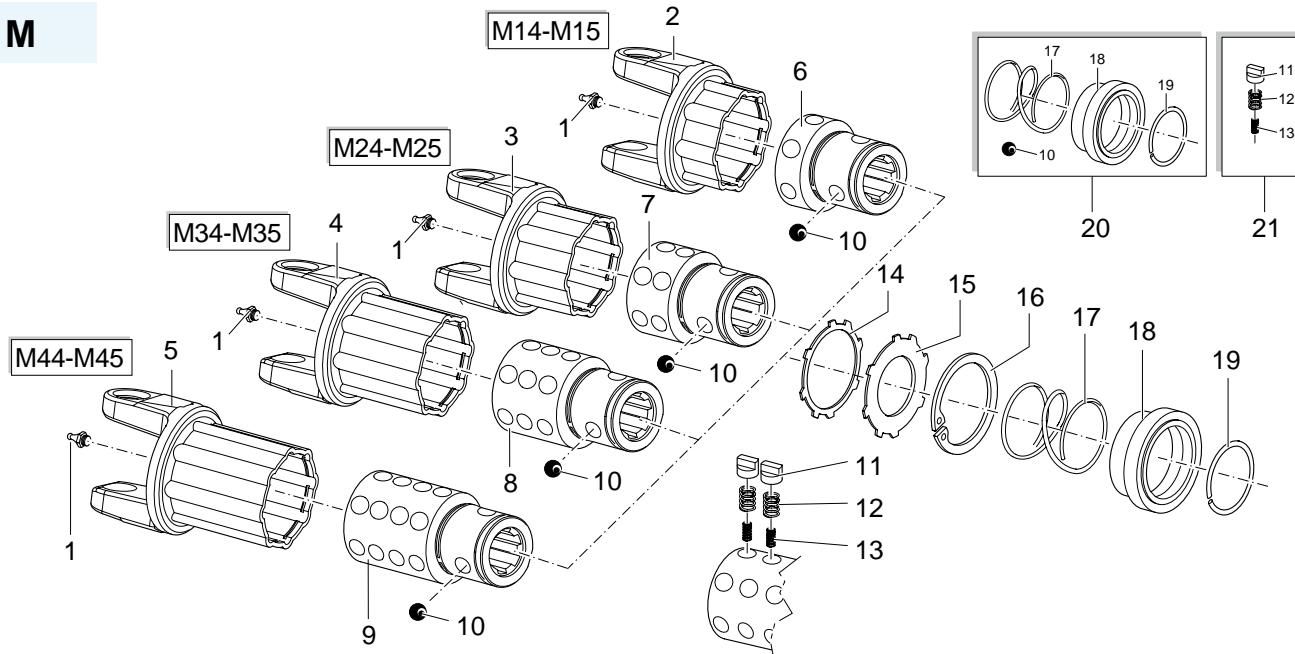


LIMITATORE A NOTTOLINI BIDIREZIONALE

BI-DIRECTIONAL RATCHET CLUTCH TORQUE LIMITER



M



| Pos. | Description | | Code | Qty * |
|------|----------------------------------|--------------------------------|---------------|--------|
| 1 | Ingrassatore M6x1 | Greaser M6x1 | 190.000.047 | 1 |
| 2 | Forcella corpo M14-M15 (tipo 10) | Yoke support M14-M15 (type 10) | 141.021.205.1 | 1 |
| | Forcella corpo M14-M15 (tipo 20) | Yoke support M14-M15 (type 20) | 141.022.205.1 | 1 |
| 3 | Forcella corpo M24-M25 (tipo 10) | Yoke support M24-M25 (type 10) | 141.021.206.1 | 1 |
| | Forcella corpo M24-M25 (tipo 20) | Yoke support M24-M25 (type 20) | 141.022.206.1 | 1 |
| | Forcella corpo M24-M25 (tipo 40) | Yoke support M24-M25 (type 40) | 141.024.206.1 | 1 |
| | Forcella corpo M24-M25 (tipo 50) | Yoke support M24-M25 (type 50) | 141.025.206.1 | 1 |
| 4 | Forcella corpo M34-M35 (tipo 20) | Yoke support M34-M35 (type 20) | 141.022.207.1 | 1 |
| | Forcella corpo M34-M35 (tipo 40) | Yoke support M34-M35 (type 40) | 141.024.207.1 | 1 |
| | Forcella corpo M34-M35 (tipo 50) | Yoke support M34-M35 (type 50) | 141.025.207.1 | 1 |
| | Forcella corpo M34-M35 (tipo 60) | Yoke support M34-M35 (type 60) | 141.026.207.1 | 1 |
| 5 | Forcella corpo M44-M45 (tipo 40) | Yoke support M44-M45 (type 40) | 141.024.208.1 | 1 |
| | Forcella corpo M44-M45 (tipo 50) | Yoke support M44-M45 (type 50) | 141.025.208.1 | 1 |
| | Forcella corpo M44-M45 (tipo 60) | Yoke support M44-M45 (type 60) | 141.026.208.1 | 1 |
| 6 | Mozzo M14 | Hub M14 | 151.013.319 | 1 |
| | Mozzo M15 | Hub M15 | 151.013.320 | 1 |
| 7 | Mozzo M24 | Hub M24 | 151.013.316 | 1 |
| | Mozzo M25 | Hub M25 | 151.013.321 | 1 |
| 8 | Mozzo M34 | Hub M34 | 151.013.322 | 1 |
| | Mozzo M35 | Hub M35 | 151.013.323 | 1 |
| 9 | Mozzo M44 | Hub M44 | 151.013.324 | 1 |
| | Mozzo M45 | Hub M45 | 151.013.325 | 1 |
| 10 | Sfera 1/2" | Ball 1/2" | 190.000.078 | 3 |
| → 11 | Nottolino | Ratchet tooth | 180.015.168 | 1 + 32 |
| → 12 | Molla esterna | Outer spring | 180.013.032 | 1 + 32 |
| → 13 | Molla interna | Inner spring | 180.013.033 | 1 + 32 |
| 14 | Distanziale | Retaining washer | 180.015.137 | 1 |
| 15 | Paragrasso | Grease protection | 180.013.334 | 1 |
| 16 | Seeger | Circlip | 190.000.178 | 1 |
| 17 | Molla collar | Collar spring | 180.016.487 | 1 |
| 18 | Manicotto collar | Sliding sleeve collar | 151.016.486 | 1 |
| 19 | Seeger | Snap ring | 190.000.451 | 1 |
| 20 | Kit collar M | Kit Collar M | 165.000.719 | 1 |
| 21 | Kit nottolini e molle | Ratchet teeth and springs set | 166.026.010 | 1 + 4 |

Contattare ufficio tecnico per l'esatta indicazione del n. di nottolini, molle esterne ed interne da ordinare.
Please contact Comer Technical Dept. for the exact number of ratchet teeth, outer and inner springs to be ordered.

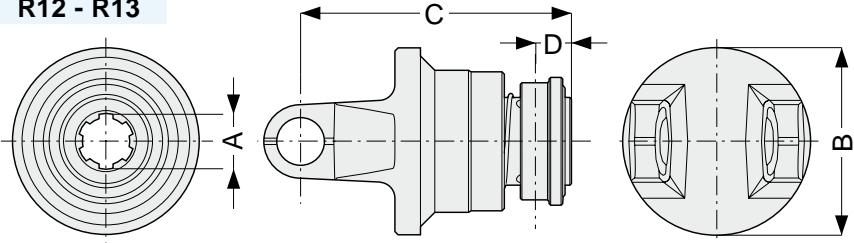
* Quantità presente nel dispositivo
Quantity in the Safety Device

Il kit comprende n. 8 nottolini, n. 8 molle interne, n. 8 molle esterne.
The set includes Nr.8 ratchet teeth, Nr.8 outer spring and Nr.8 inner spring.

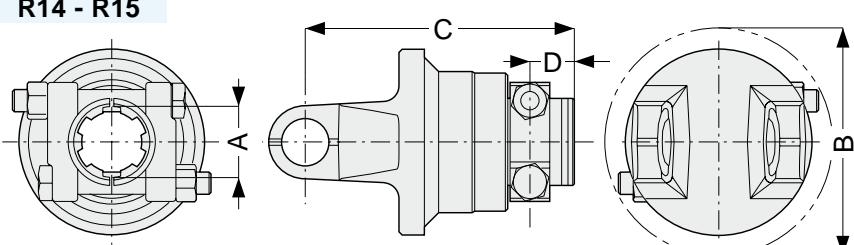
RUOTA LIBERA OVERRUNNING CLUTCH



R12 - R13



R14 - R15



R



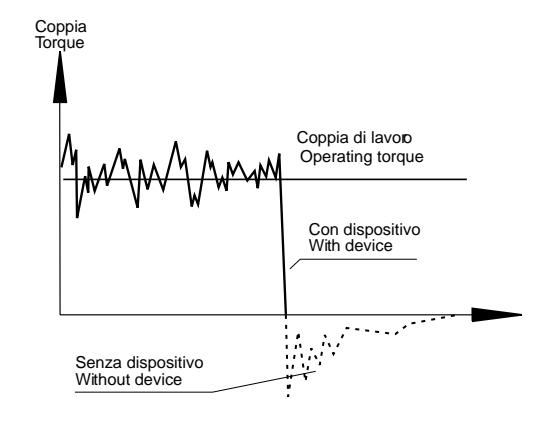
| Type | Ref. | A | B | | C | | D | | MAX | Code | |
|-----------|------|-------------|------|----------|------|----------|------|---------|------|---------|----------------------|
| | | | [mm] | [inch] | [mm] | [inch] | [mm] | [inch] | [Nm] | [in.lb] | |
| 10 | R12 | 1 3/8" z.6 | 96 | 3 25/32" | 141 | 5 35/64" | 26 | 1 1/32" | 3800 | 33630 | 145.215.011.1 |
| | R13 | 1 3/8" z.21 | 96 | 3 25/32" | 141 | 5 35/64" | 26 | 1 1/32" | 3800 | 33630 | 145.215.012.1 |
| 20 | R12 | 1 3/8" z.6 | 96 | 3 25/32" | 146 | 5 3/4" | 26 | 1 1/32" | 3800 | 33630 | 145.225.011.1 |
| | R13 | 1 3/8" z.21 | 96 | 3 25/32" | 146 | 5 3/4" | 26 | 1 1/32" | 3800 | 33630 | 145.225.012.1 |
| 40 | R12 | 1 3/8" z.6 | 96 | 3 25/32" | 157 | 6 3/16" | 26 | 1 1/32" | 3800 | 33630 | 145.245.011.1 |
| | R13 | 1 3/8" z.21 | 96 | 3 25/32" | 157 | 6 3/16" | 26 | 1 1/32" | 3800 | 33630 | 145.245.012.1 |
| | R14 | 1 3/4" z.6 | 140 | 5 33/64" | 157 | 6 3/16" | 28 | 1 7/64" | 3800 | 33630 | 145.245.019.1 |
| | R15 | 1 3/4" z.20 | 140 | 5 33/64" | 157 | 6 3/16" | 28 | 1 7/64" | 3800 | 33630 | 145.245.020.1 |
| 50 | R12 | 1 3/8" z.6 | 100 | 3 15/16" | 159 | 6 17/64" | 26 | 1 1/32" | 3800 | 33630 | 145.255.011.1 |
| | R13 | 1 3/8" z.21 | 100 | 3 15/16" | 159 | 6 17/64" | 26 | 1 1/32" | 3800 | 33630 | 145.255.012.1 |
| | R14 | 1 3/4" z.6 | 140 | 5 33/64" | 159 | 6 17/64" | 28 | 1 7/64" | 3800 | 33630 | 145.255.014.1 |
| | R15 | 1 3/4" z.20 | 140 | 5 33/64" | 159 | 6 17/64" | 28 | 1 7/64" | 3800 | 33630 | 145.255.015.1 |
| 60 | R12 | 1 3/8" z.6 | 115 | 4 17/32" | 167 | 6 37/64" | 26 | 1 1/32" | 3800 | 33630 | 145.265.011.1 |
| | R13 | 1 3/8" z.21 | 115 | 4 17/32" | 167 | 6 37/64" | 26 | 1 1/32" | 3800 | 33630 | 145.265.012.1 |
| | R14 | 1 3/4" z.6 | 140 | 5 33/64" | 167 | 6 37/64" | 28 | 1 7/64" | 3800 | 33630 | 145.265.017.1 |
| | R15 | 1 3/4" z.20 | 140 | 5 33/64" | 167 | 6 37/64" | 28 | 1 7/64" | 3800 | 33630 | 145.265.019.1 |
| 80 | R12 | 1 3/8" z.6 | 127 | 5" | 176 | 6 59/64" | 26 | 1 1/32" | 3800 | 33630 | 145.285.011.1 |
| | R13 | 1 3/8" z.21 | 127 | 5" | 176 | 6 59/64" | 26 | 1 1/32" | 3800 | 33630 | 145.285.012.1 |
| | R14 | 1 3/4" z.6 | 140 | 5 33/64" | 176 | 6 59/64" | 28 | 1 7/64" | 3800 | 33630 | 145.285.014.1 |
| | R15 | 1 3/4" z.20 | 140 | 5 33/64" | 176 | 6 59/64" | 28 | 1 7/64" | 3800 | 33630 | 145.285.013.1 |

NOTA: fornibile a richiesta per senso di rotazione antiorario

Il dispositivo consente di trasmettere il moto in un solo senso di rotazione, quando il trattore aziona la macchina operatrice. Nella fase di arresto, con la PTO trattore disinserita e la macchina ancora in movimento, la trasmissione è disaccoppiata. Tale dispositivo è utile per macchine operatrici con elevata inerzia di rotazione perché, durante la fase di arresto, la PTO del trattore non viene trascinata dalla macchina operatrice.

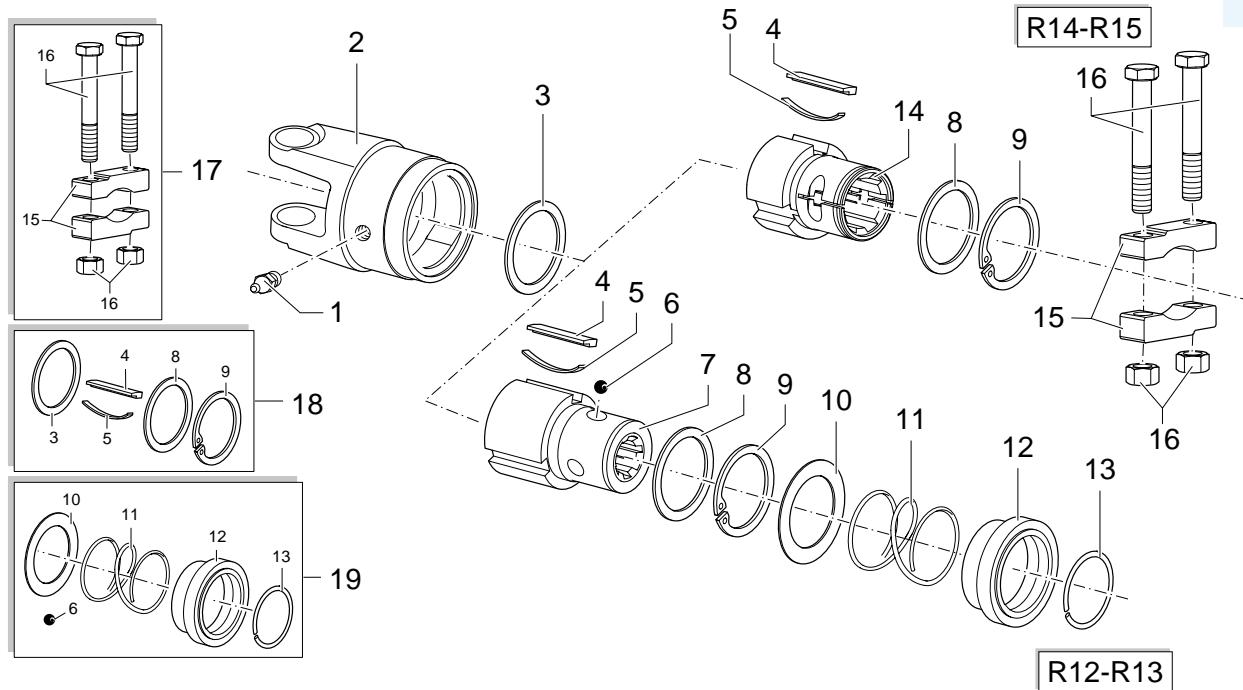
NOTE: available upon request for anti-clockwise direction of rotation

The device is used to transmit the motion in a single rotation direction, when the tractor drives the implement. During the stopping phase, with the tractor PTO disengaged and the implement still moving, the transmission is disconnected. This device is useful for operating machinery with high rotation inertia because during the stopping phase, the tractor PTO is dis-engaged from the driven machine.





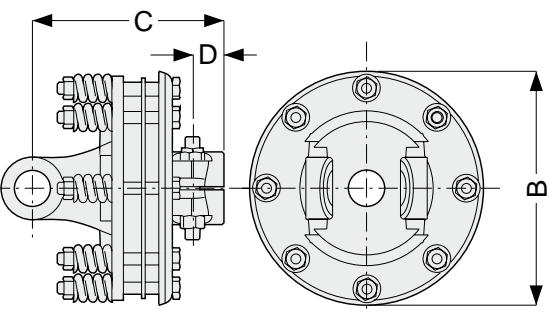
R



| Pos. | Description | Code | Qty * |
|------|----------------------------|---------------|-------|
| 2 | Ingrassatore M8x1 | 190.000.020 | 1 |
| | Forcella corpo R (tipo 10) | 141.021.210.1 | 1 |
| | Forcella corpo R (tipo 20) | 141.022.210.1 | 1 |
| | Forcella corpo R (tipo 40) | 141.024.210.1 | 1 |
| | Forcella corpo R (tipo 50) | 141.025.210.1 | 1 |
| | Forcella corpo R (tipo 60) | 141.026.210.1 | 1 |
| | Forcella corpo R (tipo 80) | 141.028.210.1 | 1 |
| 3 | Distanziale | 190.000.199 | 1 |
| 4 | Linguetta | 151.014.136 | 3 |
| 5 | Molla a balestra | 180.014.137 | 3 |
| 6 | Sfera | 190.000.078 | 3 |
| 7 | Mozzo R12 | 151.016.546 | 1 |
| | Mozzo R13 | 151.016.571 | 1 |
| 8 | Anello di rasamenfo | 180.014.135 | 1 |
| 9 | Seeger | 190.000.183 | 1 |
| 10 | Lamierino | 180.015.143 | 1 |
| 11 | Molla collar | 180.016.487 | 1 |
| 12 | Manicotto collar | 151.016.486 | 1 |
| 13 | Seeger | 190.000.451 | 1 |
| 14 | Mozzo R14 | 151.014.200 | 1 |
| | Mozzo R15 | 151.018.121 | 1 |
| 15 | Ponte di blocco | 151.014.201 | 2 |
| 16 | Vite M14x1,5x100 + dado | 165.000.622 | 2 |
| 17 | Kit ponti blocco 1 3/4" | 165.000.692 | 1 |
| 18 | Kit R | 166.000.547 | 1 |
| 19 | Kit collar R12-R13 | 165.000.653 | 1 |

* Quantità presente nel dispositivo
Quantity in the Safety Device

FRIZIONE A DISCHI MULTIPLI
DISC CLUTCH TORQUE LIMITER



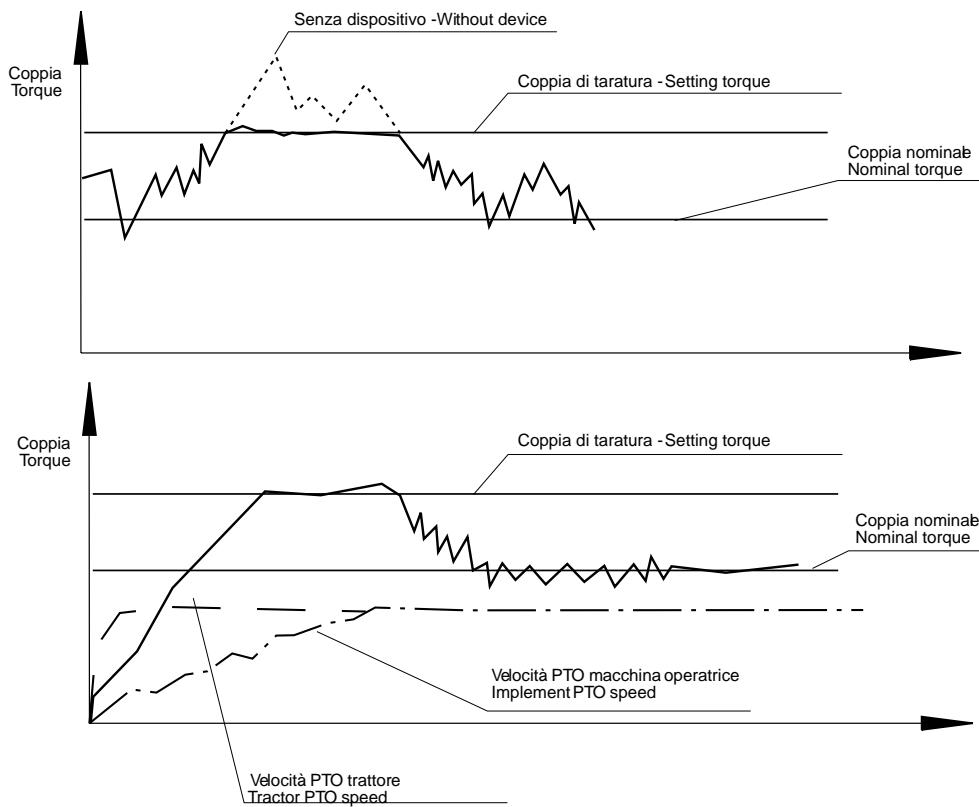
| Type | Ref. | A [mm] | B [mm] [inch] | | C [mm] [inch] | D [mm] [inch] |  MAX | | Code | | |
|------|------|-------------|------------------|----------|------------------|------------------|---|---------|------|-------|---------------|
| | | | [mm] | [inch] | [mm] | [inch] | [Nm] | [in.lb] | | | |
| 20 | F02 | 1 3/8" z.6 | 153 | 6 1/32" | 120 | 4 23/32" | 22 | 7/8" | 650 | 5750 | 146.221.001.1 |
| | F03 | 1 3/8" z.21 | 153 | 6 1/32" | 120 | 4 23/32" | 22 | 7/8" | 650 | 5750 | 146.221.002.1 |
| | F04 | 1 3/8" z.6 | 153 | 6 1/32" | 144 | 5 21/32" | 26 | 1 1/32" | 900 | 7950 | 146.221.011.1 |
| | F05 | 1 3/8" z.21 | 153 | 6 1/32" | 144 | 5 21/32" | 26 | 1 1/32" | 900 | 7950 | 146.221.012.1 |
| 40 | F02 | 1 3/8" z.6 | 153 | 6 1/32" | 133 | 5 15/64" | 22 | 7/8" | 650 | 5750 | 146.241.002.1 |
| | F03 | 1 3/8" z.21 | 153 | 6 1/32" | 133 | 5 15/64" | 22 | 7/8" | 650 | 5750 | 146.241.004.1 |
| | F04 | 1 3/8" z.6 | 153 | 6 1/32" | 157 | 6 3/16" | 26 | 1 1/32" | 900 | 7950 | 146.241.047.1 |
| | F05 | 1 3/8" z.21 | 153 | 6 1/32" | 157 | 6 3/16" | 26 | 1 1/32" | 900 | 7950 | 146.241.048.1 |
| | F12 | 1 3/8" z.6 | 180 | 7 3/32" | 135 | 5 5/16" | 19 | 3/4" | 900 | 7950 | 146.241.001.1 |
| | F13 | 1 3/8" z.21 | 180 | 7 3/32" | 135 | 5 5/16" | 19 | 3/4" | 900 | 7950 | 146.241.003.1 |
| 50 | F12 | 1 3/8" z.6 | 195 | 7 43/64" | 146 | 5 3/4" | 26 | 1 1/32" | 1200 | 10600 | 146.252.011.1 |
| | F13 | 1 3/8" z.21 | 195 | 7 43/64" | 146 | 5 3/4" | 26 | 1 1/32" | 1200 | 10600 | 146.252.012.1 |
| | F22 | 1 3/8" z.6 | 195 | 7 43/64" | 146 | 5 3/4" | 26 | 1 1/32" | 1200 | 10600 | 146.252.013.1 |
| | F23 | 1 3/8" z.21 | 195 | 7 43/64" | 146 | 5 3/4" | 26 | 1 1/32" | 1200 | 10600 | 146.252.014.1 |
| | F24 | 1 3/4" z.6 | 195 | 7 43/64" | 146 | 5 3/4" | 26 | 1 1/32" | 1200 | 10600 | 146.262.011.1 |
| | F25 | 1 3/4" z.20 | 195 | 7 43/64" | 146 | 5 3/4" | 26 | 1 1/32" | 1200 | 10600 | 146.262.012.1 |
| 60 | F12 | 1 3/8" z.6 | 180 | 7 3/32" | 135 | 5 5/16" | 19 | 3/4" | 900 | 7950 | 146.261.001.1 |
| | F13 | 1 3/8" z.21 | 180 | 7 3/32" | 135 | 5 5/16" | 19 | 3/4" | 900 | 7950 | 146.261.002.1 |
| | F22 | 1 3/8" z.6 | 195 | 7 43/64" | 146 | 5 3/4" | 26 | 1 1/32" | 1200 | 10600 | 146.262.011.1 |
| | F23 | 1 3/8" z.21 | 195 | 7 43/64" | 146 | 5 3/4" | 26 | 1 1/32" | 1200 | 10600 | 146.262.012.1 |
| | F24 | 1 3/4" z.6 | 195 | 7 43/64" | 146 | 5 3/4" | 26 | 1 1/32" | 1200 | 10600 | 146.262.013.1 |
| | F25 | 1 3/4" z.20 | 195 | 7 43/64" | 146 | 5 3/4" | 26 | 1 1/32" | 1200 | 10600 | 146.262.014.1 |
| | F42 | 1 3/8" z.6 | 195 | 7 43/64" | 156 | 6 1/8" | 26 | 1 1/32" | 1600 | 14150 | 146.264.011.1 |
| | F43 | 1 3/8" z.21 | 195 | 7 43/64" | 156 | 6 1/8" | 26 | 1 1/32" | 1600 | 14150 | 146.264.012.1 |
| | F44 | 1 3/4" z.6 | 195 | 7 43/64" | 156 | 6 1/8" | 26 | 1 1/32" | 1600 | 14150 | 146.264.013.1 |
| | F45 | 1 3/4" z.20 | 195 | 7 43/64" | 156 | 6 1/8" | 26 | 1 1/32" | 1600 | 14150 | 146.264.014.1 |
| 80 | F22 | 1 3/8" z.6 | 195 | 7 43/64" | 159 | 6 17/64" | 26 | 1 1/32" | 1200 | 10600 | 146.282.011.1 |
| | F23 | 1 3/8" z.21 | 195 | 7 43/64" | 159 | 6 17/64" | 26 | 1 1/32" | 1200 | 10600 | 146.282.012.1 |
| | F24 | 1 3/4" z.6 | 195 | 7 43/64" | 159 | 6 17/64" | 26 | 1 1/32" | 1200 | 10600 | 146.282.013.1 |
| | F25 | 1 3/4" z.20 | 195 | 7 43/64" | 159 | 6 17/64" | 26 | 1 1/32" | 1200 | 10600 | 146.282.014.1 |
| | F42 | 1 3/8" z.6 | 195 | 7 43/64" | 169 | 6 21/32" | 26 | 1 1/32" | 2000 | 17700 | 146.284.011.1 |
| | F43 | 1 3/8" z.21 | 195 | 7 43/64" | 169 | 6 21/32" | 26 | 1 1/32" | 2000 | 17700 | 146.284.012.1 |
| | F44 | 1 3/4" z.6 | 195 | 7 43/64" | 169 | 6 21/32" | 26 | 1 1/32" | 2000 | 17700 | 146.284.013.1 |
| | F45 | 1 3/4" z.20 | 195 | 7 43/64" | 169 | 6 21/32" | 26 | 1 1/32" | 2000 | 17700 | 146.284.014.1 |
| 90 | F42 | 1 3/8" z.6 | 195 | 7 43/64" | 169 | 6 21/32" | 26 | 1 1/32" | 2000 | 17700 | 146.294.011.1 |
| | F43 | 1 3/8" z.21 | 195 | 7 43/64" | 169 | 6 21/32" | 26 | 1 1/32" | 2000 | 17700 | 146.294.012.1 |
| | F44 | 1 3/4" z.6 | 195 | 7 43/64" | 169 | 6 21/32" | 26 | 1 1/32" | 2000 | 17700 | 146.294.013.1 |
| | F45 | 1 3/4" z.20 | 195 | 7 43/64" | 169 | 6 21/32" | 26 | 1 1/32" | 2000 | 17700 | 146.294.014.1 |

FRIZIONE A DISCHI MULTIPLI DISC CLUTCH TORQUE LIMITER



Il dispositivo limitatore interviene quando la coppia di lavoro supera la coppia di taratura. Durante la fase di limitazione del picco di coppia la frizione continua a trasmettere potenza. La frizione è utile sia come dispositivo di sicurezza contro picchi di carico sia per avviare macchine con elevata inerzia rotazionale. E' utile controllare la corretta taratura per evitare eccessivi riscaldamenti dei dischi d'attrito (taratura insufficiente) o il bloccaggio della frizione (taratura eccessiva).

The torque limiter is activated when the setting torque exceeds the calibration torque. During the torque peak limiting phase, the clutch continues to transmit power. The clutch is useful as a safety device to protect against load peaks and to start machines with high rotational inertia. It is recommended to ensure that the setting value is correct to avoid excessive heating of the friction discs (insufficient setting) or clutch seizing (excessive setting).



Le frizioni possono raggiungere elevate temperature.

Non toccare!

Per evitare rischi di incendio, mantenere la zona adiacente la frizione pulita da materiale infiammabile ed evitare slittamenti prolungati.

Friction clutches may become hot during use.

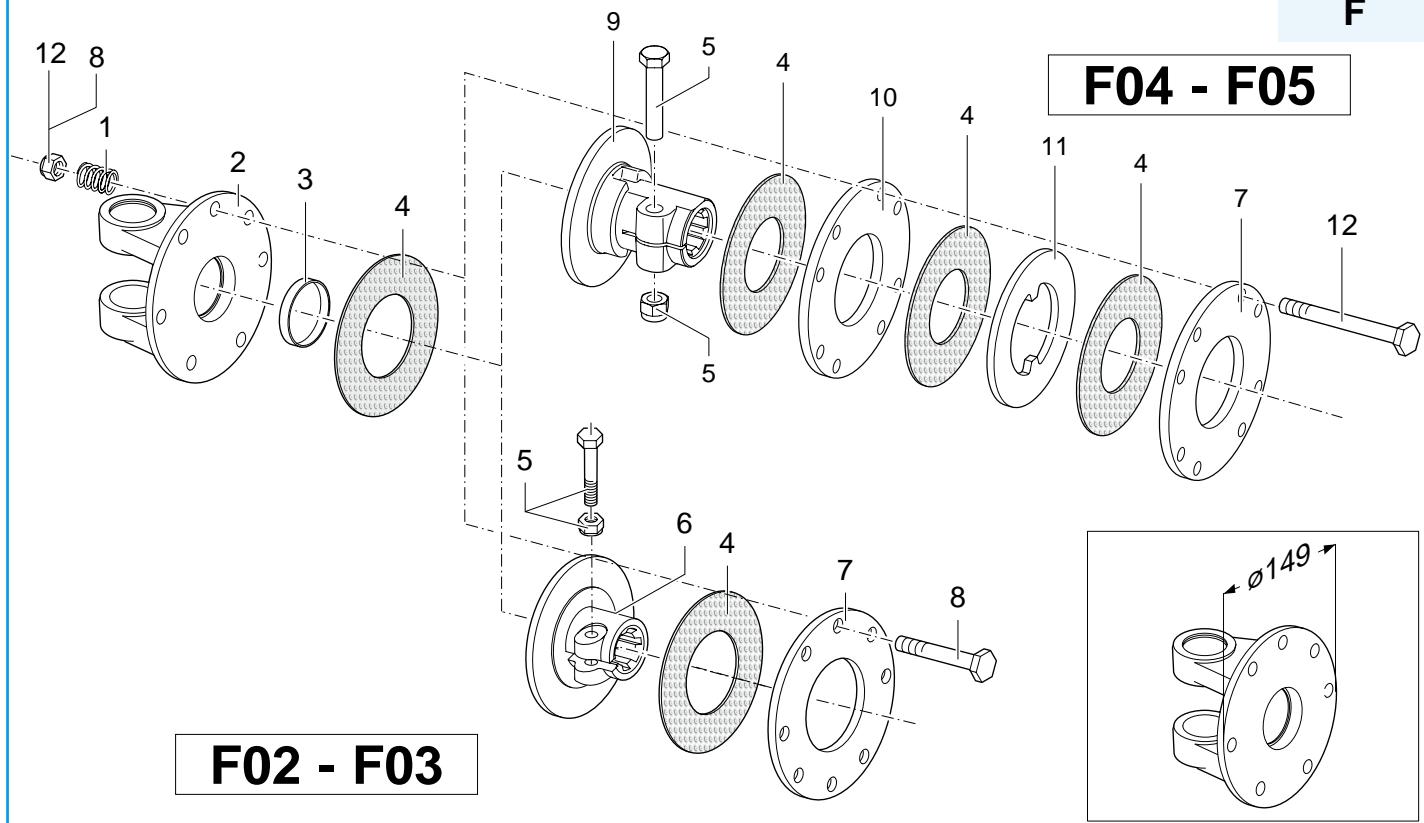
Do not touch!

Keep the area around the friction clutch clear of any material which could catch fire and avoid prolonged slipping.

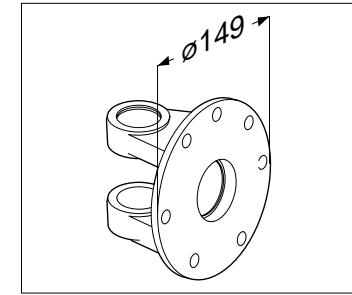


F0

F



F02 - F03



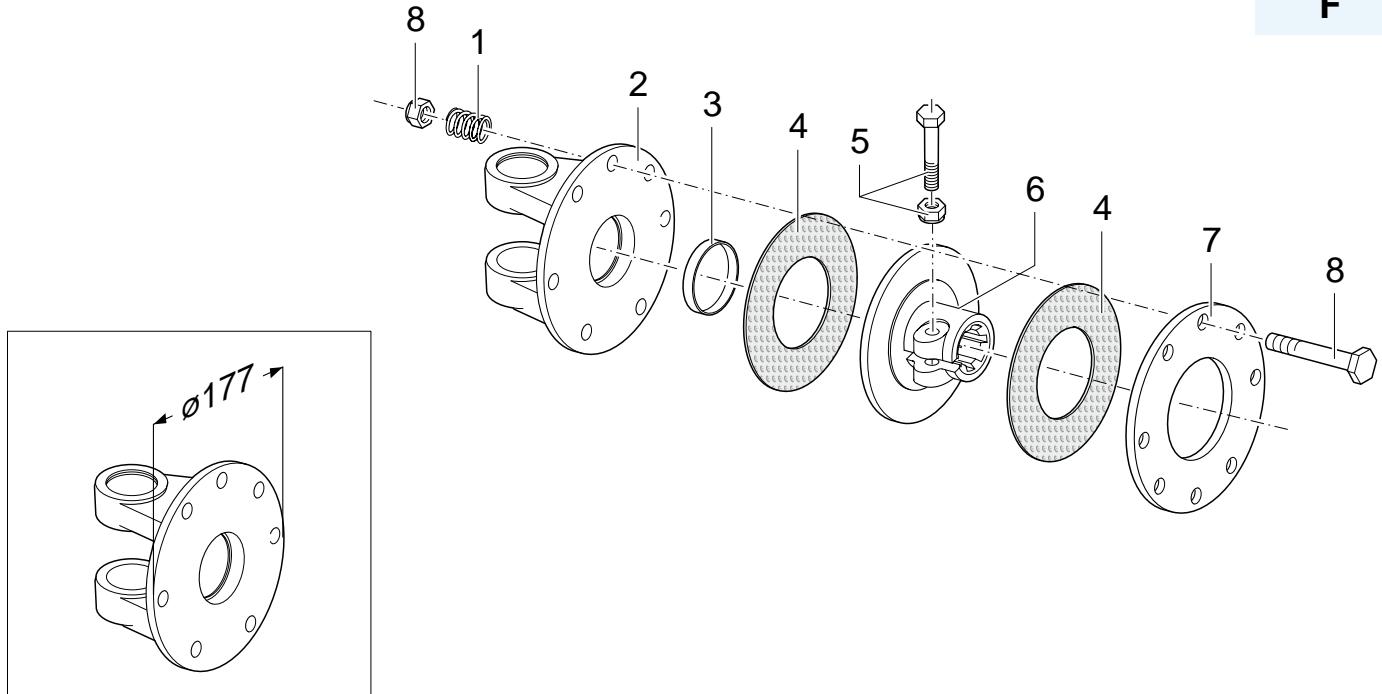
| Pos. | <i>Description</i> | | Code | Qty * |
|------|----------------------------------|--------------------------------|---------------|-------|
| 1 | Molla elicoidale ø 6 | Spring ø 6 | 180.014.022 | 8 |
| 2 | Forcella flangia (tipo 20) | Flanged yoke (type 20) | 151.012.139.1 | 1 |
| 2 | Forcella flangia (tipo 40) | Flanged yoke (type 40) | 151.014.017.1 | 1 |
| 3 | Bronzina | Bush | 180.015.020 | 1 |
| 4 | Dischi attrito ø120xø68 (F02-03) | Lining rings ø120xø68(F02-03) | 180.014.019 | 2 |
| 4 | Dischi attrito ø120xø68 (F04-05) | Lining rings ø120xø68 (F04-05) | | 4 |
| 5 | Kit vite M12x1,25x65+dado | Bolt M12x1,25x65+nut | 165.000.502 | 1 |
| 6 | Mozzo frizione F02 | Clutch support F02 | 151.014.018.1 | 1 |
| 6 | Mozzo frizione F03 | Clutch support F03 | 151.013.022.1 | 1 |
| 7 | Disco stringi frizione (F02-03) | Pressure plate (F02-03) | 180.014.020.1 | 1 |
| 8 | Kit vite M10x80 + dado (F02-03) | Bolt M10x80+nut (F02-03) | 165.000.501 | 8 |
| 9 | Mozzo frizione F04 | Clutch support F02 | 151.014.570.1 | 1 |
| 9 | Mozzo frizione F05 | Clutch support F03 | 151.014.592.1 | 1 |
| 10 | Disco intermedio | Inner plate | 180.014.571 | 1 |
| 11 | Disco sagomato | Intermediate plate | 180.014.572 | 1 |
| 12 | Kit vite M10x100 + dado (F04-05) | Bolt M10x100+nut (F04-05) | 165.000.548 | 8 |

* Quantità presente nel dispositivo
Quantity in the Safety Device



F1

F



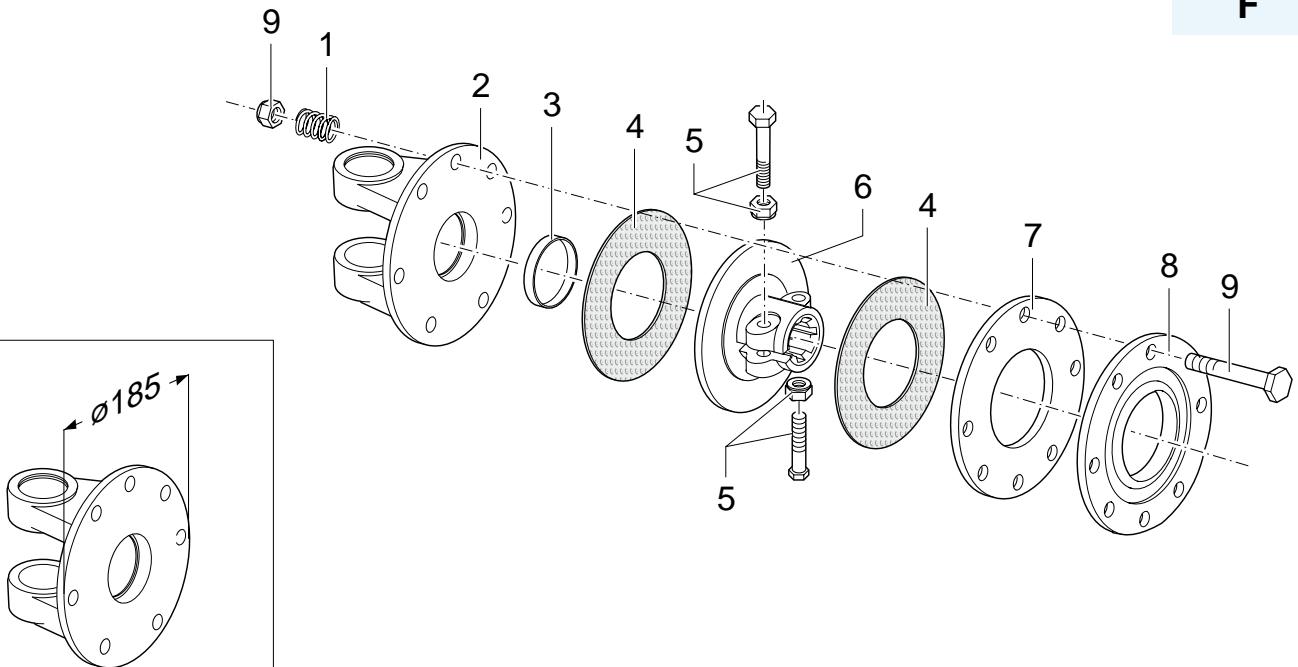
| Pos. | <i>Description</i> | | Code | Qty * |
|------|-----------------------------|--------------------------------|---------------|-------|
| 1 | Molla elicoidale ø 6 | <i>Spring ø 6</i> | 180.014.022 | 8 |
| 2 | Forcella flangia (tipo 40) | <i>Flanged yoke (type 40)</i> | 151.014.009.1 | 1 |
| | Forcella flangia (tipo 50) | <i>Flanged yoke (type 50)</i> | 151.015.017.1 | 1 |
| | Forcella flangia (tipo 60) | <i>Flanged yoke (type 60)</i> | 151.016.039.1 | 1 |
| | Bronzina | <i>Bush</i> | 180.015.020 | 1 |
| 4 | Dischi attrito ø142xø77,5 | <i>Lining rings ø142xø77,5</i> | 180.015.019 | 2 |
| 5 | Kit vite M12x1,25x65 + dado | <i>Bolt M12x1,25x65+nut</i> | 165.000.502 | 1 |
| 6 | Mozzo frizione F12 | <i>Clutch support F12</i> | 151.015.018 | 1 |
| | Mozzo frizione F13 | <i>Clutch support F13</i> | 151.015.010 | 1 |
| 9 | Disco stringi frizione | <i>Pressure plate</i> | 180.015.021 | 1 |
| 10 | Kit vite M10x80 + dado | <i>Bolt M10x80+nut</i> | 165.000.501 | 8 |

* Quantità presente nel dispositivo
Quantity in the Safety Device



F2

F



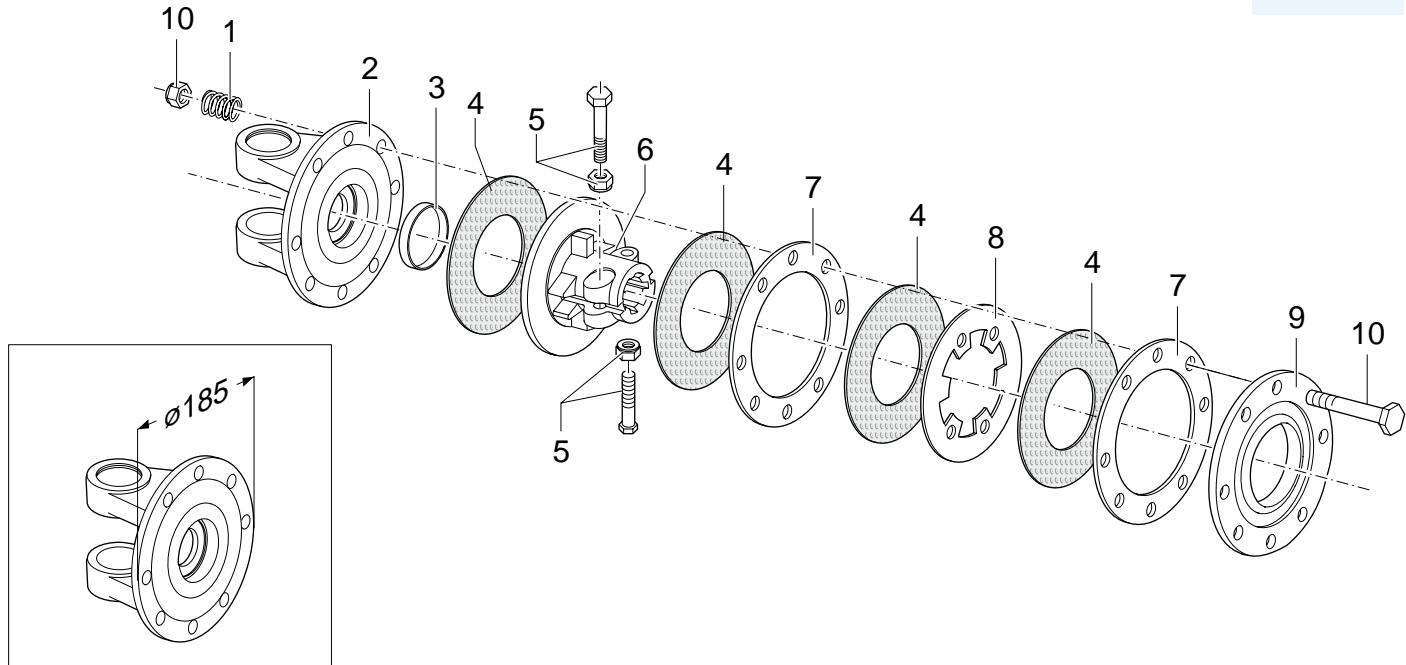
| Pos. | <i>Description</i> | | Code | Qty * |
|------|-----------------------------|------------------------|---------------|-------|
| 1 | Molla elicoidale ø 7 | Spring ø 7 | 180.019.017 | 8 |
| 2 | Forcella flangia (tipo 50) | Flanged yoke (type 50) | 151.015.038.1 | 1 |
| | Forcella flangia (tipo 60) | Flanged yoke (type 60) | 151.016.037.1 | 1 |
| | Forcella flangia (tipo 80) | Flanged yoke (type 80) | 151.018.016.1 | 1 |
| 3 | Bronzina | Bush | 180.019.019 | 1 |
| 4 | Dischi attrito ø152xø90 | Lining rings ø152xø90 | 180.019.018 | 2 |
| 5 | Kit vite M12x1,25x65 + dado | Bolt M12x1,25x65+nut | 165.000.502 | 2 |
| | Kit vite M14x1,5x70 + dado | Bolt M14x1,5x70+nut | 165.000.503 | 2 |
| 6 | Mozzo frizione F22 | Clutch support F22 | 151.018.018.1 | 1 |
| | Mozzo frizione F23 | Clutch support F23 | 151.017.013.1 | 1 |
| | Mozzo frizione F24 | Clutch support F24 | 151.018.019.1 | 1 |
| | Mozzo frizione F25 | Clutch support F25 | 151.017.019.1 | 1 |
| 7 | Disco intermedio | Inner plate | 180.019.014 | 1 |
| 8 | Disco stringi frizione | Pressure plate | 180.019.116.1 | 1 |
| 9 | Kit vite M10x1,5x85 + dado | Bolt M10x1,5x85+nut | 165.000.549 | 8 |

* Quantità presente nel dispositivo
Quantity in the Safety Device



F4

F



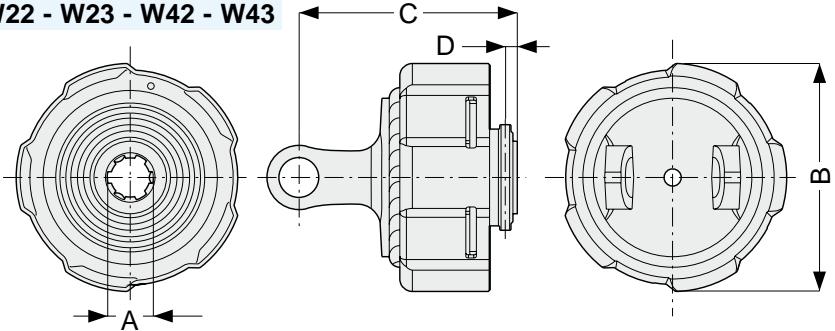
| Pos. | Description | | Code | Qty * |
|------|-----------------------------|------------------------|---------------|-------|
| 1 | Molla elicoidale Ø 6 | Spring Ø 6 | 180.014.022 | 8 |
| 2 | Forcella flangia (tipo 60) | Flanged yoke (type 60) | 151.016.037.1 | 1 |
| | Forcella flangia (tipo 80) | Flanged yoke (type 80) | 151.018.016.1 | 1 |
| | Forcella flangia (tipo 90) | Flanged yoke (type 90) | 151.019.059.1 | 1 |
| 3 | Bronzina | Bush | 180.019.019 | 1 |
| 4 | Dischi attrito Ø152xØ90 | Lining rings Ø152xØ90 | 180.019.018 | 4 |
| 5 | Kit vite M12x1,25x65 + dado | Bolt M12x1,25x65+nut | 165.000.502 | 2 |
| | Kit vite M14x1,5x70 + dado | Bolt M14x1,5x70+nut | 165.000.503 | 2 |
| 6 | Mozzo frizione F42 | Clutch support F42 | 151.019.011.1 | 1 |
| | Mozzo frizione F43 | Clutch support F43 | 151.019.008.1 | 1 |
| | Mozzo frizione F44 | Clutch support F44 | 151.019.012.1 | 1 |
| | Mozzo frizione F45 | Clutch support F45 | 151.019.009.1 | 1 |
| 7 | Disco intermedio | Inner plate | 180.019.014 | 2 |
| 8 | Disco sagomato | Intermediate plate | 180.019.115 | 1 |
| 9 | Disco stringi frizione | Pressure plate | 180.019.116.1 | 1 |
| 10 | Kit vite M10x1,5x100 + dado | Bolt M10x1,5x100+nut | 165.000.548 | 8 |

* Quantità presente nel dispositivo
Quantity in the Safety Device

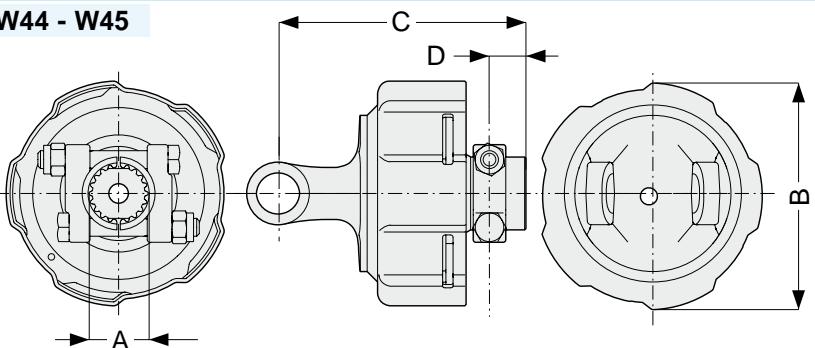
FRIZIONE CHIUSA A DICHI MULTIPLI
CLOSED DISC CLUTCH TORQUE LIMITER



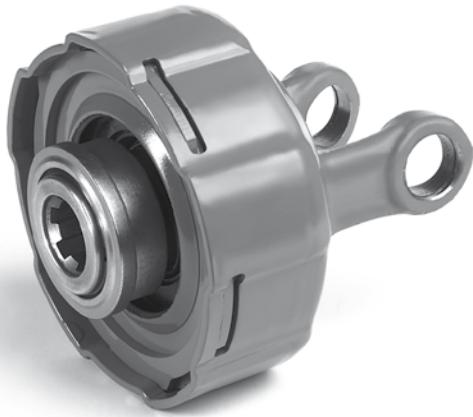
W22 - W23 - W42 - W43



W44 - W45



W



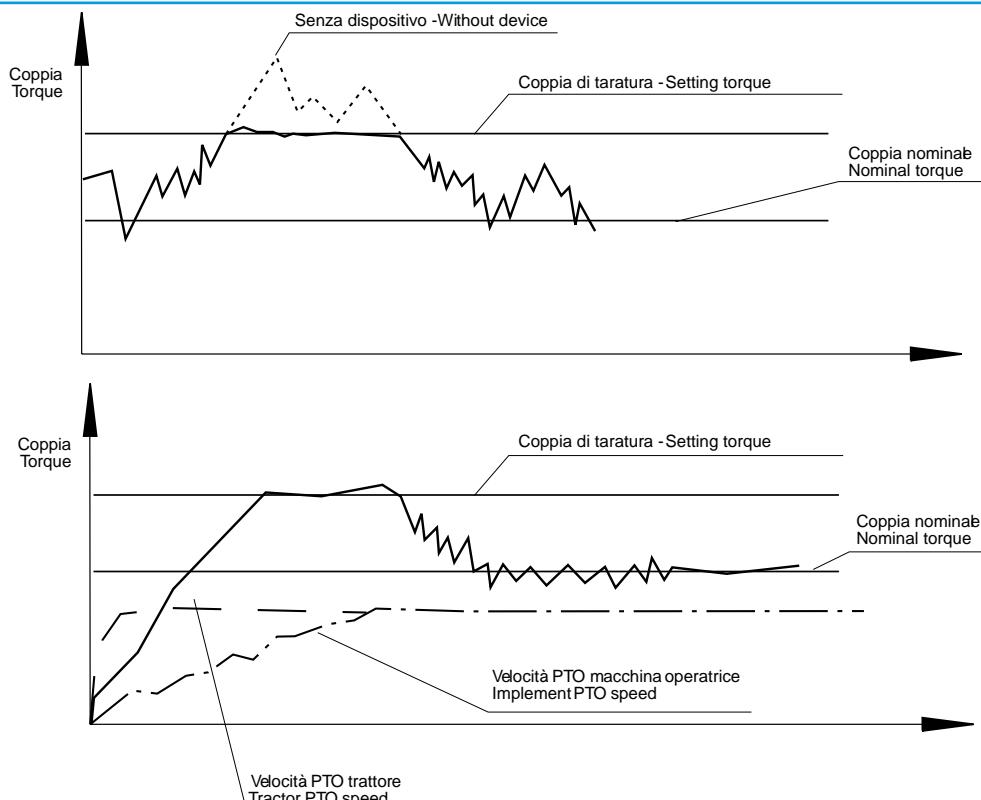
| Type | Ref. | A | B | | C | | D | |  MAX | | Code |
|-----------|------|-------------|------|----------|-------|----------|------|---------|---|---------|---------------|
| | | | [mm] | [inch] | [mm] | [inch] | [mm] | [inch] | [Nm] | [in.lb] | |
| 20 | W22 | 1 3/8" z.6 | 173 | 6 13/16" | 133.5 | 5 1/4" | 26 | 1 1/32" | 600 | 5300 | 148.322.001.1 |
| | W23 | 1 3/8" z.21 | 173 | 6 13/16" | 133.5 | 5 1/4" | 26 | 1 1/32" | 600 | 5300 | 148.322.002.1 |
| 40 | W22 | 1 3/8" z.6 | 173 | 6 13/16" | 140.0 | 5 33/64" | 26 | 1 1/32" | 600 | 5300 | 148.342.001.1 |
| | W23 | 1 3/8" z.21 | 173 | 6 13/16" | 140.0 | 5 33/64" | 26 | 1 1/32" | 600 | 5300 | 148.342.002.1 |
| | W22 | 1 3/8" z.6 | 173 | 6 13/16" | 140.0 | 5 33/64" | 26 | 1 1/32" | 750 | 6650 | 148.342.003.1 |
| | W23 | 1 3/8" z.21 | 173 | 6 13/16" | 140.0 | 5 33/64" | 26 | 1 1/32" | 750 | 6650 | 148.342.004.1 |
| | W22 | 1 3/8" z.6 | 173 | 6 13/16" | 140.0 | 5 33/64" | 26 | 1 1/32" | 900 | 7950 | 148.342.005.1 |
| | W23 | 1 3/8" z.21 | 173 | 6 13/16" | 140.0 | 5 33/64" | 26 | 1 1/32" | 900 | 7950 | 148.342.006.1 |
| 50 | W22 | 1 3/8" z.6 | 173 | 6 13/16" | 143.5 | 5 21/32" | 26 | 1 1/32" | 900 | 7950 | 148.352.001.1 |
| | W23 | 1 3/8" z.21 | 173 | 6 13/16" | 143.5 | 5 21/32" | 26 | 1 1/32" | 900 | 7950 | 148.352.002.1 |
| | W42 | 1 3/8" z.6 | 173 | 6 13/16" | 158.5 | 6 15/64" | 26 | 1 1/32" | 1100 | 9700 | 148.354.001.1 |
| | W43 | 1 3/8" z.21 | 173 | 6 13/16" | 158.5 | 6 15/64" | 26 | 1 1/32" | 1100 | 9700 | 148.354.002.1 |
| | W44 | 1 3/4" z.6 | 173 | 6 13/16" | 183.5 | 7 7/32" | 28 | 1 7/64" | 1100 | 9700 | 148.354.003.1 |
| | W45 | 1 3/4" z.20 | 173 | 6 13/16" | 183.5 | 7 7/32" | 28 | 1 7/64" | 1100 | 9700 | 148.354.004.1 |
| 60 | W22 | 1 3/8" z.6 | 173 | 6 13/16" | 150.5 | 5 59/64" | 26 | 1 1/32" | 900 | 7950 | 148.362.001.1 |
| | W23 | 1 3/8" z.21 | 173 | 6 13/16" | 150.5 | 5 59/64" | 26 | 1 1/32" | 900 | 7950 | 148.362.002.1 |
| | W42 | 1 3/8" z.6 | 173 | 6 13/16" | 165.5 | 6 33/64" | 26 | 1 1/32" | 1100 | 9700 | 148.364.002.1 |
| | W43 | 1 3/8" z.21 | 173 | 6 13/16" | 165.5 | 6 33/64" | 26 | 1 1/32" | 1100 | 9700 | 148.364.005.1 |
| | W44 | 1 3/4" z.6 | 173 | 6 13/16" | 190.5 | 7 1/2" | 28 | 1 7/64" | 1100 | 9700 | 148.364.018.1 |
| | W45 | 1 3/4" z.20 | 173 | 6 13/16" | 190.5 | 7 1/2" | 28 | 1 7/64" | 1100 | 9700 | 148.364.015.1 |
| | W42 | 1 3/8" z.6 | 173 | 6 13/16" | 165.5 | 6 33/64" | 26 | 1 1/32" | 1500 | 13250 | 148.364.001.1 |
| | W43 | 1 3/8" z.21 | 173 | 6 13/16" | 165.5 | 6 33/64" | 26 | 1 1/32" | 1500 | 13250 | 148.364.004.1 |
| | W44 | 1 3/4" z.6 | 173 | 6 13/16" | 190.5 | 7 1/2" | 28 | 1 7/64" | 1500 | 13250 | 148.364.019.1 |
| | W45 | 1 3/4" z.20 | 173 | 6 13/16" | 190.5 | 7 1/2" | 28 | 1 7/64" | 1500 | 13250 | 148.364.016.1 |
| 80 | W42 | 1 3/8" z.6 | 173 | 6 13/16" | 173.5 | 6 53/64" | 26 | 1 1/32" | 1100 | 9700 | 148.384.001.1 |
| | W43 | 1 3/8" z.21 | 173 | 6 13/16" | 173.5 | 6 53/64" | 26 | 1 1/32" | 1100 | 9700 | 148.384.002.1 |
| | W44 | 1 3/4" z.6 | 173 | 6 13/16" | 198.5 | 7 13/16" | 28 | 1 7/64" | 1100 | 9700 | 148.384.007.1 |
| | W45 | 1 3/4" z.20 | 173 | 6 13/16" | 198.5 | 7 13/16" | 28 | 1 7/64" | 1100 | 9700 | 148.384.008.1 |
| | W42 | 1 3/8" z.6 | 173 | 6 13/16" | 173.5 | 6 53/64" | 26 | 1 1/32" | 1500 | 13250 | 148.384.003.1 |
| | W43 | 1 3/8" z.21 | 173 | 6 13/16" | 173.5 | 6 53/64" | 26 | 1 1/32" | 1500 | 13250 | 148.384.004.1 |
| | W44 | 1 3/4" z.6 | 173 | 6 13/16" | 198.5 | 7 13/16" | 28 | 1 7/64" | 1500 | 13250 | 148.384.009.1 |
| | W45 | 1 3/4" z.20 | 173 | 6 13/16" | 198.5 | 7 13/16" | 28 | 1 7/64" | 1500 | 13250 | 148.384.010.1 |
| | W42 | 1 3/8" z.6 | 173 | 6 13/16" | 173.5 | 6 53/64" | 26 | 1 1/32" | 1800 | 15900 | 148.384.005.1 |
| | W43 | 1 3/8" z.21 | 173 | 6 13/16" | 173.5 | 6 53/64" | 26 | 1 1/32" | 1800 | 15900 | 148.384.006.1 |
| | W44 | 1 3/4" z.6 | 173 | 6 13/16" | 198.5 | 7 13/16" | 28 | 1 7/64" | 1800 | 15900 | 148.384.011.1 |
| | W45 | 1 3/4" z.20 | 173 | 6 13/16" | 198.5 | 7 13/16" | 28 | 1 7/64" | 1800 | 15900 | 148.384.012.1 |

FRIZIONE CHIUSA A DICHI MULTIPLI CLOSED DISC CLUTCH TORQUE LIMITER



La frizione "chiusa" a dischi multipli W interviene quando la coppia di lavoro supera la coppia di taratura. Durante la fase di limitazione del picco di coppia la frizione continua a trasmettere potenza. La frizione è utilizzabile sia come dispositivo di sicurezza contro picchi di coppia sia per avviare macchine con elevata inerzia rotazionale. Questo tipo di frizione risulta avere la taratura non modificabile ed inoltre l'utilizzo di speciali molle a tazza in luogo delle più comuni molle elicoidali rende costante la taratura nonostante il progressivo consumo dei dischi d'attrito.

The closed disc clutch torque limiter W is activated when the setting torque exceeds the calibration torque. During the torque peak limiting phase, the clutch keeps on transmitting power. The clutch can be used both as safety device to protect against load peaks and to start machines with high rotational inertia. The torque setting of this clutch is not adjustable and the use of special Belleville springs instead of the helical springs ensures a stable torque setting compensating for the natural wear of the friction linings.



Le frizioni possono raggiungere elevate temperature.

Non toccare!

Per evitare rischi di incendio, mantenere la zona adiacente la frizione pulita da materiale infiammabile ed evitare slittamenti prolungati.

Friction clutches may become hot during use.

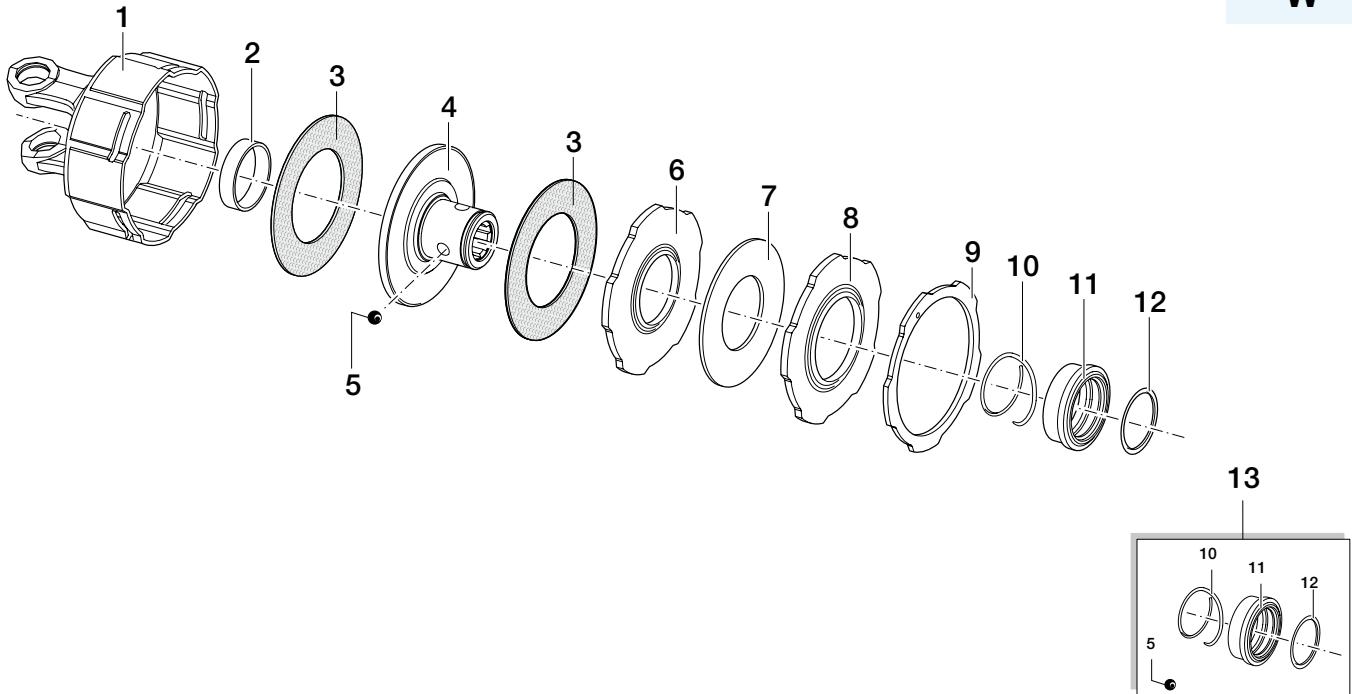
Do not touch!

Keep the area around the friction clutch clear of any material which could catch fire and avoid prolonged slipping.



W22/W23

W



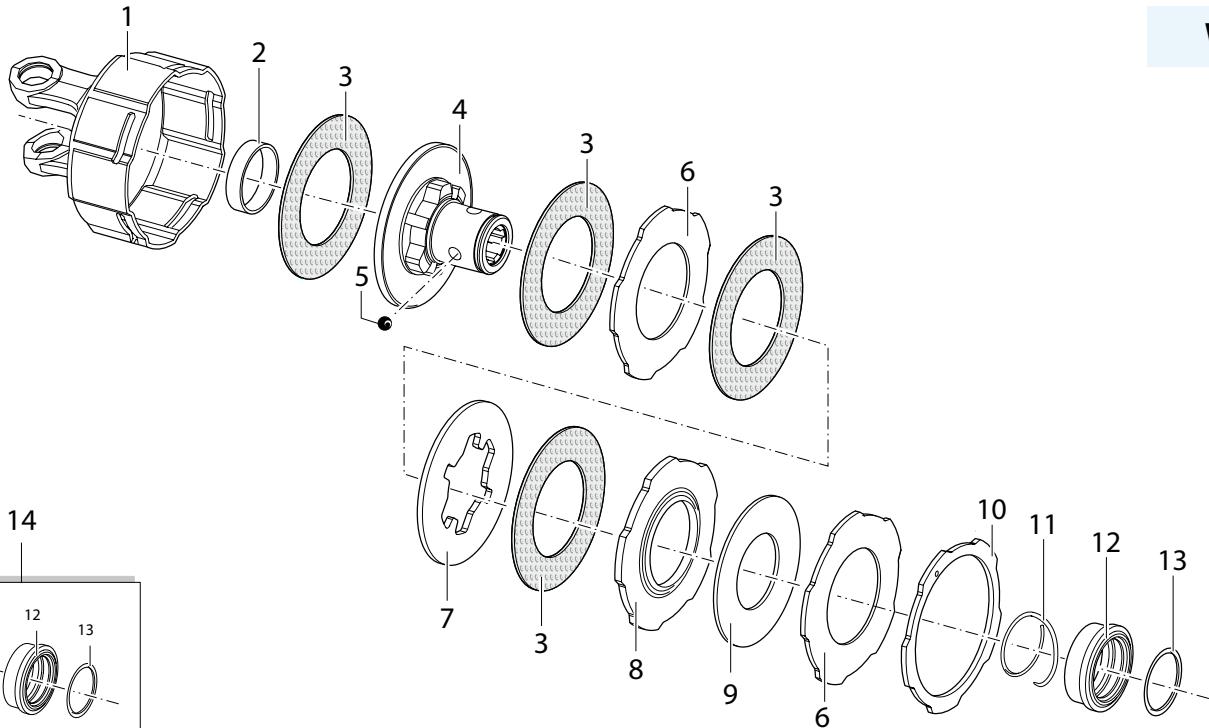
| Pos. | Description | | Code | Qty * |
|------|----------------------------------|----------------------------|---------------|-------|
| 1 | Forcella corpo W2 (tipo 20) | Yoke support W2 (type 20) | 141.022.371.1 | 1 |
| | Forcella corpo W2 (tipo 40) | Yoke support W2 (type 40) | 141.024.484.1 | 1 |
| | Forcella corpo W2 (tipo 50) | Yoke support W2 (type 50) | 141.025.387.1 | 1 |
| | Forcella corpo W2 (tipo 60) | Yoke support W2 (type 60) | 141.026.601.1 | 1 |
| 2 | Bronzina | Bush | 180.019.019 | 1 |
| 3 | Disco attrito ø152xø90 | Lining rings ø152xø90 | 180.019.018 | 2 |
| 4 | Mozzo W22 | Hub W22 | 151.017.281 | 1 |
| | Mozzo W23 | Hub W23 | 151.017.296 | 1 |
| 5 | Sfere 1/2" | Ball 1/2" | 190.000.078 | 3 |
| 6 | Disco stringifrizione W (600 Nm) | Pressure plate W (600 Nm) | 180.017.282 | 1 |
| | Disco stringifrizione W (750 Nm) | Pressure plate W (750 Nm) | 180.017.270 | 1 |
| | Disco stringifrizione W (900 Nm) | Pressure plate W (900 Nm) | 180.017.282 | 1 |
| 7 | Molla a tazza (600 Nm) | Belleville spring (600 Nm) | 190.000.594 | 1 |
| | Molla a tazza (750 Nm) | Belleville spring (750 Nm) | 190.000.594 | 1 |
| | Molla a tazza (900 Nm) | Belleville spring (900 Nm) | 190.000.607 | 1 |
| 8 | Disco di reazione | Reaction ring | 180.017.269 | 1 |
| 9 | Disco d' arresto | Stop ring | 180.017.276 | 1 |
| 10 | Molla collar | Collar spring | 180.016.487 | 1 |
| 11 | Manicotto collar | Sliding sleeve collar | 151.016.486 | 1 |
| 12 | Seeger | Snap ring | 190.000.451 | 1 |
| 13 | Kit collar | Kit Collar | 165.000.719 | 1 |

* Quantità presente nel dispositivo
 Quantity in the Safety Device



W42/W43

W



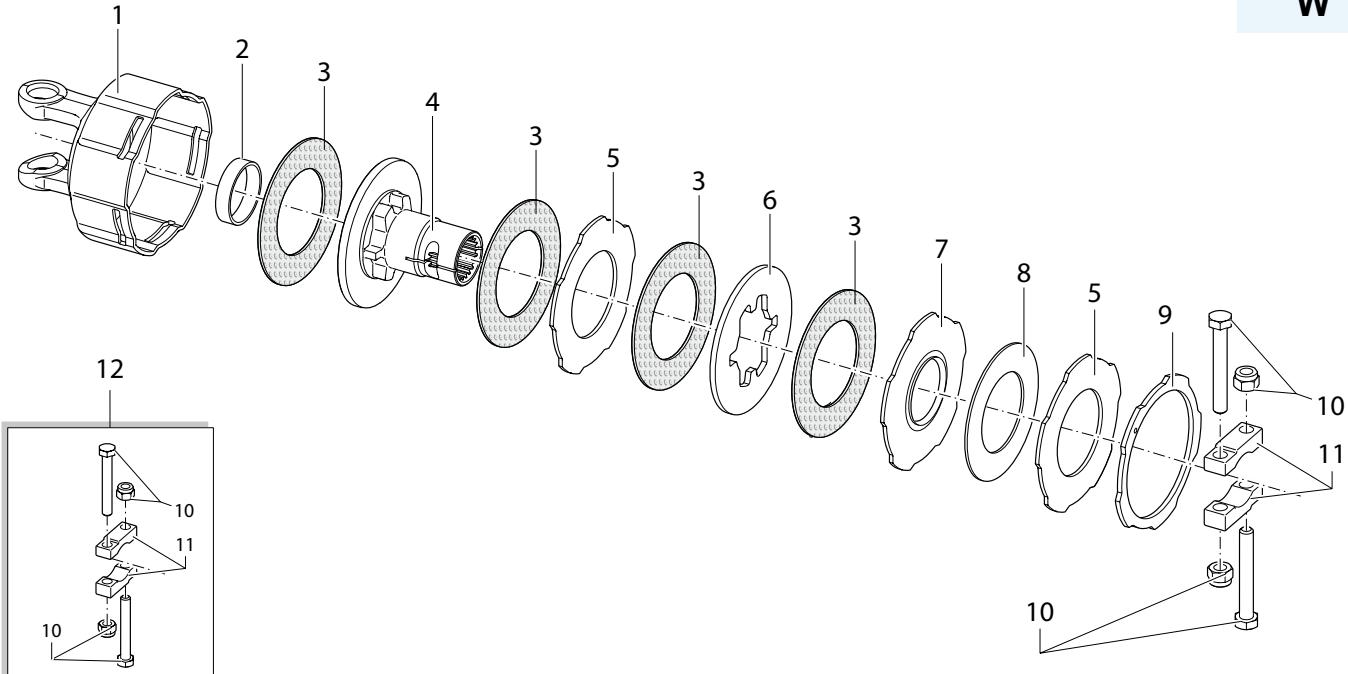
| Pos. | Description | | Code | Qty * |
|------|-----------------------------------|-----------------------------|---------------|-------|
| 1 | Forcella corpo W4 (tipo 50) | Yoke support W4 (type 50) | 141.025.388.1 | 1 |
| | Forcella corpo W4 (tipo 60) | Yoke support W4 (type 60) | 141.026.593.1 | 1 |
| | Forcella corpo W4 (tipo 80) | Yoke support W4 (type 80) | 141.028.487.1 | 1 |
| 2 | Bronzina | Bush | 180.019.019 | 1 |
| 3 | Disco attrito ø152xø90 | Lining ring ø152xø90 | 180.019.018 | 4 |
| 4 | Mozzo W42 | Hub W42 | 151.019.158 | 1 |
| | Mozzo W43 | Hub W43 | 151.017.297 | 1 |
| 5 | Sfere 1/2" | Ball 1/2" | 190.000.078 | 3 |
| 6 | Disco intermedio | Inner plate | 180.017.269 | 2 |
| 7 | Disco sagomato | Intermediate plate | 180.019.115 | 1 |
| 8 | Disco stringifrazione W (1100 Nm) | Pressure plate W (1100 Nm) | 180.017.282 | 1 |
| | Disco stringifrazione W (1500 Nm) | Pressure plate W (1500 Nm) | 180.017.282 | 1 |
| | Disco stringifrazione W (1800 Nm) | Pressure plate W (1800 Nm) | 180.013.451 | 1 |
| 9 | Molla a tazza (1100 Nm) | Belleville spring (1100 Nm) | 190.000.594 | 1 |
| | Molla a tazza (1500 Nm) | Belleville spring (1500 Nm) | 190.000.607 | 1 |
| | Molla a tazza (1800 Nm) | Belleville spring (1800 Nm) | 190.000.855 | 1 |
| 10 | Disco d' arresto | Stop ring | 180.017.276 | 1 |
| 11 | Molla collar | Collar spring | 180.016.487 | 1 |
| 12 | Manicotto collar | Sliding sleeve collar | 151.016.486 | 1 |
| 13 | Seeger | Snap ring | 190.000.451 | 1 |
| 14 | Kit collar | Kit collar | 165.000.719 | 1 |

* Quantità presente nel dispositivo
 Quantity in the Safety Device



W44/W45

W



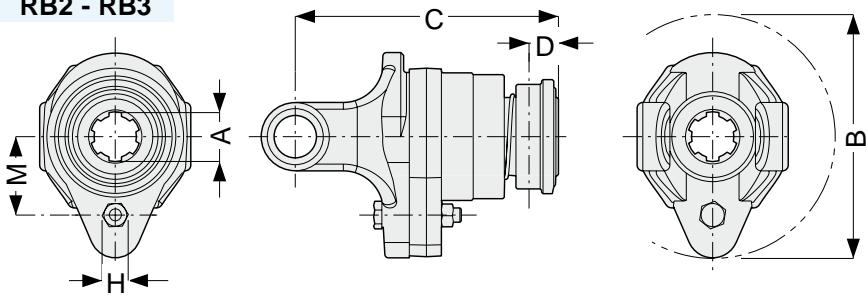
| Pos. | <i>Description</i> | | Code | Qty * |
|------|-----------------------------------|------------------------------------|---------------|-------|
| 1 | Forcella corpo W4 (tipo 50) | Yoke support W4 (type 50) | 141.025.388.1 | 1 |
| | Forcella corpo W4 (tipo 60) | Yoke support W4 (type 60) | 141.026.593.1 | 1 |
| | Forcella corpo W4 (tipo 80) | Yoke support W4 (type 80) | 141.028.487.1 | 1 |
| 2 | Bronzina | <i>Bush</i> | 180.019.019 | 1 |
| 3 | Disco attrito ø152xø90 | <i>Lining ring ø152xø90</i> | 180.019.018 | 4 |
| 4 | Mozzo W44 | <i>Hub W44</i> | 151.017.390 | 1 |
| | Mozzo W45 | <i>Hub W45</i> | 151.017.366 | 1 |
| 5 | Disco intermedio | <i>Inner plate</i> | 180.017.269 | 2 |
| 6 | Disco sagomato | <i>Intermediate plate</i> | 180.019.115 | 1 |
| 7 | Disco stringifrizione W (1100 Nm) | <i>Pressure plate W (1100 Nm)</i> | 180.017.282 | 1 |
| | Disco stringifrizione W (1500 Nm) | <i>Pressure plate W (1500 Nm)</i> | 180.017.282 | 1 |
| | Disco stringifrizione W (1800 Nm) | <i>Pressure plate W (1800 Nm)</i> | 180.013.451 | 1 |
| 8 | Molla a tazza (1100 Nm) | <i>Belleville spring (1100 Nm)</i> | 190.000.594 | 1 |
| | Molla a tazza (1500 Nm) | <i>Belleville spring (1500 Nm)</i> | 190.000.607 | 1 |
| | Molla a tazza (1800 Nm) | <i>Belleville spring (1800 Nm)</i> | 190.000.855 | 1 |
| 9 | Disco d' arresto | <i>Stop ring</i> | 180.017.276 | 1 |
| 10 | Vite M14x1,5x100 e dado | <i>Bolt M14x1,5x100+nut</i> | 165.000.622 | 2 |
| 11 | Ponti di blocco | <i>Clamp lock</i> | 151.014.201 | 2 |
| 12 | Kit ponti di blocco 3/4" | <i>Clamp lock set 1 3/4"</i> | 165.000.692 | 1 |

* Quantità presente nel dispositivo
Quantity in the Safety Device

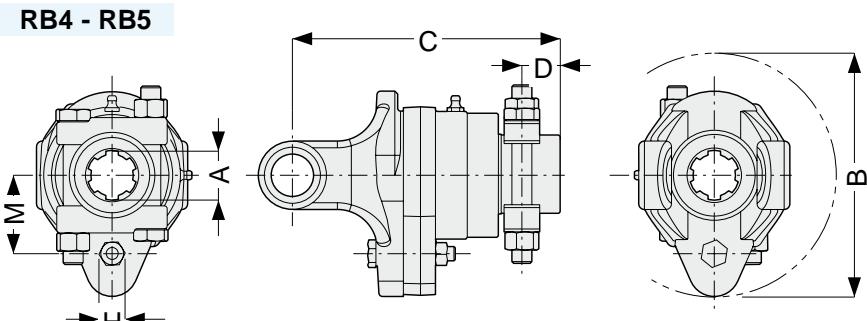
LIMITATORE A BULLONE DI TRANCIO CON RUOTA LIBERA SHEAR BOLT TORQUE LIMITER WITH OVERRUNNING CLUTCH



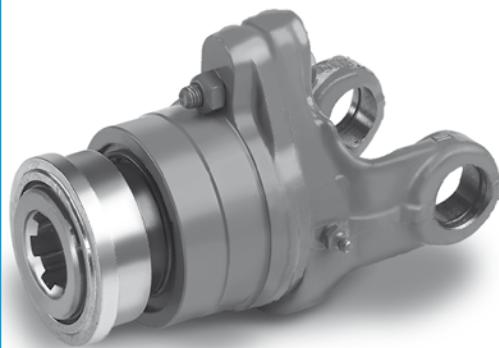
RB2 - RB3



RB4 - RB5



RB



| Type | Ref. | A | B | | C | | D | | M | |  MAX | | H | Code |
|------|------|-------------|------|---------|------|----------|------|---------|------|----------|---|---------|---------|---------------|
| | | | [mm] | [inch] | [mm] | [inch] | [mm] | [inch] | [mm] | [inch] | [Nm] | [in.lb] | ISO 8.8 | |
| 40 | RB2 | 1 3/8" z.6 | 134 | 5 9/32" | 180 | 7 3/32" | 26 | 1 1/32" | 55 | 2 11/64" | 1700 | 15000 | M8x50 | 143.340.001.1 |
| | RB3 | 1 3/8" z.21 | 134 | 5 9/32" | 180 | 7 3/32" | 26 | 1 1/32" | 55 | 2 11/64" | 1700 | 15000 | M8x50 | 143.340.002.1 |
| 50 | RB2 | 1 3/8" z.6 | 134 | 5 9/32" | 180 | 7 3/32" | 26 | 1 1/32" | 55 | 2 11/64" | 2100 | 18500 | * M8x50 | 143.350.001.1 |
| | RB3 | 1 3/8" z.21 | 134 | 5 9/32" | 180 | 7 3/32" | 26 | 1 1/32" | 55 | 2 11/64" | 2100 | 18500 | * M8x50 | 143.350.002.1 |
| 60 | RB2 | 1 3/8" z.6 | 162 | 6 3/8" | 187 | 7 23/64" | 26 | 1 1/32" | 55 | 2 11/64" | 2500 | 22100 | M10x60 | 143.360.001.1 |
| | RB3 | 1 3/8" z.21 | 162 | 6 3/8" | 187 | 7 23/64" | 26 | 1 1/32" | 55 | 2 11/64" | 2500 | 22100 | M10x60 | 143.360.002.1 |
| | RB4 | 1 3/4" z.6 | 162 | 6 3/8" | 187 | 7 23/64" | 28 | 1 7/64" | 55 | 2 11/64" | 2500 | 22100 | M10x60 | 143.360.003.1 |
| | RB5 | 1 3/4" z.20 | 162 | 6 3/8" | 187 | 7 23/64" | 28 | 1 7/64" | 55 | 2 11/64" | 2500 | 22100 | M10x60 | 143.360.004.1 |
| 80 | RB2 | 1 3/8" z.6 | 162 | 6 3/8" | 197 | 7 3/4" | 26 | 1 1/32" | 57 | 2 1/4" | 3500 | 30900 | M12x65 | 143.380.001.1 |
| | RB3 | 1 3/8" z.21 | 162 | 6 3/8" | 197 | 7 3/4" | 26 | 1 1/32" | 57 | 2 1/4" | 3500 | 30900 | M12x65 | 143.380.002.1 |
| | RB4 | 1 3/4" z.6 | 162 | 6 3/8" | 197 | 7 3/4" | 28 | 1 7/64" | 57 | 2 1/4" | 3500 | 30900 | M12x65 | 143.380.003.1 |
| | RB5 | 1 3/4" z.20 | 162 | 6 3/8" | 197 | 7 3/4" | 28 | 1 7/64" | 57 | 2 1/4" | 3500 | 30900 | M12x65 | 143.380.004.1 |

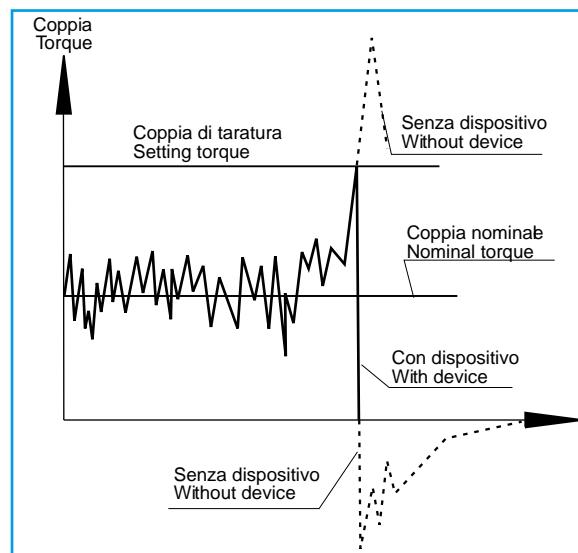
* Resistenza della vite 10.9
Bolt material 10.9

NOTA: fornibile a richiesta per senso di rotazione antiorario

Il dispositivo comprende un limitatore di coppia a bullone di tracce e una ruota libera integrati. La funzionalità del dispositivo assomma quelle dei singoli dispositivi con il vantaggio di una riduzione di spazio e il montaggio da un solo lato del cardano.

NOTE: available upon request for anti-clockwise direction of rotation

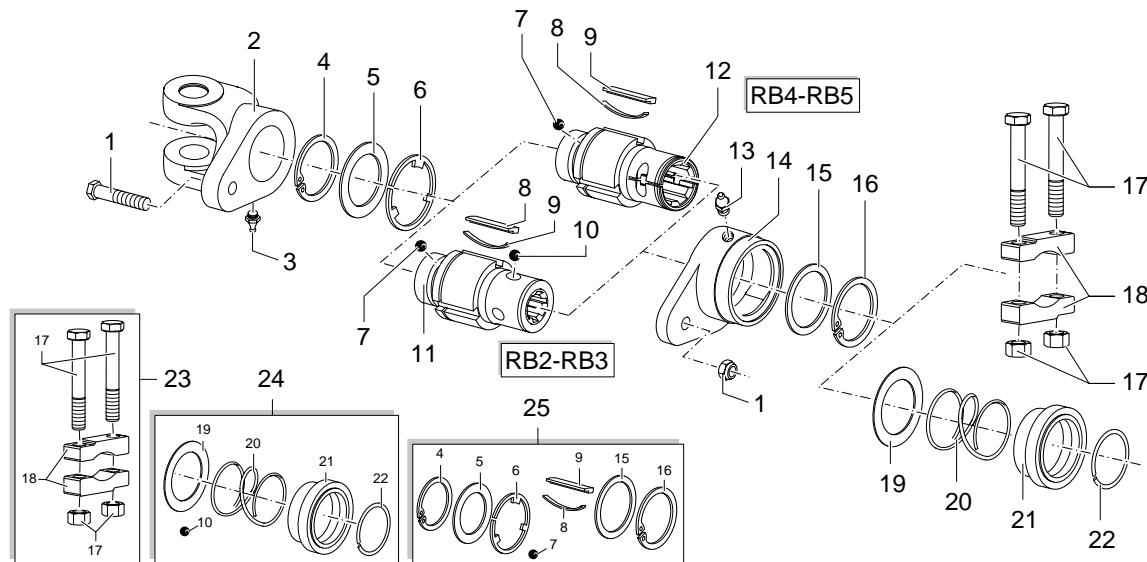
The device includes a shear bolt torque limiter and incorporated overrunning clutch. The device combines the functions of all the single devices with the advantage of reduced space and assembly on only one side of the cardan shaft.



LIMITATORE A BULLONE DI TRANCIO CON RUOTA LIBERA
SHEAR BOLT TORQUE LIMITER WITH OVERRUNNING CLUTCH



RB



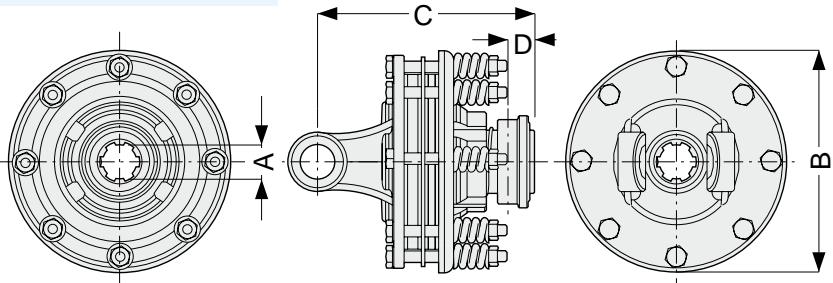
| Pos. | Description | Code | Qty * |
|------|------------------------------------|---------------|-------|
| 1 | Vite M8x50+dado (tipo 40) | 165.000.505 | 1 |
| | Vite M8x50(cl.10.9)+dado (tipo 50) | 165.000.626 | 1 |
| | Vite M10x60+dado (tipo 60) | 165.000.507 | 1 |
| | Vite M12x65+dado (tipo 80) | 165.000.512 | 1 |
| 2 | Forcella RB (tipo 40) | 151.014.389.1 | 1 |
| | Forcella RB (tipo 50) | 151.015.342.1 | 1 |
| | Forcella RB (tipo 60) | 151.016.042.1 | 1 |
| | Forcella RB (tipo 80) | 151.018.023.1 | 1 |
| 3 | Ingrassatore M8x1 (tipo 40-50) | 190.000.020 | 1 |
| | Ingrassatore M10x1 (tipo 60-80) | 190.000.021 | 1 |
| 4 | Seeger | 190.000.178 | 1 |
| 5 | Anello di rasamento | 190.000.435 | 1 |
| 6 | Anello di tenuta | 180.014.393 | 1 |
| 7 | Sfera 1/4" (tipo 40-50) | 190.000.022 | 25 |
| | Sfera 5/16" (tipo 60-80) | 190.000.023 | 24 |
| 8 | Molla a balestra | 180.014.137 | 3 |
| 9 | Linguetta | 151.014.136 | 3 |
| 10 | Sfera 1/2" | 190.000.078 | 3 |
| 11 | Mozzo RB2 (tipo 40-50) | 151.014.432 | 1 |
| | Mozzo RB2 (tipo 60-80) | 151.016.580 | 1 |
| | Mozzo RB3 (tipo 40-50) | 151.014.486 | 1 |
| | Mozzo RB3 (tipo 60-80) | 151.016.631 | 1 |
| 12 | Mozzo RB4 (tipo 60-80) | 151.016.542 | 1 |
| | Mozzo RB5 (tipo 60-80) | 151.016.507 | 1 |
| 13 | Ingrassatore M8x1 | 190.000.020 | 1 |
| 14 | Corpo RB (tipo 40-50) | 151.014.390.1 | 1 |
| | Corpo RB (tipo 60) | 151.016.441.1 | 1 |
| | Corpo RB (tipo 80) | 151.018.363.1 | 1 |
| 15 | Anello di rasamento | 180.014.135 | 1 |
| 16 | Seeger | 190.000.183 | 1 |
| 17 | Kit vite M14x1,5x100 + dado | 165.000.622 | 2 |
| 18 | Ponte di blocco | 151.014.201 | 2 |
| 19 | Lamierino | 180.015.143 | 1 |
| 20 | Molla collar | 180.016.487 | 1 |
| 21 | Manicotto collar | 151.016.486 | 1 |
| 22 | Seeger | 190.000.451 | 1 |
| 23 | Kit ponti blocco 1 3/4" | 165.000.692 | 1 |
| 24 | Kit collar R12-R13 | 165.000.653 | 1 |
| 25 | Kit RB 40-50 | 165.000.726 | 1 |
| | Kit RB 60-80 | 165.000.770 | 1 |

* Quantità presente nel dispositivo
 Quantity in the Safety Device

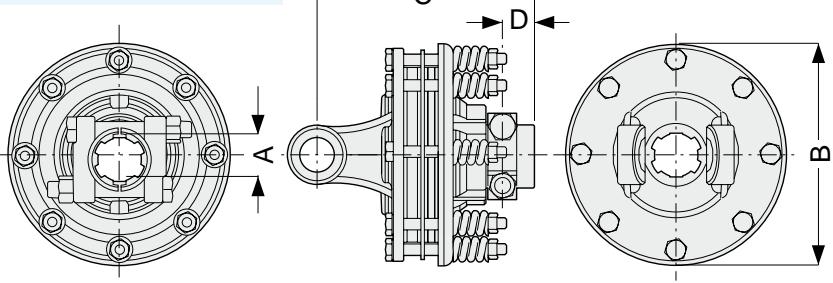
FRIZIONE A DISCHI MULTIPLI CON RUOTA LIBERA
DISC CLUTCH TORQUE LIMITER WITH OVERRUNNING CLUTCH



RF2 - RF3 - RF6 -RF7



RF4 - RF5 - RF8 - RF9



RF



| Type | Ref. | A | B | C | D | MAX | Code | | | | |
|------|------|-------------|--------|----------|--------|----------|------|---------|------|-------|---------------|
| | | [mm] | [inch] | [mm] | [inch] | [mm] | [Nm] | [in.lb] | | | |
| 40 | RF2 | 1 3/8" z.6 | 195 | 7 43/64" | 175 | 6 57/64" | 26 | 1 3/32" | 900 | 7950 | 146.342.001.1 |
| | RF3 | 1 3/8" z.21 | 195 | 7 43/64" | 175 | 6 57/64" | 26 | 1 3/32" | 900 | 7950 | 146.342.002.1 |
| | RF4 | 1 3/4" z.6 | 195 | 7 43/64" | 175 | 6 57/64" | 28 | 1 7/64" | 900 | 7950 | 146.342.003.1 |
| | RF5 | 1 3/4" z.20 | 195 | 7 43/64" | 175 | 6 57/64" | 28 | 1 7/64" | 900 | 7950 | 146.342.004.1 |
| 50 | RF2 | 1 3/8" z.6 | 195 | 7 43/64" | 175 | 6 57/64" | 26 | 1 3/32" | 900 | 7950 | 146.352.001.1 |
| | RF3 | 1 3/8" z.21 | 195 | 7 43/64" | 175 | 6 57/64" | 26 | 1 3/32" | 900 | 7950 | 146.352.002.1 |
| | RF4 | 1 3/4" z.6 | 195 | 7 43/64" | 175 | 6 57/64" | 28 | 1 7/64" | 900 | 7950 | 146.352.003.1 |
| | RF5 | 1 3/4" z.20 | 195 | 7 43/64" | 175 | 6 57/64" | 28 | 1 7/64" | 900 | 7950 | 146.352.004.1 |
| | RF6 | 1 3/8" z.6 | 195 | 7 43/64" | 190 | 7 31/64" | 26 | 1 1/32" | 1200 | 10600 | 146.354.001.1 |
| | RF7 | 1 3/8" z.21 | 195 | 7 43/64" | 190 | 7 31/64" | 26 | 1 1/32" | 1200 | 10600 | 146.354.002.1 |
| | RF8 | 1 3/4" z.6 | 195 | 7 43/64" | 190 | 7 31/64" | 28 | 1 7/64" | 1200 | 10600 | 146.354.003.1 |
| | RF9 | 1 3/4" z.20 | 195 | 7 43/64" | 190 | 7 31/64" | 28 | 1 7/64" | 1200 | 10600 | 146.354.004.1 |
| 60 | RF6 | 1 3/8" z.6 | 195 | 7 43/64" | 190 | 7 31/64" | 26 | 1 1/32" | 1400 | 12400 | 146.364.001.1 |
| | RF7 | 1 3/8" z.21 | 195 | 7 43/64" | 190 | 7 31/64" | 26 | 1 1/32" | 1400 | 12400 | 146.364.002.1 |
| | RF8 | 1 3/4" z.6 | 195 | 7 43/64" | 190 | 7 31/64" | 28 | 1 7/64" | 1400 | 12400 | 146.364.003.1 |
| | RF9 | 1 3/4" z.20 | 195 | 7 43/64" | 190 | 7 31/64" | 28 | 1 7/64" | 1400 | 12400 | 146.364.004.1 |
| 80 | RF6 | 1 3/8" z.6 | 195 | 7 43/64" | 203 | 7 63/64" | 26 | 1 1/32" | 1400 | 12400 | 146.384.001.1 |
| | RF7 | 1 3/8" z.21 | 195 | 7 43/64" | 203 | 7 63/64" | 26 | 1 1/32" | 1400 | 12400 | 146.384.002.1 |
| | RF8 | 1 3/4" z.6 | 195 | 7 43/64" | 203 | 7 63/64" | 28 | 1 7/64" | 1400 | 12400 | 146.384.003.1 |
| | RF9 | 1 3/4" z.20 | 195 | 7 43/64" | 203 | 7 63/64" | 28 | 1 7/64" | 1400 | 12400 | 146.384.004.1 |
| 90 | RF6 | 1 3/8" z.6 | 195 | 7 43/64" | 203 | 7 63/64" | 26 | 1 1/32" | 1400 | 12400 | 146.394.001.1 |
| | RF7 | 1 3/8" z.21 | 195 | 7 43/64" | 203 | 7 63/64" | 26 | 1 1/32" | 1400 | 12400 | 146.394.002.1 |
| | RF8 | 1 3/4" z.6 | 195 | 7 43/64" | 203 | 7 63/64" | 28 | 1 7/64" | 1400 | 12400 | 146.394.003.1 |
| | RF9 | 1 3/4" z.20 | 195 | 7 43/64" | 203 | 7 63/64" | 28 | 1 7/64" | 1400 | 12400 | 146.394.004.1 |

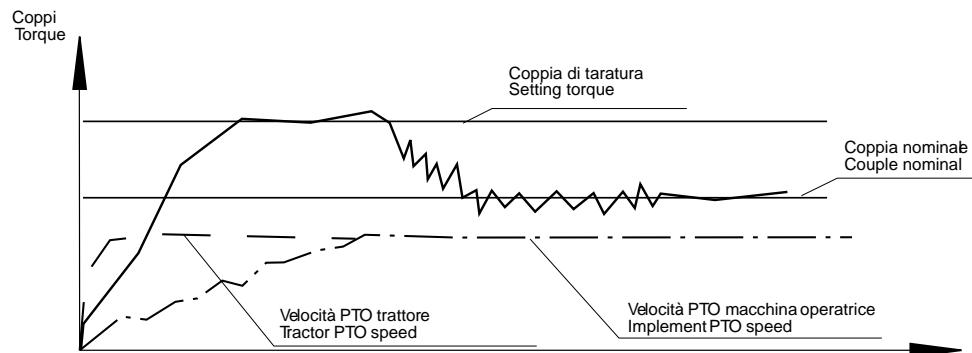
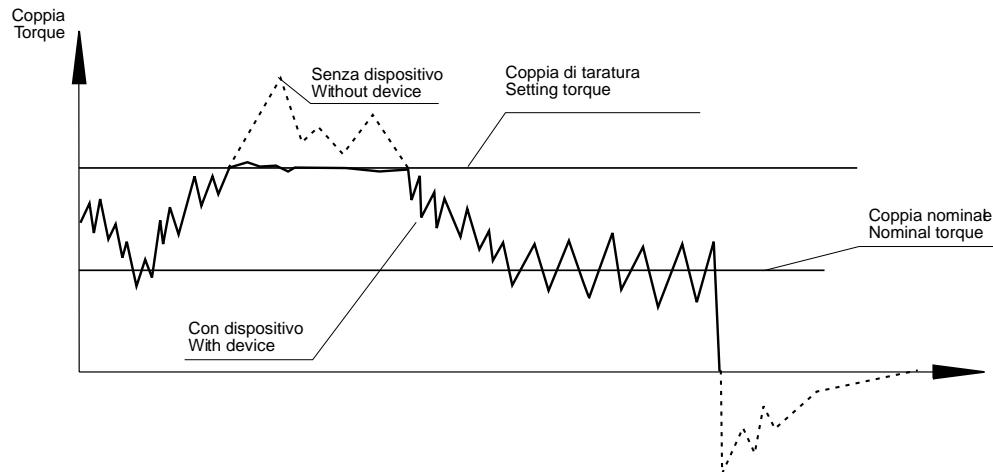
NOTA: fornibile a richiesta per senso di rotazione antiorario
NOTE: available upon request for anti-clockwise direction of rotation

FRIZIONE A DISCHI MULTIPLI CON RUOTA LIBERA DISC CLUTCH TORQUE LIMITER WITH OVERRUNNING CLUTCH



Il dispositivo comprende un limitatore di coppia a dischi d'attrito (frizione) e una ruota libera integrati. La funzionalità assomma quelle dei singoli dispositivi con il vantaggio di risparmiare spazio e di consentire il montaggio sullo stesso lato del cardano. Il dispositivo è utile come organo di sicurezza contro picchi di carico e in macchine con grosse masse rotanti, sia durante l'avviamento che durante l'arresto, evitando inutili sollecitazioni della PTO del trattore. E' importante il controllo della taratura della frizione per assicurare un corretto funzionamento del dispositivo.

The device includes a disc clutch torque limiter and an incorporated overrunning clutch. The device combines the functions of the single devices thus reducing space and allowing it to be mounted on the same side of the cardan. It is useful as a safety device to protect against load peaks and in implements with large rotating mass during start-up and stopping operations, thus avoiding unnecessary stress on the tractor PTO. It is recommended to ensure the setting value is correct.



Le frizioni possono raggiungere elevate temperature.

Non toccare!

Per evitare rischi di incendio, mantenere la zona adiacente la frizione pulita da materiale infiammabile ed evitare slittamenti prolungati.

Friction clutches may become hot during use.

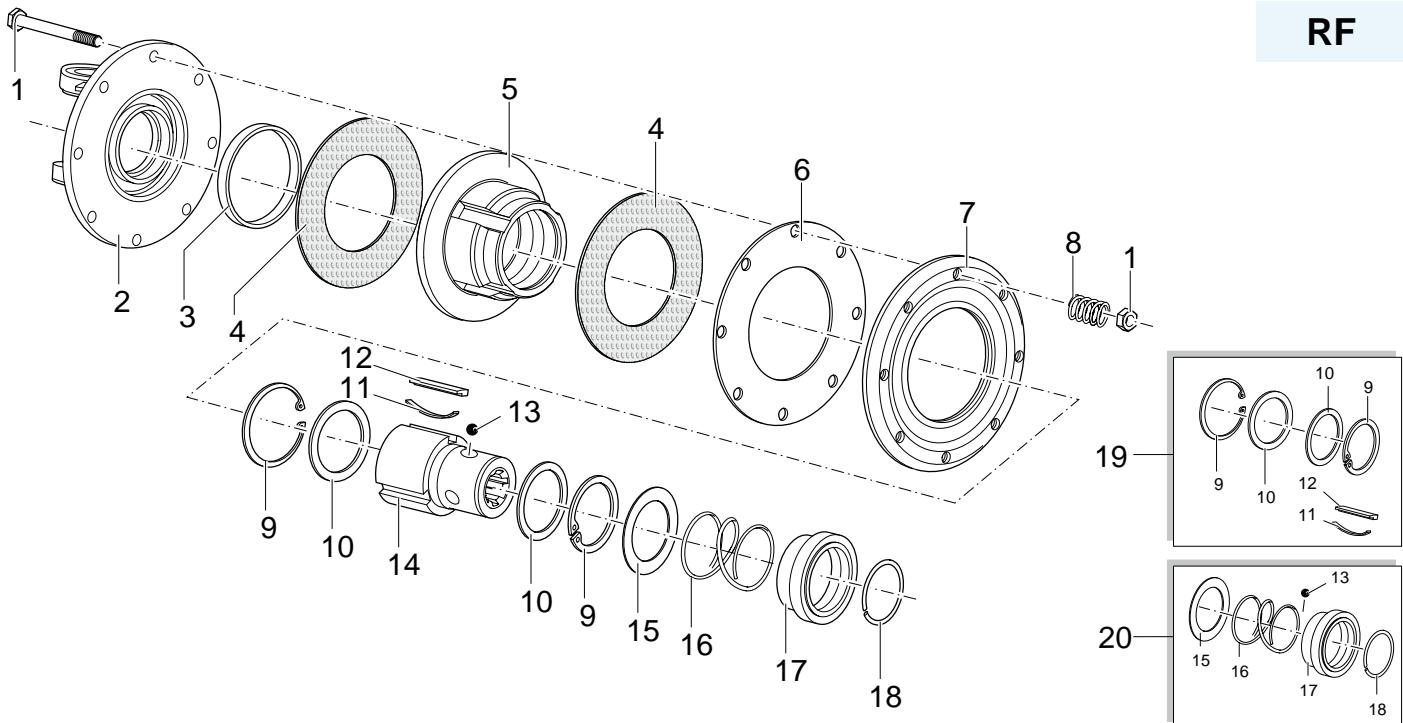
Do not touch!

Keep the area around the friction clutch clear of any material which could catch fire and avoid prolonged slipping.



RF2/RF3

RF



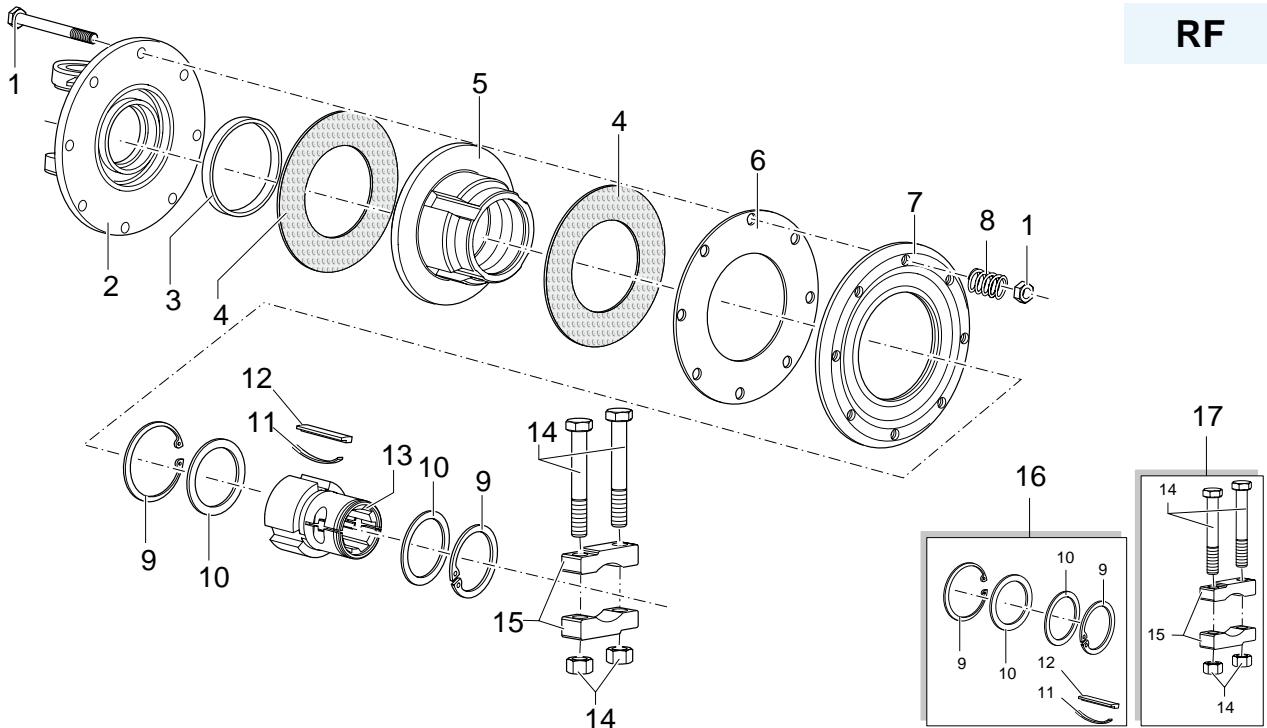
| Pos. | Description | | Code | Qty * |
|------|-------------------------------|---------------------------|---------------|-------|
| 1 | Bullone M10x85 + dado | Bolt M10x85+nut | 165.000.549 | 8 |
| 2 | Forcella flangia RF (tipo 40) | Flanged yoke RF (type 40) | 141.024.353.1 | 1 |
| | Forcella flangia RF (tipo 50) | Flanged yoke RF (type 50) | 141.025.326.1 | 1 |
| 3 | Bronzina | Bush | 180.017.112 | 1 |
| 4 | Disco attrito ø152xø102 | Lining ring ø152xø102 | 180.017.527 | 2 |
| 5 | Corpo | Torque limiter support | 141.025.330 | 1 |
| 6 | Disco intermedio | Inner plate | 180.017.105 | 1 |
| 7 | Disco stringifrizione | Pressure plate | 180.017.114.1 | 1 |
| 8 | Molla ø6 | Spring ø6 | 180.014.022 | 8 |
| 9 | Seeger | Circlip | 190.000.183 | 2 |
| 10 | Anello di rasamento | Retaining washer ring | 180.014.135 | 2 |
| 11 | Molla a balestra | Leaf spring | 180.014.137 | 3 |
| 12 | Linguetta | Ratchet | 151.014.136 | 3 |
| 13 | Sfera 1/2" | Ball 1/2" | 190.000.078 | 3 |
| 14 | Mozzo R12 | Hub R12 | 151.016.546 | 1 |
| | Mozzo R13 | Hub R13 | 151.016.571 | 1 |
| 15 | Lamierino | Spring push ring | 180.015.143 | 1 |
| 16 | Molla collar | Collar spring | 180.016.487 | 1 |
| 17 | Manicotto collar | Sliding sleeve Collar | 151.016.486 | 1 |
| 18 | Seeger | Snap ring | 190.000.451 | 1 |
| 19 | Kit RF | Kit RF | 165.000.741 | 1 |
| 20 | Kit collar R12-R13 | Kit Collar R12-R13 | 165.000.653 | 1 |

* Quantità presente nel dispositivo
 Quantity in the Safety Device



RF4/RF5

RF



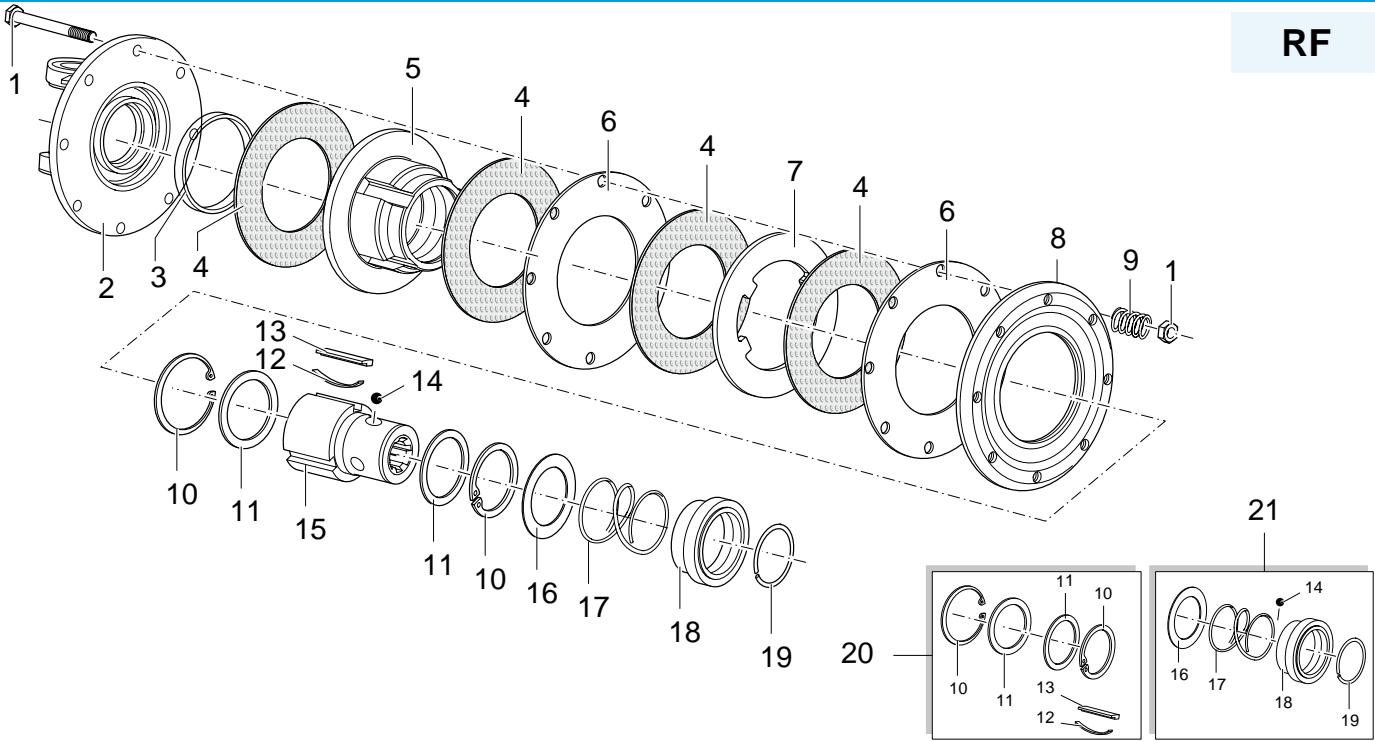
| Pos. | Description | | Code | Qty * |
|------|-------------------------------|---------------------------|---------------|-------|
| 1 | Bullone M10x85 + dado | Bolt M10x85+nut | 165.000.549 | 8 |
| 2 | Forcella flangia RF (tipo 40) | Flanged yoke RF (type 40) | 141.024.353.1 | 1 |
| | Forcella flangia RF (tipo 50) | Flanged yoke RF (type 50) | 141.025.326.1 | 1 |
| 3 | Bronzina | Bush | 180.017.112 | 1 |
| 4 | Disco affrifo ø152xø102 | Lining ring ø152xø102 | 180.017.527 | 2 |
| 5 | Corpo | Torque limiter support | 141.025.330 | 1 |
| 6 | Disco intermedio | Inner plate | 180.017.105 | 1 |
| 7 | Disco sfringifrizione | Pressure plate | 180.017.114.1 | 1 |
| 8 | Molla ø6 | Spring ø6 | 180.014.022 | 8 |
| 9 | Seeger | Circlip | 190.000.183 | 2 |
| 10 | Anello di rasamenfo | Retaining washer ring | 180.014.135 | 2 |
| 11 | Molla a balestra | Leaf spring | 180.014.137 | 3 |
| 12 | Linguetta | Ratchet | 151.014.136 | 3 |
| 13 | Mozzo R14 | Hub R14 | 151.014.200 | 1 |
| | Mozzo R15 | Hub R15 | 151.018.121 | 1 |
| 14 | Vite M14x1,5x100 + dado | Bolt M14x1,5x100+nut | 165.000.622 | 2 |
| 15 | Ponte di blocco | Clamp lock | 151.014.201 | 2 |
| 16 | Kit RF | Kit RF | 165.000.741 | 1 |
| 17 | Kit ponti blocco 1 3/4" | Clamp lock set 1 3/4" | 165.000.692 | 1 |

* Quantità presente nel dispositivo
 Quantity in the Safety Device



RF6/RF7

RF



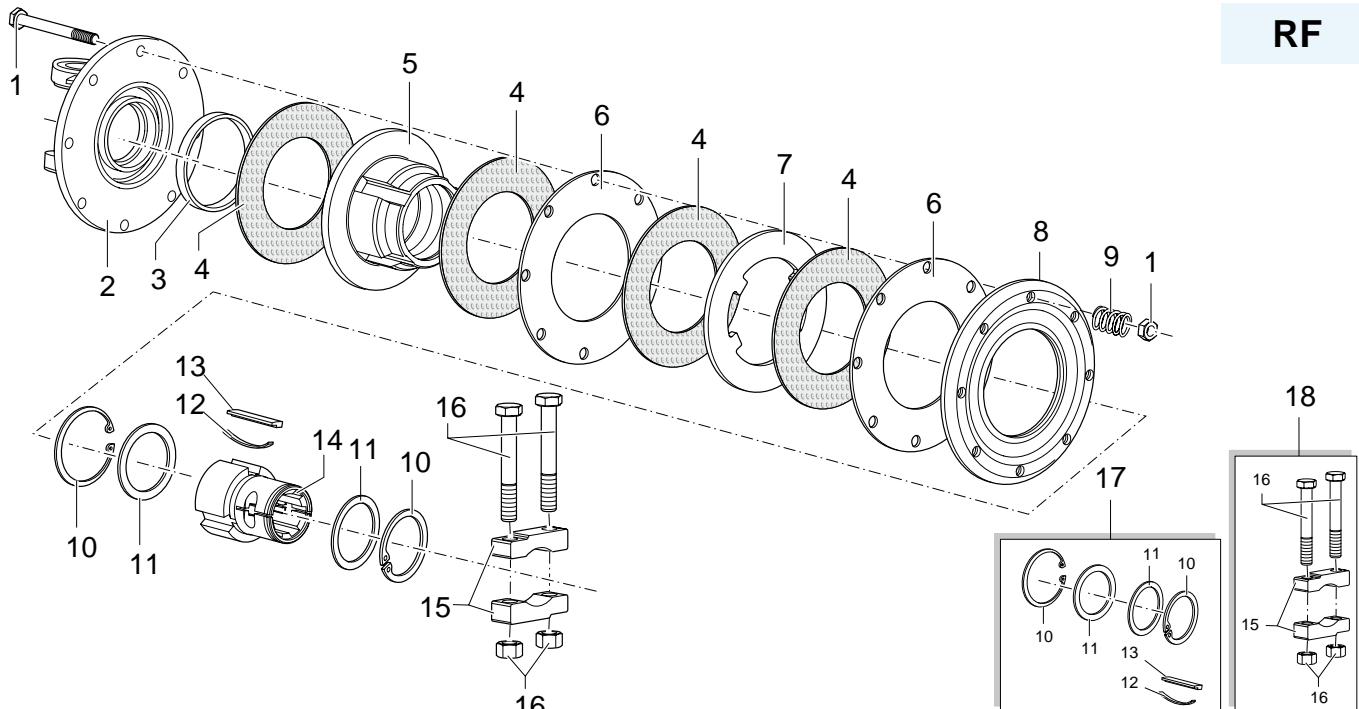
| Pos. | Description | Code | Qty * |
|------|-------------------------------|---------------|-------|
| 1 | Bullone M10x100 + dado | 165.000.548 | 8 |
| 2 | Forcella flangia RF (tipo 50) | 141.025.326.1 | 1 |
| | Forcella flangia RF (tipo 60) | 141.026.347.1 | 1 |
| | Forcella flangia RF (tipo 80) | 141.028.220.1 | 1 |
| | Forcella flangia RF (tipo 90) | 141.029.159.1 | 1 |
| 3 | Bronzina | 180.017.112 | 1 |
| 4 | Disco attrito ø152xø102 | 180.017.527 | 4 |
| 5 | Corpo | 141.027.107 | 1 |
| 6 | Disco intermedio | 180.017.105 | 2 |
| 7 | Disco sagomato | 180.017.104 | 1 |
| 8 | Disco stringifrizione | 180.017.114.1 | 1 |
| 9 | Molla ø6 | 180.014.022 | 8 |
| 10 | Seeger | 190.000.183 | 2 |
| 11 | Anello di rasamento | 180.014.135 | 2 |
| 12 | Molla a balestra | 180.014.137 | 3 |
| 13 | Linguetta | 151.014.136 | 3 |
| 14 | Sfera 1/2" | 190.000.078 | 3 |
| 15 | Mozzo R12 | 151.016.546 | 1 |
| | Mozzo R13 | 151.016.571 | 1 |
| 16 | Lamierino | 180.015.143 | 1 |
| 17 | Molla collar | 180.016.487 | 1 |
| 18 | Manicotto collar | 151.016.486 | 1 |
| 19 | Seeger | 190.000.451 | 1 |
| 20 | Kit RF | 165.000.741 | 1 |
| 21 | Kit collar R12-R13 | 165.000.653 | 1 |

* Quantità presente nel dispositivo
 Quantity in the Safety Device



RF8/RF9

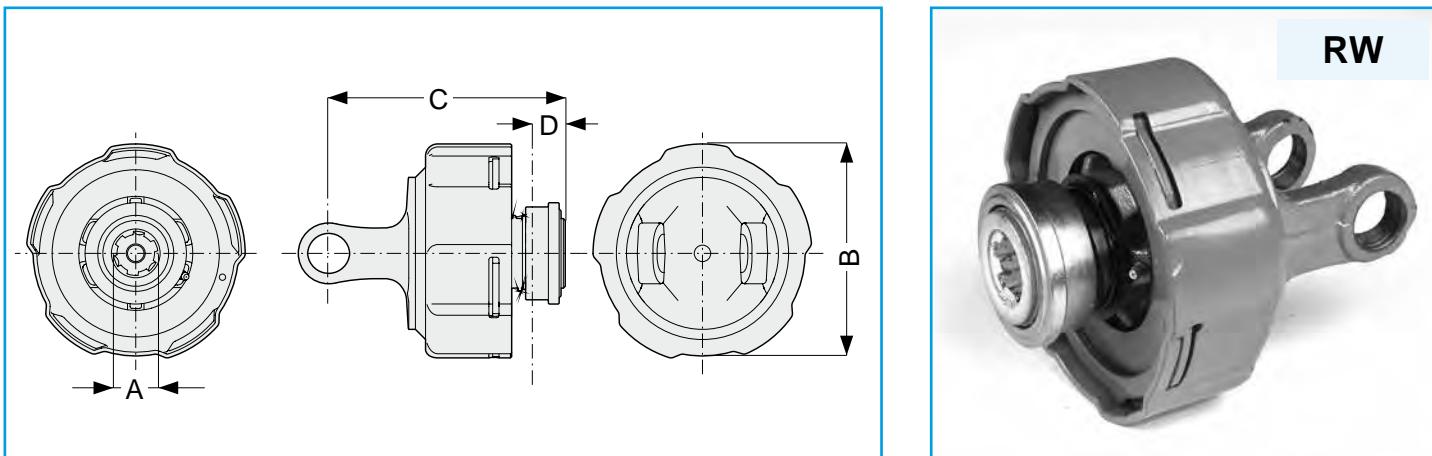
RF



| Pos. | Description | Code | Qty * |
|------|-------------------------------|---------------|-------|
| 1 | Bullone M10x100 + dado | 165.000.548 | 8 |
| 2 | Forcella flangia RF (tipo 50) | 141.025.326.1 | 1 |
| | Forcella flangia RF (tipo 60) | 141.026.347.1 | 1 |
| | Forcella flangia RF (tipo 80) | 141.028.220.1 | 1 |
| | Forcella flangia RF (tipo 90) | 141.029.159.1 | 1 |
| 3 | Bronzina | 180.017.112 | 1 |
| 4 | Disco attrito ø152xø102 | 180.017.527 | 4 |
| 5 | Corpo | 141.027.107 | 1 |
| 6 | Disco intermedio | 180.017.105 | 2 |
| 7 | Disco sagomato | 180.017.104 | 1 |
| 8 | Disco stringifrizione | 180.017.114.1 | 1 |
| 9 | Molla ø6 | 180.014.022 | 8 |
| 10 | Seeger | 190.000.183 | 2 |
| 11 | Anello di rasamento | 180.014.135 | 2 |
| 12 | Molla a balestra | 180.014.137 | 3 |
| 13 | Linguetta | 151.014.136 | 3 |
| 14 | Mozzo R14 | 151.014.200 | 1 |
| | Mozzo R15 | 151.018.121 | 1 |
| 15 | Ponte di blocco | 151.014.201 | 2 |
| 16 | Vite M14x1,5x100 + dado | 165.000.622 | 2 |
| 17 | Kit RF | 165.000.741 | 1 |
| 18 | Kit ponti di blocco 1 3/4" | 165.000.692 | 1 |

* Quantità presente nel dispositivo
 Quantity in the Safety Device

FRIZIONE CHIUSA CON RUOTA LIBERA
CLOSED DISC CLUTCH TORQUE LIMITER WITH OVERRUNNING CLUTCH



| Type | Ref. | A | B | | C | | D | | MAX | | Code |
|------|------|------------|------|----------|-------|----------|------|---------|------|---------|---------------|
| | | | [mm] | [inch] | [mm] | [inch] | [mm] | [inch] | [Nm] | [in.lb] | |
| 20 | RW2 | 1 3/8" z6 | ø173 | 6 13/16" | 149 | 5 7/8" | 26 | 1 1/32" | 600 | 5300 | 148.422.001.1 |
| | RW3 | 1 3/8" z21 | ø173 | 6 13/16" | 149 | 5 7/8" | 26 | 1 1/32" | 600 | 5300 | 148.422.002.1 |
| 40 | RW2 | 1 3/8" z6 | ø173 | 6 13/16" | 161 | 6 3/8" | 26 | 1 1/32" | 600 | 5300 | 148.442.001.1 |
| | RW3 | 1 3/8" z21 | ø173 | 6 13/16" | 161 | 6 3/8" | 26 | 1 1/32" | 600 | 5300 | 148.442.002.1 |
| | RW2 | 1 3/8" z6 | ø173 | 6 13/16" | 161 | 6 3/8" | 26 | 1 1/32" | 750 | 6630 | 148.442.003.1 |
| | RW3 | 1 3/8" z21 | ø173 | 6 13/16" | 161 | 6 3/8" | 26 | 1 1/32" | 750 | 6630 | 148.442.004.1 |
| | RW2 | 1 3/8" z6 | ø173 | 6 13/16" | 161 | 6 3/8" | 26 | 1 1/32" | 900 | 7950 | 148.442.005.1 |
| | RW3 | 1 3/8" z21 | ø173 | 6 13/16" | 161 | 6 3/8" | 26 | 1 1/32" | 900 | 7950 | 148.442.006.1 |
| 50 | RW2 | 1 3/8" z6 | ø173 | 6 13/16" | 179.5 | 7 3/32" | 26 | 1 1/32" | 900 | 7950 | 148.452.001.1 |
| | RW3 | 1 3/8" z21 | ø173 | 6 13/16" | 179.5 | 7 3/32" | 26 | 1 1/32" | 900 | 7950 | 148.452.002.1 |
| | RW6 | 1 3/8" z6 | ø173 | 6 13/16" | 179.5 | 7 3/32" | 26 | 1 1/32" | 1200 | 10600 | 148.454.001.1 |
| | RW7 | 1 3/8" z21 | ø173 | 6 13/16" | 179.5 | 7 3/32" | 26 | 1 1/32" | 1200 | 10600 | 148.454.002.1 |
| 60 | RW2 | 1 3/8" z6 | ø173 | 6 13/16" | 186.5 | 7 23/64" | 26 | 1 1/32" | 900 | 7950 | 148.462.001.1 |
| | RW3 | 1 3/8" z21 | ø173 | 6 13/16" | 186.5 | 7 23/64" | 26 | 1 1/32" | 900 | 7950 | 148.462.002.1 |
| | RW6 | 1 3/8" z6 | ø173 | 6 13/16" | 186.5 | 7 23/64" | 26 | 1 1/32" | 1200 | 10600 | 148.464.002.1 |
| | RW7 | 1 3/8" z21 | ø173 | 6 13/16" | 186.5 | 7 23/64" | 26 | 1 1/32" | 1200 | 10600 | 148.464.005.1 |
| | RW6 | 1 3/8" z6 | ø173 | 6 13/16" | 186.5 | 7 23/64" | 26 | 1 1/32" | 1500 | 13250 | 148.464.001.1 |
| | RW7 | 1 3/8" z21 | ø173 | 6 13/16" | 186.5 | 7 23/64" | 26 | 1 1/32" | 1500 | 13250 | 148.464.004.1 |
| 80 | RW6 | 1 3/8" z6 | ø173 | 6 13/16" | 189.5 | 7 31/64" | 26 | 1 1/32" | 1200 | 10600 | 148.484.001.1 |
| | RW7 | 1 3/8" z21 | ø173 | 6 13/16" | 189.5 | 7 31/64" | 26 | 1 1/32" | 1200 | 10600 | 148.484.002.1 |
| | RW6 | 1 3/8" z6 | ø173 | 6 13/16" | 189.5 | 7 31/64" | 26 | 1 1/32" | 1500 | 13250 | 148.484.003.1 |
| | RW7 | 1 3/8" z21 | ø173 | 6 13/16" | 189.5 | 7 31/64" | 26 | 1 1/32" | 1500 | 13250 | 148.484.004.1 |
| | RW6 | 1 3/8" z6 | ø173 | 6 13/16" | 189.5 | 7 31/64" | 26 | 1 1/32" | 1800 | 15900 | 148.484.005.1 |
| | RW7 | 1 3/8" z21 | ø173 | 6 13/16" | 189.5 | 7 31/64" | 26 | 1 1/32" | 1800 | 15900 | 148.484.006.1 |

NOTA: fornibile a richiesta per senso di rotazione antiorario
NOTE: available upon request for anti-clockwise direction of rotation

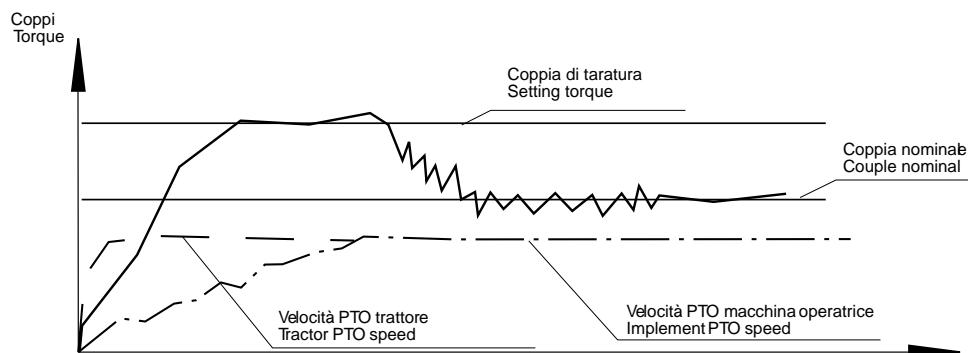
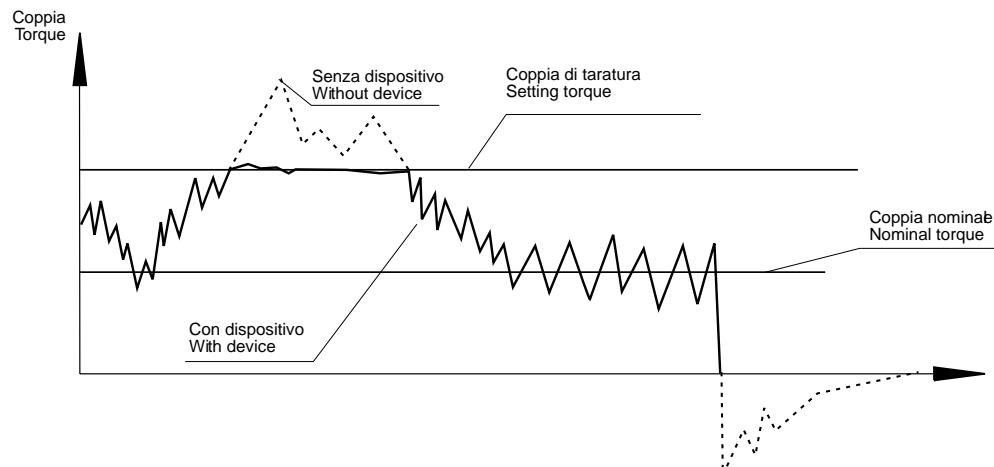
FRIZIONE CHIUSA CON RUOTA LIBERA

CLOSED DISC CLUTCH TORQUE LIMITER WITH OVERRUNNING CLUTCH



Il dispositivo comprende un limitatore di coppia a dischi d'attrito (frizione) e una ruota libera integrati. La funzionalità assomma quelle dei singoli dispositivi con il vantaggio di risparmiare spazio e di consentire il montaggio sullo stesso lato del cardano. Il dispositivo è utile come organo di sicurezza contro picchi di carico e in macchine con grosse masse rotanti, sia durante l'avviamento che durante l'arresto, evitando inutili sollecitazioni della PTO del trattore. Questo tipo di frizione risulta avere la taratura non modificabile ed inoltre l'utilizzo di speciali molle a tazza in luogo delle più comuni molle elicoidali rende costante la taratura nonostante il progressivo consumo dei dischi d'attrito.

The device includes a disc clutch torque limiter and an incorporated overrunning clutch. The device combines the functions of the single devices thus reducing space and allowing it to be mounted on the same side of the cardan. It is useful as a safety device to protect against load peaks and in implements with large rotating mass during start-up and stopping operations, thus avoiding unnecessary stress on the tractor PTO. The torque setting of this clutch is not adjustable and the use of special Belleville springs instead of the helical springs ensures a stable torque setting compensating for the natural wear of the friction linings.



Le frizioni possono raggiungere elevate temperature.

Non toccare!

Per evitare rischi di incendio, mantenere la zona adiacente la frizione pulita da materiale infiammabile ed evitare slittamenti prolungati.

Friction clutches may become hot during use.

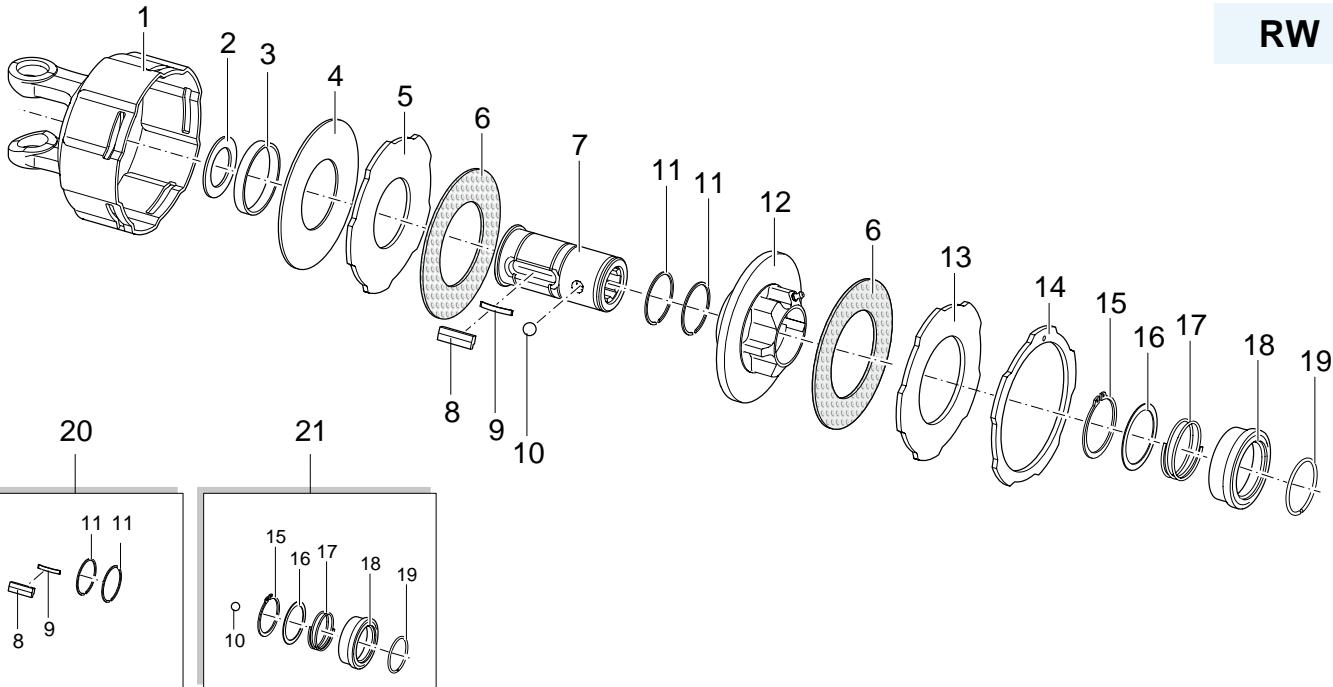
Do not touch!

Keep the area around the friction clutch clear of any material which could catch fire and avoid prolonged slipping.



RW2/RW3

RW



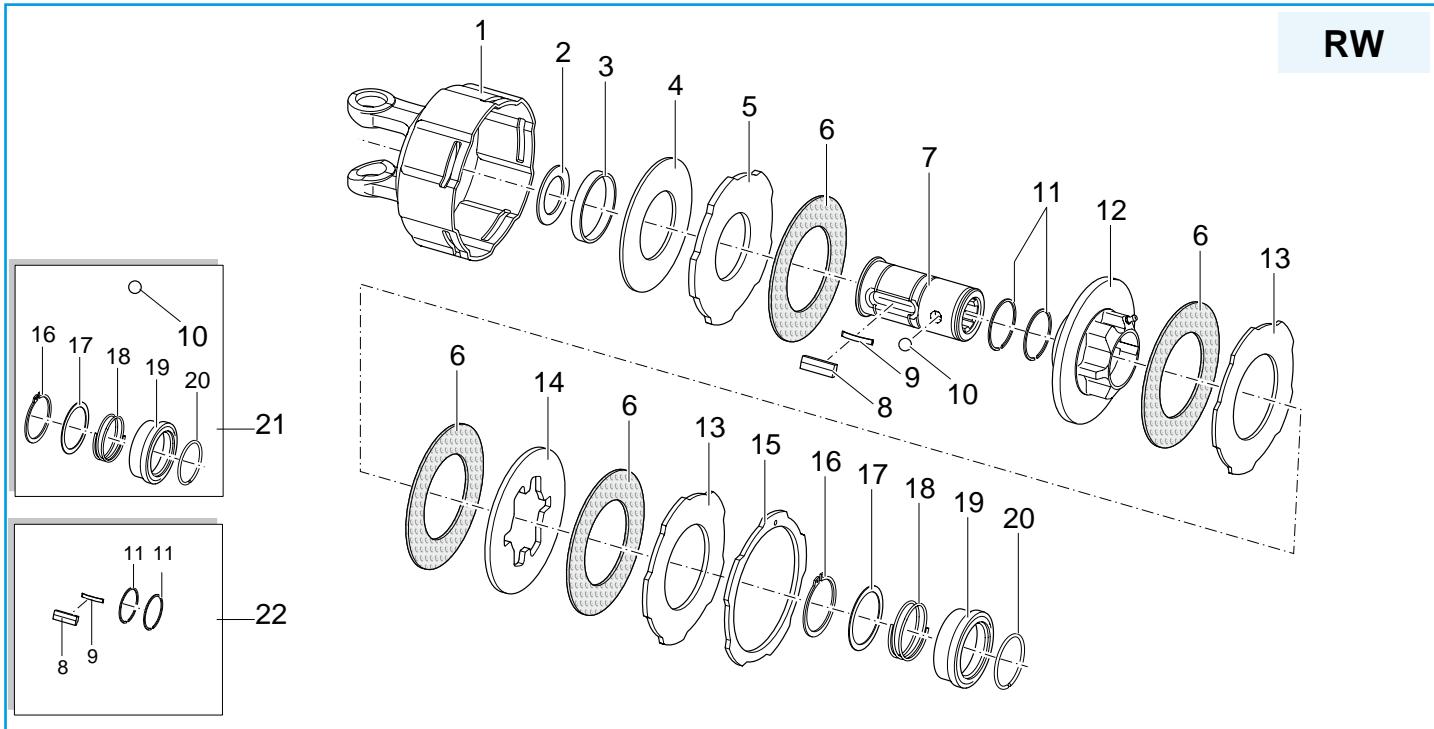
| Pos. | Description | Code | Qty * |
|------|------------------------------|----------------|-------|
| 1 | Forcella corpo (tipo 20) | 141.022.415.1 | 1 |
| | Forcella corpo (tipo 40) | 141.024.591.1 | 1 |
| | Forcella corpo (tipo 50) | 141.025.403.1 | 1 |
| | Forcella corpo (tipo 60) | 141.026.725.1 | 1 |
| 2 | Distanziale | 10.285.7525.00 | 1 |
| 3 | Bronzina RW | 180.013.429 | 1 |
| 4 | Molla a tazza (600Nm) | 190.000.594 | 1 |
| | Molla a tazza (750Nm) | 190.000.594 | 1 |
| | Molla a tazza (900Nm) | 190.000.607 | 1 |
| 5 | Disco stringifrizione(600Nm) | 180.013.434 | 1 |
| | Disco stringifrizione(750Nm) | 180.013.433 | 1 |
| | Disco stringifrizione(900Nm) | 180.013.440 | 1 |
| 6 | Dischi attrito ø152xø90 | 180.019.018 | 2 |
| 7 | Mozzo RW2 - RW6 | 151.013.430 | 1 |
| | Mozzo RW3 - RW7 | 151.013.457 | 1 |
| 8 | Linguetta | 151.014.136 | 2 |
| 9 | Molla a balestra | 180.014.137 | 2 |
| 10 | Sfere 1/2" | 190.000.078 | 3 |
| 11 | Anello elastico SW52 | 190.000.702 | 2 |
| 12 | Corpo RW | 141.023.431 | 1 |
| 13 | Disco di reazione | 180.017.269 | 1 |
| 14 | Disco di arresto | 180.017.276 | 1 |
| 15 | Seeger UNI 7435-55 | 190.000.488 | 1 |
| 16 | Distanziale | 180.015.143 | 1 |
| 17 | Molla collar | 180.016.487 | 1 |
| 18 | Manicotto scorrevole | 151.016.486 | 1 |
| 19 | Seeger UNI 7433-A-55 | 190.000.451 | 1 |
| 20 | Kit RW | 165.000.769 | 1 |
| 21 | Kit collar RW | 165.000.768 | 1 |

* Quantità presente nel dispositivo
 Quantity in the Safety Device



RW6/RW7

RW



| Pos. | Description | Code | Qty * |
|-------------|---------------------------------|----------------|--------------|
| 1 | Forcella corpo (tipo 50) | 141.025.394.1 | 1 |
| | Forcella corpo (tipo 60) | 141.026.664.1 | 1 |
| | Forcella corpo (tipo 80) | 141.028.515.1 | 1 |
| 2 | Distanziale | 10.285.7525.00 | 1 |
| 3 | Bronzina RW | 180.013.429 | 1 |
| 4 | Molla a tazza (1200 Nm) | 190.000.594 | 1 |
| | Molla a tazza (1500 Nm) | 190.000.594 | 1 |
| | Molla a tazza (1800 Nm) | 190.000.607 | 1 |
| 5 | Disco stringifricione (1200 Nm) | 180.013.434 | 1 |
| | Disco stringifricione (1500 Nm) | 180.013.433 | 1 |
| | Disco stringifricione (1800 Nm) | 180.013.440 | 1 |
| 6 | Disco attrito ø152xø90 | 180.019.018 | 4 |
| 7 | Mozzo RW2-RW6 | 151.013.430 | 1 |
| | Mozzo RW3-RW7 | 151.013.457 | 1 |
| 8 | Linguetta | 151.014.136 | 2 |
| 9 | Molla a balestra | 180.014.137 | 2 |
| 10 | Sfere 1/2" | 190.000.078 | 3 |
| 11 | Anello elastico SW52 | 190.000.702 | 2 |
| 12 | Corpo RW | 141.023.431 | 1 |
| 13 | Disco intermedio | 180.017.269 | 2 |
| 14 | Disco sagomato | 180.019.115 | 1 |
| 15 | Disco d' arresto | 180.017.276 | 1 |
| 16 | Seeger UNI 7435-55 | 190.000.488 | 1 |
| 17 | Distanziale | 180.015.143 | 1 |
| 18 | Molla collar | 180.016.487 | 1 |
| 19 | Manicotto collar | 151.016.486 | 1 |
| 20 | Seeger UNI 7435-55 | 190.000.451 | 1 |
| 21 | Kit collar RW | 165.000.768 | 1 |
| 22 | Kit RW | 165.000.769 | 1 |

* Quantità presente nel dispositivo
 Quantity in the Safety Device

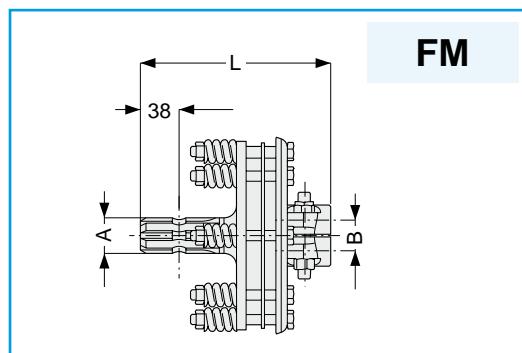
DISPOSITIVI CON ALBERO MASCHIO

DEVICES WITH MALE SHAFT



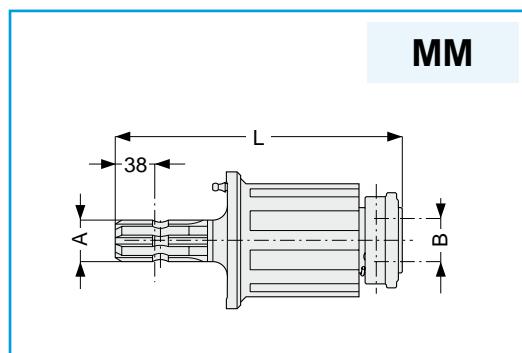
| Ref. | A | B* | L | | [Nm] | [in.lb] | Code |
|-------------|-----------|-----------|-----|----------|------|---------|----------------------|
| FM02 | 1 3/8" z6 | 1 3/8" z6 | 183 | 7 13/64" | 650 | 5700 | 146.231.003.1 |
| FM12 | 1 3/8" z6 | 1 3/8" z6 | 183 | 7 13/64" | 900 | 7950 | 146.241.006.1 |
| FM22 | 1 3/8" z6 | 1 3/8" z6 | 190 | 7 31/64" | 1200 | 10600 | 146.252.009.1 |
| FM42 | 1 3/8" z6 | 1 3/8" z6 | 203 | 7 63/64" | 2000 | 17700 | 146.264.015.1 |

* Fornibile a richiesta con altri tipi di caletto
Can be supplied upon request with other types of splined



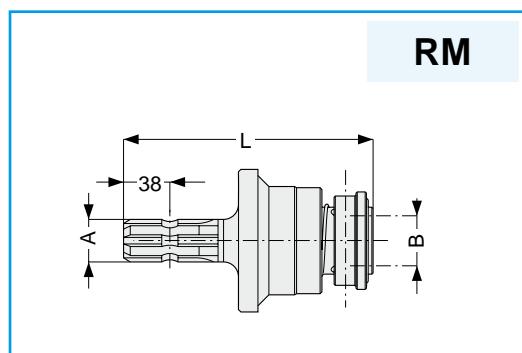
| Ref. | A | B* | L | | [Nm] | [in.lb] | Code |
|-------------|-----------|-----------|-----|----------|------|---------|----------------------|
| MM14 | 1 3/8" z6 | 1 3/8" z6 | 168 | 6 39/64" | 300 | 2650 | 144.206.011.1 |
| MM24 | 1 3/8" z6 | 1 3/8" z6 | 188 | 7 13/32" | 600 | 5300 | 144.206.012.1 |
| MM34 | 1 3/8" z6 | 1 3/8" z6 | 208 | 8 3/16" | 900 | 7950 | 144.206.007.1 |
| MM44 | 1 3/8" z6 | 1 3/8" z6 | 228 | 8 31/32" | 1200 | 10600 | 144.206.013.1 |

* Fornibile a richiesta con altri tipi di caletto
Can be supplied upon request with other types of splined



| Ref. | A | B* | L | | [Nm] | [in.lb] | Code |
|-------------|-----------|-----------|-----|---------|------|---------|----------------------|
| RM12 | 1 3/8" z6 | 1 3/8" z6 | 208 | 8 3/16" | 3800 | 33630 | 145.215.015.1 |

* Fornibile a richiesta con altri tipi di caletto
Can be supplied upon request with other types of splined





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DISPOSITIVI DI SICUREZZA FLANGIATI

MODULAR SAFETY DEVICES

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| Parti di ricambio | <i>Spare Parts</i> |
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| Parti di ricambio | <i>Spare Parts</i> |
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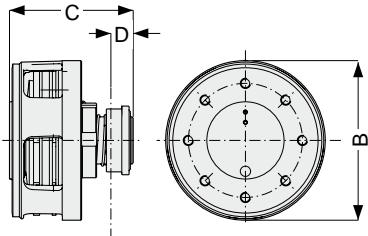
PROGRAMMA DI PRODUZIONE
PRODUCTION PROGRAM



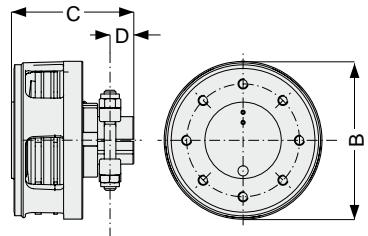
| Type | Ref. | | | | MAX | P. |
|-------------------------------|------|----------|----------|----------|---------|-----|
| BF | B32F | B | 168 | 127 | 22 | 100 |
| | B33F | mm | 6 39/64" | 5" | 7/8" | |
| | B34F | mm | 168 | 127 | 22 | |
| | B35F | inch | 6 39/64" | 5" | 7/8" | |
| | B32F | B | 168 | 127 | 22 | |
| | B33F | mm | 6 39/64" | 5" | 7/8" | |
| | B34F | mm | 168 | 127 | 22 | |
| | B35F | inch | 6 39/64" | 5" | 7/8" | |
| | B32F | B | 168 | 127 | 22 | |
| | B33F | mm | 6 39/64" | 5" | 7/8" | |
| L | B34F | mm | 168 | 127 | 22 | 102 |
| | B35F | inch | 6 39/64" | 5" | 7/8" | |
| | B32F | B | 168 | 127 | 22 | |
| | B33F | mm | 6 39/64" | 5" | 7/8" | |
| | B34F | mm | 168 | 127 | 22 | |
| | B35F | inch | 6 39/64" | 5" | 7/8" | |
| | B32F | B | 168 | 127 | 22 | |
| | B33F | mm | 6 39/64" | 5" | 7/8" | |
| | B34F | mm | 168 | 127 | 22 | |
| | B35F | inch | 6 39/64" | 5" | 7/8" | |
| WF W22F-W23F-W42F-W43F | W22F | B | 173 | 87 | 26 | 104 |
| | W23F | mm | 6 13/16" | 3 27/64" | 1 1/32" | |
| | W42F | mm | 173 | 102 | 26 | |
| | W43F | inch | 6 13/16" | 4 1/64" | 1 1/32" | |
| | W42F | mm | 173 | 102 | 26 | |
| | W43F | inch | 6 13/16" | 4 1/64" | 1 1/32" | |
| | W42F | mm | 173 | 102 | 26 | |
| | W43F | inch | 6 13/16" | 4 1/64" | 1 1/32" | |
| | W42F | mm | 173 | 102 | 26 | |
| | W43F | inch | 6 13/16" | 4 1/64" | 1 1/32" | |
| WF W44F-W45F | W44F | B | 173 | 125 | 28 | 104 |
| | W45F | mm | 6 13/16" | 4 59/64" | 1 7/64" | |
| | W44F | mm | 173 | 125 | 28 | |
| | W45F | inch | 6 13/16" | 4 59/64" | 1 7/64" | |
| | W44F | mm | 173 | 125 | 28 | |
| | W45F | inch | 6 13/16" | 4 59/64" | 1 7/64" | |
| | W44F | mm | 173 | 125 | 28 | |
| | W45F | inch | 6 13/16" | 4 59/64" | 1 7/64" | |
| | W44F | mm | 173 | 125 | 28 | |
| | W45F | inch | 6 13/16" | 4 59/64" | 1 7/64" | |
| JF | J42F | B | 186 | 120 | 26 | 109 |
| | J43F | mm | 7 21/64" | 3 27/64" | 1 1/32" | |
| | J44F | mm | 186 | 120 | 26 | |
| | J45F | inch | 7 21/64" | 3 27/64" | 1 1/32" | |
| | J42F | mm | 186 | 120 | 26 | |
| | J43F | mm | 7 21/64" | 3 27/64" | 1 1/32" | |
| | J44F | mm | 186 | 120 | 26 | |
| | J45F | inch | 7 21/64" | 3 27/64" | 1 1/32" | |
| | J42F | mm | 186 | 120 | 26 | |
| | J43F | inch | 7 21/64" | 3 27/64" | 1 1/32" | |
| JF | J44F | mm | 186 | 120 | 26 | 109 |
| | J45F | inch | 7 21/64" | 3 27/64" | 1 1/32" | |
| | J44F | mm | 186 | 120 | 26 | |
| | J45F | inch | 7 21/64" | 3 27/64" | 1 1/32" | |
| | J44F | mm | 186 | 120 | 26 | |
| | J45F | inch | 7 21/64" | 3 27/64" | 1 1/32" | |
| | J44F | mm | 186 | 120 | 26 | |
| | J45F | inch | 7 21/64" | 3 27/64" | 1 1/32" | |
| | J44F | mm | 186 | 120 | 26 | |
| | J45F | inch | 7 21/64" | 3 27/64" | 1 1/32" | |



| Type | Ref. | | | P. | |
|---------------|------|-------|----------|----------|---------|
| RJF RJ6F-RJ7F | | | | | |
| | 60 | | | | |
| | 80 | | | | |
| | 90 | | | | |
| | 120 | | | | |
| RJ6F | | B | C | D | |
| RJ7F | | mm | 186 | 141 | 26 |
| RJ6F | | inch | 7 21/64" | 5 35/64" | 1 1/32" |
| RJ7F | | mm | 186 | 141 | 26 |
| RJ6F | | inch | 7 21/64" | 5 35/64" | 1 1/32" |
| RJ7F | | mm | 186 | 141 | 26 |
| RJ6F | | inch | 7 21/64" | 5 35/64" | 1 1/32" |
| RJ7F | | Nm | in. lb. | | |
| | 1600 | 7950 | | | |
| | 2000 | 17700 | | | |
| | 2400 | 21200 | | | |
| | 112 | | | | |

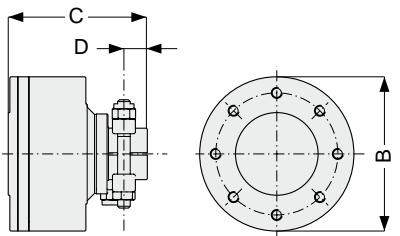


RJF RJ8F-RJ9F



| | | B | C | D | Nm | in. lb. | |
|------|-----|------|----------|----------|---------|---------|--|
| | 60 | | | | | | |
| | 80 | | | | | | |
| | 90 | | | | | | |
| | 120 | | | | | | |
| RJ8F | | mm | 186 | 141 | 28 | | |
| RJ9F | | inch | 7 21/64" | 5 35/64" | 1 7/64" | | |
| RJ8F | | mm | 186 | 141 | 28 | | |
| RJ9F | | inch | 7 21/64" | 5 35/64" | 1 7/64" | | |
| RJ8F | | mm | 186 | 141 | 28 | | |
| RJ9F | | inch | 7 21/64" | 5 35/64" | 1 7/64" | | |
| RJ8F | | mm | 186 | 141 | 28 | | |
| RJ9F | | inch | 7 21/64" | 5 35/64" | 1 7/64" | | |
| | 112 | 3300 | 29000 | | | | |

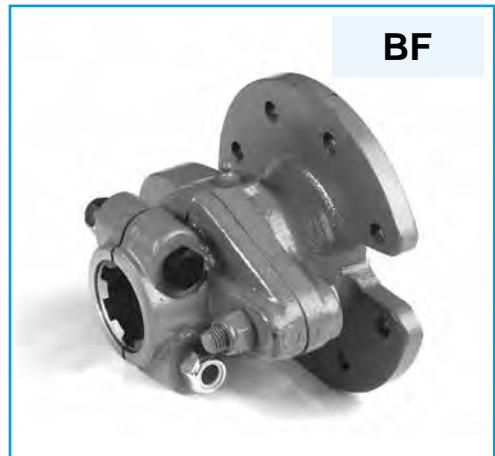
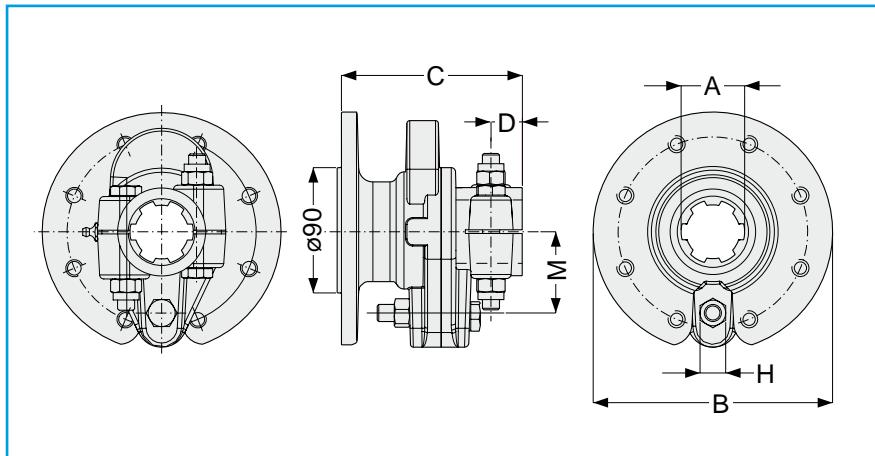
LRF



| | | B | C | D | Nm | in. lb. | |
|------|-----|------|----------|--------|---------|---------|--|
| | 60 | | | | | | |
| | 80 | | | | | | |
| | 90 | | | | | | |
| | 120 | | | | | | |
| LR2F | | mm | 168 | 149 | 28 | | |
| LR3F | | inch | 6 39/64" | 5 7/8" | 1 7/64" | | |
| LR4F | | mm | 168 | 149 | 28 | | |
| LR5F | | inch | 6 39/64" | 5 7/8" | 1 7/64" | | |
| LR2F | | mm | 168 | 149 | 28 | | |
| LR3F | | inch | 6 39/64" | 5 7/8" | 1 7/64" | | |
| LR4F | | mm | 168 | 149 | 28 | | |
| LR5F | | inch | 6 39/64" | 5 7/8" | 1 7/64" | | |
| | 116 | 3500 | 30900 | | | | |

LIMITATORE A BULLONE DI TRANCIO

SHEAR BOLT TORQUE LIMITER



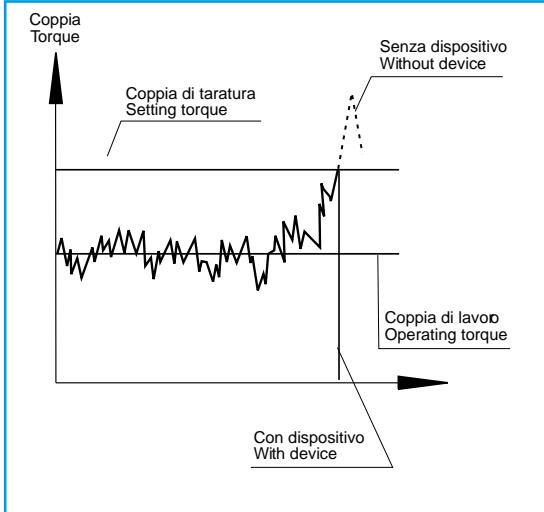
| Type | | Ref. | A [mm] | B [inch] | C [mm] | D [inch] | M [mm] | M [inch] | MAX [Nm] | H [in.lb] | ISO 8.8 | Code | |
|------|-----|------|------------|-------------|-----------|-------------|-----------|-------------|-------------|--------------|----------|------|-----------------------------------|
| 60 | 80 | B32F | 1 3/8" z6 | 168 | 6 39/64" | 127 | 5" | 22 | 7/8" | 55 | 2 11/64" | 2500 | 22100 M10x60 143.200.001.1 |
| | | B33F | 1 3/8" z21 | 168 | 6 39/64" | 127 | 5" | 22 | 7/8" | 55 | 2 11/64" | 2500 | 22100 M10x60 143.200.002.1 |
| | | B34F | 1 3/4" z6 | 168 | 6 39/64" | 127 | 5" | 22 | 7/8" | 55 | 2 11/64" | 2500 | 22100 M10x60 143.200.007.1 |
| | | B35F | 1 3/4" z20 | 168 | 6 39/64" | 127 | 5" | 22 | 7/8" | 55 | 2 11/64" | 2500 | 22100 M10x60 143.200.003.1 |
| | | B32F | 1 3/8" z6 | 168 | 6 39/64" | 127 | 5" | 22 | 7/8" | 57 | 2 15/64" | 3500 | 30900 M12x65 143.200.006.1 |
| | | B33F | 1 3/8" z21 | 168 | 6 39/64" | 127 | 5" | 22 | 7/8" | 57 | 2 15/64" | 3500 | 30900 M12x65 143.200.004.1 |
| | | B34F | 1 3/4" z6 | 168 | 6 39/64" | 127 | 5" | 22 | 7/8" | 57 | 2 15/64" | 3500 | 30900 M12x65 143.200.005.1 |
| | | B35F | 1 3/4" z20 | 168 | 6 39/64" | 127 | 5" | 22 | 7/8" | 57 | 2 15/64" | 3500 | 30900 M12x65 143.200.010.1 |
| | | B32F | 1 3/8" z6 | 168 | 6 39/64" | 127 | 5" | 22 | 7/8" | 65 | 2 9/16" | 4000 | 35400 M12x65 143.200.011.1 |
| | | B33F | 1 3/8" z21 | 168 | 6 39/64" | 127 | 5" | 22 | 7/8" | 65 | 2 9/16" | 4000 | 35400 M12x65 143.200.012.1 |
| 90 | 120 | B34F | 1 3/4" z6 | 168 | 6 39/64" | 127 | 5" | 22 | 7/8" | 65 | 2 9/16" | 4000 | 35400 M12x65 143.200.013.1 |
| | | B35F | 1 3/4" z20 | 168 | 6 39/64" | 127 | 5" | 22 | 7/8" | 65 | 2 9/16" | 4000 | 35400 M12x65 143.200.014.1 |
| | | B34F | 1 3/4" z6 | 168 | 6 39/64" | 127 | 5" | 22 | 7/8" | 65 | 2 9/16" | 5000 | 44260 M14x70 143.200.008.1 |
| | | B35F | 1 3/4" z20 | 168 | 6 39/64" | 127 | 5" | 22 | 7/8" | 65 | 2 9/16" | 5000 | 44260 M14x70 143.200.009.1 |

NOTA: sul tipo 120 caletto trattato termicamente
NOTE: for type 120 the spline is heat treated

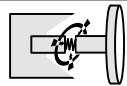
Con tarature superiori a 4000 Nm il caletto del mozzo è trattato termicamente.
With setting value higher than 4000 Nm the hub spline is heat treated.

Il limitatore interviene interrompendo la trasmissione di potenza quando la coppia supera il limite di taratura mediante la rottura del bullone. La trasmissione viene ripristinata inserendo un nuovo bullone nel dispositivo.

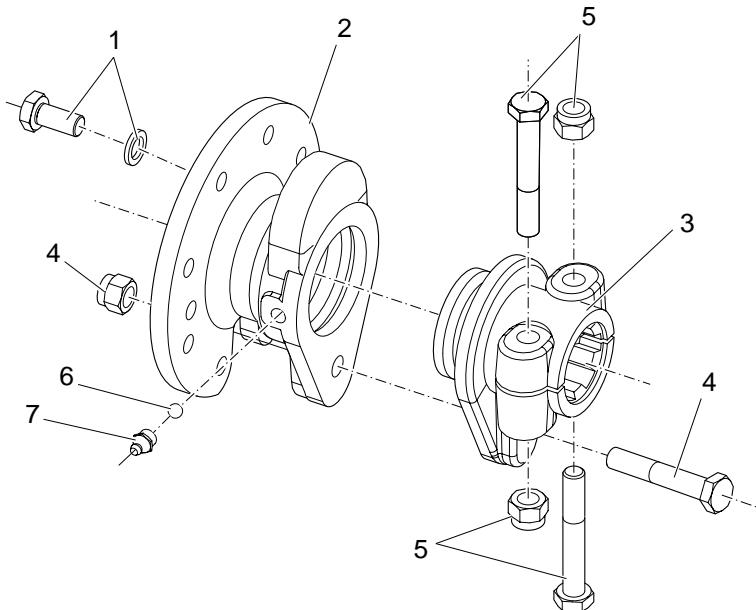
The torque limiter interrupts the power transmission when the torque exceeds the setting value, by shearing the bolt. Transmission is restored by inserting a new bolt in the device.



LIMITATORE A BULLONE DI TRANCIO
SHEAR BOLT TORQUE LIMITER

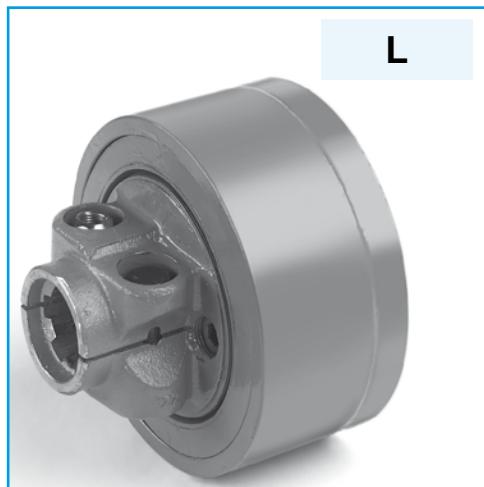
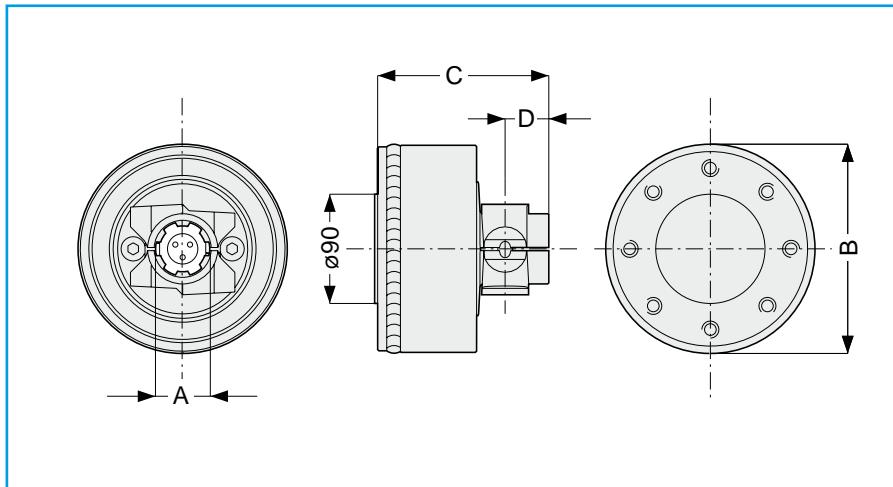
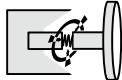


BF



| Pos. | | | Code | Qty * |
|------|-----------------------------|----------------------|---------------|-------|
| 1 | Kit vite M12x1,25x65 + dado | Bolt M12x1,25x65+nut | 165.000.708 | 8 |
| 2 | Flangia BF (tipo 60) | Flange BF (type 60) | 151.018.547.1 | 1 |
| | Flangia BF (tipo 80) | Flange BF (type 80) | 151.018.451.1 | 1 |
| | Flangia BF (tipo 90) | Flange BF (type 90) | 151.018.559.1 | 1 |
| | Flangia BF (tipo 120) | Flange BF (type 120) | 141.220.014.1 | 1 |
| | Mozzo B32 (tipo 60) | Hub B32 (type 60) | 151.016.243.1 | 1 |
| 3 | Mozzo B33 (tipo 60) | Hub B33 (type 60) | 151.016.724.1 | 1 |
| | Mozzo B34 (tipo 60) | Hub B34 (type 60) | 151.018.513.1 | 1 |
| | Mozzo B35 (tipo 60) | Hub B35 (type 60) | 151.018.369.1 | 1 |
| | Mozzo B32 (tipo 80) | Hub B32 (type 80) | 151.018.163.1 | 1 |
| | Mozzo B33 (tipo 80) | Hub B33 (type 80) | 151.018.560.1 | 1 |
| | Mozzo B34 (tipo 80) | Hub B34 (type 80) | 151.018.452.1 | 1 |
| | Mozzo B35 (tipo 80) | Hub B35 (type 80) | 151.018.162.1 | 1 |
| | Mozzo B32 (tipo 90) | Hub B32 (type 90) | 151.019.370.1 | 1 |
| | Mozzo B33 (tipo 90) | Hub B33 (type 90) | 151.019.371.1 | 1 |
| | Mozzo B34 (tipo 90) | Hub B34 (type 90) | 151.019.372.1 | 1 |
| | Mozzo B35 (tipo 90) | Hub B35 (type 90) | 151.019.139.1 | 1 |
| | Mozzo B34 (tipo 120) | Hub B34 (type 120) | 151.120.015.1 | 1 |
| | Mozzo B35 (tipo 120) | Hub B35 (type 120) | 151.120.016.1 | 1 |
| 4 | Kit vite M10x60 + dado | Bolt M10x60+nut | 165.000.507 | 1 |
| | Kit vite M12x65 + dado | Bolt M12x65+nut | 165.000.512 | 1 |
| | Kit vite M14x65 + dado | Bolt M14x65+nut | 165.000.765 | 1 |
| 5 | Kit vite M12x1.25x75 + dado | Bolt M12x1.25x75+nut | 165.000.598 | 2 |
| | Kit vite M16x2x80 + dado | Bolt M16x2x80+nut | 165.000.576 | 2 |
| 6 | Sfera 5/16" | Ball 5/16" | 190.000.023 | 24 |
| 7 | Ingrassatore M10x1 | Greaser M10x1 | 190.000.021 | 1 |

* Quantità presente nel dispositivo
Quantity in the Safety Device



| Type | | Ref. | A | B | | C | | D | | MAX | Code | |
|------|-----|-------------|-------------|----------|----------|----------|----------|----------|----------|-------|---------------|---------------|
| | | | | [mm] | [inch] | [mm] | [inch] | [mm] | [inch] | [Nm] | [in.lb] | |
| 60 | 80 | L82 | 1 3/8" z.6 | 168 | 6 39/64" | 141 | 5 35/64" | 36 | 1 27/64" | 2500 | 22130 | 144.306.043.1 |
| | | L83 | 1 3/8" z.21 | 168 | 6 39/64" | 141 | 5 35/64" | 36 | 1 27/64" | 2500 | 22130 | 144.306.054.1 |
| | | L84 | 1 3/4" z.6 | 168 | 6 39/64" | 141 | 5 35/64" | 36 | 1 27/64" | 2500 | 22130 | 144.306.018.1 |
| | | L85 | 1 3/4" z.20 | 168 | 6 39/64" | 141 | 5 35/64" | 36 | 1 27/64" | 2500 | 22130 | 144.306.055.1 |
| | 90 | L82 | 1 3/8" z.6 | 168 | 6 39/64" | 141 | 5 35/64" | 36 | 1 27/64" | 3500 | 30900 | 144.306.048.1 |
| | | L83 | 1 3/8" z.21 | 168 | 6 39/64" | 141 | 5 35/64" | 36 | 1 27/64" | 3500 | 30900 | 144.306.056.1 |
| | | L84 | 1 3/4" z.6 | 168 | 6 39/64" | 141 | 5 35/64" | 36 | 1 27/64" | 3500 | 30900 | 144.306.028.1 |
| | | L85 | 1 3/4" z.20 | 168 | 6 39/64" | 141 | 5 35/64" | 36 | 1 27/64" | 3500 | 30900 | 144.306.057.1 |
| 120 | L82 | 1 3/8" z.6 | 168 | 6 39/64" | 141 | 5 35/64" | 36 | 1 27/64" | 4000 | 35400 | 144.306.058.1 | |
| | L83 | 1 3/8" z.21 | 168 | 6 39/64" | 141 | 5 35/64" | 36 | 1 27/64" | 4000 | 35400 | 144.306.059.1 | |
| | L84 | 1 3/4" z.6 | 168 | 6 39/64" | 141 | 5 35/64" | 36 | 1 27/64" | 4000 | 35400 | 144.306.060.1 | |
| | L85 | 1 3/4" z.20 | 168 | 6 39/64" | 141 | 5 35/64" | 36 | 1 27/64" | 4000 | 35400 | 144.306.042.1 | |

A richiesta:

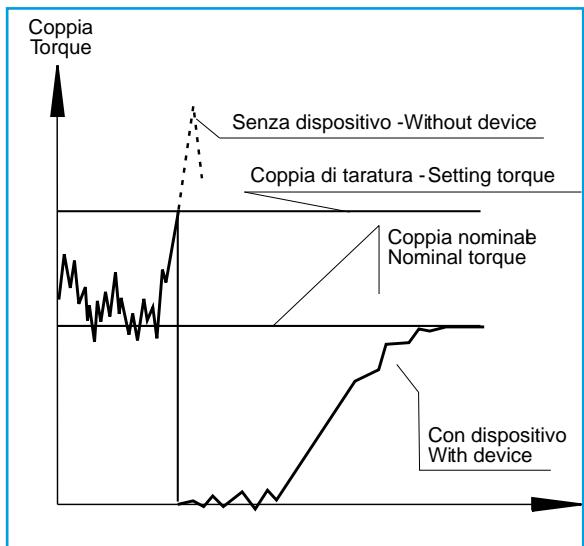
- senso di rotazione antiorario
- completo di molle frontali

On request:

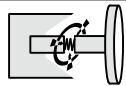
- anti-clockwise direction of rotation
- integrated with front-side springs

Il limitatore a reinnesco automatico Comer consente di interrompere la trasmissione di potenza fra trattore e macchina operatrice quando si verifica un incremento di coppia che superi il valore di sicurezza della macchina operatrice, salvaguardando così la macchina stessa, la trasmissione cardanica e gli organi del trattore. Al raggiungimento della soglia di intervento del limitatore L, il valore di coppia trasmessa viene ridotto a valori molto bassi interrompendo la trasmissione del moto, che viene ripristinata automaticamente mediante una diminuzione del regime di rotazione della PTO del trattore e la contemporanea eliminazione della causa esterna. La particolare costruzione del dispositivo di sicurezza L garantisce un funzionamento costante e ripetibile nel tempo con un intervento di manutenzione praticamente assente.

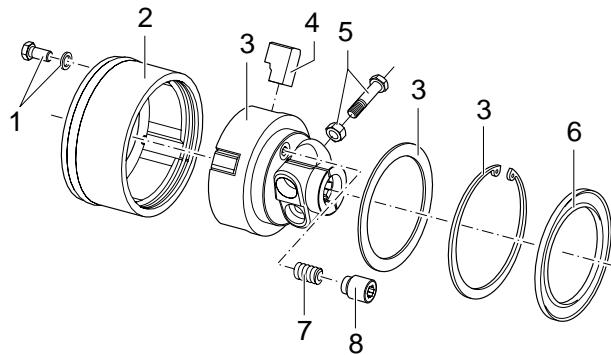
The Comer automatic torque limiter device interrupts the power transmission between tractor and implement when an overload occurs. This way the device prevents the failures or damages on tractor, implement and PTO driveshaft. When the operating torque exceeds the setting torque, the L device cuts out the torque; then the power transmission is automatically re-established by the PTO tractor speed reduction and the removal of the external cause. The specific device allows a reliable operation with low maintenance requirements.



LIMITATORE AUTOMATICO AUTOMATIC TORQUE LIMITER



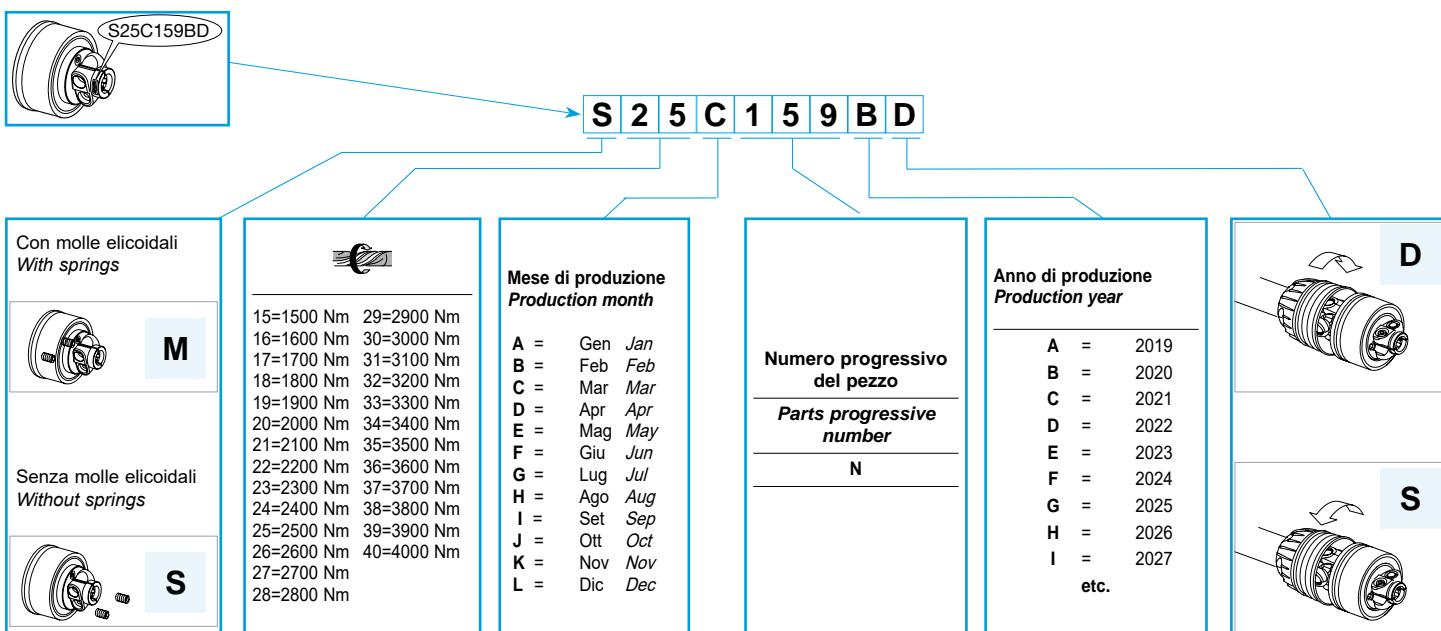
L



| Pos. | | Code | Qty * |
|------|-----------------------------|---------------|-------|
| 1 | Vite M12x1,25x25 + rondella | 165.000.708 | 8 |
| 2 | Fondello corpo | 141.028.411.1 | 1 |
| 3 | Kit mozzo L82 (tipo 60) | 165.000.730 | 1 |
| | Kit mozzo L83 (tipo 60) | 165.000.731 | 1 |
| | Kit mozzo L84 (tipo 60) | 165.000.732 | 1 |
| | Kit mozzo L85 (tipo 60) | 165.000.733 | 1 |
| | Kit mozzo L82 (tipo 80) | 165.000.734 | 1 |
| | Kit mozzo L83 (tipo 80) | 165.000.735 | 1 |
| | Kit mozzo L84 (tipo 80) | 165.000.720 | 1 |
| | Kit mozzo L85 (tipo 80) | 165.000.736 | 1 |
| | Kit mozzo L82 (tipo 90) | 165.000.737 | 1 |
| | Kit mozzo L83 (tipo 90) | 165.000.738 | 1 |
| | Kit mozzo L84 (tipo 90) | 165.000.739 | 1 |
| | Kit mozzo L85 (tipo 90) | 165.000.740 | 1 |
| 4 | Linguetta (tipo 60) | 151.018.376 | 4 |
| | Linguetta (tipo 80-90) | 151.018.390 | 4 |
| 5 | Vite M12x1,25x55 + dado | 165.000.752 | 2 |
| 6 | Paragrasso | 180.018.400 | 1 |
| 7 | Molla frontale (tipo 60) | 180.018.383 | 2 |
| | Molla frontale (tipo 80-90) | 180.018.382 | 2 |
| 8 | Grano M20x1,5x25 | 190.000.478 | 2 |

* Quantità presente nel dispositivo
Quantity in the Safety Device

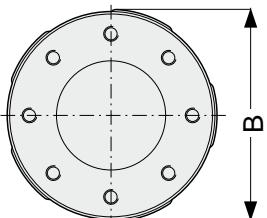
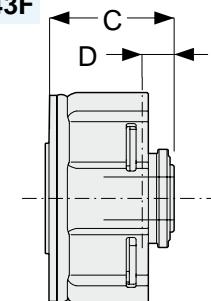
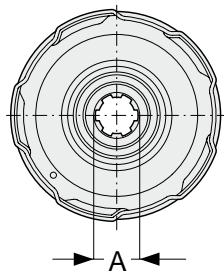
Identificazione prodotto / Product Identification



FRIZIONE CHIUSA A DISCHI MULTIPLI
CLOSED DISC CLUTCH TORQUE LIMITER

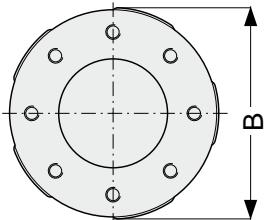
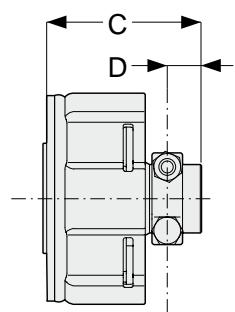
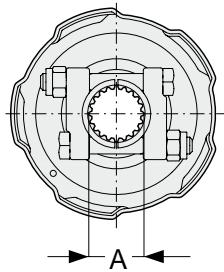


W22F - W23F - W42F - W43F



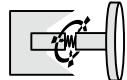
WF

W44F - W45F



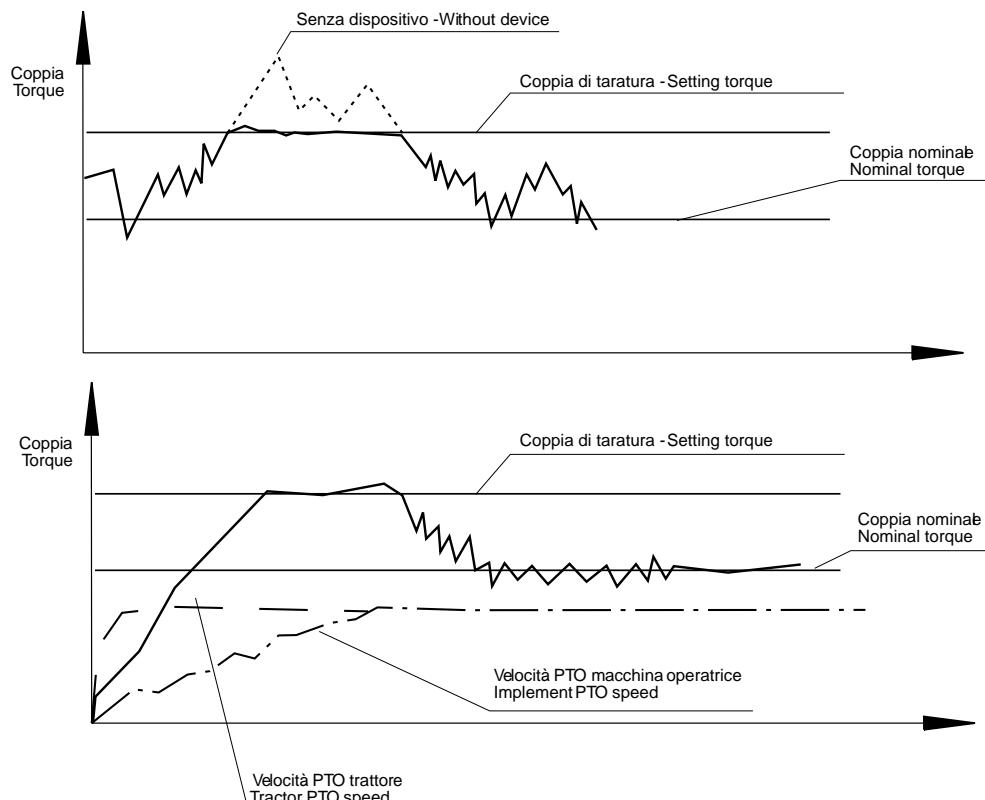
| Type | | Ref. | A [mm] | B [mm] [inch] | | C [mm] [inch] | | D [mm] [inch] | MAX [Nm] | [in.lb] | Code | |
|------|----|------|------------|------------------|----------|------------------|----------|---------------------|-------------|---------|-------|---------------|
| 60 | 80 | W22F | 1 3/8" z6 | 173 | 6 13/16" | 87 | 3 27/64" | 26 | 1 1/32" | 900 | 7950 | 148.302.015.1 |
| | | W23F | 1 3/8" z21 | 173 | 6 13/16" | 87 | 3 27/64" | 26 | 1 1/32" | 900 | 7950 | 148.302.016.1 |
| | | W42F | 1 3/8" z6 | 173 | 6 13/16" | 102 | 4 1/64" | 26 | 1 1/32" | 1100 | 9700 | 148.304.011.1 |
| | | W43F | 1 3/8" z21 | 173 | 6 13/16" | 102 | 4 1/64" | 26 | 1 1/32" | 1100 | 9700 | 148.304.012.1 |
| | | W44F | 1 3/4" z6 | 173 | 6 13/16" | 125 | 4 59/64" | 28 | 1 7/64" | 1100 | 9700 | 148.304.018.1 |
| | | W45F | 1 3/4" z20 | 173 | 6 13/16" | 125 | 4 59/64" | 28 | 1 7/64" | 1100 | 9700 | 148.304.019.1 |
| | | W42F | 1 3/8" z6 | 173 | 6 13/16" | 102 | 4 1/64" | 26 | 1 1/32" | 1500 | 13250 | 148.304.013.1 |
| | | W43F | 1 3/8" z21 | 173 | 6 13/16" | 102 | 4 1/64" | 26 | 1 1/32" | 1500 | 13250 | 148.304.014.1 |
| | | W44F | 1 3/4" z6 | 173 | 6 13/16" | 125 | 4 59/64" | 28 | 1 7/64" | 1500 | 13250 | 148.304.020.1 |
| | | W45F | 1 3/4" z20 | 173 | 6 13/16" | 125 | 4 59/64" | 28 | 1 7/64" | 1500 | 13250 | 148.304.021.1 |
| | | W42F | 1 3/8" z6 | 173 | 6 13/16" | 102 | 4 1/64" | 26 | 1 1/32" | 1800 | 15900 | 148.304.015.1 |
| | | W43F | 1 3/8" z21 | 173 | 6 13/16" | 102 | 4 1/64" | 26 | 1 1/32" | 1800 | 15900 | 148.304.016.1 |
| | | W44F | 1 3/4" z6 | 173 | 6 13/16" | 125 | 4 59/64" | 28 | 1 7/64" | 1800 | 15900 | 148.304.022.1 |
| | | W45F | 1 3/4" z20 | 173 | 6 13/16" | 125 | 4 59/64" | 28 | 1 7/64" | 1800 | 15900 | 148.304.023.1 |

FRIZIONE CHIUSA A DISCHI MULTIPLI CLOSED DISC CLUTCH TORQUE LIMITER



La frizione "chiusa" a dischi multipli WF interviene quando la coppia di lavoro supera la coppia di taratura. Durante la fase di limitazione del picco di coppia la frizione continua a trasmettere potenza. La frizione è utilizzabile sia come dispositivo di sicurezza contro picchi di coppia sia per avviare macchine con elevata inertie rotazionale. Questo tipo di frizione risulta avere la taratura non modificabile ed inoltre l'utilizzo di speciali molle a tazza in luogo delle più comuni molle elicoidali rende costante la taratura nonostante il progressivo consumo dei dischi d'attrito.

The closed disc clutch torque limiter WF is activated when the setting torque exceeds the calibration torque. During the torque peak limiting phase, the clutch keeps on transmitting power. The clutch can be used both as safety device to protect against load peaks and to start machines with high rotational inertia. The torque setting of this clutch is not adjustable and the use of special Belleville springs instead of the helical springs ensures a stable torque setting compensating for the natural wear of the friction linings.



Le frizioni possono raggiungere elevate temperature.

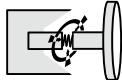
Non toccare!

Per evitare rischi di incendio, mantenere la zona adiacente la frizione pulita da materiale infiammabile ed evitare slittamenti prolungati.

Friction clutches may become hot during use.

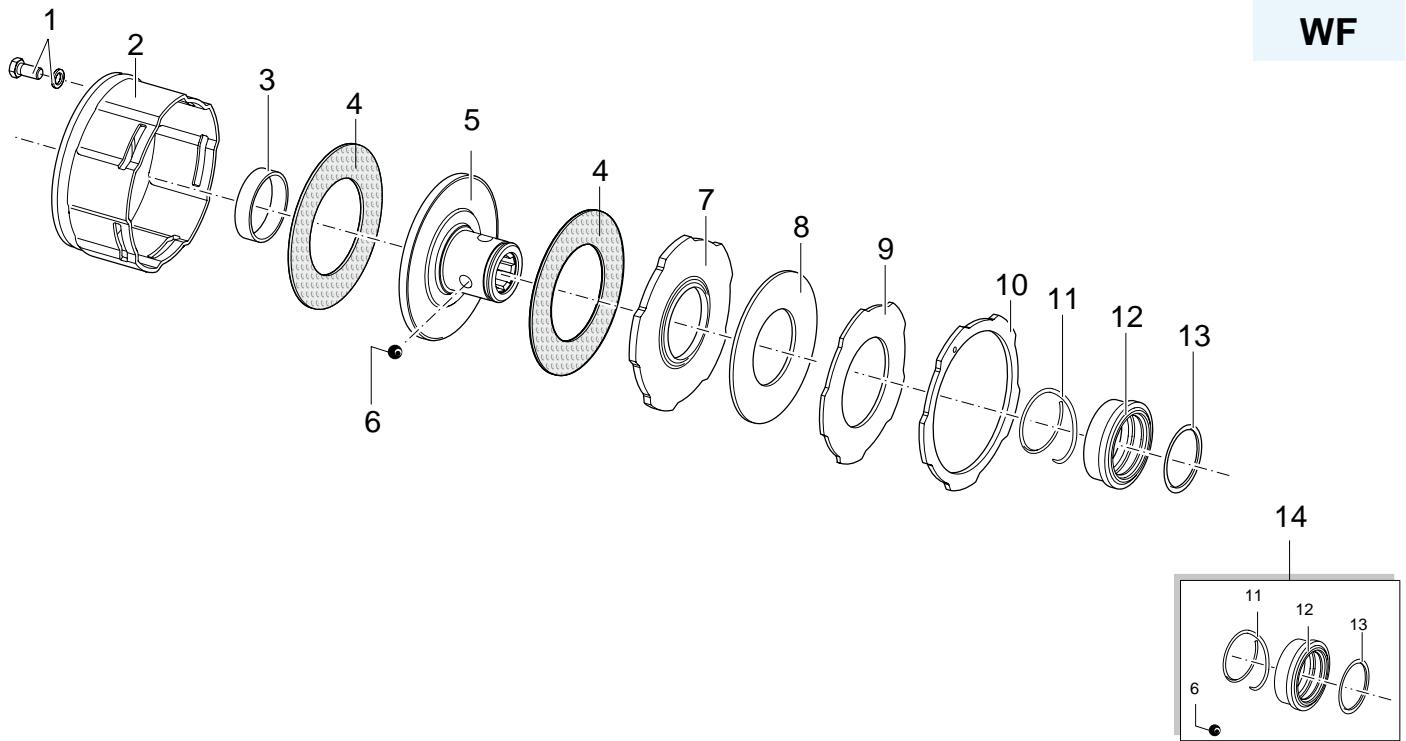
Do not touch!

Keep the area around the friction clutch clear of any material which could catch fire and avoid prolonged slipping.



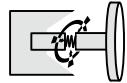
W22F / W23F

WF



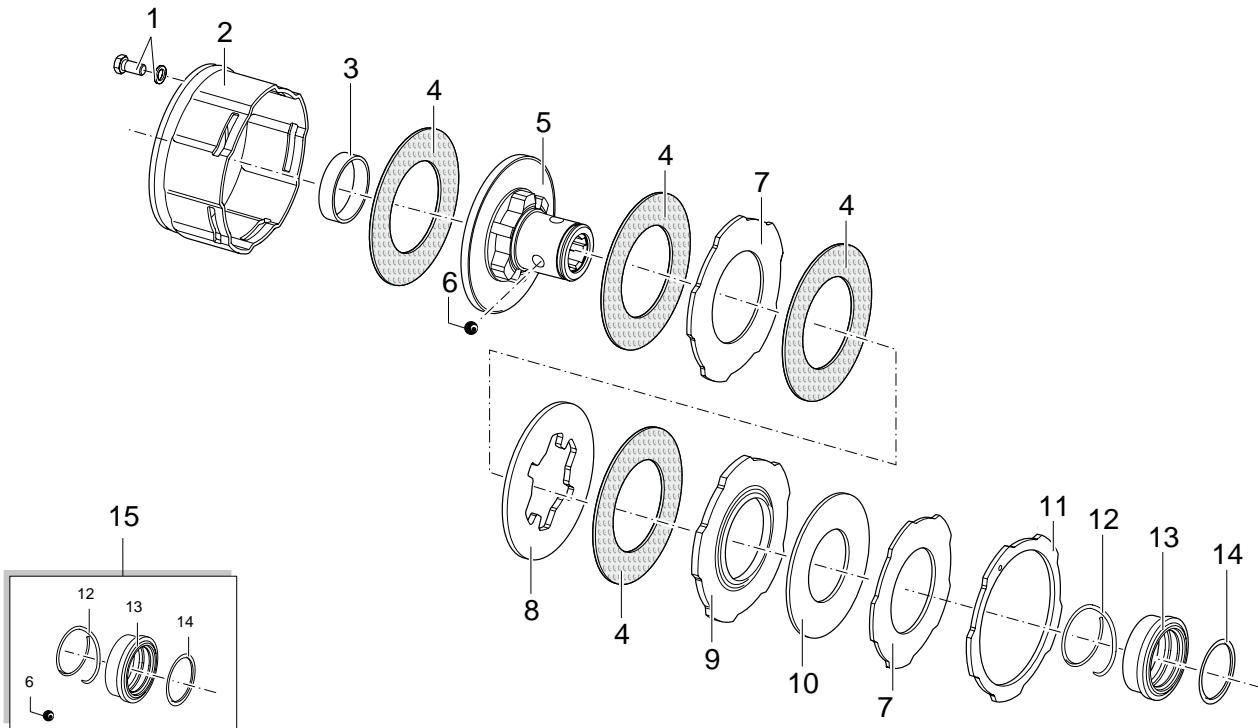
| Pos. | | | Code | Qty * |
|------|----------------------------------|----------------------------|---------------|-------|
| 1 | Vite M12x1,25x25 + rondella | Bolt M12x1,25x25 + washer | 165.000.708 | 8 |
| 2 | Fondello corpo | Outer casing | 141.027.389.1 | 1 |
| 3 | Bronzina | Bush | 180.019.019 | 1 |
| 4 | Disco attrito ø152xø90 | Lining rings ø152xø90 | 180.019.018 | 2 |
| 5 | Mozzo W22 | Hub W22 | 151.017.281 | 1 |
| 5 | Mozzo W23 | Hub W23 | 151.017.296 | 1 |
| 6 | Sfere 1/2" | Ball 1/2" | 190.000.078 | 3 |
| 7 | Disco stringifrizione W (600 Nm) | Pressure plate W (600 Nm) | 180.017.282 | 1 |
| 7 | Disco stringifrizione W (750 Nm) | Pressure plate W (750 Nm) | 180.017.270 | 1 |
| 7 | Disco stringifrizione W (900 Nm) | Pressure plate W (900 Nm) | 180.017.282 | 1 |
| 8 | Molla a tazza (600 Nm) | Belleville spring (600 Nm) | 190.000.594 | 1 |
| 8 | Molla a tazza (750 Nm) | Belleville spring (750 Nm) | 190.000.594 | 1 |
| 8 | Molla a tazza (900 Nm) | Belleville spring (900 Nm) | 190.000.607 | 1 |
| 9 | Disco di reazione W | Reaction ring W | 180.017.269 | 1 |
| 10 | Disco d' arresto W | Stop ring W | 180.017.276 | 1 |
| 11 | Molla collar | Collar spring | 180.016.487 | 1 |
| 12 | Manicotto collar | Sliding sleeve collar | 151.016.486 | 1 |
| 13 | Seeger | Snap ring | 190.000.451 | 1 |
| 14 | Kit collar W | Kit collar W | 165.000.719 | 1 |

* Quantità presente nel dispositivo
 Quantity in the Safety Device

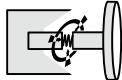


W42F / W43F

WF

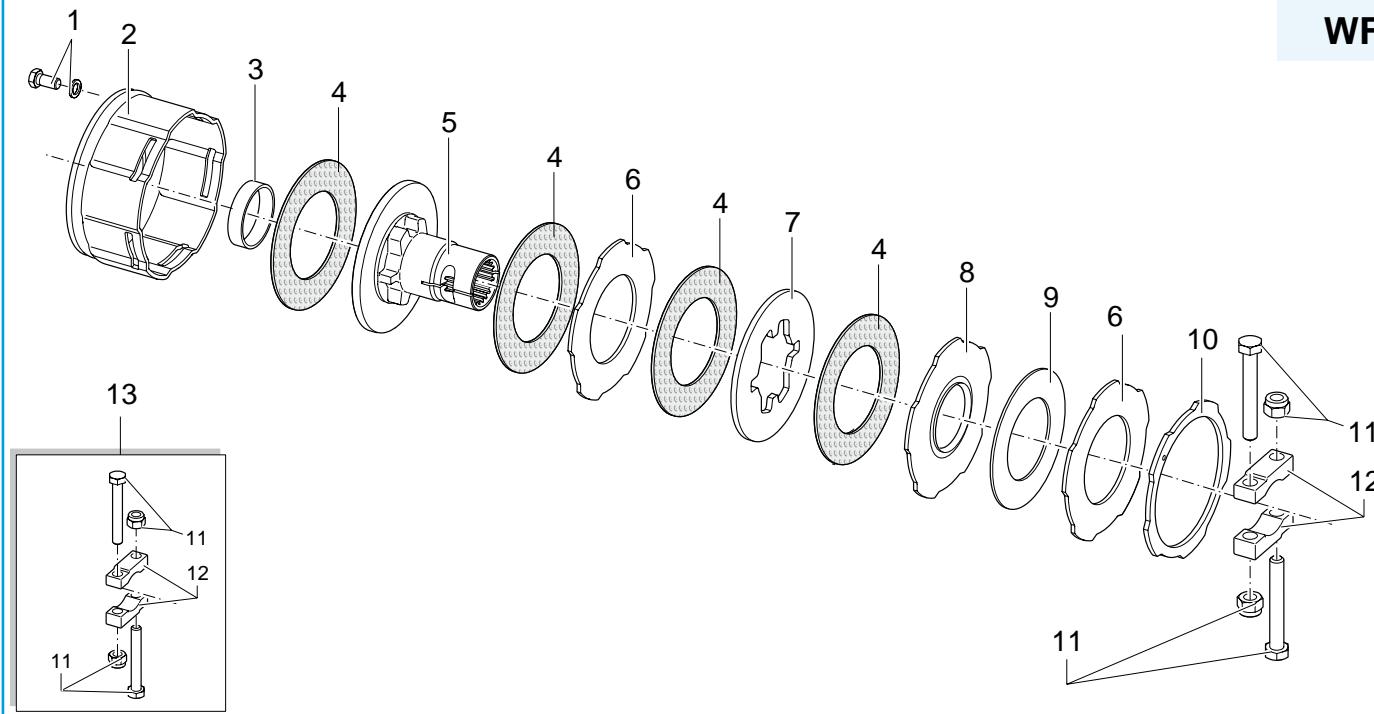


| Pos. | | Code | Qty * |
|------|-----------------------------------|---------------|-------|
| 1 | Vite M12x1,25x25 + rondella | 165.000.708 | 8 |
| 2 | Fondello corpo | 141.027.295.1 | 1 |
| 3 | Bronzina | 180.019.019 | 1 |
| 4 | Disco attrito ø152xø90 | 180.019.018 | 4 |
| 5 | Mozzo W42 | 151.019.158 | 1 |
| 5 | Mozzo W43 | 151.017.297 | 1 |
| 6 | Sfere 1/2" | 190.000.078 | 3 |
| 7 | Disco intermedio | 180.017.269 | 2 |
| 8 | Disco sagomato | 180.019.115 | 1 |
| 9 | Disco stringifrazione W (1100 Nm) | 180.017.282 | 1 |
| 9 | Disco stringifrazione W (1500 Nm) | 180.017.282 | 1 |
| 9 | Disco stringifrazione W (1800 Nm) | 180.013.451 | 1 |
| 10 | Molla a tazza (1100 Nm) | 190.000.594 | 1 |
| 10 | Molla a tazza (1500 Nm) | 190.000.607 | 1 |
| 10 | Molla a tazza (1800 Nm) | 190.000.855 | 1 |
| 11 | Disco d'arresto W | 180.017.276 | 1 |
| 12 | Molla collar | 180.016.487 | 1 |
| 13 | Manicotto collar | 151.016.486 | 1 |
| 14 | Seeger | 190.000.451 | 1 |
| 15 | Kit collar W | 165.000.719 | 1 |



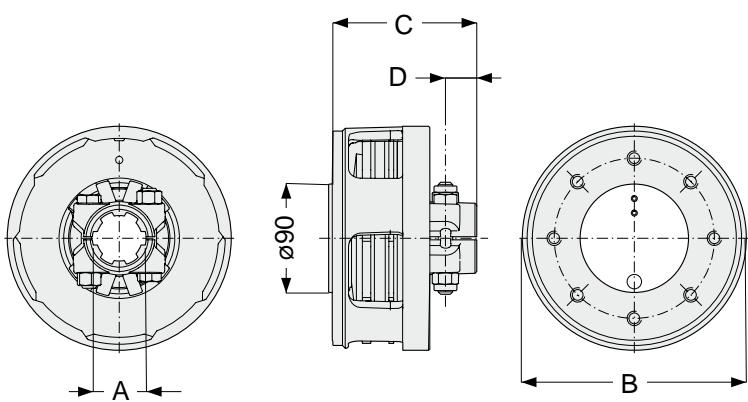
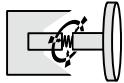
W44F / W45F

WF

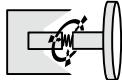


| Pos. | | | Code | Qty * |
|------|-----------------------------------|-----------------------------|---------------|-------|
| 1 | Vite M12x1,25x25 + rondella | Bolt M12x1,25x25 + washer | 165.000.708 | 8 |
| 2 | Fondello corpo | Outer casing | 141.027.295.1 | 1 |
| 3 | Bronzina | Bush | 180.019.019 | 1 |
| 4 | Disco attrito ø152xø90 | Lining ring ø152xø90 | 180.019.018 | 4 |
| 5 | Mozzo W44 | Hub W42 | 151.017.390 | 1 |
| | Mozzo W45 | Hub W43 | 151.017.366 | 1 |
| 6 | Disco intermedio | Inner plate | 180.017.269 | 2 |
| 7 | Disco sagomato | Intermediate plate | 180.019.115 | 1 |
| 8 | Disco stringifrizione W (1100 Nm) | Pressure plate W (1100 Nm) | 180.017.282 | 1 |
| | Disco stringifrizione W (1500 Nm) | Pressure plate W (1500 Nm) | 180.017.282 | 1 |
| | Disco stringifrizione W (1800 Nm) | Pressure plate W (1800 Nm) | 180.013.451 | 1 |
| 9 | Molla a tazza (1100 Nm) | Belleville spring (1100 Nm) | 190.000.594 | 1 |
| | Molla a tazza (1500 Nm) | Belleville spring (1500 Nm) | 190.000.607 | 1 |
| | Molla a tazza (1800 Nm) | Belleville spring (1800 Nm) | 190.000.855 | 1 |
| 10 | Disco d' arresto W | Stop ring W | 180.017.276 | 1 |
| 11 | Kit vite M14x1,5x100 + dado | Bolt M14x1,5x100+nut | 165.000.622 | 2 |
| 12 | Ponti di blocco | Clamp lock | 151.014.201 | 2 |
| 13 | Kit ponti di blocco 1 3/4" | Clamp lock set 1 3/4" | 165.000.692 | 1 |

* Quantità presente nel dispositivo
 Quantity in the Safety Device

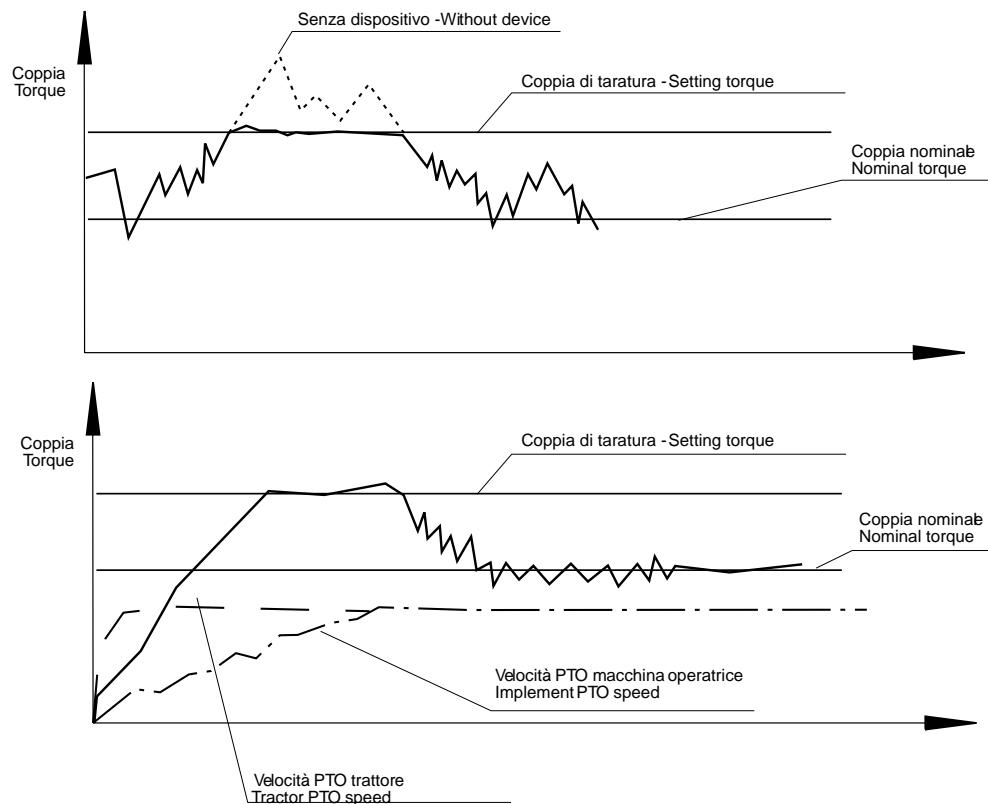


| Type | | Ref. | A [mm] | B [mm] [inch] | | C [mm] [inch] | | D [mm] [inch] | | MAX [Nm] [in.lb] | | Code |
|------|-----|------|------------|------------------|----------|------------------|----------|------------------|---------|---------------------|-------|---------------|
| 60 | 80 | J42F | 1 3/8" z6 | 186 | 7 21/64" | 120 | 4 23/32" | 26 | 1 1/32" | 1600 | 14100 | 148.304.511.1 |
| | | J43F | 1 3/8" z21 | 186 | 7 21/64" | 120 | 4 23/32" | 26 | 1 1/32" | 1600 | 14100 | 148.304.512.1 |
| | | J44F | 1 3/4" z6 | 186 | 7 21/64" | 120 | 4 23/32" | 26 | 1 1/32" | 1600 | 14100 | 148.304.513.1 |
| | | J45F | 1 3/4" z20 | 186 | 7 21/64" | 120 | 4 23/32" | 26 | 1 1/32" | 1600 | 14100 | 148.304.514.1 |
| | | J42F | 1 3/8" z6 | 186 | 7 21/64" | 120 | 4 23/32" | 26 | 1 1/32" | 2000 | 17700 | 148.304.515.1 |
| | | J43F | 1 3/8" z21 | 186 | 7 21/64" | 120 | 4 23/32" | 26 | 1 1/32" | 2000 | 17700 | 148.304.516.1 |
| | | J44F | 1 3/4" z6 | 186 | 7 21/64" | 120 | 4 23/32" | 26 | 1 1/32" | 2000 | 17700 | 148.304.517.1 |
| | | J45F | 1 3/4" z20 | 186 | 7 21/64" | 120 | 4 23/32" | 26 | 1 1/32" | 2000 | 17700 | 148.304.518.1 |
| 90 | 120 | J42F | 1 3/8" z6 | 186 | 7 21/64" | 120 | 4 23/32" | 26 | 1 1/32" | 2400 | 21200 | 148.304.519.1 |
| | | J43F | 1 3/8" z21 | 186 | 7 21/64" | 120 | 4 23/32" | 26 | 1 1/32" | 2400 | 21200 | 148.304.520.1 |
| | | J44F | 1 3/4" z6 | 186 | 7 21/64" | 120 | 4 23/32" | 26 | 1 1/32" | 2400 | 21200 | 148.304.521.1 |
| | | J45F | 1 3/4" z20 | 186 | 7 21/64" | 120 | 4 23/32" | 26 | 1 1/32" | 2400 | 21200 | 148.304.522.1 |
| | | J44F | 1 3/4" z6 | 186 | 7 21/64" | 120 | 4 23/32" | 26 | 1 1/32" | 3300 | 29000 | 148.304.526.1 |
| | | J45F | 1 3/4" z20 | 186 | 7 21/64" | 120 | 4 23/32" | 26 | 1 1/32" | 3300 | 29000 | 148.304.527.1 |



La frizione "chiusa" a dischi multipli JF interviene quando la coppia di lavoro supera la coppia di taratura. Durante la fase di limitazione del picco di coppia la frizione continua a trasmettere potenza. La frizione è utilizzabile sia come dispositivo di sicurezza contro picchi di coppia sia per avviare macchine con elevata inerzia rotazionale. Questo tipo di frizione risulta avere la taratura non modificabile ed inoltre l'utilizzo di speciali molle a tazza in luogo delle più comuni molle elicoidali rende costante la taratura nonostante il progressivo consumo dei dischi d'attrito.

The closed disc clutch torque limiter JF is activated when the setting torque exceeds the calibration torque. During the torque peak limiting phase, the clutch keeps on transmitting power. The clutch can be used both as safety device to protect against load peaks and to start machines with high rotational inertia. The torque setting of this clutch is not adjustable and the use of special Belleville springs instead of the helical springs ensures a stable torque setting compensating for the natural wear of the friction linings.



Le frizioni possono raggiungere elevate temperature.

Non toccare!

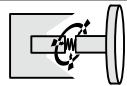
Per evitare rischi di incendio, mantenere la zona adiacente la frizione pulita da materiale infiammabile ed evitare slittamenti prolungati.

Friction clutches may become hot during use.

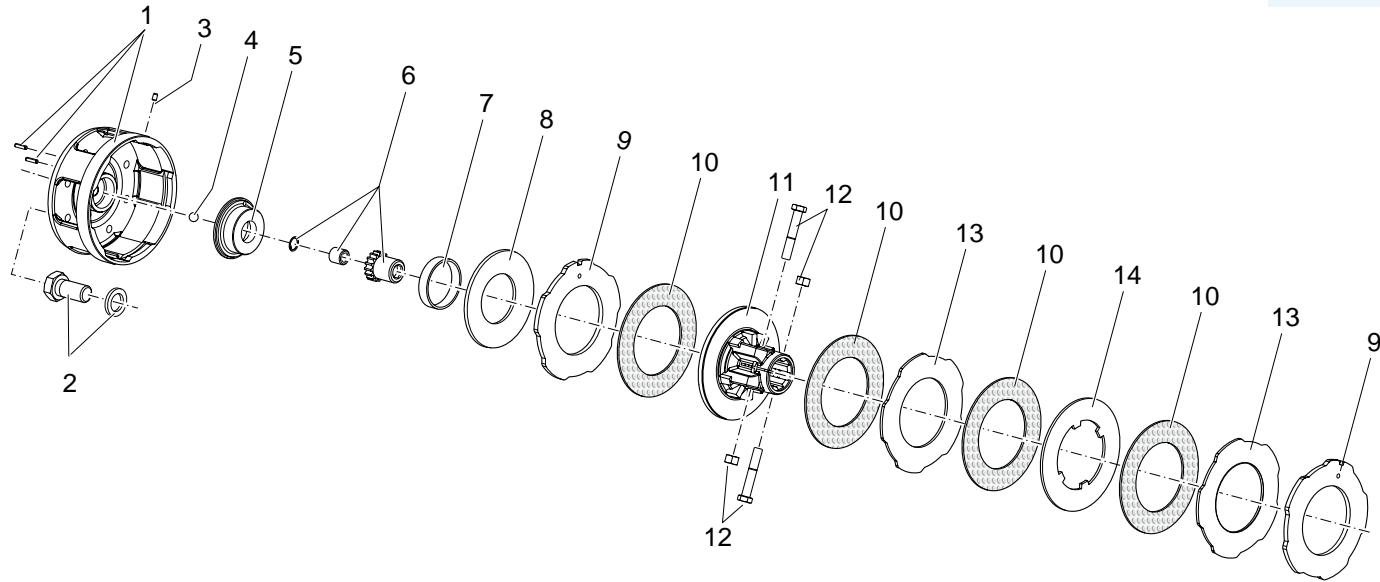
Do not touch!

Keep the area around the friction clutch clear of any material which could catch fire and avoid prolonged slipping.

FRIZIONE SEMIAPERTA A DISCHI MULTIPLI
HALF OPENED DISC CLUTCH TORQUE LIMITER



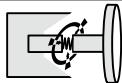
JF



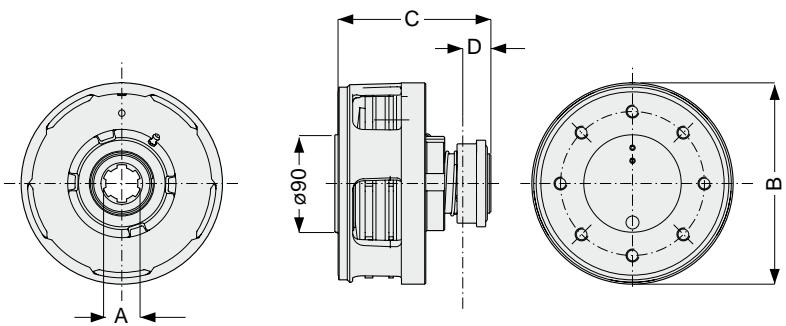
| Pos. | | | Code | Qty * |
|------|-------------------------------|-----------------------------|---------------|-------|
| 1 | Fondello corpo JF | Outer casing JF | 141.027.285.1 | 1 |
| 2 | Kit vite M12x1,25x55 + dado | Bolt M12x1,25x25+nut | 165.000.708 | 8 |
| 3 | Grano M6x12 | Screw M6x12 | 190.000.617 | 1 |
| 4 | Sfera 1/2" | Ball 1/2" | 190.000.078 | 1 |
| 5 | Anello centraggio | Pilot ring | 151.017.370 | 1 |
| 6 | Sistema di registrazione | Setting system | 165.000.758 | 1 |
| 7 | Bronzina frizione | Bush | 180.017.369 | 1 |
| 8 | Molla a tazza < 2800 Nm | Belleville spring < 2800 Nm | 190.000.607 | 1 |
| | Molla a tazza > 2800 Nm | Belleville spring > 2800 Nm | 190.000.620 | 1 |
| 9 | Disco spingi frizione/arresto | Pressure plate/stop ring | 180.017.288 | 2 |
| 10 | Disco d'attrito | Lining ring | 180.019.333 | 4 |
| 11 | Mozzo frizione J42 | Clutch support J42 | 151.017.391.1 | 1 |
| | Mozzo frizione J43 | Clutch support J43 | 151.017.392.1 | 1 |
| | Mozzo frizione J44 | Clutch support J44 | 151.017.372.1 | 1 |
| | Mozzo frizione J45 | Clutch support J45 | 151.017.393.1 | 1 |
| 12 | Vite M12x1.25x75 + dado | Bolt M12x1.25x75+nut | 165.000.598 | 2 |
| 13 | Disco intermedio | Inner plate | 180.017.291 | 2 |
| 14 | Disco sagomato | Intermediate plate | 180.019.334 | 1 |

* Quantità presente nel dispositivo
 Quantity in the Safety Device

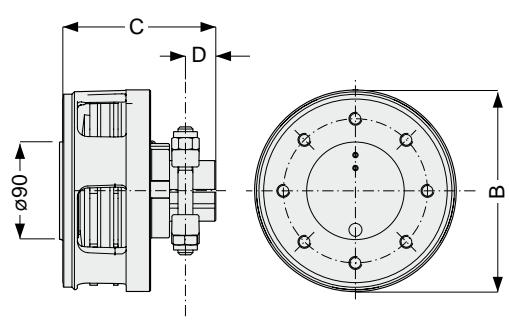
FRIZIONE SEMIAPERTA CON RUOTA LIBERA
HALF OPENED DISC CLUTCH TORQUE LIMITER WITH OVERRUNNING CLUTCH



RJ6F - RJ7F



RJ8F - RJ9F



RJF

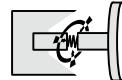


| Type | | Ref. | A [mm] | B [mm] [inch] | | C [mm] [inch] | | D [mm] [inch] | | MAX [Nm] | [in.lb] | Code |
|------|----|------|------------|---------------------|----------|---------------------|----------|---------------------|---------|-----------------|---------|---------------|
| 60 | 80 | RJ6F | 1 3/8" z6 | 186 | 7 21/64" | 141 | 5 35/64" | 26 | 1 1/32" | 1600 | 14100 | 148.404.501.1 |
| | | RJ7F | 1 3/8" z21 | 186 | 7 21/64" | 141 | 5 35/64" | 26 | 1 1/32" | 1600 | 14100 | 148.404.502.1 |
| | | RJ8F | 1 3/4" z6 | 186 | 7 21/64" | 141 | 5 35/64" | 28 | 1 7/64" | 1600 | 14100 | 148.404.503.1 |
| | | RJ9F | 1 3/4" z20 | 186 | 7 21/64" | 141 | 5 35/64" | 28 | 1 7/64" | 1600 | 14100 | 148.404.504.1 |
| | 90 | RJ6F | 1 3/8" z6 | 186 | 7 21/64" | 141 | 5 35/64" | 26 | 1 1/32" | 2000 | 17700 | 148.404.505.1 |
| | | RJ7F | 1 3/8" z21 | 186 | 7 21/64" | 141 | 5 35/64" | 26 | 1 1/32" | 2000 | 17700 | 148.404.506.1 |
| | | RJ8F | 1 3/4" z6 | 186 | 7 21/64" | 141 | 5 35/64" | 28 | 1 7/64" | 2000 | 17700 | 148.404.507.1 |
| | | RJ9F | 1 3/4" z20 | 186 | 7 21/64" | 141 | 5 35/64" | 28 | 1 7/64" | 2000 | 17700 | 148.404.508.1 |
| 120 | 80 | RJ6F | 1 3/8" z6 | 186 | 7 21/64" | 141 | 5 35/64" | 26 | 1 1/32" | 2400 | 21200 | 148.404.509.1 |
| | | RJ7F | 1 3/8" z21 | 186 | 7 21/64" | 141 | 5 35/64" | 26 | 1 1/32" | 2400 | 21200 | 148.404.510.1 |
| | | RJ8F | 1 3/4" z6 | 186 | 7 21/64" | 141 | 5 35/64" | 28 | 1 7/64" | 2400 | 21200 | 148.404.511.1 |
| | 90 | RJ9F | 1 3/4" z20 | 186 | 7 21/64" | 141 | 5 35/64" | 28 | 1 7/64" | 2400 | 21200 | 148.404.512.1 |
| | | RJ8F | 1 3/4" z6 | 186 | 7 21/64" | 141 | 5 35/64" | 28 | 1 7/64" | 3300 | 29000 | 148.404.515.1 |
| | | RJ9F | 1 3/4" z20 | 186 | 7 21/64" | 141 | 5 35/64" | 28 | 1 7/64" | 3300 | 29000 | 148.404.516.1 |

NOTA: fornibile a richiesta per senso di rotazione antiorario
NOTE: available upon request for anti-clockwise direction of rotation

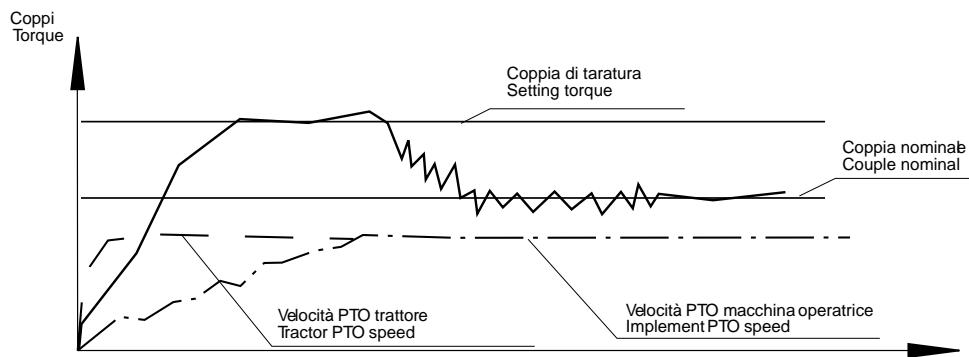
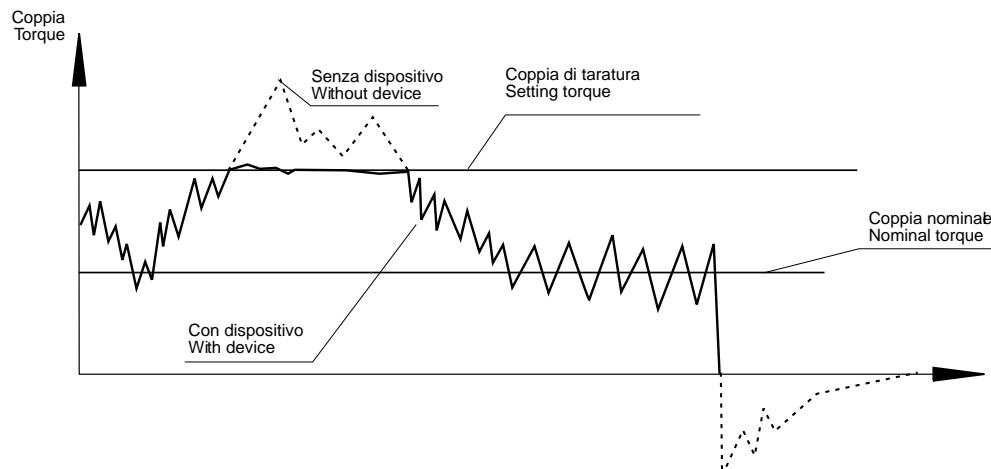
FRIZIONE SEMIAPERTA CON RUOTA LIBERA

HALF OPENED DISC CLUTCH TORQUE LIMITER WITH OVERRUNNING CLUTCH



Il dispositivo comprende un limitatore di coppia a dischi d'attrito (frizione) e una ruota libera integrati. La funzionalità assomma quelle dei singoli dispositivi con il vantaggio di risparmiare spazio e di consentire il montaggio sullo stesso lato del cardano. Il dispositivo è utile come organo di sicurezza contro picchi di carico e in macchine con grosse masse rotanti, sia durante l'avviamento che durante l'arresto, evitando inutili sollecitazioni della PTO del trattore. Questo tipo di frizione risulta avere la taratura non modificabile ed inoltre l'utilizzo di speciali molle a tazza in luogo delle più comuni molle elicoidali rende costante la taratura nonostante il progressivo consumo dei dischi d'attrito.

The device includes a disc clutch torque limiter and an incorporated overrunning clutch. The device combines the functions of the single devices thus reducing space and allowing it to be mounted on the same side of the cardan. It is useful as a safety device to protect against load peaks and in implements with large rotating mass during start-up and stopping operations, thus avoiding unnecessary stress on the tractor PTO. The torque setting of this clutch is not adjustable and the use of special Belleville springs instead of the helical springs ensures a stable torque setting compensating for the natural wear of the friction linings.



Le frizioni possono raggiungere elevate temperature.

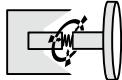
Non toccare!

Per evitare rischi di incendio, mantenere la zona adiacente la frizione pulita da materiale infiammabile ed evitare slittamenti prolungati.

Friction clutches may become hot during use.

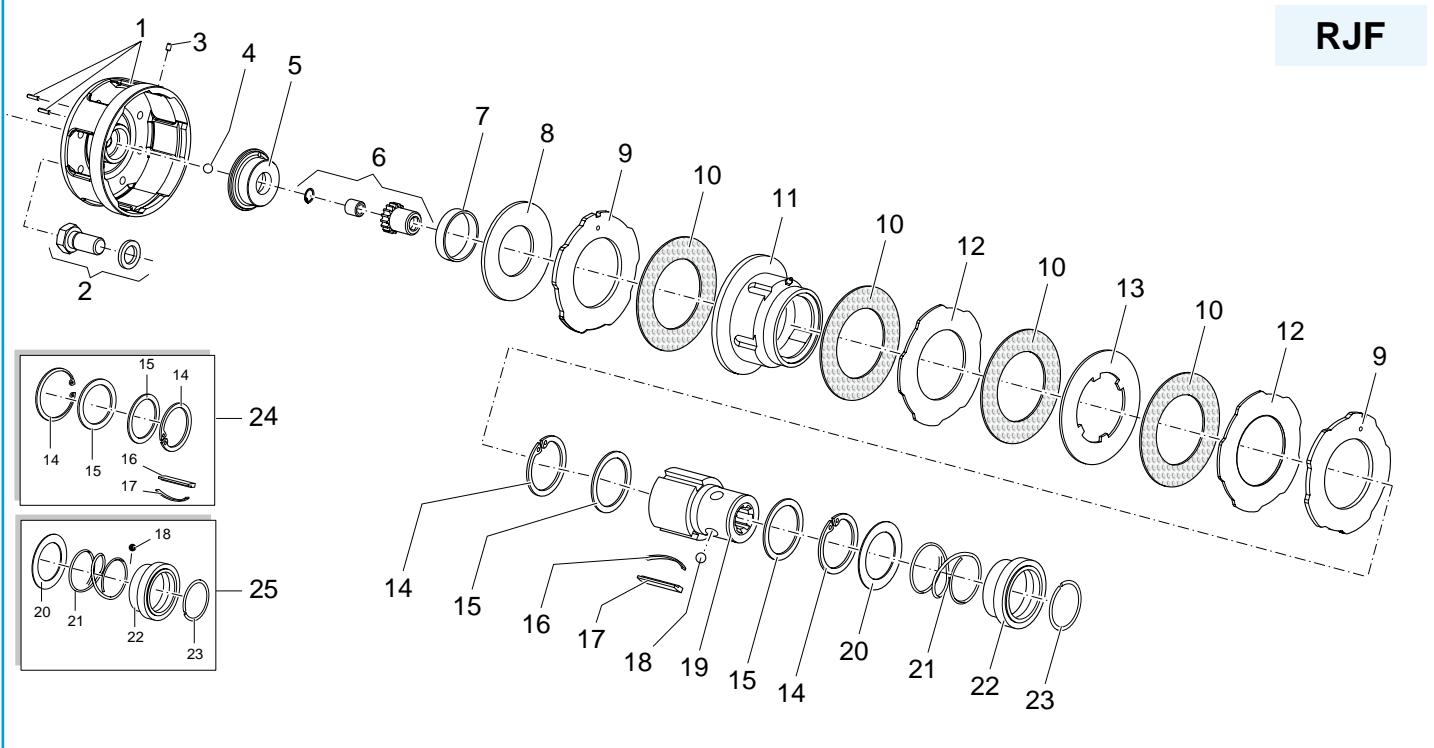
Do not touch!

Keep the area around the friction clutch clear of any material which could catch fire and avoid prolonged slipping.



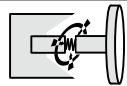
RJ6F / RJ7F

RJF



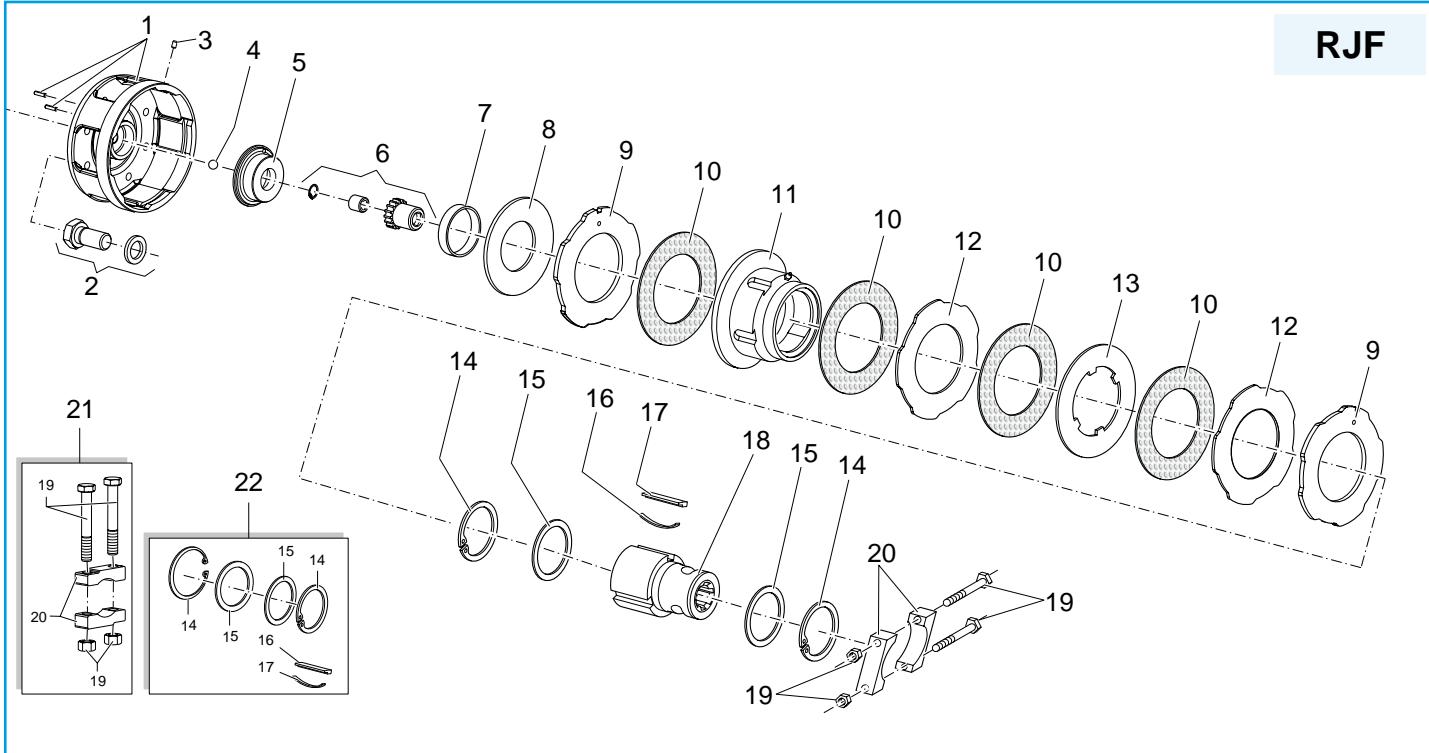
| Pos. | | | Code | Qty * |
|------|-------------------------------|---------------------------|---------------|-------|
| 1 | Fondello corpo RJF | Outer casing RJF | 141.027.285.1 | 1 |
| 2 | Viti M12x1.25x25 + rondelle | Bolt M12x1,25x25+nut | 165.000.708 | 8 |
| 3 | Grano UNI 5923-M6x12-45H | Screw UNI 5923-M6x12-45H | 190.000.617 | 1 |
| 4 | Sfera 1/2" | Ball 1/2" | 190.000.078 | 1 |
| 5 | Anello centraggio | Pilot ring | 151.017.370 | 1 |
| 6 | Sistema di registrazione | Setting system | 165.000.758 | 1 |
| 7 | Bronzina friziona | Bush | 180.017.369 | 1 |
| 8 | Molla a tazza | Belleville spring | 190.000.607 | 1 |
| 9 | Disco spingi frizione/arresto | Pressure plate/stop ring | 180.017.288 | 2 |
| 10 | Disco d'attrito ø162xø100 | Lining ring ø162xø100 | 180.019.333 | 4 |
| 11 | Corpo RJ | Torque limiter support RJ | 141.027.374 | 1 |
| 12 | Disco intermedio | Inner plate | 180.017.291 | 2 |
| 13 | Disco sagomato | Intermediate plate | 180.019.334 | 1 |
| 14 | Seeger | Snap ring | 190.000.183 | 2 |
| 15 | Anello di rasamento | Retaining washer ring | 180.014.135 | 2 |
| 16 | Molla a balestra | Leaf spring | 180.014.137 | 3 |
| 17 | Linguetta | Ratchet | 151.014.136 | 3 |
| 18 | Sfera 1/2" | Ball 1/2" | 190.000.078 | 3 |
| 19 | Mozzo R12 | Hub R12 | 151.016.546 | 1 |
| | Mozzo R13 | Hub R13 | 151.016.571 | 1 |
| 20 | Lamierino | Spring push ring | 180.015.143 | 1 |
| 21 | Molla collar | Collar spring | 180.016.487 | 1 |
| 22 | Manicotto collar | Sliding sleeve collar | 151.016.486 | 1 |
| 23 | Seeger | Snap ring | 190.000.451 | 1 |
| 24 | Kit RF - RJ | Kit RF - RJ | 165.000.741 | 1 |
| 25 | Kit collar R12-R13 | Kit collar R12-R13 | 165.000.653 | 1 |

* Quantità presente nel dispositivo
 Quantity in the Safety Device



RJ8F / RJ9F

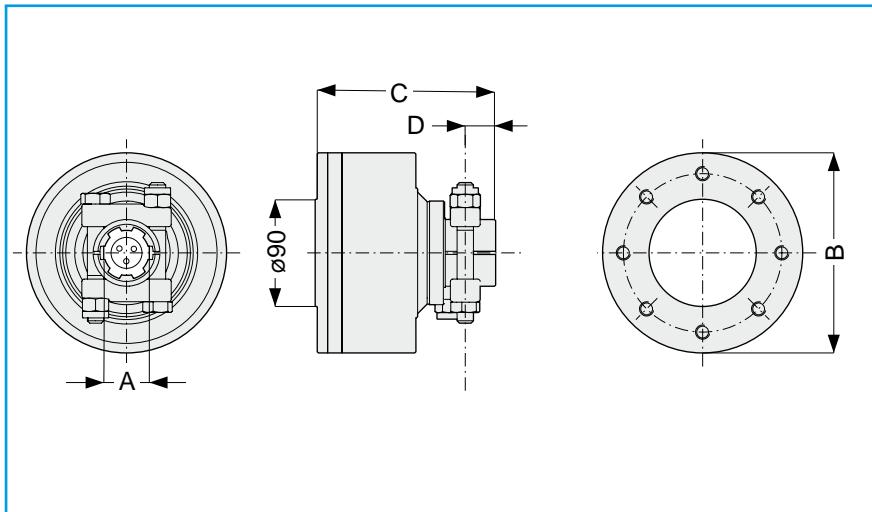
RJF



| Pos. | | Code | Qty * |
|------|-------------------------------|---------------------------|-------|
| 1 | Fondello corpo RJF | Outer casing RJF | 1 |
| 2 | Viti M12x1.25x25 + rondelle | Bolt M12x1,25x25+nut | 8 |
| 3 | Grano UNI 5923-M6x12-45H | Screw UNI 5923-M6x12-45H | 1 |
| 4 | Sfera 1/2" | Ball 1/2" | 1 |
| 5 | Anello centraggio | Pilot ring | 1 |
| 6 | Sistema di registrazione | Setting system | 1 |
| 7 | Bronzina friziona | Bush | 1 |
| 8 | Molla a tazza | Belleville spring | 1 |
| 9 | Disco spingi frizione/arresto | Pressure plate/stop ring | 2 |
| 10 | Disco d'attrito ø162xø100 | Lining ring ø162xø100 | 4 |
| 11 | Corpo RJ | Torque Limiter support RJ | 1 |
| 12 | Disco intermedio | Inner plate | 2 |
| 13 | Disco sagomato | Intermediate plate | 1 |
| 14 | Seeger | Snap ring | 2 |
| 15 | Anello di rasamento | Retaining washer ring | 2 |
| 16 | Molla a balestra | Leaf spring | 3 |
| 17 | Linguetta | Ratchet | 3 |
| 18 | Mozzo R14 | Hub R14 | 1 |
| | Mozzo R15 | Hub R15 | 1 |
| 19 | Vite M14x1,5x100 + dado | Bolt M14x1,5x100+nut | 2 |
| 20 | Ponte di blocco | Clamp lock | 2 |
| 21 | Kit ponti di blocco 1 3/4" | Clamp lock set 1 3/4" | 1 |
| 22 | Kit RF - RJ | Kit RF - RJ | 1 |

* Quantità presente nel dispositivo
 Quantity in the Safety Device

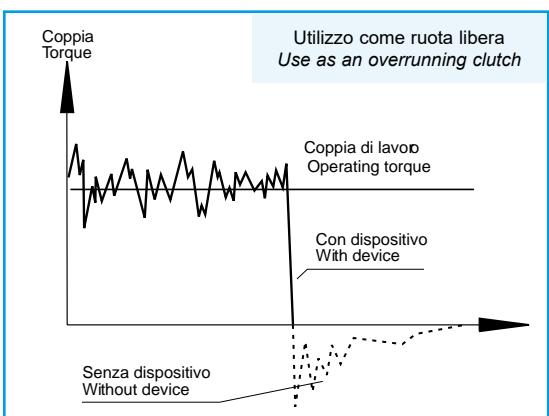
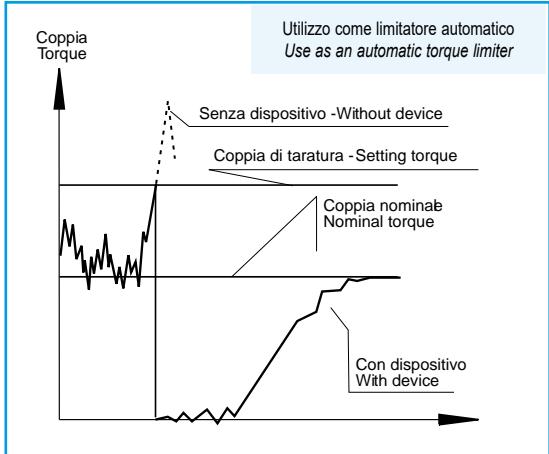
LIMITATORE AUTOMATICO CON RUOTA LIBERA AUTOMATIC TORQUE LIMITER WITH OVERRUNNING CLUTCH



| Type | | Ref. | A [mm] | B [mm] | C [mm] | D [mm] |  | [Nm] [in.lb] | Code |
|------|-----|------|------------|-----------|-----------|-----------|---|-----------------|--|
| 60 | 80 | LR2F | 1 3/8" z6 | 168 | 6 39/64" | 149 | 5 7/8" | 28 | 1 7/64" 2500 22100 144.406.001.1 |
| | | LR3F | 1 3/8" z21 | 168 | 6 39/64" | 149 | 5 7/8" | 28 | 1 7/64" 2500 22100 144.406.002.1 |
| | | LR4F | 1 3/4" z6 | 168 | 6 39/64" | 149 | 5 7/8" | 28 | 1 7/64" 2500 22100 144.406.003.1 |
| | | LR5F | 1 3/4" z20 | 168 | 6 39/64" | 149 | 5 7/8" | 28 | 1 7/64" 2500 22100 144.406.004.1 |
| | 90 | LR2F | 1 3/8" z6 | 168 | 6 39/64" | 149 | 5 7/8" | 28 | 1 7/64" 3000 26500 144.406.005.1 |
| | | LR3F | 1 3/8" z21 | 168 | 6 39/64" | 149 | 5 7/8" | 28 | 1 7/64" 3000 26500 144.406.006.1 |
| | | LR4F | 1 3/4" z6 | 168 | 6 39/64" | 149 | 5 7/8" | 28 | 1 7/64" 3000 26500 144.406.007.1 |
| | | LR5F | 1 3/4" z20 | 168 | 6 39/64" | 149 | 5 7/8" | 28 | 1 7/64" 3000 26500 144.406.008.1 |
| | 120 | LR4F | 1 3/4" z6 | 168 | 6 39/64" | 149 | 5 7/8" | 28 | 1 7/64" 3500 30900 144.406.009.1 |
| | | LR5F | 1 3/4" z20 | 168 | 6 39/64" | 149 | 5 7/8" | 28 | 1 7/64" 3500 30900 144.406.010.1 |

Il dispositivo comprende un limitatore a reinnesco automatico Comer e una ruota libera integrati e consente la trasmissione del moto in un solo senso di rotazione. La funzionalità assomma quelle dei singoli dispositivi con il vantaggio di risparmiare spazio e di consentire il montaggio sullo stesso lato del cardano. Il dispositivo è utile come organo di sicurezza contro picchi di carico e in macchine con grosse masse inerziali. Al raggiungimento della soglia di intervento come limitatore, la coppia trasmessa viene ridotta a valori minimi interrompendo di fatto la trasmissione del moto che viene ripristinata automaticamente mediante una diminuzione del regime di rotazione della PTO del trattore e la contemporanea eliminazione della causa esterna. La ruota libera entra in funzione nella fase di arresto facendo sì che la PTO del trattore non venga trascinata dalla macchina operatrice.

The device consists of an integrated Comer automatic torque limiter plus an overrunning clutch, transmitting motion in a single rotation direction. Overall operating capacity is based on the sum of the outputs of the individual devices with the added advantage that it saves space and can be mounted on the same side of the driveshaft. It can be used as a safety device to offset load peaks and in machines with large inertial masses. When the device reaches the limiter tripping threshold, the transmitted torque is reduced to minimum values, cutting off the transmission motion. The motion is restored automatically by reducing the rotation of the tractor PTO while simultaneously eliminating the external cause. The overrunning clutch begins operating during the stop phase, while preventing the tractor PTO from being entrained by the application.

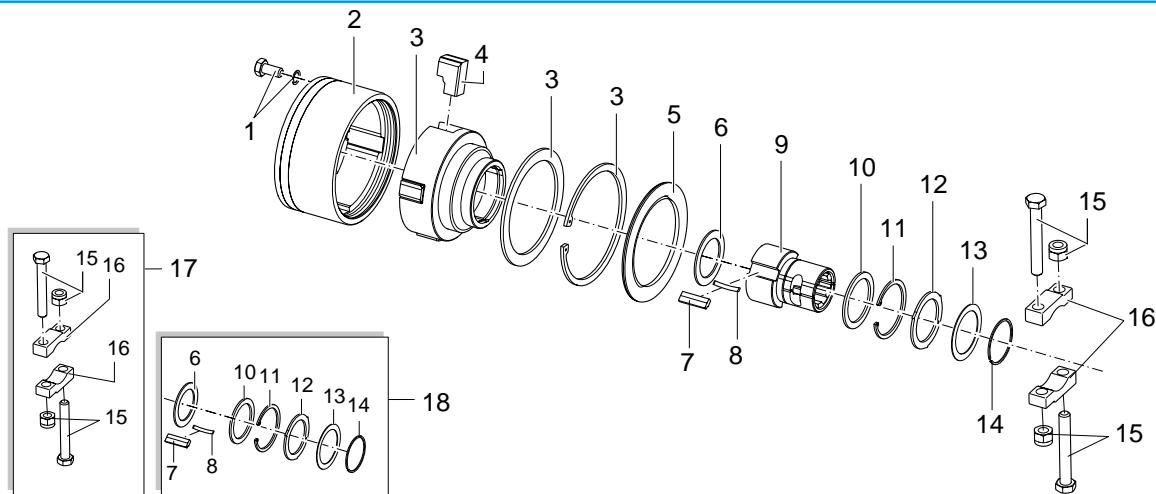


NOTA: fornibile a richiesta per senso di rotazione antiorario
NOTE: available upon request for anti-clockwise direction of rotation

LIMITATORE AUTOMATICO CON RUOTA LIBERA
AUTOMATIC TORQUE LIMITER WITH OVERRUNNING CLUTCH

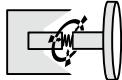


LRF

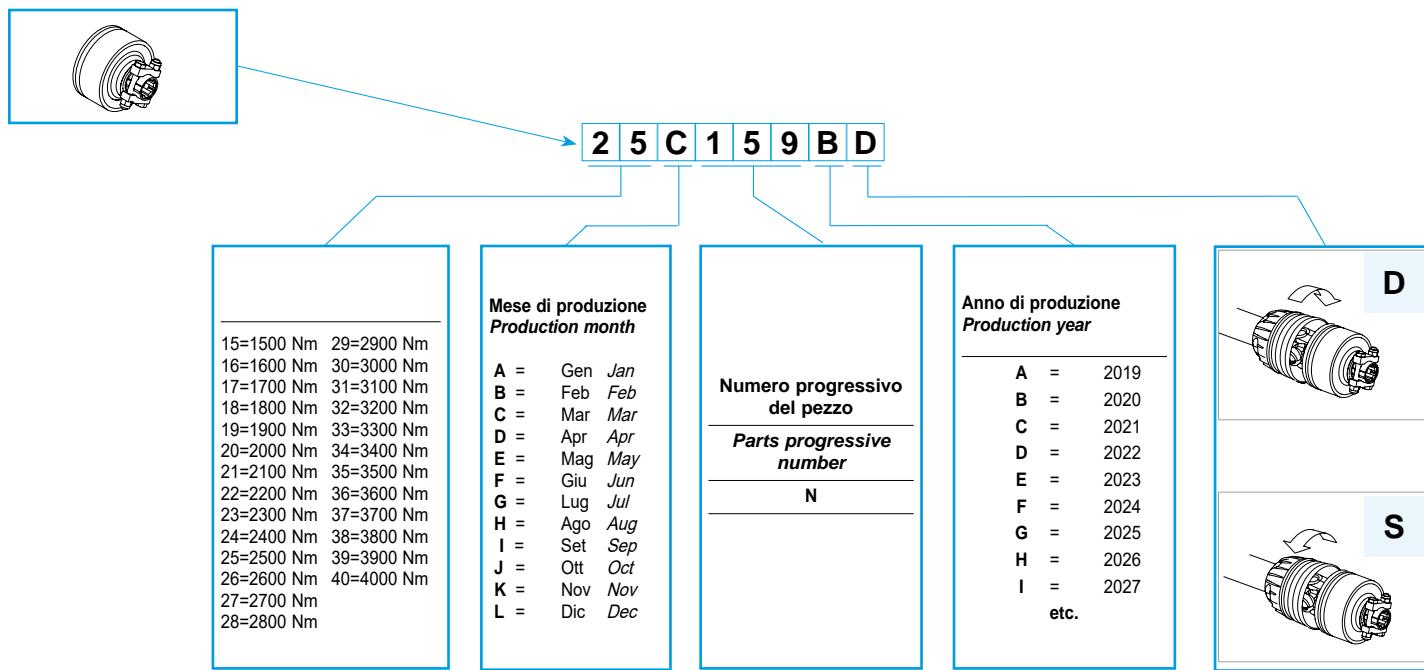


| Pos. | | | Code | Qty * |
|------|-----------------------------|---------------------------|---------------|-------|
| 1 | Vite M12x1,25x25 + rondella | Bolt M12x1,25x25 + washer | 165.000.708 | 8 |
| 2 | Fondello corpo | Outer casing | 141.028.411.1 | 1 |
| 3 | Kit mozzo LR2F - 2500 Nm | Hub set LR2F - 2500 Nm | 165.000.771 | 1 |
| | Kit mozzo LR3F - 2500 Nm | Hub set LR3F - 2500 Nm | 165.000.772 | 1 |
| | Kit mozzo LR4F - 2500 Nm | Hub set LR4F - 2500 Nm | 165.000.773 | 1 |
| | Kit mozzo LR5F - 2500 Nm | Hub set LR5F - 2500 Nm | 165.000.774 | 1 |
| | Kit mozzo LR2F - 3000 Nm | Hub set LR2F - 3000 Nm | 165.000.775 | 1 |
| | Kit mozzo LR3F - 3000 Nm | Hub set LR3F - 3000 Nm | 165.000.776 | 1 |
| | Kit mozzo LR4F - 3000 Nm | Hub set LR4F - 3000 Nm | 165.000.777 | 1 |
| | Kit mozzo LR5F - 3000 Nm | Hub set LR5F - 3000 Nm | 165.000.778 | 1 |
| | Kit mozzo LR4F - 3500 Nm | Hub set LR4F - 3500 Nm | 165.000.779 | 1 |
| | Kit mozzo LR5F - 3500 Nm | Hub set LR5F - 3500 Nm | 165.000.780 | 1 |
| 4 | Linguetta (tipo 60) | Ratchet (type 60) | 151.018.376 | 4 |
| | Linguetta (tipo 80-90) | Ratchet (type 80-90) | 151.018.390 | 4 |
| 5 | Paragrasso | Grease protection | 180.018.400 | 1 |
| 6 | Distanziale | Retaining Washers | 190.000.199 | 1 |
| 7 | Linguetta | Ratchet | 151.014.136 | 2 |
| 8 | Molla a balestra | Leaf Spring | 180.014.137 | 2 |
| 9 | Mozzo 1 3/8" z6 | Hub 1 3/8" z6 | 151.017.394 | 1 |
| | Mozzo 1 3/8" z21 | Hub 1 3/8" z21 | 151.017.395 | 1 |
| | Mozzo 1 3/4" z6 | Hub 1 3/4" z6 | 151.017.387 | 1 |
| | Mozzo 1 3/4" z20 | Hub 1 3/4" z20 | 151.017.396 | 1 |
| 10 | Anello di rasamento | Retaining washer ring | 151.014.135 | 1 |
| 11 | Seeger | Circlip | 190.000.183 | 1 |
| 12 | Paragrasso per ruota libera | Grease protection | 180.017.388 | 1 |
| 13 | Lamierino | Spring push ring | 180.015.143 | 1 |
| 14 | Seeger | Circlip | 190.000.079 | 1 |
| 15 | Viti M12x1.25x95 (1 3/8") | Bolt M12x1.25x95 (1 3/8") | 165.000.782 | 2 |
| | Viti M14x1.5x100 (1 3/4") | Bolt M14x1.5x100 (1 3/4") | 165.000.622 | 2 |
| 16 | Ponti di blocco 1 3/8" | Clamp lock 1 3/8" | 151.016.525 | 2 |
| | Ponti di blocco 1 3/4" | Clamp lock 1 3/4" | 151.014.201 | 2 |
| 17 | Kit ponti di blocco 1 3/8" | Clamp lock set 1 3/8" | 165.000.783 | 1 |
| | Kit ponti di blocco 1 3/4" | Clamp lock set 1 3/4" | 165.000.692 | 1 |
| 18 | Kit LR | Kit LR | 165.000.781 | 1 |

* Quantità presente nel dispositivo
 Quantity in the Safety Device



Identificazione prodotto / Product Identification



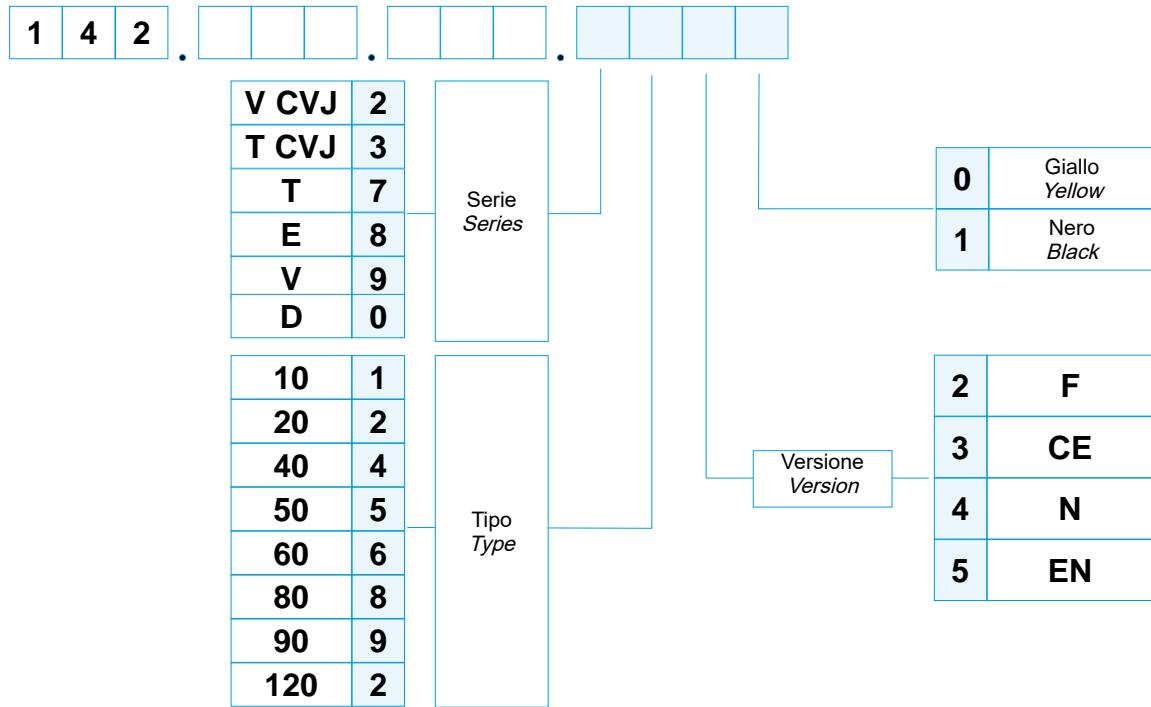
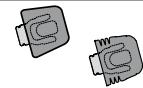


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PROTEZIONI GUARDS

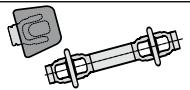
p.

| | | |
|--|---|------------|
| CODIFICA D'ORDINE PROTEZIONI GUARDS ORDER CODE | | 121 |
| PROTEZIONI F-CE PER CARDANI OMOCINETICI CVJ F-CE GUARDS FOR PTO DRIVESHAFTS CVJ | | |
| Protezioni complete doppio CVJ - Serie V | Complete guards double CVJ - Series V | 122 |
| Protezioni complete singolo CVJ - Serie V | Complete guards single CVJ - Series V | 123 |
| Protezioni complete doppio CVJ - Serie T | Complete guards double CVJ - Series T | 124 |
| Protezioni complete singolo CVJ - Serie T | Complete guards single CVJ - Series T | 125 |
| Semi protezioni esterne/interne | Half-guards Outer/Inner | 126 |
| PROTEZIONI F-CE PER CARDANI F-CE GUARDS FOR PTO DRIVESHAFTS | | |
| Protezioni complete | Complete Guards | 127 |
| Semi protezioni esterne/interne | Half-guards Outer/Inner | 128 |
| ACCESSORI F-CE F-CE ACCESSORIES | | |
| Cuffie - Ghiere - Bottoni - Catene | Cones - Retaining collar - Bolts - Chains | 130 |
| PROTEZIONI N-EN PER CARDANI OMOCINETICI CVJ N-EN GUARDS FOR PTO DRIVESHAFTS CVJ | | |
| Protezioni complete doppio CVJ - Serie V | Complete guards double CVJ - Series V | 132 |
| Protezioni complete singolo CVJ - Serie V | Complete guards single CVJ - Series V | 133 |
| Protezioni complete doppio CVJ - Serie T | Complete guards double CVJ - Series T | 134 |
| Protezioni complete singolo CVJ - Serie T | Complete guards single CVJ - Series T | 135 |
| Semi protezioni esterne/interne | Half-guards Outer/Inner | 136 |
| PROTEZIONI N-EN PER CARDANI N-EN GUARDS FOR PTO DRIVESHAFTS | | |
| Protezioni complete | Complete Guards | 137 |
| Semi protezioni esterne/interne | Half-guards Outer/Inner | 138 |
| ACCESSORI N-EN N-EN ACCESSORIES | | |
| Cuffie - Ghiere - Bottoni - Catene | Cones - Retaining collar - Bolt - Chains | 140 |
| CONTROCUFFIE COUNTER-CONES | | |
| Controcuffie fisse | Fixed Counter-Cones | 142 |
| Controcuffie amovibili | Removable Counter-Cones | 143 |
| Esempi d'applicazione | Application examples | 144 |

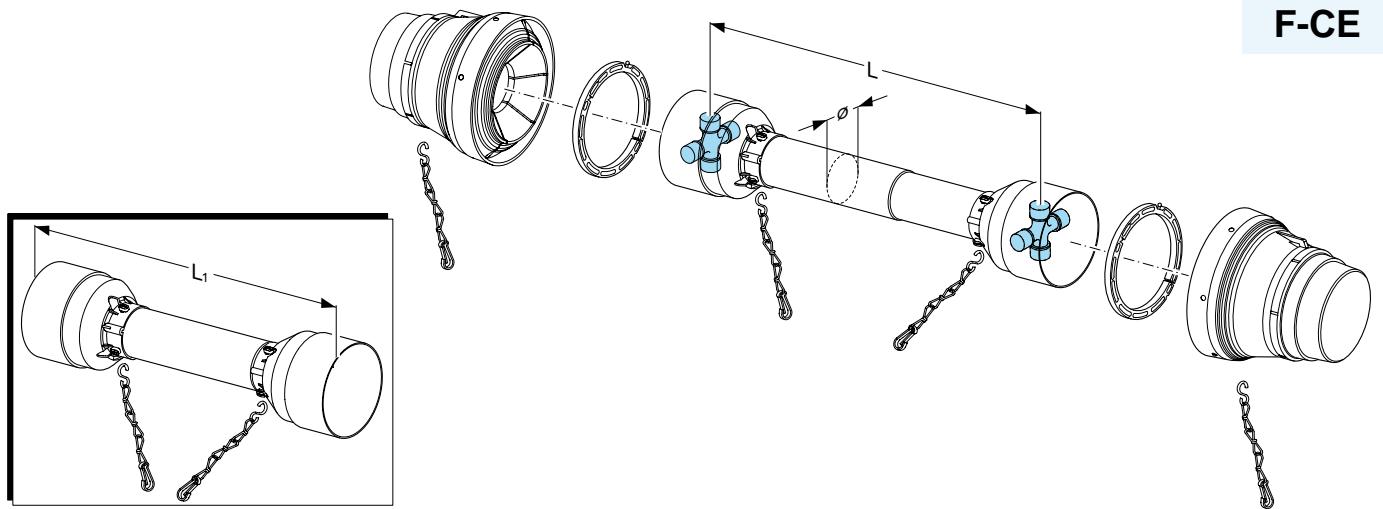


Le protezioni sono fornibili a richiesta, con applicate decalcomanie tipo:
- USA - CANADA -

The guards can be supplied on request with the following decals included:
- USA - CANADA -



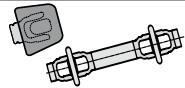
F-CE



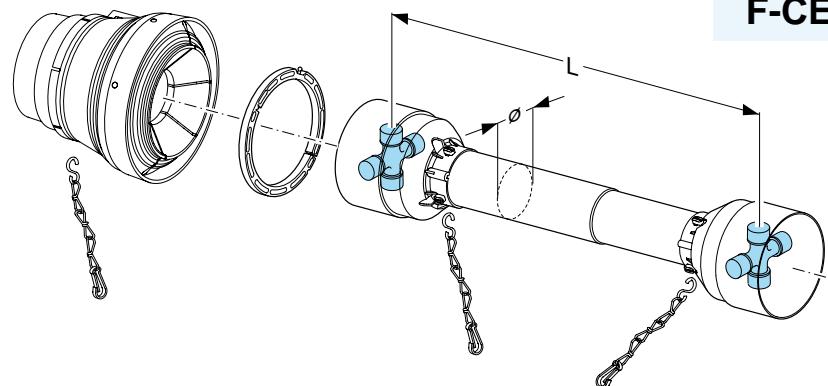
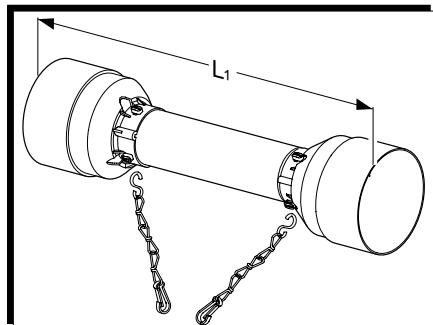
| Type | $\varnothing = 61 \text{ mm}$ | 20 | $\varnothing = 66.5 \text{ mm}$ | 40 | $\varnothing = 81.2 \text{ mm}$ | 60 | $\varnothing = 96 \text{ mm}$ | 80 |
|----------|-------------------------------|------------------|---------------------------------|------------------|---------------------------------|------------------|-------------------------------|------------------|
| | L_1 [mm] | Code | L_1 [mm] | Code | L_1 [mm] | Code | L_1 [mm] | Code |
| L = 410 | 340 | 142.922.001.2231 | 355 | 142.942.001.2431 | 350 | 142.962.004.2631 | 330 | 142.982.003.2831 |
| L = 460 | 390 | 142.922.002.2231 | 405 | 142.942.002.2431 | 400 | 142.962.005.2631 | 380 | 142.982.004.2831 |
| L = 510 | 440 | 142.922.003.2231 | 455 | 142.942.003.2431 | 450 | 142.962.006.2631 | 430 | 142.982.005.2831 |
| L = 560 | 490 | 142.922.004.2231 | 505 | 142.942.004.2431 | 500 | 142.962.007.2631 | 480 | 142.982.006.2831 |
| L = 610 | 540 | 142.922.005.2231 | 555 | 142.942.005.2431 | 550 | 142.962.008.2631 | 530 | 142.982.007.2831 |
| L = 660 | 590 | 142.922.006.2231 | 605 | 142.942.006.2431 | 600 | 142.962.009.2631 | 580 | 142.982.008.2831 |
| L = 710 | 640 | 142.922.007.2231 | 655 | 142.942.007.2431 | 650 | 142.962.010.2631 | 630 | 142.982.009.2831 |
| L = 760 | 690 | 142.922.008.2231 | 705 | 142.942.008.2431 | 700 | 142.962.011.2631 | 680 | 142.982.010.2831 |
| L = 810 | 740 | 142.922.009.2231 | 755 | 142.942.009.2431 | 750 | 142.962.012.2631 | 730 | 142.982.011.2831 |
| L = 860 | 790 | 142.922.010.2231 | 805 | 142.942.010.2431 | 800 | 142.962.013.2631 | 780 | 142.982.012.2831 |
| L = 910 | 840 | 142.922.011.2231 | 855 | 142.942.011.2431 | 850 | 142.962.014.2631 | 830 | 142.982.013.2831 |
| L = 1010 | 940 | 142.922.012.2231 | 955 | 142.942.012.2431 | 950 | 142.962.015.2631 | 930 | 142.982.014.2831 |
| L = 1110 | 1040 | 142.922.013.2231 | 1055 | 142.942.013.2431 | 1050 | 142.962.016.2631 | 1030 | 142.982.015.2831 |
| L = 1210 | 1140 | 142.922.014.2231 | 1155 | 142.942.014.2431 | 1150 | 142.962.001.2631 | 1130 | 142.982.001.2831 |
| L = 1310 | 1240 | 142.922.015.2231 | 1255 | 142.942.015.2431 | 1250 | 142.962.017.2631 | 1230 | 142.982.016.2831 |
| L = 1410 | 1340 | 142.922.016.2231 | 1355 | 142.942.016.2431 | 1350 | 142.962.018.2631 | 1330 | 142.982.017.2831 |

Per codifica e tipologia protezione vedere pag.
For coding and guard tipology see pag.

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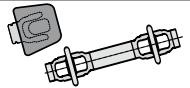
F-CE



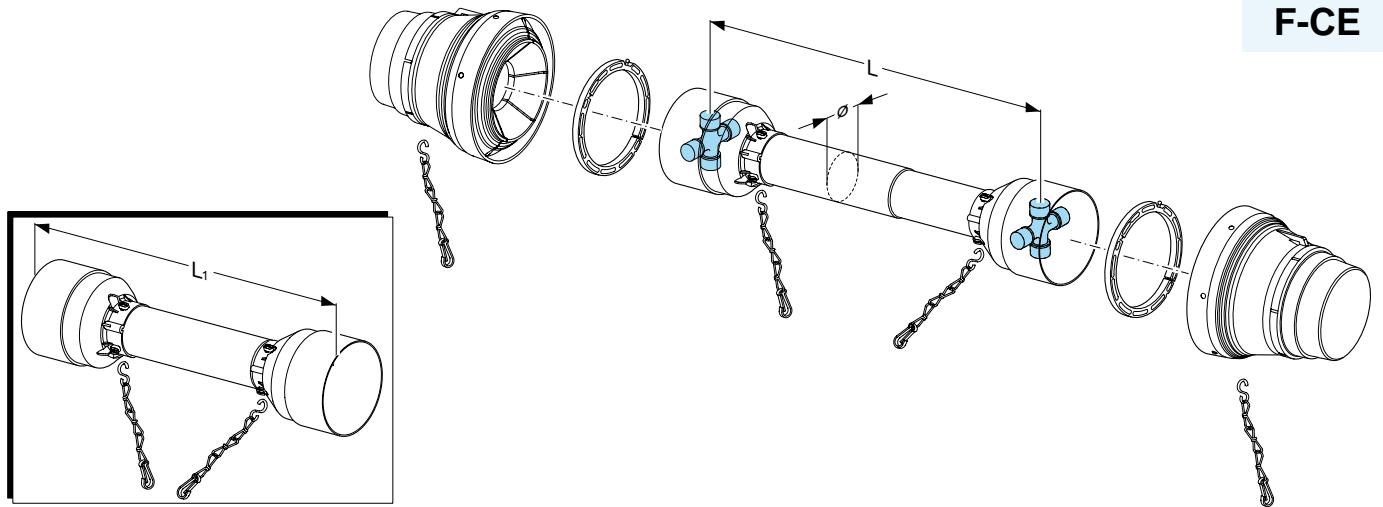
| Type | $\varnothing = 61 \text{ mm}$ | 20 | $\varnothing = 66.5 \text{ mm}$ | 40 | $\varnothing = 81.2 \text{ mm}$ | 60 | $\varnothing = 96 \text{ mm}$ | 80 |
|----------|-------------------------------|------------------|---------------------------------|------------------|---------------------------------|------------------|-------------------------------|------------------|
| | L_1 [mm] | Code | L_1 [mm] | Code | L_1 [mm] | Code | L_1 [mm] | Code |
| L = 410 | 405 | 142.921.001.2231 | 410 | 142.941.001.2431 | 405 | 142.961.023.2631 | 415 | 142.981.031.2831 |
| L = 460 | 455 | 142.921.002.2231 | 460 | 142.941.002.2431 | 455 | 142.961.035.2631 | 465 | 142.981.032.2831 |
| L = 510 | 505 | 142.921.003.2231 | 510 | 142.941.003.2431 | 505 | 142.961.036.2631 | 515 | 142.981.033.2831 |
| L = 560 | 555 | 142.921.004.2231 | 560 | 142.941.004.2431 | 555 | 142.961.037.2631 | 565 | 142.981.034.2831 |
| L = 610 | 605 | 142.921.005.2231 | 610 | 142.941.005.2431 | 605 | 142.961.038.2631 | 615 | 142.981.035.2831 |
| L = 660 | 655 | 142.921.006.2231 | 660 | 142.941.006.2431 | 655 | 142.961.039.2631 | 665 | 142.981.036.2831 |
| L = 710 | 705 | 142.921.007.2231 | 710 | 142.941.007.2431 | 705 | 142.961.040.2631 | 715 | 142.981.037.2831 |
| L = 760 | 755 | 142.921.008.2231 | 760 | 142.941.008.2431 | 755 | 142.961.022.2631 | 765 | 142.981.016.2831 |
| L = 810 | 805 | 142.921.009.2231 | 810 | 142.941.009.2431 | 805 | 142.961.041.2631 | 815 | 142.981.038.2831 |
| L = 860 | 855 | 142.921.010.2231 | 860 | 142.941.010.2431 | 855 | 142.961.006.2631 | 865 | 142.981.003.2831 |
| L = 910 | 905 | 142.921.011.2231 | 910 | 142.941.011.2431 | 905 | 142.961.004.2631 | 915 | 142.981.005.2831 |
| L = 1010 | 1005 | 142.921.012.2231 | 1010 | 142.941.012.2431 | 1005 | 142.961.018.2631 | 1015 | 142.981.039.2831 |
| L = 1110 | 1105 | 142.921.013.2231 | 1110 | 142.941.013.2431 | 1105 | 142.961.008.2631 | 1115 | 142.981.040.2831 |
| L = 1210 | 1205 | 142.921.014.2231 | 1210 | 142.941.014.2431 | 1205 | 142.961.019.2631 | 1215 | 142.981.015.2831 |
| L = 1310 | 1305 | 142.921.015.2231 | 1310 | 142.941.015.2431 | 1305 | 142.961.020.2631 | 1315 | 142.981.041.2831 |
| L = 1410 | 1405 | 142.921.016.2231 | 1410 | 142.941.016.2431 | 1405 | 142.961.017.2631 | 1415 | 142.981.042.2831 |

Per codifica e tipologia protezione vedere pag.
For coding and guard tipology see pag.

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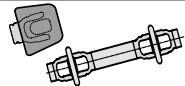
F-CE



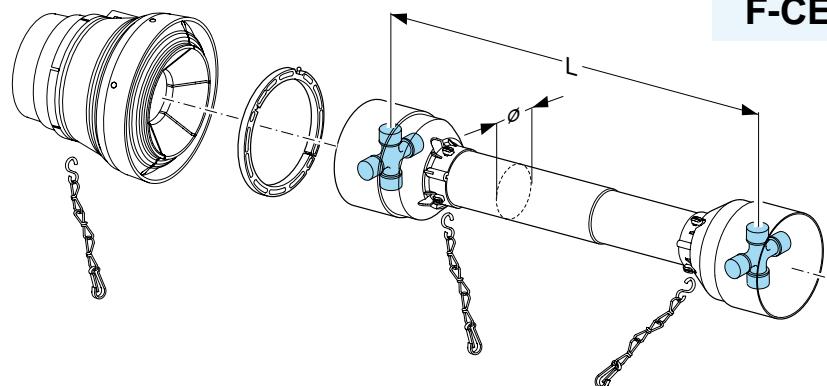
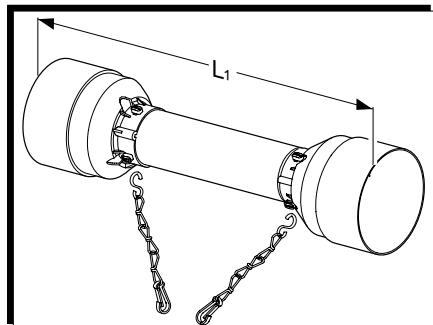
| Type | $\varnothing = 61 \text{ mm}$ | 20 | $\varnothing = 66.5 \text{ mm}$ | 40 | $\varnothing = 81.2 \text{ mm}$ | 60 | $\varnothing = 96 \text{ mm}$ | 80 |
|----------|-------------------------------|------------------|---------------------------------|------------------|---------------------------------|------------------|-------------------------------|------------------|
| | L_1 [mm] | Code | L_1 [mm] | Code | L_1 [mm] | Code | L_1 [mm] | Code |
| L = 410 | 340 | 142.722.008.3231 | 355 | 142.742.014.3431 | 350 | 142.762.016.3631 | 330 | 142.782.010.3831 |
| L = 460 | 390 | 142.722.003.3231 | 405 | 142.742.016.3431 | 400 | 142.762.017.3631 | 380 | 142.782.011.3831 |
| L = 510 | 440 | 142.722.009.3231 | 455 | 142.742.009.3431 | 450 | 142.762.018.3631 | 430 | 142.782.012.3831 |
| L = 560 | 490 | 142.722.010.3231 | 505 | 142.742.017.3431 | 500 | 142.762.009.3631 | 480 | 142.782.007.3831 |
| L = 610 | 540 | 142.722.011.3231 | 555 | 142.742.008.3431 | 550 | 142.762.019.3631 | 530 | 142.782.013.3831 |
| L = 660 | 590 | 142.722.004.3231 | 605 | 142.742.018.3431 | 600 | 142.762.005.3631 | 580 | 142.782.014.3831 |
| L = 710 | 640 | 142.722.002.3231 | 655 | 142.742.019.3431 | 650 | 142.762.008.3631 | 630 | 142.782.015.3831 |
| L = 760 | 690 | 142.722.012.3231 | 705 | 142.742.013.3431 | 700 | 142.762.010.3631 | 680 | 142.782.016.3831 |
| L = 810 | 740 | 142.722.013.3231 | 755 | 142.742.003.3431 | 750 | 142.762.011.3631 | 730 | 142.782.017.3831 |
| L = 860 | 790 | 142.722.014.3231 | 805 | 142.742.006.3431 | 800 | 142.762.002.3631 | 780 | 142.782.018.3831 |
| L = 910 | 840 | 142.722.015.3231 | 855 | 142.742.004.3431 | 850 | 142.762.020.3631 | 830 | 142.782.019.3831 |
| L = 1010 | 940 | 142.722.001.3231 | 955 | 142.742.007.3431 | 950 | 142.762.013.3631 | 930 | 142.782.002.3831 |
| L = 1110 | 1040 | 142.722.016.3231 | 1055 | 142.742.005.3431 | 1050 | 142.762.004.3631 | 1030 | 142.782.006.3831 |
| L = 1210 | 1140 | 142.722.017.3231 | 1155 | 142.742.001.3431 | 1150 | 142.762.007.3631 | 1130 | 142.782.020.3831 |
| L = 1310 | 1240 | 142.722.007.3231 | 1255 | 142.742.015.3431 | 1250 | 142.762.003.3631 | 1230 | 142.782.009.3831 |
| L = 1410 | 1340 | 142.722.018.3231 | 1355 | 142.742.020.3431 | 1350 | 142.762.021.3631 | 1330 | 142.782.008.3831 |

Per codifica e tipologia protezione vedere pag.
For coding and guard tipology see pag.

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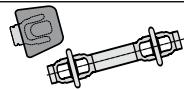
F-CE



| Type | $\varnothing = 61 \text{ mm}$ | 20 | $\varnothing = 66.5 \text{ mm}$ | 40 | $\varnothing = 81.2 \text{ mm}$ | 60 | $\varnothing = 96 \text{ mm}$ | 80 |
|----------|-------------------------------|------------------|---------------------------------|------------------|---------------------------------|------------------|-------------------------------|------------------|
| | L_1 [mm] | Code | L_1 [mm] | Code | L_1 [mm] | Code | L_1 [mm] | Code |
| L = 410 | 405 | 142.721.008.3231 | 410 | 142.741.013.3431 | 405 | 142.761.021.3631 | 415 | 142.781.009.3831 |
| L = 460 | 455 | 142.721.002.3231 | 460 | 142.741.014.3431 | 455 | 142.761.022.3631 | 465 | 142.781.010.3831 |
| L = 510 | 505 | 142.721.003.3231 | 510 | 142.741.015.3431 | 505 | 142.761.023.3631 | 515 | 142.781.011.3831 |
| L = 560 | 555 | 142.721.004.3231 | 560 | 142.741.016.3431 | 555 | 142.761.024.3631 | 565 | 142.781.012.3831 |
| L = 610 | 605 | 142.721.005.3231 | 610 | 142.741.017.3431 | 605 | 142.761.025.3631 | 615 | 142.781.013.3831 |
| L = 660 | 655 | 142.721.006.3231 | 660 | 142.741.018.3431 | 655 | 142.761.001.3631 | 665 | 142.781.014.3831 |
| L = 710 | 705 | 142.721.007.3231 | 710 | 142.741.001.3431 | 705 | 142.761.026.3631 | 715 | 142.781.015.3831 |
| L = 760 | 755 | 142.721.001.3231 | 760 | 142.741.008.3431 | 755 | 142.761.007.3631 | 765 | 142.781.016.3831 |
| L = 810 | 805 | 142.721.009.3231 | 810 | 142.741.019.3431 | 805 | 142.761.027.3631 | 815 | 142.781.017.3831 |
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| L = 910 | 905 | 142.721.011.3231 | 910 | 142.741.004.3431 | 905 | 142.761.028.3631 | 915 | 142.781.019.3831 |
| L = 1010 | 1005 | 142.721.012.3231 | 1010 | 142.741.007.3431 | 1005 | 142.761.008.3631 | 1015 | 142.781.020.3831 |
| L = 1110 | 1105 | 142.721.013.3231 | 1110 | 142.741.003.3431 | 1105 | 142.761.003.3631 | 1115 | 142.781.021.3831 |
| L = 1210 | 1205 | 142.721.014.3231 | 1210 | 142.741.002.3431 | 1205 | 142.761.004.3631 | 1215 | 142.781.022.3831 |
| L = 1310 | 1305 | 142.721.026.3231 | 1310 | 142.741.047.3431 | 1305 | 142.761.050.3631 | 1315 | 142.781.048.3831 |
| L = 1410 | 1405 | 142.721.027.3231 | 1410 | 142.741.043.3431 | 1405 | 142.761.089.3631 | 1415 | 142.781.049.3831 |

Per codifica e tipologia protezione vedere pag.
For coding and guard tipology see pag.

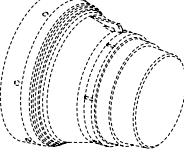
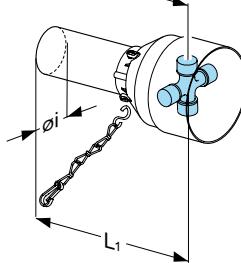
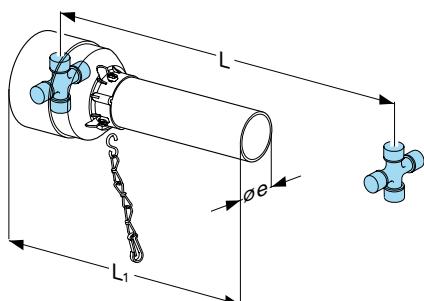
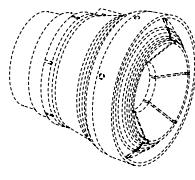
121



Esterna / Outer

Interna / Inner

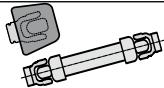
F-CE



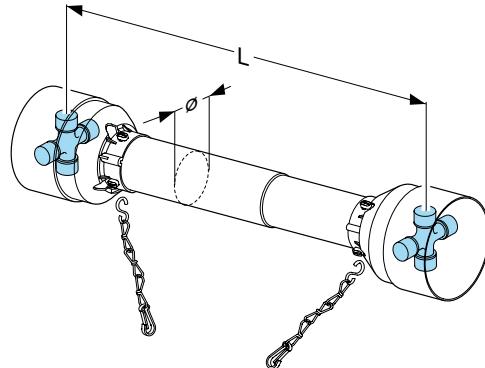
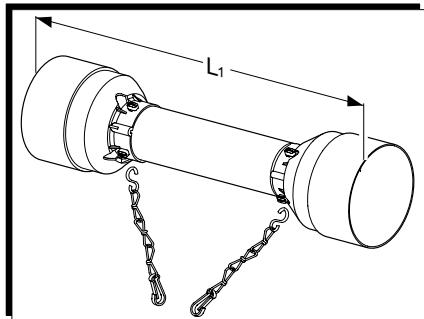
| Type | $\phi_e = 61 \text{ mm}$ | 20 | $\phi_e = 66.5 \text{ mm}$ | 40 | $\phi_e = 81.2 \text{ mm}$ | 60 | $\phi_e = 96 \text{ mm}$ | 80 | |
|-----------------|--------------------------|-----------|----------------------------|-----------|----------------------------|-----------|--------------------------|-----------|------------------|
| | L_1 [mm] | Code | L_1 [mm] | Code | L_1 [mm] | Code | L_1 [mm] | Code | |
| Esterna / Outer | L = 410 | 265 | 142.226.016.2231 | 260 | 142.246.021.2431 | 245 | 142.266.040.2631 | 225 | 142.283.036.2831 |
| | L = 460 | 315 | 142.226.010.2231 | 310 | 142.246.022.2431 | 295 | 142.266.041.2631 | 275 | 142.283.037.2831 |
| | L = 510 | 365 | 142.226.011.2231 | 360 | 142.246.017.2431 | 345 | 142.266.042.2631 | 325 | 142.283.038.2831 |
| | L = 560 | 415 | 142.226.012.2231 | 410 | 142.246.023.2431 | 395 | 142.266.043.2631 | 375 | 142.283.039.2831 |
| | L = 610 | 465 | 142.226.013.2231 | 460 | 142.246.024.2431 | 445 | 142.266.044.2631 | 425 | 142.283.040.2831 |
| | L = 660 | 515 | 142.226.014.2231 | 510 | 142.246.025.2431 | 495 | 142.261.158.2631 | 475 | 142.283.041.2831 |
| | L = 710 | 565 | 142.226.015.2231 | 560 | 142.241.156.2431 | 545 | 142.261.037.2631 | 525 | 142.283.042.2831 |
| | L = 760 | 615 | 142.221.149.2231 | 610 | 142.241.186.2431 | 595 | 142.261.177.2631 | 575 | 142.283.043.2831 |
| | L = 810 | 665 | 142.221.156.2231 | 660 | 142.246.026.2431 | 645 | 142.261.035.2631 | 625 | 142.283.044.2831 |
| | L = 860 | 715 | 142.226.017.2231 | 710 | 142.246.027.2431 | 695 | 142.261.183.2631 | 675 | 142.281.187.2831 |
| | L = 910 | 765 | 142.226.018.2231 | 760 | 142.241.159.2431 | 745 | 142.266.045.2631 | 725 | 142.283.045.2831 |
| | L = 1010 | 865 | 142.221.150.2231 | 860 | 142.241.184.2431 | 845 | 142.261.182.2631 | 825 | 142.283.046.2831 |
| | L = 1110 | 965 | 142.226.019.2231 | 960 | 142.246.018.2431 | 945 | 142.261.185.2631 | 925 | 142.283.047.2831 |
| | L = 1210 | 1065 | 142.226.020.2231 | 1060 | 142.241.185.2431 | 1045 | 142.261.034.2631 | 1025 | 142.283.048.2831 |
| | L = 1310 | 1165 | 142.226.046.2231 | 1160 | 142.246.084.2431 | 1145 | 142.266.048.2631 | 1125 | 142.283.126.2831 |
| | L = 1410 | 1265 | 142.226.056.2231 | 1260 | 142.246.066.2431 | 1245 | 142.266.090.2631 | 1225 | 142.283.147.2831 |

| Type | $\phi_i = 55.6 \text{ mm}$ | 20 | $\phi_i = 61 \text{ mm}$ | 40 | $\phi_i = 75 \text{ mm}$ | 60 | $\phi_i = 89.9 \text{ mm}$ | 80 | |
|-----------------|----------------------------|-----------|--------------------------|-----------|--------------------------|-----------|----------------------------|-----------|------------------|
| | L_1 [mm] | Code | L_1 [mm] | Code | L_1 [mm] | Code | L_1 [mm] | Code | |
| Interna / Inner | L = 410 | 265 | 142.227.044.2231 | 260 | 142.247.047.2431 | 245 | 142.267.064.2631 | 225 | 142.287.055.2831 |
| | L = 460 | 315 | 142.227.017.2231 | 310 | 142.247.018.2431 | 295 | 142.261.299.2631 | 275 | 142.281.275.2831 |
| | L = 510 | 365 | 142.227.021.2231 | 360 | 142.241.269.2431 | 345 | 142.267.001.2631 | 325 | 142.281.250.2831 |
| | L = 560 | 415 | 142.221.232.2231 | 410 | 142.241.261.2431 | 395 | 142.261.298.2631 | 375 | 142.281.247.2831 |
| | L = 610 | 465 | 142.227.020.2231 | 460 | 142.241.312.2431 | 445 | 142.261.267.2631 | 425 | 142.281.276.2831 |
| | L = 660 | 515 | 142.227.016.2231 | 510 | 142.241.287.2431 | 495 | 142.261.272.2631 | 475 | 142.287.056.2831 |
| | L = 710 | 565 | 142.227.022.2231 | 560 | 142.241.313.2431 | 545 | 142.261.330.2631 | 525 | 142.281.258.2831 |
| | L = 760 | 615 | 142.227.045.2231 | 610 | 142.247.040.2431 | 595 | 142.261.289.2631 | 575 | 142.287.059.2831 |
| | L = 810 | 665 | 142.227.018.2231 | 660 | 142.247.041.2431 | 645 | 142.261.270.2631 | 625 | 142.281.287.2831 |
| | L = 860 | 715 | 142.227.046.2231 | 710 | 142.247.026.2431 | 695 | 142.261.269.2631 | 675 | 142.287.061.2831 |
| | L = 910 | 765 | 142.227.047.2231 | 760 | 142.241.223.2431 | 745 | 142.267.028.2631 | 725 | 142.281.267.2831 |
| | L = 1010 | 865 | 142.221.246.2231 | 860 | 142.247.014.2431 | 845 | 142.261.280.2631 | 825 | 142.287.008.2831 |
| | L = 1110 | 965 | 142.227.048.2231 | 960 | 142.247.042.2431 | 945 | 142.261.334.2631 | 925 | 142.281.292.2831 |
| | L = 1210 | 1065 | 142.227.049.2231 | 1060 | 142.241.250.2431 | 1045 | 142.261.286.2631 | 1025 | 142.281.286.2831 |
| | L = 1310 | 1165 | 142.227.035.2231 | 1160 | 142.241.271.2431 | 1145 | 142.267.043.2631 | 1125 | 142.287.052.2831 |
| | L = 1410 | 1265 | 142.227.019.2231 | 1260 | 142.247.046.2431 | 1245 | 142.267.005.2631 | 1225 | 142.287.053.2831 |

Per codifica e tipologia protezione vedere pag.
For coding and guard tipology see pag.



F-CE

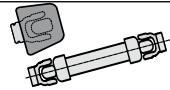


| Type | $\varnothing = 61 \text{ mm}$ | 10 | $\varnothing = 61 \text{ mm}$ | 20 | $\varnothing = 66.5 \text{ mm}$ | 40 | $\varnothing = 81.2 \text{ mm}$ | 50 |
|----------|-------------------------------|------------------|-------------------------------|------------------|---------------------------------|------------------|---------------------------------|------------------|
| | L_1 [mm] | Code | L_1 [mm] | Code | L_1 [mm] | Code | L_1 [mm] | Code |
| L = 410 | 470 | 142.210.206.7131 | 470 | 142.220.206.9231 | 465 | 142.240.206.9431 | 470 | 142.250.206.9531 |
| L = 460 | 520 | 142.210.243.7131 | 520 | 142.220.264.9231 | 515 | 142.240.281.9431 | 520 | 142.250.004.9531 |
| L = 510 | 570 | 142.210.207.7131 | 570 | 142.220.207.9231 | 565 | 142.240.207.9431 | 570 | 142.250.207.9531 |
| L = 560 | 620 | 142.210.233.7131 | 620 | 142.220.269.9231 | 615 | 142.240.048.9431 | 620 | 142.250.264.9531 |
| L = 610 | 670 | 142.210.208.7131 | 670 | 142.220.208.9231 | 665 | 142.240.208.9431 | 670 | 142.250.208.9531 |
| L = 660 | 720 | 142.210.235.7131 | 720 | 142.220.246.9231 | 715 | 142.240.286.9431 | 720 | 142.250.277.9531 |
| L = 710 | 770 | 142.210.209.7131 | 770 | 142.220.209.9231 | 765 | 142.240.209.9431 | 770 | 142.250.209.9531 |
| L = 760 | 820 | 142.210.236.7131 | 820 | 142.220.247.9231 | 815 | 142.240.288.9431 | 820 | 142.250.278.9531 |
| L = 810 | 870 | 142.210.210.7131 | 870 | 142.220.210.9231 | 865 | 142.240.210.9431 | 870 | 142.250.210.9531 |
| L = 860 | 920 | 142.210.237.7131 | 920 | 142.220.248.9231 | 915 | 142.240.289.9431 | 920 | 142.250.279.9531 |
| L = 910 | 970 | 142.210.211.7131 | 970 | 142.220.211.9231 | 965 | 142.240.211.9431 | 970 | 142.250.211.9531 |
| L = 1010 | 1070 | 142.210.212.7131 | 1070 | 142.220.212.9231 | 1065 | 142.240.212.9431 | 1070 | 142.250.212.9531 |
| L = 1110 | 1170 | 142.210.213.7131 | 1170 | 142.220.213.9231 | 1165 | 142.240.213.9431 | 1170 | 142.250.213.9531 |
| L = 1210 | 1270 | 142.210.214.7131 | 1270 | 142.220.214.9231 | 1265 | 142.240.214.9431 | 1270 | 142.250.214.9531 |
| L = 1310 | 1370 | 142.210.215.7131 | 1370 | 142.220.215.9231 | 1365 | 142.240.215.9431 | 1370 | 142.250.215.9531 |
| L = 1410 | 1470 | 142.210.216.7131 | 1470 | 142.220.216.9231 | 1465 | 142.240.216.9431 | 1470 | 142.250.216.9531 |

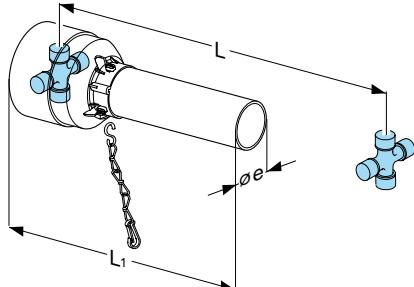
| Type | $\varnothing = 81.2 \text{ mm}$ | 60 | $\varnothing = 96 \text{ mm}$ | 80 | $\varnothing = 96 \text{ mm}$ | 90 |
|----------|---------------------------------|------------------|-------------------------------|------------------|-------------------------------|------------------|
| | L_1 [mm] | Code | L_1 [mm] | Code | L_1 [mm] | Code |
| L = 410 | 465 | 142.260.302.9631 | 500 | 142.286.065.9831 | 490 | 142.290.245.9931 |
| L = 460 | 515 | 142.260.207.9631 | 550 | 142.286.020.9831 | 540 | 142.290.207.9931 |
| L = 510 | 565 | 142.260.017.9631 | 600 | 142.286.089.9831 | 590 | 142.290.230.9931 |
| L = 560 | 615 | 142.260.208.9631 | 650 | 142.286.060.9831 | 640 | 142.290.208.9931 |
| L = 610 | 665 | 142.260.003.9631 | 700 | 142.286.004.9831 | 690 | 142.290.216.9931 |
| L = 660 | 715 | 142.260.209.9631 | 750 | 142.286.005.9831 | 740 | 142.290.209.9931 |
| L = 710 | 765 | 142.260.004.9631 | 800 | 142.286.006.9831 | 790 | 142.290.217.9931 |
| L = 760 | 815 | 142.260.210.9631 | 850 | 142.286.007.9831 | 840 | 142.290.210.9931 |
| L = 810 | 865 | 142.260.005.9631 | 900 | 142.286.008.9831 | 890 | 142.290.218.9931 |
| L = 860 | 915 | 142.260.211.9631 | 950 | 142.286.009.9831 | 940 | 142.290.211.9931 |
| L = 910 | 965 | 142.260.006.9631 | 1000 | 142.286.010.9831 | 990 | 142.290.219.9931 |
| L = 1010 | 1065 | 142.260.212.9631 | 1100 | 142.286.011.9831 | 1090 | 142.290.212.9931 |
| L = 1110 | 1165 | 142.260.213.9631 | 1200 | 142.286.012.9831 | 1190 | 142.290.213.9931 |
| L = 1210 | 1265 | 142.260.214.9631 | 1300 | 142.286.013.9831 | 1290 | 142.290.214.9931 |
| L = 1310 | 1365 | 142.260.215.9631 | 1400 | 142.286.086.9831 | 1390 | 142.290.215.9931 |
| L = 1410 | 1465 | 142.260.216.9631 | 1500 | 142.286.088.9831 | 1490 | 142.290.246.9931 |

Per codifica e tipologia protezione vedere pag.
For coding and guard tipology see pag.

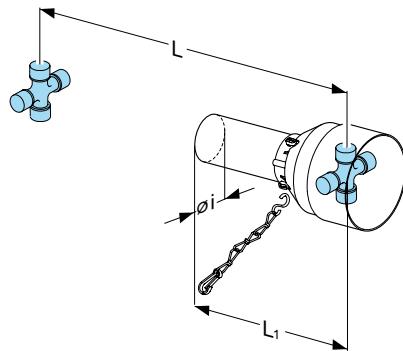
121



Esterna / Outer



Interna / Inner

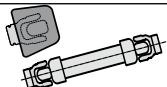


F-CE

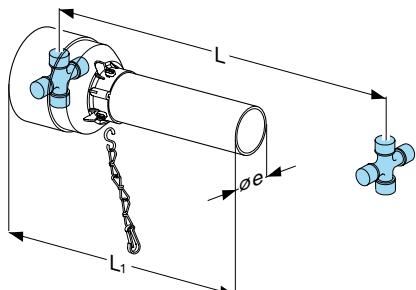
| Type | $\phi_e = 61 \text{ mm}$ | 10 | $\phi_e = 61 \text{ mm}$ | 20 | $\phi_e = 66.5 \text{ mm}$ | 40 | $\phi_e = 81.2 \text{ mm}$ | 50 | |
|-----------------|--------------------------|-----------|--------------------------|-----------|----------------------------|-----------|----------------------------|-----------|------------------|
| | L ₁ [mm] | Code | L ₁ [mm] | Code | L ₁ [mm] | Code | L ₁ [mm] | Code | |
| Esterna / Outer | L = 410 | 330 | 142.211.128.7131 | 330 | 142.221.136.9231 | 315 | 142.241.155.9431 | 320 | 142.256.008.9531 |
| | L = 460 | 380 | 142.211.126.7131 | 380 | 142.221.152.9231 | 365 | 142.241.146.9431 | 370 | 142.251.168.9531 |
| | L = 510 | 430 | 142.211.134.7131 | 430 | 142.221.137.9231 | 415 | 142.241.148.9431 | 420 | 142.251.144.9531 |
| | L = 560 | 480 | 142.211.121.7131 | 480 | 142.221.135.9231 | 465 | 142.241.175.9431 | 470 | 142.251.162.9531 |
| | L = 610 | 530 | 142.211.122.7131 | 530 | 142.221.139.9231 | 515 | 142.241.139.9431 | 520 | 142.251.137.9531 |
| | L = 660 | 580 | 142.216.007.7131 | 580 | 142.221.161.9231 | 565 | 142.241.150.9431 | 570 | 142.251.174.9531 |
| | L = 710 | 630 | 142.211.120.7131 | 630 | 142.221.128.9231 | 615 | 142.241.140.9431 | 620 | 142.251.143.9531 |
| | L = 760 | 680 | 142.211.129.7131 | 680 | 142.221.162.9231 | 665 | 142.241.141.9431 | 670 | 142.251.142.9531 |
| | L = 810 | 730 | 142.211.123.7131 | 730 | 142.221.138.9231 | 715 | 142.241.144.9431 | 720 | 142.251.146.9531 |
| | L = 860 | 780 | 142.216.008.7131 | 780 | 142.221.144.9231 | 765 | 142.246.012.9431 | 770 | 142.251.177.9531 |
| | L = 910 | 830 | 142.216.001.7131 | 830 | 142.221.147.9231 | 815 | 142.241.173.9431 | 820 | 142.251.154.9531 |
| | L = 1010 | 930 | 142.216.002.7131 | 930 | 142.221.127.9231 | 915 | 142.241.145.9431 | 920 | 142.251.150.9531 |
| | L = 1110 | 1030 | 142.211.133.7131 | 1030 | 142.221.129.9231 | 1015 | 142.241.509.9431 | 1020 | 142.256.009.9531 |
| | L = 1210 | 1130 | 142.216.003.7131 | 1130 | 142.226.001.9231 | 1115 | 142.241.149.9431 | 1120 | 142.256.010.9531 |
| | L = 1310 | 1230 | 142.216.004.7131 | 1230 | 142.221.148.9231 | 1215 | 142.241.192.9431 | 1220 | 142.256.011.9531 |
| | L = 1410 | 1330 | 142.216.005.7131 | 1330 | 142.226.002.9231 | 1315 | 142.246.009.9431 | 1320 | 142.251.176.9531 |

| Type | $\phi_i = 55.6 \text{ mm}$ | 10 | $\phi_i = 55.6 \text{ mm}$ | 20 | $\phi_i = 61 \text{ mm}$ | 40 | $\phi_i = 75 \text{ mm}$ | 50 | |
|-----------------|----------------------------|-----------|----------------------------|-----------|--------------------------|-----------|--------------------------|-----------|------------------|
| | L ₁ [mm] | Code | L ₁ [mm] | Code | L ₁ [mm] | Code | L ₁ [mm] | Code | |
| Interna / Inner | L = 410 | 330 | 142.211.222.7131 | 330 | 142.221.233.9231 | 315 | 142.241.252.9431 | 305 | 142.257.007.9531 |
| | L = 460 | 380 | 142.211.220.7131 | 380 | 142.221.247.9231 | 365 | 142.241.247.9431 | 355 | 142.251.264.9531 |
| | L = 510 | 430 | 142.211.219.7131 | 430 | 142.221.234.9231 | 415 | 142.241.254.9431 | 405 | 142.251.242.9531 |
| | L = 560 | 480 | 142.211.216.7131 | 480 | 142.221.231.9231 | 465 | 142.241.253.9431 | 455 | 142.251.249.9531 |
| | L = 610 | 530 | 142.211.217.7131 | 530 | 142.221.235.9231 | 515 | 142.241.237.9431 | 505 | 142.251.235.9531 |
| | L = 660 | 580 | 142.211.224.7131 | 580 | 142.221.257.9231 | 565 | 142.241.251.9431 | 565 | 142.257.016.9531 |
| | L = 710 | 630 | 142.211.215.7131 | 630 | 142.221.226.9231 | 615 | 142.241.241.9431 | 605 | 142.251.248.9531 |
| | L = 760 | 680 | 142.211.221.7131 | 680 | 142.221.242.9231 | 665 | 142.241.242.9431 | 665 | 142.251.240.9531 |
| | L = 810 | 730 | 142.211.218.7131 | 730 | 142.221.228.9231 | 715 | 142.241.245.9431 | 705 | 142.251.244.9531 |
| | L = 860 | 780 | 142.217.007.7131 | 780 | 142.221.240.9231 | 765 | 142.241.274.9431 | 765 | 142.251.253.9531 |
| | L = 910 | 830 | 142.217.001.7131 | 830 | 142.221.244.9231 | 815 | 142.241.256.9431 | 805 | 142.251.250.9531 |
| | L = 1010 | 930 | 142.217.002.7131 | 930 | 142.221.225.9231 | 915 | 142.241.246.9431 | 905 | 142.251.255.9531 |
| | L = 1110 | 1030 | 142.211.225.7131 | 1030 | 142.221.227.9231 | 1015 | 142.241.301.9431 | 1005 | 142.257.008.9531 |
| | L = 1210 | 1130 | 142.217.003.7131 | 1130 | 142.221.251.9231 | 1115 | 142.241.243.9431 | 1105 | 142.251.274.9531 |
| | L = 1310 | 1230 | 142.217.004.7131 | 1230 | 142.221.245.9231 | 1215 | 142.241.288.9431 | 1205 | 142.257.009.9531 |
| | L = 1410 | 1330 | 142.217.005.7131 | 1330 | 142.227.001.9231 | 1315 | 142.247.015.9431 | 1305 | 142.257.010.9531 |

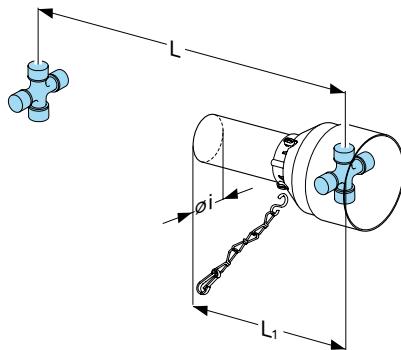
Per codifica e tipologia protezione vedere pag.
For coding and guard tipology see pag.



Esterna / Outer



Interna / Inner

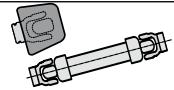


F-CE

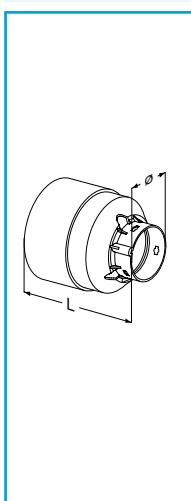
| Type | $\phi_e = 81.2 \text{ mm}$ | 60 | $\phi_e = 96 \text{ mm}$ | 80 | $\phi_e = 96 \text{ mm}$ | 90 | |
|-----------------|----------------------------|-----------|--------------------------|-----------|--------------------------|-----------|------------------|
| | L_1 [mm] | Code | L_1 [mm] | Code | L_1 [mm] | Code | |
| Esterna / Outer | L = 410 | 305 | 142.266.050.9631 | 305 | 142.283.028.9831 | 295 | 142.296.026.9931 |
| | L = 460 | 355 | 142.261.004.9631 | 355 | 142.281.171.9831 | 345 | 142.296.001.9931 |
| | L = 510 | 405 | 142.261.188.9631 | 405 | 142.281.141.9831 | 395 | 142.296.017.9931 |
| | L = 560 | 455 | 142.261.141.9631 | 455 | 142.281.138.9831 | 445 | 142.296.002.9931 |
| | L = 610 | 505 | 142.261.154.9631 | 505 | 142.281.170.9831 | 495 | 142.291.102.9931 |
| | L = 660 | 555 | 142.261.199.9631 | 555 | 142.281.155.9831 | 545 | 142.296.003.9931 |
| | L = 710 | 605 | 142.261.006.9631 | 605 | 142.281.181.9831 | 595 | 142.296.009.9931 |
| | L = 760 | 655 | 142.261.152.9631 | 655 | 142.281.169.9831 | 645 | 142.296.004.9931 |
| | L = 810 | 705 | 142.261.171.9631 | 705 | 142.281.174.9831 | 695 | 142.296.010.9931 |
| | L = 860 | 755 | 142.261.170.9631 | 755 | 142.281.154.9831 | 745 | 142.291.101.9931 |
| | L = 910 | 805 | 142.261.148.9631 | 805 | 142.281.144.9831 | 795 | 142.296.011.9931 |
| | L = 1010 | 905 | 142.261.147.9631 | 905 | 142.283.004.9831 | 895 | 142.296.005.9931 |
| | L = 1110 | 1005 | 142.261.039.9631 | 1005 | 142.281.189.9831 | 995 | 142.296.006.9931 |
| | L = 1210 | 1105 | 142.261.156.9631 | 1105 | 142.281.157.9831 | 1095 | 142.296.007.9931 |
| | L = 1310 | 1205 | 142.261.190.9631 | 1205 | 142.283.001.9831 | 1195 | 142.296.008.9931 |
| | L = 1410 | 1305 | 142.266.027.9631 | 1305 | 142.283.059.9831 | 1295 | 142.296.027.9931 |

| Type | $\phi_i = 75 \text{ mm}$ | 60 | $\phi_i = 89.9 \text{ mm}$ | 80 | $\phi_i = 89.9 \text{ mm}$ | 90 | |
|-----------------|--------------------------|-----------|----------------------------|-----------|----------------------------|-----------|------------------|
| | L_1 [mm] | Code | L_1 [mm] | Code | L_1 [mm] | Code | |
| Interna / Inner | L = 410 | 300 | 142.267.040.9631 | 305 | 142.287.029.9831 | 295 | 142.297.027.9931 |
| | L = 460 | 350 | 142.261.315.9631 | 355 | 142.287.007.9831 | 345 | 142.297.001.9931 |
| | L = 510 | 400 | 142.261.284.9631 | 405 | 142.287.036.9831 | 395 | 142.297.015.9931 |
| | L = 560 | 450 | 142.261.238.9631 | 455 | 142.281.285.9831 | 445 | 142.297.002.9931 |
| | L = 610 | 500 | 142.261.262.9631 | 505 | 142.281.271.9831 | 495 | 142.297.009.9931 |
| | L = 660 | 550 | 142.261.256.9631 | 555 | 142.281.262.9831 | 545 | 142.297.003.9931 |
| | L = 710 | 600 | 142.261.266.9631 | 605 | 142.287.003.9831 | 595 | 142.297.010.9931 |
| | L = 760 | 650 | 142.261.250.9631 | 655 | 142.281.272.9831 | 645 | 142.297.004.9931 |
| | L = 810 | 700 | 142.261.275.9631 | 705 | 142.281.265.9831 | 695 | 142.291.203.9931 |
| | L = 860 | 750 | 142.261.268.9631 | 755 | 142.281.257.9831 | 745 | 142.291.201.9931 |
| | L = 910 | 800 | 142.261.246.9631 | 805 | 142.281.253.9831 | 795 | 142.297.011.9931 |
| | L = 1010 | 900 | 142.261.274.9631 | 905 | 142.287.004.9831 | 895 | 142.297.005.9931 |
| | L = 1110 | 1000 | 142.261.281.9631 | 1005 | 142.287.005.9831 | 995 | 142.297.006.9931 |
| | L = 1210 | 1100 | 142.261.213.9631 | 1105 | 142.281.264.9831 | 1095 | 142.297.007.9931 |
| | L = 1310 | 1200 | 142.261.285.9631 | 1205 | 142.287.001.9831 | 1195 | 142.297.008.9931 |
| | L = 1410 | 1300 | 142.267.025.9631 | 1305 | 142.287.043.9831 | 1295 | 142.297.028.9931 |

Per codifica e tipologia protezione vedere pag.
For coding and guard tipology see pag.

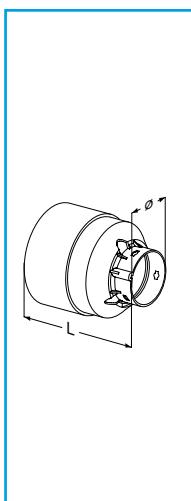


Cuffia esterna / Outer Cone



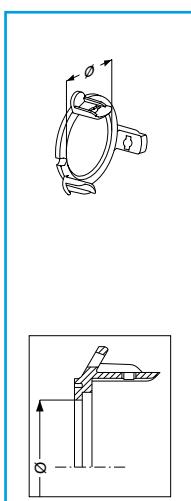
| | | 10 | | 20 | | 40 | | 50 | | 60 | | 80 | | 90 | |
|----------------|----------|-------------------------------|--------------------|-------------------------------|--------------------|---------------------------------|--------------------|---------------------------------|--------------------|---------------------------------|--------------------|-------------------------------|--------------------|-------------------------------|--------------------|
| <i>Version</i> | | $\varnothing = 61 \text{ mm}$ | | $\varnothing = 61 \text{ mm}$ | | $\varnothing = 66.5 \text{ mm}$ | | $\varnothing = 81.2 \text{ mm}$ | | $\varnothing = 81.2 \text{ mm}$ | | $\varnothing = 96 \text{ mm}$ | | $\varnothing = 96 \text{ mm}$ | |
| | | L [mm] | Code | L [mm] | Code | L [mm] | Code | L [mm] | Code | L [mm] | Code | L [mm] | Code | L [mm] | Code |
| CU | Short | 76 | 158.032.198 | 76 | 158.032.198 | 94 | 158.034.411 | 104 | 180.036.435 | 104 | 180.036.435 | 108 | 180.038.259 | 108 | 180.038.126 |
| | Standard | 140 | 180.032.182 | 140 | 180.032.182 | 149 | 180.034.237 | 165 | 180.036.234 | 165 | 180.036.024 | 192 | 180.038.253 | 192 | 180.038.253 |
| | Long | 210 | 180.031.387 | 210 | 180.031.387 | 234 | 180.034.622 | 274 | 180.036.796 | 274 | 180.036.796 | - | - | - | - |
| FL | Short | 76 | 158.022.198 | 76 | 158.022.198 | 94 | 158.024.411 | 104 | 180.026.435 | 104 | 180.026.435 | 108 | 180.028.259 | 108 | 180.028.259 |
| | Standard | 140 | 180.022.182 | 140 | 180.022.182 | 149 | 180.024.237 | 165 | 180.026.234 | 165 | 180.026.234 | 192 | 180.028.253 | 192 | 180.029.253 |
| | Long | 210 | 180.022.517 | 210 | 180.022.517 | 234 | 180.024.384 | 274 | 180.025.430 | 274 | 180.025.430 | - | - | - | - |

Cuffia interna / Inner Cone

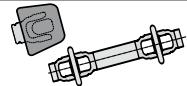


| | | 10 | | 20 | | 40 | | 50 | | 60 | | 80 | | 90 | |
|----------------|----------|---------------------------------|--------------------|---------------------------------|--------------------|-------------------------------|--------------------|-------------------------------|--------------------|-------------------------------|--------------------|---------------------------------|--------------------|---------------------------------|--------------------|
| <i>Version</i> | | $\varnothing = 55.6 \text{ mm}$ | | $\varnothing = 55.6 \text{ mm}$ | | $\varnothing = 61 \text{ mm}$ | | $\varnothing = 75 \text{ mm}$ | | $\varnothing = 75 \text{ mm}$ | | $\varnothing = 89.9 \text{ mm}$ | | $\varnothing = 89.9 \text{ mm}$ | |
| | | L [mm] | Code | L [mm] | Code | L [mm] | Code | L [mm] | Code | L [mm] | Code | L [mm] | Code | L [mm] | Code |
| CE | Short | 76 | 158.032.429 | 76 | 158.032.429 | 94 | 180.034.383 | 104 | 180.036.242 | 104 | 180.036.242 | 108 | 180.038.260 | 108 | 180.038.260 |
| | Standard | 140 | 180.032.181 | 140 | 180.032.181 | 149 | 180.034.234 | 151 | 180.035.359 | 159 | 180.036.239 | 192 | 180.038.254 | 192 | 180.038.254 |
| | Long | 210 | 180.031.384 | 210 | 180.031.384 | 234 | 180.034.298 | 274 | 180.036.436 | 274 | 180.036.436 | - | - | - | - |
| FL | Short | 76 | 158.022.429 | 76 | 158.022.429 | 94 | 180.024.383 | 104 | 180.026.242 | 104 | 180.026.242 | 108 | 180.028.260 | 108 | 180.028.260 |
| | Standard | 140 | 180.022.181 | 140 | 180.022.181 | 149 | 180.024.234 | 151 | 180.025.359 | 159 | 180.026.239 | 192 | 180.028.254 | 192 | 180.028.254 |
| | Long | 210 | 180.021.268 | 210 | 180.021.268 | 234 | 180.024.610 | 274 | 180.026.669 | 274 | 180.026.669 | - | - | - | - |

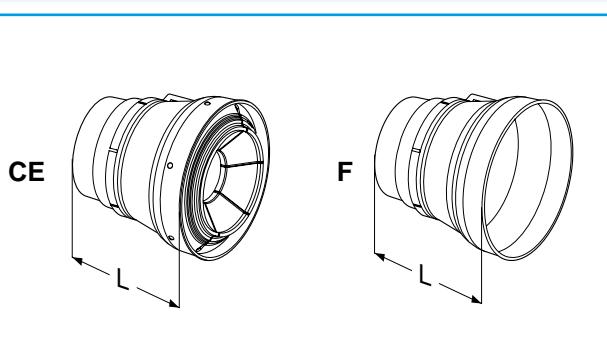
Ghiera / Retaining Collar



| | | 10 | | 20 | | 40 | | 50 | | 60 | | 80 | | 90 | |
|----------------------|--------------------|-------------------------------|--|-------------------------------|--|-------------------------------|--|---------------------------------|--|-------------------------------|--|---------------------------------|--|---------------------------------|--|
| <i>Esterna Outer</i> | | $\varnothing = 40 \text{ mm}$ | | $\varnothing = 46 \text{ mm}$ | | $\varnothing = 54 \text{ mm}$ | | $\varnothing = 62.5 \text{ mm}$ | | $\varnothing = 69 \text{ mm}$ | | $\varnothing = 81.5 \text{ mm}$ | | $\varnothing = 81.5 \text{ mm}$ | |
| | | Code | | Code | | Code | | Code | | Code | | Code | | Code | |
| CE | 180.011.242 | | | 180.012.184 | | 180.014.233 | | 180.015.288 | | 180.016.237 | | 180.019.251 | | 180.019.251 | |
| | 180.011.241 | | | 180.012.183 | | 180.014.232 | | 180.015.289 | | 180.016.238 | | 180.019.252 | | 180.019.252 | |
| <i>Interna Inner</i> | | $\varnothing = 34 \text{ mm}$ | | $\varnothing = 40 \text{ mm}$ | | $\varnothing = 47 \text{ mm}$ | | $\varnothing = 54.5 \text{ mm}$ | | $\varnothing = 60 \text{ mm}$ | | $\varnothing = 69.5 \text{ mm}$ | | $\varnothing = 69.5 \text{ mm}$ | |



Cuffia / Cone



| Versione Version | 20 L [mm] | Code | 40 L [mm] | Code | 60 L [mm] | Code | 80 L [mm] | Code |
|---------------------|-----------------|--------------------|-----------------|--------------------|-----------------|--------------------|-----------------|--------------------|
| CE | 192 | 180.022.199 | 235 | 180.026.439 | 235 | 180.026.439 | 248 | 180.028.265 |
| F | 192 | 180.012.199 | 235 | 180.016.439 | 235 | 180.016.439 | 248 | 180.018.265 |

Ghiera / Retaining Collar

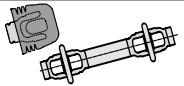
| Versione Version | 20 Ø [mm] | Code | 40 Ø [mm] | Code | 60 Ø [mm] | Code | 80 Ø [mm] | Code |
|---------------------|-----------------|--------------------|-----------------|--------------------|-----------------|--------------------|-----------------|--------------------|
| F-CE | 171 | 180.012.200 | 187 | 180.016.440 | 187 | 180.016.440 | 210 | 180.018.264 |

kit cuffia / Guard cone set

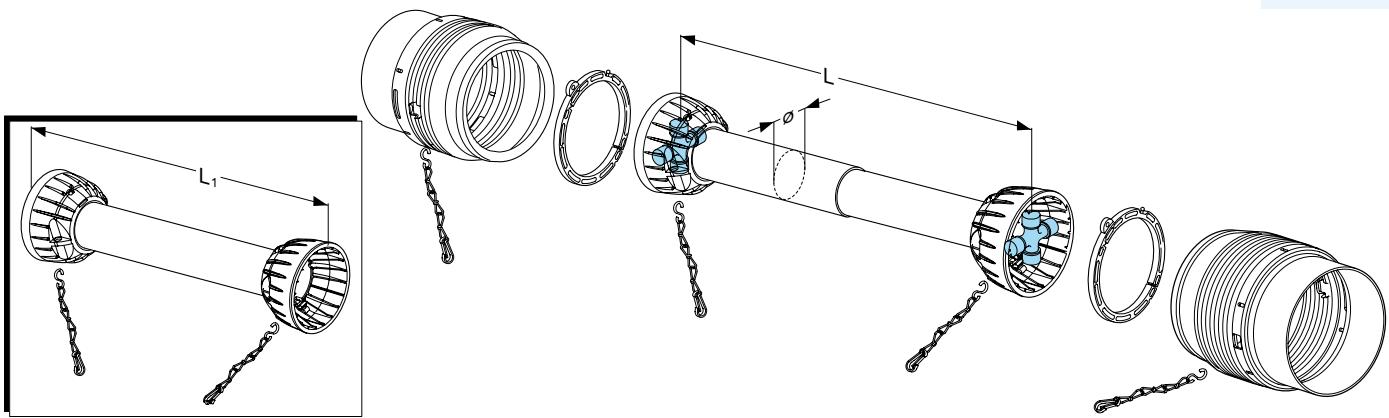
| Versione Version | 20 Code | 40 Code | 60 Code | 80 Code |
|---------------------|-------------|-------------|-------------|-------------|
| CE | 165.000.673 | 165.000.674 | 165.000.674 | 165.000.675 |
| F | 165.000.670 | 165.000.671 | 165.000.671 | 165.000.672 |

Catenella di sicurezza / Safety Chain

| | |
|------------------|------------------|
| | |
| Code 180.016.790 | Code 180.014.240 |



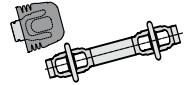
N-EN



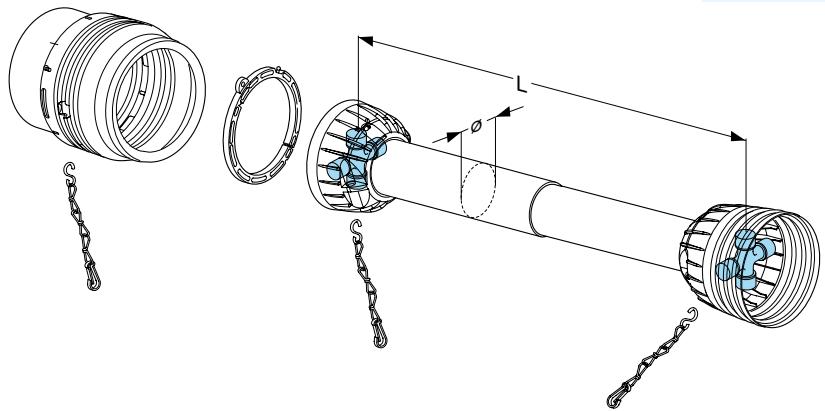
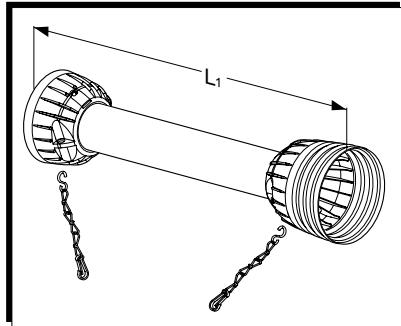
| Type | $\varnothing = 61 \text{ mm}$ | 20 | $\varnothing = 66.5 \text{ mm}$ | 40 | $\varnothing = 81.2 \text{ mm}$ | 60 | $\varnothing = 96 \text{ mm}$ | 80 |
|----------|-------------------------------|------------------|---------------------------------|------------------|---------------------------------|------------------|-------------------------------|------------------|
| | L_1 [mm] | Code | L_1 [mm] | Code | L_1 [mm] | Code | L_1 [mm] | Code |
| L = 410 | 338 | 142.922.506.2251 | 343 | 142.942.506.2451 | 344 | 142.962.501.2651 | 336 | 142.982.501.2851 |
| L = 460 | 388 | 142.922.501.2251 | 393 | 142.942.501.2451 | 394 | 142.962.507.2651 | 386 | 142.982.507.2851 |
| L = 510 | 438 | 142.922.507.2251 | 443 | 142.942.507.2451 | 444 | 142.962.502.2651 | 436 | 142.982.502.2851 |
| L = 560 | 488 | 142.922.502.2251 | 493 | 142.942.502.2451 | 494 | 142.962.508.2651 | 486 | 142.982.508.2851 |
| L = 610 | 538 | 142.922.508.2251 | 543 | 142.942.508.2451 | 544 | 142.962.503.2651 | 536 | 142.982.503.2851 |
| L = 660 | 588 | 142.922.503.2251 | 593 | 142.942.503.2451 | 594 | 142.962.509.2651 | 586 | 142.982.509.2851 |
| L = 710 | 638 | 142.922.509.2251 | 643 | 142.942.509.2451 | 644 | 142.962.504.2651 | 636 | 142.982.504.2851 |
| L = 760 | 688 | 142.922.504.2251 | 693 | 142.942.504.2451 | 694 | 142.962.510.2651 | 686 | 142.982.510.2851 |
| L = 810 | 738 | 142.922.510.2251 | 743 | 142.942.510.2451 | 744 | 142.962.505.2651 | 736 | 142.982.505.2851 |
| L = 860 | 788 | 142.922.505.2251 | 793 | 142.942.505.2451 | 794 | 142.962.511.2651 | 786 | 142.982.511.2851 |
| L = 910 | 838 | 142.922.511.2251 | 843 | 142.942.511.2451 | 844 | 142.962.517.2651 | 836 | 142.982.517.2851 |
| L = 1010 | 938 | 142.922.512.2251 | 943 | 142.942.512.2451 | 944 | 142.962.512.2651 | 936 | 142.982.512.2851 |
| L = 1110 | 1038 | 142.922.513.2251 | 1043 | 142.942.513.2451 | 1044 | 142.962.513.2651 | 1036 | 142.982.513.2851 |
| L = 1210 | 1138 | 142.922.514.2251 | 1143 | 142.942.514.2451 | 1144 | 142.962.514.2651 | 1136 | 142.982.514.2851 |
| L = 1310 | 1238 | 142.922.515.2251 | 1243 | 142.942.515.2451 | 1244 | 142.962.515.2651 | 1236 | 142.982.515.2851 |
| L = 1410 | 1388 | 142.922.516.2251 | 1343 | 142.942.516.2451 | 1344 | 142.962.516.2651 | 1336 | 142.982.516.2851 |

Per codifica e tipologia protezione vedere pag.
For coding and guard tipology see pag.

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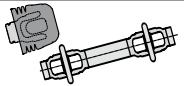
N-EN



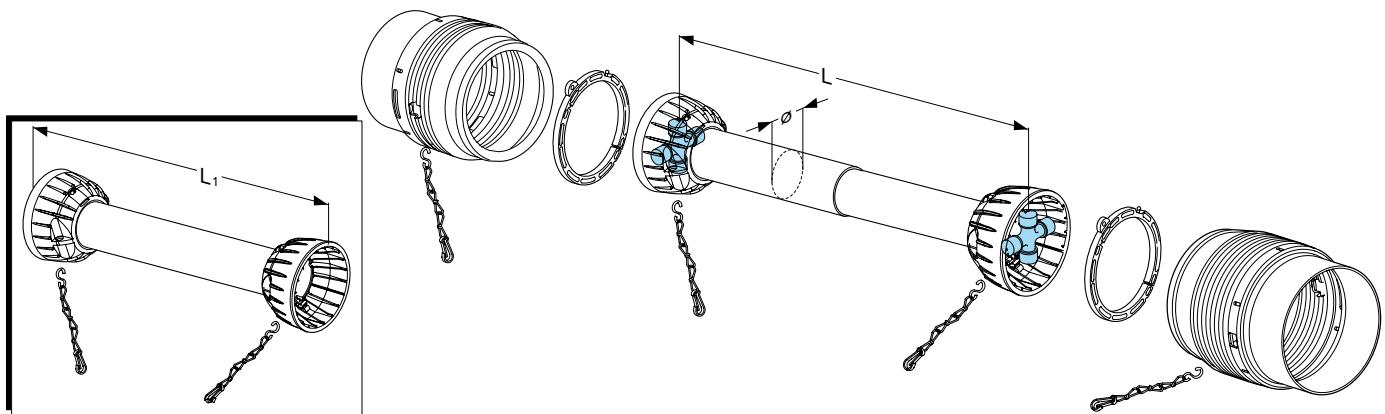
| Type | $\varnothing = 61 \text{ mm}$ | 20 | $\varnothing = 66.5 \text{ mm}$ | 40 | $\varnothing = 81.2 \text{ mm}$ | 60 | $\varnothing = 96 \text{ mm}$ | 80 |
|----------|-------------------------------|------------------|---------------------------------|------------------|---------------------------------|------------------|-------------------------------|------------------|
| | L_1 [mm] | Code | L_1 [mm] | Code | L_1 [mm] | Code | L_1 [mm] | Code |
| L = 410 | 396 | 142.921.506.2251 | 397 | 142.941.506.2451 | 405 | 142.961.501.2651 | 413 | 142.981.501.2851 |
| L = 460 | 446 | 142.921.501.2251 | 447 | 142.941.501.2451 | 455 | 142.961.507.2651 | 463 | 142.981.507.2851 |
| L = 510 | 496 | 142.921.507.2251 | 497 | 142.941.507.2451 | 505 | 142.961.502.2651 | 513 | 142.981.502.2851 |
| L = 560 | 546 | 142.921.502.2251 | 547 | 142.941.502.2451 | 555 | 142.961.508.2651 | 563 | 142.981.508.2851 |
| L = 610 | 596 | 142.921.508.2251 | 597 | 142.941.508.2451 | 605 | 142.961.503.2651 | 613 | 142.981.503.2851 |
| L = 660 | 646 | 142.921.503.2251 | 647 | 142.941.503.2451 | 655 | 142.961.509.2651 | 663 | 142.981.509.2851 |
| L = 710 | 696 | 142.921.509.2251 | 697 | 142.941.509.2451 | 705 | 142.961.504.2651 | 713 | 142.981.504.2851 |
| L = 760 | 746 | 142.921.504.2251 | 747 | 142.941.504.2451 | 755 | 142.961.510.2651 | 763 | 142.981.510.2851 |
| L = 810 | 796 | 142.921.510.2251 | 797 | 142.941.510.2451 | 805 | 142.961.505.2651 | 813 | 142.981.505.2851 |
| L = 860 | 846 | 142.921.505.2251 | 847 | 142.941.505.2451 | 855 | 142.961.511.2651 | 863 | 142.981.511.2851 |
| L = 910 | 896 | 142.921.511.2251 | 897 | 142.941.511.2451 | 905 | 142.961.517.2651 | 913 | 142.981.517.2851 |
| L = 1010 | 996 | 142.921.512.2251 | 997 | 142.941.512.2451 | 1005 | 142.961.512.2651 | 1013 | 142.981.512.2851 |
| L = 1110 | 1096 | 142.921.513.2251 | 1097 | 142.941.513.2451 | 1105 | 142.961.513.2651 | 1113 | 142.981.513.2851 |
| L = 1210 | 1196 | 142.921.514.2251 | 1197 | 142.941.514.2451 | 1205 | 142.961.514.2651 | 1213 | 142.981.514.2851 |
| L = 1310 | 1296 | 142.921.515.2251 | 1297 | 142.941.515.2451 | 1305 | 142.961.515.2651 | 1313 | 142.981.515.2851 |
| L = 1410 | 1396 | 142.921.516.2251 | 1397 | 142.941.516.2451 | 1405 | 142.961.516.2651 | 1413 | 142.981.516.2851 |

Per codifica e tipologia protezione vedere pag.
For coding and guard tipology see pag.

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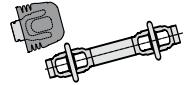
N-EN



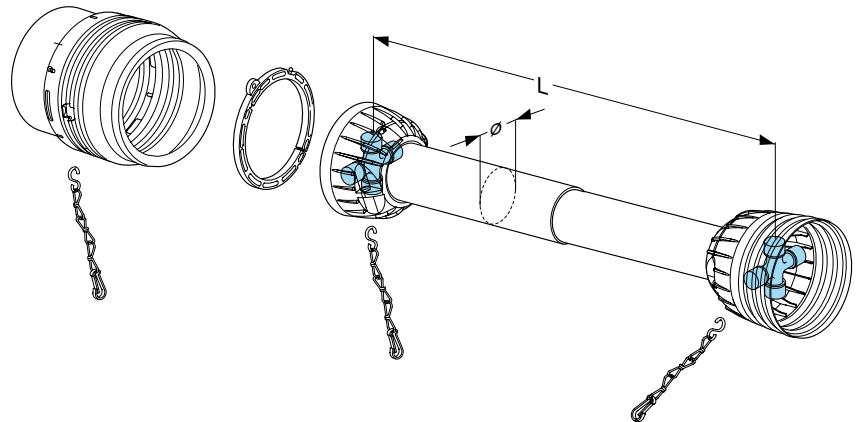
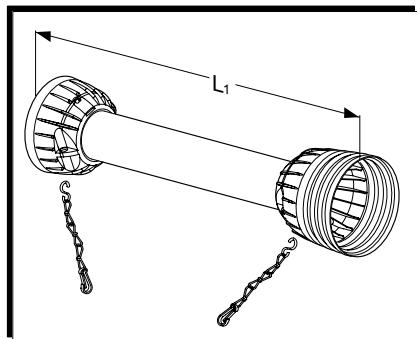
| Type | $\varnothing = 61 \text{ mm}$ | 20 | $\varnothing = 66.5 \text{ mm}$ | 40 | $\varnothing = 81.2 \text{ mm}$ | 60 | $\varnothing = 96 \text{ mm}$ | 80 |
|----------|-------------------------------|------------------|---------------------------------|------------------|---------------------------------|------------------|-------------------------------|------------------|
| | L_1 [mm] | Code | L_1 [mm] | Code | L_1 [mm] | Code | L_1 [mm] | Code |
| L = 410 | 338 | 142.722.506.3251 | 343 | 142.742.506.3451 | 344 | 142.762.501.3651 | 336 | 142.782.501.3851 |
| L = 460 | 388 | 142.722.501.3251 | 393 | 142.742.501.3451 | 394 | 142.762.507.3651 | 386 | 142.782.507.3851 |
| L = 510 | 438 | 142.722.507.3251 | 443 | 142.742.507.3451 | 444 | 142.762.502.3651 | 436 | 142.782.502.3851 |
| L = 560 | 488 | 142.722.502.3251 | 493 | 142.742.502.3451 | 494 | 142.762.508.3651 | 486 | 142.782.508.3851 |
| L = 610 | 538 | 142.722.508.3251 | 543 | 142.742.508.3451 | 544 | 142.762.503.3651 | 536 | 142.782.503.3851 |
| L = 660 | 588 | 142.722.503.3251 | 593 | 142.742.503.3451 | 594 | 142.762.509.3651 | 586 | 142.782.509.3851 |
| L = 710 | 638 | 142.722.509.3251 | 643 | 142.742.509.3451 | 644 | 142.762.504.3651 | 636 | 142.782.504.3851 |
| L = 760 | 688 | 142.722.504.3251 | 693 | 142.742.504.3451 | 694 | 142.762.510.3651 | 686 | 142.782.510.3851 |
| L = 810 | 738 | 142.722.510.3251 | 743 | 142.742.510.3451 | 744 | 142.762.505.3651 | 736 | 142.782.505.3851 |
| L = 860 | 788 | 142.722.505.3251 | 793 | 142.742.505.3451 | 794 | 142.762.511.3651 | 786 | 142.782.511.3851 |
| L = 910 | 838 | 142.722.511.3251 | 843 | 142.742.511.3451 | 844 | 142.762.517.3651 | 836 | 142.782.517.3851 |
| L = 1010 | 938 | 142.722.512.3251 | 943 | 142.742.512.3451 | 944 | 142.762.512.3651 | 936 | 142.782.512.3851 |
| L = 1110 | 1038 | 142.722.513.3251 | 1043 | 142.742.513.3451 | 1044 | 142.762.513.3651 | 1036 | 142.782.513.3851 |
| L = 1210 | 1138 | 142.722.514.3251 | 1143 | 142.742.514.3451 | 1144 | 142.762.514.3651 | 1136 | 142.782.514.3851 |
| L = 1310 | 1238 | 142.722.515.3251 | 1243 | 142.742.515.3451 | 1244 | 142.762.515.3651 | 1236 | 142.782.515.3851 |
| L = 1410 | 1338 | 142.722.516.3251 | 1343 | 142.742.516.3451 | 1344 | 142.762.516.3651 | 1336 | 142.782.516.3851 |

Per codifica e tipologia protezione vedere pag.
For coding and guard tipology see pag.

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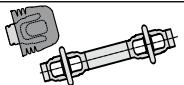
N-EN



| Type | $\varnothing = 61 \text{ mm}$ | 20 | $\varnothing = 66.5 \text{ mm}$ | 40 | $\varnothing = 81.2 \text{ mm}$ | 60 | $\varnothing = 96 \text{ mm}$ | 80 |
|----------|-------------------------------|------------------|---------------------------------|------------------|---------------------------------|------------------|-------------------------------|------------------|
| | L_1 [mm] | Code | L_1 [mm] | Code | L_1 [mm] | Code | L_1 [mm] | Code |
| L = 410 | 396 | 142.721.506.3251 | 397 | 142.741.506.3451 | 405 | 142.761.509.3651 | 413 | 142.781.501.3851 |
| L = 460 | 446 | 142.721.501.3251 | 447 | 142.741.501.3451 | 455 | 142.761.510.3651 | 463 | 142.781.507.3851 |
| L = 510 | 496 | 142.721.507.3251 | 497 | 142.741.507.3451 | 505 | 142.761.511.3651 | 513 | 142.781.502.3851 |
| L = 560 | 546 | 142.721.502.3251 | 547 | 142.741.502.3451 | 555 | 142.761.501.3651 | 563 | 142.781.508.3851 |
| L = 610 | 596 | 142.721.508.3251 | 597 | 142.741.508.3451 | 605 | 142.761.507.3651 | 613 | 142.781.503.3851 |
| L = 660 | 646 | 142.721.503.3251 | 647 | 142.741.503.3451 | 655 | 142.761.505.3651 | 663 | 142.781.509.3851 |
| L = 710 | 696 | 142.721.509.3251 | 697 | 142.741.509.3451 | 705 | 142.761.502.3651 | 713 | 142.781.504.3851 |
| L = 760 | 746 | 142.721.504.3251 | 747 | 142.741.504.3451 | 755 | 142.761.512.3651 | 763 | 142.781.510.3851 |
| L = 810 | 796 | 142.721.510.3251 | 797 | 142.741.510.3451 | 805 | 142.761.504.3651 | 813 | 142.781.505.3851 |
| L = 860 | 846 | 142.721.505.3251 | 847 | 142.741.505.3451 | 855 | 142.761.500.3651 | 863 | 142.781.511.3851 |
| L = 910 | 896 | 142.721.511.3251 | 897 | 142.741.511.3451 | 905 | 142.761.513.3651 | 913 | 142.781.517.3851 |
| L = 1010 | 996 | 142.721.512.3251 | 997 | 142.741.512.3451 | 1005 | 142.761.514.3651 | 1013 | 142.781.512.3851 |
| L = 1110 | 1096 | 142.721.513.3251 | 1097 | 142.741.513.3451 | 1105 | 142.761.515.3651 | 1113 | 142.781.513.3851 |
| L = 1210 | 1196 | 142.721.514.3251 | 1197 | 142.741.514.3451 | 1205 | 142.761.516.3651 | 1213 | 142.781.514.3851 |
| L = 1310 | 1296 | 142.721.515.3251 | 1297 | 142.741.515.3451 | 1305 | 142.761.517.3651 | 1313 | 142.781.515.3851 |
| L = 1410 | 1396 | 142.721.516.3251 | 1397 | 142.741.516.3451 | 1405 | 142.761.518.3651 | 1413 | 142.781.516.3851 |

Per codifica e tipologia protezione vedere pag.
For coding and guard tipology see pag.

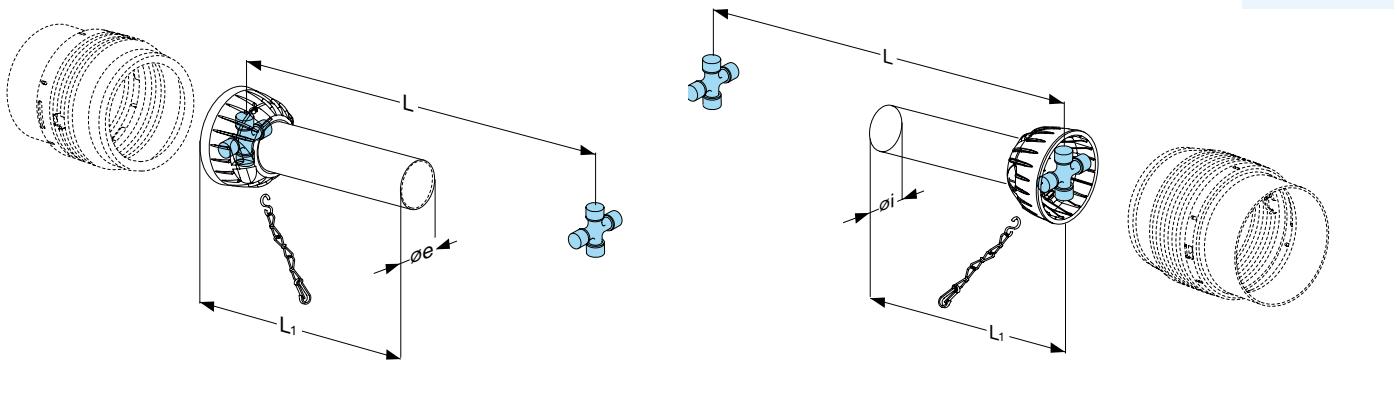
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Esterna / Outer

Interna / Inner

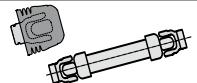
N-EN



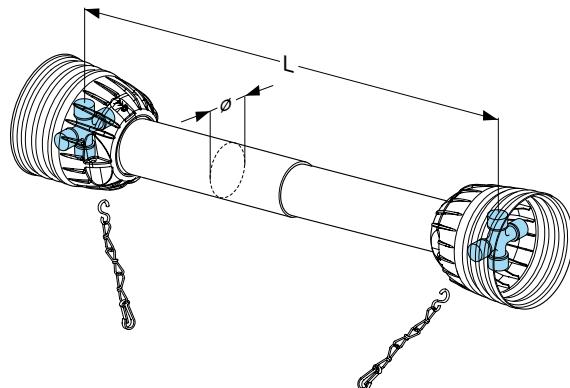
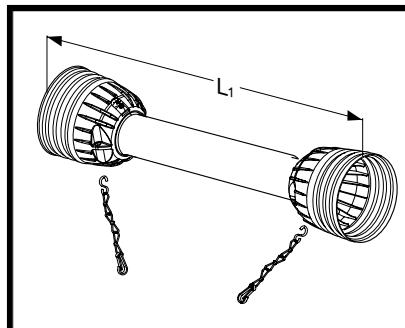
| Type | $\phi_e = 61 \text{ mm}$ 20 | $\phi_e = 66.5 \text{ mm}$ 40 | $\phi_e = 81.2 \text{ mm}$ 60 | $\phi_e = 96 \text{ mm}$ 80 | | | | |
|-----------------|--------------------------------|----------------------------------|----------------------------------|--------------------------------|------------------|------|------------------|------|
| | L_1 [mm] | Code | L_1 [mm] | Code | L_1 [mm] | Code | L_1 [mm] | Code |
| Esterna / Outer | L = 410 | 269 | 142.326.019.2251 | 259 | 142.346.019.2451 | 252 | 142.366.017.2651 | 233 |
| | L = 460 | 319 | 142.326.020.2251 | 309 | 142.346.020.2451 | 302 | 142.366.023.2651 | 283 |
| | L = 510 | 369 | 142.326.021.2251 | 359 | 142.346.021.2451 | 352 | 142.366.018.2651 | 333 |
| | L = 560 | 419 | 142.326.022.2251 | 409 | 142.346.022.2451 | 402 | 142.366.024.2651 | 383 |
| | L = 610 | 469 | 142.326.023.2251 | 459 | 142.346.023.2451 | 452 | 142.366.019.2651 | 433 |
| | L = 660 | 519 | 142.326.024.2251 | 509 | 142.346.024.2451 | 502 | 142.366.025.2651 | 483 |
| | L = 710 | 569 | 142.326.025.2251 | 559 | 142.346.025.2451 | 552 | 142.366.020.2651 | 533 |
| | L = 760 | 619 | 142.326.026.2251 | 609 | 142.346.026.2451 | 602 | 142.366.026.2651 | 583 |
| | L = 810 | 669 | 142.326.027.2251 | 659 | 142.346.027.2451 | 652 | 142.366.021.2651 | 633 |
| | L = 860 | 719 | 142.326.028.2251 | 709 | 142.346.028.2451 | 702 | 142.366.027.2651 | 683 |
| | L = 910 | 769 | 142.326.029.2251 | 759 | 142.346.029.2451 | 752 | 142.366.034.9651 | 733 |
| | L = 1010 | 869 | 142.326.030.2251 | 859 | 142.346.030.2451 | 852 | 142.366.028.2651 | 833 |
| | L = 1110 | 969 | 142.326.031.2251 | 959 | 142.346.031.2451 | 952 | 142.366.029.2651 | 933 |
| | L = 1210 | 1069 | 142.326.032.2251 | 1059 | 142.346.032.2451 | 1052 | 142.366.030.2651 | 1033 |
| | L = 1310 | 1169 | 142.326.033.2251 | 1159 | 142.346.033.2451 | 1152 | 142.366.031.2651 | 1133 |
| | L = 1410 | 1269 | 142.326.034.2251 | 1259 | 142.346.034.2451 | 1252 | 142.366.032.2651 | 1233 |

| Type | $\phi_i = 55.6 \text{ mm}$ 20 | $\phi_i = 61 \text{ mm}$ 40 | $\phi_i = 75 \text{ mm}$ 60 | $\phi_i = 89.9 \text{ mm}$ 80 | | | | |
|-----------------|----------------------------------|--------------------------------|--------------------------------|----------------------------------|------------------|------|------------------|------|
| | L_1 [mm] | Code | L_1 [mm] | Code | L_1 [mm] | Code | L_1 [mm] | Code |
| Interna / Inner | L = 410 | 269 | 142.327.019.2251 | 259 | 142.347.019.2451 | 252 | 142.367.017.2651 | 233 |
| | L = 460 | 319 | 142.327.020.2251 | 309 | 142.347.020.2451 | 302 | 142.367.023.2651 | 283 |
| | L = 510 | 369 | 142.327.021.2251 | 359 | 142.347.021.2451 | 352 | 142.367.018.2651 | 333 |
| | L = 560 | 419 | 142.327.022.2251 | 409 | 142.347.022.2451 | 402 | 142.367.024.2651 | 383 |
| | L = 610 | 469 | 142.327.023.2251 | 459 | 142.347.023.2451 | 452 | 142.367.019.2651 | 433 |
| | L = 660 | 519 | 142.327.024.2251 | 509 | 142.347.024.2451 | 502 | 142.367.025.2651 | 483 |
| | L = 710 | 569 | 142.327.025.2251 | 559 | 142.347.025.2451 | 552 | 142.367.020.2651 | 533 |
| | L = 760 | 619 | 142.327.026.2251 | 609 | 142.347.026.2451 | 602 | 142.367.026.2651 | 583 |
| | L = 810 | 669 | 142.327.027.2251 | 659 | 142.347.027.2451 | 652 | 142.367.021.2651 | 633 |
| | L = 860 | 719 | 142.327.028.2251 | 709 | 142.347.028.2451 | 702 | 142.367.027.2651 | 683 |
| | L = 910 | 769 | 142.327.029.2251 | 759 | 142.347.029.2451 | 752 | 142.367.034.9651 | 733 |
| | L = 1010 | 869 | 142.327.030.2251 | 859 | 142.347.030.2451 | 852 | 142.367.028.2651 | 833 |
| | L = 1110 | 969 | 142.327.031.2251 | 959 | 142.347.031.2451 | 952 | 142.367.029.2651 | 933 |
| | L = 1210 | 1069 | 142.327.032.2251 | 1059 | 142.347.032.2451 | 1052 | 142.367.030.2651 | 1033 |
| | L = 1310 | 1169 | 142.327.033.2251 | 1159 | 142.347.033.2451 | 1152 | 142.367.031.2651 | 1133 |
| | L = 1410 | 1269 | 142.327.034.2251 | 1259 | 142.347.034.2451 | 1252 | 142.367.032.2651 | 1233 |

Per codifica e tipologia protezione vedere pag.
For coding and guard tipology see pag.



N-EN

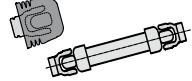


| Type | $\varnothing = 61 \text{ mm}$ | 10 | $\varnothing = 61 \text{ mm}$ | 20 | $\varnothing = 66.5 \text{ mm}$ | 40 | $\varnothing = 81.2 \text{ mm}$ | 50 |
|----------|-------------------------------|------------------|-------------------------------|------------------|---------------------------------|------------------|---------------------------------|------------------|
| | L_1 [mm] | Code | L_1 [mm] | Code | L_1 [mm] | Code | L_1 [mm] | Code |
| L = 410 | 454 | 142.310.006.7151 | 454 | 142.320.006.9251 | 451 | 142.340.006.9451 | 476 | 142.350.006.9551 |
| L = 460 | 504 | 142.310.001.7151 | 504 | 142.320.001.9251 | 501 | 142.340.001.9451 | 526 | 142.350.001.9551 |
| L = 510 | 554 | 142.310.007.7151 | 554 | 142.320.007.9251 | 551 | 142.340.007.9451 | 576 | 142.350.007.9551 |
| L = 560 | 604 | 142.310.002.7151 | 604 | 142.320.002.9251 | 601 | 142.340.002.9451 | 626 | 142.350.002.9551 |
| L = 610 | 654 | 142.310.008.7151 | 654 | 142.320.008.9251 | 651 | 142.340.008.9451 | 676 | 142.350.008.9551 |
| L = 660 | 704 | 142.310.003.7151 | 704 | 142.320.003.9251 | 701 | 142.340.003.9451 | 726 | 142.350.003.9551 |
| L = 710 | 754 | 142.310.009.7151 | 754 | 142.320.009.9251 | 751 | 142.340.009.9451 | 776 | 142.350.009.9551 |
| L = 760 | 804 | 142.310.004.7151 | 804 | 142.320.004.9251 | 801 | 142.340.004.9451 | 826 | 142.350.004.9551 |
| L = 810 | 854 | 142.310.010.7151 | 854 | 142.320.010.9251 | 851 | 142.340.010.9451 | 876 | 142.350.010.9551 |
| L = 860 | 904 | 142.310.005.7151 | 904 | 142.320.005.9251 | 901 | 142.340.005.9451 | 926 | 142.350.005.9551 |
| L = 910 | 954 | 142.310.011.7151 | 954 | 142.320.011.9251 | 951 | 142.340.011.9451 | 976 | 142.350.011.9551 |
| L = 1010 | 1054 | 142.310.012.7151 | 1054 | 142.320.012.9251 | 1051 | 142.340.012.9451 | 1076 | 142.350.012.9551 |
| L = 1110 | 1154 | 142.310.013.7151 | 1154 | 142.320.013.9251 | 1151 | 142.340.013.9451 | 1176 | 142.350.013.9551 |
| L = 1210 | 1254 | 142.310.014.7151 | 1254 | 142.320.014.9251 | 1251 | 142.340.014.9451 | 1276 | 142.350.014.9551 |
| L = 1310 | 1354 | 142.310.015.7151 | 1354 | 142.320.015.9251 | 1351 | 142.340.015.9451 | 1376 | 142.350.015.9551 |
| L = 1410 | 1454 | 142.310.016.7151 | 1454 | 142.320.016.9251 | 1451 | 142.340.016.9451 | 1476 | 142.350.016.9551 |

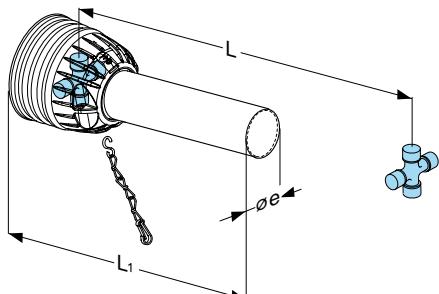
| Type | $\varnothing = 81.2 \text{ mm}$ | 60 | $\varnothing = 96 \text{ mm}$ | 80 | $\varnothing = 96 \text{ mm}$ | 90 | $\varnothing = 96 \text{ mm}$ | 120 |
|----------|---------------------------------|------------------|-------------------------------|------------------|-------------------------------|------------------|-------------------------------|------------------|
| | L_1 [mm] | Code | L_1 [mm] | Code | L_1 [mm] | Code | L_1 [mm] | Code |
| L = 410 | 466 | 142.360.001.9651 | 490 | 142.380.001.9851 | 475 | 142.390.001.9951 | - | -- |
| L = 460 | 516 | 142.360.007.9651 | 540 | 142.380.007.9851 | 525 | 142.390.007.9951 | 545 | 142.300.001.1251 |
| L = 510 | 566 | 142.360.002.9651 | 590 | 142.380.002.9851 | 575 | 142.390.002.9951 | 595 | 142.300.002.1251 |
| L = 560 | 616 | 142.360.008.9651 | 640 | 142.380.008.9851 | 625 | 142.390.008.9951 | 645 | 142.300.003.1251 |
| L = 610 | 666 | 142.360.003.9651 | 690 | 142.380.003.9851 | 675 | 142.390.003.9951 | 695 | 142.300.004.1251 |
| L = 660 | 716 | 142.360.009.9651 | 740 | 142.380.009.9851 | 725 | 142.390.009.9951 | 745 | 142.300.005.1251 |
| L = 710 | 766 | 142.360.004.9651 | 790 | 142.380.004.9851 | 775 | 142.390.004.9951 | 795 | 142.300.006.1251 |
| L = 760 | 816 | 142.360.010.9651 | 840 | 142.380.010.9851 | 825 | 142.390.010.9951 | 845 | 142.300.007.1251 |
| L = 810 | 866 | 142.360.005.9651 | 890 | 142.380.005.9851 | 875 | 142.390.005.9951 | 895 | 142.300.008.1251 |
| L = 860 | 916 | 142.360.011.9651 | 940 | 142.380.011.9851 | 925 | 142.390.011.9951 | 945 | 142.300.009.1251 |
| L = 910 | 966 | 142.360.017.9651 | 990 | 142.380.017.9851 | 975 | 142.390.017.9951 | 995 | 142.300.010.1251 |
| L = 1010 | 1066 | 142.360.012.9651 | 1090 | 142.380.012.9851 | 1075 | 142.390.012.9951 | 1095 | 142.300.011.1251 |
| L = 1110 | 1166 | 142.360.013.9651 | 1190 | 142.380.013.9851 | 1175 | 142.390.013.9951 | 1195 | 142.300.012.1251 |
| L = 1210 | 1266 | 142.360.014.9651 | 1290 | 142.380.014.9851 | 1275 | 142.390.014.9951 | 1295 | 142.300.013.1251 |
| L = 1310 | 1366 | 142.360.015.9651 | 1390 | 142.380.015.9851 | 1375 | 142.390.015.9951 | 1395 | 142.300.014.1251 |
| L = 1410 | 1466 | 142.360.016.9651 | 1490 | 142.380.016.9851 | 1475 | 142.390.016.9951 | 1495 | 142.300.015.1251 |

Per codifica e tipologia protezione vedere pag.
For coding and guard tipology see pag.

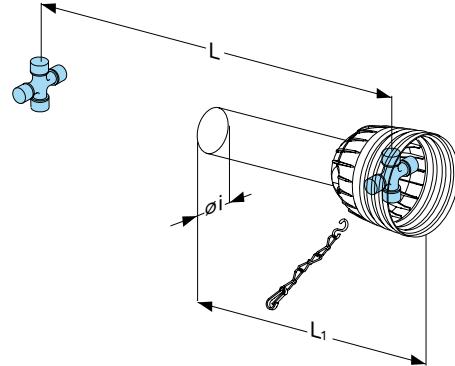
121



Esterna / Outer



Interna / Inner

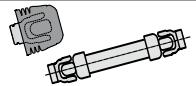


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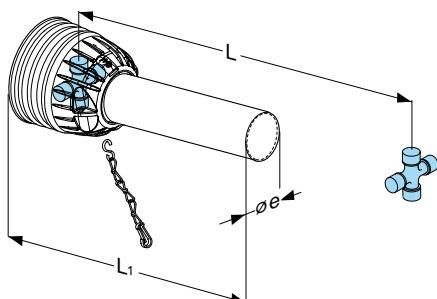
| Type | $\phi_e = 61 \text{ mm}$ | 10 | $\phi_e = 61 \text{ mm}$ | 20 | $\phi_e = 66.5 \text{ mm}$ | 40 | $\phi_e = 81.2 \text{ mm}$ | 50 | |
|-----------------|--------------------------|-----------|--------------------------|-----------|----------------------------|-----------|----------------------------|-----------|------------------|
| | L_1 [mm] | Code | L_1 [mm] | Code | L_1 [mm] | Code | L_1 [mm] | Code | |
| Esterna / Outer | L = 410 | 327 | 142.316.006.7151 | 327 | 142.326.006.9251 | 313 | 142.346.006.9451 | 323 | 142.356.006.9551 |
| | L = 460 | 377 | 142.316.001.7151 | 377 | 142.326.001.9251 | 363 | 142.346.001.9451 | 373 | 142.356.001.9551 |
| | L = 510 | 427 | 142.316.007.7151 | 427 | 142.326.007.9251 | 413 | 142.346.007.9451 | 423 | 142.356.007.9551 |
| | L = 560 | 477 | 142.316.002.7151 | 477 | 142.326.002.9251 | 463 | 142.346.002.9451 | 473 | 142.356.002.9551 |
| | L = 610 | 527 | 142.316.008.7151 | 527 | 142.326.008.9251 | 513 | 142.346.008.9451 | 523 | 142.356.008.9551 |
| | L = 660 | 577 | 142.316.003.7151 | 577 | 142.326.003.9251 | 563 | 142.346.003.9451 | 573 | 142.356.003.9551 |
| | L = 710 | 627 | 142.316.009.7151 | 627 | 142.326.009.9251 | 613 | 142.346.009.9451 | 623 | 142.356.009.9551 |
| | L = 760 | 677 | 142.316.004.7151 | 677 | 142.326.004.9251 | 663 | 142.346.004.9451 | 673 | 142.356.004.9551 |
| | L = 810 | 727 | 142.316.010.7151 | 727 | 142.326.010.9251 | 713 | 142.346.010.9451 | 723 | 142.356.010.9551 |
| | L = 860 | 777 | 142.316.005.7151 | 777 | 142.326.005.9251 | 763 | 142.346.005.9451 | 773 | 142.356.005.9551 |
| | L = 910 | 827 | 142.316.011.7151 | 827 | 142.326.011.9251 | 813 | 142.346.011.9451 | 823 | 142.356.011.9551 |
| | L = 1010 | 927 | 142.316.012.7151 | 927 | 142.326.012.9251 | 913 | 142.346.012.9451 | 923 | 142.356.012.9551 |
| | L = 1110 | 1027 | 142.316.013.7151 | 1027 | 142.326.013.9251 | 1013 | 142.346.013.9451 | 1023 | 142.356.013.9551 |
| | L = 1210 | 1127 | 142.316.014.7151 | 1127 | 142.326.014.9251 | 1113 | 142.346.014.9451 | 1123 | 142.356.014.9551 |
| | L = 1310 | 1227 | 142.316.015.7151 | 1227 | 142.326.015.9251 | 1213 | 142.346.015.9451 | 1223 | 142.356.015.9551 |
| | L = 1410 | 1327 | 142.316.016.7151 | 1327 | 142.326.016.9251 | 1313 | 142.346.016.9451 | 1323 | 142.356.016.9551 |

| Type | $\phi_i = 55.6 \text{ mm}$ | 10 | $\phi_i = 55.6 \text{ mm}$ | 20 | $\phi_i = 61 \text{ mm}$ | 40 | $\phi_i = 75 \text{ mm}$ | 50 | |
|-----------------|----------------------------|-----------|----------------------------|-----------|--------------------------|-----------|--------------------------|-----------|------------------|
| | L_1 [mm] | Code | L_1 [mm] | Code | L_1 [mm] | Code | L_1 [mm] | Code | |
| Interna / Inner | L = 410 | 327 | 142.317.006.7151 | 327 | 142.327.006.9251 | 313 | 142.347.006.9451 | 323 | 142.357.006.9551 |
| | L = 460 | 377 | 142.317.001.7151 | 377 | 142.327.001.9251 | 363 | 142.347.001.9451 | 373 | 142.357.001.9551 |
| | L = 510 | 427 | 142.317.007.7151 | 427 | 142.327.007.9251 | 413 | 142.347.007.9451 | 423 | 142.357.007.9551 |
| | L = 560 | 477 | 142.317.002.7151 | 477 | 142.327.002.9251 | 463 | 142.347.002.9451 | 473 | 142.357.002.9551 |
| | L = 610 | 527 | 142.317.008.7151 | 527 | 142.327.008.9251 | 513 | 142.347.008.9451 | 523 | 142.357.008.9551 |
| | L = 660 | 577 | 142.317.003.7151 | 577 | 142.327.003.9251 | 563 | 142.347.003.9451 | 573 | 142.357.003.9551 |
| | L = 710 | 627 | 142.317.009.7151 | 627 | 142.327.009.9251 | 613 | 142.347.009.9451 | 623 | 142.357.009.9551 |
| | L = 760 | 677 | 142.317.004.7151 | 677 | 142.327.004.9251 | 663 | 142.347.004.9451 | 673 | 142.357.004.9551 |
| | L = 810 | 727 | 142.317.010.7151 | 727 | 142.327.010.9251 | 713 | 142.347.010.9451 | 723 | 142.357.010.9551 |
| | L = 860 | 777 | 142.317.005.7151 | 777 | 142.327.005.9251 | 763 | 142.347.005.9451 | 773 | 142.357.005.9551 |
| | L = 910 | 827 | 142.317.011.7151 | 827 | 142.327.011.9251 | 813 | 142.347.011.9451 | 823 | 142.357.011.9551 |
| | L = 1010 | 927 | 142.317.012.7151 | 927 | 142.327.012.9251 | 913 | 142.347.012.9451 | 923 | 142.357.012.9551 |
| | L = 1110 | 1027 | 142.317.013.7151 | 1027 | 142.327.013.9251 | 1013 | 142.347.013.9451 | 1023 | 142.357.013.9551 |
| | L = 1210 | 1127 | 142.317.014.7151 | 1127 | 142.327.014.9251 | 1113 | 142.347.014.9451 | 1123 | 142.357.014.9551 |
| | L = 1310 | 1227 | 142.317.015.7151 | 1227 | 142.327.015.9251 | 1213 | 142.347.015.9451 | 1223 | 142.357.015.9551 |
| | L = 1410 | 1327 | 142.317.016.7151 | 1327 | 142.327.016.9251 | 1313 | 142.347.016.9451 | 1323 | 142.357.016.9551 |

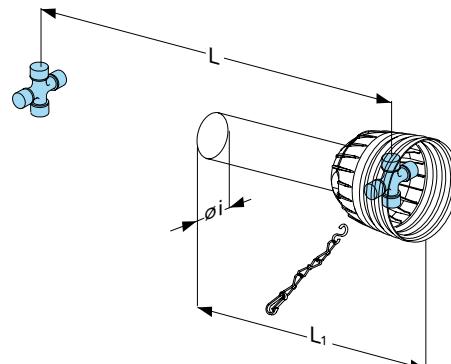
Per codifica e tipologia protezione vedere pag.
For coding and guard tipology see pag.



Esterna / Outer



Interna / Inner

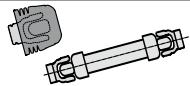


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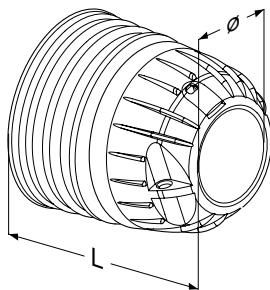
| Type | $\varnothing_e = 81.2 \text{ mm}$ | 60 | $\varnothing_e = 96 \text{ mm}$ | 80 | $\varnothing_e = 96 \text{ mm}$ | 90 | $\varnothing_e = 96 \text{ mm}$ | 120 |
|-----------------|-----------------------------------|-----------|---------------------------------|-----------|---------------------------------|-----------|---------------------------------|------------|
| | L_1 [mm] | Code | L_1 [mm] | Code | L_1 [mm] | Code | L_1 [mm] | Code |
| Esterna / Outer | L = 410 | 313 | 142.366.001.9651 | 310 | 142.386.001.9851 | 295 | 142.396.001.9951 | - |
| | L = 460 | 363 | 142.366.007.9651 | 360 | 142.386.007.9851 | 345 | 142.396.007.9951 | 339 |
| | L = 510 | 413 | 142.366.002.9651 | 410 | 142.386.002.9851 | 395 | 142.396.002.9951 | 389 |
| | L = 560 | 463 | 142.366.008.9651 | 460 | 142.386.008.9851 | 445 | 142.396.008.9951 | 439 |
| | L = 610 | 513 | 142.366.003.9651 | 510 | 142.386.003.9851 | 495 | 142.396.003.9951 | 489 |
| | L = 660 | 563 | 142.366.009.9651 | 560 | 142.386.009.9851 | 545 | 142.396.009.9951 | 599 |
| | L = 710 | 613 | 142.366.004.9651 | 610 | 142.386.004.9851 | 595 | 142.396.004.9951 | 589 |
| | L = 760 | 663 | 142.366.010.9651 | 660 | 142.386.010.9851 | 645 | 142.396.010.9951 | 639 |
| | L = 810 | 713 | 142.366.005.9651 | 710 | 142.386.005.9851 | 695 | 142.396.005.9951 | 689 |
| | L = 860 | 763 | 142.366.011.9651 | 760 | 142.386.011.9851 | 745 | 142.396.011.9951 | 739 |
| | L = 910 | 813 | 142.366.033.9651 | 810 | 142.386.017.9851 | 795 | 142.396.017.9951 | 789 |
| | L = 1010 | 913 | 142.366.012.9651 | 910 | 142.386.012.9851 | 895 | 142.396.012.9951 | 889 |
| | L = 1110 | 1013 | 142.366.013.9651 | 1010 | 142.386.013.9851 | 995 | 142.396.013.9951 | 989 |
| | L = 1210 | 1113 | 142.366.014.9651 | 1110 | 142.386.014.9851 | 1095 | 142.396.014.9951 | 1089 |
| | L = 1310 | 1213 | 142.366.015.9651 | 1210 | 142.386.015.9851 | 1195 | 142.396.015.9951 | 1189 |
| | L = 1410 | 1313 | 142.366.016.9651 | 1310 | 142.386.016.9851 | 1295 | 142.396.016.9951 | 1289 |

| Type | $\varnothing_i = 75 \text{ mm}$ | 60 | $\varnothing_i = 89.9 \text{ mm}$ | 80 | $\varnothing_i = 89.9 \text{ mm}$ | 90 | $\varnothing_i = 89.9 \text{ mm}$ | 120 |
|-----------------|---------------------------------|-----------|-----------------------------------|-----------|-----------------------------------|-----------|-----------------------------------|------------|
| | L_1 [mm] | Code | L_1 [mm] | Code | L_1 [mm] | Code | L_1 [mm] | Code |
| Interna / Inner | L = 410 | 313 | 142.367.001.9651 | 310 | 142.387.001.9851 | 295 | 142.397.001.9951 | - |
| | L = 460 | 363 | 142.367.007.9651 | 360 | 142.387.007.9851 | 345 | 142.397.007.9951 | 339 |
| | L = 510 | 413 | 142.367.002.9651 | 410 | 142.387.002.9851 | 395 | 142.397.002.9951 | 389 |
| | L = 560 | 463 | 142.367.008.9651 | 460 | 142.387.008.9851 | 445 | 142.397.008.9951 | 439 |
| | L = 610 | 513 | 142.367.003.9651 | 510 | 142.387.003.9851 | 495 | 142.397.003.9951 | 489 |
| | L = 660 | 563 | 142.367.009.9651 | 560 | 142.387.009.9851 | 545 | 142.397.009.9951 | 539 |
| | L = 710 | 613 | 142.367.004.9651 | 610 | 142.387.004.9851 | 595 | 142.397.004.9951 | 589 |
| | L = 760 | 663 | 142.367.010.9651 | 660 | 142.387.010.9851 | 645 | 142.397.010.9951 | 639 |
| | L = 810 | 713 | 142.367.005.9651 | 710 | 142.387.005.9851 | 695 | 142.397.005.9951 | 689 |
| | L = 860 | 763 | 142.367.011.9651 | 760 | 142.387.011.9851 | 745 | 142.397.011.9951 | 739 |
| | L = 910 | 813 | 142.367.033.9651 | 810 | 142.387.017.9851 | 795 | 142.397.017.9951 | 789 |
| | L = 1010 | 863 | 142.367.012.9651 | 860 | 142.387.012.9851 | 845 | 142.397.012.9951 | 889 |
| | L = 1110 | 913 | 142.367.013.9651 | 910 | 142.387.013.9851 | 895 | 142.397.013.9951 | 939 |
| | L = 1210 | 963 | 142.367.014.9651 | 960 | 142.387.014.9851 | 945 | 142.397.014.9951 | 939 |
| | L = 1310 | 1013 | 142.367.015.9651 | 1010 | 142.387.015.9851 | 995 | 142.397.015.9951 | 939 |
| | L = 1410 | 1063 | 142.367.016.9651 | 1060 | 142.387.016.9851 | 1045 | 142.397.016.9951 | 939 |

Per codifica e tipologia protezione vedere pag.
For coding and guard tipology see pag.

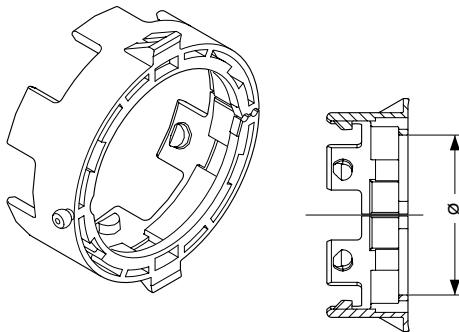


Cuffia / Cone



| Versione Version | 10 | | 20 | | 40 | | 50 | | 60 | | 80 | | 90 | | 120 | |
|---------------------|-----------|-------------------|-----------|-------------------|-----------|---------------------|-----------|---------------------|-----------|---------------------|-----------|-------------------|-----------|-------------------|------------|-------------------|
| | L [mm] | Ø = 61 mm Code | L [mm] | Ø = 61 mm Code | L [mm] | Ø = 66.5 mm Code | L [mm] | Ø = 81.2 mm Code | L [mm] | Ø = 81.2 mm Code | L [mm] | Ø = 96 mm Code | L [mm] | Ø = 96 mm Code | L [mm] | Ø = 96 mm Code |
| Corta Short | 69 | 180.032.401 | 69 | 180.032.401 | 84 | 180.034.536 | 92 | 180.036.634 | 92 | 180.036.634 | 103 | 180.039.362 | 103 | 180.039.362 | - | - |
| Standard | 127 | 180.032.417 | 127 | 180.032.417 | 138 | 180.034.578 | 153 | 180.036.709 | 153 | 180.036.709 | 180 | 180.039.367 | 189 | 180.039.398 | 206 | 180.123.041 |
| Lunga Long | 216 | 180.032.468 | 216 | 180.032.468 | 229 | 180.034.755 | 262 | 180.036.885 | 262 | 180.036.885 | - | - | - | - | - | - |

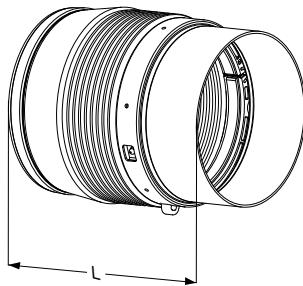
Ghiera / Retaining Collar



| Esterna Outer | 10 Ø = 40 mm Code | 20 Ø = 46 mm Code | 40 Ø = 54 mm Code | 50 Ø = 62.5 mm Cod | 60 Ø = 69 mm Code | 80 Ø = 81.5 mm Code | 90 Ø = 81.5 mm Code | 90 Ø = 81.5 mm Code |
|------------------|--------------------------------|--------------------------------|--------------------------------|---------------------------------|--------------------------------|----------------------------------|----------------------------------|----------------------------------|
| | 180.011.342 | 180.012.380 | 180.014.505 | 180.015.391 | 180.016.596 | 180.019.353 | 180.019.353 | 180.019.353 |
| Interna Inner | Ø = 34 mm Code | Ø = 40 mm Code | Ø = 47 mm Code | Ø = 54.5 mm Cod | Ø = 60 mm Code | Ø = 69.5 mm Code | Ø = 69.5 mm Code | Ø = 69.5 mm Code |
| | 180.011.343 | 180.012.381 | 180.014.506 | 180.015.390 | 180.016.595 | 180.019.354 | 180.019.354 | 180.019.354 |



Cuffia con ghiera / Cone with retaining collar



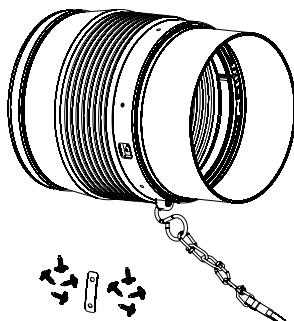
| Versione Version | 20 Code | 40 Code | 60 Code | 80 Code | | | | |
|---------------------|-------------------|-------------------|-------------------|-------------------|-----|-------------|-----|-------------|
| | L [mm] | L [mm] | L [mm] | L [mm] | | | | |
| N-EN | 202 | 180.022.483 | 221 | 180.024.785 | 233 | 180.026.806 | 269 | 180.028.606 |

Ghiera / Retaining collar



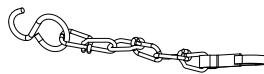
| Versione Version | 20 Code | 40 Code | 60 Code | 80 Code | | | | |
|---------------------|-------------------|-------------------|-------------------|-------------------|-----|-------------|-----|-------------|
| | Ø [mm] | Ø [mm] | Ø [mm] | Ø [mm] | | | | |
| N-EN | 171 | 158.012.482 | 187 | 158.016.615 | 187 | 158.016.615 | 210 | 158.018.470 |

Kit cuffia / Guard Cone Set



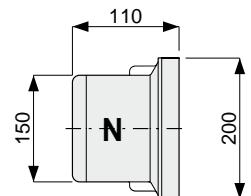
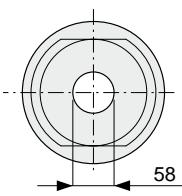
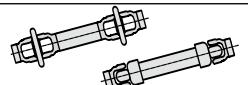
| Versione Version | 20 Code | 40 Code | 60 Code | 80 Code |
|---------------------|-------------------|-------------------|-------------------|-------------------|
| N-EN | 165.000.853 | 165.000.848 | 165.000.789 | 165.000.784 |

Catenella di sicurezza / Safety Chain

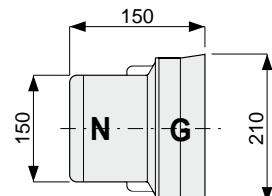


Code 180.016.790

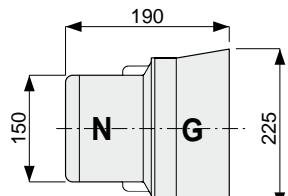
CONTROCUFFIE FISSE FIXED COUNTER-CONES



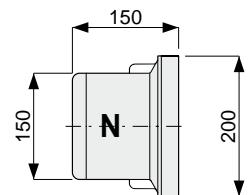
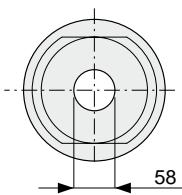
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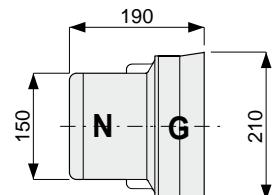
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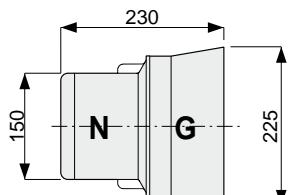
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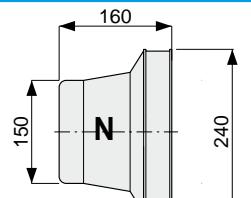
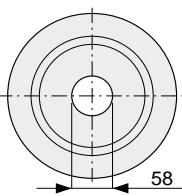
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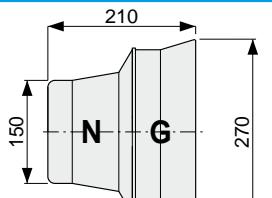
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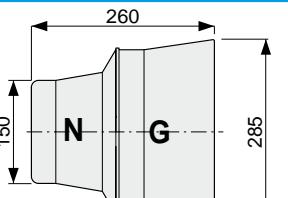
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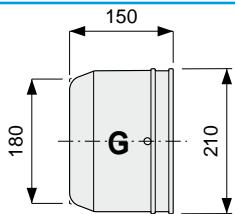
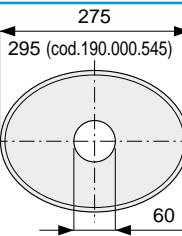
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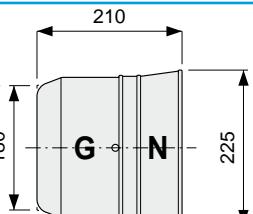
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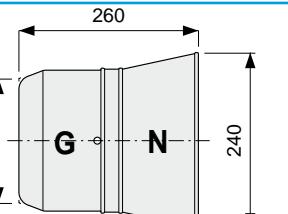
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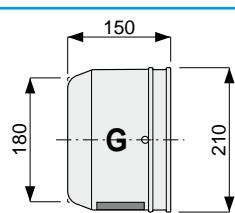
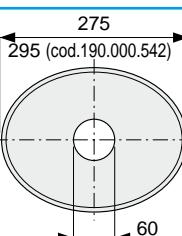
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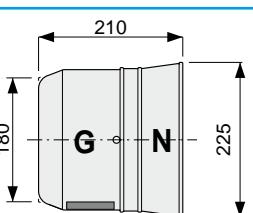
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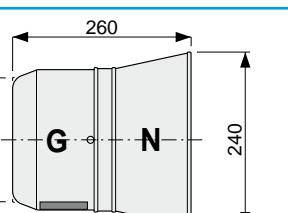
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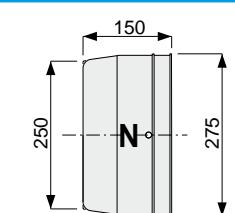
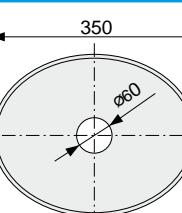
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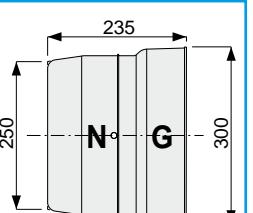
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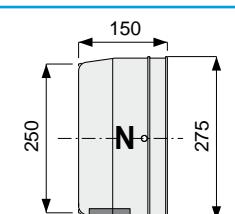
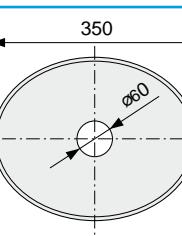
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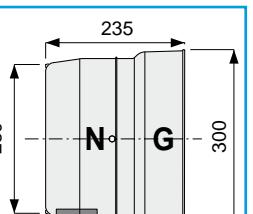
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Code 190.000.524



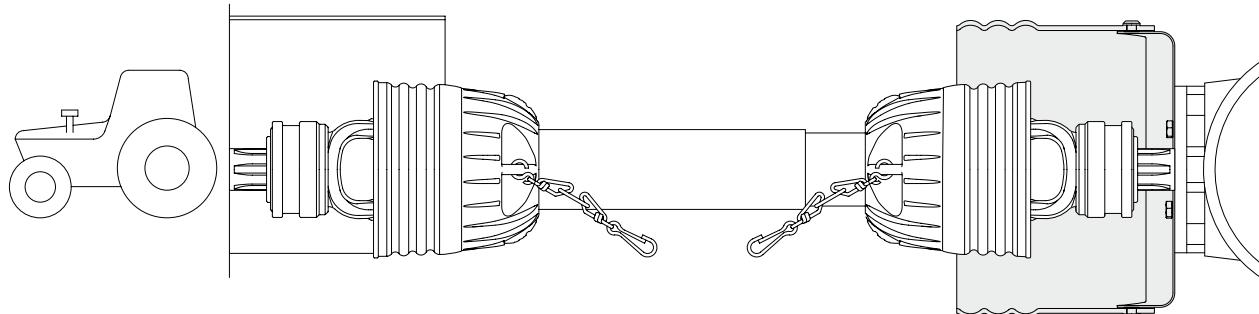
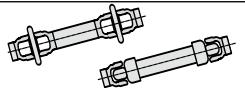
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Code 190.000.535

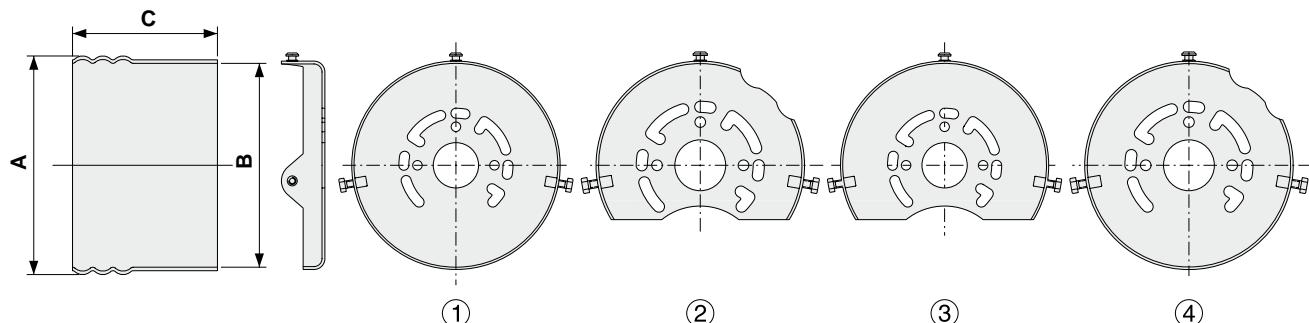
N = nero-black
G = giallo-yellow

CONTROCUFFIE AMOVIBILI REMOVABLE COUNTER-CONES



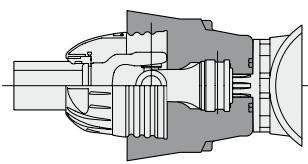
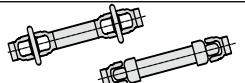
La controcuffia amovibile è costituita da un fondello metallico e da una fascia di protezione in plastica fissata al fondello mediante due bulloni. In tale condizione essa garantisce l'azione di protezione indicata dalla "direttiva macchine 2006/42/CE". Allentando i due bulloni con una chiave la fascia di protezione si sgancia dal fondello e può scorrere sulla trasmissione per consentire un'agevole accesso agli organi di trasmissione nelle operazioni d'installazione o manutenzione. Tale peculiarità viene esaltata se la controcuffia amovibile è impiegata in abbinamento con alberi cardanici aventi le protezioni di tipo EN.

The removable counter-cone consists of a metal Bolttom and a plastic guard attached to the Bolttom with two bolts. In this condition, the counter-cone guarantees the protection prescribed by "EEC Machine Directive 2006/42". After loosening the two bolts with a wrench, the guard is released from the Bolttom and can slide on the transmission and thus provide easy access to transmission parts during installation or maintenance. This special feature becomes even more effective if the removable counter-cone is used together with driveshafts equipped with EN guards.

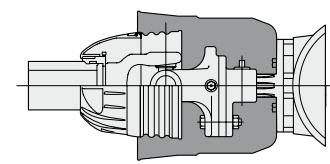


| A | B | C | | | | | | | | | | | | | |
|-----------------|-----------------|-----------------|-----------------|----------------|-----------------|----------------|-----------------|-----------------|------------------|------------------|-------|-------|-------|-------|--|
| | | 140 5 33/64" | 160 6 19/64" | 180 7 3/32" | 210 8 17/64" | 230 9 1/16" | 250 9 27/32" | 280 11 1/32" | 300 11 13/16" | 320 12 29/64" | 1 | 2 | 3 | 4 | |
| 200 7 31/64" | 182 7 11/64" | 180/140 | 180/160 | 180/180 | 180/210 | 180/230 | 180/250 | - | - | - | 180/1 | 180/2 | - | - | |
| 225 8 15/32" | 207 8 5/32" | 205/140 | 205/160 | 205/180 | 205/210 | 205/230 | 205/250 | 205/280 | - | - | 205/1 | 205/2 | 205/3 | 205/4 | |
| 250 9 29/64" | 232 9 9/64" | 230/140 | 230/160 | 230/180 | 230/210 | 230/230 | 230/250 | 230/280 | 230/300 | 230/320 | 230/1 | 230/2 | 230/3 | 230/4 | |

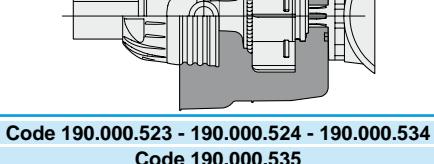
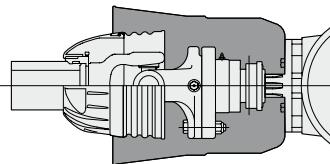
ESEMPI D'APPLICAZIONE APPLICATION EXAMPLES



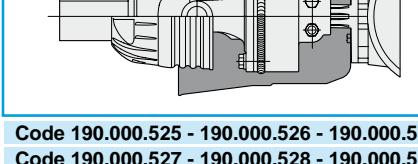
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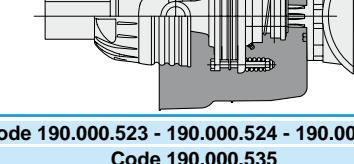
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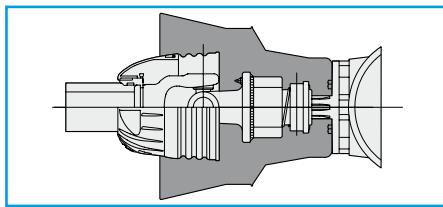
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Code 190.000.535



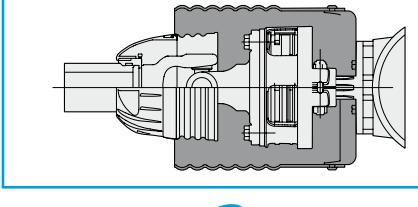
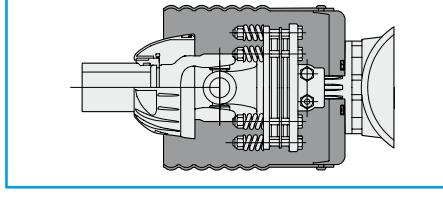
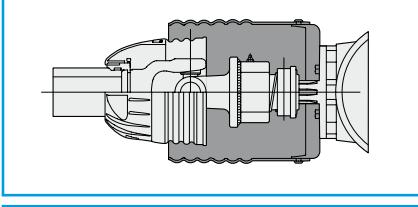
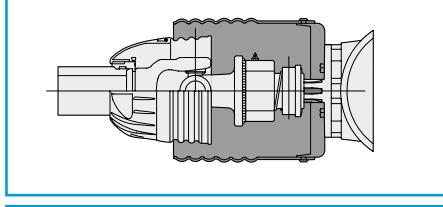
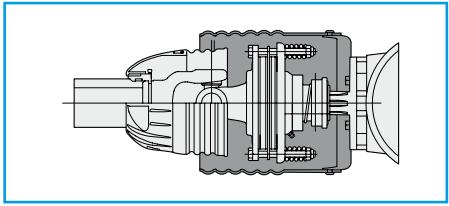
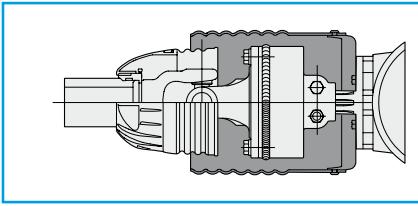
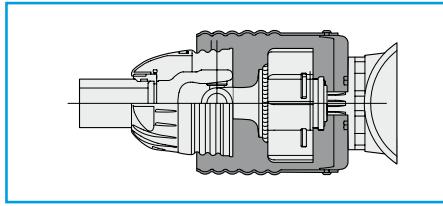
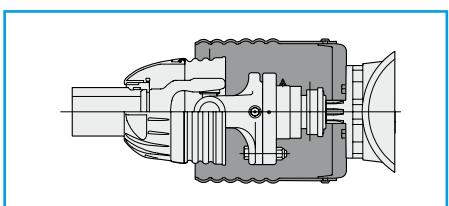
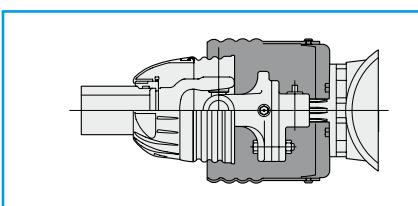
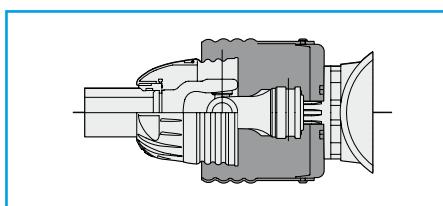
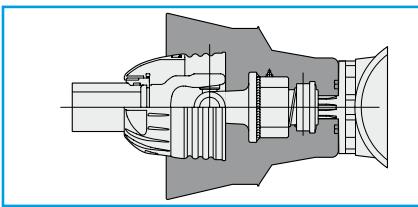
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Code 190.000.523 - 190.000.524 - 190.000.534
Code 190.000.535



Code 190.000.521-190.000.522-190.000.543



Vista l'elevata possibilità di combinazioni attuali con questo tipo di controprotezione, l'indicarne un tipo piuttosto che un altro potrebbe risultare forzante. Al fine di effettuare una scelta corretta, si consiglia pertanto di controllare l'ingombro del dispositivo, della cuffia di protezione e la sovrapposizione tra cuffia e controprotezione (min 50 mm)

Considering the combinations that can be created with this type of counter-guard, indicating one type instead of another might be misleading. To choose the correct type, it is recommended to check the overall dimensions of the guard cone and the overlap between the cone and counter-guard (minimum 50 mm).

SICUREZZA SAFETY

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Introduzione / Introduction

Comer Industries S.p.A. considera da sempre la sicurezza tra i più importanti parametri progettuali e costuttivi dei suoi prodotti che sono realizzati in conformità alle normative ISO e alle direttive CEE sulla sicurezza. Informazioni sulla sicurezza e corretto utilizzo da parte dell'utilizzatore sono forniti dalle etichette di sicurezza e dal libretto di "Uso e Manutenzione" forniti ad ogni trasmissione. E' cura del cliente informare Comer Industries S.p.A. sul paese in cui le trasmissioni verranno destinate, affinché sia possibile dotarle di idonee libretti ed etichette.

Comer Industries S.p.A has always considered safety to be one of the most important design and construction parameters for its products which are all built in full compliance with the international ISO standard and EU safety regulations.

Information on safety and on correct final user's application of the PTO driveshaft are supplied in safety labels and in the "Use and Maintenance" Manual provided with all PTO driveshafts. It is the customer responsibility to inform Comer Industries S.p.A. about the Country to which the PTO driveshafts will be delivered, in order to provide them with the suitable Manuals and Labels

Alberi cardanici / PTO driveshaft

Trasmissioni primarie CE / CE Primary Transmission

Collegano il trattore alla macchina operatrice e sono equipaggiate con:

- Marchio CE
- Etichette sicurezza
- Libretto d'istruzione CE
- Catene antirottazione

They connect the tractor to the operating machinery and are equipped with:

- CE Mark
- Safety labels
- CE instruction handbook
- anti-rotation chains

Etichetta su tubo protezione esterno



Code 190.000.359

Label on outer protective tube

Etichetta su tubo in acciaio esterno



Code 190.000.358

Label on outer steel tube

Libretto "Uso e Manutenzione" CE



CE "Use and Maintenance" handbook



Trasmissioni primarie USA / USA Primary Trasmission

Collegano il trattore alla macchina operatrice e sono equipaggiate con:

- Etichette sicurezza
- Libretto d'istruzione
- Catene antirotazione

They connect the tractor to the operating machinery and are equipped with:

- Safety labels
- Instruction handbook
- Anti-rotation chains

Etichetta su tubo protezione esterno



Label on outer protective tube

Code 190.000.099

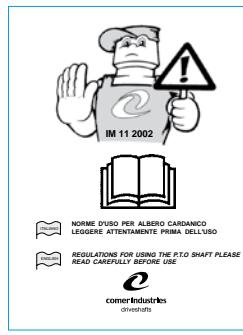
Etichetta su tubo in acciaio esterno



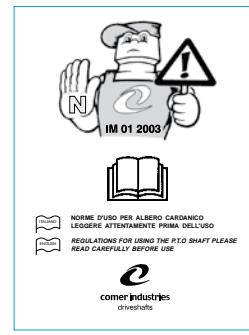
Label on outer steel tube

Code 190.000.098

Libretto "Uso e Manutenzione"



Code 190.000.371



"Use and Maintenance" handbook

Code 190.000.692

L'albero cardanico può essere fornito a richiesta senza le protezioni. In questo caso è responsabilità dell'acquirente omologare la macchina (compresa dell'albero) secondo la Direttiva Macchine e proteggere la trasmissione cardanica con protezioni idonee.

On request, the driveshaft can be supplied without safety guards. In this case, the buyer is responsible for certifying the machine (including the shaft) according to the Machine Directive and for mounting suitable safety guards for the driveshaft.



Trasmissioni primarie CANADA / CANADA Primary Transmission

Collegano il trattore alla macchina operatrice e sono equipaggiate con:

- Etichette sicurezza
- Libretto d'istruzione
- Catene antirottazione

They connect the tractor to the operating machinery and are equipped with:

- Safety labels
- Instruction handbook
- Anti-rotation chains

Etichette su tubo protezione esterno



Code 190.000.359



Code 190.000.215

Labels on outer protective tube

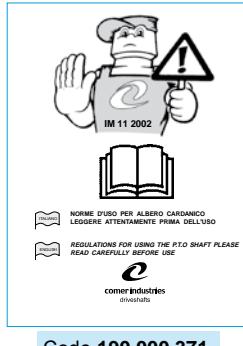
Etichetta su tubo in acciaio esterno



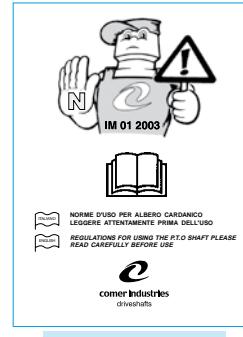
Code 190.000.216

Label on outer steel tube

Libretto "Uso e Manutenzione"



Code 190.000.371



Code 190.000.692

"Use and Maintenance" handbook

L'albero cardanico può essere fornito a richiesta senza le protezioni. In questo caso è responsabilità dell'acquirente omologare la macchina (compresa dell'albero) secondo la Direttiva Macchine e proteggere la trasmissione cardanica con protezioni idonee.

On request, the driveshaft can be supplied without safety guards. In this case, the buyer is responsible for certifying the machine (including the shaft) according to the Machine Directive and for mounting suitable safety guards for the driveshaft.

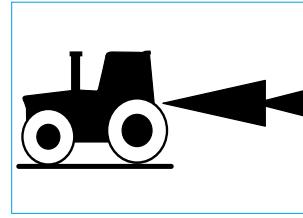
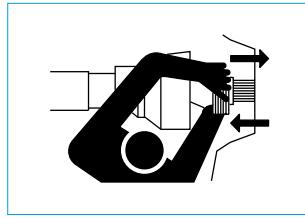


Norme d'uso / Operating instruction



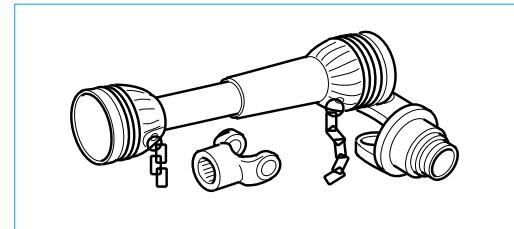
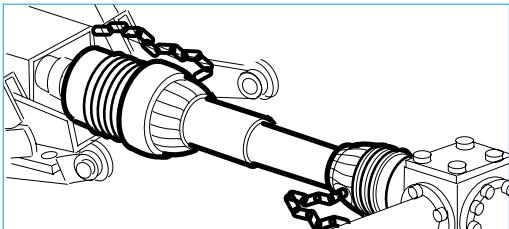
Quanto descritto riguarda la vostra sicurezza.
Prima di iniziare il lavoro assicurarsi che:

*These rules concern your safety.
Before starting to work, make sure that:*



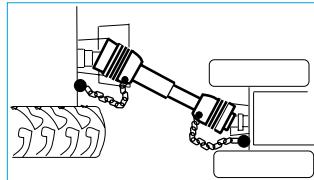
la trasmissione cardanica sia correttamente fissata al trattore ed alla macchina operatrice.(Il trattorino stampigliato sulla protezione indica il lato trattore)

the transmission is correctly connected to the tractor and to the operating machinery (the picture of the small tractor stamped on the safety guard indicates the tractor side)



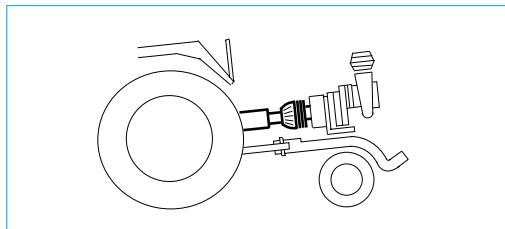
tutte le protezioni della trasmissione siano presenti ed efficienti, eventuali elementi danneggiati o mancanti devono essere sostituiti con Ricambi originali ed installati correttamente

all the transmission safety guards are in position and operating efficiently. Any damaged or missing components must be replaced with original spare parts and installed correctly



le catene devono essere fissate in modo che permettano l'articolazione della trasmissione in ogni condizione di lavoro e di trasporto

the chains must be connected so that the transmission can move under all operating and transport conditions



le macchine stazionarie (pompe, generatori, etc ..) siano sempre agganciate al trattore e rispettino la sovrapposizione degli elementi telescopici

the stationary machines (pumps, generators, etc.) are always coupled to the tractor and respect the position of the overlapping telescopic elements



la trasmissione cardanica sia idonea per lunghezza, dimensione ed eventuale dispositivo (controllare nel libretto d'istruzioni della macchina se la trasmissione deve essere dotata di limitatore di coppia o ruota libera)

the driveshaft transmission in terms of length, size and any device (check the machine's instruction handbook if the transmission must be equipped with a torque limiter or overrunning clutch)

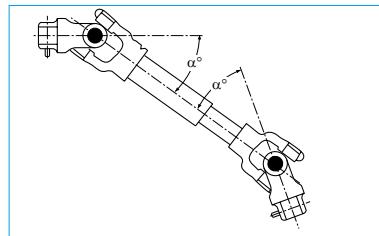
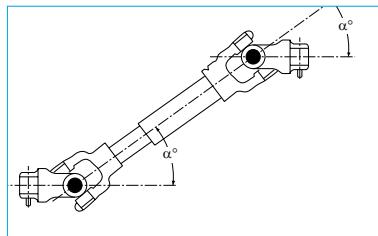


Durante l'utilizzo della trasmissione assicurarsi che :

la trasmissione cardanica non superi le condizioni di velocità e di potenza stabilite nel manuale della macchina.
L'eventuale dispositivo di sicurezza deve essere impegnato sul lato macchina.
Tutte le parti in rotazione siano protette

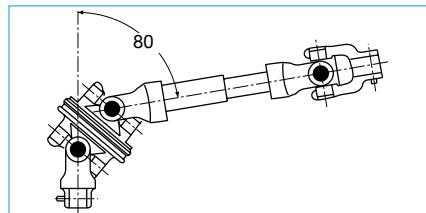
When using the transmission, make sure that:

*the driveshaft does not exceed the speed and power conditions defined in the machine's operating handbook.
Any safety device must be engaged on the machine side.
All rotating parts must be protected.*



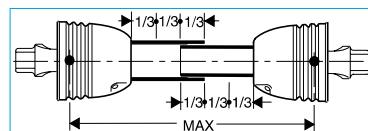
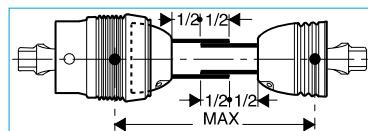
gli angoli di snodo siano contenuti ed uguali. In caso di manovre che superino i 35° disinserire la presa di moto

the joint angles are limited and equal; for operations that exceed 35°, disengage the power take-off



il giunto omocinetico non operi in continuo con un angolo prossimo a 80°, ma solamente per brevi periodi (sterzate)

the PTO driveshaft joint does not operate continuously with an angle close to 80°, but only for brief periods (steering)



gli elementi telescopici della trasmissione siano sempre sovrapposti per 1/3 nelle trasmissioni STD, ed 1/2 nelle trasmissioni con giunto omocinetico

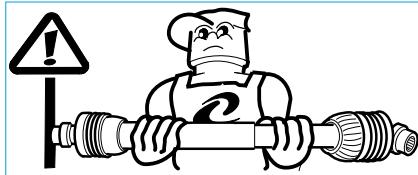
1/3 of the transmission's telescopic elements are always overlapping in the STD transmission and 1/2 in the PTO driveshaft transmissions



gli abiti di lavoro indossati non presentino cinghie, lembi o parti che possono costituire aggancio. L'eventuale contatto con parti in rotazione può provocare gravi incidenti

work clothes do not have belts, edges or parts that may get tangled. Any contact with rotating parts may cause serious accidents

Norme generali / General rules

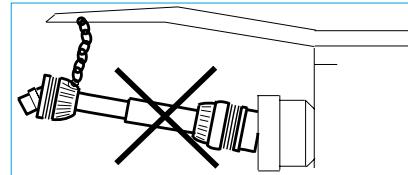


La trasmissione deve essere trasportata orizzontalmente per evitare (causa lo sfilamento) incidenti o rottura delle protezioni.

In funzione del peso utilizzare adeguati mezzi di trasporto.

The transmission must be transported horizontally to prevent accidents (since it may slip out) or to avoid damage to safety guards.

Depending on the weight, use a suitable means of transport.



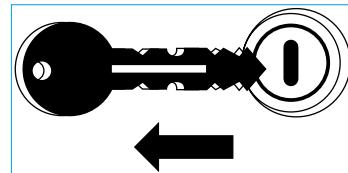
Non utilizzare le catene per trasportare o sostenere la trasmissione cardanica al termine dell'utilizzo. Usare un apposito supporto

Do not use chains to transport or support the driveshaft after use. Use a special support



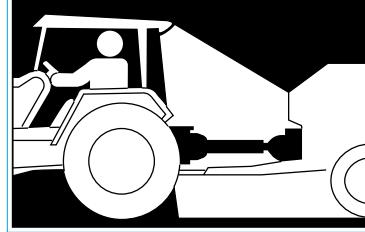
Non usare la trasmissione come appoggio o come predellino

Do not use the transmission as a support or as a footboard



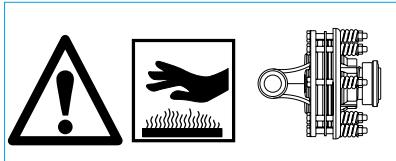
Spegnere il motore, togliere le chiavi del trattore e verificare che tutte le parti in rotazione si siano arrestate prima di avvicinarsi alla macchina operatrice o compiere operazioni di manutenzione

Turn off the engine, remove the key from the tractor and ensure that all rotating parts have stopped before getting close to the machinery or carrying out maintenance



La zona di lavoro della trasmissione deve essere illuminata nelle fasi di installazione e di utilizzo nel caso di scarsa visibilità o utilizzo notturno

The transmission work area must be illuminated during installation and use in case of poor visibility or nighttime operation



Le frizioni possono raggiungere temperature elevate.

NON TOCCARE!

Mantenere la zona adiacente pulita per evitare rischi d'incendio

Clutches may become very hot.

DO NOT TOUCH!

Keep the adjacent area clean to reduce the risk of fire

Norme generali di sicurezza per controcuffie / General Safety Rule for Shrouds

La Direttiva Macchine (98/37/CEE) stabilisce che la presa di moto sulla macchina operatrice sia dotata di una protezione fissata alla stessa che permetta il montaggio e l'articolazione della trasmissione cardanica e che garantisca (secondo la norma EN 1553) una sovrapposizione di almeno 50mm con la protezione della trasmissione cardanica allineata.

Le controcuffie Comer Industries S.p.A. sono state realizzate rispettando i requisiti e le norme internazionali e vengono fornite corredate del foglio d'istruzione CE contenente la Dichiarazione di conformità

Data la notevole varietà di macchine operatrici e di applicazione, è responsabilità del costruttore della macchina selezionare la controcuffia in base alle condizioni di impiego, alle dimensioni e all'articolazione della trasmissione cardanica.

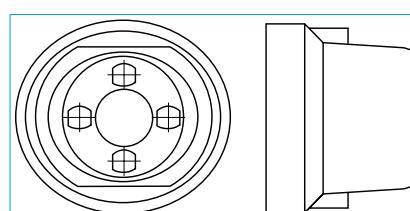
Comer Industries S.p.A. raccomanda di verificare in campo le reali condizioni di impiego ed idoneità della controcuffia

The Machine Directive (98/37/CEE) states that the power take-off on operating machinery must be equipped with a safety shroud attached to it that allows the driveshaft to be assembled and to articulate and that guarantees (according to EN 1553) overlapping of at least 50 mm with the aligned driveshaft safety guard.

The Comer Industries S.p.A. shrouds are built in compliance with international requirements and standards and are supplied with a CE instruction sheet containing the declaration of conformity.

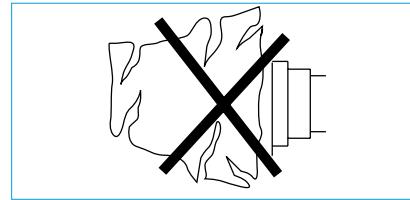
Considering the wide variety of operating machinery and applications, the machine manufacturer is responsible for selecting the shroud based on the use conditions, dimensions and articulation of the driveshaft.

Comer Industries S.p.A. recommends checking the real use conditions in the field as well as the suitability of the shroud



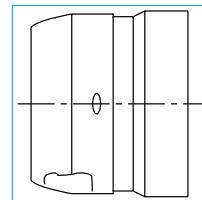
Le viti e rondelle di fissaggio della controcuffia devono essere contenute nella superficie piana e non devono risultare allentate

Shroud connecting screws and washers must remain within the flat surface and should not be loose.



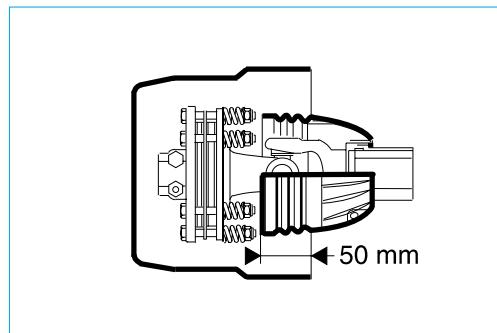
Le controcuffie non devono essere danneggiate, se tali devono essere sostituiti con Ricambi Originali

Shrouds must not be damaged. If so, they must be replaced with original spare parts



Non usare la controcuffia come appoggio o predellino. Assicurarsi che l'eventuale sportello sia chiuso

Do not use the shroud as a support or footboard. Any opening must be closed

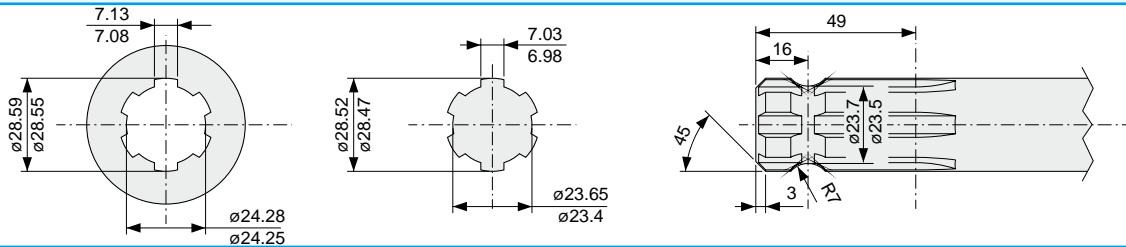


La controcuffia deve sormontare la protezione dell'albero cardanico di almeno 50mm

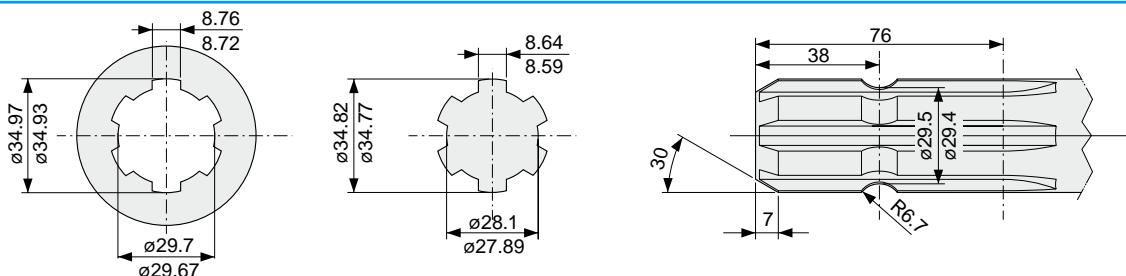
The shroud must overlap the driveshaft safety guard by at least 50 mm

**DIMENSIONI PROFILI
SPLINED DIMENSIONS**

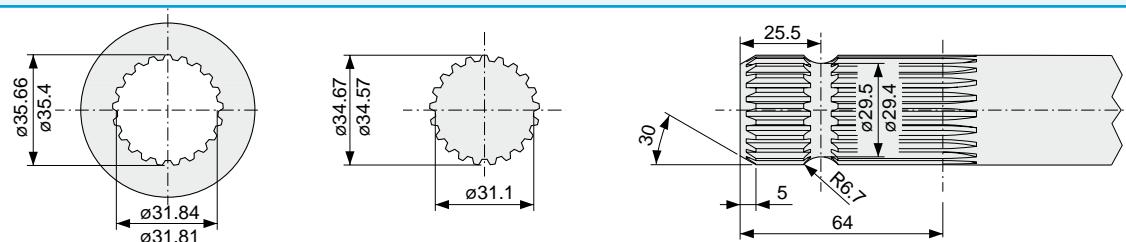
1 1/8" Z6



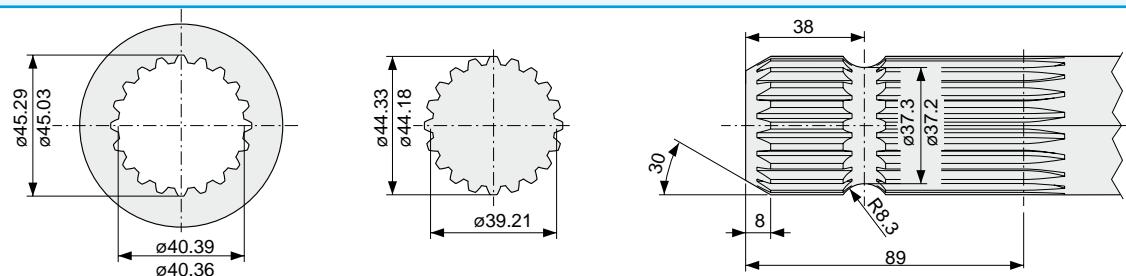
1 3/8" Z6



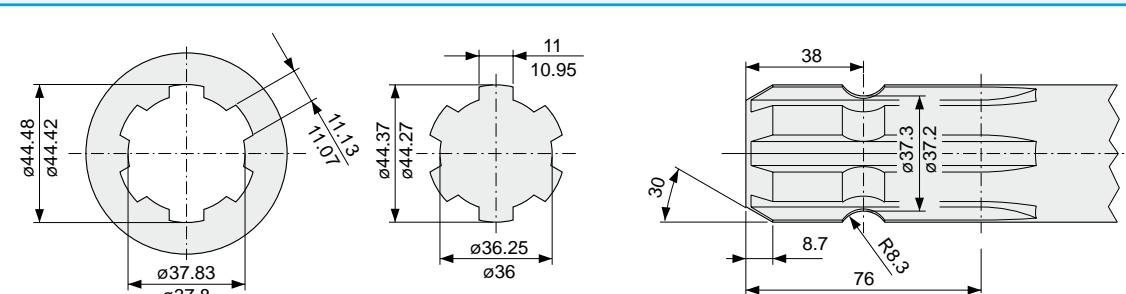
1 3/8" Z21



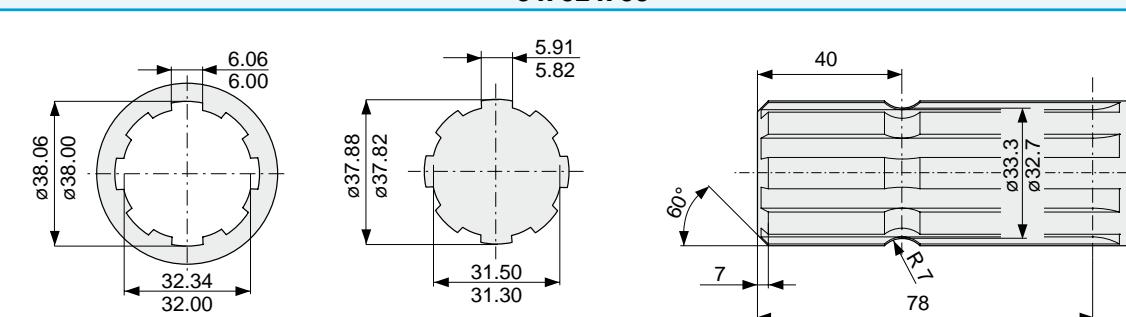
1 3/4" Z20



1 3/4" Z6



8 x 32 x 38



CONVERSIONI UNITÀ DI MISURA

MEASURE UNITS CONVERSIONS

| | Length | | | | | |
|---|--------|--------|-----------|-----------------------|-----------------------|------------------------|
| | [mm] | [cm] | [m] | [in] | [ft] | [yd] |
| 1 | [mm] | 1 | 10^{-1} | 10^{-3} | $39.37 \cdot 10^{-3}$ | $3.2808 \cdot 10^{-3}$ |
| 1 | [cm] | 10 | 1 | 10^{-2} | $39.37 \cdot 10^{-2}$ | $3.2808 \cdot 10^{-2}$ |
| 1 | [m] | 1000 | 100 | 1 | 39.37 | 3.28 |
| 1 | [in] | 25.4 | 2.54 | $2.54 \cdot 10^{-2}$ | 1 | 0.08333 |
| 1 | [ft] | 304.8 | 30.48 | $3.048 \cdot 10^{-1}$ | 12 | 1 |
| 1 | [yd] | 914.4 | 91.44 | 0.9144 | 36 | 3 |
| | | | | | | 1 |

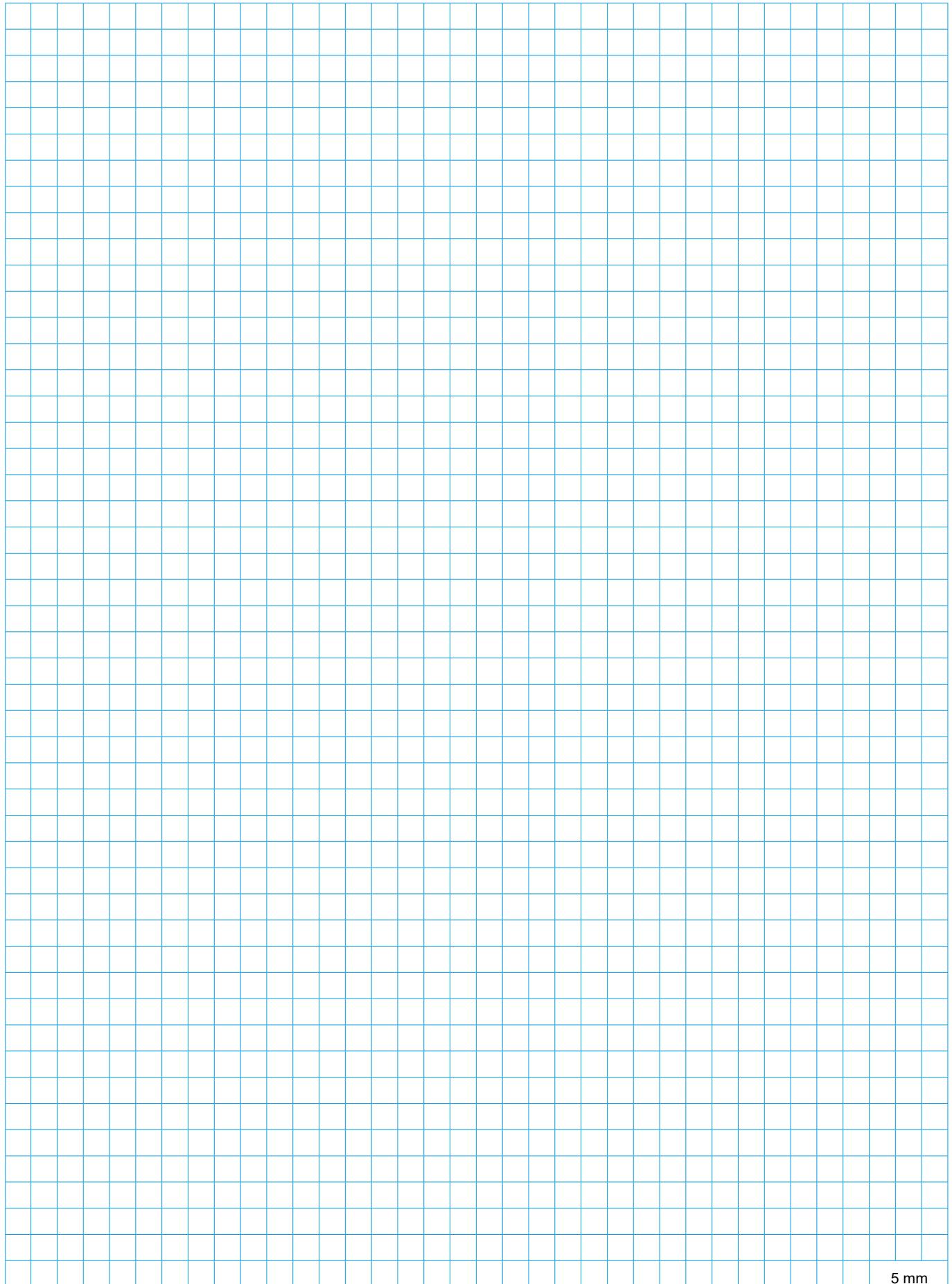
| | Weight | | | |
|---|---------|------------------------|------------------------|----------------------|
| | [Kg] | [t] | [lb] | [oz] |
| 1 | [kg] | 1 | 10^{-3} | 2.20462 |
| 1 | [t] | 1000 | 1 | 2204.62 |
| 1 | [lbf] | 0.453592 | $0.4536 \cdot 10^{-3}$ | 1 |
| 1 | [oz] | $2.8349 \cdot 10^{-2}$ | $2.8349 \cdot 10^{-5}$ | $6.25 \cdot 10^{-2}$ |
| | | | | 1 |

| | Force | | | |
|---|---------|-----------------------|----------|-----------------------|
| | [Kgp] | [N] | [lbf] | [pdl] |
| 1 | [kgp] | 1 | 9.80665 | 2.205 |
| 1 | [N] | 0.10197 | 1 | 0.22481 |
| 1 | [lbf] | 0.4536 | 4.44822 | 1 |
| 1 | [pdl] | $13.56 \cdot 10^{-3}$ | 0.138255 | $31.08 \cdot 10^{-3}$ |
| | | | | 1 |

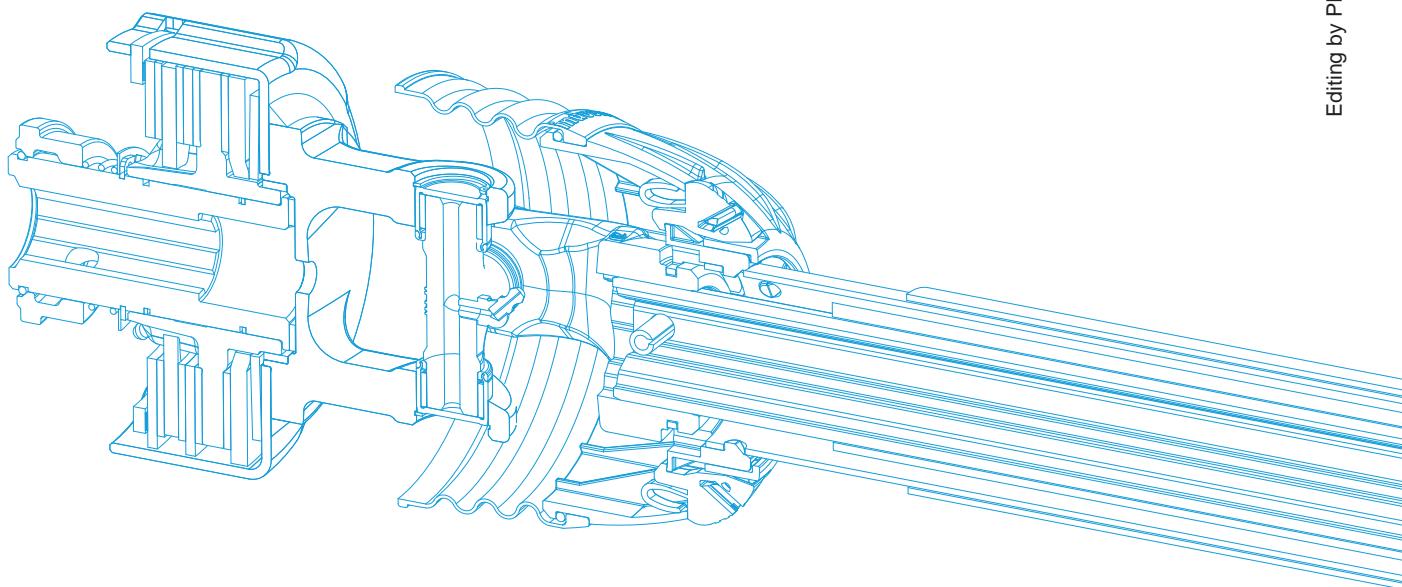
| | Torque | | | |
|---|------------|---------|------------|------------|
| | [Kgp·m] | [N·m] | [lbf·in] | [lbf·ft] |
| 1 | [Kgp·m] | 1 | 9.80665 | 86.7961 |
| 1 | [N·m] | 0.10197 | 1 | 8.85079 |
| 1 | [lbf·in] | 0.01152 | 0.11298 | 1 |
| 1 | [lbf·ft] | 0.13826 | 1.35582 | 12 |
| | | | | 1 |

| | Power | | | |
|---|--------|--------|-----------|-----------------------|
| | [W] | [kW] | [CV] | [HP] |
| 1 | [W] | 1 | 10^{-3} | $1.360 \cdot 10^{-3}$ |
| 1 | [kW] | 1000 | 1 | 1.360 |
| 1 | [CV] | 735.50 | 0.7355 | 1 |
| 1 | [HP] | 745.70 | 0.7457 | 1.01387 |
| | | | | 1 |

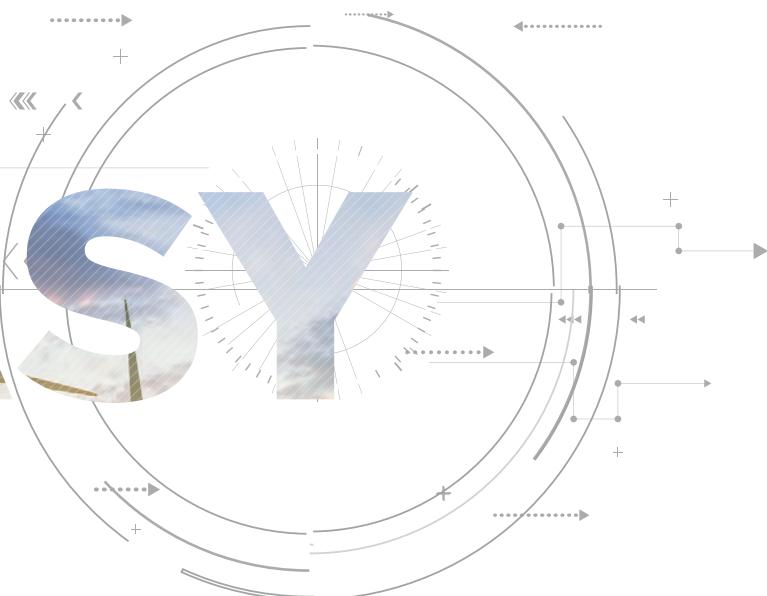
NOTE
NOTES



5 mm



EASY
to partner with



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