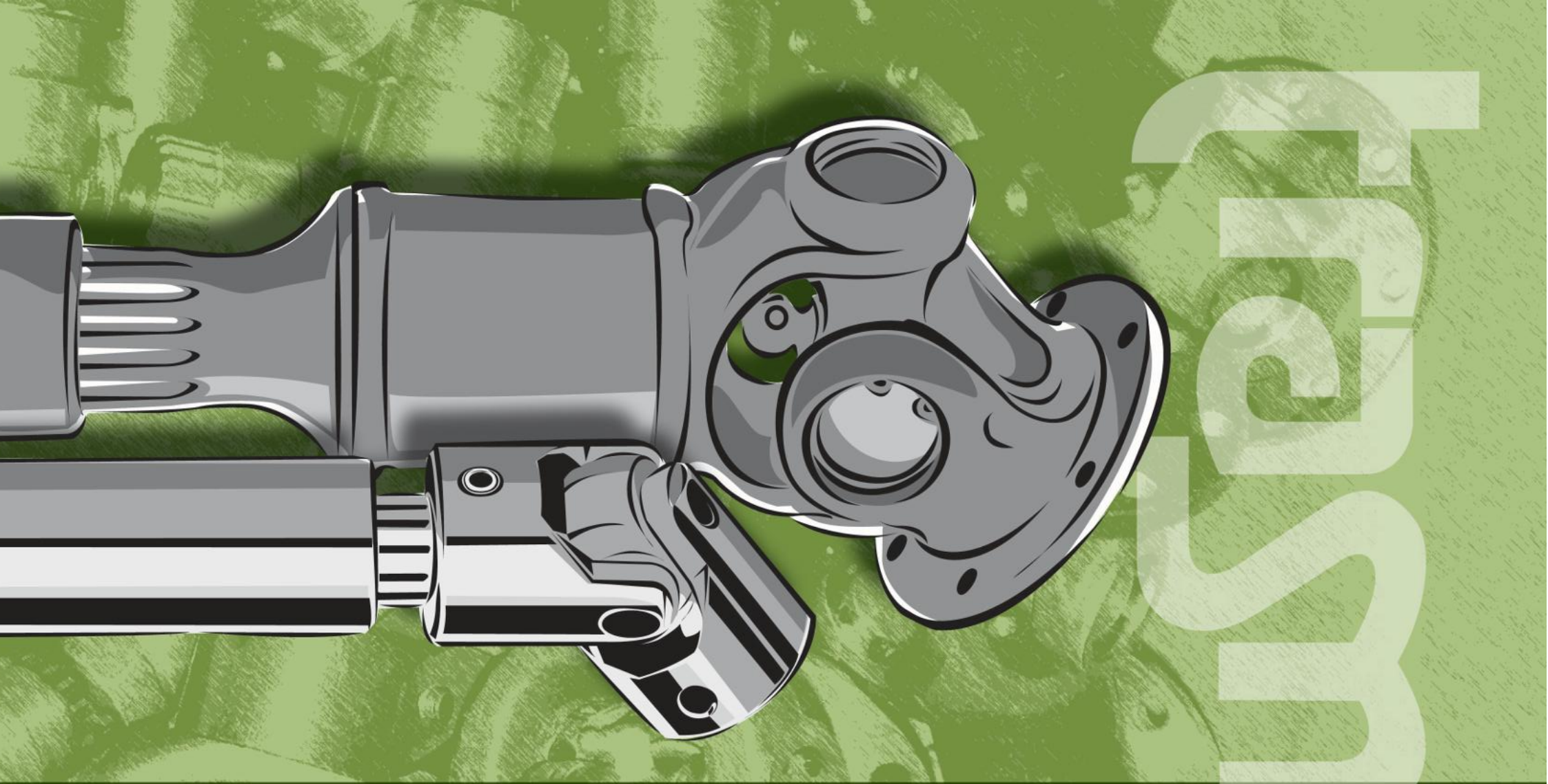


Giunti e trasmissioni cardaniche

QUALITÀ CERTIFICATA / *CERTIFIED QUALITY*

Certificate of Registration

The Governing Board of
Q.A. International Certification Limited
hereby grants to:

Trasmil S.r.l.

Registration No. : QAIC / IT / 90037

(hereinafter called the Registered Company) the right to be listed in the Directory of Registered Companies in respect of the services listed below. These services shall be offered by the Registered Company at or from only the address given below in accordance with the quality management system in compliance with ***ISO 9001:2000****.*

Address to which this Certificate refers :

Via Prudenzio, 4 - 20138 Milano Italy

Approved Scope to which this Certificate refers
(Scopo della Certificazione cui il Certificato riferisce)

Design and Development of Mechanical Power Transmission Equipment.
(Progettazione e Produzione di Organi di Trasmissione Quali Giunti Cardanici, Snodi ed Articolazioni)

(Further clarification regarding the Scope of this Certificate and the applicability of ISO 9001:2000 requirements may be obtained by consulting the organisation)

Signed for and on behalf of the Board

CHAIRMAN — A. J. Duffield

SCHEME MANAGER — A. Carter

Certificate Issue Date : *14th January 2008* - **Certificate Expiry Date** : *31st December 2008*
Date of Initial Registration : *21st December 1999* - **Re-assessment Date** : *31st December 2008*

This Certificate of Registration is granted subject to the Regulations approved by the Board.

QA INTERNATIONAL

Q.A. International Certification Ltd.
Cleveland Hall
Cleveland Street
Darlington
Co. Durham
DL1 2PE

Tel: +44 (0)1325 384272
Fax: +44(0)1325 480980
www.qai.co.uk

QA INTERNATIONAL CERTIFICATION LIMITED

QA INTERNATIONAL — UKAS QUALITY MANAGEMENT Registration Number 046

The use of the Accreditation Mark indicates accreditation in respect of those activities covered by the accreditation certificate number 046.

trasmil

TRASMIL Srl - 20138 Milano - Via Clemente Prudenzio, 4
Tel. 02 503522 - Fax 02 58019482
www. trasmil.it - info@trasmil.it

SELEZIONE SERIE 01

I giunti della serie **01** sono adatti per velocità basse da 400 a 1000 giri e momenti torcenti relativamente alti.
Si consiglia, per aumentare la durata dei giunti **01**, di non superare il 75% dei giri massimi indicati in tabella con una lubrificazione frequente, utilizzare, dove possibile, i manicotti di protezione.
I momenti torcenti di **Tabella 2** si riferiscono ad impieghi con carichi costanti e sono puramente indicativi.
Per applicazioni gravose, inversioni di moto, funzionamenti discontinui, angoli elevati, si consiglia di consultare il ns. ufficio tecnico.
Per scegliere un giunto o una trasmissione cardanica basata sui giunti **01**, procedere come segue:

A - Calcolare il momento torcente che il giunto deve trasmettere con la seguente formula:

$$Mt1 = \frac{7.023 \cdot P}{Giri/min} \ [Nm]$$

dove: P = potenza in HP
Mt1 = momento torcente in Nm

n° 1 Kw = 1,36 HP n° 1 Kgm = 9,81 Nm

B - Moltiplicare il momento torcente **Mt1** da trasmettere per il fattore di **Tabella 1** relativo all'angolo d'inclinazione del giunto, se superiore a 5°.

$$Mt1 \cdot K = Mt \ [Nm]$$

C - Con il nuovo valore **Mt** ottenuto scegliere sulla **Tabella 2** il giunto che, al numero di giri richiesti, ha il momento torcente uguale o immediatamente superiore.

SELECTION 01 SERIES

*The **01** type joints are suitable for low speed (from 400 to 1.000 r.p.m.) and torques relatively high. We recommend to increase the life of joints **01**, not to exceed the 75% of max r.p.m. indicated in schedule with a frequent lubrication and using where possible the rubber boots for the protection.*
*The torques indicated in **Schedule 2** are referring to employments with constant load and are simply approximate. For heavy employments, motion reversals, intermittent workings, high angles, we recommend to consult our technical office.*

*To select a joint or a cardan shaft with **01** joints, proceed as follows:*

***A** - Calculate the torque that the joint must transmit with the following formula:*

$$Mt1 = \frac{7.023 \cdot P}{R.p.m.} \ [Nm]$$

where: P = Power in HP
Mt1 = Torque in Nm

n° 1 Kw = 1,36 HP n° 1 Kgm = 9,81 Nm

***B** - Multiply **Mt1** by the **Schedule 1** Factor **K** relating to joint angle, if higher 5°.*

$$Mt1 \cdot K = Mt \ [Nm]$$

***C** - With the new obtained value **Mt**, choose on **Schedule 2** the joint that, at request r.p.m., has the equal torque or immediately higher.*

TABELLA 1 Fattore per angolo superiore a 5°

***SCHEDULE 1** Factor by angle higher 5°*

ANG. DI LAVORO *WORK ANGLE*	5°	10°	15°	20°	25°	30°	35°	45°
FATTORE **K** *FACTOR **K***	1	1,05	1,14	1,25	1,48	1,82	2,63	4,16

TABELLA 2 Selezione giunto

***SCHEDULE 2** Joint selection*

TIPO *TYPE*	Giri/min. - *R.p.m.* 100	200	300	400	500	750	1.000
01.010	6	5	4	3,5	3		
01.013	7	6	5	4,5	4		
01.017	15	10	8	7	6	5	4
01.020/01.023	25	18	15	13	10	9	8
01.026	40	26	20	18	14	11	9
01.029	69	44	40	35	30	25	20
01.032	90	83	70	55	50	40	
01.035	150	120	100	70	60	50	
01.040	250	180	125	95	80	70	
01.045	300	220	160	113	90		
01.050	400	250	180	140	110		
01.060	420	315	200	160	130		
01.070	460	320	220	190	150		
01.080	500	340	260	210			
01.100	700	500	340	270			

Valori in Nm. *Values in Nm.*

SELEZIONE SERIE 02

I giunti della serie **02** sono adatti per velocità elevate fino a 5000 giri, in funzione dell'angolo di inclinazione, con un funzionamento preciso, silenzioso e senza giochi.
Per applicazioni gravose, inversioni di moto, funzionamenti discontinui, angoli elevati, si consiglia di usare la serie 07 oppure consultare il ns. ufficio tecnico.
Per scegliere un giunto o una trasmissione cardanica basata sui giunti **02**, procedere come segue:

A - Calcolare il momento torcente che il giunto deve trasmettere con la seguente formula:

$$Mt1 = \frac{7.023 \cdot P}{Giri/min} \ [Nm]$$

dove: P = potenza in HP
Mt1 = momento torcente in Nm

n° 1 Kw = 1,36 HP n° 1 Kgm = 9,81 Nm

B - Moltiplicare il momento torcente **Mt1** da trasmettere per il fattore di **Tabella 3** relativo all'angolo d'inclinazione del giunto, se superiore a 5° e al fattore D di **Tabella 4**, se desidera una durata superiore a 5000 ore.

$$Mt1 \cdot K = Mt \ [Nm]$$

C - Con il nuovo valore **Mt** ottenuto scegliere sulla **Tabella 5** il giunto che, al numero di giri richiesti, ha il momento torcente uguale o immediatamente superiore.

SELECTION 02 SERIES

*The **02** type joints are suitable for high speeds until 5.000 r.p.m., considering the inclination angle, whit a precise working, silent and without play.*
For heavy employments, motion reversals, intermittent workings, high angles, we recommend to use the 07 type, or to consult our technical office.
*To select a joint or a cardan shaft with **02** joints, proceed as follows:*

***A** - Calculate the torque that the joint must transmit with the following formula:*

$$Mt1 = \frac{7.023 \cdot P}{R.p.m.} \ [Nm]$$

where: P = Power in HP
Mt1 = Torque in Nm

n° 1 Kw = 1,36 HP n° 1 Kgm = 9,81 Nm

***B** - Multiply **Mt1** by the **Schedule 3** Factor **K** relating to joint angle, if higher 5° and by the **Schedule 4** Factor D, if life higher 5.000 hours.*

$$Mt1 \cdot K = Mt \ [Nm]$$

***C** - With the new obtained value **Mt**, choose on **Schedule 5** the joint that, at requested r.p.m., has the equal torque or immediately higher.*

TABELLA 3 Fattore per angolo superiore a 5°

***SCHEDULE 3** Factor by angle higher 5°*

ANG. DI LAVORO *WORK ANGLE*	5°	10°	15°	20°	25°	30°	35°	45°
FATTORE **K** *FACTOR **K***	1	1,05	1,14	1,25	1,48	1,82	2,63	4,16

TABELLA 4 Fattore per durata superiore a 5.000 ore

***SCHEDULE 4** Factor by life higher 5.000 hours*

ORE *HOURS*	5.000	7.500	10.000	15.000	20.000	30.000	40.000
FATTORE **D** *FACTOR **D***	1	1,13	1,23	1,39	1,52	1,7	1,85

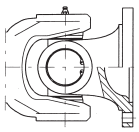
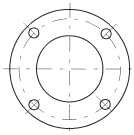
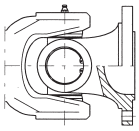
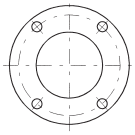
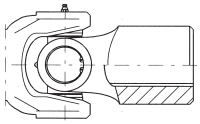
TABELLA 5 Selezione giunto

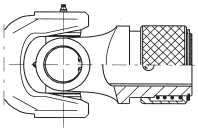
***SCHEDULE 5** Joint selection*

TIPO *TYPE*	Giri/min. - *R.p.m.* 250	500	1.000	2.000	4.000	5.000
02.017	11	10	7,5	6	5	
02.020	28	22	18	13	11	9
02.026	36	31	25	21	17	15
02.032	72	62	49	44	35	31
02.040	150	129	102	81	67	60
02.050	220	189	150	119	90	
02.060	310	267	215	180	140	
02.070	330	284	224	190		
02.080	375	322	255	202		
02.100	420	340	286	227		

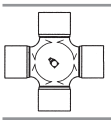
Valori in Nm. *Values in Nm.*

INDICE SERIE 07 - 08 / *CONTENTS 07 - 08 SERIES*



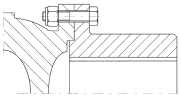

Tipo	Flangia DIN			Flangia SAE		Mozzo con foro	Attacco Rapido	MT MAX	pag.
07.045						da 16 a 24	da 18 a 20	200	16-17
07.058	58	65	75					320	18-19
						da 18 a 32	da 18 a 30		20-21
07.075	75	90						700	22-23
				1100					64-65
						da 24 a 35	da 25 a 30		24-25
07.090	90	100						920	26-27
				1300					64-65
						da 25 a 35	da 25 a 30		28-29
08.100	100	120						1.450	30-31
				1400					64-65
08.108	100	120						1.800	32-33
				1410					64-65
08.119	120	150						2.700	34-35
				1410	1510				64-65
07.120	120	150						4.000	36-37
				1510					64-65
08.120	120	150						5.200	38-39
08.150	150	180						6.800	40-41
				1600					64-65
08.151	150	165	180					10.000	42-43
				1600	1800				64-65
08.180	180	225						14.000	44-45
				1800					64-65
08.181	180	225						16.000	46-47
				1800					64-65
08.225	180	225	250					24.000	48-49
				1800					64-65
08.226	225	250	285					26.000	50-51
08.250	250	285						30.000	52-53
08.251	250	285	315					37.000	54-55
08.285	285	315	350					85.000	56-57
08.315	315	350	390					125.000	58-59
08.350	350	390						165.000	60
08.390	390	435						195.000	61
08.435	435	480						280.000	62
08.480	480							400.000	63



CROCIERE

da **11.058**

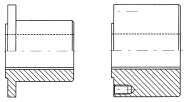
a **12.315** — 66



VITERIE

da **16.058**

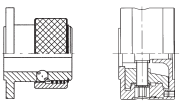
a **16.390** — 67



CONTROFLANGE

da **14.058** — da 19

a **14.350** — a 200 — 68-69



CONTROFLANGE con attacco rapido

da **14.075** — da 25

a **14.250** — a 50 — 70-71

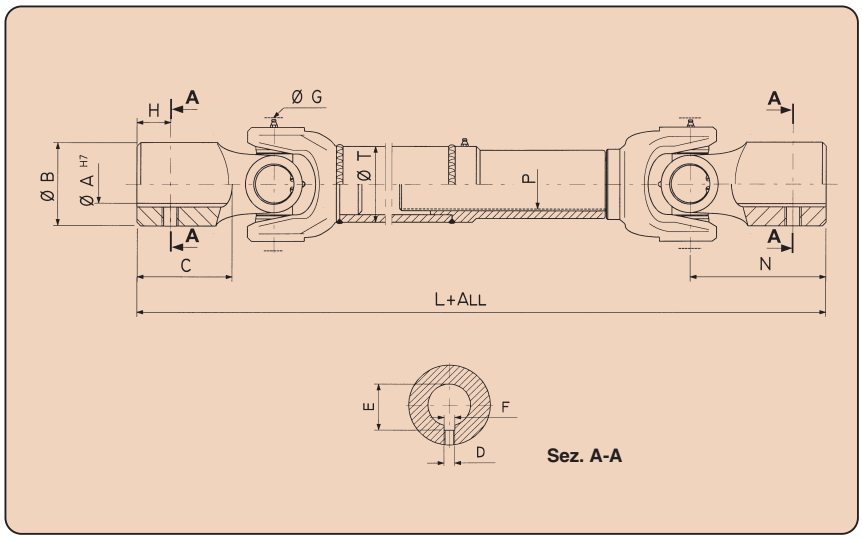


Codifica - Selezione — 73-75

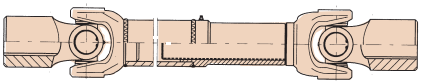
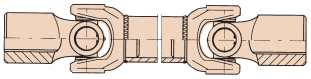
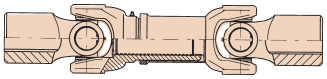
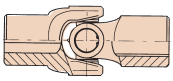
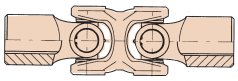
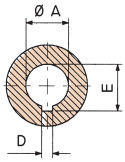
Montaggio - Equilibratura - Angolo di lavoro — 76-79

Istruzioni per la messa in opera - Norme di lubrificazione - Questionario — 80-82

Serie 07.045. a mozzo
Mt 200 Nm



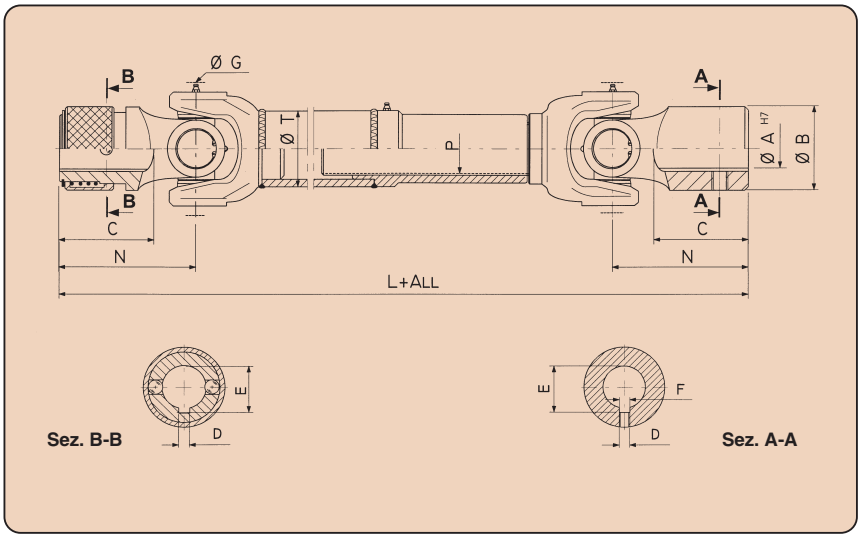
Serie / *Series*	07.045.-04	07.045.-14
Mt(1) Nm	200	200
β°(2)	30	30
A H7(3)	20	20
B	35	40
C	19	32
D(4)	6	6
E(4)	22,8	22,8
F(4)	M 6	M 6
G	48	48
H	9	9
N	41	54
P (UNI 8953)(9)	6x18x22	6x18x22
T	32x1,5	32x1,5

		Cod./*Code*			
	Allungabile con tubo di prolunga *Sliding with tube*	**07.045.304**	L(5)+All	325+100(6)	
				380+170	
				460+270	
		07.045.314	L(5)+All		350+100
					405+170
					485+270
	Fissa con tubo di prolunga *Fixed with tube*	**07.045.504**	L(5)	158	
					184
	Extracorta *Extra short*	**07.045.604**	L MIN+All(6)	235+30	
			L MAX+All(6)	315+100	
		07.045.614	L MIN+All(6)		260+30
			L MAX+All(6)		340+100
	Giunto semplice *Simple joint*	**07.045.104**	L	82	
		07.045.114	L		108
	Giunto doppio *Double joint*	**07.045.204**	L	137	
		07.045.214	L		163
		**07.045.-04(8)**	A H7(3)	20	
		07.045.-04.--(8)	A H7(7)	16/18	
			DxE(4)	DIN 6885	
		07.045.-14(8)	A H7(3)		20
		07.045.-14.--(8)	A H7(7)		19/22/24
			DxE(4)		DIN 6885

(1) Momento torcente dinamico massimo.
(2) Angolo massimo di inclinazione per giunto.
(3) Foro standard.
(4) Cave per linguetta e fori per grani filettati a richiesta.
(5) Lunghezza minima, lunghezze superiori a richiesta.
(6) Lunghezze minime e massime, differenti a richiesta.
(7) Fori speciali a richiesta.
(8) Completare il codice con il tipo desiderato e con il diametro dei fori, se differente dalla standard.
(9) A richiesta scanalato DIN 5480 25x1,5x18.
Qualora figurino due alternative, se non espressamente richiesto, verrà fornita la prima delle due.

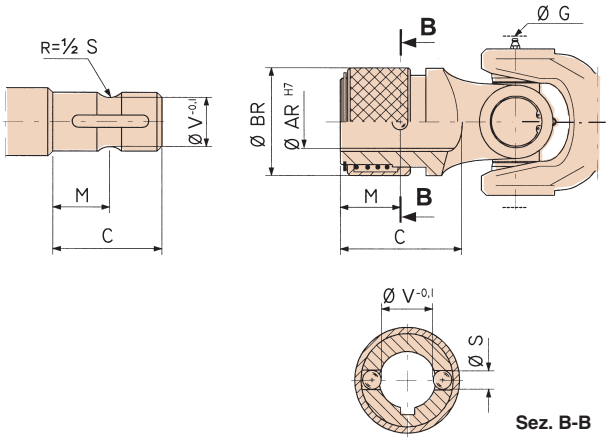
(1) Max dynamic torque.
(2) Maximum angle of inclination per joint.
(3) Standard hole.
(4) On request keyways and threaded holes.
(5) Minimum length, longer lengths on request.
(6) Minimum and maximum closed lengths, different lengths on request.
(7) On request special holes.
(8) Complete the code with the needed type and with the diameter holes, if different from the standard.
(9) On request splined DIN 5480 25x1,5x18.
When there are two alternatives, if not explicity required, we'll supply the first one.

Serie 07.045. a mozzo
Mt 200 Nm



Serie / *Series*	07.045.312
Mt(1) Nm	200
β°(2)	30
A H7(3)	20
C	32
DxE(4)	DIN 6885
B	40
G	48
N	54
P (UNI 8953)(5)	6x18x22
T	32x1,5
L(6)+All	345+100
	405+170
	505+270

ATTACCO RAPIDO / *QUICK RELEASE*

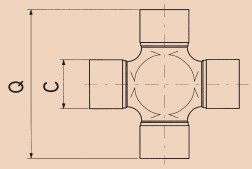


Cod./*Code*		
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	BR	37
	C	32
	G	48
	V	16
	M	19
	S	8
07.045.312.20	AR	20
	BR	40
	C	32
	G	48
	V	18
	M	19
	S	8

(1) Momento torcente dinamico massimo.
(2) Angolo massimo di inclinazione per giunto.
(3) Foro standard, per i fori speciali vedere esecuzione 07.045.304/314.
(4) Cave per linguetta e fori per grani filettati a richiesta.
(5) Lunghezza minima, lunghezze superiori a richiesta.
(6) A richiesta scanalato DIN 5480 25x1,5x18.
Per le quote mancanti vedere esecuzione 07.045.304/314.
Qualora figurino due alternative, se non espressamente richiesto, verrà fornita la prima delle due.

(1) Max dynamic torque.
(2) Maximum angle of inclination per joint.
(3) Standard holes, for special holes see 07.045.304/314 execution.
(4) On request keyways and threaded holes.
(5) Minimum length, longer lengths on request.
(6) On request splined DIN 5480 25x1,5x18.
For missing size, see 07.045.304/314 execution.
When there are two alternatives, if not explicity required, we'll supply the first one.

CROCIERA / *JOURNAL CROSS*



Esente da lubrificazione
Long life

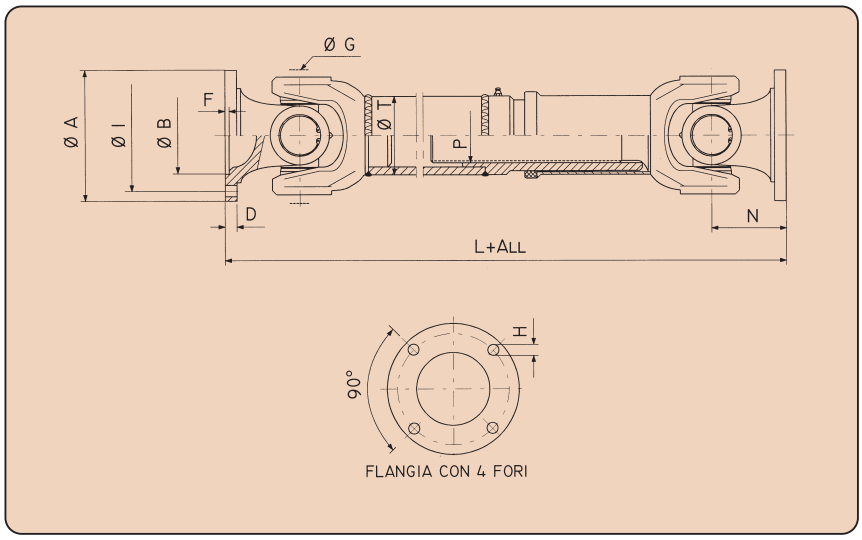
Cod./*Code*	11.045.002(1)
C	16
Q	38,5
Anello d'arresto / *Circlip*	16x1

(1) Esecuzione esente da lubrificazione a richiesta.

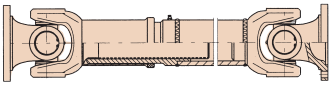
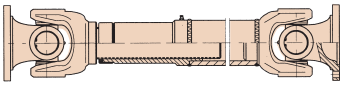
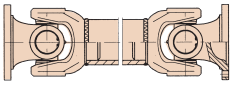
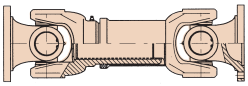
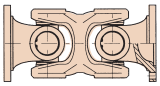
(1) Execution long life on request.

Dimensioni in mm / *Dimensions in mm*

Serie 07.058.
Mt 320 Nm



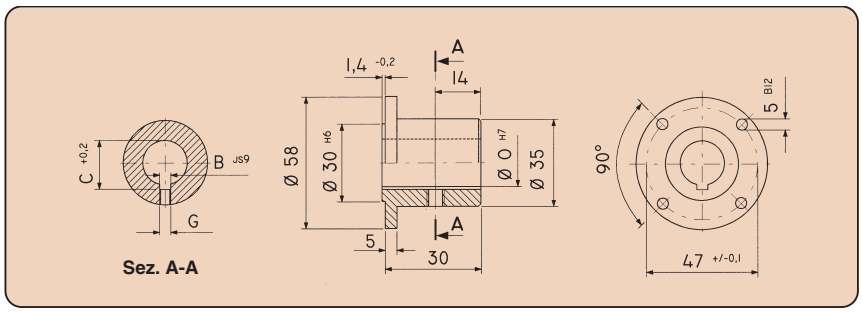
Serie/*Series*	07.058.--0	07.058.--1	07.058.--2
Mt(1) Nm	190	320	320
ß°(2)	25/30	25/30	25
A	58	65	75
B^{H7}	30	35	42
D	4	4	5
$F^{+0,2}$	2,5	2,5	2,5
G	60	60	60
H^{B12}	5	6	6
$I^{\pm 0,1}$	47	52	62
N° Fori	4	4	6
N	32/37	32/37	32
P (DIN 5480)	25x1,25x18	25x1,25x18	25x1,25x18
T	32x1,5/40x2	32x1,5/40x2	32x1,5/40x2

FLANGIA DIN / *DIN FLANGE*		Cod./*Code*	Flangia/*Flange*	DIN 58	DIN 65	DIN 75
	Allungabile con tubo di prolunga *Sliding with tube*	**07.058.310**	L(3)+All	260+60		
		07.058.311	L(3)+All		260+60	
		07.058.312	L(3)+All			260+60
	Allungabile con tubo di prolunga e allungamento a richiesta *Sliding with tube and prolungation on request*	**07.058.400**	L(3)+All	400+160(4)		
		07.058.401	L(3)+All		400+160(4)	
		07.058.402	L(3)+All			400+160(4)
	Fissa con tubo di prolunga *Fixed with tube*	**07.058.500**	L(3)	175		
		07.058.501	L(3)		175	
		07.058.502	L(3)			175
	Extracorta *Extra short*	**07.058.610**	L+All	165+15		
		07.058.620	L+All	175+20		
		07.058.630	L+All	190+30		
		07.058.640	L+All	220+50		
		07.058.650	L+All	235+65		
		07.058.611	L+All		165+15	
		07.058.621	L+All		175+20	
		07.058.631	L+All		190+30	
		07.058.641	L+All		220+30	
		07.058.651	L+All		235+65	
		07.058.612	L+All			165+15
		07.058.622	L+All			175+20
		07.058.632	L+All			190+30
		07.058.642	L+All			220+30
		07.058.652	L+All			235+65
	Giunto semplice *Simple joint*	**07.058.100**	L	64/74		
		07.058.101	L		64/74	
		07.058.102	L			64
	Giunto doppio *Double joint*	**07.058.200**	L	123/133		
		07.058.201	L		123/133	
		07.058.202	L			123

(1) Momento torcente dinamico massimo.
(2) Angolo massimo di inclinazione per giunto, 30° su richiesta.
(3) Lunghezza minima, lunghezze superiori a richiesta.
(4) Tubo 40x2, senza protezione del profilo scanalato, lunghezze e allungamenti superiori a richiesta.
Qualora figurino due alternative, se non espressamente richiesto, verrà fornita la prima delle due.

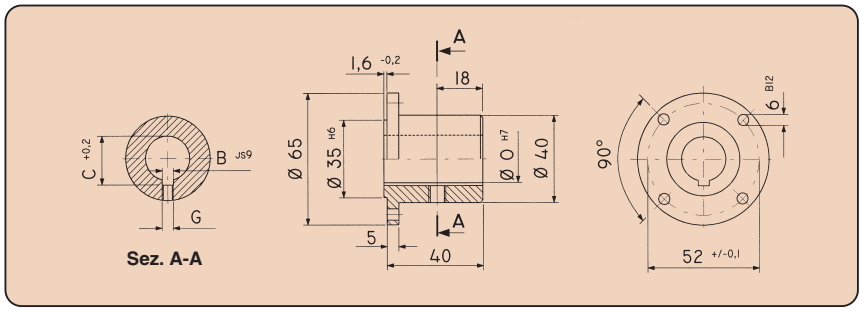
(1) Max dynamic torque.
(2) Maximum angle of inclination per joint, 30° on request.
(3) Minimum length, longer lengths on request.
(4) Tube 40x2, without metallic protection of the splined, longer lenghts and prolungation on request.
When there are two alternatives, if not explicity required, we'll supply the first one.

CONTROFLANGIA DIN 58 / *DIN 58 COMPANION FLANGE*



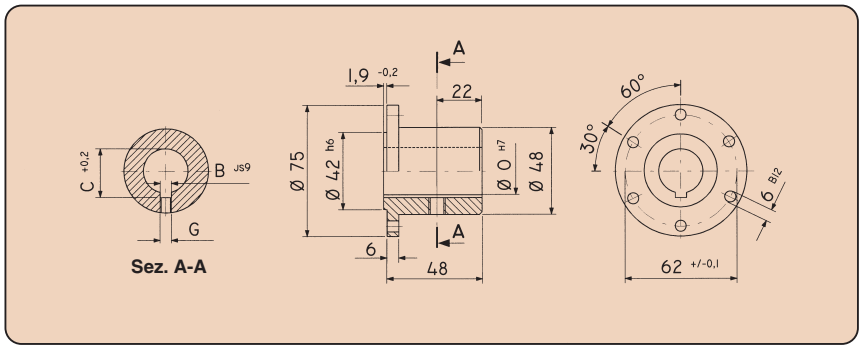
Cod./*Code*	O	B	C	G
14.058.019	19	6	21,8	M 6
14.058.020	20	6	22,8	M 6
14.058.022	22	6	24,8	M 6
14.058.000	foro a richiesta / *hole on request*			
14.058.001	senza foro / *without hole*			

CONTROFLANGIA DIN 65 / *DIN 65 COMPANION FLANGE*



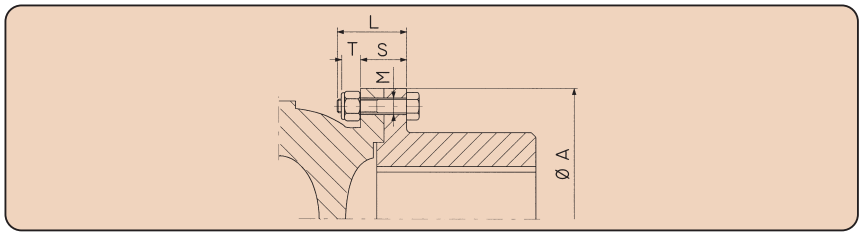
Cod./*Code*	O	B	C	G
14.065.019	19	6	21,8	M 6
14.065.020	20	6	22,8	M 6
14.065.022	22	6	24,8	M 6
14.065.024	24	8	27,3	M 8
14.065.025	25	8	28,3	M 8
14.065.000	foro a richiesta / *hole on request*			
14.065.001	senza foro / *without hole*			

CONTROFLANGIA DIN 75 / *DIN 75 COMPANION FLANGE*



Cod./*Code*	O	B	C	G
14.075.019	19	6	21,8	M 6
14.075.020	20	6	22,8	M 6
14.075.024	24	8	27,3	M 8
14.075.025	25	8	28,3	M 8
14.075.028	28	8	31,3	M 8
14.075.030	30	8	33,3	M 8
14.075.032	32	10	35,3	M 10
14.075.000	foro a richiesta / *hole on request*			
14.075.001	senza foro / *without hole*			

SET VITERIA / *FITTING BOLTS*

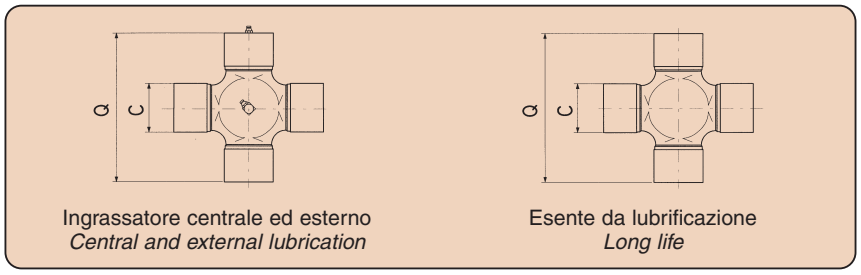


Cod./*Code*	16.058.000	16.065.000	16.075.000
A	58	65	75
M x L	M5 x 16	M6 x 18	M6 x 18
T	5,1	6,2	6,2
S	9	9	11
Quantità(1)	8	8	12
Nm(2)	8	13	13

(1) Quantità di dadi (Din 980V-10) e viti (Din 933-10.9) per ogni set di viteria
(2) Coppia di serraggio

(1) Quantity of self-locking nuts (Din 980V-10) and Bolts (Din 933-10.9) each set
(2) Tightening torque

CROCIERA / *JOURNAL CROSS*



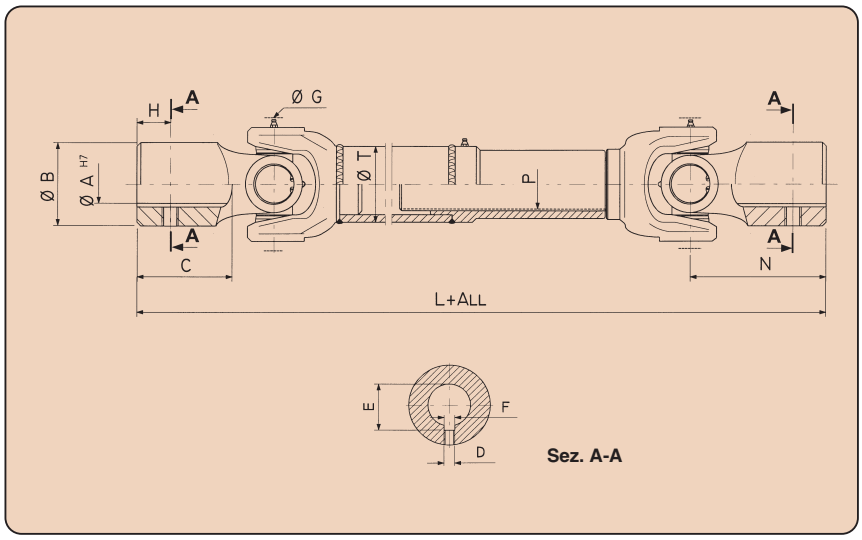
Cod./*Code*	11.058.011	11.058.002(1)
C	18	18
Q	47	47
Anello d'arresto / *Circlip*	18x1	18x1

(1) Esecuzione esente da lubrificazione a richiesta.

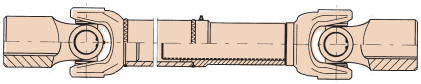
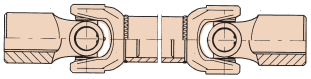
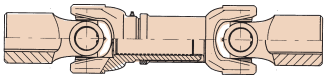
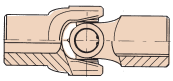
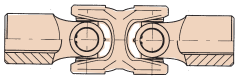
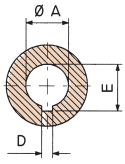
(1) Execution long life on request.

Dimensioni in mm / *Dimensions in mm*

Serie 07.058. a mozzo
Mt 320 Nm



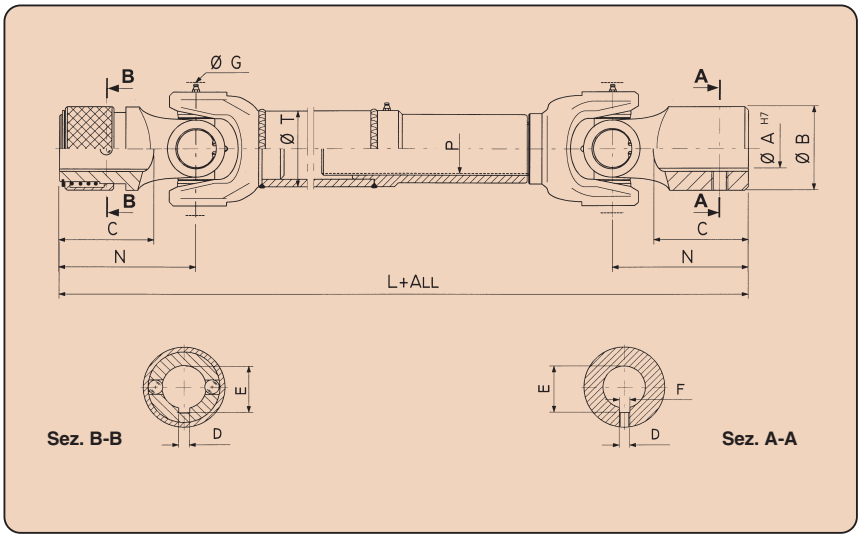
Serie / *Series*	07.058.-04	07.058.-14
Mt(1) Nm	320	320
β°(2)	45/30	45/30
A H7(3)	25	30
B	44/40	50
C	30	45
D(4)	8	8
E(4)	28,3	33,3
F(4)	M 8	M 8
G	60	60
H	10	12
N	60	75
P (UNI 8953)	6x21x25	6x21x25
T	40x2/32x1,5	40x2/32x1,5

		Cod./*Code*			
	Allungabile con tubo di prolunga *Sliding with tube*	**07.058.304**	L(5)+All	320+60(6)	
				375+120	
				475+220	
		07.058.314	L(5)+All		350+60(6)
					405+120
					505+220
	Fissa con tubo di prolunga *Fixed with tube*	**07.058.504**	L(5)	235	
		07.058.514	L(5)		265
	Extracorta *Extra short*	**07.058.604**	L MIN+All(7)	245+30(6)	
			L MAX+All(7)	300+60(6)	
		07.058.614	L MIN+All(7)		275+30(6)
			L MAX+All(7)		330+60(6)
	Giunto semplice *Simple joint*	**07.058.104**	L	120	
		07.058.114	L		150
	Giunto doppio *Double joint*	**07.058.204**	L	179/200	
		07.058.214	L		209/230
		**07.058.-04(9)**	A H7(3)	25	
		07.058.-04.--(9)	A H7(8)	18/19/20/22/24	
			DxE(4)	DIN 6885	
		07.058.-14(9)	A H7(3)		30
		07.058.-14.--(9)	A H7(8)		22/24/25/28/32
			DxE(4)		DIN 6885

(1) Momento torcente dinamico massimo.
(2) Angolo massimo di inclinazione per giunto.
(3) Foro standard.
(4) Cave per linguetta e fori per grani filettati a richiesta.
(5) Lunghezza minima, lunghezze superiori a richiesta.
(6) Angolo massimo di inclinazione 30° nell'esecuzione con protezione del profilo scanalato.
(7) Lunghezze minime e massime, differenti a richiesta.
(8) Fori speciali a richiesta.
(9) Completare il codice con il tipo desiderato e con il diametro dei fori, se differente dalla standard.
Qualora figurino due alternative, se non espressamente richiesto, verrà fornita la prima delle due.

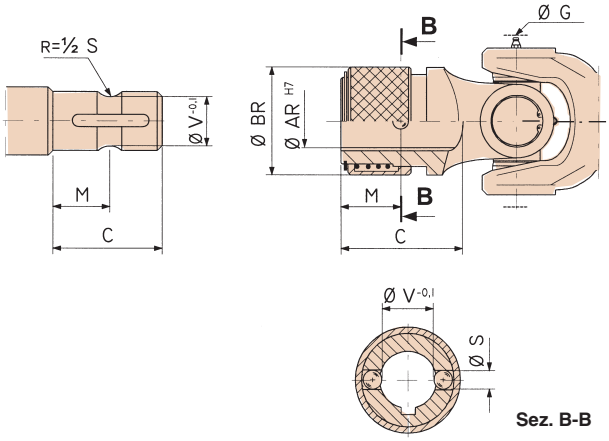
(1) Max dynamic torque.
(2) Maximum angle of inclination per joint.
(3) Standard hole.
(4) On request keyways and threaded holes.
(5) Minimum length, longer lengths on request.
(6) Maximum angle of inclination 30° in execution with metallic protection of the splined.
(7) Minimum and maximum closed lengths, different lengths on request.
(8) On request special holes.
(9) Complete the code with the needed type and with the diameter holes, if different from the standard.
When there are two alternatives, if not explicity required, we'll supply the first one.

Serie 07.058. a mozzo
Mt 320 Nm



Serie / *Series*	07.058.312	07.058.312
Mt(1) Nm	320	320
β°(2)	45/30	45/30
AH7(3)	25	30
C	30	45
DxE(4)	DIN 6885	DIN 6885
B	44/40	50
G	60	60
N	60	75
P (UNI 8953)	6x21x25	6x21x25
T	40x2/32x1,5(6)	40x2/32x1,5(6)
L(5)+All	320+60(6)	350+60(6)
	375+120	405+120
	475+220	505+220

ATTACCO RAPIDO / *QUICK RELEASE*



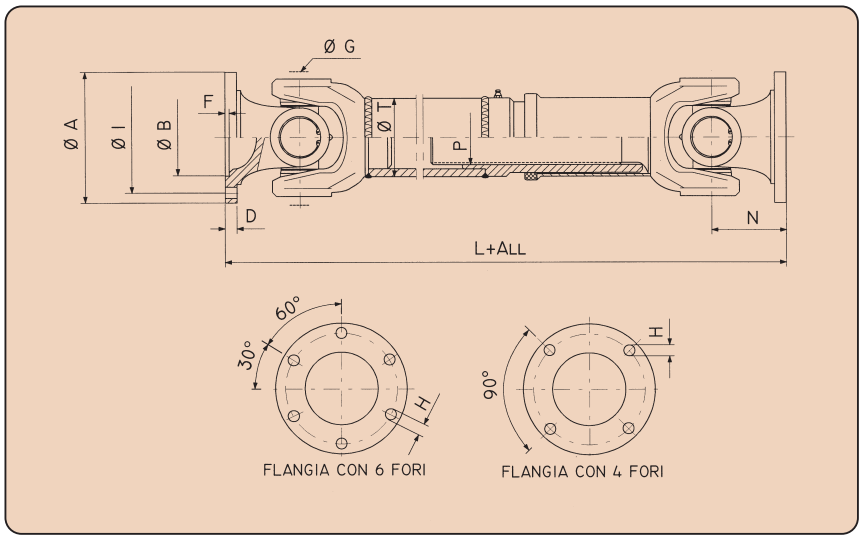
Cod./*Code*			
07.058.312.18	AR	18	
	BR	37	
	V	16	
	M	19	
	S	8	
07.058.312.20	AR	20	
	BR	40	
	V	18	
	M	19	
	S	8	
07.058.312.22	AR		22
	BR		47
	V		20
	M		20,5
	S		10
07.058.312.25	AR		25
	BR		50
	V		23
	M		20,5
	S		10
07.058.312.30	AR		30
	BR		58
	V		28
	M		25
	S		10

(1) Momento torcente dinamico massimo.
(2) Angolo massimo di inclinazione per giunto.
(3) Foro standard, per i fori speciali vedere esecuzione 07.058.304/314.
(4) Cave per linguetta e fori per grani filettati a richiesta.
(5) Lunghezza minima, lunghezze superiori a richiesta.
(6) Angolo massimo di inclinazione 30° nell'esecuzione con protezione del profilo scanalato.
Per le quote mancanti vedere esecuzione 07.058.304/314.
Qualora figurino due alternative, se non espressamente richiesto, verrà fornita la prima delle due.

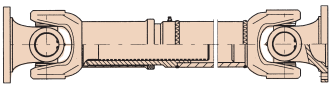
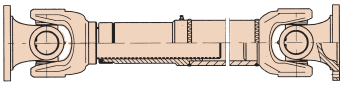
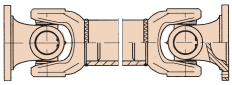
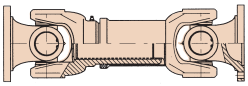
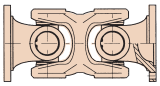
(1) Max dynamic torque.
(2) Maximum angle of inclination per joint.
(3) Standard holes, for special holes see 07.058.304/314 execution.
(4) On request keyways and threaded holes.
(5) Minimum length, longer lengths on request.
(6) Maximum angle of inclination 30° in execution with metallic protection of the splined.
For missing size, see 07.058.304/314 execution.
When there are two alternatives, if not explicity required, we'll supply the first one.

Dimensioni in mm / *Dimensions in mm*

Serie 07.075.
Mt 700 Nm



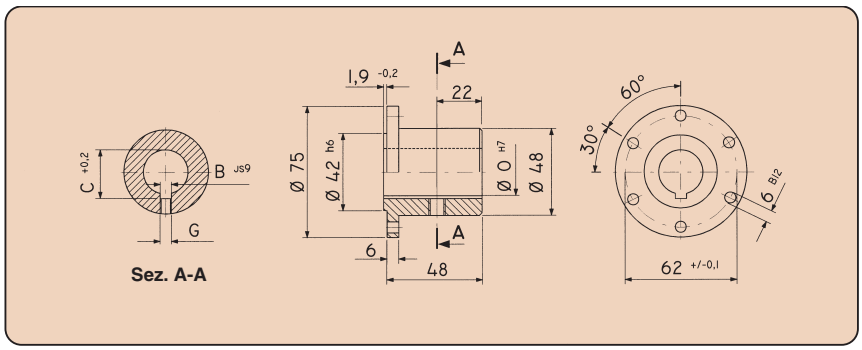
Serie / *Series*	07.075.--0	07.075.--1
Mt(1) Nm	700	700
β°(2)	25	25/18
A	75	90
B H7	42	47
D	5	6
F +0,2	2,5	2,5
G	76	76
H B12	6	8
I ±0,1	62	74,5
N° Fori / *Holes*	6	4
N	42	42/37
P (DIN 5482)	30x27x16	30x27x16
T	50x2/60x2	50x2/60x2

FLANGIA DIN / *DIN FLANGE*		Cod./*Code*	Flangia/*Flange*	DIN 75	DIN 90
	Allungabile con tubo di prolunga *Sliding with tube*	**07.075.310**	L(3)+All	335+90	
		07.075.311	L(3)+All		335+90
	Allungabile con tubo di prolunga e allungamento a richiesta *Sliding with tube and* *prolungation on request*	**07.075.400**	L(3)+All	430+160	
				520+250	
				680+400	
		07.075.401	L(3)+All		430+160
					520+250
					680+400
	Fissa con tubo di prolunga *Fixed with tube*	**07.075.500**	L(3)	185	
		07.075.501	L(3)		185
	Extracorta *Extra short*	**07.075.610**	L+All	200+25	
		07.075.620	L+All	210+25	
		07.075.630	L+All	225+35	
		07.075.640	L+All	250+45	
		07.075.650	L+All	280+45	
		07.075.660	L+All	316+45	
		07.075.611	L+All		200+25
		07.075.621	L+All		210+25
		07.075.631	L+All		225+35
		07.075.641	L+All		250+45
		07.075.651	L+All		280+45
		07.075.661	L+All		316+45
	Giunto semplice *Simple joint*	**07.075.100**	L	84	
		07.075.101	L		84/74
	Giunto doppio *Double joint*	**07.075.200**	L	155	
		07.075.201	L		155/145

(1) Momento torcente dinamico massimo.
(2) Angolo massimo di inclinazione per giunto.
(3) Lunghezza minima, lunghezze superiori a richiesta.
Qualora figurino due alternative, se non espressamente richiesto, verrà fornita la prima delle due.

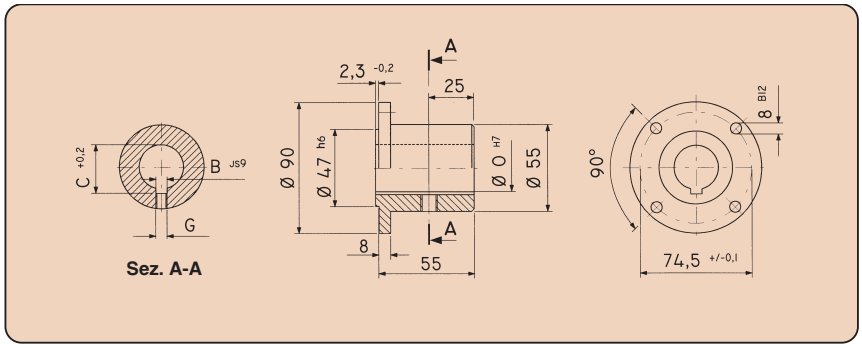
(1) Max dynamic torque.
(2) Maximum angle of inclination per joint.
(3) Minimum length, longer lengths on request.
When there are two alternatives, if not explicity required, we'll supply the first one.

CONTROFLANGIA DIN 75 / *DIN 75 COMPANION FLANGE*



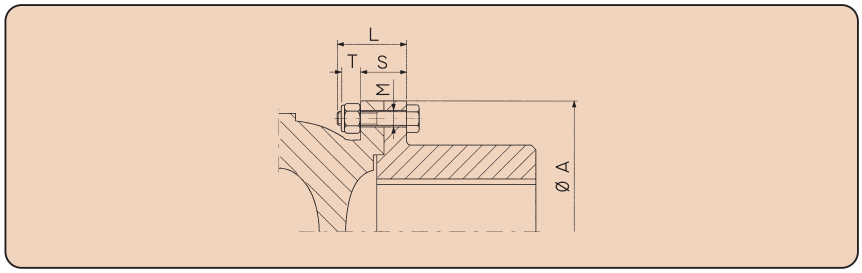
Cod./*Code*	O	B	C	G
14.075.019	19	6	21,8	M 6
14.075.020	20	6	22,8	M 6
14.075.024	24	8	27,3	M 8
14.075.025	25	8	28,3	M 8
14.075.028	28	8	31,3	M 8
14.075.030	30	8	33,3	M 8
14.075.032	32	10	35,3	M 10
14.075.000	foro a richiesta / *hole on request*			
14.075.001	senza foro / *without hole*			

CONTROFLANGIA DIN 90 / *DIN 90 COMPANION FLANGE*



Cod./*Code*	O	B	C	G
14.090.024	24	8	27,3	M 8
14.090.025	25	8	28,3	M 8
14.090.028	28	8	31,3	M 8
14.090.030	30	8	33,3	M 8
14.090.032	32	10	35,3	M 10
14.090.035	35	10	38,3	M 10
14.090.038	38	10	41,3	M 10
14.090.000	foro a richiesta / *hole on request*			
14.090.001	senza foro / *without hole*			

SET VITERIA / *FITTING BOLTS*

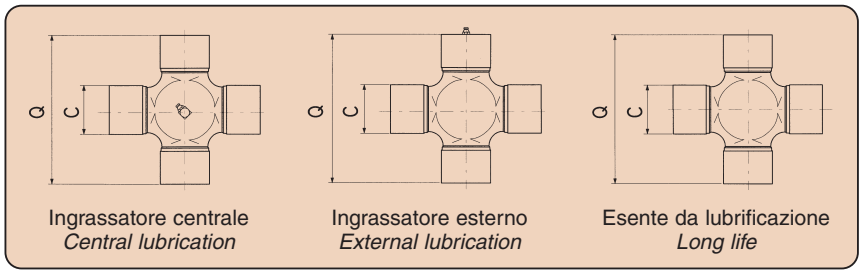


Cod./*Code*	16.075.000	16.090.000
A	75	90
M x L	M6 x 18	M8 x 25
T	6,2	7,7
S	11	14
Quantità(1)	12	8
Nm(2)	13	35

(1) Quantità di dadi (Din 980V-10) e viti (Din 933-10.9) per ogni set di viteria
(2) Coppia di serraggio

(1) Quantity of self-locking nuts (Din 980V-10) and Bolts (Din 933-10.9) each set
(2) Tightening torque

CROCIERA / *JOURNAL CROSS*



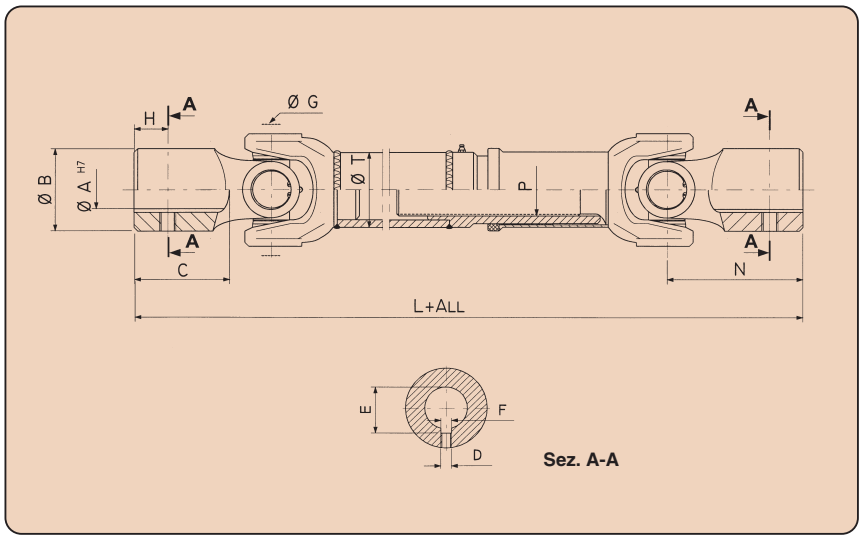
Cod./*Code*	11.075.000	11.075.001(1)	11.075.002(2)
C	23,8	23,8	23,8
Q	61,3	61,3	61,3
Anello/*Circlip*	24x1,5	24x1,5	24x1,5

(1) Esecuzione con ingrassatore esterno a richiesta.
(2) Esecuzione esente da lubrificazione a richiesta.

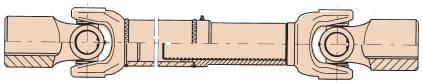
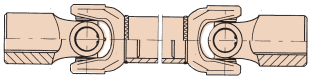
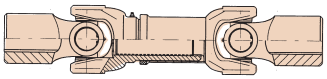
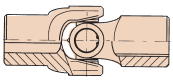
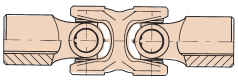
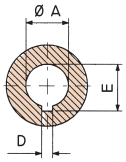
(1) Execution with external lubrication on request.
(2) Execution long life on request.

Dimensioni in mm / *Dimensions in mm*

Serie 07.075. a mozzo
Mt 700 Nm



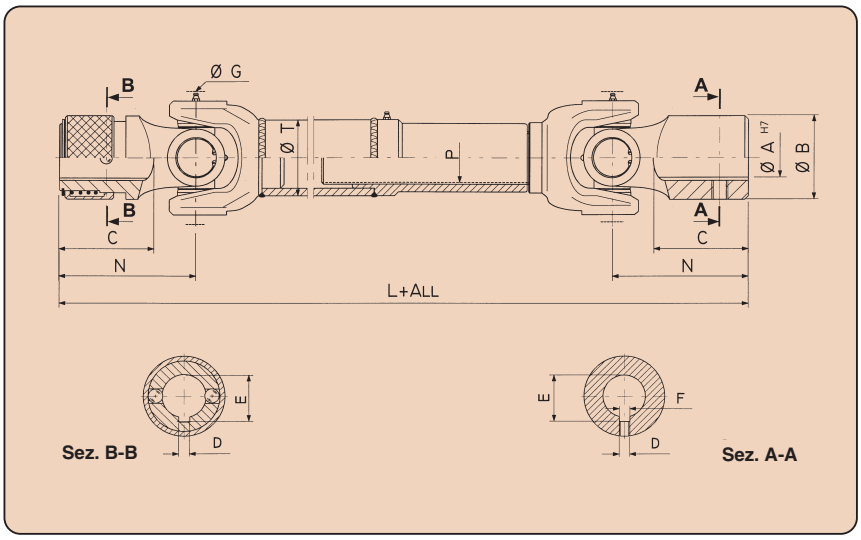
Serie / *Series*	07.075.-04	07.075.-14
Mt(1) Nm	700	700
ß°(2)	25	25
AH7(3)	30	30
B	57	57
C	34	48
D(4)	8	8
E(4)	33,3	33,3
F(4)	M 8	M 8
G	76	76
H	15	20
N	66	80
P (DIN 5482)	30x27x16	30x27x16
T	50x2/60x2	50x2/60x2

		Cod./*Code*			
	Allungabile con tubo di prolunga *Sliding with tube*	**07.075.304**	L(5)+All	385+90	
				480+160(6)	
				570+250(6)	
		07.075.314	L(5)+All		410+90
					505+160(6)
					595+250(6)
	Fissa con tubo di prolunga *Fixed with tube*	**07.075.504**	L(5)	235	
		07.075.514	L(5)		263
	Extracorta *Extra short*	**07.075.604**	LMIN+All(7)	248+25	
			LMAX+All(7)	364+50	
		07.075.614	LMIN+All(7)		276+25
			LMAX+All(7)		392+50
	Giunto semplice *Simple joint*	**07.075.104**	L	132	
		07.075.114	L		160
	Giunto doppio *Double joint*	**07.075.204**	L	203	
		07.075.214	L		231
		**07.075.-04(9)**	AH7(3)	30	
		07.075.-04.--(9)	AH7(8)	24/25/28/32/35	
			DxE(4)	DIN 6885	
		07.075.-14(9)	AH7(3)		30
		07.075.-14.--(9)	AH7(8)		25/28/35
			DxE(4)		DIN 6885

(1) Momento torcente dinamico massimo.
(2) Angolo massimo di inclinazione per giunto.
(3) Foro standard.
(4) Cave per linguetta e fori per grani filettati a richiesta.
(5) Lunghezza minima, lunghezze superiori a richiesta.
(6) Esecuzione senza protezione del profilo scanalato.
(7) Lunghezze minime e massime, differenti a richiesta.
(8) Fori speciali a richiesta.
(9) Completare il codice con il tipo desiderato e con il diametro dei fori, se differente dalla standard.
Qualora figurino due alternative, se non espressamente richiesto, verrà fornita la prima delle due.

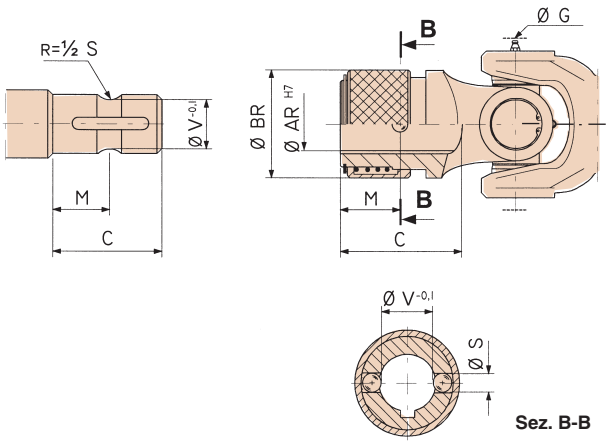
(1) Max dynamic torque.
(2) Maximum angle of inclination per joint.
(3) Standard hole.
(4) On request keyways and threaded holes.
(5) Minimum length, longer lengths on request.
(6) Execution without metallic protection of the splined.
(7) Minimum and maximum closed lengths, different lengths on request.
(8) On request special holes.
(9) Complete the code with the needed type and with the diameter holes, if different from the standard.
When there are two alternatives, if not explicity required, we'll supply the first one.

Serie 07.075. a mozzo
Mt 700 Nm



Serie / *Series*	07.075.312. --
Mt(1) Nm	700
β°(2)	25
A H7(3)	30
C	48
DxE(4)	DIN 6885
B	57
G	76
N	80
P (DIN 5482)	30x27x16
T	50x2/60x2
L(5)+All	410+90
	505+160(6)
	595+250(6)

ATTACCO RAPIDO / *QUICK RELEASE*



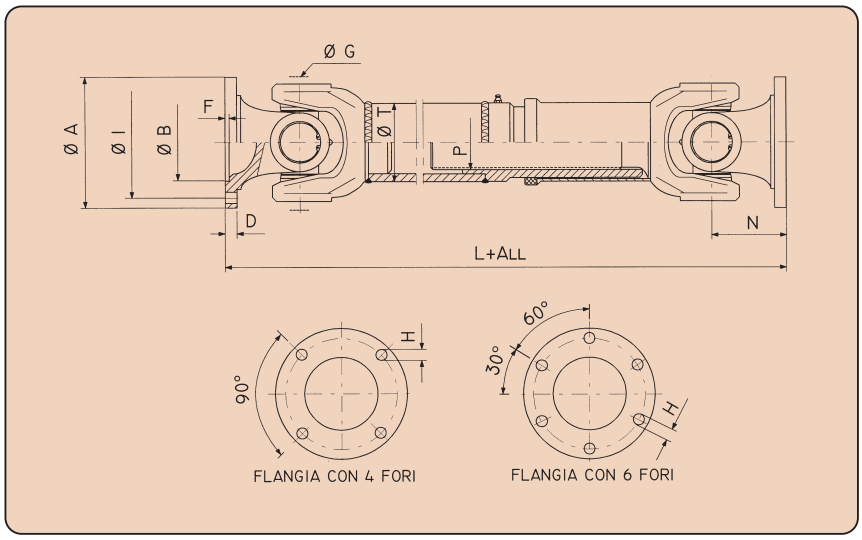
Cod./*Code*		
07.075.312.25	AR	25
	BR	50
	C	48
	V	23
	M	20,5
	S	10
07.075.312.30	AR	30
	BR	58
	C	48
	V	28
	M	25
	S	10

(1) Momento torcente dinamico massimo.
(2) Angolo massimo di inclinazione per giunto.
(3) Foro standard, per i fori speciali vedere esecuzione 07.075.314.
(4) Cave per linguetta e fori per grani filettati a richiesta.
(5) Lunghezza minima, lunghezze superiori a richiesta.
(6) Esecuzione senza protezione del profilo scanalato.
Per le quote mancanti vedere esecuzione 07.075.314.
Qualora figurino due alternative, se non espressamente richiesto, verrà fornita la prima delle due.

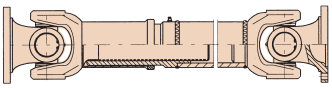
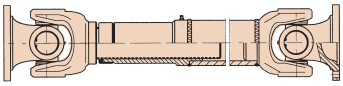
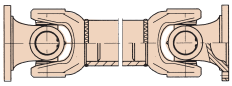
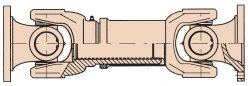
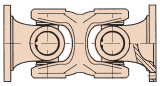
(1) Max dynamic torque.
(2) Maximum angle of inclination per joint.
(3) Standard holes, for special holes see 07.075.314 execution.
(4) On request keyways and threaded holes.
(5) Minimum length, longer lengths on request.
(6) Execution without metallic protection of the splined.
For missing size, see 07.075.314 execution.
When there are two alternatives, if not explicity required, we'll supply the first one.

Dimensioni in mm / *Dimensions in mm*

Serie 07.090.
Mt 920 Nm



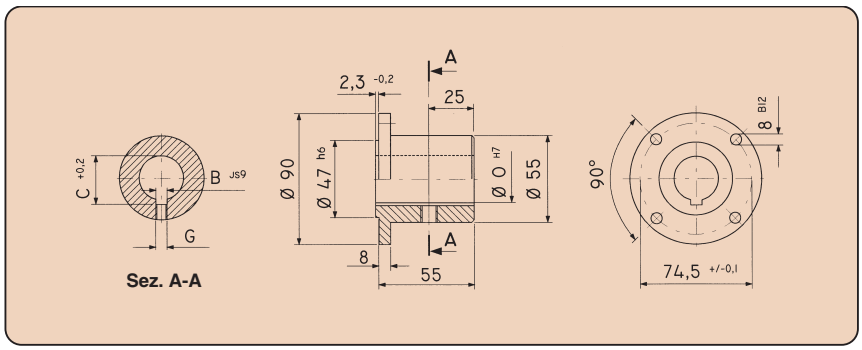
Serie / *Series*	07.090.--0	07.090.--1
Mt(1) Nm	920	920
β°(2)	30	30
A	90	100
B^{H7}	47	57
D	6	6,5
$F^{+0,2}$	2,5	2,5
G	90	90
H^{B12}	8	8
$I^{\pm 0,1}$	74,5	84
N° Fori / *Holes*	4	6
N	47	47
P (DIN 5482)	30x27x16	30x27x16
T	50x2/70x3	50x2/70x3

FLANGIA DIN / *DIN FLANGE*		Cod./*Code*	Flangia/*Flange*	DIN 90	DIN 100
	Allungabile con tubo di prolunga *Sliding with tube*	**07.090.310**	L(3)+All	375+90	
		07.090.311	L(3)+All		375+90
	Allungabile con tubo di prolunga e allungamento a richiesta *Sliding with tube and* *prolungation on request*	**07.090.400**	L(3)+All	455+160	
				545+250	
				705+350	
		07.090.401	L(3)+All		455+160
					545+250
					705+350
	Fissa con tubo di prolunga *Fixed with tube*	**07.090.500**	L(3)	225	
		07.090.501	L(3)		225
	Extracorta *Extra short*	**07.090.610**	L+All	225+25	
		07.090.620	L+All	235+25	
		07.090.630	L+All	250+40	
		07.090.640	L+All	280+50	
		07.090.650	L+All	295+50	
		07.090.660	L+All	320+50	
		07.090.611	L+All		225+25
		07.090.621	L+All		235+25
		07.090.631	L+All		250+40
		07.090.641	L+All		280+50
		07.090.651	L+All		295+50
		07.090.661	L+All		320+50
	Giunto semplice *Simple joint*	**07.090.100**	L	94	
		07.090.101	L		94
	Giunto doppio *Double joint*	**07.090.200**	L	154	
		07.090.201	L		154

(1) Momento torcente dinamico massimo.
(2) Angolo massimo di inclinazione per giunto.
(3) Lunghezza minima, lunghezze superiori a richiesta.
Qualora figurino due alternative, se non espressamente richiesto, verrà fornita la prima delle due.

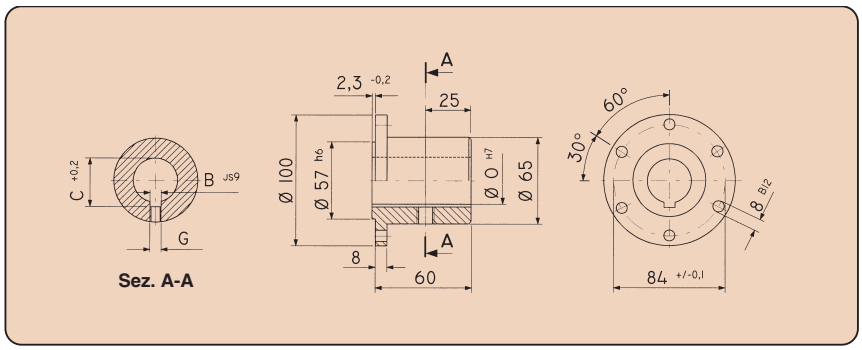
(1) Max dynamic torque.
(2) Maximum angle of inclination per joint.
(3) Minimum length, longer lengths on request.
When there are two alternatives, if not explicity required, we'll supply the first one.

CONTROFLANGIA DIN 90 / *DIN 90 COMPANION FLANGE*



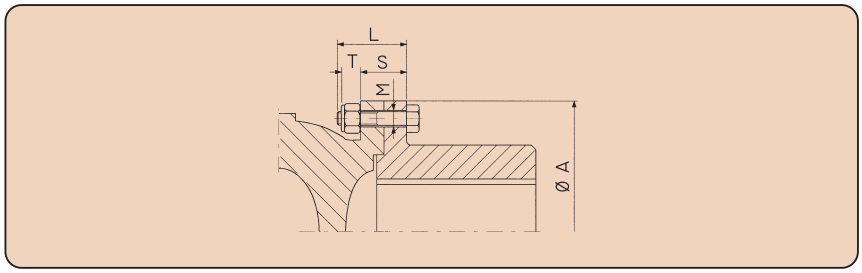
Cod./*Code*	O	B	C	G
14.090.024	24	8	27,3	M 8
14.090.025	25	8	28,3	M 8
14.090.028	28	8	31,3	M 8
14.090.030	30	8	33,3	M 8
14.090.032	32	10	35,3	M 10
14.090.035	35	10	38,3	M 10
14.090.038	38	10	41,3	M 10
14.090.000	foro a richiesta / *hole on request*			
14.090.001	senza foro / *without hole*			

CONTROFLANGIA DIN 100 / *DIN 100 COMPANION FLANGE*



Cod./*Code*	O	B	C	G
14.100.025	25	8	28,3	M 8
14.100.028	28	8	31,3	M 8
14.100.030	30	8	33,3	M 8
14.100.032	32	10	35,3	M 10
14.100.035	35	10	38,3	M 10
14.100.038	38	10	41,3	M 10
14.100.040	40	12	43,3	M 10
14.100.000	foro a richiesta / *hole on request*			
14.100.001	senza foro / *without hole*			

SET VITERIA / *FITTING BOLTS*

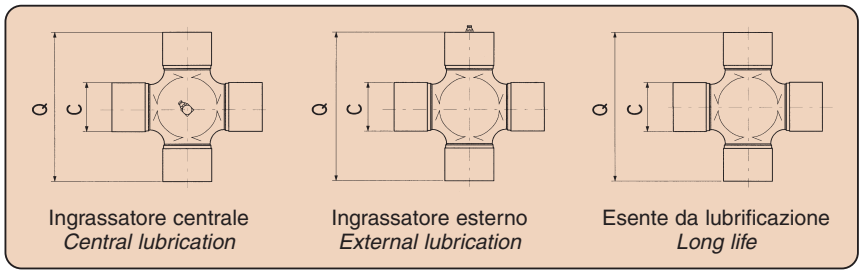


Cod./*Code*	16.090.000	16.100.000
A	90	100
M x L	M8 x 25	M8 x 25
T	7,7	7,7
S	14	15
Quantità(1)	8	12
Nm(2)	35	35

(1) Quantità di dadi (Din 980V-10) e viti (Din 933-10.9) per ogni set di viteria.
(2) Coppia di serraggio.

(1) Quantity of self-locking nuts (Din 980V-10) and Bolts (Din 933-10.9) each set.
(2) Tightening torque.

CROCIERA / *JOURNAL CROSS*



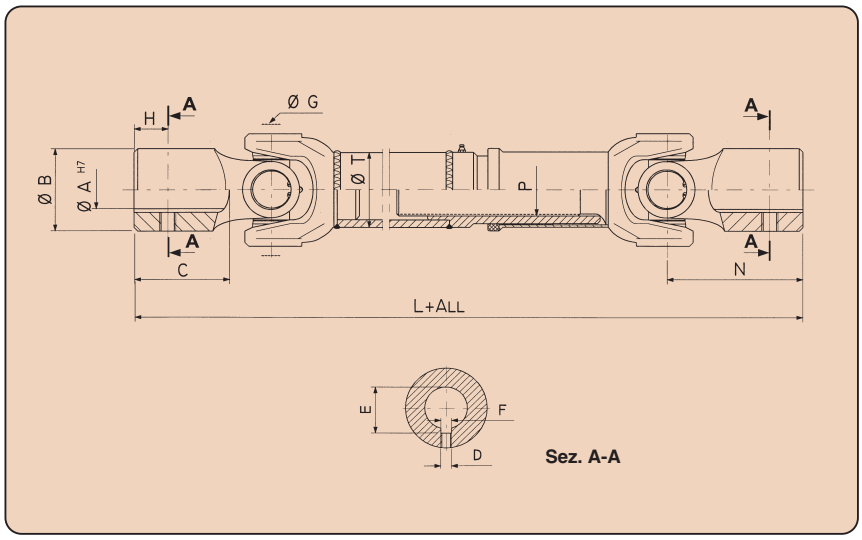
Cod./*Code*	11.090.000	11.090.001(1)	11.090.002(2)
C	27	27	27
Q	74,6	74,6	74,6
Anello/*Circlip*	27x1,3	27x1,3	27x1,3

(1) Esecuzione con ingrassatore esterno a richiesta.
(2) Esecuzione esente da lubrificazione a richiesta.

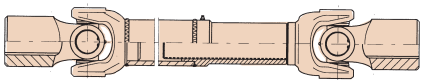
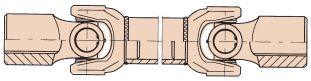
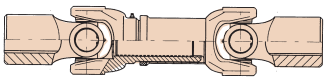
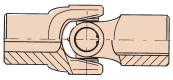
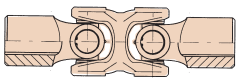
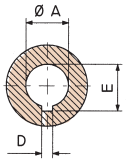
(1) Execution with external lubrication on request.
(2) Execution long life on request.

Dimensioni in mm / *Dimensions in mm*

Serie 07.090. a mozzo
Mt 920 Nm



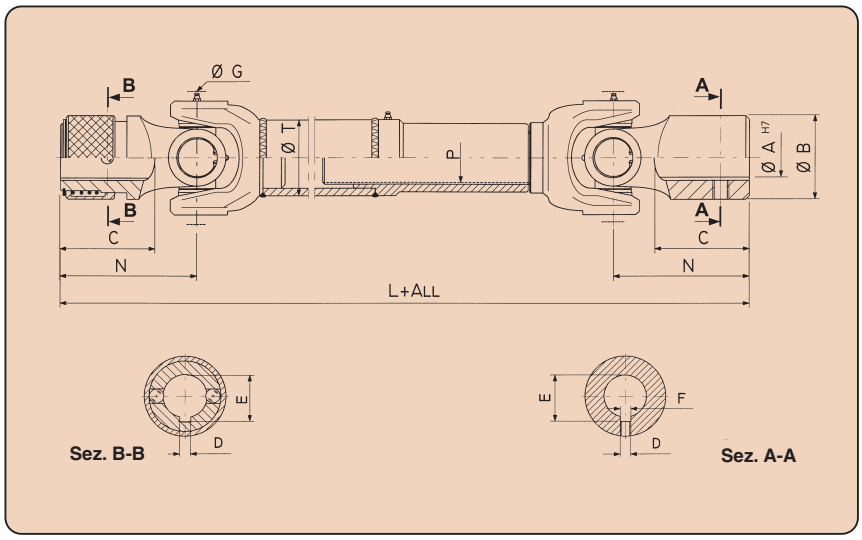
Serie / *Series*	07.090.-04	07.090.-14
Mt(1) Nm	920	920
ß°(2)	30	30
AH7(3)	30	30
B	57	57
C	34	48
D(4)	8	8
E(4)	33,3	33,3
F(4)	M 8	M 8
G	90	90
H	15	20
N	66	80
P (DIN 5482)	30x27x16	30x27x16
T	50x2/70x3	50x2/70x3

		Cod./*Code*			
	Allungabile con tubo di prolunga *Sliding with tube*	**07.090.304**	L(5)+All	415+90	
				495+160(6)	
				585+250(6)	
		07.090.314	L(5)+All		440+90
					520+160(6)
					610+250(6)
	Fissa con tubo di prolunga *Fixed with tube*	**07.090.504**	L(5)	260	
		07.090.514	L(5)		288
	Extracorta *Extra short*	**07.090.604**	LMIN+All(7)	263+25	
			LMAX+All(7)	358+50	
		07.090.614	LMIN+All(7)		291+25
			LMAX+All(7)		386+50
	Giunto semplice *Simple joint*	**07.090.104**	L	132	
		07.090.114	L		160
	Giunto doppio *Double joint*	**07.090.204**	L	192	
		07.090.214	L		220
		**07.090.-04(9)**	AH7(3)	30	
		07.090.-04.--(9)	AH7(8)	25/35	
			DxE(4)	DIN 6885	
		07.090.-14(9)	AH7(3)		30
		07.090.-14.--(9)	AH7(8)		25/35
			DxE(4)		DIN 6885

(1) Momento torcente dinamico massimo.
(2) Angolo massimo di inclinazione per giunto.
(3) Foro standard.
(4) Cave per linguetta e fori per grani filettati a richiesta.
(5) Lunghezza minima, lunghezze superiori a richiesta.
(6) Esecuzione senza protezione del profilo scanalato.
(7) Lunghezze minime e massime, differenti a richiesta.
(8) Fori speciali a richiesta.
(9) Completare il codice con il tipo desiderato e con il diametro dei fori, se differente dalla standard.
Qualora figurino due alternative, se non espressamente richiesto, verrà fornita la prima delle due.

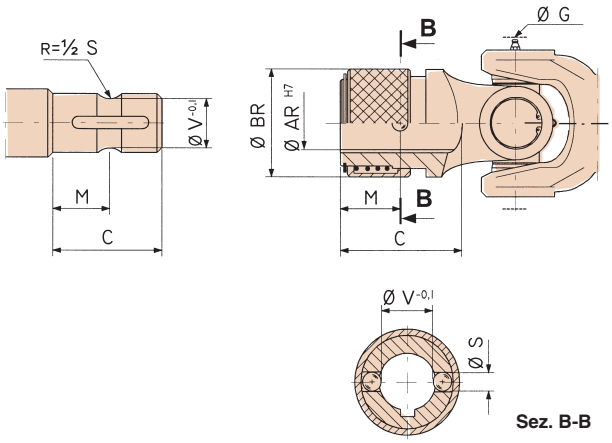
(1) Max dynamic torque.
(2) Maximum angle of inclination per joint.
(3) Standard hole.
(4) On request keyways and threaded holes.
(5) Minimum length, longer lengths on request.
(6) Execution without metallic protection of the splined.
(7) Minimum and maximum closed lengths, different lengths on request.
(8) On request special holes.
(9) Complete the code with the needed type and with the diameter holes, if different from the standard.
When there are two alternatives, if not explicity required, we'll supply the first one.

Serie 07.090. a mozzo
Mt 920 Nm



Serie / *Series*	07.090.312. --
Mt(1) Nm	920
β°(2)	30
A H7(3)	30
C	48
DxE(4)	DIN 6885
B	57
G	76
N	80
P (DIN 5482)	30x27x16
T	50x2/70x3
L(5)+All	440+90
	520+160(6)
	610+250(6)

ATTACCO RAPIDO / *QUICK RELEASE*



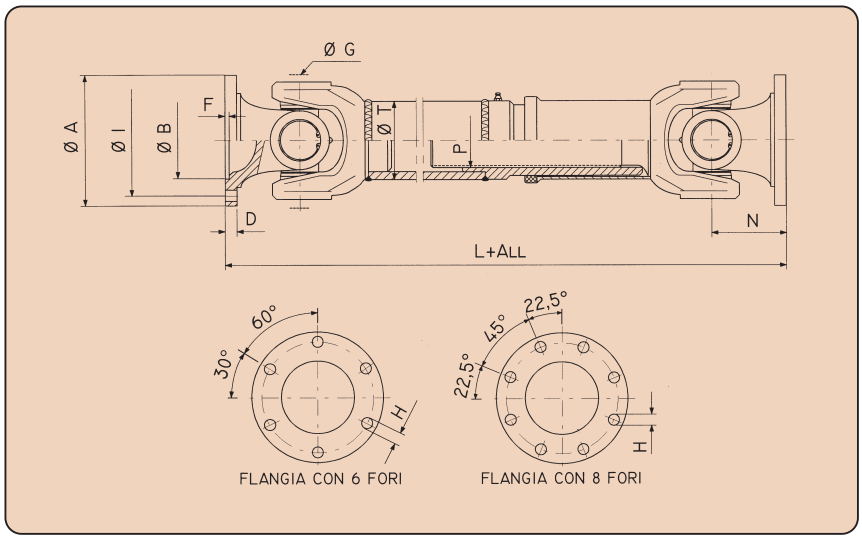
Cod./*Code*		
07.090.312.25	AR	25
	BR	50
	C	48
	V	23
	M	20,5
	S	10
07.090.312.30	AR	30
	BR	58
	C	48
	V	28
	M	25
	S	10

(1) Momento torcente dinamico massimo.
(2) Angolo massimo di inclinazione per giunto.
(3) Foro standard, per i fori speciali vedere esecuzione 07.090.314.
(4) Cave per linguetta e fori per grani filettati a richiesta.
(5) Lunghezza minima, lunghezze superiori a richiesta.
(6) Esecuzione senza protezione del profilo scanalato.
Per le quote mancanti vedere esecuzione 07.090.314.
Qualora figurino due alternative, se non espressamente richiesto, verrà fornita la prima delle due.

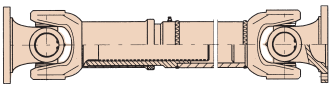
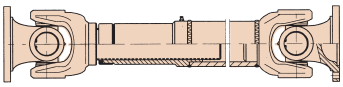
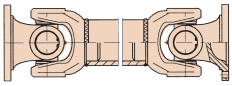
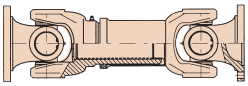
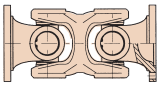
(1) Max dynamic torque.
(2) Maximum angle of inclination per joint.
(3) Standard holes, for special holes see 07.090.314 execution.
(4) On request keyways and threaded holes.
(5) Minimum length, longer lengths on request.
(6) Execution without metallic protection of the splined.
For missing size, see 07.090.314 execution.
When there are two alternatives, if not explicity required, we'll supply the first one.

Dimensioni in mm / *Dimensions in mm*

Serie 08.100.
Mt 1.450 Nm



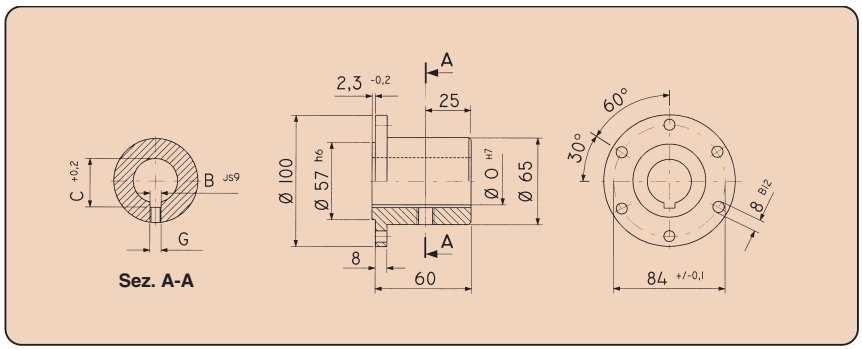
Serie / *Series*	08.100.--0	08.100.--1
Mt(1) Nm	1.450	1.450
β°(2)	20	20
A	100	120
B^{H7}	57	75
D	7	8
$F^{+0,2}$	2,5	2,5
G	97	97
H^{B12}	8	8/10
$I^{\pm 0,1}$	84	101,5
N° Fori / *Holes*	6	8
N	46	46
P (DIN 5482)	35x31x18	35x31x18
T	50x3	50x3

FLANGIA DIN / *DIN FLANGE*		Cod./*Code*	Flangia/*Flange*	DIN 100	DIN 120
	Allungabile con tubo di prolunga *Sliding with tube*	**08.100.310**	L(3)+All	375+100	
		08.100.311	L(3)+All		375+100
	Allungabile con tubo di prolunga e allungamento a richiesta *Sliding with tube and* *prolungation on request*	**08.100.400**	L(3)+All	480+160	
				590+250	
				690+350	
		08.100.401	L(3)+All		480+160
					590+250
					690+350
	Fissa con tubo di prolunga *Fixed with tube*	**08.100.500**	L(3)	240	
		08.100.501	L(3)		240
	Extracorta *Extra short*	**08.100.610**	L+All	255+30	
		08.100.620	L+All	280+50	
		08.100.630	L+All	310+70	
		08.100.640	L+All	330+70	
		08.100.650	L+All	345+70	
		08.100.611	L+All		255+30
		08.100.621	L+All		280+50
		08.100.631	L+All		310+70
		08.100.641	L+All		330+70
		08.100.651	L+All		345+70
	Giunto semplice *Simple joint*	**08.100.100**	L	92	
		08.100.101	L		92
	Giunto doppio *Double joint*	**08.100.200**	L	160	
		08.100.201	L		160

(1) Momento torcente dinamico massimo.
(2) Angolo massimo di inclinazione per giunto.
(3) Lunghezza minima, lunghezze superiori a richiesta.
Qualora figurino due alternative, se non espressamente richiesto, verrà fornita la prima delle due.

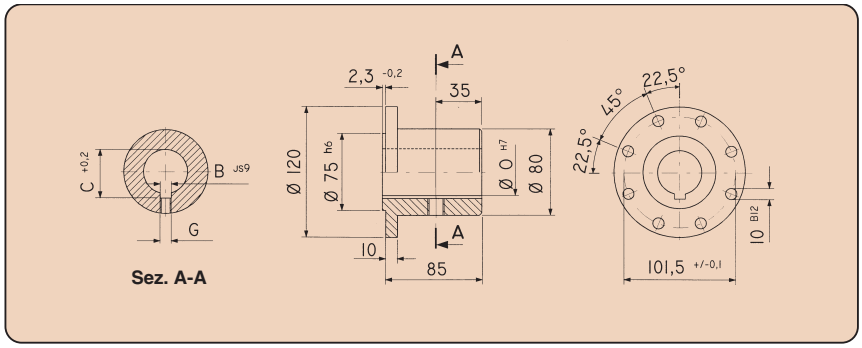
(1) Max dynamic torque.
(2) Maximum angle of inclination per joint.
(3) Minimum length, longer lengths on request.
When there are two alternatives, if not explicity required, we'll supply the first one.

CONTROFLANGIA DIN 100 / *DIN 100 COMPANION FLANGE*



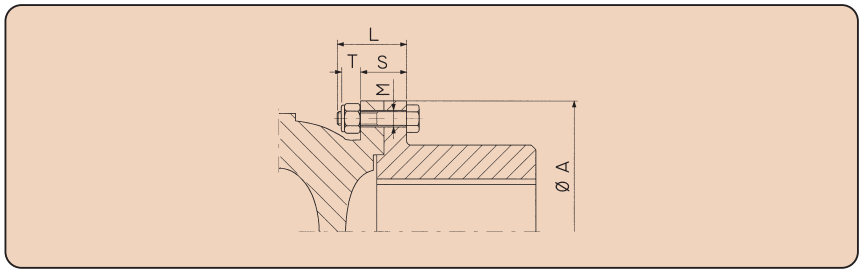
Cod./*Code*	O	B	C	G
14.100.025	25	8	28,3	M 8
14.100.028	28	8	31,3	M 8
14.100.030	30	8	33,3	M 8
14.100.032	32	10	35,3	M 10
14.100.035	35	10	38,3	M 10
14.100.038	38	10	41,3	M 10
14.100.040	40	12	43,3	M 10
14.100.000	foro a richiesta / *hole on request*			
14.100.001	senza foro / *without hole*			

CONTROFLANGIA DIN 120 / *DIN 120 COMPANION FLANGE*



Cod./*Code*	O	B	C	G
14.120.035	35	10	38,3	M 10
14.120.040	40	12	43,3	M 10
14.120.045	45	14	48,8	M 12
14.120.048	48	14	51,8	M 12
14.120.050	50	14	53,8	M 12
14.120.055	55	16	59,3	M 14
14.120.000	foro a richiesta / *hole on request*			
14.120.001	senza foro / *without hole*			

SET VITERIA / *FITTING BOLTS*

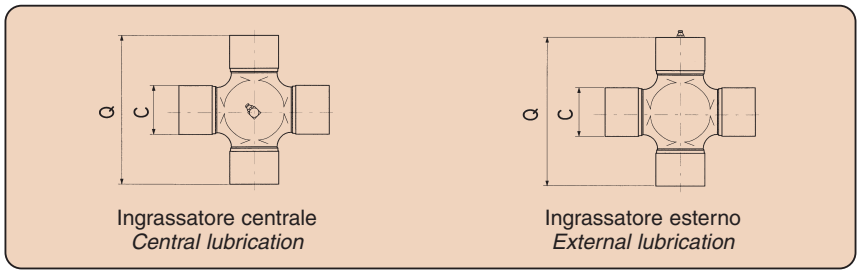


Cod./*Code*	16.100.000	16.119.000
A	100	120
M x L	M8 x 25	M8 x 30
T	7,7	7,7
S	15	18
Quantità(1)	12	16
Nm(2)	35	35

(1) Quantità di dadi (Din 980V-10) e viti (Din 933-10.9) per ogni set di viteria.
(2) Coppia di serraggio.

(1) Quantity of self-locking nuts (Din 980V-10) and Bolts (Din 933-10.9) each set.
(2) Tightening torque.

CROCIERA / *JOURNAL CROSS*



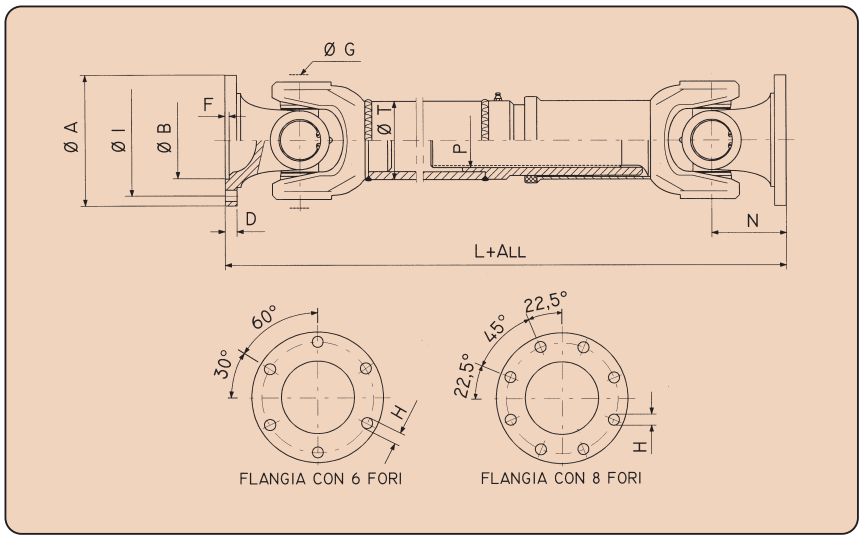
Cod./*Code*	12.100.000	12.100.001(1)
C	30	30
Q	81,8	81,8
Anello d'arresto/*Circlip*	30x1,5	30x1,5

(1) Esecuzione con ingrassatore esterno a richiesta.

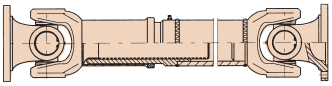
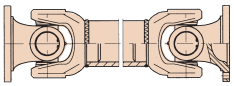
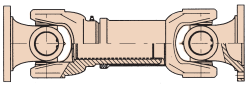
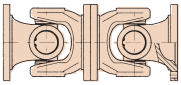
(1) Execution with external lubrication on request.

Dimensioni in mm / *Dimensions in mm*

Serie 08.108.
Mt 1.800 Nm



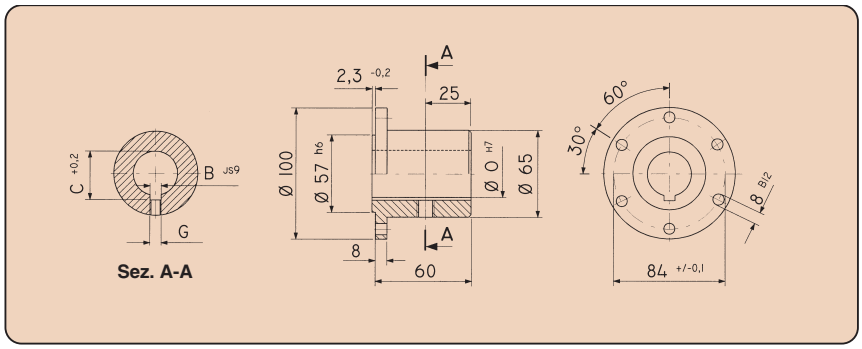
Serie / *Series*	08.108.--0	08.108.--1
Mt(1) Nm	1.800	1.800
β°(2)	35	35
A	100	120
B^{H7}	57	75
D	7	8
$F^{+0,2}$	2,5	2,5
G	98	98
H^{B12}	8	10
$I^{\pm 0,1}$	84	101,5
N° Fori / *Holes*	6	8
N	58	58
P (DIN 5480)	42x2x20	42x2x20
T	60x3	60x3

FLANGIA DIN / *DIN FLANGE*		Cod./*Code*	Flangia/*Flange*	DIN 100	DIN 120
	Allungabile con tubo di prolunga *Sliding with tube*	**08.108.400**	L(3)+All	450+110	
				500+150	
		08.108.401	L(3)+All		450+110
					500+150
	Fissa con tubo di prolunga *Fixed with tube*	**08.108.500**	L(3)	270	
		08.108.501	L(3)		270
	Extracorta *Extra short*	**08.108.610**	L(4)+All	310+35	
		08.108.620	L(4)+All	340+50	
		08.108.630	L(4)+All	370+60	
		08.108.640	L(4)+All	400+80	
		08.108.611	L(4)+All		310+35
		08.108.621	L(4)+All		340+50
		08.108.631	L(4)+All		370+60
		08.108.641	L(4)+All		400+80
	Giunto semplice *Simple joint*	**08.108.100**	L	116	
		08.108.101	L		116
	Giunto doppio *Double joint*	**08.108.200**	L	232	
		08.108.201	L		232

(1) Momento torcente dinamico massimo.
(2) Angolo massimo di inclinazione per giunto.
(3) Lunghezza minima, lunghezze superiori a richiesta.
(4) Lunghezze consigliate, differenti a richiesta.
Qualora figurino due alternative, se non espressamente richiesto, verrà fornita la prima delle due.

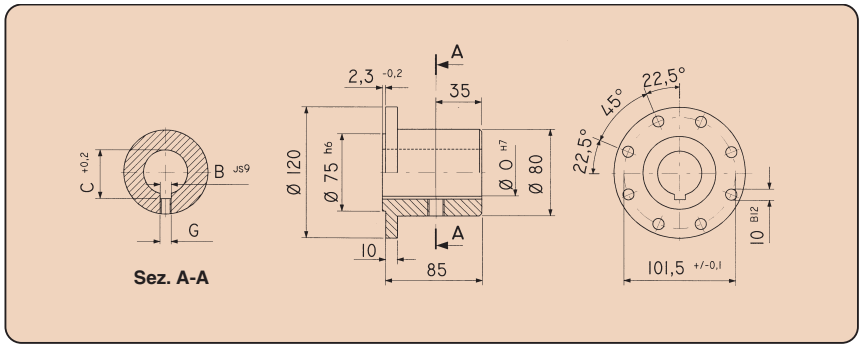
(1) Max dynamic torque.
(2) Maximum angle of inclination per joint.
(3) Minimum length, longer lengths on request.
(4) Standard suggested lengths, different lengths on request.
When there are two alternatives, if not explicity required, we'll supply the first one.

CONTROFLANGIA DIN 100 / *DIN 100 COMPANION FLANGE*



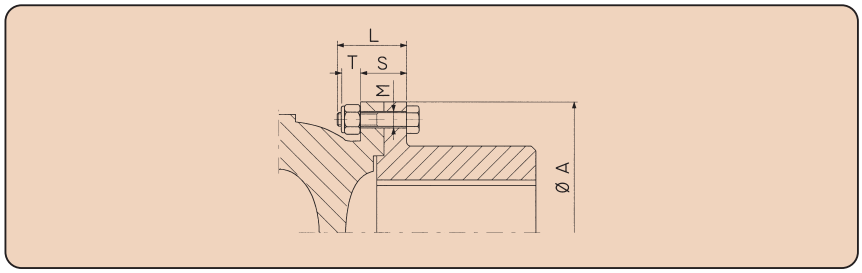
Cod./*Code*	O	B	C	G
14.100.025	25	8	28,3	M 8
14.100.028	28	8	31,3	M 8
14.100.030	30	8	33,3	M 8
14.100.032	32	10	35,3	M 10
14.100.035	35	10	38,3	M 10
14.100.038	38	10	41,3	M 10
14.100.040	40	12	43,3	M 10
14.100.000	foro a richiesta / *hole on request*			
14.100.001	senza foro / *without hole*			

CONTROFLANGIA DIN 120 / *DIN 120 COMPANION FLANGE*



Cod./*Code*	O	B	C	G
14.120.035	35	10	38,3	M 10
14.120.040	40	12	43,3	M 10
14.120.045	45	14	48,8	M 12
14.120.048	48	14	51,8	M 12
14.120.050	50	14	53,8	M 12
14.120.055	55	16	59,3	M 14
14.120.000	foro a richiesta / *hole on request*			
14.120.001	senza foro / *without hole*			

SET VITERIA / *FITTING BOLTS*

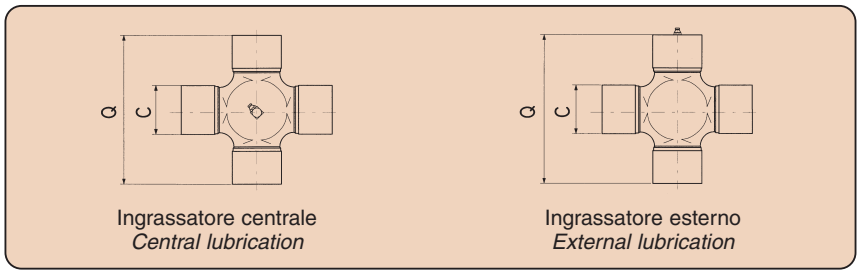


Cod./*Code*	16.100.000	16.120.000
A	100	120
M x L	M8 x 25	M10 x 30
T	7,7	9,2
S	15	18
Q.tà(1)	12	16
Nm(2)	35	64

(1) Quantità di dadi (Din 980V-10) e viti (Din 933-10.9) per ogni set di viteria.
(2) Coppia di serraggio.

(1) Quantity of self-locking nuts (Din 980V-10) and Bolts (Din 933-10.9) each set.
(2) Tightening torque.

CROCIERA / *JOURNAL CROSS*



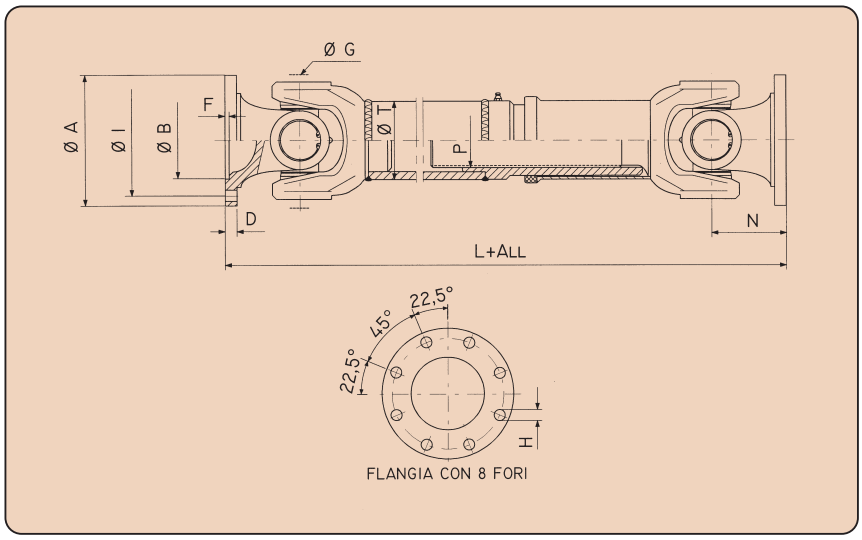
Cod./*Code*	12.100.000	12.100.001(1)
C	30	30
Q	81,8	81,8
Anello d'arresto/*Circlip*	30x1,5	30x1,5

(1) Esecuzione con ingrassatore esterno a richiesta.

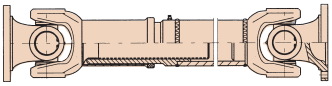
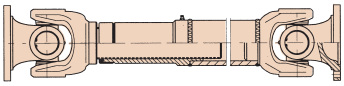
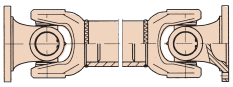
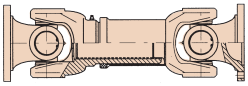
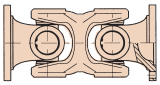
(1) Execution with external lubrication on request.

Dimensioni in mm / *Dimensions in mm*

Serie 08.119.
Mt 2.700 Nm



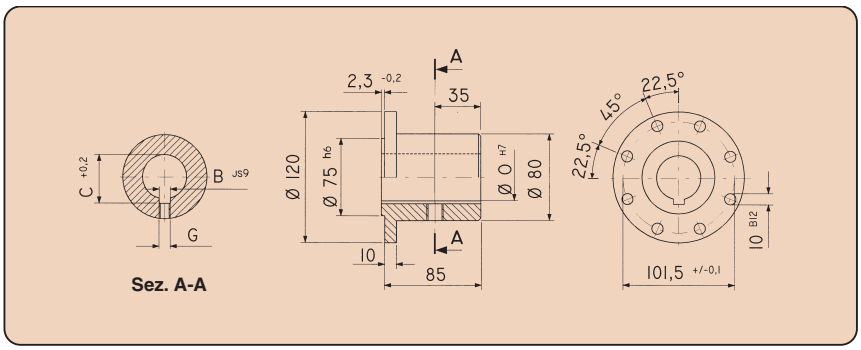
Serie / *Series*	08.119.--0	08.119.--1
Mt(1) Nm	2.700	2.700
β°(2)	20/35	20/35
A	120	150
B H7	75	90
D	8	10
F +0,2	2,5	3
G	116	116
H B12	10/8	12
I ±0,1	101,5	130
N° Fori / *Holes*	8	8
N	60/70	60/70
P (DIN 5480)	42x2x20	42x2x20
T	70x3/90x3	70x3/90x3

FLANGIA DIN / *DIN FLANGE*		Cod./*Code*	Flangia/*Flange*	DIN 120	DIN 150
	Allungabile con tubo di prolunga *Sliding with tube*	**08.119.310**	L(3)+All	455+120	
				515+150	
		08.119.311	L(3)+All		455+120
					515+120
	Allungabile con tubo di prolunga e allungamento a richiesta *Sliding with tube and* *prolungation on request*	**08.119.400**	L(3)+All	620+250(4)	
			L(3)+All	740+370(4)	
		08.119.401	L(3)		680+250(4)
					740+370(4)
	Fissa con tubo di prolunga *Fixed with tube*	**08.119.500**	L(3)	290	
		08.119.501	L(3)		290
	Extracorta *Extra short*	**08.119.610**	L(5)+All	325+35	
		08.119.620	L(5)+All	360+50	
		08.119.630	L(5)+All	400+60	
		08.119.650	L(5)+All	450+70	
		08.119.611	L(5)+All		325+35
		08.119.621	L(5)+All		360+50
		08.119.631	L(5)+All		400+60
		08.119.651	L(5)+All		450+70
	Giunto semplice *Simple joint*	**08.119.100**	L	120/140	
		08.119.101	L		120/140
	Giunto doppio *Double joint*	**08.119.200**	L	200/220	
		08.119.201	L		200/220

(1) Momento torcente dinamico massimo.
(2) Angolo massimo di inclinazione per giunto, 35° su richiesta.
(3) Lunghezza minima, lunghezze superiori a richiesta.
(4) Esecuzione senza protezione metallica del profilo scanalato.
(5) Lunghezze consigliate, differenti a richiesta.
Qualora figurino due alternative, se non espressamente richiesto, verrà fornita la prima delle due.

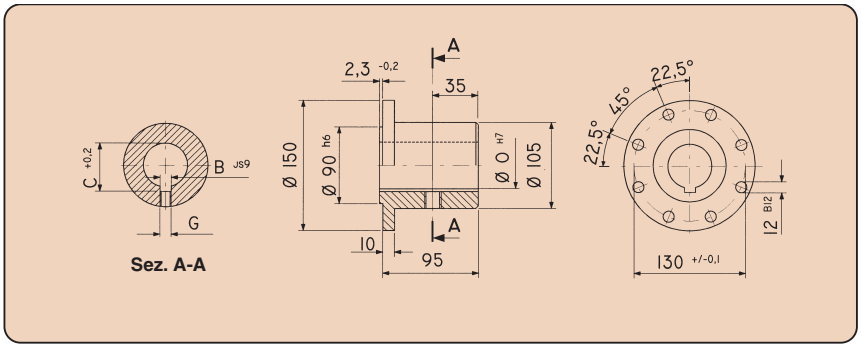
(1) Max dynamic torque.
(2) Maximum angle of inclination per joint, 35° on request.
(3) Minimum length, longer lengths on request.
(4) Execution without metallic protection of the splined.
(5) Standard suggested lengths, different lengths on request.
When there are two alternatives, if not explicity required, we'll supply the first one.

CONTROFLANGIA DIN 120 / *DIN 120 COMPANION FLANGE*



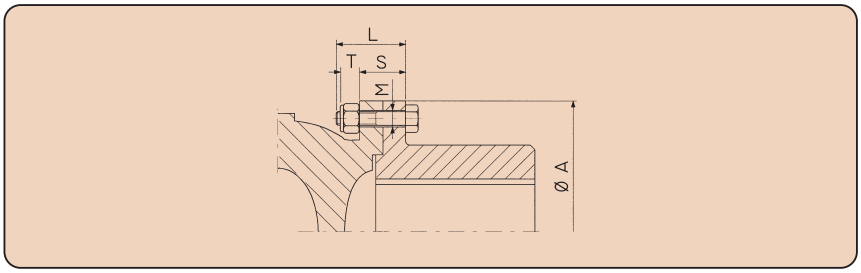
Cod./*Code*	O	B	C	G
14.120.035	35	10	38,3	M 10
14.120.040	40	12	43,3	M 10
14.120.045	45	14	48,8	M 12
14.120.048	48	14	51,8	M 12
14.120.050	50	14	53,8	M 12
14.120.055	55	16	59,3	M 14
14.120.000	foro a richiesta / *hole on request*			
14.120.001	senza foro / *without hole*			

CONTROFLANGIA DIN 150 / *DIN 150 COMPANION FLANGE*



Cod./*Code*	O	B	C	G
14.150.045	45	14	48,8	M 12
14.150.048	48	14	51,8	M 12
14.150.050	50	14	53,8	M 12
14.150.055	55	16	59,3	M 14
14.150.060	60	18	64,4	M 14
14.150.065	65	18	69,4	M 14
14.150.000	foro a richiesta / *hole on request*			
14.150.001	senza foro / *without hole*			

SET VITERIA / *FITTING BOLTS*

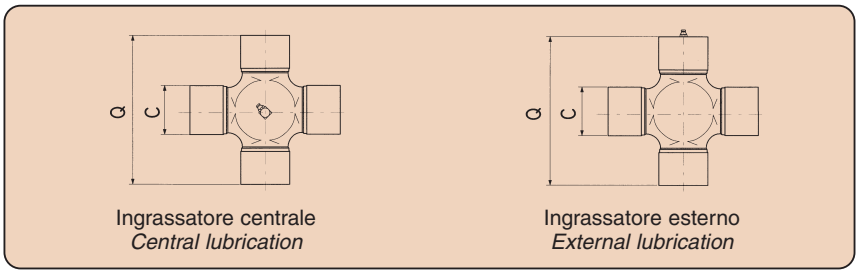


Cod./*Code*	16.119.000	16.120.000	16.150.000
A	120	120	150
M x L	M8 x 30	M10 x 30	M12 x 35
T	7,7	9,2	11,3
S	18	18	20
Q.tà(1)	16	16	16
Nm(2)	35	64	110

(1) Quantità di dadi (Din 980V-10) e viti (Din 933-10.9) per ogni set di viteria.
(2) Coppia di serraggio.

(1) Quantity of self-locking nuts (Din 980V-10) and Bolts (Din 933-10.9) each set.
(2) Tightening torque.

CROCIERA / *JOURNAL CROSS*



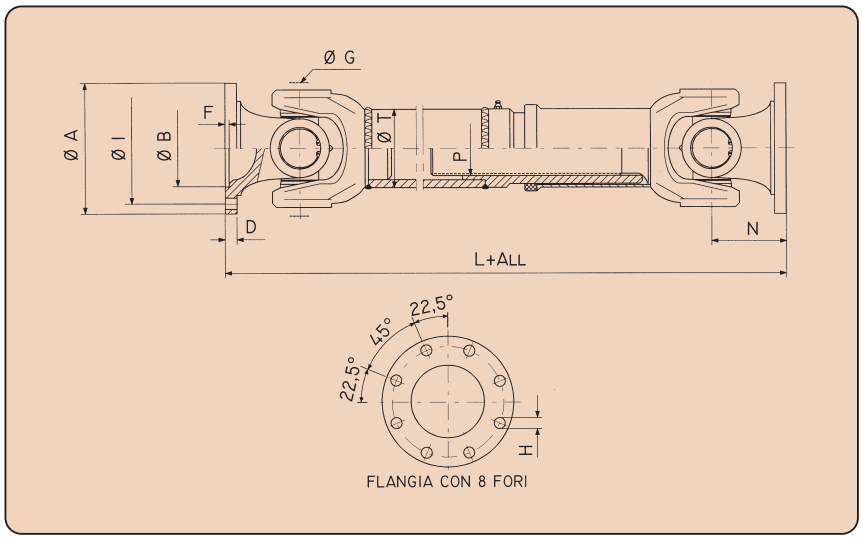
Cod./*Code*	12.119.000	12.119.001(1)
C	35	35
Q	97	97
Anello d'arresto / *Circlip*	35x1,5	35x1,5

(1) Esecuzione con ingrassatore esterno a richiesta.

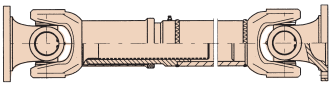
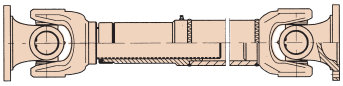
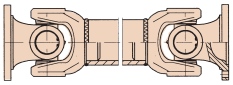
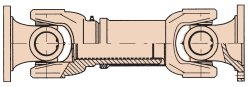
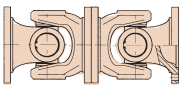
(1) *Execution with external lubrication on request.*

Dimensioni in mm / *Dimensions in mm*

Serie 07.120.
Mt 4.000 Nm



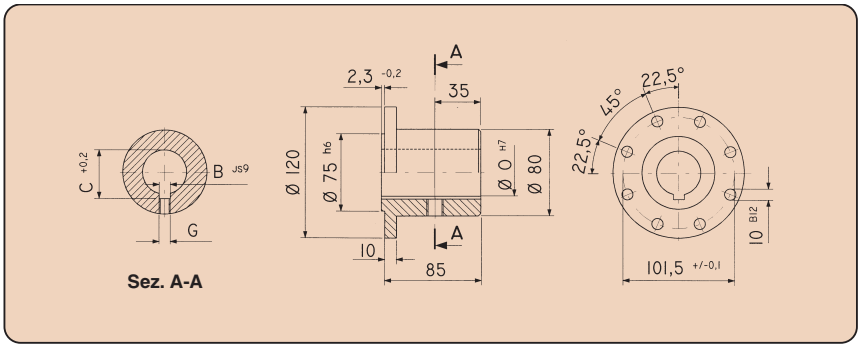
Serie / *Series*	07.120.--0	07.120.--1
Mt(1) Nm	4.000	4.000
β°(2)	20/30	20/30
A	120	150
B^{H7}	75	90
D	10	10
$F^{+0,2}$	3	3
G	136	136
H^{B12}	10	12
$I^{\pm 0,1}$	101,5	130
N° Fori / *Holes*	8	8
N	72	72
P (DIN 5480)	50x1,5x32	50x1,5x32
T	90x4/75x3(5)	90x4/75x3(5)

FLANGIA DIN / *DIN FLANGE*		Cod./*Code*	Flangia/*Flange*	DIN 120	DIN 150
	Allungabile con tubo di prolunga *Sliding with tube*	**07.120.300**	L(3)+All	470+80(5)	
		07.120.301	L(3)+All		470+80(5)
		07.120.310	L(3)+All	545+120	
		07.120.311	L(3)+All		545+120
	Allungabile con tubo di prolunga e allungamento a richiesta *Sliding with tube and prolungation on request*	**07.120.400**	L(3)+All	700+280(6)	
			L(3)+All	870+450(6)	
		07.120.401	L(3)+All		700+280(6)
			L(3)+All		870+450(6)
	Fissa con tubo di prolunga *Fixed with tube*	**07.120.500**	L(3)	335/315(5)	
		07.120.501	L(3)		335/315(5)
	Extracorta *Extra short*	**07.120.610**	L(4)+All	300+20(5)	
		07.120.620	L(4)+All	315+30(5)	
		07.120.630	L(4)+All	325+30(5)	
		07.120.640	L(4)+All	355+50/+70(5)	
		07.120.650	L(4)+All	400+70	
		07.120.660	L(4)+All	430+70	
		07.120.611	L(4)+All		300+20(5)
		07.120.621	L(4)+All		315+30(5)
		07.120.631	L(4)+All		325+30(5)
		07.120.641	L(4)+All		355+50/+70(5)
		07.120.651	L(4)+All		400+70
		07.120.661	L(4)+All		430+70
	Giunto semplice *Simple joint*	**07.120.100**	L	144	
		07.120.101	L		144
	Giunto doppio *Double joint*	**07.120.200**	L	288	
		07.120.201	L		288

(1) Momento torcente dinamico massimo.
(2) Angolo massimo di inclinazione per giunto.
(3) Lunghezza minima, lunghezze superiori a richiesta.
(4) Lunghezze consigliate, differenti a richiesta.
(5) Angolo massimo di inclinazione 20°.
(6) Esecuzione senza protezione metallica del profilo scanalato.
Qualora figurino due alternative, se non espressamente richiesto, verrà fornita la prima delle due.

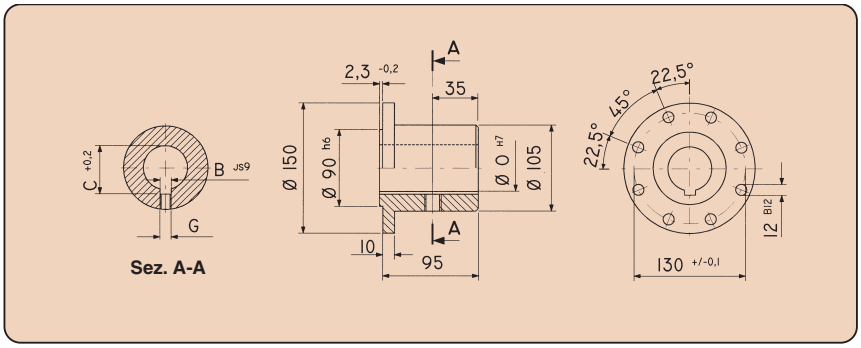
(1) Max dynamic torque.
(2) Maximum angle of inclination per joint.
(3) Minimum length, longer lengths on request.
(4) Standard suggested lengths, different lengths on request.
(5) Maximum angle of inclination 20°.
(6) Execution without metallic protection of the splined.
When there are two alternatives, if not explicity required, we'll supply the first one.

CONTROFLANGIA DIN 120 / *DIN 120 COMPANION FLANGE*



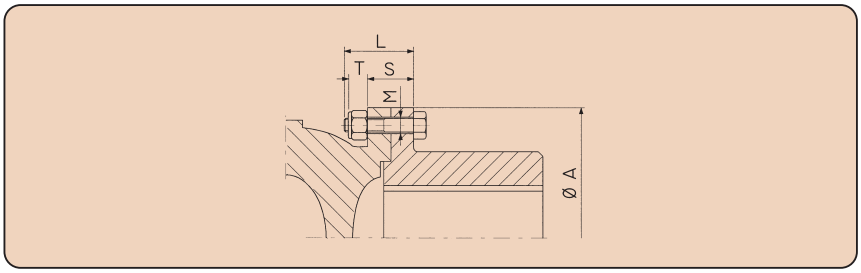
Cod./*Code*	O	B	C	G
14.120.035	35	10	38,3	M 10
14.120.040	40	12	43,3	M 10
14.120.045	45	14	48,8	M 12
14.120.048	48	14	51,8	M 12
14.120.050	50	14	53,8	M 12
14.120.055	55	16	59,3	M 14
14.120.000	foro a richiesta / *hole on request*			
14.120.001	senza foro / *without hole*			

CONTROFLANGIA DIN 150 / *DIN 150 COMPANION FLANGE*



Cod./*Code*	O	B	C	G
14.150.045	45	14	48,8	M 12
14.150.048	48	14	51,8	M 12
14.150.050	50	14	53,8	M 12
14.150.055	55	16	59,3	M 14
14.150.060	60	18	64,4	M 14
14.150.065	65	18	69,4	M 14
14.150.000	foro a richiesta / *hole on request*			
14.150.001	senza foro / *without hole*			

SET VITERIA / *FITTING BOLTS*

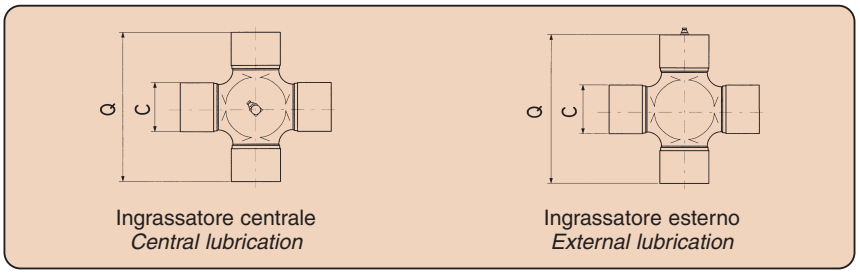


Cod./*Code*	16.120.000	16.150.000
A	120	150
M x L	M10 x 30	M12 x 35
T	9,2	11,3
S	20	20
Q.tà(1)	16	16
Nm(2)	64	110

(1) Quantità di dadi (Din 980V-10) e viti (Din 933-10.9) per ogni set di viteria.
(2) Coppia di serraggio.

(1) Quantity of self-locking nuts (Din 980V-10) and Bolts (Din 933-10.9) each set.
(2) Tightening torque.

CROCIERA / *JOURNAL CROSS*



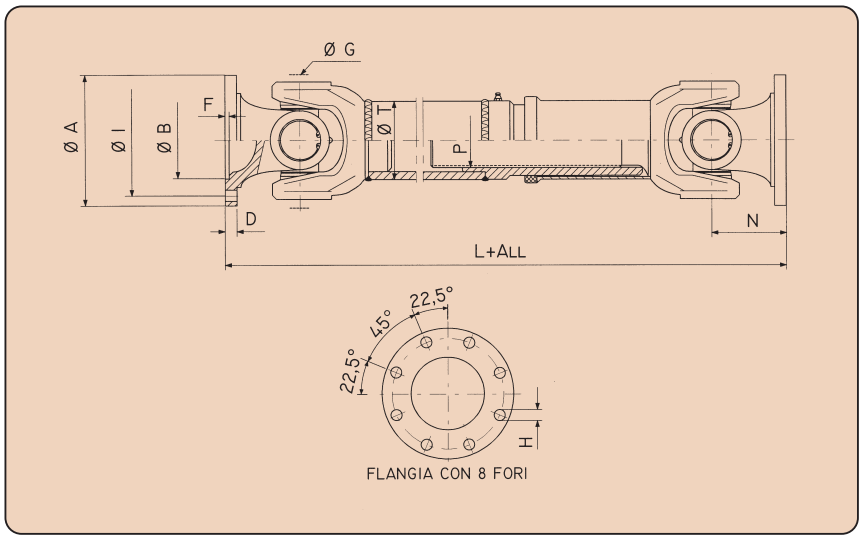
Cod./*Code*	11.120.000	11.120.001(1)
C	39,7	39,7
Q	115,9	115,9
Anello d'arresto / *Circlip*	40x1,7	40x1,7

(1) Esecuzione con ingrassatore esterno a richiesta.

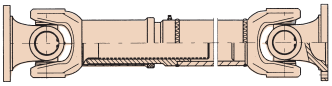
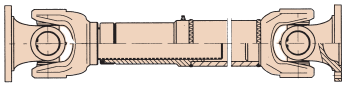
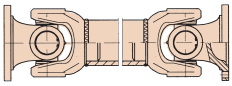
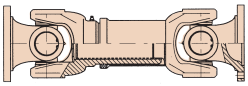
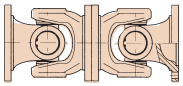
(1) *Execution with external lubrication on request.*

Dimensioni in mm / *Dimensions in mm*

Serie 08.120.
Mt 5.200 Nm



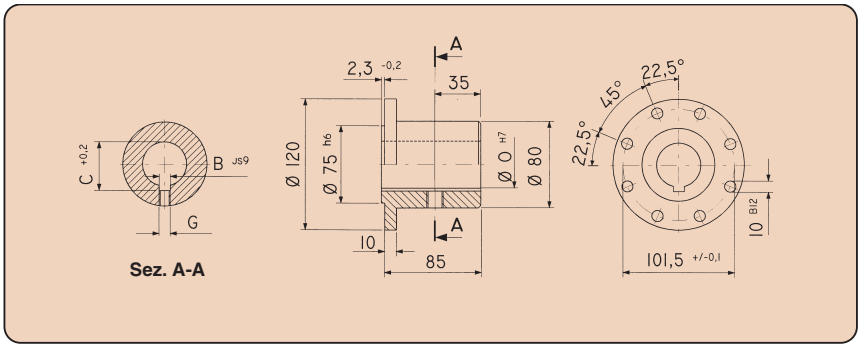
Serie / *Series*	08.120.--0	08.120.--1
Mt(1) Nm	4.000	5.200
β°(2)	20/30	20/30
A	120	150
B^{H7}	75	90
D	10	10
$F^{+0,2}$	3	3
G	140	140
H^{B12}	10	12
$I^{\pm 0,1}$	101,5	130
N° Fori / *Holes*	8	8
N	72	72
P (DIN 5480)	50x1,5x32	50x1,5x32
T	90x4/75x5(5)	90x4/75x5(5)

FLANGIA DIN / *DIN FLANGE*		Cod./*Code*	Flangia/*Flange*	DIN 120	DIN 150
	Allungabile con tubo di prolunga *Sliding with tube*	**08.120.310**	L(3)+All	470+80(5)	
		08.120.311	L(3)+All		470+80(5)
		08.120.400	L(3)+All	545+120	
		08.120.401	L(3)+All		545+120
	Allungabile con tubo di prolunga e allungamento a richiesta *Sliding with tube and prolungation on request*	**08.120.410**	L(3)+All	700+250(6)	
			L(3)+All	870+450(6)	
		08.120.411	L(3)+All		700+250(6)
			L(3)+All		870+450(6)
	Fissa con tubo di prolunga *Fixed with tube*	**08.120.500**	L(3)	335/315(5)	
		08.120.501	L(3)		335/315(5)
	Extracorta *Extra short*	**08.120.610**	L(4)+All	335+30(5)	
		08.120.620	L(4)+All	355+40(5)	
		08.120.630	L(4)+All	390+50	
		08.120.640	L(4)+All	430+60	
		08.120.611	L(4)+All		335+30(5)
		08.120.621	L(4)+All		355+40(5)
		08.120.631	L(4)+All		390+50
		08.120.641	L(4)+All		430+60
	Giunto semplice *Simple joint*	**08.120.100**	L	144	
		08.120.101	L		144
	Giunto doppio *Double joint*	**08.120.200**	L	288	
		08.120.201	L		288

(1) Momento torcente dinamico massimo.
(2) Angolo massimo di inclinazione per giunto.
(3) Lunghezza minima, lunghezze superiori a richiesta.
(4) Lunghezze consigliate, differenti a richiesta.
(5) Angolo massimo di inclinazione 20°.
(6) Esecuzione senza protezione metallica del profilo scanalato.
Qualora figurino due alternative, se non espressamente richiesto, verrà fornita la prima delle due.

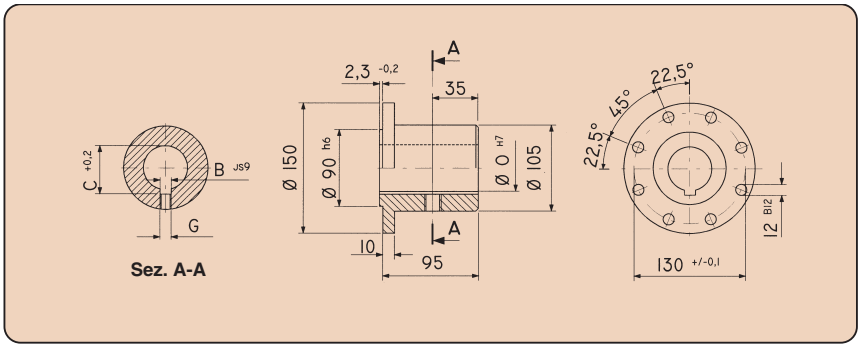
(1) Max dynamic torque.
(2) Maximum angle of inclination per joint.
(3) Minimum length, longer lengths on request.
(4) Standard suggested lengths, different lengths on request.
(5) Maximum angle of inclination 20°.
(6) Execution without metallic protection of the splined.
When there are two alternatives, if not explicity required, we'll supply the first one.

CONTROFLANGIA DIN 120 / *DIN 120 COMPANION FLANGE*



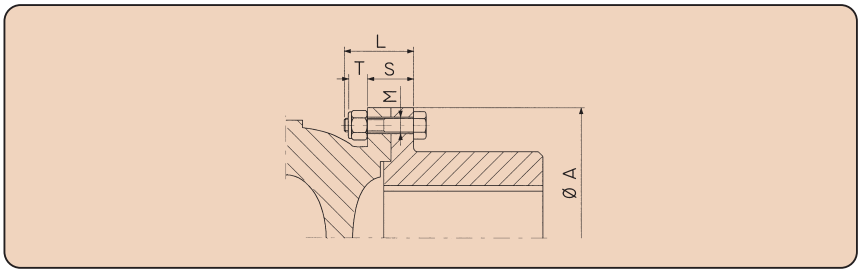
Cod./*Code*	O	B	C	G
14.120.035	35	10	38,3	M 10
14.120.040	40	12	43,3	M 10
14.120.045	45	14	48,8	M 12
14.120.048	48	14	51,8	M 12
14.120.050	50	14	53,8	M 12
14.120.055	55	16	59,3	M 14
14.120.000	foro a richiesta / *hole on request*			
14.120.001	senza foro / *without hole*			

CONTROFLANGIA DIN 150 / *DIN 150 COMPANION FLANGE*



Cod./*Code*	O	B	C	G
14.150.045	45	14	48,8	M 12
14.150.048	48	14	51,8	M 12
14.150.050	50	14	53,8	M 12
14.150.055	55	16	59,3	M 14
14.150.060	60	18	64,4	M 14
14.150.065	65	18	69,4	M 14
14.150.000	foro a richiesta / *hole on request*			
14.150.001	senza foro / *without hole*			

SET VITERIA / *FITTING BOLTS*

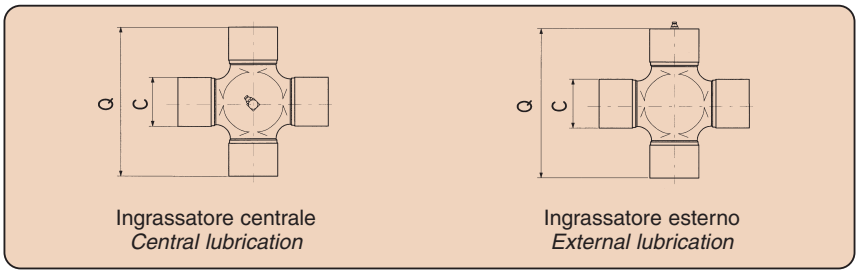


Cod./*Code*	16.120.000	16.150.000
A	120	150
M x L	M10 x 30	M12 x 35
T	9,2	11,3
S	20	20
Q.tà(1)	16	16
Nm(2)	64	110

(1) Quantità di dadi (Din 980V-10) e viti (Din 933-10.9) per ogni set di viteria.
(2) Coppia di serraggio.

(1) Quantity of self-locking nuts (Din 980V-10) and Bolts (Din 933-10.9) each set.
(2) Tightening torque.

CROCIERA / *JOURNAL CROSS*



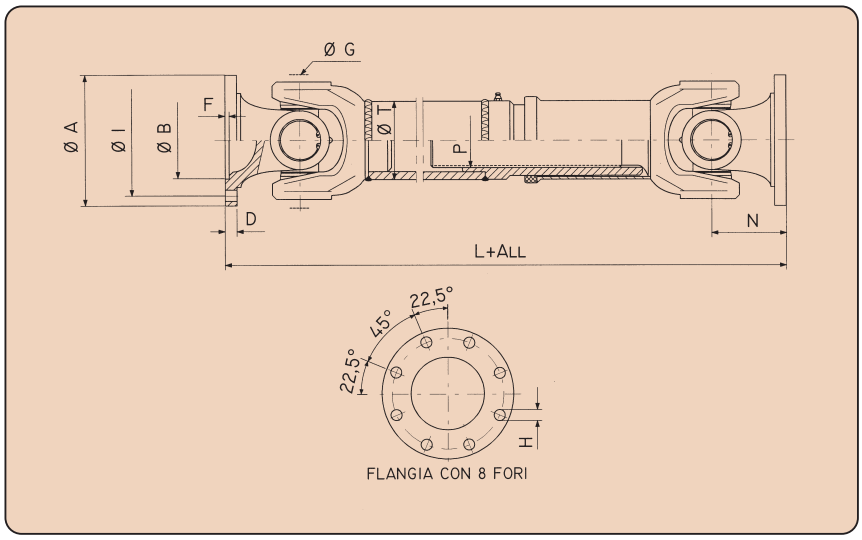
Cod./*Code*	12.120.000	12.120.001(1)
C	42	42
Q	117.5	117.5
Anello d'arresto / *Circlip*	42x1,7	42x1,7

(1) Esecuzione con ingrassatore esterno a richiesta.

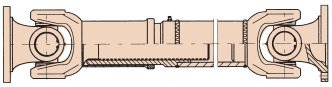
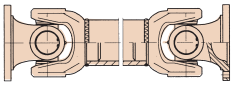
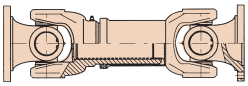
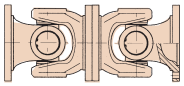
(1) Execution with external lubrication on request.

Dimensioni in mm / *Dimensions in mm*

Serie 08.150.
Mt 6.800 Nm



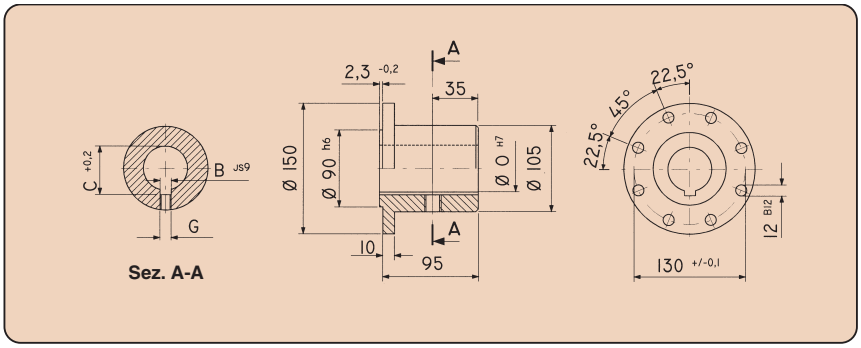
Serie / *Series*	08.150.--0	08.150.--1
Mt(1) Nm	6.800	6.800
β°(2)	35	35
A	150	180
B^{H7}	90	110
D	10	12
$F^{+0,2}$	3	3
G	140	140
H^{B12}	12	16/14
$I^{\pm 0,1}$	130	155,5
N° Fori / *Holes*	8	8
N	82	82/86
P (DIN 5480)	55x2,5x20	55x2,5x20
T	85x5	85x5

FLANGIA DIN / *DIN FLANGE*		Cod./*Code*	Flangia/*Flange*	DIN 150	DIN 180
	Allungabile con tubo di prolunga *Sliding with tube*	**08.150.400**	L(3)+All	630+110	
		08.150.401	L(3)+All		630+110
	Fissa con tubo di prolunga *Fixed with tube*	**08.150.500**	L(3)	400	
		08.150.501	L(3)		400
	Extracorta *Extra short*	**08.150.610**	L(4)+All	390+30(5)	
		08.150.620	L(4)+All	420+40(6)	
		08.150.630	L(4)+All	460+70(6)	
		08.150.640	L(4)+All	520+100(6)	
		08.150.650	L(4)+All	570+100(6)	
		08.150.611	L(4)+All		390+30(5)
		08.150.621	L(4)+All		420+40(6)
		08.150.631	L(4)+All		460+70(6)
		08.150.641	L(4)+All		520+100(6)
		08.150.651	L(4)+All		570+100(6)
	Giunto semplice *Simple joint*	**08.150.100**	L	164	
		08.150.101	L		172
	Giunto doppio *Double joint*	**08.150.200**	L	328	
		08.150.201	L		328/344

(1) Momento torcente dinamico massimo.
(2) Angolo massimo di inclinazione per giunto.
(3) Lunghezza minima, lunghezze superiori a richiesta.
(4) Lunghezze consigliate, differenti a richiesta.
(5) Angolo massimo di inclinazione 20°.
(6) Angolo massimo di inclinazione 25°.
Qualora figurino due alternative, se non espressamente richiesto, verrà fornita la prima delle due.

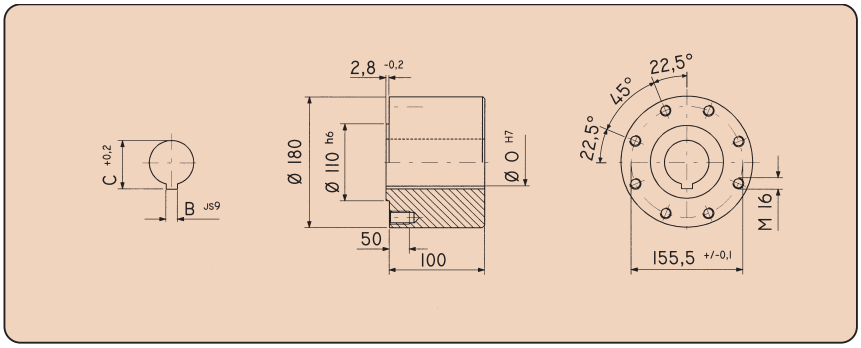
(1) Max dynamic torque.
(2) Maximum angle of inclination per joint.
(3) Minimum length, longer lengths on request.
(4) Standard suggested lengths, different lengths on request.
(5) Maximum angle of inclination 20°.
(6) Maximum angle of inclination 25°.
When there are two alternatives, if not explicity required, we'll supply the first one.

CONTROFLANGIA DIN 150 / *DIN 150 COMPANION FLANGE*



Cod./*Code*	O	B	C	G
14.150.045	45	14	48,8	M 12
14.150.048	48	14	51,8	M 12
14.150.050	50	14	53,8	M 12
14.150.055	55	16	59,3	M 14
14.150.060	60	18	64,4	M 14
14.150.065	65	18	69,4	M 14
14.150.000	foro a richiesta / *hole on request*			
14.150.001	senza foro / *without hole*			

CONTROFLANGIA DIN 180 / *DIN 180 COMPANION FLANGE*

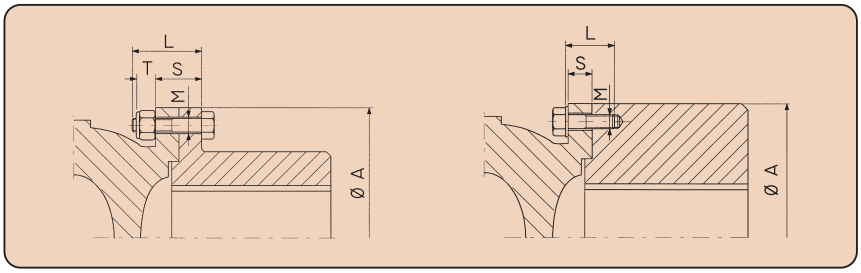


Cod./*Code*	O	B	C
14.181.100	foro a richiesta / *hole on request*		
14.181.101	senza foro / *without hole*		

Per controflange Din 165 vedere pag. 78

For counterflanges Din 165 see page 78

SET VITERIA / *FITTING BOLTS*

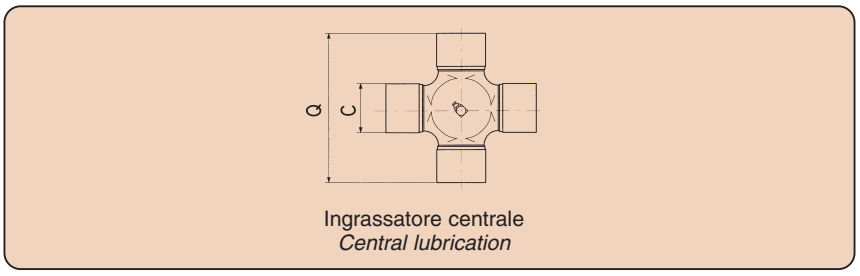


Cod./*Code*	16.150.000	16.181.100
A	150	180
M x L	M12 x 35	M16 x 40
T	11,3	
S	20	12
Q.tà(1)	16	16
Nm(2)	110	275

(1) Quantità di dadi (Din 980V-10) o rosette elastiche (Uni 9195) e viti (Din 933-10.9) per ogni set di viteria.
(2) Coppia di serraggio.

(1) Quantity of self-locking nuts (Din 980V-10) or elastic washers (UNI 9195) and bolts (Din 933-10.9) each set.
(2) Tightening torque.

CROCIERA / *JOURNAL CROSS*

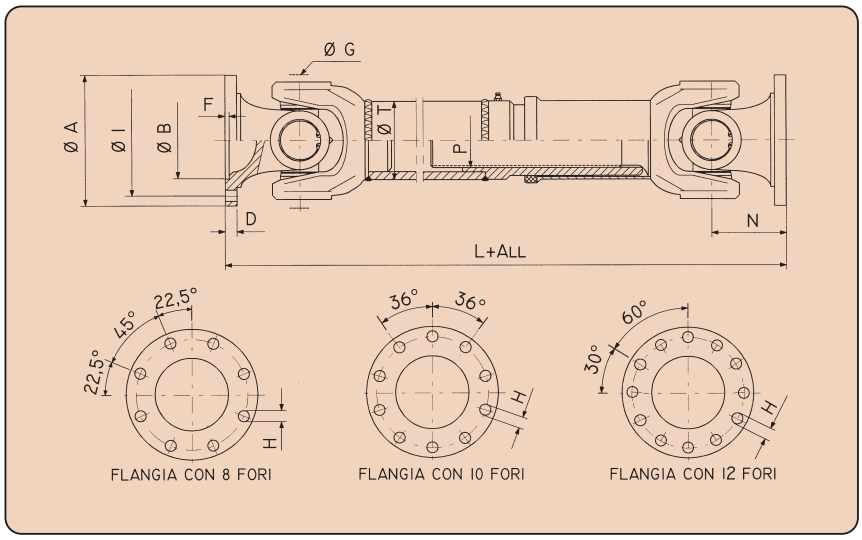


Ingrassatore centrale
Central lubrication

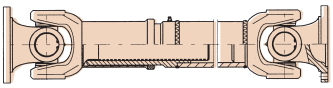
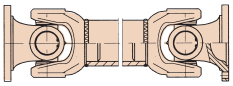
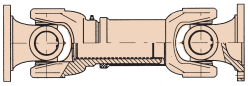
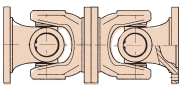
Cod./*Code*	12.150.000
C	48
Q	116,5
Anello d'arresto / *Circlip*	48x1,7

Dimensioni in mm / *Dimensions in mm*

Serie 08.151.
Mt 10.000 Nm



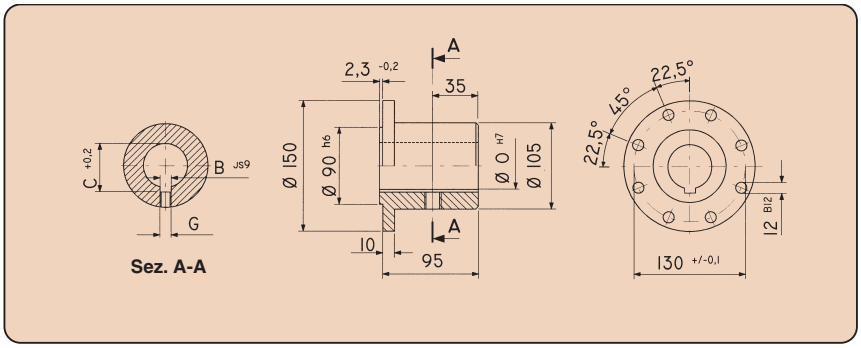
Serie/*Series*	08.151.--0	08.151.--1	08.151.--2
Mt(1) Nm	10.000	10.000	10.000
β°(2)	35	35	35
A	150	165	180
B^{H7}	90	95	110
D	10	12	12
$F^{+0,2}$	3	3	3
G	160	160	160
H^{B12}	12	16/14	16
$I^{\pm 0,1}$	130	140	155,5
N° Fori	8	8	8/10
N	92	92	92
P (DIN 5480)	65x2,5x24	65x2,5x24	65x2,5x24
T	90x5,5/120x4	90x5,5/120x4	90x5,5/120x4

FLANGIA DIN / *DIN FLANGE*		Cod./*Code*	Flangia/*Flange*	DIN 150	DIN 165	DIN 180
	Allungabile con tubo di prolunga *Sliding with tube*	**08.151.400**	L(3)+All	670+110		
		08.151.401	L(3)+All		670+110	
		08.151.402	L(3)+All			670+110
	Fissa con tubo di prolunga *Fixed with tube*	**08.151.500**	L(3)	430		
		08.151.501	L(3)		430	
		08.151.502	L(3)			430
	Extracorta *Extra short*	**08.151.610**	L(4)+All	390+30(5)		
		08.151.620	L(4)+All	420+40(6)		
		08.151.630	L(4)+All	460+70(6)		
		08.151.640	L(4)+All	520+90(6)		
		08.151.650	L(4)+All	590+100(6)		
		08.151.611	L(4)+All		390+30(5)	
		08.151.621	L(4)+All		420+40(6)	
		08.151.631	L(4)+All		460+70(6)	
		08.151.641	L(4)+All		520+90(6)	
		08.151.651	L(4)+All		590+100(6)	
		08.151.612	L(4)+All			390+30(5)
		08.151.622	L(4)+All			420+40(6)
		08.151.632	L(4)+All			460+70(6)
		08.151.642	L(4)+All			520+90(6)
		08.151.652	L(4)+All			590+100(6)
	Giunto semplice *Simple joint*	**08.151.100**	L	184		
		08.151.101	L		184	
		08.151.102	L			184
	Giunto doppio *Double joint*	**08.151.200**	L	368		
		08.151.201	L		368	
		08.151.202	L			368

(1) Momento torcente dinamico massimo.
(2) Angolo massimo di inclinazione per giunto.
(3) Lunghezza minima, lunghezze superiori a richiesta.
(4) Lunghezze consigliate, differenti a richiesta.
(5) Angolo massimo di inclinazione 20°.
(6) Angolo massimo di inclinazione 25°.
A richiesta flangia DIN 225. Cod. 08.151.--3
Qualora figurino due alternative, se non espressamente richiesto, verrà fornita la prima delle due.

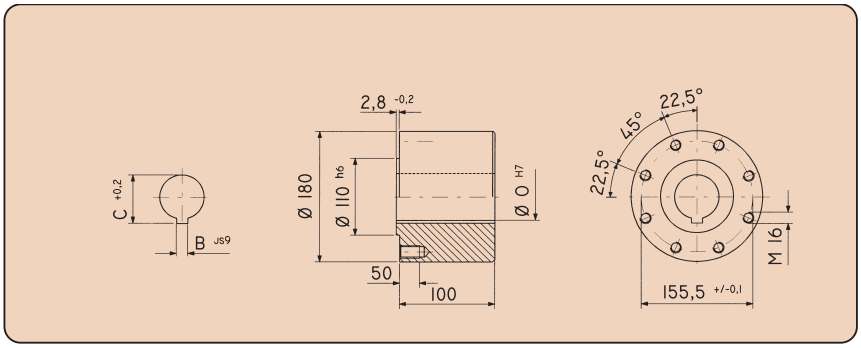
(1) Max dynamic torque.
(2) Maximum angle of inclination per joint.
(3) Minimum length, longer lengths on request.
(4) Standard suggested lengths, different lengths on request.
(5) Maximum angle of inclination 20°.
(6) Maximum angle of inclination 25°.
Flange DIN 225 on request. Code 08.151.--3
When there are two alternatives, if not explicity required, we'll supply the first one.

CONTROFLANGIA DIN 150 / *DIN 150 COMPANION FLANGE*



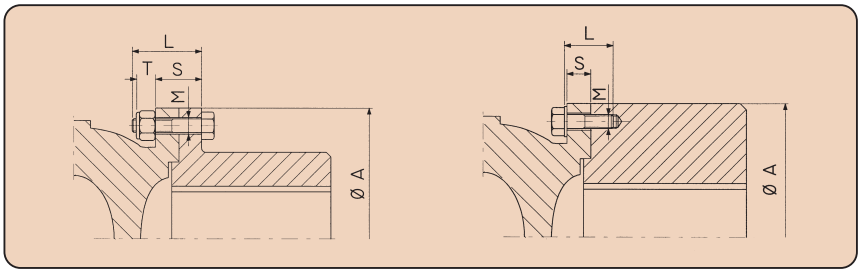
Cod./*Code*	O	B	C	G
14.150.045	45	14	48,8	M 12
14.150.048	48	14	51,8	M 12
14.150.050	50	14	53,8	M 12
14.150.055	55	16	59,3	M 14
14.150.060	60	18	64,4	M 14
14.150.065	65	18	69,4	M 14
14.150.000	foro a richiesta / *hole on request*			
14.150.001	senza foro / *without hole*			

CONTROFLANGIA DIN 180 / *DIN 180 COMPANION FLANGE*



Cod./*Code*	O	B	C
14.181.100	foro a richiesta / *hole on request*		
14.181.101	senza foro / *without hole*		

SET VITERIA / *FITTING BOLTS*

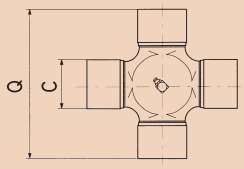


Cod./*Code*	16.150.000	16.181.100
A	150	180
M x L	M12 x 35	M16 x 40
T	11,3	
S	20	12
Q.tà(1)	16	16
Nm(2)	110	275

(1) Quantità di dadi (Din 980V-10) o rosette elastiche (Uni 9195) e viti (Din 933-10.9) per ogni set di viteria.
(2) Coppia di serraggio.

(1) Quantity of self-locking nuts (Din 980V-10) or elastic washers (UNI 9195) and bolts (Din 933-10.9) each set.
(2) Tightening torque.

CROCIERA / *JOURNAL CROSS*

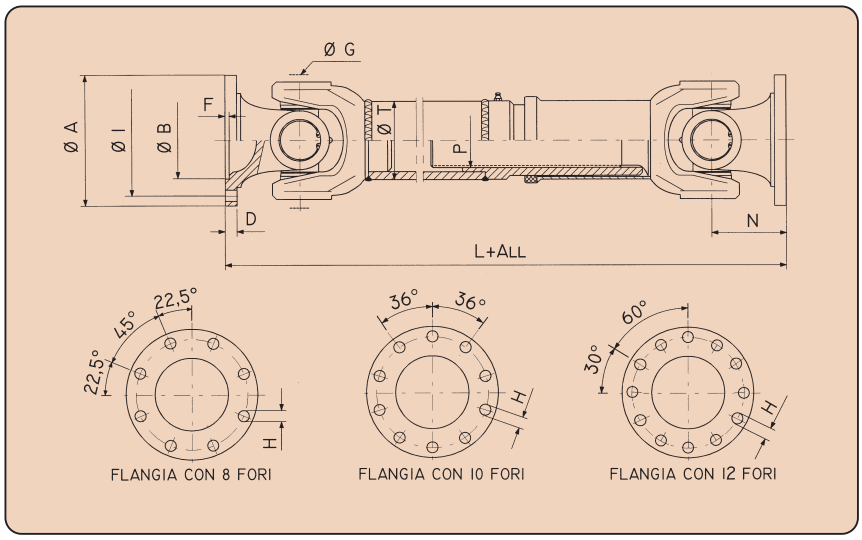


Ingrassatore centrale
Central lubrication

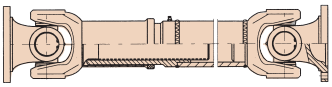
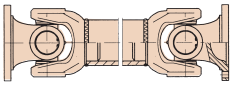
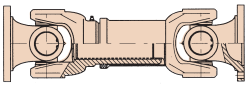
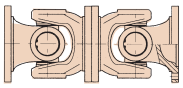
Cod./*Code*	12.151.000
C	52
Q	133
Anello d'arresto / *Circlip*	52x2

Dimensioni in mm / *Dimensions in mm*

Serie 08.180.
Mt 14.000 Nm



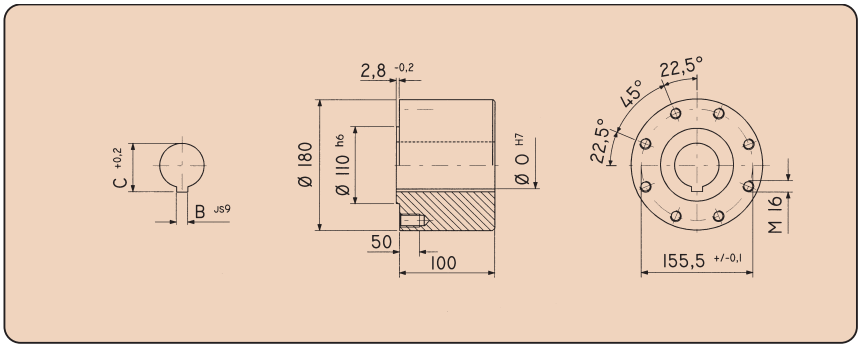
Serie / *Series*	08.180.--0	08.180.--1
Mt(1) Nm	14.000	14.000
β°(2)	35	35
A	180	225
B^{H7}	110	140
D	14	15
$F^{+0,2}$	3	5
G	175	175
H^{B12}	16	16
$I^{\pm 0,1}$	155,5	196
N° Fori / *Holes*	8/10	8/12
N	100	100
P (DIN 5480)	75x2,5x28	75x2,5x28
T	100x6	100x6

FLANGIA DIN / *DIN FLANGE*		**Cod./*Code***	**Flangia/*Flange***	**DIN 180**	**DIN 225**
	Allungabile con tubo di prolunga *Sliding with tube*	**08.180.400**	L(3)+All	740+110	
		08.180.401	L(3)+All		740+110
	Fissa con tubo di prolunga *Fixed with tube*	**08.180.500**	L(3)	460	
		08.180.501	L(3)		460
	Extracorta *Extra short*	**08.180.610**	L(4)+All	480+30(5)	
		08.180.620	L(4)+All	510+40(5)	
		08.180.630	L(4)+All	550+70(5)	
		08.180.640	L(4)+All	600+100(5)	
		08.180.650	L(4)+All	640+100(5)	
		08.180.611	L(4)+All		480+30(5)
		08.180.621	L(4)+All		510+40(5)
		08.180.631	L(4)+All		550+70(5)
		08.180.641	L(4)+All		600+100(5)
		08.180.651	L(4)+All		640+100(5)
	Giunto semplice *Simple joint*	**08.180.100**	L	200	
		08.180.101	L		200
	Giunto doppio *Double joint*	**08.180.200**	L	400	
		08.180.201	L		400

(1) Momento torcente dinamico massimo.
(2) Angolo massimo di inclinazione per giunto.
(3) Lunghezza minima, lunghezze superiori a richiesta.
(4) Lunghezze consigliate, differenti a richiesta.
(5) Angolo massimo di inclinazione 25°.
Qualora figurino due alternative, se non espressamente richiesto, verrà fornita la prima delle due.

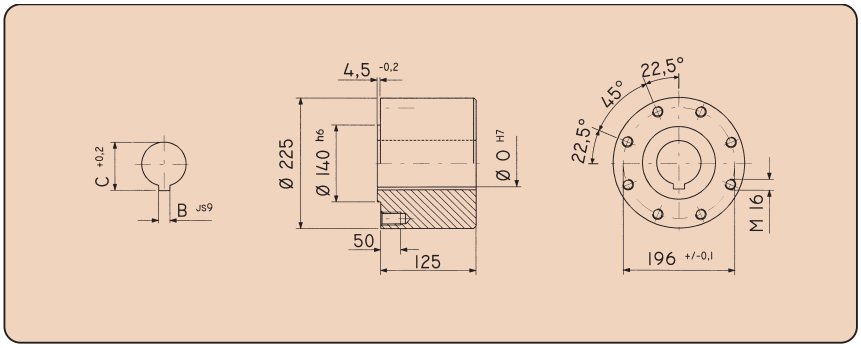
(1) Max dynamic torque.
(2) Maximum angle of inclination per joint.
(3) Minimum length, longer lengths on request.
(4) Standard suggested lengths, different lengths on request.
(5) Maximum angle of inclination 25°.
When there are two alternatives, if not explicity required, we'll supply the first one.

CONTROFLANGIA DIN 180 / *DIN 180 COMPANION FLANGE*



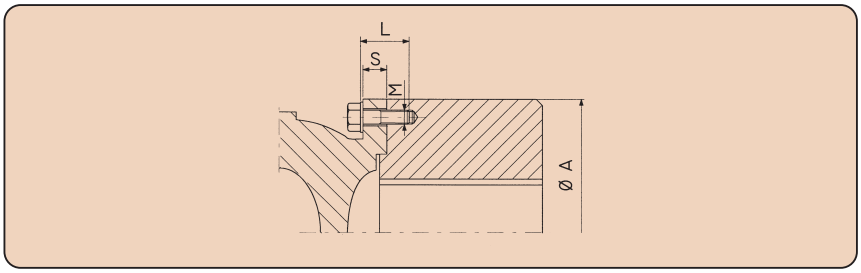
Cod./*Code*	O	B	C
14.181.100	foro a richiesta / *hole on request*		
14.181.101	senza foro / *without hole*		

CONTROFLANGIA DIN 225 / *DIN 225 COMPANION FLANGE*



Cod./*Code*	O	B	C
14.225.100	foro a richiesta / *hole on request*		
14.225.101	senza foro / *without hole*		

SET VITERIA / *FITTING BOLTS*

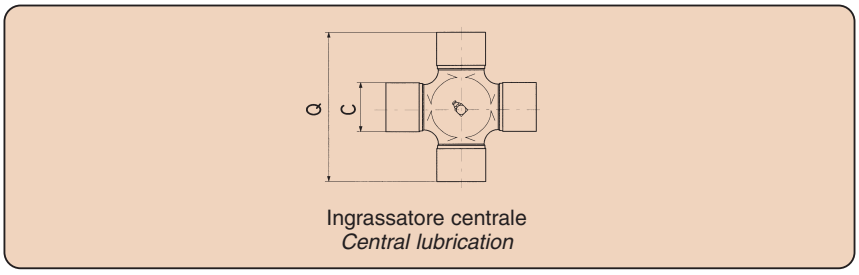


Cod./*Code*	16.181.100	16.225.100
A	180	225
M x L	M16 x 40	M16 x 40
S	12	15
Q.tà(1)	16	16
Nm(2)	275	275

(1) Quantità di rosette elastiche (UNI 9195) e viti (Din 933-10.9) per ogni set di viteria.
(2) Coppia di serraggio.

(1) Quantity of elastic washers (UNI 9195) and bolts (Din 933-10.9) each set.
(2) Tightening torque.

CROCIERA / *JOURNAL CROSS*

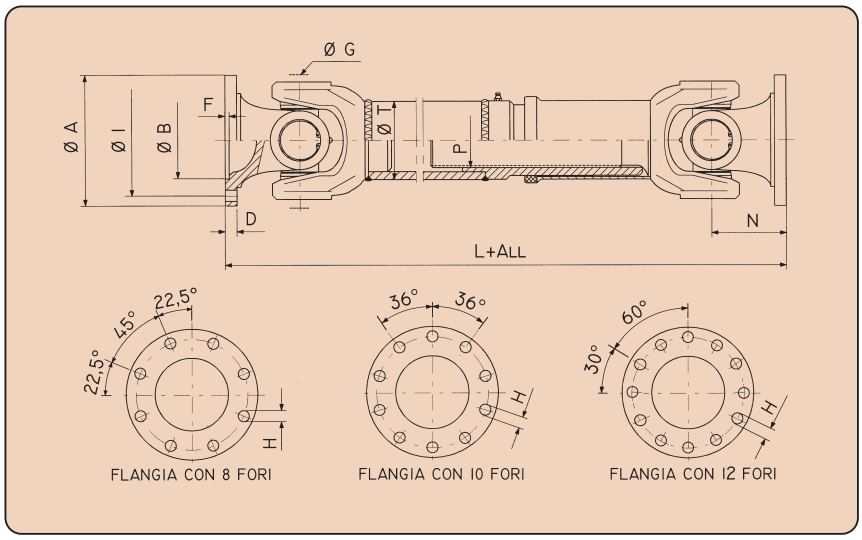


Ingrassatore centrale
Central lubrication

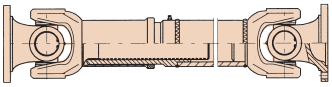
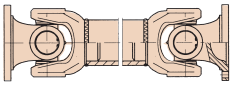
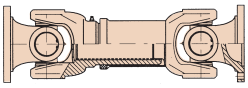
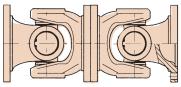
Cod./*Code*	12.180.000
C	57
Q	144
Anello d'arresto / *Circlip*	57x2

Dimensioni in mm / *Dimensions in mm*

Serie 08.181.
Mt 16.000 Nm



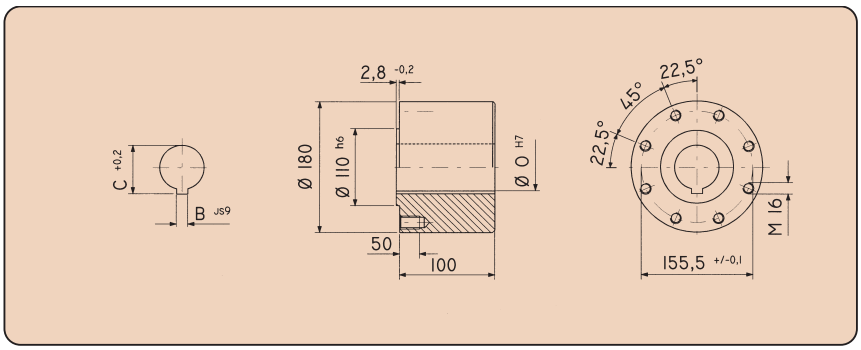
Serie / *Series*	08.181.--0	08.181.--1
Mt(1) Nm	16.000	16.000
β°(2)	30	30
A	180	225
B^{H7}	110	140
D	14	15
$F^{+0,2}$	3	5
G	180	180
H^{B12}	16	16
$I^{\pm 0,1}$	155,5	196
N° Fori / *Holes*	8/10	8/12
N	95	95
P (DIN 5480)	75x2,5x28	75x2,5x28
T	120x6	120x6

FLANGIA DIN / *DIN FLANGE*		Cod./*Code*	Flangia/*Flange*	DIN 180	DIN 225
	Allungabile con tubo di prolunga *Sliding with tube*	**08.181.400**	L(3)+All	645+80	
			L(3)+All	765+160	
		08.181.401	L(3)+All		645+80
			L(3)+All		765+160
	Fissa con tubo di prolunga *Fixed with tube*	**08.181.500**	L(3)	480	
		08.181.501	L(3)		480
	Extracorta *Extra short*	**08.181.610**	L(4)+All	400+30(5)	
		08.181.620	L(4)+All	430+30(5)	
		08.181.630	L(4)+All	480+40(5)	
		08.181.640	L(4)+All	550+70	
		08.181.650	L(4)+All	620+110	
		08.181.611	L(4)+All		400+30(5)
		08.181.621	L(4)+All		430+30(5)
		08.181.631	L(4)+All		480+40(5)
		08.181.641	L(4)+All		550+70
		08.181.651	L(4)+All		620+110
	Giunto semplice *Simple joint*	**08.181.100**	L	190	
		08.181.101	L		190
	Giunto doppio *Double joint*	**08.181.200**	L	380	
		08.181.201	L		380

(1) Momento torcente dinamico massimo.
(2) Angolo massimo di inclinazione per giunto.
(3) Lunghezza minima, lunghezze superiori a richiesta.
(4) Lunghezze consigliate, differenti a richiesta.
(5) Angolo massimo di inclinazione 10°.
Qualora figurino due alternative, se non espressamente richiesto, verrà fornita la prima delle due.

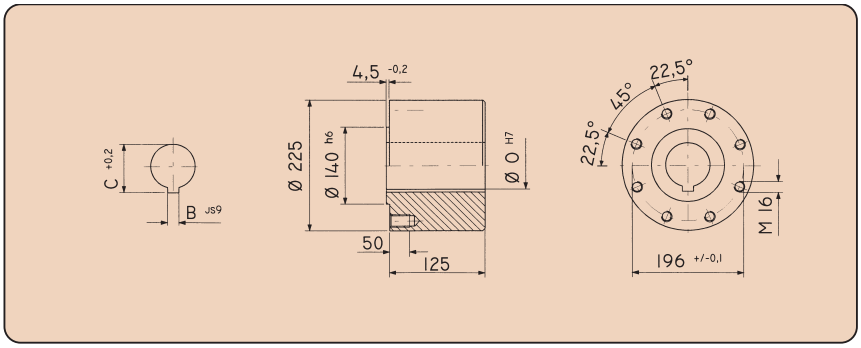
(1) Max dynamic torque.
(2) Maximum angle of inclination per joint.
(3) Minimum length, longer lengths on request.
(4) Standard suggested lengths, different lengths on request.
(5) Maximum angle of inclination 10°.
When there are two alternatives, if not explicity required, we'll supply the first one.

CONTROFLANGIA DIN 180 / *DIN 180 COMPANION FLANGE*



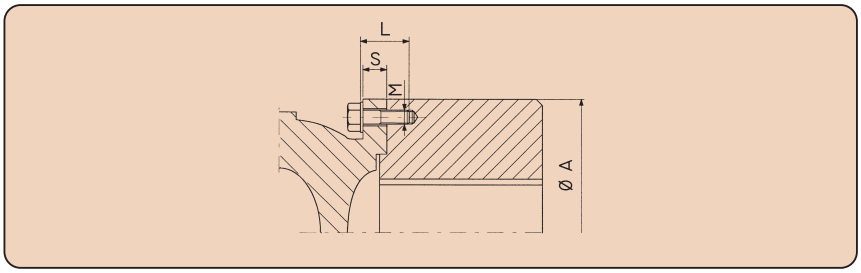
Cod./*Code*	O	B	C
14.181.100	foro a richiesta / *hole on request*		
14.181.101	senza foro / *without hole*		

CONTROFLANGIA DIN 225 / *DIN 225 COMPANION FLANGE*



Cod./*Code*	O	B	C
14.225.100	foro a richiesta / *hole on request*		
14.225.101	senza foro / *without hole*		

SET VITERIA / *FITTING BOLTS*

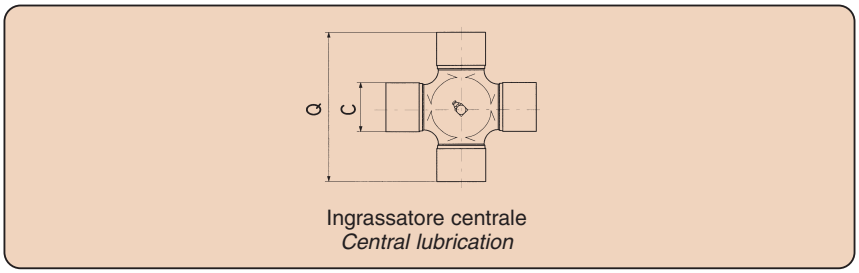


Cod./*Code*	16.181.100	16.225.100
A	180	225
M x L	M16 x 40	M16 x 40
S	14	15
Q.tà(1)	16	16
Nm(2)	275	275

(1) Quantità di rosette elastiche (UNI 9195) e viti (Din 933-10.9) per ogni set di viteria.
(2) Coppia di serraggio.

(1) Quantity of elastic washers (UNI 9195) and bolts (Din 933-10.9) each set.
(2) Tightening torque.

CROCIERA / *JOURNAL CROSS*

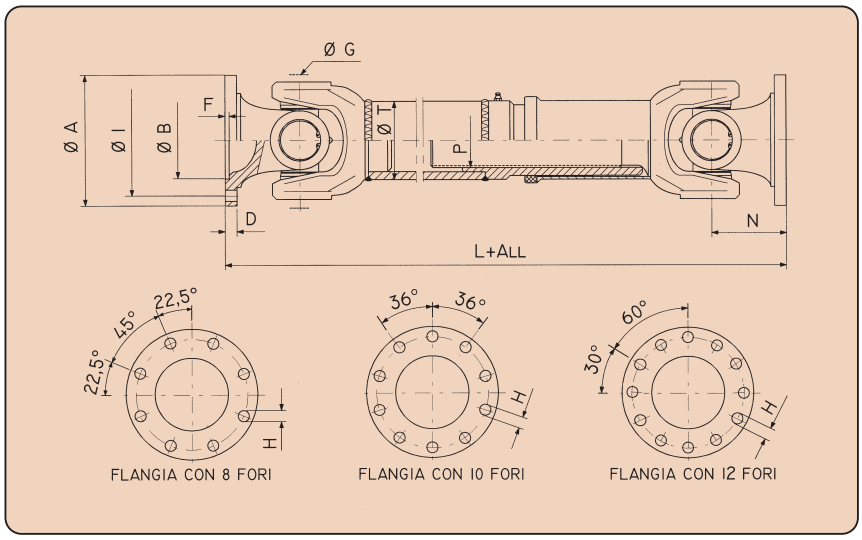


Ingrassatore centrale
Central lubrication

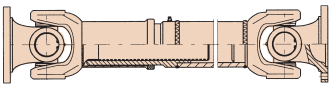
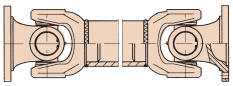
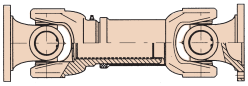
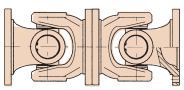
Cod./*Code*	12.181.000
C	57
Q	152
Anello d'arresto / *Circlip*	57x2

Dimensioni in mm / *Dimensions in mm*

Serie 08.225.
Mt 24.000 Nm



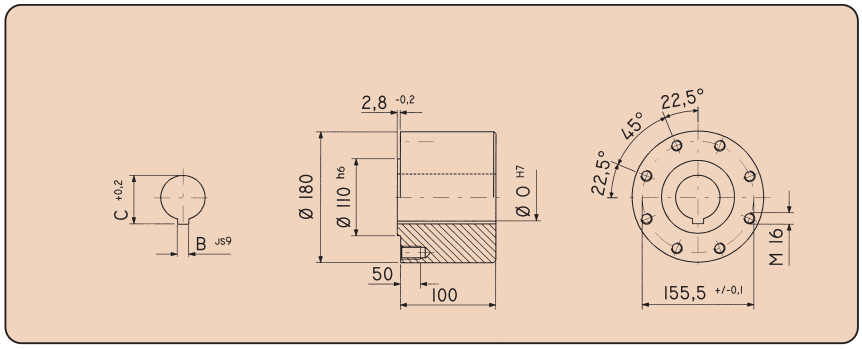
Serie/*Series*	08.225.--9	08.225.--0	08.225.--1
Mt(1) Nm	19.000	24.000(6)	24.000(6)
β°(2)	30	25	25
A	180	225	250
B^{H7}	110	140	140
D	15	15	18
$F^{+0,2}$	3,5	5	6
G	204	204	204
H^{B12}	16	16	18
$I^{\pm 0,1}$	155,5	196	218
N° Fori	8/10	8/12	8
N	110	110	110
P (DIN 5480)	90x2,5x34	90x2,5x34	90x2,5x34
T	140x5/145x7,5	140x5/145x7,5	140x5/145x7,5

FLANGIA DIN / *DIN FLANGE*		Cod./*Code*	Flangia/*Flange*	DIN 180	DIN 225	DIN 250
	Allungabile con tubo di prolunga *Sliding with tube*	**08.225.409**	L(3)+All	840+150		
		08.225.400	L(3)+All		840+150	
		08.225.401	L(3)+All			840+150
	Fissa con tubo di prolunga *Fixed with tube*	**08.225.509**	L(3)	510		
		08.225.500	L(3)		510	
		08.225.501	L(3)			510
	Extracorta *Extra short*	**08.225.619**	L(4)+All	470+30(5)		
		08.225.629	L(4)+All	500+40(5)		
		08.225.639	L(4)+All	555+30		
		08.225.649	L(4)+All	600+80		
		08.225.659	L(4)+All	700+110		
		08.225.610	L(4)+All		470+30(5)	
		08.225.620	L(4)+All		500+40(5)	
		08.225.630	L(4)+All		555+30	
		08.225.640	L(4)+All		600+80	
		08.225.650	L(4)+All		700+110	
		08.225.611	L(4)+All			470+30(5)
		08.225.621	L(4)+All			500+40(5)
		08.225.631	L(4)+All			555+30
		08.225.641	L(4)+All			600+80
		08.225.651	L(4)+All			700+110
	Giunto semplice *Simple joint*	**08.225.109**	L	220		
		08.225.100	L		220	
		08.225.101	L			220
	Giunto doppio *Double joint*	**08.225.209**	L	440		
		08.225.200	L		440	
		08.225.201	L			440

(1) Momento torcente dinamico massimo.
(2) Angolo massimo di inclinazione per giunto.
(3) Lunghezza minima, lunghezze superiori a richiesta.
(4) Lunghezze consigliate, differenti a richiesta.
(5) Angolo massimo di inclinazione 6°.
(6) Momento torcente dinamico massimo con tubo di spessore maggiore.
Qualora figurino due alternative, se non espressamente richiesto, verrà fornita la prima delle due.

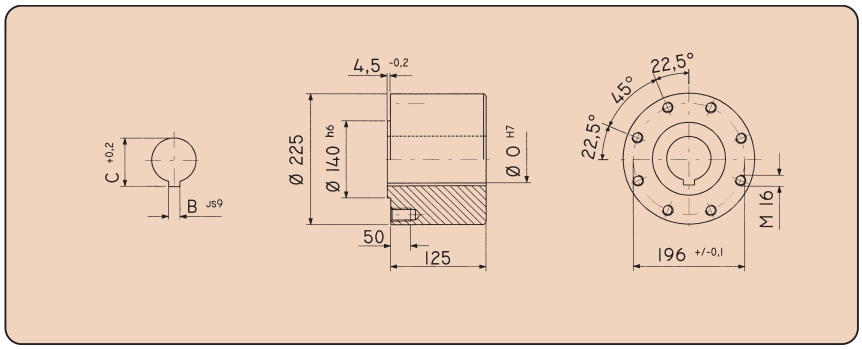
(1) Max dynamic torque.
(2) Maximum angle of inclination per joint.
(3) Minimum length, longer lengths on request.
(4) Standard suggested lengths, different lengths on request.
(5) Maximum angle of inclination 6°.
(6) Max dynamic torque with higher tube in thickness.
When there are two alternatives, if not explicity required, we'll supply the first one.

CONTROFLANGIA DIN 180 / *DIN 180 COMPANION FLANGE*



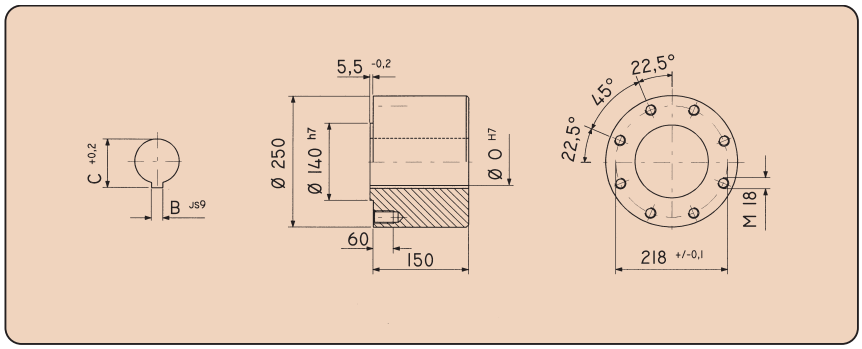
Cod./*Code*	O	B	C
14.181.100	foro a richiesta / *hole on request*		
14.181.101	senza foro / *without hole*		

CONTROFLANGIA DIN 225 / *DIN 225 COMPANION FLANGE*



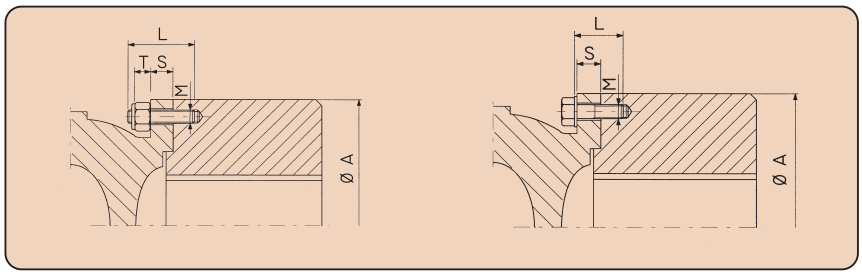
Cod./*Code*	O	B	C
14.225.100	foro a richiesta / *hole on request*		
14.225.101	senza foro / *without hole*		

CONTROFLANGIA DIN 250 / *DIN 250 COMPANION FLANGE*



Cod./*Code*	O	B	C
14.250.100	foro a richiesta / *hole on request*		
14.250.101	senza foro / *without hole*		

SET VITERIA / *FITTING BOLTS*

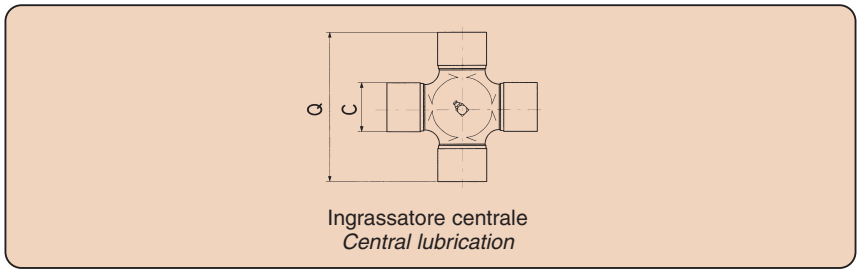


Cod./*Code*	16.181.110	16.225.100	16.250.100
A	180	225	250
M x L	M16 x 50	M16 x 40	M18 x 50
S	15	15	18
T	14		
Q.tà(1)	16	16	16
Nm(2)	275	275	390

(1) Quantità di dadi (Din 980V-10) e viti (UNI 5923-10.9) o rosette elastiche (UNI 9195) e viti (Din 933-10.9) per set di viteria.
(2) Coppia di serraggio.

(1) Quantity of self-locking nuts (Din 980V-10) and bolts (UNI 5923-10.9) or elastic washers (UNI 9195) and bolts (Din 933-10.9) each set.
(2) Tightening Torque.

CROCIERA / *JOURNAL CROSS*

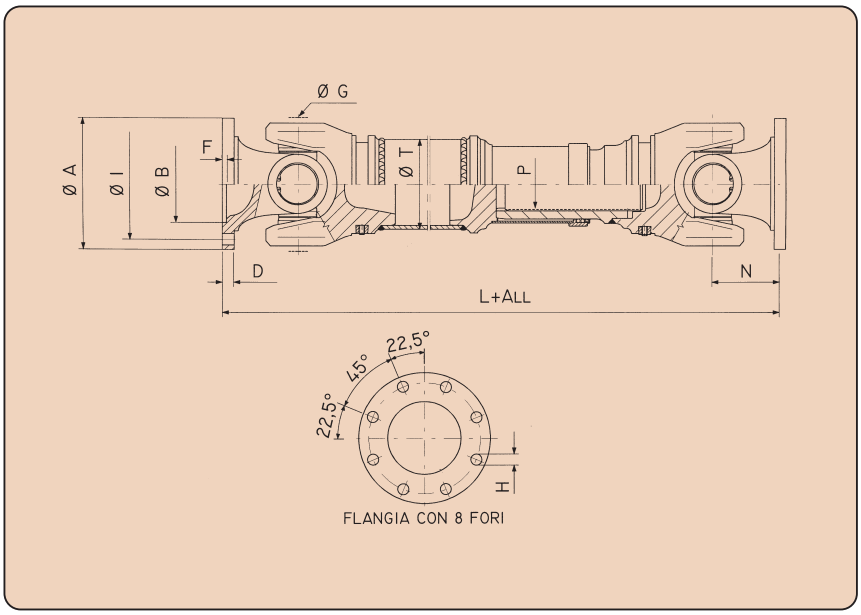


Ingrassatore centrale
Central lubrication

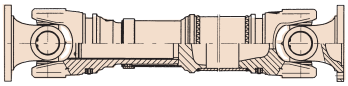
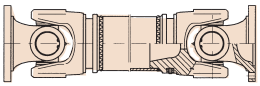
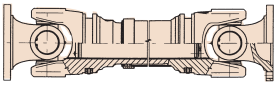
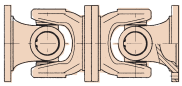
Cod./*Code*	12.225.000
C	65
Q	172
Anello d'arresto / *Circlip*	65x2,5

Dimensioni in mm / *Dimensions in mm*

Serie 08.226.
Mt 26 KNm



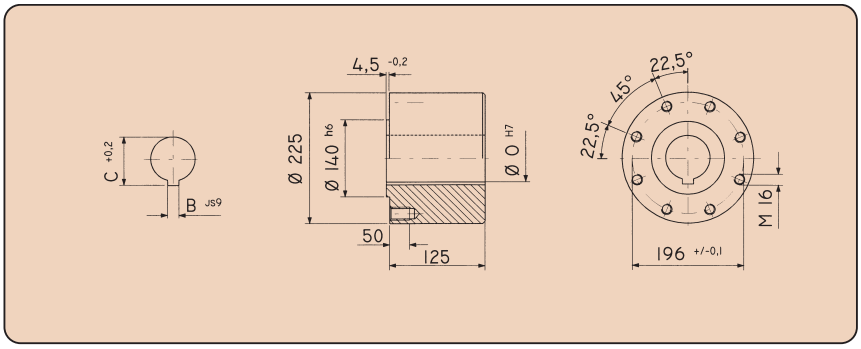
Serie/*Series*	08.226.--0	08.226.--1	08.226.--2
Mt(1) KNm	26	26	26
MtM(2) KNm	33	33	33
MtW(3) KNm	13	13	13
β°(4)	15/24	15/24	15/24
A	225	250	285
B^{H7}	140	140	175
D	15	18	20
$F^{+0,2}$	5	6	7
G	215	215	215
H^{B12}	16	18	20
$I^{\pm 0,1}$	196	218	245
N° Fori	8	8	8
N	108	108	108
P (DIN 5480)	90x2,5x34	90x2,5x34	90x2,5x34
T	145x7,5	145x7,5	145x7,5

FLANGIA DIN / *DIN FLANGE*		**Cod./*Code***	*Flangia/Flange*	**DIN 225**	**DIN 250**	**DIN 285**
	Allungabile con tubo di prolunga *Sliding with tube*	**08.226.400**	L(5)+All	735+110		
		08.226.401	L(5)+All		735+110	
		08.226.402	L(5)+All			735+110
	Fissa con tubo di prolunga *Fixed with tube*	**08.226.500**	L(5)	560		
		08.226.501	L(5)		560	
		08.226.502	L(5)			560
	Extracorta *Extra short*	**08.226.600**	L^{MIN}+All(6)	485+35(7)		
			L^{MAX}+All(6)	585+85(7)		
			L^{MIN}+All(6)	560+30		
			L^{MAX}+All(6)	730+110		
		08.226.601	L^{MIN}+All(6)		560+30	
			L^{MAX}+All(6)		730+110	
		08.226.602	L^{MIN}+All(6)			560+30
			L^{MAX}+All(6)			730+110
	Giunto semplice *Simple joint*	**08.226.100**	L	216		
		08.226.101	L		216	
		08.226.102	L			216
	Giunto doppio *Double joint*	**08.226.200**	L	432		
		08.226.201	L		432	
		08.226.202	L			432

(1) Momento torcente a catalogo.
(2) Momento torcente massimo ammissibile, con frequenza limitata, senza deformazioni permanenti.
(3) Momento torcente massimo a fatica alterna.
(4) Angolo massimo di inclinazione per giunto, 24° su richiesta.
(5) Lunghezza minima, lunghezze superiori a richiesta.
(6) Lunghezze minime e massime, differenti a richiesta.
(7) Angolo massimo di inclinazione 5°.
Qualora figurino due alternative, se non espressamente richiesto, verrà fornita la prima delle due.

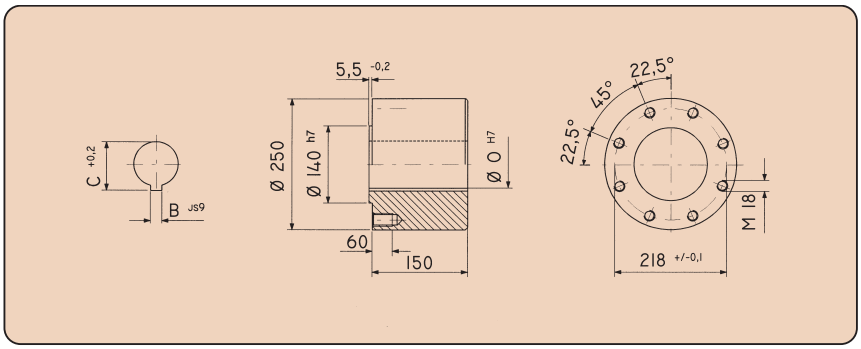
(1) Torque as catalogue.
(2) Maximum admissible torque, with low-frequency, without permanent bucklings.
(3) Maximum torque with alternate load.
(4) Maximum angle of inclination per joint, 24° on request.
(5) Minimum length, longer lengths on request.
(6) Minimum and maximum closed lengths, different lengths on request.
(7) Maximum angle of inclination 5°.
When there are two alternatives, if not explicity required, we'll supply the first one.

CONTROFLANGIA DIN 225 / *DIN 225 COMPANION FLANGE*



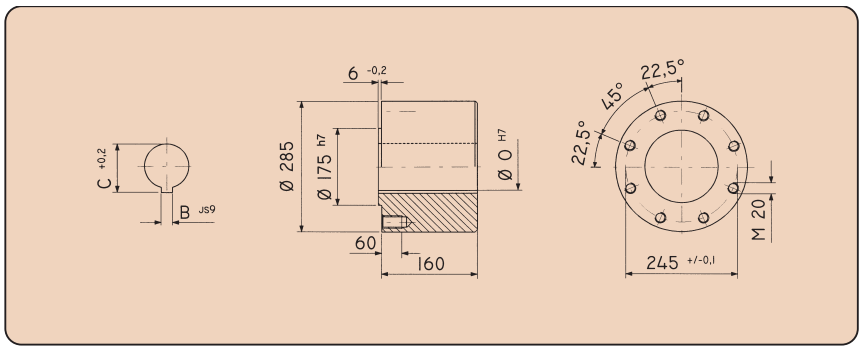
Cod./*Code*	O	B	C
14.225.100	foro a richiesta / *hole on request*		
14.225.101	senza foro / *without hole*		

CONTROFLANGIA DIN 250 / *DIN 250 COMPANION FLANGE*



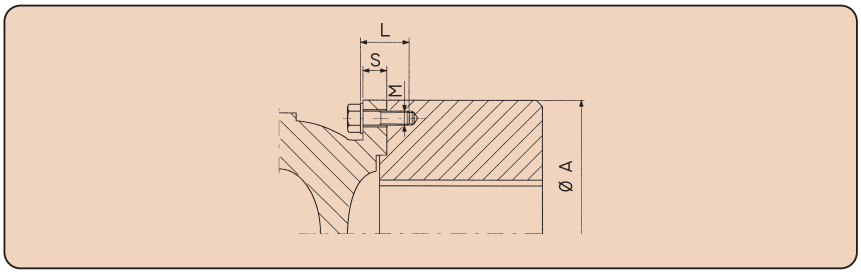
Cod./*Code*	O	B	C
14.250.100	foro a richiesta / *hole on request*		
14.250.101	senza foro / *without hole*		

CONTROFLANGIA DIN 285 / *DIN 285 COMPANION FLANGE*



Cod./*Code*	O	B	C
14.285.100	foro a richiesta / *hole on request*		
14.285.101	senza foro / *without hole*		

SET VITERIA / *FITTING BOLTS*

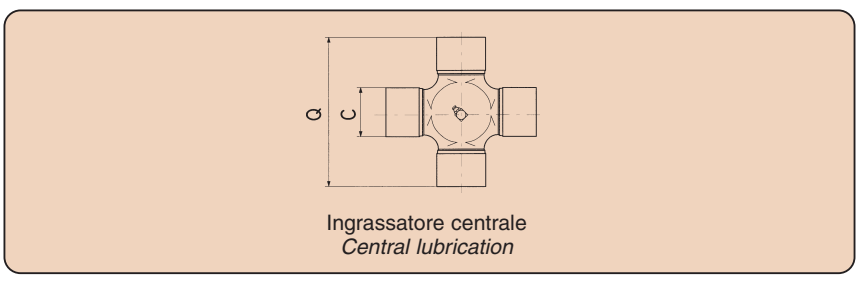


Cod./*Code*	16.225.100	16.250.100	16.285.100
A	225	250	285
M x L	M16 x 40	M18 x 50	M20 x 50
S	15	18	20
Q.tà(1)	16	16	16
Nm(2)	275	390	600

(1) Quantità di rosette elastiche (UNI 9195) e viti (Din 933-10.9) per set di viteria.
(2) Coppia di serraggio.

(1) Quantity of elastic washers (UNI 9195) and bolts (Din 933-10.9) each set.
(2) Tightening torque.

CROCIERA / *JOURNAL CROSS*

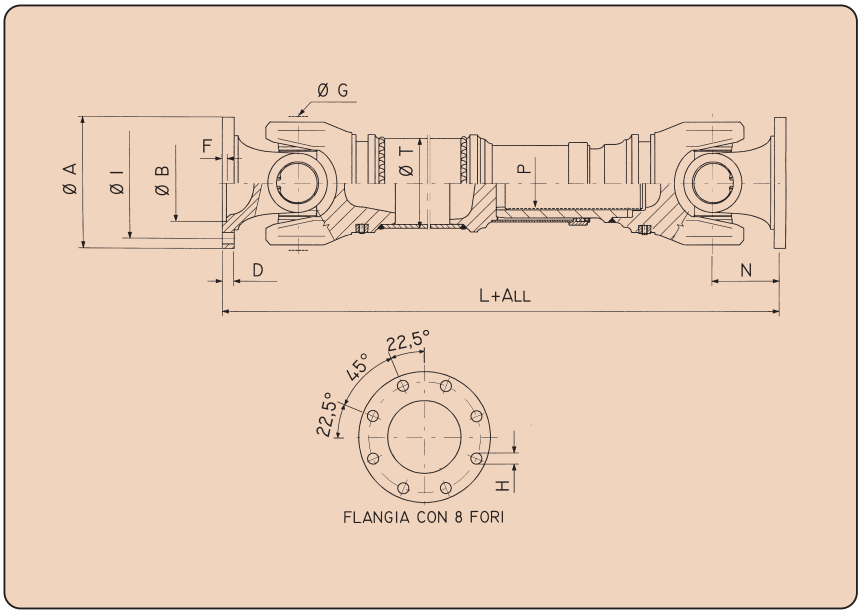


Ingrassatore centrale
Central lubrication

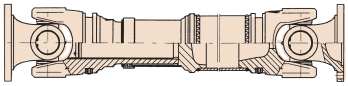
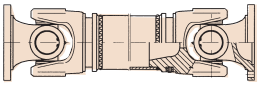
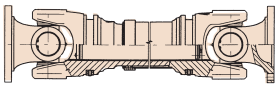
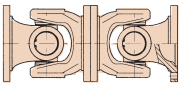
Cod./*Code*	12.226.000
C	72
Q	185
Anello d'arresto / *Circlip*	72x2,5

Dimensioni in mm / *Dimensions in mm*

Serie 08.250.
Mt 30 KNm



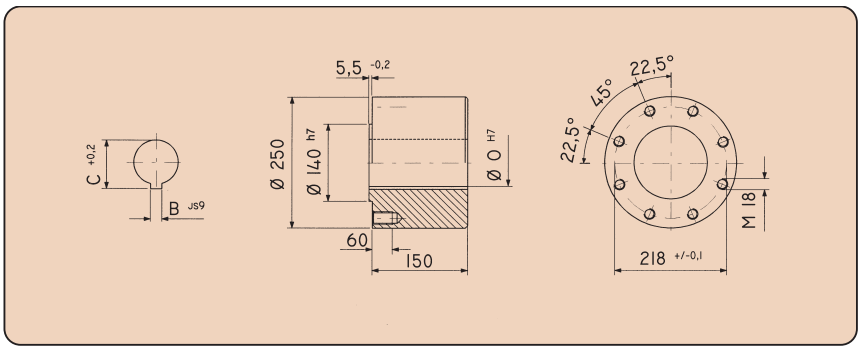
Serie / *Series*	08.250.--0	08.250.--1
Mt(1) KNm	30	30
MtM(2) KNm	40	40
MtW(3) KNm	18	18
β°(4)	15	15
A	250	285
B^{H7}	140	175
D	18	20
$F^{+0,2}$	6	7
G	250	250
H^{B12}	18	20
$I^{\pm 0,1}$	218	245
N° Fori / *Holes*	8	8
N	125	125
P (DIN 5480)	100x3x32	100x3x32
T	160x10	160x10

FLANGIA DIN / *DIN FLANGE*		Cod./*Code*	Flangia/*Flange*	DIN 250	DIN 285
	Allungabile con tubo di prolunga *Sliding with tube*	**08.250.400**	L(5)+All	860+110	
		08.250.401	L(5)+All		860+110
	Fissa con tubo di prolunga *Fixed with tube*	**08.250.500**	L(5)	610	
		08.250.501	L(5)		610
	Extracorta *Extra short*	**08.250.600**	L^{MIN}+All(6)	700+60	
			L^{MAX}+All(6)	855+110	
		08.250.601	L^{MIN}+All(6)		700+60
			L^{MAX}+All(6)		855+110
	Giunto semplice *Simple joint*	**08.250.100**	L	250	
		08.250.101	L		250
	Giunto doppio *Double joint*	**08.250.200**	L	500	
		08.250.201	L		500

(1) Momento torcente a catalogo.
(2) Momento torcente massimo ammissibile, con frequenza limitata, senza deformazioni permanenti.
(3) Momento torcente massimo a fatica alterna.
(4) Angolo massimo di inclinazione per giunto.
(5) Lunghezza minima, lunghezze superiori a richiesta.
(6) Lunghezze minime e massime, differenti a richiesta.
Qualora figurino due alternative, se non espressamente richiesto, verrà fornita la prima delle due.

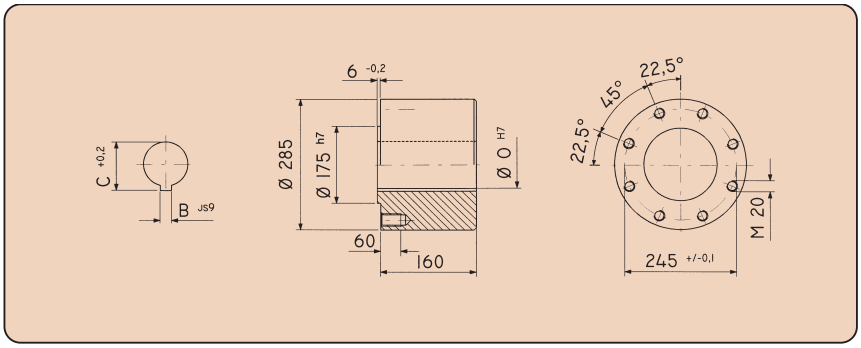
(1) Torque as catalogue.
(2) Maximum admissible torque, with low-frequency, without permanent bucklings.
(3) Maximum torque with alternate load.
(4) Maximum angle of inclination per joint.
(5) Minimum length, longer lengths on request.
(6) Minimum and maximum closed lengths, different lengths on request. When there are two alternatives, if not explicity required, we'll supply the first one.

CONTROFLANGIA DIN 250 / *DIN 250 COMPANION FLANGE*



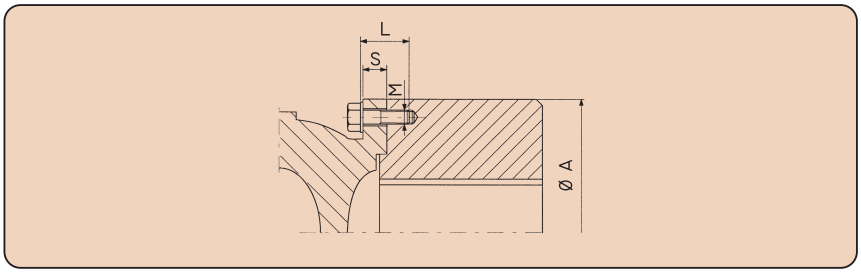
Cod./*Code*	O	B	C
14.250.100	foro a richiesta / *hole on request*		
14.250.101	senza foro / *without hole*		

CONTROFLANGIA DIN 285 / *DIN 285 COMPANION FLANGE*



Cod./*Code*	O	B	C
14.285.100	foro a richiesta / *hole on request*		
14.285.101	senza foro / *without hole*		

SET VITERIA / *FITTING BOLTS*

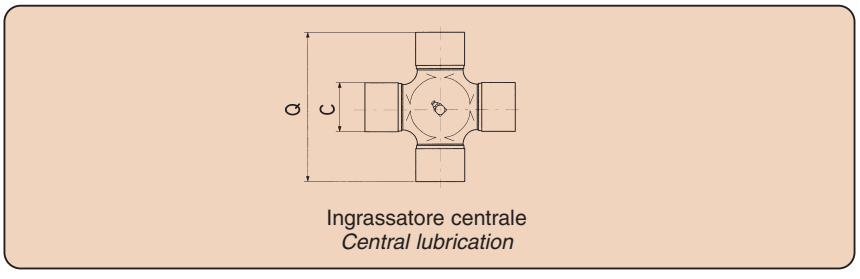


Cod./*Code*	16.250.100	16.285.100
A	250	285
M x L	M18 x 50	M20 x 50
S	18	20
Q.tà(1)	16	16
Nm(2)	390	600

(1) Quantità di rosette elastiche (UNI 9195) e viti (Din 933-10.9) per set di viteria.
(2) Coppia di serraggio.

(1) Quantity of elastic washers (UNI 9195) and bolts (Din 933-10.9) each set.
(2) Tightening torque.

CROCIERA / *JOURNAL CROSS*

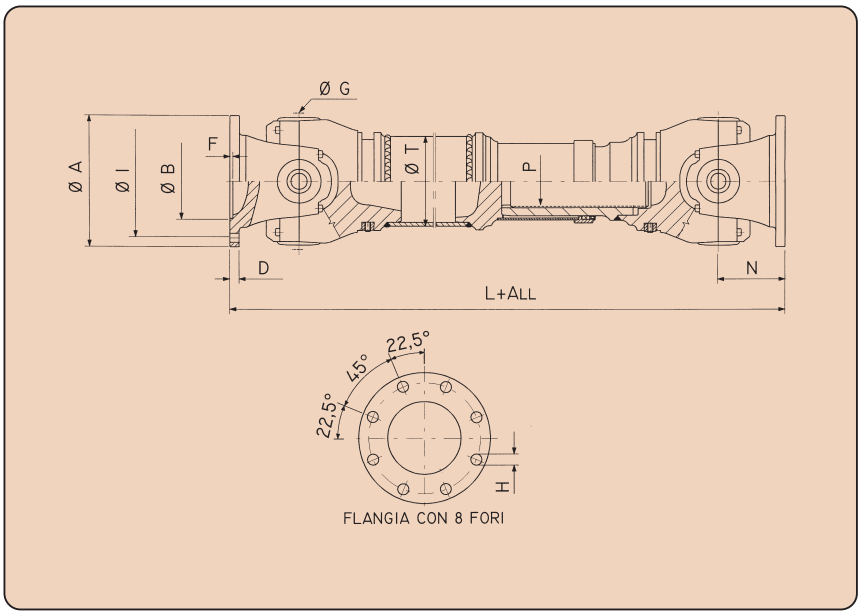


Ingrassatore centrale
Central lubrication

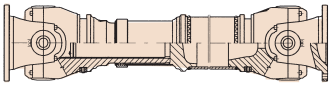
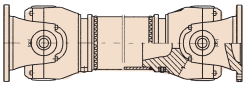
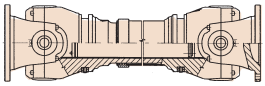
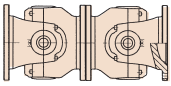
Cod./*Code*	12.250.000
C	74
Q	217
Anello d'arresto / *Circlip*	74x2,5

Dimensioni in mm / *Dimensions in mm*

Serie 08.251.
Mt 37 KNm



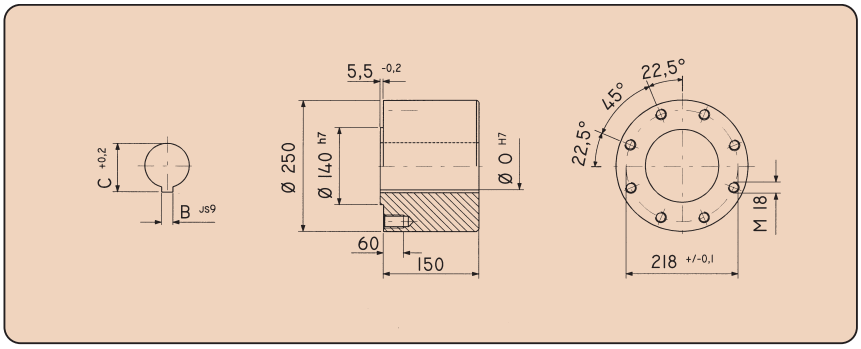
Serie/*Series*	08.251.--0	08.251.--1	08.251.--2
Mt(1) KNm	37	37	37
MtM(2) KNm	55	55	55
MtW(3) KNm	23	23	23
β°(4)	15	15	15
A	250	285	315
B^{H7}	140	175	175
D	18	20	22
$F^{+0,2}$	6	7	7
G	250	250	250
H^{B12}	18	20	22
$I^{\pm 0,1}$	218	245	280
N° Fori	8	8	8
N	130	130	130
P (DIN 5480)	100x3x32	100x3x32	100x3x32
T	160x10	160x10	160x10

FLANGIA DIN / *DIN FLANGE*		**Cod./*Code***	*Flangia/Flange*	**DIN 250**	**DIN 285**	**DIN 315**
	Allungabile con tubo di prolunga *Sliding with tube*	**08.251.400**	L(5)+All	905+110		
		08.251.401	L(5)+All		905+110	
		08.251.402	L(5)+All			905+110
	Fissa con tubo di prolunga *Fixed with tube*	**08.251.500**	L(5)	650		
		08.251.501	L(5)		650	
		08.251.502	L(5)			650
	Extracorta *Extra short*	**08.251.600**	L^{MIN}+All(6)	680+50		
			L^{MAX}+All(6)	950+110		
		08.251.601	L^{MIN}+All(6)		680+50	
			L^{MAX}+All(6)		950+110	
		08.251.602	L^{MIN}+All(6)			680+50
			L^{MAX}+All(6)			950+110
	Giunto semplice *Simple joint*	**08.251.100**	L	260		
		08.251.101	L		260	
		08.251.102	L			260
	Giunto doppio *Double joint*	**08.251.200**	L	520		
		08.251.201	L		520	
		08.251.202	L			520

(1) Momento torcente a catalogo.
(2) Momento torcente massimo ammissibile, con frequenza limitata, senza deformazioni permanenti.
(3) Momento torcente massimo a fatica alterna.
(4) Angolo massimo di inclinazione per giunto.
(5) Lunghezza minima, lunghezze superiori a richiesta.
(6) Lunghezze minime e massime, differenti a richiesta.
A richiesta esecuzione con chiavetta trasversale
Qualora figurino due alternative, se non espressamente richiesto, verrà fornita la prima delle due.

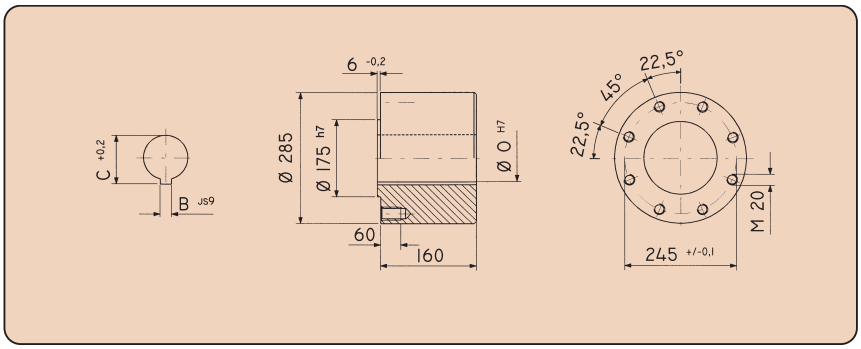
(1) Torque as catalogue.
(2) Maximum admissible torque, with low-frequency, without permanent bucklings.
(3) Maximum torque with alternate load.
(4) Maximum angle of inclination per joint.
(5) Minimum length, longer lengths on request.
(6) Minimum and maximum closed lengths, different lengths on request.
On request execution with transversal key way
When there are two alternatives, if not explicity required, we'll supply the first one.

CONTROFLANGIA DIN 250 / *DIN 250 COMPANION FLANGE*



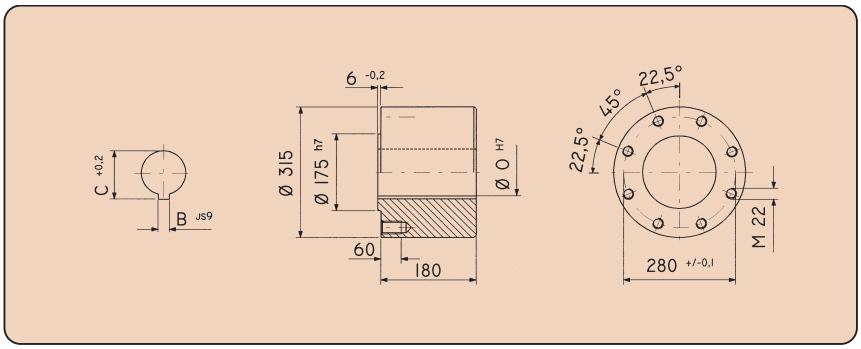
Cod./*Code*	O	B	C
14.250.100	foro a richiesta / *hole on request*		
14.250.101	senza foro / *without hole*		

CONTROFLANGIA DIN 285 / *DIN 285 COMPANION FLANGE*



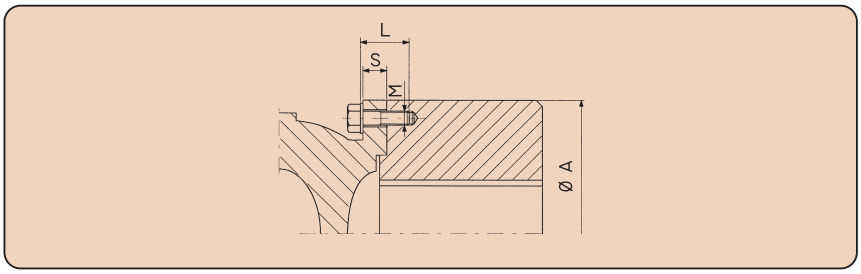
Cod./*Code*	O	B	C
14.285.100	foro a richiesta / *hole on request*		
14.285.101	senza foro / *without hole*		

CONTROFLANGIA DIN 315 / *DIN 315 COMPANION FLANGE*



Cod./*Code*	O	B	C
14.315.100	foro a richiesta / *hole on request*		
14.315.101	senza foro / *without hole*		

SET VITERIA / *FITTING BOLTS*

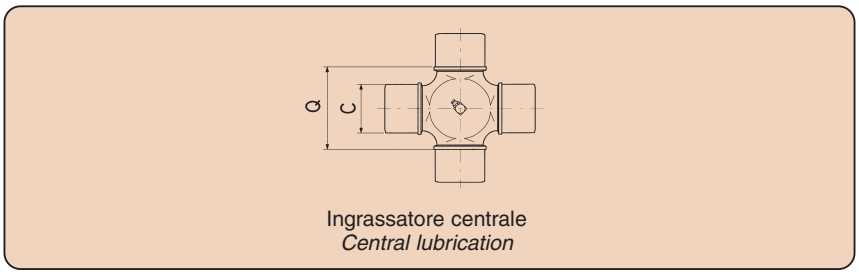


Cod./*Code*	16.250.100	16.285.100	16.315.100
A	250	285	315
M x L	M18 x 50	M20 x 50	M22 x 55
S	18	20	22
Q.tà(1)	16	16	16
Nm(2)	390	600	800

(1) Quantità di rosette elastiche (UNI 9195) e viti (Din 933-10.9) per set di viteria.
(2) Coppia di serraggio.

(1) Quantity of elastic washers (UNI 9195) and bolts (Din 933-10.9) each set.
(2) Tightening torque.

CROCIERA / *JOURNAL CROSS*

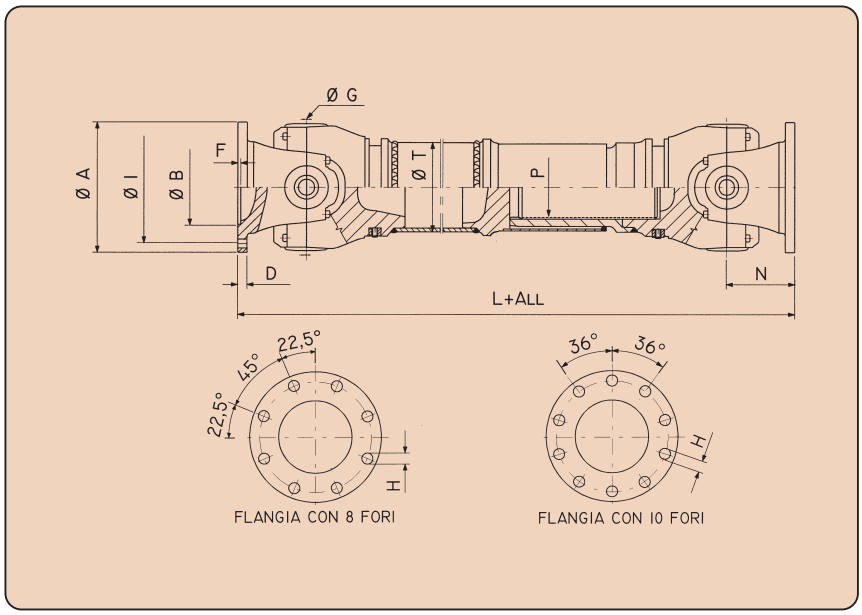


Ingrassatore centrale
Central lubrication

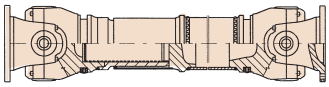
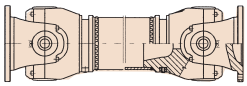
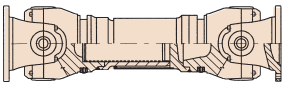
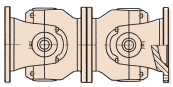
Cod./*Code*	12.251.000
C	83
Q	139

Dimensioni in mm / *Dimensions in mm*

Serie 08.285.
Mt 85 KNm



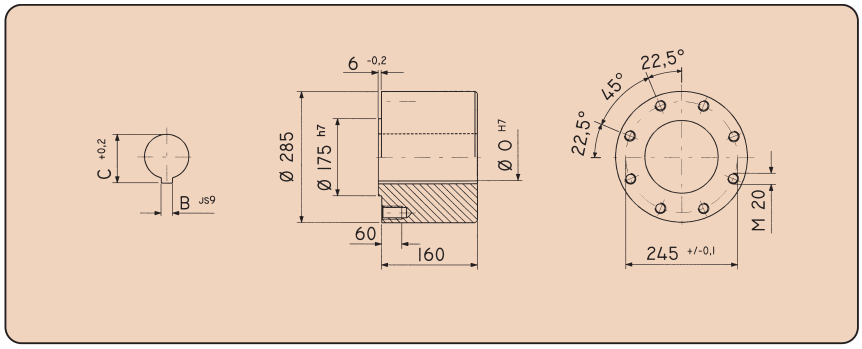
Serie/*Series*	08.285.--0	08.285.--1	08.285.--2
Mt(1) KNm	85	85	85
MtM(2) KNm	120	120	120
MtW(3) KNm	45	45	45
β°(4)	15	15	15
A	285	315	350
B^{H7}	175	175	220
D	20	22	25
$F^{+0,2}$	7	7	8
G	285	285	285
H^{B12}	20	22	22
$I^{\pm 0,1}$	245	280	310
N° Fori	8	8	10
N	150	150	150
P (DIN 5480)	130x3x42	130x3x42	130x3x42
T	218x10,5	218x10,5	218x10,5

FLANGIA DIN / *DIN FLANGE*		**Cod./*Code***	*Flangia/Flange*	**DIN 285**	**DIN 315**	**DIN 350**
	Allungabile con tubo di prolunga *Sliding with tube*	**08.285.400**	L(5)+All	1005+135		
		08.285.401	L(5)+All		1005+135	
		08.285.402	L(5)+All			1005+135
	Fissa con tubo di prolunga *Fixed with tube*	**08.285.500**	L(5)	720		
		08.285.501	L(5)		720	
		08.285.502	L(5)			720
	Extracorta *Extra short*	**08.285.600**	L^{MIN}+All(6)	800+40		
			L^{MAX}+All(6)	1000+135		
		08.285.601	L^{MIN}+All(6)		800+40	
			L^{MAX}+All(6)		1000+135	
		08.285.602	L^{MIN}+All(6)			800+40
			L^{MAX}+All(6)			1000+135
	Giunto semplice *Simple joint*	**08.285.100**	L	300		
		08.285.101	L		300	
		08.285.102	L			300
	Giunto doppio *Double joint*	**08.285.200**	L	600		
		08.285.201	L		600	
		08.285.202	L			600

(1) Momento torcente a catalogo.
(2) Momento torcente massimo ammissibile, con frequenza limitata, senza deformazioni permanenti.
(3) Momento torcente massimo a fatica alterna.
(4) Angolo massimo di inclinazione per giunto.
(5) Lunghezza minima, lunghezze superiori a richiesta.
(6) Lunghezze minime e massime, differenti a richiesta.
A richiesta esecuzione con chiavetta trasversale
Qualora figurino due alternative, se non espressamente richiesto, verrà fornita la prima delle due.

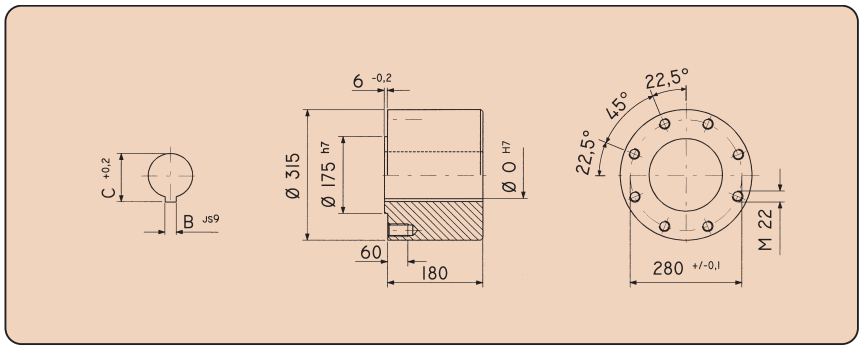
(1) Torque as catalogue.
(2) Maximum admissible torque, with low-frequency, without permanent bucklings.
(3) Maximum torque with alternate load.
(4) Maximum angle of inclination per joint.
(5) Minimum length, longer lengths on request.
(6) Minimum and maximum closed lengths, different lengths on request.
On request execution with transversal key way
When there are two alternatives, if not explicity required, we'll supply the first one.

CONTROFLANGIA DIN 285 / *DIN 285 COMPANION FLANGE*



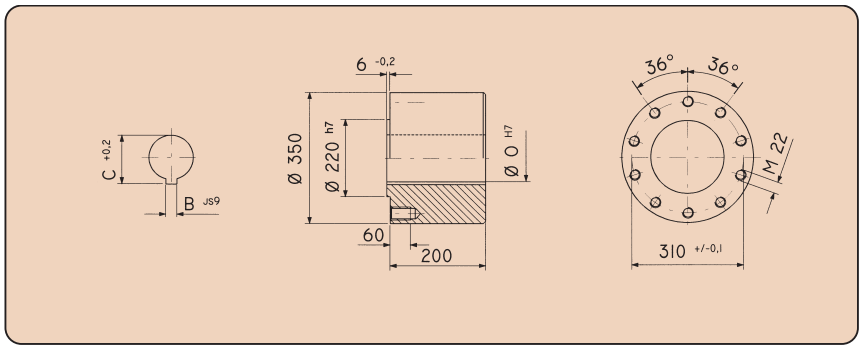
Cod./*Code*	O	B	C
14.285.100	foro a richiesta / *hole on request*		
14.285.101	senza foro / *without hole*		

CONTROFLANGIA DIN 315 / *DIN 315 COMPANION FLANGE*



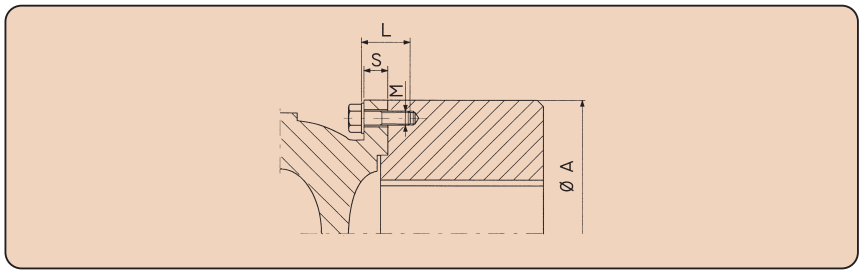
Cod./*Code*	O	B	C
14.315.100	foro a richiesta / *hole on request*		
14.315.101	senza foro / *without hole*		

CONTROFLANGIA DIN 350 / *DIN 350 COMPANION FLANGE*



Cod./*Code*	O	B	C
14.350.100	foro a richiesta / *hole on request*		
14.350.101	senza foro / *without hole*		

SET VITERIA / *FITTING BOLTS*

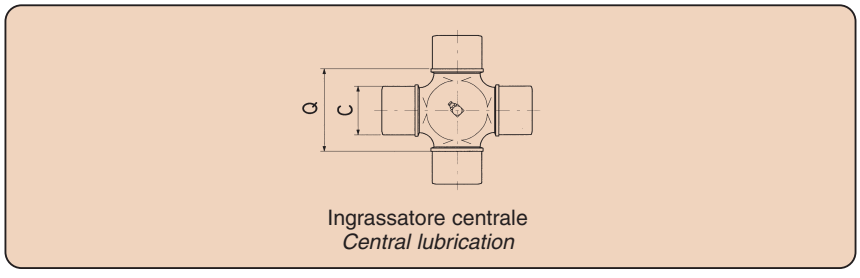


Cod./*Code*	16.285.100	16.315.100	16.350.100
A	285	315	350
M x L	M20 x 50	M22 x 55	M22 x 75
S	20	22	25
Q.tà(1)	16	16	20
Nm(2)	600	800	800

(1) Quantità di rosette elastiche (UNI 9195) e viti (Din 933-10.9) per set di viteria.
(2) Coppia di serraggio.

(1) Quantity of elastic washers (UNI 9195) and bolts (Din 933-10.9) each set.
(2) Tightening torque.

CROCIERA / *JOURNAL CROSS*

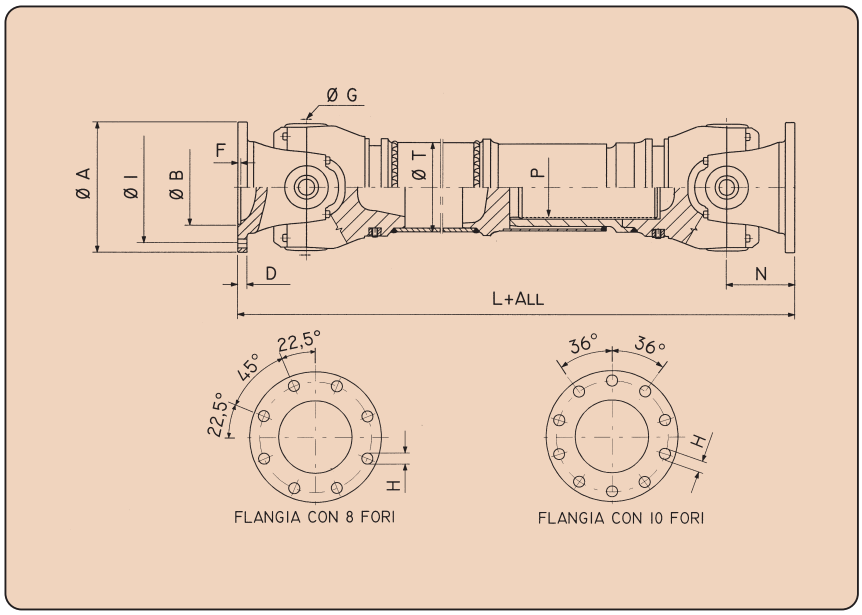


Ingrassatore centrale
Central lubrication

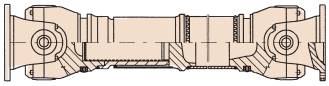
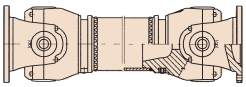
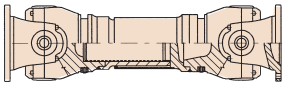
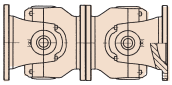
Cod./*Code*	12.285.000
C	95
Q	160

Dimensioni in mm / *Dimensions in mm*

Serie 08.315.
Mt 125 KNm



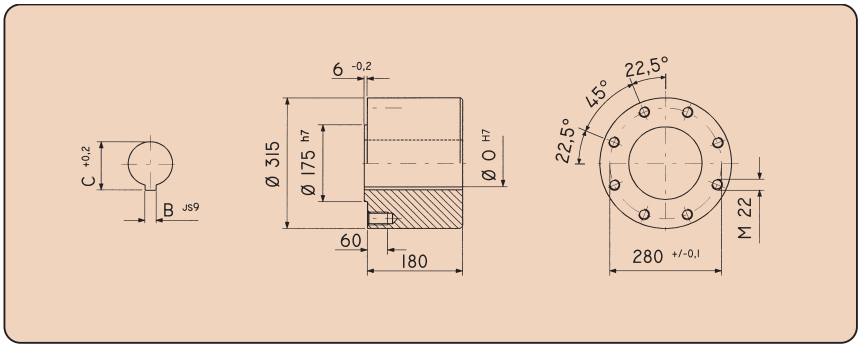
Serie/*Series*	08.315.--0	08.315.--1	08.315.--2
Mt(1) KNm	125	125	125
MtM(2) KNm	175	175	175
MtW(3) KNm	58	58	58
β°(4)	15	15	15
A	315	350	390
B^{H7}	175	220	250
D	22	25	28
$F^{+0,2}$	7	8	8
G	315	315	315
H^{B12}	22	22	24
$I^{\pm 0,1}$	280	310	345
N° Fori	8	10	10
N	170	170	170
P (DIN 5480)	150x3x48	150x3x48	150x3x48
T	219x15	219x15	219x15

FLANGIA DIN / *DIN FLANGE*		**Cod./*Code***	*Flangia/Flange*	**DIN 315**	**DIN 350**	**DIN 390**
	Allungabile con tubo di prolunga *Sliding with tube*	**08.315.400**	L(5)+All	1105+135		
		08.315.401	L(5)+All		1105+135	
		08.315.402	L(5)+All			1105+135
	Fissa con tubo di prolunga *Fixed with tube*	**08.315.500**	L(5)	800		
		08.315.501	L(5)		800	
		08.315.502	L(5)			800
	Extracorta *Extra short*	**08.315.600**	L^{MIN}+All(6)	900+40		
			L^{MAX}+All(6)	1100+135		
		08.315.601	L^{MIN}+All(6)		900+40	
			L^{MAX}+All(6)		1100+135	
		08.315.602	L^{MIN}+All(6)			900+40
			L^{MAX}+All(6)			1100+135
	Giunto semplice *Simple joint*	**08.315.100**	L	340		
		08.315.101	L		340	
		08.315.102	L			340
	Giunto doppio *Double joint*	**08.315.200**	L	680		
		08.315.201	L		680	
		08.315.202	L			680

(1) Momento torcente a catalogo.
(2) Momento torcente massimo ammissibile, con frequenza limitata, senza deformazioni permanenti.
(3) Momento torcente massimo a fatica alterna.
(4) Angolo massimo di inclinazione per giunto.
(5) Lunghezza minima, lunghezze superiori a richiesta.
(6) Lunghezze minime e massime, differenti a richiesta.
A richiesta esecuzione con chiavetta trasversale
Qualora figurino due alternative, se non espressamente richiesto, verrà fornita la prima delle due.

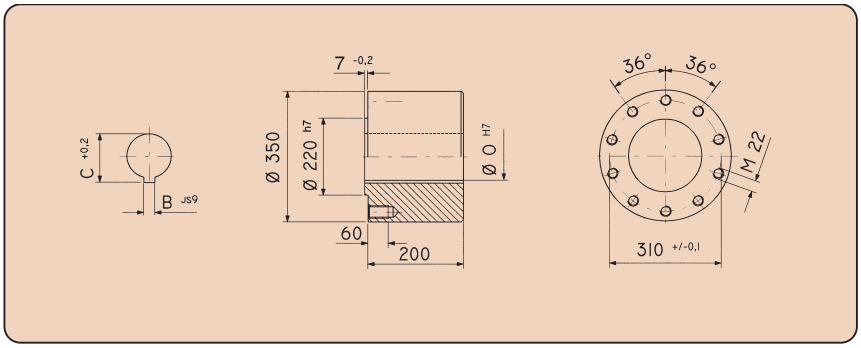
(1) Torque as catalogue.
(2) Maximum admissible torque, with low-frequency, without permanent bucklings.
(3) Maximum torque with alternate load.
(4) Maximum angle of inclination per joint.
(5) Minimum length, longer lengths on request.
(6) Minimum and maximum closed lengths, different lengths on request.
On request execution with transversal key way
When there are two alternatives, if not explicity required, we'll supply the first one.

CONTROFLANGIA DIN 315 / *DIN 315 COMPANION FLANGE*



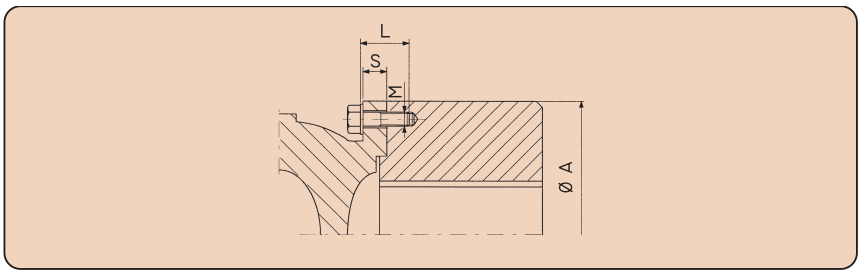
Cod./*Code*	O	B	C
14.315.100	foro a richiesta / *hole on request*		
14.315.101	senza foro / *without hole*		

CONTROFLANGIA DIN 350 / *DIN 350 COMPANION FLANGE*



Cod./*Code*	O	B	C
14.350.100	foro a richiesta / *hole on request*		
14.350.101	senza foro / *without hole*		

SET VITERIA / *FITTING BOLTS*

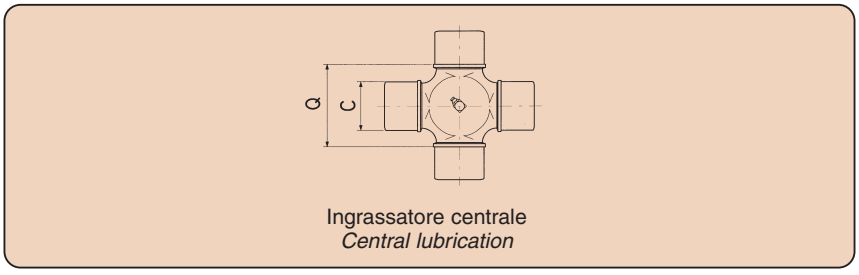


Cod./*Code*	16.315.100	16.350.100	16.390.100
A	315	350	390
M x L	M22 x 55	M22 x 75	M24 x 85
S	22	25	28
Q.tà(1)	16	20	20
Nm(2)	800	800	1000

(1) Quantità di rosette elastiche (UNI 9195) e viti (Din 933-10.9) per set di viteria.
(2) Coppia di serraggio.

(1) Quantity of elastic washers (UNI 9195) and bolts (Din 933-10.9) each set.
(2) Tightening torque.

CROCIERA / *JOURNAL CROSS*

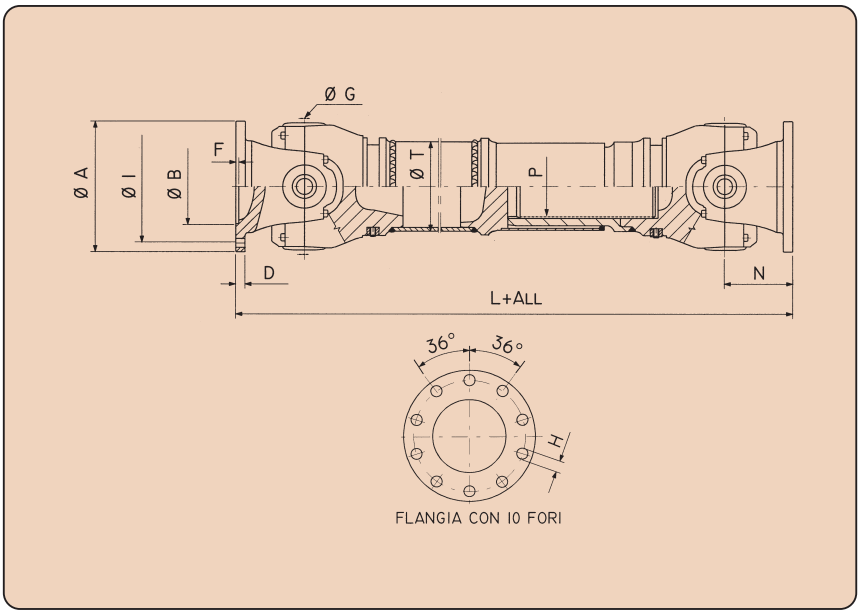


Ingrassatore centrale
Central lubrication

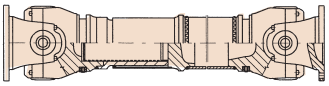
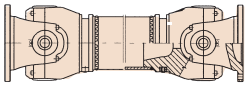
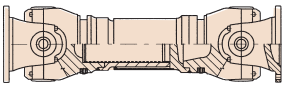
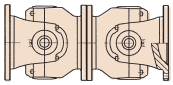
Cod./*Code*	12.315.000
C	110
Q	176

Dimensioni in mm / *Dimensions in mm*

Serie 08.350.
Mt 165 KNm



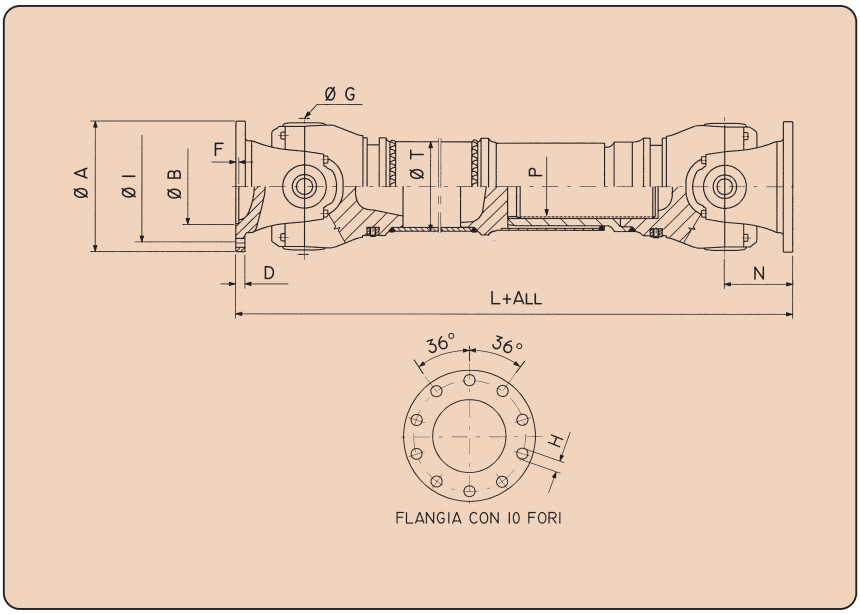
Serie/*Series*	08.350.--0	08.350.--1
Mt(1) KNm	165	165
MtM(2) KNm	215	215
MtW(3) KNm	83	83
β°(4)	15	15
A	350	390
B^{H7}	220	250
D	28	32
$F^{+0,2}$	8	8)
G	350	350
N° Fori / *Holes*	10	10
$I^{\pm 0,1}$	310	345
$H^{+0,2}$	22	24
N	190	190
P (DIN 5480)	180 x 5	180 x 5
T	273 x 16,5	273 x 16,5

FLANGIA DIN / *DIN FLANGE*		Cod./*Code*	Flangia/*Flange*	DIN 350	DIN 390
	Allungabile con tubo di prolunga *Sliding with tube*	**08.350.400**	L(5)+All	1210+170	
		08.350.401	L(5)+All		1210+170
		08.350.410	L(5)+All	1295+250	
		08.350.411	L(5)+All		1295+250
	Fissa con tubo di prolunga *Fixed with tube*	**08.350.500**	L(5)	890	
		08.350.501	L(5)		890
	Extracorta *Extra short*	**08.350.600**	L^{MIN}+All(6)	1030+85	
			L^{MAX}+All(6)	1175+170	
		08.350.601	L^{MIN}+All(6)		1030+85
			L^{MAX}+All(6)		1175+170
	Giunto semplice *Simple joint*	**08.350.100**	L	380	
		08.350.101	L		380
	Giunto doppio *Double joint*	**08.350.200**	L	760	
		08.350.201	L		760

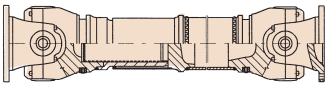
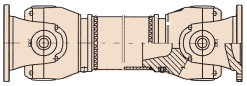
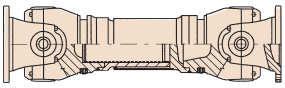
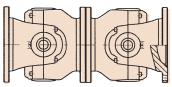
(1) Momento torcente a catalogo.
(2) Momento torcente massimo ammissibile, con frequenza limitata, senza deformazioni permanenti.
(3) Momento torcente massimo a fatica alterna.
(4) Angolo massimo di inclinazione per giunto.
(5) Lunghezza minima, lunghezze superiori a richiesta.
(6) Lunghezze minime e massime, differenti a richiesta.
A richiesta esecuzione con chiavetta trasversale
Qualora figurino due alternative, se non espressamente richiesto, verrà fornita la prima delle due.

(1) Torque as catalogue.
(2) Maximum admissible torque, with low-frequency, without permanent bucklings.
(3) Maximum torque with alternate load.
(4) Maximum angle of inclination per joint.
(5) Minimum length, longer lengths on request.
(6) Minimum and maximum closed lengths, different lengths on request.
On request execution with transversal key way
When there are two alternatives, if not explicity required, we'll supply the first one.

Serie 08.390.
Mt 195 KNm



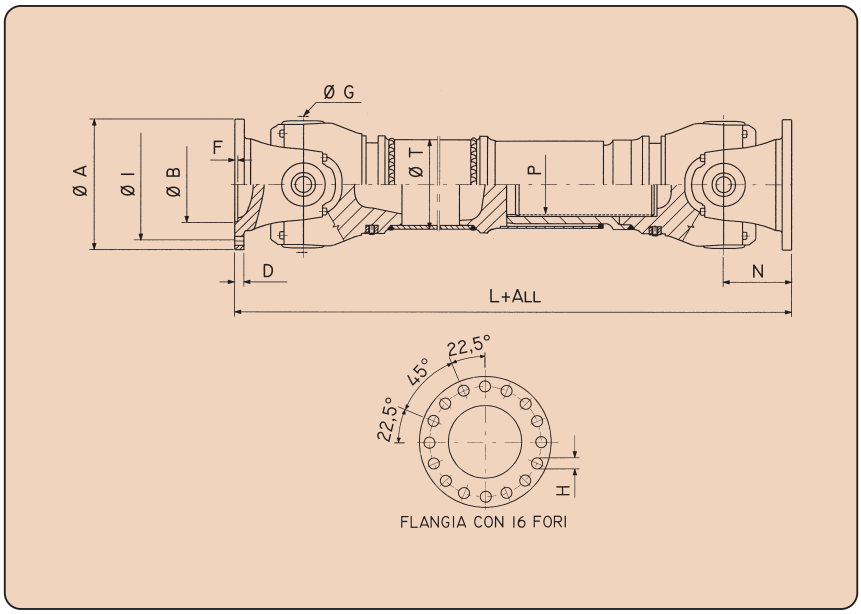
Serie/*Series*	08.390.--0	08.390.--1
Mt(1) KNm	195	195
MtM(2) KNm	255	255
MtW(3) KNm	102	102
ß°(4)	15	15
A	390	435
B^{H7}	250	280
D	32	32
$F^{+0,2}$	8	9
G	390	390
N° Fori / *Holes*	10	10
$I^{\pm 0,1}$	345	385
$H^{+0,2}$	24	27
N	210	210
P (DIN 5480)	180 x 5	180 x 5
T	273 x 16,5	273 x 16,5

FLANGIA DIN / *DIN FLANGE*		Cod./*Code*	Flangia/*Flange*	DIN 390	DIN 435
	Allungabile con tubo di prolunga *Sliding with tube*	**08.390.400**	L(5)+All	1280+170	
		08.390.401	L(5)+All		1280+170
		08.390.410	L(5)+All	1365+250	
		08.390.411	L(5)+All		1365+250
	Fissa con tubo di prolunga *Fixed with tube*	**08.390.500**	L(5)	960	
		08.390.501	L(5)		960
	Extracorta *Extra short*	**08.390.600**	L^{MIN}+All(6)	1100+85	
			L^{MAX}+All(6)	1245+170	
		08.390.601	L^{MIN}+All(6)		1100+85
			L^{MAX}+All(6)		1245+170
	Giunto semplice *Simple joint*	**08.390.100**	L	420	
		08.390.101	L		420
	Giunto doppio *Double joint*	**08.390.200**	L	840	
		08.390.201	L		840

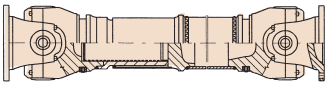
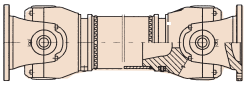
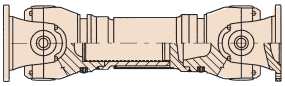
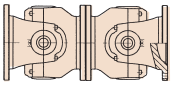
(1) Momento torcente a catalogo.
(2) Momento torcente massimo ammissibile, con frequenza limitata, senza deformazioni permanenti.
(3) Momento torcente massimo a fatica alterna.
(4) Angolo massimo di inclinazione per giunto.
(5) Lunghezza minima, lunghezze superiori a richiesta.
(6) Lunghezze minime e massime, differenti a richiesta.
A richiesta esecuzione con chiavetta trasversale
Qualora figurino due alternative, se non espressamente richiesto, verrà fornita la prima delle due.

(1) Torque as catalogue.
(2) Maximum admissible torque, with low-frequency, without permanent bucklings.
(3) Maximum torque with alternate load.
(4) Maximum angle of inclination per joint.
(5) Minimum length, longer lengths on request.
(6) Minimum and maximum closed lengths, different lengths on request.
On request execution with transversal key way
When there are two alternatives, if not explicity required, we'll supply the first one.

Serie 08.435.
Mt 280 KNm



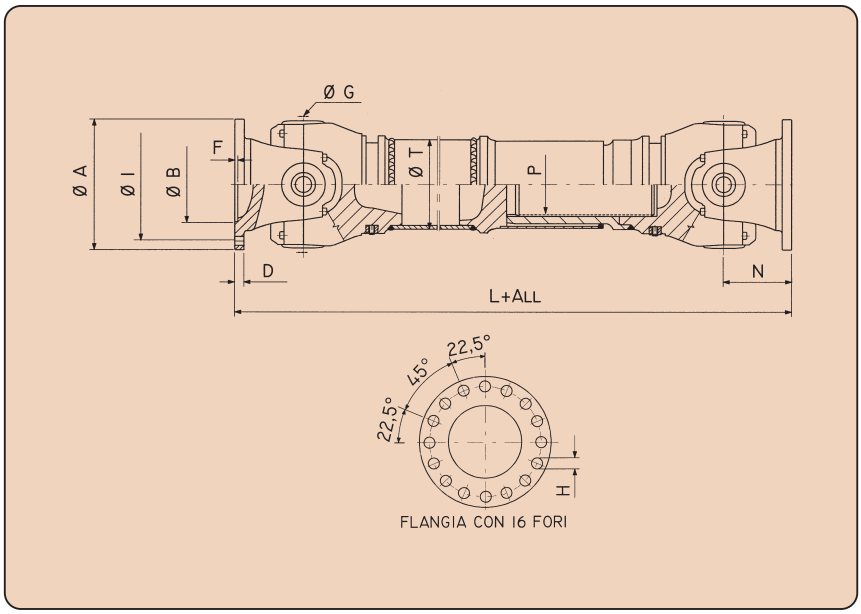
Serie/*Series*	08.435.--0	08.435.--1
Mt(1) KNm	280	280
MtM(2) KNm	355	355
MtW(3) KNm	180	180
ß°(4)	10	10
A	435	480
B^{H7}	255	275
D	42	47
$F^{+0,2}$	10	12
G	435	435
N° Fori / *Holes*	16	16
$I^{\pm 0,1}$	385	425
$H^{+0,2}$	28	31
N	235	235
P (DIN 5480)	225 x 5	225 x 5
T	299 x 30	299 x 30

FLANGIA DIN / *DIN FLANGE*		**Cod./*Code***	**Flangia/*Flange***	**DIN 435**	**DIN 480**
	Allungabile con tubo di prolunga *Sliding with tube*	**08.435.400**	L(5)+All	1875+190	
		08.435.401	L(5)+All		1875+190
		08.435.410	L(5)+All	2110+400	
			L(5)+All	2510+800	
		08.435.411	L(5)+All		2110+400
			L(5)+All		2510+800
	Fissa con tubo di prolunga *Fixed with tube*	**08.435.500**	L(5)	1155	
		08.435.501	L(5)		1155
	Extracorta *Extra short*	**08.435.600**	L^{MIN}+All(6)	1450+90	
			L^{MAX}+All(6)	1550+170	
		08.435.601	L^{MIN}+All(6)		1450+90
			L^{MAX}+All(6)		1550+170
	Giunto semplice *Simple joint*	**08.435.100**	L	470	
		08.435.101	L		470
	Giunto doppio *Double joint*	**08.435.200**	L	940	
		08.435.201	L		940

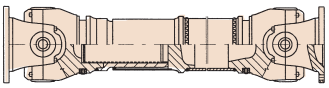
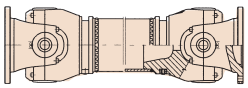
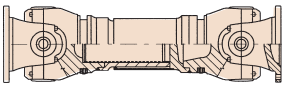
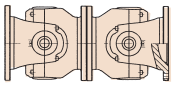
(1) Momento torcente a catalogo.
(2) Momento torcente massimo ammissibile, con frequenza limitata, senza deformazioni permanenti.
(3) Momento torcente massimo a fatica alterna.
(4) Angolo massimo di inclinazione per giunto.
(5) Lunghezza minima, lunghezze superiori a richiesta.
(6) Lunghezze minime e massime, differenti a richiesta.
A richiesta esecuzione con chiavetta trasversale da 80 su flangia diam. 435, da 90 su flangia diam. 480
Qualora figurino due alternative, se non espressamente richiesto, verrà fornita la prima delle due.

(1) Torque as catalogue.
(2) Maximum admissible torque, with low-frequency, without permanent bucklings.
(3) Maximum torque with alternate load.
(4) Maximum angle of inclination per joint.
(5) Minimum length, longer lengths on request.
(6) Minimum and maximum closed lengths, different lengths on request.
On request execution with transversal key way the width is 80 for fl. DIN 435 and 80 for fl. DIN 480
When there are two alternatives, if not explicity required, we'll supply the first one.

Serie 08.480.
Mt 400 KNm



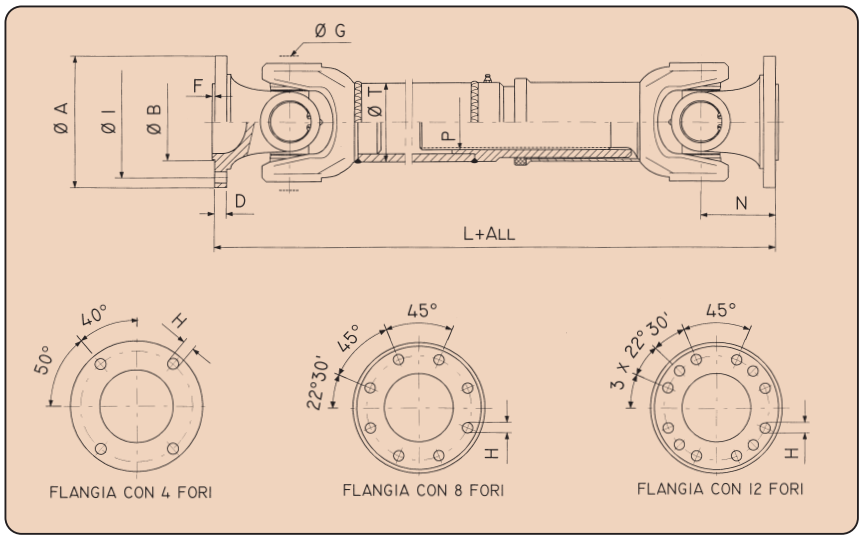
Serie/*Series*	08.480.--0
Mt(1) KNm	400
MtM(2) KNm	500
MtW(3) KNm	250
ß°(4)	10
A	480
B^{H7}	275
D	47
$F^{+0,2}$	12
G	480
N° Fori / *Holes*	16
$I^{\pm 0,1}$	425
$H^{+0,2}$	31
N	255
P (DIN 5480)	225 x 5
T	351 x 35

FLANGIA DIN / *DIN FLANGE*		Cod./*Code*	Flangia/*Flange*	DIN 480
	Allungabile con tubo di prolunga *Sliding with tube*	**08.480.400**	L(5)+All	1985+190
		08.480.410	L(5)+All	2220+400
			L(5)+All	2620+800
	Fissa con tubo di prolunga *Fixed with tube*	**08.480.500**	L(5)	1205
			L(5)+All	
			L(5)	
	Extracorta *Extra short*	**08.480.600**	L^{MIN}+All(6)	1700+100
			L^{MAX}+All(6)	1800+190
	Giunto semplice *Simple joint*	**08.480.100**	L	530
	Giunto doppio *Double joint*	**08.480.200**	L	1060

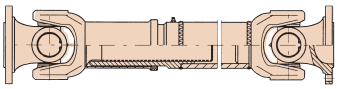
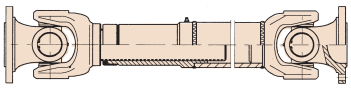
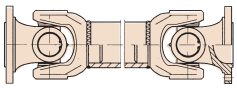
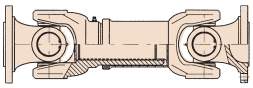
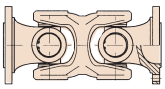
(1) Momento torcente a catalogo.
(2) Momento torcente massimo ammissibile, con frequenza limitata, senza deformazioni permanenti.
(3) Momento torcente massimo a fatica alterna.
(4) Angolo massimo di inclinazione per giunto.
(5) Lunghezza minima, lunghezze superiori a richiesta.
(6) Lunghezze minime e massime, differenti a richiesta.
A richiesta esecuzione con chiavetta trasversale da 90
Qualora figurino due alternative, se non espressamente richiesto, verrà fornita la prima delle due.

(1) Torque as catalogue.
(2) Maximum admissible torque, with low-frequency, without permanent bucklings.
(3) Maximum torque with alternate load.
(4) Maximum angle of inclination per joint.
(5) Minimum length, longer lengths on request.
(6) Minimum and maximum closed lengths, different lengths on request.
On request execution with transversal key way the width is 90
When there are two alternatives, if not explicity required, we'll supply the first one.

Serie SAE 07.075. - 08.225.



Serie / *Series*	07.075.		07.090.
Mt(1)Nm	700	700	920
ß°(2)	25	25	30
A	87,5	75	97
Bh6	57,15	48	60,32
D	6,5	5	6
F+0,2	1,5	1,7	1,5
G	76	76	90
HB12	8	8	10
I±0,1	69,85	60	79,4
N° Fori/Holes	4	4	4
N	42	42	47
P	30x27x16	30x27x16	30x27x16
T	50x2/60x2	50x2/60x2	50x2/70x3

FLANGIA SAE / *SAE FLANGE*		Cod./*Code*	Flangia/*Flange*	SAE 1100		SAE 1300
	Allungabile con tubo di prolunga *Sliding with tube*	.305	L(3)+All			
		.315	L(3)+All	335+90		375+90
		.316	L(3)+All		335+90	
	Allungabile con tubo di prolunga e allungamento a richiesta *Sliding with tube and* *prolungation on request*	.405	L(3)+All	430+160(6)		455+160(6)
				520+250(6)		545+250(6)
				680+400(6)		705+350(6)
		.406	L(3)+All		430+160(6)	
					520+250(6)	
					680+400(6)	
	Fissa con tubo di prolunga *Fixed with tube*	.505	L(3)	185		225
		.506	L(3)		185	
	Extracorta *Extra short*	.605	LMIN+All(4)	200+25		225+25
			LMAX+All(4)	316+45		320+50
		.606	LMIN+All(4)		200+25	
			LMAX+All(4)		316+45	
	Giunto semplice *Simple joint*	.105	L	84		94
		.106	L		84	
	Giunto doppio *Double joint*	.205	L	155		154
		.206	L		155	

(1) Momento torcente dinamico massimo.
(2) Angolo massimo di inclinazione per giunto.
(3) Lunghezza minima, lunghezze superiori a richiesta.
(4) Lunghezze minime e massime, differenti a richiesta.
(5) Angolo massimo di inclinazione 20°.
(6) Esecuzione senza protezione del profilo scanalato.
(7) Angolo massimo di inclinazione 25°.
(8) Angolo massimo di inclinazione 10°.
(9) Momento torcente dinamico massimo con tubo di spessore maggiore.
Qualora figurino due alternative, se non espressamente richiesto,
verrà fornita la prima delle due.

(1) Max dynamic torque.
(2) Maximum angle of inclination per joint.
(3) Minimum length, longer lengths on request.
(4) Standard suggested lengths, different lengths on request.
(5) Maximum angle of inclination 20°.
(6) Execution without protection on the splined.
(7) Maximum angle of inclination 25°.
(8) Maximum angle of inclination 10°.
(9) Max dynamic torque with higher tube in thickness.
When there are two alternatives, if not explicity required,
we'll supply the first one.

08.100.	08.108.	08.119.		07.120.	08.150.	08.151.		08.180.	08.181.	08.225.
1.450	1.800	2.700	2.700	4.000	6.800	10.000	10.000	14.000	16.000	24000[9]
20	35	35	35	20/30	35	35	35	35	30/10	25
116	116	148	116	148	174,6	204	204	204	204	204
69,85	69,85	95,25	69,85	95,25	168,22	196,8	196,8	196,8	196,8	196,8
7	7	9	7,5	9	9	8	8	9	9	11,5
1,5	1,5	1,5	1,5	1,5	3	3	3	3	3	3
97	97	116	116	140	140	160	160	175	180	204
12,25	12,25	14,25	12,25	14,25	10,25	10,25	10,25	10,25	10,25	11,25
95,25	95,25	120,65	95,25	120,65	155,52	184,15	184,15	184,15	184,15	184,15
4	4	4	4	4	8	8	12	12	12	12
46	58	70	70	72	85	90	90	100	92/54	107
35x31x18	42x2x20	42x2x20	42x2x20	50x1,5x32	55x2,5x20	65x2,5x24	65x2,5x24	75x2,5x28	75x2,5x28	90x2,5x34
50x3	60x3	70x3/90x3	70x3/90x3	90x4/75x3[5]	85x5	90x5,5/120x4	90x5,5/120x4	100x6	120x6	140x5/145x7,5

SAE 1400	SAE 1410	SAE 1510	SAE 1410	SAE 1510	SAE 1600	SAE 1700	SAE 1800	SAE 1800	SAE 1800	SAE 1800
				470+80[5]						
375+100		475+120		545+120						
			475+120							
480+160[6]	450+110	535+150		700+250[6]	630+110	670+110		740+110	645+80	840+150
590+250[6]	500+150	640+250[6]		870+450[6]					765+160	
690+350[6]		760+370[6]								
			535+150				670+110			
			640+250[6]							
			760+370[6]							
240	250	310		335/315[5]	400	430		460	480	510
			310				430			
225+30	310+35	345+35		300+20[5]	390+30[5]	390+30[5]		480+30[7]	400+30[8]	555+30
345+70	400+80	490+60		430+70	570+100[7]	590+100[7]		640+100[7]	620+110	700+110
			345+35				390+30[5]			
			490+60				590+100[7]			
92	116	140		144	170	180			184	214
			140				180	200		
160	232	220		288	340	360		400	368	428
			220				360			

CODIFICA
La codifica completa si ottiene componendo la serie di 5 numeri nella prima riga con il codice di 3 numeri della forma costruttiva nella prima colonna.

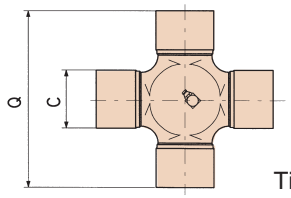
Esempio:
una trasmissione con flangia SAE 1300 lunghezza chiusa 1000 mm. e allungamento 90 mm. avrà la codifica **07.090.** + **.315** = **07.090.315** L = 1000 + 90 di corsa.
Nella tabella la misura 375 mm. è la lunghezza minima realizzabile con allungamento 90 mm.; lunghezze superiori a richiesta, come da esempio.

CODING
The complete code is obtained composing the 5 numbers series of the first line together the 3 numbers code of the structural shape on the first column.

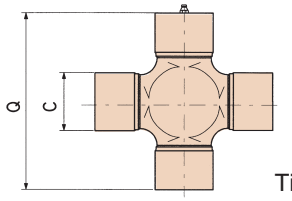
Example:
a cardan shaft with SAE 1300 Flange, closed length 1000 mm. plus 90 mm. prolongation will have the code ***07.090.*** + ***.315*** = ***07.090.315*** *L = 1000 + 90 prolongation.*
On the schedule the size 375 mm. is the realizable minimum length with prolongation 90 mm.; higher lengths on request, as example.

Crociere

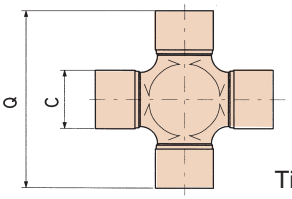
CROCIERA / *JOURNAL CROSS*



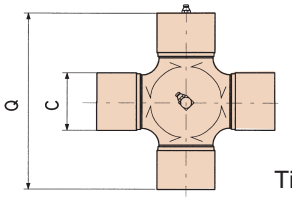
Tipo 1



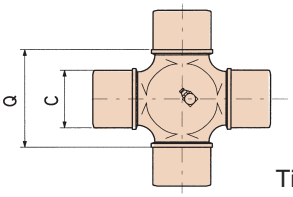
Tipo 2



Tipo 3



Tipo 4



Tipo 5

Cod./Code	C	Q	Anello di arresto/Circlip	Note	Tipo
11.058.000	18	47	18x1		1
11.058.002	18	47	18x1	Esente da lubrificazione/*Long life*	3
11.058.011	18	47	18x1		4
11.065.002	20	50	20x1	Esente da lubrificazione/*Long life*	3
11.065.011	20	50	20x1		4
11.075.000	23,8	61,3	24x1,5		1
11.075.001	23,8	61,3	24x1,5		2
11.075.002	23,8	61,3	24x1,5	Esente da lubrificazione/*Long life*	3
11.075.011	23,8	61,3	24x1,5		4
11.090.000	27	74,6	27x1,3		1
11.090.001	27	74,6	27x1,3		2
11.090.002	27	74,6	27x1,3	Esente da lubrificazione/*Long life*	3
11.090.011	27	74,6	27x1,3		4
11.090.111	27	74,6	27x1,3	Cuscinetto con rulli/*Roller bearings*	4
12.100.000	30	81,8	30x1,5		1
12.100.001	30	81,8	30x1,5		2
12.100.011	30	81,8	30x1,5		4
12.100.111	30	81,8	30x1,5	Cuscinetto con rulli/*Roller bearings*	4
12.119.000	35	97	35x1,5		1
12.119.001	35	97	35x1,5		2
12.119.100	35	97	35x1,5	Cuscinetto con rulli/*Roller bearings*	1
11.120.000	39,7	115,9	40x1,7		1
11.120.001	39,7	115,9	40x1,7		2
11.120.111	39,7	115,9	40x1,7	Cuscinetto con rulli/*Roller bearings*	4
12.120.000	42	117,5	42x1,7		1
12.120.001	42	117,5	42x1,7		2
12.120.111	42	117,5	42x1,7	Cuscinetto con rulli/*Roller bearings*	4
12.150.000	48	116	48x1,7		1
12.151.000	52	133	52x2		1
12.180.000	57	144	57x2		1
12.181.000	57	152	57x2		1
12.225.000	65	172	65x2,5		1
12.226.000	72	185	72x2,5		1
12.250.000	74	217	74x2,5		1
12.251.000	83	139	–		5
12.285.000	95	160	–		5
12.315.000	110	176	–		5
12.350.000	120	196	–		5
12.390.000	130	216	–		5

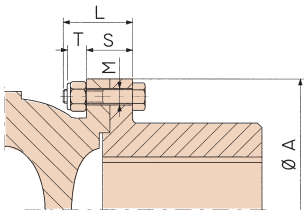
Fino al codice 11.120.001 esecuzione con crociera a rullini.
Esecuzione a rulli, dove previsto, su richiesta.
Dalla serie 12.120.000 esecuzione a rulli.

Until code 11.120.001 the cross joint is in execution with needles.
Execution with roller bearings, where indicated, on request.
From code 12.120.000 execution with roller bearings.

Dimensioni in mm / *Dimensions in mm*

Set Viteria

SET VITERIA / *FITTING BOLTS*

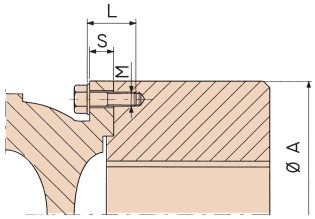


Cod./Code	A	L	M	T	S	Q.tà(1)	Nm(2)
16.058.000	58	16	M 5	5,1	9	8	8
16.065.000	65	18	M 6	6,2	9	8	13
16.075.000	75	18	M 6	6,2	11	12	13
16.090.000	90	25	M 8	7,7	14	8	35
16.100.000	100	25	M 8	7,7	15	12	35
16.119.000	120	30	M 8	7,7	18	16	35
16.120.000	120	30	M 10	9,2	20	16	64
16.150.000	150	35	M 12	11,3	20	16	110
16.165.000	165	45	M 16	14,3	26	16	275
16.181.000	180	45	M 16	14,3	28	16	275
16.225.000	225	50	M 16	14,3	30	16	275
16.250.000	250	60	M 18	18	36	16	390
16.285.000	285	60	M 20	20	40	16	600
16.315.000	315	70	M 22	22	44	16	800
16.350.000	350	75	M 22	22	50	20	800
16.390.000	390	85	M 24	24	56	20	1000

(1) Quantità di dadi autobloccanti (Din 980V-10) e viti (Din 933-10.9) per ogni set di viteria.
(2) Coppia di serraggio.

(1) Quantity of self-locking nuts (Din 980V-10) and bolts (Din 933-10.9) each set.
(2) Tightening torque.

SET VITERIA / *FITTING BOLTS*

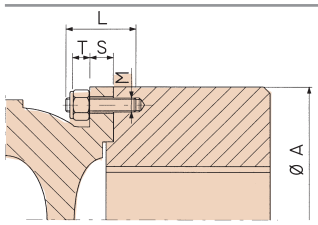


Cod./Code	A	L	M	S	Q.tà(1)	Nm(2)
16.058.100	58	16	M 5	4	8	8
16.065.100	65	18	M 6	4	8	13
16.075.100	75	18	M 6	5	12	13
16.090.100	90	25	M 8	6	8	35
16.100.100	100	25	M 8	7	12	35
16.119.100	120	25	M 8	8	16	35
16.120.100	120	25	M 10	10	16	64
16.150.100	150	35	M 12	10	16	110
16.181.100	180	40	M 16	14	16	275
16.225.100	225	40	M 16	15	16	275
16.250.100	250	50	M 18	18	16	390
16.285.100	285	50	M 20	20	16	600
16.315.100	315	55	M 22	22	16	800
16.350.100	350	75	M 22	25	20	800
16.390.100	390	85	M 24	28	20	1000

(1) Quantità di rosette elastiche (UNI 9195) e viti (Din 933-10.9) per ogni set di viteria.
(2) Coppia di serraggio.

(1) Quantity of elastic washer (UNI 9195) and bolts (Din 933-10.9) each set.
(2) Tightening torque.

SET VITERIA / *FITTING BOLTS*



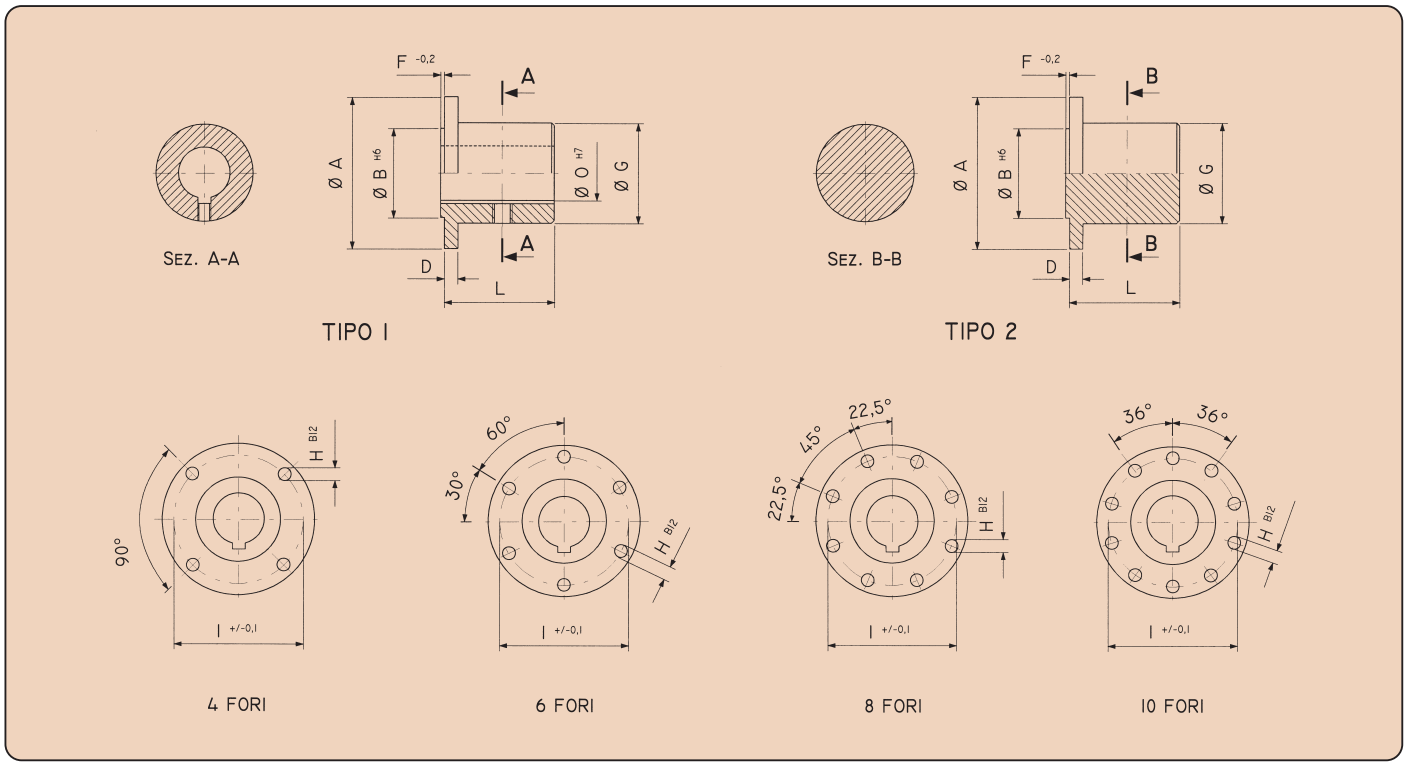
Cod./Code	A	L	M	T	S	Q.tà(1)	Nm(2)
16.165.110	165	50	M 16	12	14	16	275
16.181.110	180	50	M 16	14	14	16	275
16.225.110	225	50	M 16	15	14	16	275

(1) Quantità di dadi autobloccanti (Din 980V-10) e viti (UNI 5923-10.9) per ogni set di viteria.
(2) Coppia di serraggio.

(1) Quantity of self-locking nuts (Din 980V-10) and bolts (UNI 5923-10.9) each set.
(2) Tightening torque.

Controflangia 14.---.000

CONTROFLANGIA DIN / *DIN COMPANION FLANGE*



Cod./Code	A	B^{h6}	D	$F^{-0,2}$	G	H^{B12}	$I^{+/-0,1}$	L	O^{H7MAX}	Tipo	N° fori(1)
14.058.000	58	30	5	1,4	35	5	47	30	22	1	4
14.058.001	58	30	5	1,4	35	5	47	30	22	2	4
14.065.000	65	35	5	1,6	39	6	52	40	25	1	4
14.065.001	65	35	5	1,6	39	6	52	40	25	2	4
14.075.000	75	42	6	1,9	48	6	62	48	32	1	6
14.075.001	75	42	6	1,9	48	6	62	48	32	2	6
14.090.000	90	47	8	2,3	55	8	74,5	55	38	1	4
14.090.001	90	47	8	2,3	55	8	74,5	55	38	2	4
14.100.000	100	57	8	2,3	60	8	84	60	40	1	6
14.100.001	100	57	8	2,3	60	8	84	60	40	2	6
14.120.000	120	75	10	2,3	80	10	101,5	85	55	1	8
14.120.001	120	75	10	2,3	80	10	101,5	85	55	2	8
14.150.000	150	90	10	2,3	105	12	130	95	65	1	8
14.150.001	150	90	10	2,3	105	12	130	95	65	2	8
14.165.000	165	95	14	2,8	105	16	140	100	65	1	8
14.181.000	180	110	14	2,8	118	16	155,5	100	75	1	8
14.225.000	225	140	15	4,5	160	16	196	125	90	1	8
14.250.000	250	140	18	5,5	170	18	218	150	100	1	8
14.285.000	285	175	20	6	190	20	245	160	110	1	8
14.315.000	315	175	22	6	210	22	280	180	120	1	8
14.350.000	350	220	25	7	230	22	310	200	140	1	10

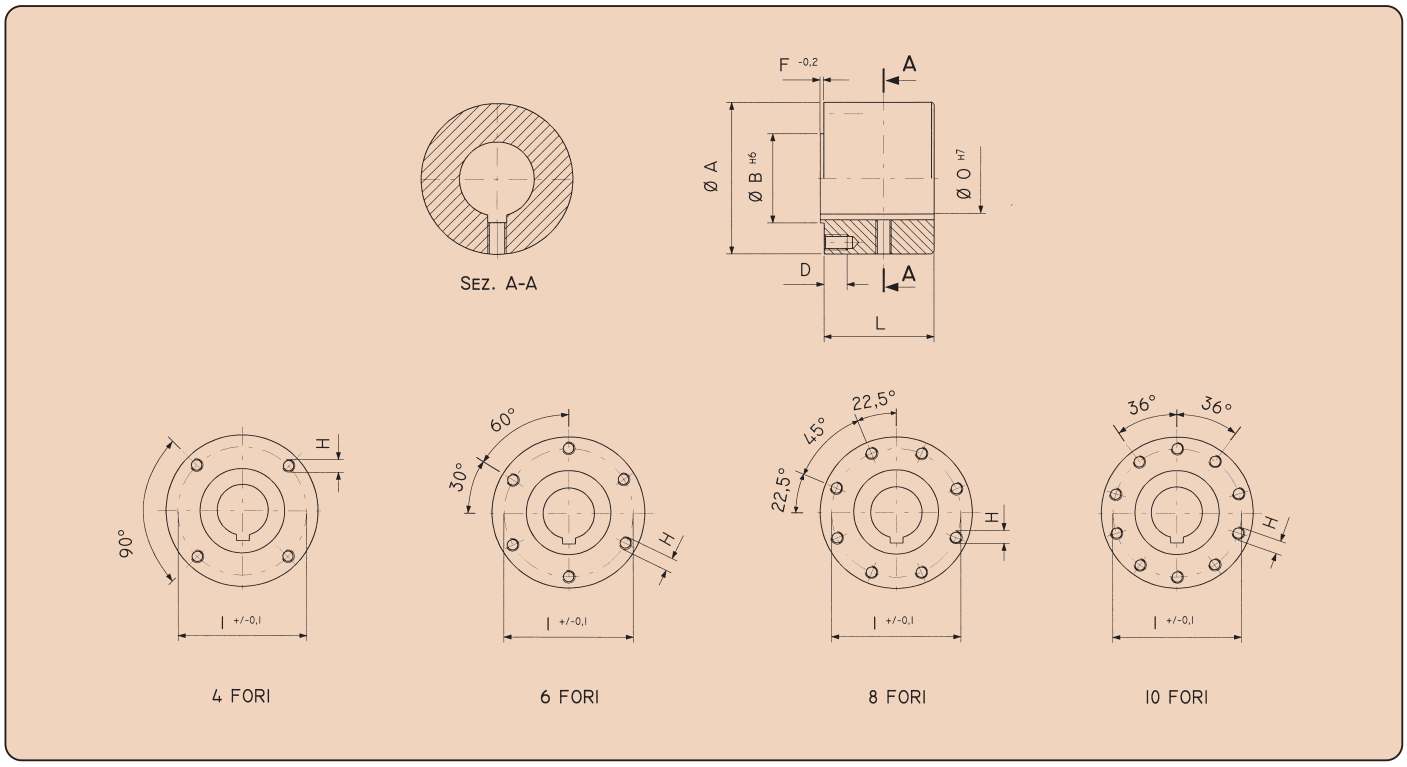
(1) Numero di fori.

(1) Number of holes.

Dimensioni in mm / *Dimensions in mm*

Controflangia 14.---.100

CONTROFLANGIA DIN / *DIN COMPANION FLANGE*



Cod./Code	A	B^{h6}	E	$F^{-0,2}$	H	$I^{+/-0,1}$	L	O^{H7MAX}	N° Fori(1)
14.065.100	65	35	15	1,6	M 6	52	40	30	4
14.075.100	75	42	18	1,9	M 6	62	48	38	6
14.090.100	90	47	22	2,3	M 8	74,5	55	42	4
14.100.100	100	57	25	2,3	M 8	84	60	50	6
14.120.100	120	75	35	2,3	M 10	101,5	85	65	8
14.150.100	150	90	35	2,3	M 12	130	95	80	8
14.165.100	165	95	50	2,8	M 16	140	100	85	8
14.181.100	180	110	50	2,8	M 16	155,5	100	100	8
14.225.100	225	140	50	4,5	M 16	196	125	130	8
14.250.100	250	140	50	5,5	M 18	218	150	130	8
14.285.100	285	175	50	6	M 20	245	160	165	8
14.315.100	315	175	60	6	M 22	280	180	165	8
14.350.100	350	220	60	7	M 22	310	200	200	10

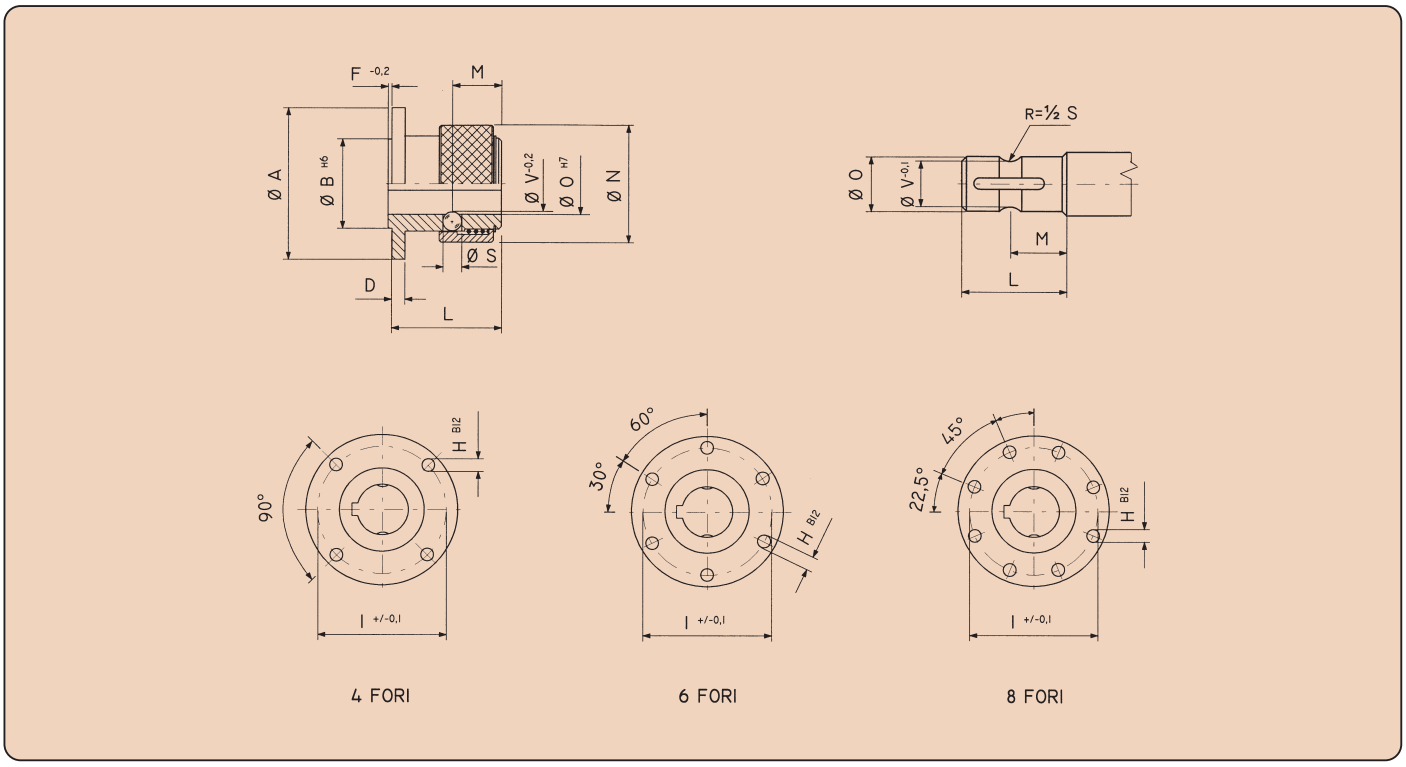
(1) Numero di fori.

(1) Number of holes.

Dimensioni in mm / *Dimensions in mm*

Controflangia 14.---.112

CONTROFLANGIA DIN CON ATTACCO RAPIDO / *DIN COMPANION FLANGE WITH QUICK RELEASE*



Cod./Code	A	B^{h6}	D	$F^{-0,2}$	H^{B12}	$I^{+/-0,1}$	L	O^{H7}	V	M	N	S	N° Fori(1)
14.075.112.25	75	42	6	1,9	6	62	48	25	23	20,5	50	10	6
14.075.112.30	75	42	6	1,9	6	62	48	30	28	25	58	10	6
14.090.112.25	90	47	8	2,3	8	74,5	55	25	23	20,5	50	10	4
14.090.112.30	90	47	8	2,3	8	74,5	55	30	28	25	58	10	4
14.100.112.30	100	57	8	2,3	8	84	60	30	28	25	58	10	6
14.100.112.35	100	57	8	2,3	8	84	60	35	33	25	64	10	6
14.100.112.40	100	57	8	2,3	8	84	60	40	38	25	70	10	6
14.120.112.40	120	75	10	2,3	10	101,5	85	40	38	25	70	10	8
14.120.112.45	120	75	10	2,3	10	101,5	85	45	40	25	84	14	8
14.120.112.50	120	75	10	2,3	10	101,5	85	50	46	30	86	14	8

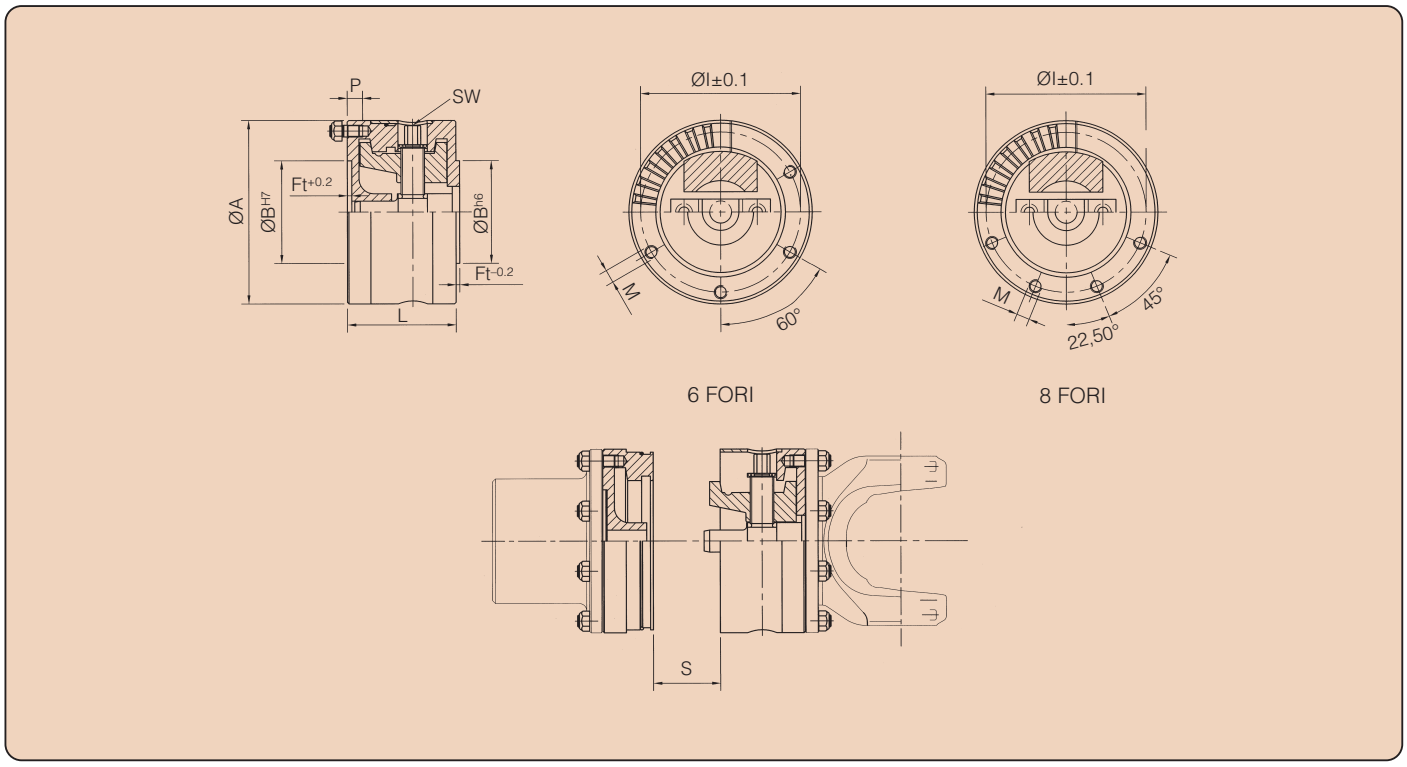
(1) Numero di fori.

(1) Number of holes.

Dimensioni in mm / *Dimensions in mm*

Controflangia 14.---.212

CONTROFLANGIA DIN CON ATTACCO RAPIDO / *DIN COMPANION FLANGE WITH QUICK RELEASE*



Code	A	B	F	Ft	L	S(1)	I	N° Fori	M	P	V(2)	Dado Nm(3)	Vite Nm(3)	Chiave(4)	Kg(5)
14.100.212	100	57	2,5	2,3	76	20	84	6	M 8	10	M8x18	35	30	SW 13	4,6
14.120.212	120	75	2,5	2,3	100	38	101,5	8	M 10	11	M10x22	69	45	SW 14	7,3
14.150.212	150	90	3,5	2,3	100	40	130	8	M 12	14	M12x25	120	80	SW 17	10,5
14.180.212	180	110	4	2,8	112	40	155,5	8	M 14	20	M14x28	190	100	SW 17	16,2
14.225.212	225	140	5	4	144	45	196	8	M 16	18	M16x35	295	190	SW 22	34
14.250.212	250	140	6	5	148	45	218	8	M 18	21	M18x40	405	220	SW 22	39,5

(1) Corsa per sganciare la flangia dell'attacco rapido.
(2) Tipo di prigioniero.
(3) Coppia di Serraggio in Nm per Dadi e Viti.
(4) Dimensione chiave a tubo per sganciare l'attacco rapido.
(5) Peso.
Utilizzare prigionieri DIN 938 e dadi esagonali autobloccanti DIN 980 in 10K.

(1) Stroke to release the flange from the quick release.
(2) Type of Threaded rod.
(3) Clamping Torque in Nm for nuts and bolts.
(4) Size key tube to release the quick release.
(5) Weight.
Use threaded rod DIN 938 and self blocking hexagonal nuts DIN 980 in material 10k.

Dimensioni in mm / *Dimensions in mm*

CODIFICA DELLE TRASMISSIONI CARDANICHE / *CODE OF THE CARDAN SHAFT*

1° e 2° cifra / *digit*	3° 4° 5° cifra / *digit*	6° 7° cifra / *digit* 8° cifra	Esecuzioni speciali / *Special execution*	Tipo / *Type*
				Grandezza / *Size*
				Forma costruttiva / *Structural mould* Tipo flangia / *Flange type*
07.				Serie standard / *Standard series*
08.				Serie alto angolo o allungamento a richiesta *High angle series or high prolungation on request*
11.				Crociera per serie 07 / *Cross joint for series 07*
12.				Crociera per serie 08 / *Cross joint for series 08*
14.				Controflangia / *Companion flange*
16.				Set viteria / *Fitting bolts*
	da: **058** a: **480**			Grandezza giunto o trasmissione cardanica *Size of the joint or cardan shaft*
		.100		Giunto semplice / *Simple Joint*
		.200		Giunto doppio / *Double Joint*
		.300 **.310** **.400**		Trasmissione allungabile con tubo di prolunga *Sliding shaft with prolungation tube*
		.500		Trasmissione fissa / *Fixed shaft*
		.600		Trasmissione extracorta / *Extra short slip shaft*
		.800		Trasmissione con supporto intermedio / *Sliding shaft with intermediate bearing*
		.--0		Flangia DIN standard / *Din flange standard*
		.--1 **.--2**		Flangia DIN maggiorata / *Higher Din flange*
		.--4		A mozzo con foro / *With hub and hole*
		.--5 **.--6**		Flangia Asa-Sae / *Asa-Sae flange*
			.- - -	Esecuzione a disegno / *Execution as drawing*

Esempio: *Example:* **07.** **058** **.100**

Giunto semplice grandezza 058 con flangia standard Din 58
Simple joint size 058 with standard Din 58 flange

Oltre al codice d'ordinazione è indispensabile indicare la lunghezza chiusa e l'allungamento, se differente dallo standard, l'angolo di lavoro e il numero di giri.
Si precisa che, qualora figurino due alternative per lo stesso codice sarà fornito, se non richiesto espressamente, la prima delle due.

As well as the order code, it's also essential to indicate the closed length and the extension, if different from the standard, also the working angle and the number of revolutions per minute.
We specify that, if there should be two options for the same code, we will supply you, if not explicitly required, the first one.

SELEZIONE SERIE 07-08

Per dimensionare un giunto o una trasmissione cardanica si devono considerare i seguenti dati:

1. Momento torcente massimo
2. Angoli di lavoro
3. Numero di giri
4. Durata in ore dei cuscinetti
5. Caratteristica della trasmissione cardanica
6. Lunghezza e allungamento
7. Carico sui cuscinetti degli organi ad essi collegati

La scelta deve essere determinata in funzione della durata che si vuole ottenere dai cuscinetti.

Procedere come segue:

A – Calcolare il momento torcente che il giunto deve trasmettere con la seguente formula:

$$\mathbf{Mt1 = \frac{7023 \cdot P}{Giri/min}\ [Nm]}$$

dove: P = potenza in HP
Mt1 = momento torcente in Nm

n° 1 Kw = 1,36 HP n° 1 Kgm = 9,81 Nm

Il Diagramma 3 è valido per un momento torcente costante e senza urti, con un angolo di 3° per ogni crociera, considerando una durata teorica di lavoro dei cuscinetti di 5.000 ore.

B - Moltiplicare Mt1 per il fattore D (Diagramma 1), se si desidera una durata superiore a 5.000 ore, e per il fattore K (Diagramma 2), relativo all'angolo d'inclinazione del giunto, se superiore a 3°

$$\mathbf{Mt1 \cdot D \cdot K = Mt\ [Nm]}$$

Con il Diagramma 2 si ricava il coefficiente in funzione dell'angolo. L'angolo d'inclinazione massimo di lavoro consentito dal cardano (vedere il Diagramma 6) è anche in funzione del numero di giri e, per le trasmissioni di grosse dimensioni, del peso.

C – Con il nuovo valore di Mt ottenuto, scegliere sul Diagramma 3 il giunto che, al numero di giri richiesti, ha un momento torcente uguale o immediatamente superiore.
Con la durata teorica così calcolata, secondo la teoria dei cuscinetti, il 90% dei cuscinetti non presenta segni d'usura.
Nella maggior parte dei casi, la durata di vita media effettiva è 4/5 volte superiore a quella teorica.
Per applicazioni particolarmente gravose o con motori a benzina o diesel prendere contatto con l'ufficio tecnico **Trasmil**.

SELECTION 07-08 SERIES

To select a joint or a cardan shaft it's necessary to consider the following specifications:

1. *Max torque*
2. *Angle of work*
3. *R.P.M*
4. *Life time in hours of the bearings*
5. *Type of the cardan shaft*
6. *Closed length and prolongation*
7. *Load on the bearing of the connected members*

The selection must be established considering the life-time of the bearings that you need.

Proceed as follow:

A – Calculate the torque that the joint must transmit by the following formula:

$$\mathbf{\textit{Mt1} = \frac{\textit{7023} \cdot \textit{P}}{\textit{R.p.m.}}\ \textit{[Nm]}}$$

where: P = Power in HP
Mt1 = Torque in Nm

n° 1 Kw = 1,36 HP n° 1 Kgm = 9,81 Nm

The diagram 3 is valid for a constant torque and without impacts, with an angle of 3° for each cross joint, considering a teoretical life-time of the bearings = 5000 hours

B – Multiply Mt1 per factor D (Diagram 1), if it's necessary a life-time higher than 5.000 hours, and per factor K (Diagram 2), regarding the angle of work of the joint, if higher than 3°

$$\mathbf{\textit{Mt1} \cdot \textit{D} \cdot \textit{K} = \textit{Mt [Nm]}}$$

With the Diagram 2 you obtain the coefficient in function of the angle.
The max angle of work allowed by the cardan shaft (see Diagram 6) is also in function of the rpm and for the big sizes, of the weight.

C – With the new obtained value of Mt, choose on Diagram 3 the joint that , at requested rpm, has a same torque or immediately higher.

With the theoretical life time so calculated, as bearings theory, the 90% of the bearings doesn't show wear.

Mostly the real medium life-time is 4-5 times higher than the theoretical.

For heavy applications or with petrol or diesel engine please contact **Trasmil** *technical department.*

Diagramma 1

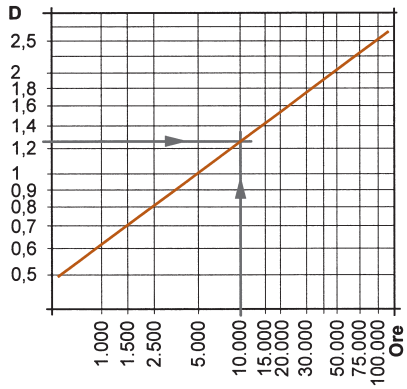


Diagramma 2

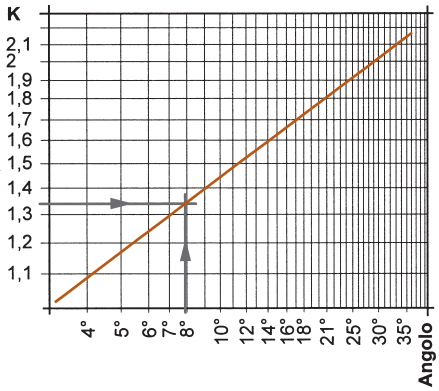
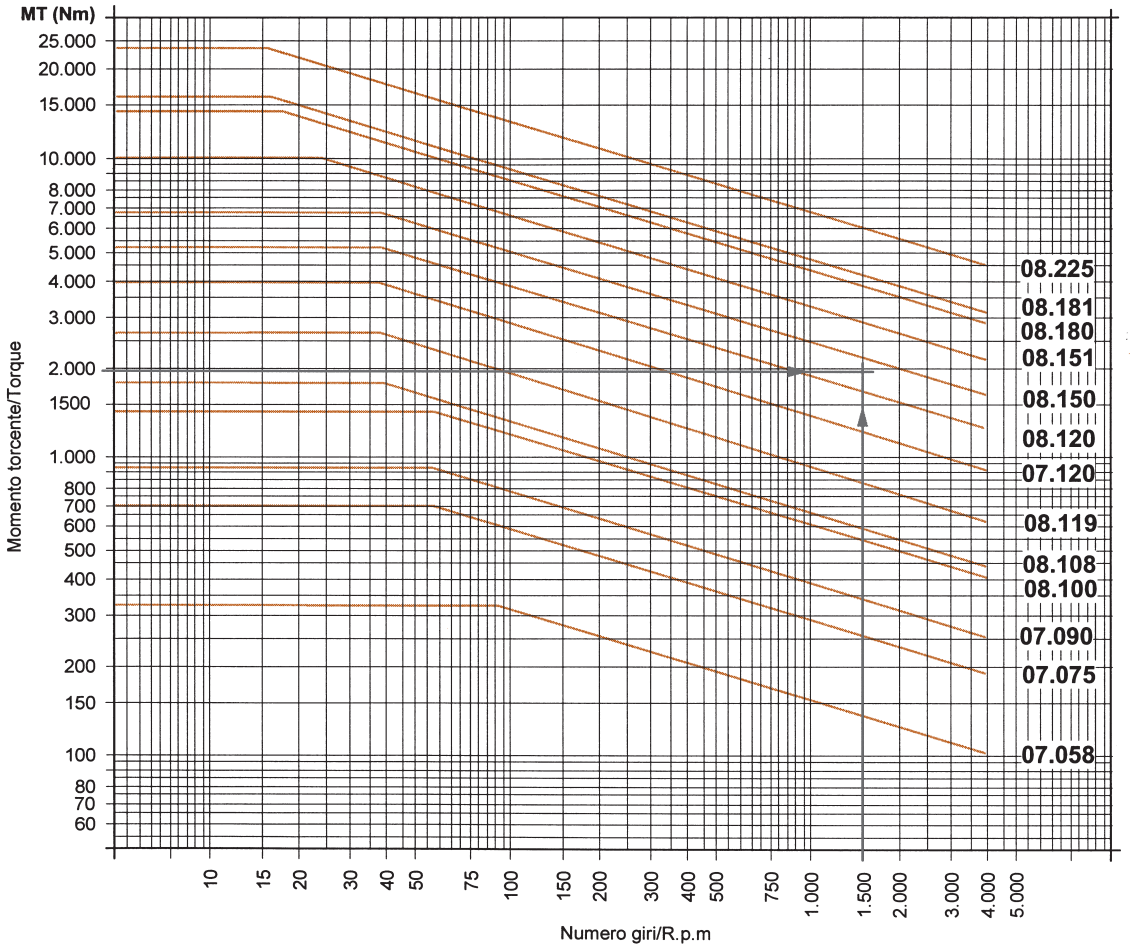


Diagramma 3



Esempio:
Si consideri una macchina che a 1.500 giri/min abbia una coppia assorbita di 1.200 Nm, la movimentazione è prevista con un motore elettrico collegato alla trasmissione cardanica e che l'angolo di lavoro costante è di 8° (fattore K = 1,33). La durata richiesta è 10.000 ore di lavoro (fattore D = 1,25).
Per calcolare il valore di coppia per il dimensionamento si procede come segue:

Mt = Mt1 • K • D = 1.200 • 1,33 • 1,25 = 1.995 Nm

Con tale valore, sul Diagramma 3, a 1.500 giri/min si trova che la trasmissione adatta è la serie 08.150.

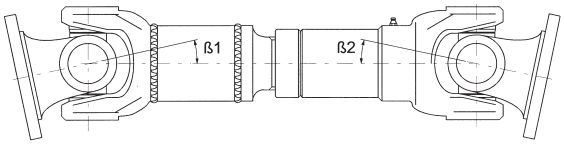
Example:
You consider a machine that at 1.500 rpm has an absorbed torque of 1.200 Nm, the motion is provided by an electric engine connected with the cardan shaft and the constant angle of work is 8° (factor K = 1,33). The requested life-time is 10.000 hours (factor D = 1,25).
To calculate the torque value for the selection, you proceed as follow:

Mt = Mt1 • K • D = 1.200 • 1,33 • 1,25 = 1.995 Nm

With such value, on Diagram 3, at 1.500 rpm, you find that correct cardan shaft is type 08.150.

MONTAGGIO DELLA TRASMISSIONE

All'atto del montaggio della trasmissione cardanica, va posta particolare cura affinché gli angoli di entrambi i giunti (ß1 e ß2) siano uguali.



Inoltre le forcelle dei giunti devono essere orientate nello stesso modo e posizionate sullo stesso piano.
Ciò al fine di evitare un moto non uniforme e totalmente impulsivo che può danneggiare in breve tempo sia la trasmissione (crociere e scanalato) che gli organi ad essa collegati.

EQUILIBRATURA

Un fattore molto importante per un esercizio senza problemi è l'equilibratura dinamica delle trasmissioni. Solo dove il regime di rotazione è inferiore a 400/500 g/min è sufficiente un equilibratura statica. In tutti gli altri casi la trasmissione cardanica deve essere equilibrata dinamicamente. Per questo motivo è indispensabile comunicare sempre il numero di giri in caso di ordine. L'equilibratura dinamica consiste nell'aggiungere all'albero cardanico dei contrappesi, di peso e posizione opportuna, che annullano la risultante dei momenti generati dalle forze centrifughe e scaricare così da sollecitazioni dannose i cuscinetti di appoggio.
Le trasmissioni cardaniche vengono equilibrate con il grado di precisione Q 16, secondo le norme VDI 2060.
Non rimuovere le piastrine di bilanciatura

VELOCITÀ CRITICA

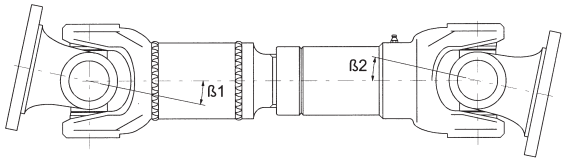
Qualora si impieghi un trasmissione fissa oppure scorrevole con tubo di prolunga ad un elevato regime di giri, occorre verificare se il diametro del tubo impiegato è sufficiente o meno ad evitare regimi flessionali o torsionali critici.
Nel caso che si attraversino fasce di velocità critiche, occorrerà aumentare il diametro del tubo o dividere la trasmissione in due tronconi, inserendo un idoneo supporto intermedio.
La formula per il calcolo della velocità critica di una trasmissione cardanica è la seguente:

$$V_c = 1.22 \cdot 10^8 \cdot \frac{\sqrt{D^2 + d^2}}{L^2} \text{ [g/min]}$$

dove: D = diametro esterno del tubo in mm
d = diametro interno del tubo in mm
L = lunghezza fra i centri delle crociere in mm

INSTALLATION OF CARDAN SHAFT

When you install the cardan shaft, you have to make sure the angle of the conductive joint is identical to the one of the driven joint (ß1 and ß2).



Furthermore, the forks of the joints have to be orientated in the same way, and articulated on the same plane, in order to avoid a not uniform and totally impulsive motion, able to damage both the drive (cross joints and splined) and the units connected to it.

BALANCING

A very important factor for a working without problems is the dynamic balancing of the slip shafts. Only where the speed rotation is lower than 400/500 rpm is sufficient a static balancing. In all the other cases, the slip shaft must be dynamically balanced. For this reason it's necessary to communicate always the revolution per minute in Your order. The dynamic balancing consists of adding to the slip shaft some counterweights of weight and appropriate position, that annul the resultant of the moments produced by the centrifugal forces and to unload so from harmful stress the bearings.
The slip shafts are balanced with the precision grade Q16, as norms VDI 2060.
Do not remove the balancing plates.

CRITICAL SPEED

In case you use a fixed or sliding shaft with tube at high rpm, it's necessary to verify if the diameter of the used tube is sufficient to avoid critical bending or torsional speed.
In case that you pass through bands of critical speed, it's necessary to increase the diameter of the tube or to divide the cardan shaft in two parts, inserting a suitable intermediate support.
The formula for the calculation of the critical speed of the cardan shaft is the following:

$$V_c = 1.22 \cdot 108 \cdot \frac{\sqrt{D^2 + d^2}}{L^2} \text{ [rpm]}$$

where: D = external diameter of the tube in mm
d = internal diameter of the tube in mm
L = length between the cross joint centre in mm

L'impiego della trasmissione cardanica con velocità vicine alla velocità critica può generare rumorosità e deformazioni dell'albero.
Il numero di giri massimo ammissibile, per stare sicuramente al di fuori da regimi di velocità critica, non deve superare il 65% del valore V_c, pertanto

0,65 • V_c = V (g/min)

In caso di ordine o di richiesta segnalare sempre la velocità di servizio della trasmissione.
È importante tenere presente che oltre i 400/500 giri al minuto occorre sempre provvedere ad un accurato bilanciamento statico e dinamico della trasmissione, bilanciamento che viene sempre eseguito direttamente in produzione.
Per determinare il diametro del tubo, in relazione alla lunghezza e al numero di giri, si può utilizzare anche il seguente Diagramma 4.

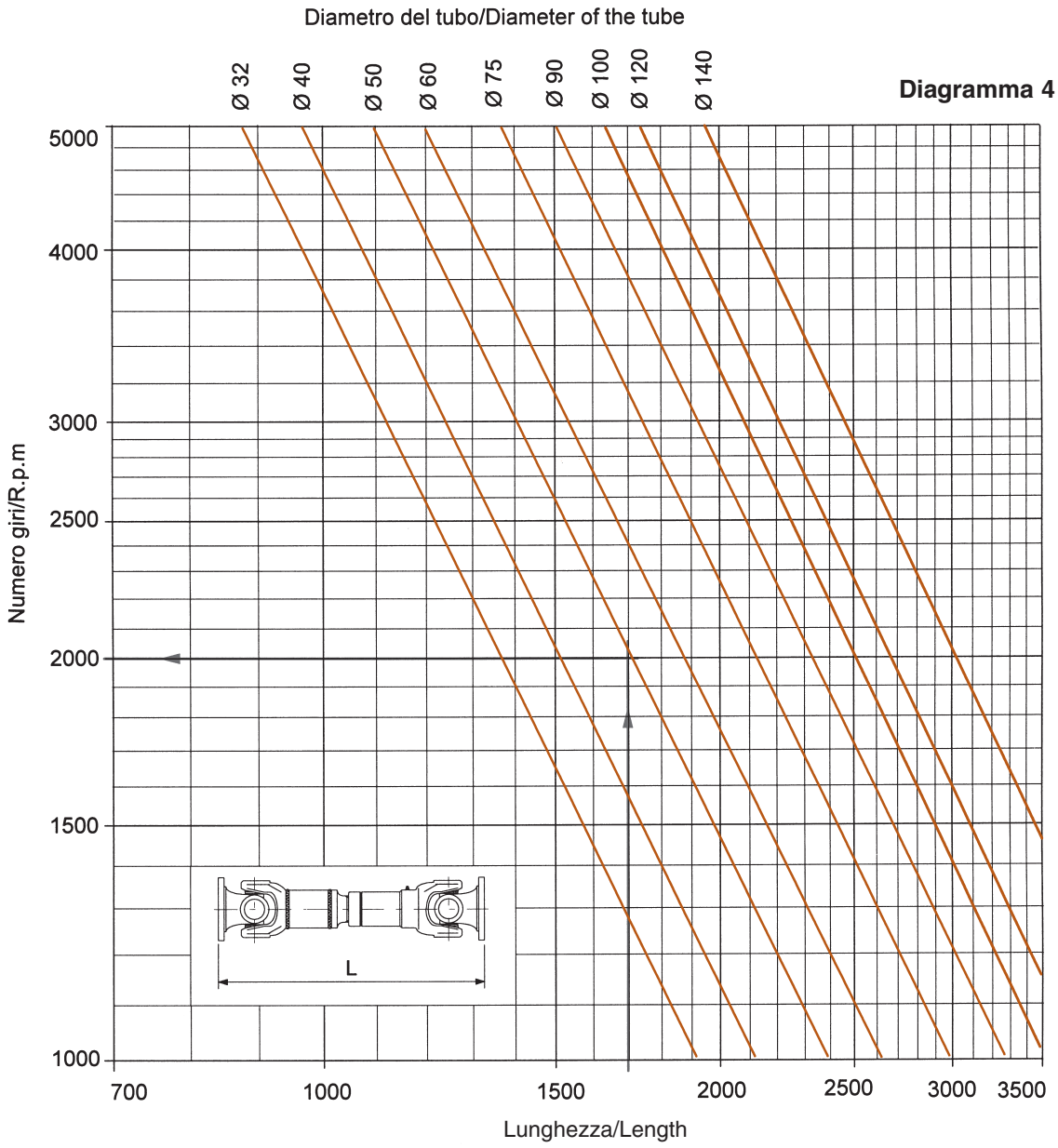
The use of the cardan shaft with speed near the critical speed can produce noisiness and buckling of the shaft.

The max allowable rpm, to be certainly out of the critical speed, must not exceed the 65% of the value V_c, so

0,65 • V_c = V (R.p.m.)

In case of order or request, it's necessary to signalize always the speed of work of the cardan shaft.
It's important to remember that further 400/500 rpm it's always necessary to provide an accurate static and dynamic balancing of the cardan shaft; balancing that we always make directly in production.
To establish the diameter of the tube in function of the length and rpm, you can use also the following Diagram 4.

Diagramma 4



Esempio: Lunghezza 1700 mm → Trasmissione 07.075 con tubo diam 50 = Giri max 2.000 min

Example: *Length 1.700 fi Cardan shaft 07.075 whit tube diam 50 = Max rpm 2.000*

ANGOLO COMPOSTO

La trasmissione cardanica, come sua caratteristica, può funzionare, trasmettendo il moto sia con angolo d'inclinazione costante che variabile.
Dove possibile, si consiglia di lavorare con un angolo d'inclinazione più piccolo possibile. Si tenga presente che incrementando l'angolo di lavoro si riduce notevolmente la durata della trasmissione.
L'angolo d'inclinazione risultante, nel caso di applicazioni dove la trasmissione sia inclinata sia sull'asse del piano orizzontale che di quello verticale, deve essere calcolato come segue.

$$\text{Tang } ß = \sqrt{\text{tang}^2 ßo + \text{tang}^2 ßv}$$

Esempio: Angolo orizzontale ßo: 18°
Angolo verticale ßv: 22°
Angolo risultante ß: 27,24°

È anche possibile utilizzare il seguente Diagramma 5 per un calcolo veloce.

COMPOUND ANGLE

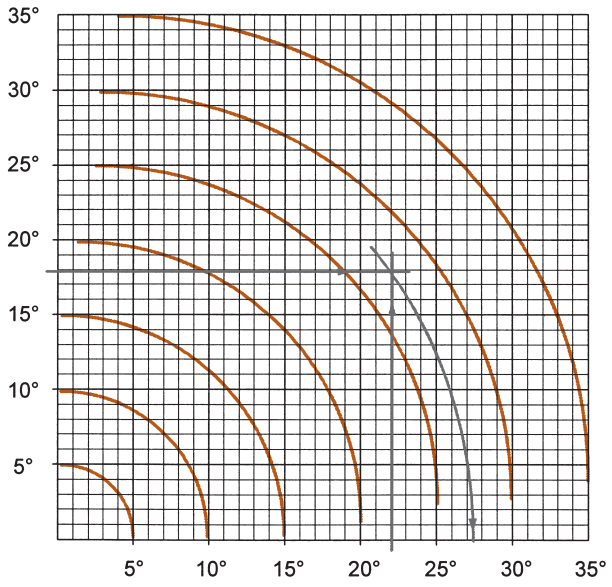
The cardan shaft, as its specifications , can work, transmitting the motion whether with constant angle or variable.
Where possible, we suggest working with a small possible angle.
It's necessary to remember that increasing the angle of work you reduce considerably the life-time of the cardan shaft.
The resulting angle, in case of applications where the cardan shaft is inclined whether on the axis of horizontal plane or the vertical, must be calculated as follow:

$$\textit{Tang } ß = \sqrt{\textit{tang}^2 ßo + \textit{tang}^2 ßv}$$

Example: *Horizontal angle ßo: 18°*
Vertical angle ßv: 22°
Resulting angle ß: 27,24°

It's also possible to use the following Diagram 5 for a quick calculation.

Diagramma 5



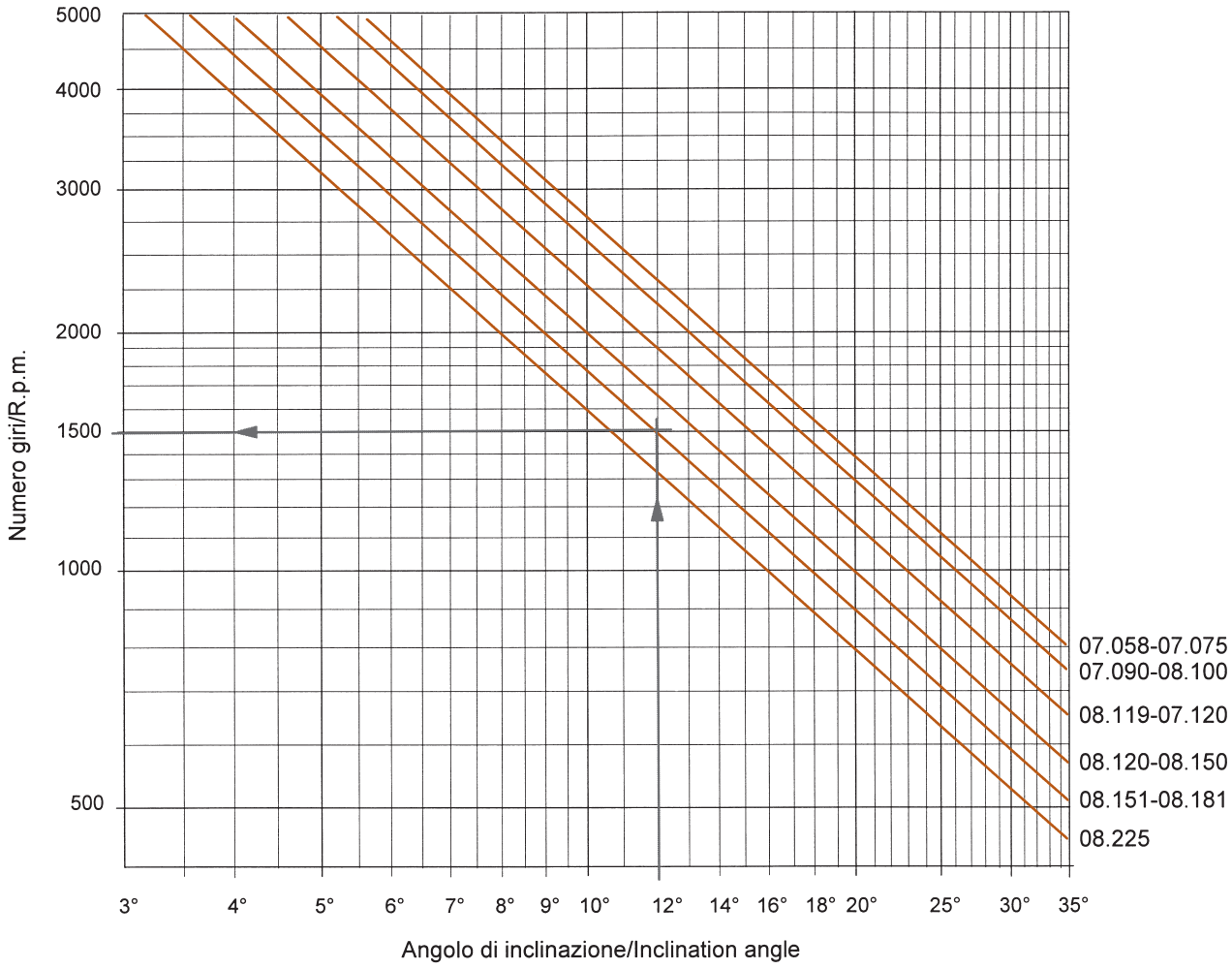
ANGOLO DI INCLINAZIONE E NUMERO DI GIRI

Nel dimensionamento della trasmissione cardanica occorre assicurarsi che la velocità di rotazione, in relazione all'angolo di lavoro, non sia troppo elevata.
Per una durata delle crociere e una regolarità di rotazione verificare che la trasmissione scelta ricada nei valori indicati dal seguente Diagramma 6.

ANGLE OF WORK AND RPM

On cardan shaft selection it's necessary assuring that the rotation speed, in function of the work angle, is not too much high.
For a long duration of the cross joints and a rotation regularity, it's necessary that the selected cardan shaft is on the indicated values of the following Diagram 6.

Diagramma 6

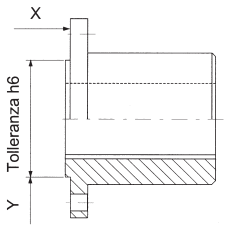


Esempio: Trasmissione 08.151 → Angolo 12° = Giri massimi 1.500 min.

Example: *Cardan shaft 08.151 → max angle 12° Max Rpm 1.500*

ISTRUZIONI PER LA MESSA IN OPERA

Eliminare dalle superfici delle flange sporcizia, grasso e tracce di vernice.
Verificare la posizione delle forcelle, le frecce di riferimento devono essere allineate.
Non sfilare o scambiare le parti con profilo scanalato.
In caso contrario, l'irregolarità della velocità angolare dell'albero intermedio, derivante dal primo giunto, verrebbe amplificata in uscita della trasmissione, innescando un fenomeno vibratorio con precoce usura degli organi in movimento.
Verificare la planarità, il centraggio e la concentricità della Vostra controflangia.
La tolleranza prevista per X e Y è 0,15 mm. fino a 500 giri e 0,08 fino a 3000 giri.

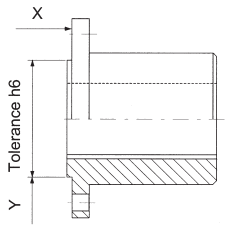


Dove: Y = Tolleranza sulla concentricità e
X = Tolleranza sulla planarità

Serrare le viti in modo corretto, utilizzare viti in 10.9 e dadi in 8.8 autoloccanti per garantire la trasmissione della coppia per attrito tra flangia e controflangia.
Serrare in croce le viti, utilizzare una chiave dinamometrica con i valori di coppia riportati nella seguente tabella:

INSTRUCTIONS FOR INSTALLATION

Eliminate dirtiness, grease and marks of paint from the flange surfaces.
Control the position of the forks, the reference indicators must be lined up.
Do not extract or change splined-contour parts.
Otherwise their angular speed irregularity of the intermediate shaft, originating from the first joint, should amplified in cardan shaft exit, baiting a vibratory phenomenon with a premature wear and tear of the members in motion.
Check the flatness, centring and concentricity of your companion flanges.
The estimated tolerance per X and Y is 0,15 mm. until 500 rpm end 0,08 until 3000 rpm.



Where: Y = Tolerance on concentricity and
X = Tolerance on planarity

Tighten the screws in the correct way, use 10.9 hexagon bolt and 8.8 self-locking nuts to assure the torque drive for friction between flange and companion flanges.
Tighten the bolts crossed, use a dynamometric key with the torque values indicated on the following schedule.

VITE *SCREW*	M 5	M 6	M 8	M 10	M 12	M 14	M 16	M 18	M 20	M 22	M 24
COPPIA DI SERRAGGIO NM *TIGHTENING TORQUE NM*	8	13	35	64	110	180	275	390	600	800	1000

Anche se nella maggior parte delle trasmissioni le viti sono anche introducibili dalla parte interna della flangia si consiglia di indicare, in sede d'ordine, se avete questo tipo necessità.

Even if in greater parts of the slip shafts, the screws are even introducible from the internal side of the flange, we suggest always indicating in the order if You have this need.

AVVERTENZE

Le trasmissioni cardaniche, per la loro caratteristica, sono inoltre organi che possono causare danni a persone o cose durante il loro funzionamento, anche se correttamente dimensionate e messe in funzione. L'Utilizzatore deve quindi prendere tutte le opportune precauzioni per prevenire e evitare tali danni, installando opportune protezioni.

ATTENTION

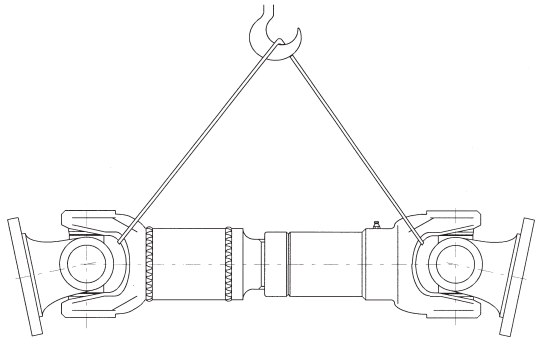
The slip shafts, for their specifications are more over members that can cause damages to people or things during their working, even if correctly sized and put in operation.
The user must then take all the necessary precautions to prevent and to avoid such damages, installing the right protections.

TRASPORTO E MOVIMENTAZIONE

Una non corretta movimentazione, urti e colpi, può causare gravi danni e compromettere il buon funzionamento della trasmissione cardanica. È preferibile che le trasmissioni vengano trasportate in orizzontale, nel caso di movimentazione in verticale occorre prendere tutte le precauzioni per evitare che esse si sfilino. Qualora si renda necessario sollevarle bisogna assicurarsi che il fissaggio sia effettuato come qui sotto rappresentato.

TRANSPORT AND HANDLING DRIVE–SHAFTS

An incorrect handling, knocks and strokes, can cause serious damages and compromise the correct working of the drive shaft. It would be better that the drive shafts are moved in a horizontal position; in case of vertical handling it's necessary take all the precautions in order to avoid their coming out. If it's necessary to heave them, please pay attention that the fixing must be done as shown below.



Non prendere mai le trasmissioni per le crociere. Non appoggiare pesi sul tubo e immagazzinare in locali chiusi e asciutti preferibilmente in orizzontale e, se possibile, tenere le trasmissioni sollevate da terra.

Do never take the drive shafts by the cross joints. Don't rest loads on the tube and store in closed and dry areas preferably in a horizontal position and if possible keep the drive shafts, raised from the soil.

NORME DI LUBRIFICAZIONE

Le trasmissioni cardaniche sono normalmente provviste di tre ingrassatori DIN 71412, il primo posizionato sullo scanalato e gli altri due su ciascuna crociera.
Si raccomanda di provvedere ad una lubrificazione periodica sia sulle crociere sia sullo scandalo, con intervalli di circa tre mesi.
In caso d'impiego particolarmente gravoso si consiglia di ridurre l'intervallo di lubrificazione.
A richiesta il ns. ufficio tecnico può segnalarVi alcuni tipi di grasso che richiedono intervalli di lubrificazione molto lunghi.
Usare solo grassi saponificati con litio, consistenza classe 2, penetrazione 265/295 e punto goccia circa 180°.
Non utilizzare grassi con additivi al molykote.

Pompare il grasso fino alla fuoriuscita del grasso esaurito da tutte le guarnizioni dei quattro cuscinetti, pressione massima 15 bar.

Le trasmissioni sono adatte per una temperatura d'esercizio che va da –25° a +80°; per temperature maggiori o minori contattare l'ufficio tecnico **Trasmil.**

Le trasmissioni vengono fornite non ingrassate.
Prima del montaggio provvedere alla lubrificazione.

INSTRUCTIONS FOR LUBRICATION

The slip shafts are normally provided by three grease cups DIN 71412; the first one on the splined and the others on the spiders.
We recommend you to provide for a periodical lubrication both on the spiders and on the groove, by means of the grease cups, purposely provided, at intervals of about three months.
In case of very heavy employment we suggest to reduce the lubrication interval.
On request, our technical department can signalise you some kinds of grease needing longer lubrication intervals.
Remember to use grease saponified with lithium, consistency class 2, penetration 265/295 and dropping point at about 180°.
Do not use greases with molykote additives.

Pump the grease up to its emission from the four bearings of the packing, maximum pressure 15 bar.

The drives are suitable for operative temperature from -25° to + 80°, for higher or lower temperatures, please contact **Trasmil** *technical department.*

The cardan shafts are supplied without greasing.
Before the assembly, we recommend to provide for the lubrication.

QUESTIONARIO PER DIMENSIONAMENTO DELLE TRASMISSIONI CARDANICHE

Società ..... Indirizzo .....

Sig. ..... Tel. ..... Fax .....

E-mail: .....

Tipo di applicazione .....

MOTORE

❑ Elettrico ❑ Diesel a ..... cilindri

Potenza max ..... a giri .....

Momento torcente max ..... a giri .....

TRASMISSIONE CARDANICA

❑ Accoppiamento diretto con il motore

❑ Con giunto elastico ❑ Riduttore ❑ Altro .....

Momento torcente max ..... a giri .....

Momento torcente continuo ..... a giri .....

Durata in ore richiesta .....

MOTO

❑ Continuo

❑ Frequenti arresti: n° ..... volte ora

❑ Inversione del senso di rotazione: n° ..... volte ora

CONDIZIONI DI LAVORO

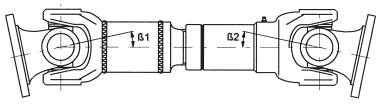
Sollecitazioni di punta fino a ..... volte il valore normale

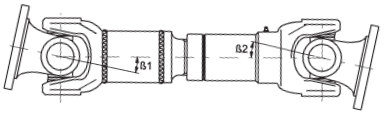
Temperatura ambiente ..... max .....

AMBIENTE

❑ Normale ❑ Umido ❑ Polveroso ❑ .....

ALBERI DA COLLEGARE





❑ Incidenti ❑ Paralleli

❑ Con angolo di inclinazione ..... gradi ❑ variabile fino a ..... gradi

❑ Uno dei due alberi può essere spostato per il montaggio

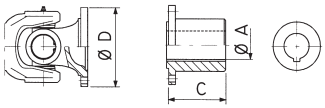
❑ Entrambi gli alberi sono in posizione fissa

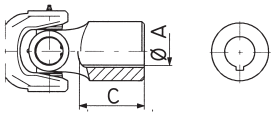
❑ Montaggio orizzontale ❑ Montaggio verticale

ESECUZIONE

❑ A flangia ∅ D ..... ❑ Controflangia ∅ A ..... ❑ C .....

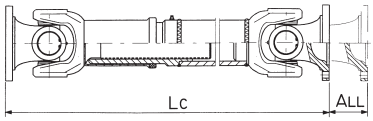
❑ A mozzo ∅ A ..... ❑ Cava ..... ❑ C .....



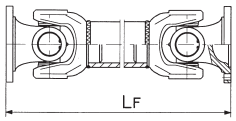


LUNGHEZZA

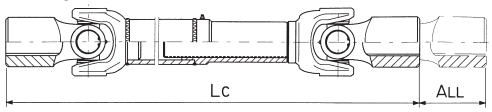
❑ Lc ..... All .....



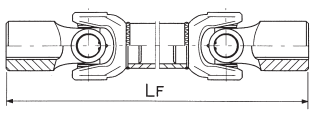
❑ Lf .....



❑ Lc ..... All .....



❑ Lf .....



QUANTITÀ

Numero pezzi ..... Numero pezzi anno .....

QUESTIONNAIRE TO SIZE THE CARDAN-SHAFTS

Company ..... *Address* .....

Mrs. ..... *Phone* ..... *Fax* .....

E-mail: .....

Application type .....

ENGINE

❑ *Electric* ❑ *Diesel a* ..... *cylinders*

Max power ..... *rpm* .....

Max load ..... *rpm* .....

CARDAN SHAFT

❑ *Direct connection with engine*

❑ *With elastic joint* ❑ *Gear reducer* ❑ *Others* .....

Max load ..... *rpm* .....

Continuous load ..... *rpm* .....

Requested life-time in hours .....

MOTION

❑ *Continuous*

❑ *Frequent stop: n°* ..... *times hour*

❑ *Reversal rotation: n°* ..... *times hour*

WORK CONDITION

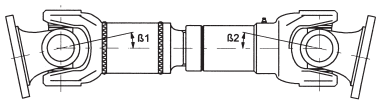
Max stress with a ..... *times the normal value*

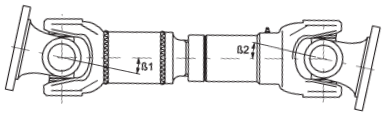
Ambient temperature ..... *max* .....

AMBIENT

❑ *Normal* ❑ *Humid* ❑ *Dusty* ❑ .....

AXIS TO CONNECT





❑ *Incident* ❑ *Parallel*

❑ *With angle of inclination* ..... *degrees* ❑ *variable until* ..... *degrees*

❑ *One of both can be moved for assembling*

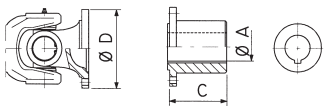
❑ *Entrambi gli alberi sono in posizione fissa*

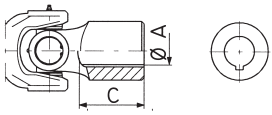
❑ *Horizontal assembling* ❑ *Vertical assembling*

EXECUTION

❑ *With flange ∅ D* ..... ❑ *Companion-flange ∅ A* ..... ❑ *C* .....

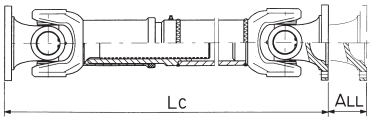
❑ *With hub ∅ A* ..... ❑ *Key way* ..... ❑ *C* .....



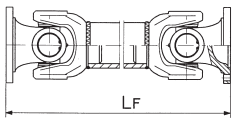


LENGHT

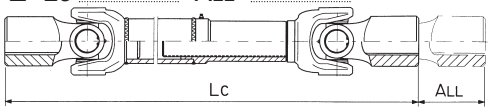
❑ *Lc* ..... *ALL* .....



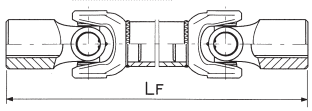
❑ *LF* .....



❑ *Lc* ..... *ALL* .....



❑ *LF* .....



QUANTITY

Number pieces ..... *Number pieces year* .....

trasmil

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