



Ed. 10/2007

**ENS**

**INTERNATIONAL**

elementi  
normalizzati  
stampi

standard parts  
for moulds



*Siamo specializzati nella costruzione di elementi normalizzati per stampi trancia, plastica, pressofusione. Eseguiamo particolari speciali a disegno seguendo le normative italiane e internazionali (DIN - ISO - AFNOR - MABEC - NAAMS). Garantiamo la massima celerità nelle consegne disponendo di un nostro magazzino per i prodotti di serie. Qualità del prodotto, affidabilità e soddisfazione del cliente sono i nostri obiettivi primari.*

*La continua attenzione alle richieste della clientela, la ricerca di nuove esperienze produttive, l'impiego di attrezzature sempre più sofisticate, hanno permesso alla Società di fornire alla clientela i tre componenti essenziali: Qualità, Servizio e Competitività. Abbiniamo macchinari tecnologicamente avanzati a personale qualificato.*

*La materia prima standard è acciaio 1.7131. I prodotti sono sottoposti a trattamento termico di cementazione-tempera e rinvenimento con profondità di 0,8-1 mm, durezza 61-63 HRC, rettificati.*

*Per carichi gravosi e dove necessita la massima protezione contro il grippaggio utilizziamo bronzine inserite nella bussola d'acciaio. Forniamo a richiesta, in base al loro utilizzo materiali specifici quali 1.2344 (stampaggio a caldo) oppure 1.8509 (per plastica).*



*We are specialized in the construction of guide pillars and guide bushes for blanking die, plastic mould and casting die. Moreover we execute special particular based on drawing following the italian and international norms (DIN - ISO - AFNOR - MABEC - NAAMS). We guarantee the shortest delivery time on standard products since we have a good storing.*

*Quality of the products, reliability and customer satisfaction are the primary objects. We offer technologically leading machine and semi-skilled personnel.*

*The continuous attention for the customer's request, the research of new production's experiences and the use of more sofisticate instruments, let our Company supply to all the clients three important points: Quality, Service, Competition.*

*The primary material used is stainless steel 1.7131. The products are being heat treated, case hardening and tempering of 0,8 - 1 mm, hardness 61 - 63 HRC, adjusted.*

*For higher load and when the application may require the maximal protection against seizure, we apply bushes into the steel sleeves. Also on request and if needed special material may be used such 1.2344 (hot moulding) and 1.8509 (for plastic mould).*

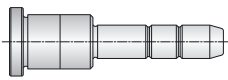


*Wir haben uns spezialisiert auf die Herstellung von Normteilen für Stanz-, Spritzguss- und Druckgusswerkzeuge. Auch Sonderteile nach diversen nationalen und internationalen Normen (DIN - ISO - AFNOR - MABEC - NAAMS) fertigen wir an. Wir bieten Ihnen höchste Schnelligkeit bei der Lieferung, da wir über ein großes Lager an Standardteilen verfügen. Produktqualität, Zuverlässigkeit und Zufriedenheit des Kunden sind unsere obersten Ziele. Wir setzen auf die Kombination von technisch fortschrittlichen Maschinen mit qualifiziertem Personal.*

*Das Unternehmen ist ständig bestrebt die Kundenanforderungen mittels neuer Technologien und optimierter Prozeßabläufe zu erfüllen, um drei wesentlichen Punkte der Kundenzufriedenheit zu erreichen, nämlich: Qualität, Service, Wettberbsfähigkeit. Unser Standardrohmaterial ist Stahl gemäß 1.7131. Unsere Produkte werden einsatzgehärtet mit einer Härtetiefe von 0,8 bis 1 mm, 61-63 HRC, und geschliffen.*

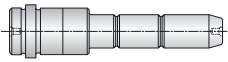
*Für Anwendungen unter höchster Beanspruchung stellen wir Führungsbuchsen mit Bronzeinsatz bzw. aus Vollbronze her. Auf Anfrage liefern wir unsere Produkte je nach Einsatzgebiet in Sondermaterialien wie W.1.2344 (für Warmumformwerkzeuge) oder W.1.8509 (für Spritzgusswerkzeuge).*





**C1**  
COLONNA GUIDA A DUE DIAMETRI  
GUIDE PILLAR

02  
03



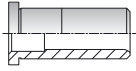
**C1S**  
COLONNA GUIDA SPALLATA  
LOCATING GUIDE PILLAR, SHOULDERED

04



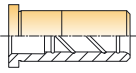
**C2**  
COLONNA GUIDA A UN DIAMETRO  
GUIDE PILLAR

05



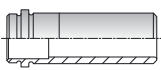
**B1**  
BUSSOLA GUIDA CON COLLARE  
GUIDE BUSH, HEADED

06



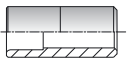
**B1B**  
BUSSOLA GUIDA BRONZO INTEGRALE  
BRONZE GUIDE BUSH

07



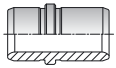
**B1S**  
BUSSOLA SPALLATA  
LOCATING GUIDE BUSH, HEADED

08



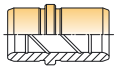
**B2**  
BUSSOLA DI GUIDA LISCIA  
SMOOTH BUSHES

09



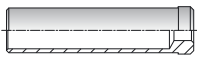
**B3**  
BUSSOLA SPALLATA  
EJECTOR GUIDE BUSH

10



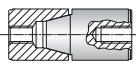
**B3B**  
BUSSOLA SPALLATA BRONZO INTEGRALE  
EJECTOR BRONZE GUIDE BUSH

11



**BC**  
BUSSOLE DI CENTRAGGIO  
CENTRING SLEEVE

12



**CC - CCX**  
CENTRAGGI CONICI  
LOCATING UNIT, ROUND

13



**AT**  
APPOGGI TAVOLINO  
BUFFER PLATE FOR EJECTOR SET

14



**ATF**  
APPOGGI TAVOLINO  
SEATING WASHERS FOR EJECTOR SET

14



**AC**  
ANELLI DI CENTRAGGIO  
LOCATING RINGS

14



**C3**  
COLONNA CON TESTA  
HEAD PILOT PINS

15



**C4**  
COLONNA SENZA TESTA  
SMOOTH PILOT PINS

16



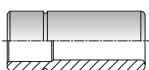
**C5**  
COLONNA CONICA  
GUIDE PILLAR WITH TAPER LEAD

17



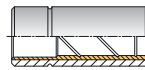
**RON**  
RONDELLA PER COLONNA C5  
WASHERS FOR PILLAR C5

17



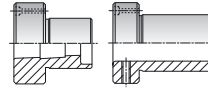
**B4**  
BUSSOLA LISCIA  
PILOT BUSHES

18



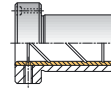
**B4B**  
BUSSOLA LISCIA ACCIAIO / BRONZO  
PILOT BUSHES, STEEL / BRONZE

19



**B5**  
BUSSOLA A COLLARE CON FORI DI FISSAGGIO  
FLANGED GUIDE BUSHES

20



**B5B**  
BUSSOLA A COLLARE CON FORI DI FISSAGGIO  
ACCIAIO / BRONZO  
FLANGED GUIDE BUSHES, STEEL / BRONZE

21



**CE - CEBT**  
COLONNA ESTRAIBILE  
DEMOUNTABLE GUIDE PILLARS

22



**CEW**  
COLONNA ESTRAIBILE  
DEMOUNTABLE GUIDE PILLARS

23



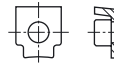
**CIS**  
COLONNA LISCIA CON INVITO  
STRAIGHT GUIDE PILLAR

23



**RTE**  
RONDELLA PER COLONNA CE  
WASHERS FOR PILLAR CE

24



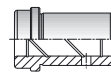
**STAFF**  
STAFFETTE DI RITEGNO  
RETAINING CLAMPS

25



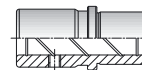
**VITI**  
VITI PER STAFFETTE  
SCREWS FOR CLAMPS

25



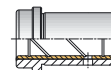
**BE (C - XM)**  
BUSSOLA ESTRAIBILE  
GUIDE BUSHES WITH SHOULDER

26



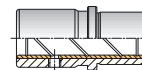
**BE (M - L - XL)**  
BUSSOLA ESTRAIBILE  
GUIDE BUSHES WITH SHOULDER

27



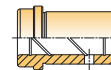
**BEB (C - XM)**  
BUSSOLA ESTRAIBILE ACCIAIO / BRONZO  
GUIDE BUSHES WITH SHOULDER, STEEL / BRONZE

28



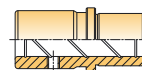
**BEB (M - L - XL)**  
BUSSOLA ESTRAIBILE ACCIAIO / BRONZO  
GUIDE BUSHES WITH SHOULDER, STEEL / BRONZE

29



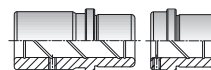
**BBE (C - XM)**  
BUSSOLA ESTRAIBILE BRONZO INTEGRALE  
GUIDE BUSHES WITH SHOULDER, BRONZE

30



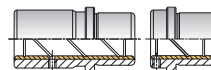
**BBE (M - L - XL)**  
BUSSOLA ESTRAIBILE BRONZO INTEGRALE  
GUIDE BUSHES WITH SHOULDER, BRONZE

31



**BESS**  
BUSSOLA ESTRAIBILE  
GUIDE BUSHES WITH SHOULDER

32



**BEBSS**  
BUSSOLA ESTRAIBILE ACCIAIO / BRONZO  
GUIDE BUSHES WITH SHOULDER, STEEL / BRONZE

33



**VCOL**  
VITI A COLLETTA  
SHOULDER SCREWS

34



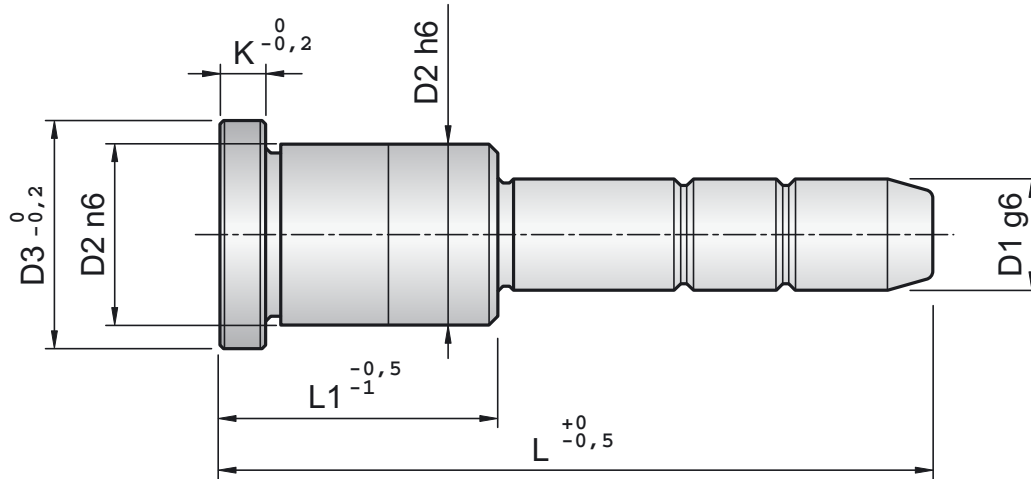
**BARRAT**  
BARRE PER SCORRIMENTO LINEARE  
SHAFTS FOR LINEAR MOTION

35

Materiale: 1.7131  
Material: 1.7131

Trattamento Termico:  
Cementazione + Tempra  
Heat Treatment: Cementing

Durezza: Hrc 61+63  
Hardness: Hrc 61+63



D1	D2	D3	K	L1	50	60	70	80	90	100	120	140	160	180	200	220	240	260	280	300	340				
12	18	22	5	22	★	★	★	★	★	★															
				26	★	★	★	★	★	★															
				36	★	★	★	★	★	★	★	★													
				46			★	★	★	★	★	★	★												
				56							★	★	★												
14	20	24	5	22	★	★	★	★	★	★															
				26		★	★	★	★	★	★	★													
				36			★	★	★	★	★	★	★												
				46			★	★	★	★	★	★	★												
				56							★	★	★	★											
16	22	26	5	22	★	★	★	★	★	★	★														
				26	★	★	★	★	★	★	★	★	★												
				36		★	★	★	★	★	★	★	★	★											
				46			★	★	★	★	★	★	★	★											
				56					★	★	★	★	★	★	★	★	★	★							
				66								★	★	★	★	★	★	★	★						
				76									★	★	★	★	★	★	★						
96										★	★	★	★	★	★										
18	26	30	5	26		★	★	★	★	★	★														
				36		★	★	★	★	★	★	★	★												
				46			★	★	★	★	★	★	★	★											
				56				★	★	★	★	★	★	★	★	★	★								
				66								★	★	★	★	★	★	★							
20	28	32	6	26		★	★	★	★	★	★	★													
				36		★	★	★	★	★	★	★	★	★											
				46			★	★	★	★	★	★	★	★	★										
				56				★	★	★	★	★	★	★	★	★	★	★							
				66								★	★	★	★	★	★	★	★						
				76									★	★	★	★	★	★	★						
				86										★	★	★	★	★	★						
96											★	★	★	★	★										

● a richiesta    □ in esaurimento  
● on request    □ in exhaustion

ESEMPIO DI ORDINAZIONE C1 D1xL1xL  
EXAMPLE OF ORDER C1 D1xL1xL

ESEGUIAMO PARTICOLARI A DISEGNO - WE PRODUCE PARTS ON DRAWING ON REQUEST

Materiale: 1.7131

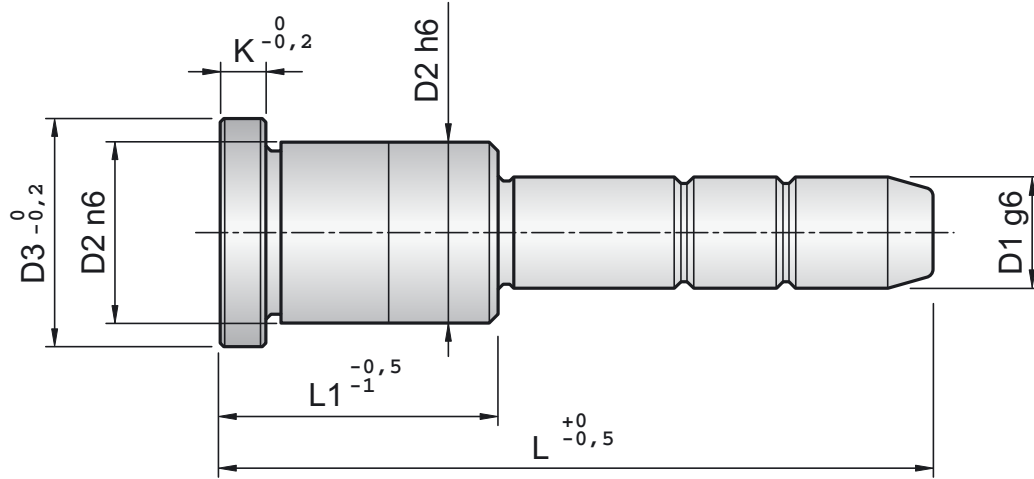
Material: 1.7131

Trattamento Termico:  
Cementazione + Tempra

Heat Treatment: Cementing

Durezza: Hrc 61+ 63

Hardness: Hrc 61+ 63



D1	D2	D3	K	L1	60	70	80	90	100	120	140	160	180	200	220	240	260	280	300	340	400					
25	34	38	7	26			★	★	★																	
				36			★	★	★	★	★	★	★													
				46				★	★	★	★	★	★	★	★	★										
				56							★	★	★	★	★	★	★	★	★							
				66								★	★	★	★	★	★	★	★	★	★					
				76									★	★	★	★	★	★	★	★	★					
				86										★	★	★	★	★	★	★	★	★				
				96											★	★	★	★	★	★	★	★	★			
				116											★	★	★	★	★	★	★	★	★			
32	40	45	7	36					★	★																
				46					★	★	★	★														
				56						★	★	★	★	★	★	★	★	★								
				66							★	★	★	★	★	★	★	★	★	★	★					
				76									★	★	★	★	★	★	★	★	★					
				86										★	★	★	★	★	★	★	★	★				
				96											★	★	★	★	★	★	★	★	★	★		
				106											★	★	★	★	★	★	★	★	★	★	★	
				116											★	★	★	★	★	★	★	★	★	★	★	★
				146												★	★	★	★	★	★	★	★	★	★	★
40	48	52	8	46						★	★	★	★	★												
				56						★	★	★	★	★	★											
				66									★	★	★	★	★	★								
				76										★	★	★	★	★	★	★						
				86										★	★	★	★	★	★	★	★					
				96											★	★	★	★	★	★	★	★	★	★		
				106											★	★	★	★	★	★	★	★	★	★		
				116											★	★	★	★	★	★	★	★	★	★	★	★
				146												★	★	★	★	★	★	★	★	★	★	★
50	60	65	10	96									★	★	★	★	★	★	★	★	★	★				
				126													★	★	★	★	★	★	★	★		
				146														★	★	★	★	★	★	★	★	

● a richiesta    □ in esaurimento  
● on request    □ in exhaustion

ESEMPIO DI ORDINAZIONE C1 D1xL1xL  
EXAMPLE OF ORDER C1 D1xL1xL

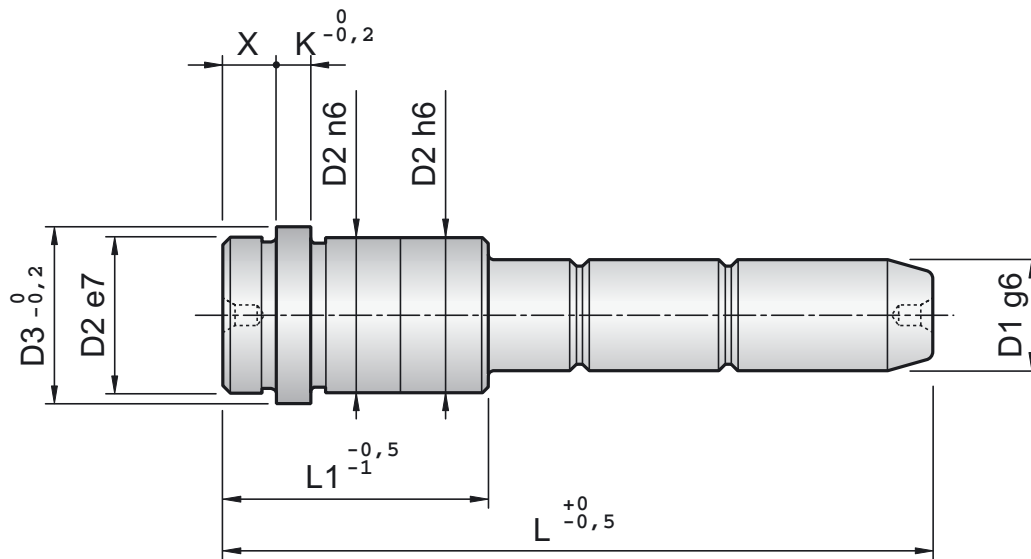
ESEGUIAMO PARTICOLARI A DISEGNO - WE PRODUCE PARTS ON DRAWING ON REQUEST

Materiale: 1.7131

Material: 1.7131

Trattamento Termico:  
Cementazione + Tempra  
Heat Treatment: Cementing

Durezza: Hrc 61+ 63  
Hardness: Hrc 61+ 63



D1	D2	D3	K	X	L1	L=lunghezza totale							
						80	90	110	130	150	170	190	210
16	22	26	5	10	36	★	★	★	★				
					46		★	★	★	★			
					56			★	★	★	★		
					66			★	★	★	★		
					76				★	★	★	★	
					86					★	★	★	★
20	28	32	6	10	46	★	★	★	★	★			
					56		★	★	★	★			
					66			★	★	★	★		
					76				★	★	★		
					86					★	★	★	
					106					★	★	★	★
25	34	38	7	10	46		★	★	★	★			
					56		★	★	★	★			
					66			★	★	★	★		
					76				★	★	★	★	
					86					★	★	★	
					106					★	★	★	★
32	40	45	7	10	46			★	★	★			
					56			★	★	★	★		
					66			★	★	★	★	★	
					76				★	★	★	★	
					86					★	★	★	
					106						★	★	★
40	48	52	8	10	56				★	★			
					66				★	★	★		
					76					★	★	★	
					86					★	★	★	
					106						★	★	

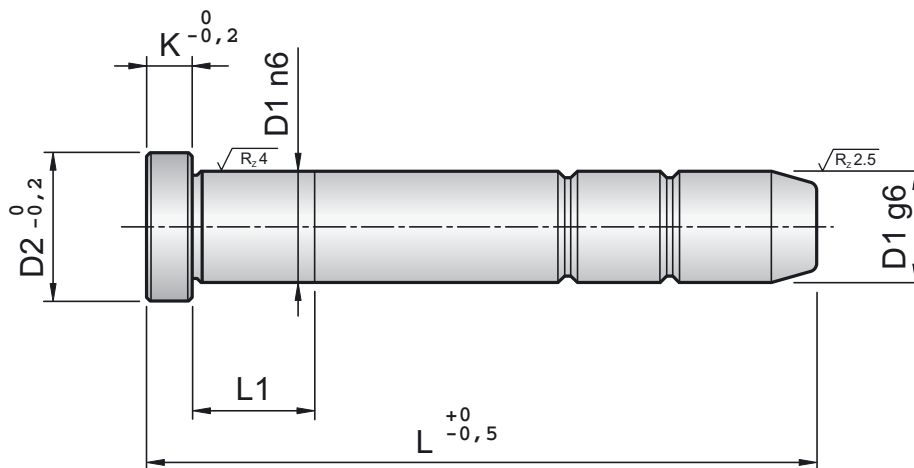
● a richiesta  
● on request

ESEMPIO DI ORDINAZIONE C1S D1xL1xL  
EXAMPLE OF ORDER C1S D1xL1xL

Materiale: 1.7131  
Material: 1.7131

Trattamento Termico:  
Cementazione + Tempra  
Heat Treatment: Cementing

Durezza: Hrc 61+ 63  
Hardness: Hrc 61+ 63



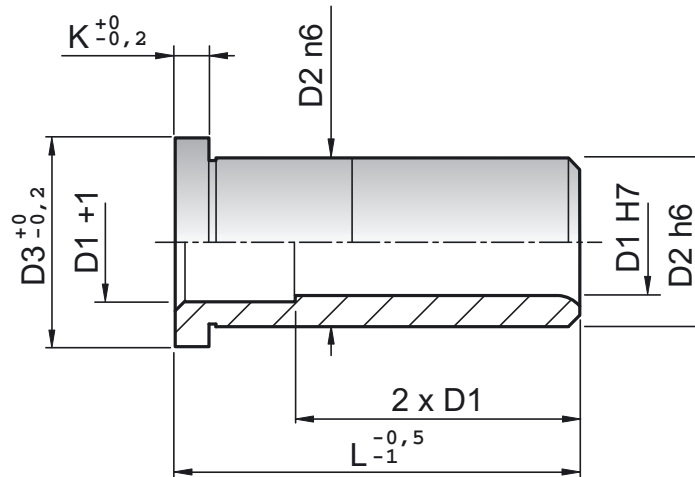
D1		12	14	16	18	20	25	32	40	50	60
D2		16	18	20	22	24	30	37	45	55	68
K		5	5	5	5	6	7	7	8	10	12
L	L1										
50	8	★	★	★	★						
60	8	★	★	★	★	★					
70	8	★	★	★	★	★					
80	15	★	★	★	★	★	★				
90	15	★	★	★	★	★	★				
100	20	★	★	★	★	★	★				
110	20		★	★	★	★					
120	20	★	★	★	★	★	★	★	★		
130	20		★	★	★	★					
140	20	★	★	★	★	★	★	★	★		
150	20		★	★	★	★					
160	20	★	★	★	★	★	★	★	★		
180	25		★	★	★	★	★	★	★		
200	25			★	★	★	★	★	★		
220	25			★	★	★	★	★	★		
240	35					★	★	★	★	★	
260	35					★	★	★	★	★	
280	35					★	★	★	★	★	
300	45					★	★	★	★	★	
350	55						★	★	★	★	★
400	55						★	★	★	★	★
450	65							★	★	★	★
500	65								★	★	★
600	75									★	★
800	75										★

ESEMPIO DI ORDINAZIONE C2 D1xL  
EXEMPLE OF ORDER C2 D1xL

Materiale: 1.7131  
Material: 1.7131

Trattamento Termico:  
Cementazione + Tempra  
Heat Treatment: Cementing

Durezza: Hrc 61+63  
Hardness: Hrc 61+63

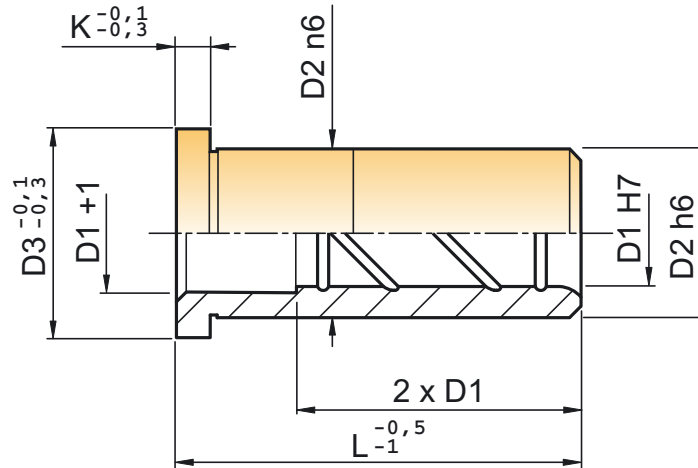


D1	12	14	16	18	20	25	32	40	50	60		
D2	18	20	22	26	28	30 <sup>●</sup>	34	36 <sup>●</sup>	40	48	60	74
D3	22	24	26	30	32	34 <sup>●</sup>	38	40 <sup>●</sup>	45	52	65	84
K	5	5	5	5	6	7	7	8	10	12		
L	22	★	★	★	★	★						
	26	★	★	★	★	★	★	★				
	36	★	★	★	★	★	★	★	★			
	46	★	★	★	★	★	★	★	★			
	56	★	★	★	★	★	★	★	★			
	66		★	★	★	★	★	★	★			
	76			★	★	★	★	★	★	★		
	86			★	★	★	★	★	★	★		
	96			★	★	★	★	★	★	★	★	
	106					★	★	★	★	★	★	
	116					★	★	★	★	★	★	
	126					★	★	★	★	★	★	
	136							★	★	★		
	146							★	★	★	★	
	156									★	★	
176										★		
196											★	

● a richiesta  
● on request

ESEMPIO DI ORDINAZIONE B1 D1xL  
EXEMPLE OF ORDER B1 D1xL

Materiale: Bronzo  
Material: Bronze



D1	16	20	25	32	40	50	60	
D2	22	28 30 <sup>●</sup>	34 36 <sup>●</sup>	40	48	60	74	
D3	26	32 34 <sup>●</sup>	38 40 <sup>●</sup>	45	52	65	84	
K	5	6	7	7	8	10	12	
L	22	★	★					
	26	★	★	★	★			
	36	★	★	★	★	★		
	46	★	★	★	★	★		
	56	★	★	★	★	★		
	66	★	★	★	★	★		
	76	★	★	★	★	★	★	
	86	★	★	★	★	★	★	
	96	★	★	★	★	★	★	★
	106		★	★	★	★	★	★
	116		★	★	★	★	★	★
	126		★	★	★	★	★	★
	136				★	★	★	
	146				★	★	★	★
156						★	★	
176							★	
196							★	

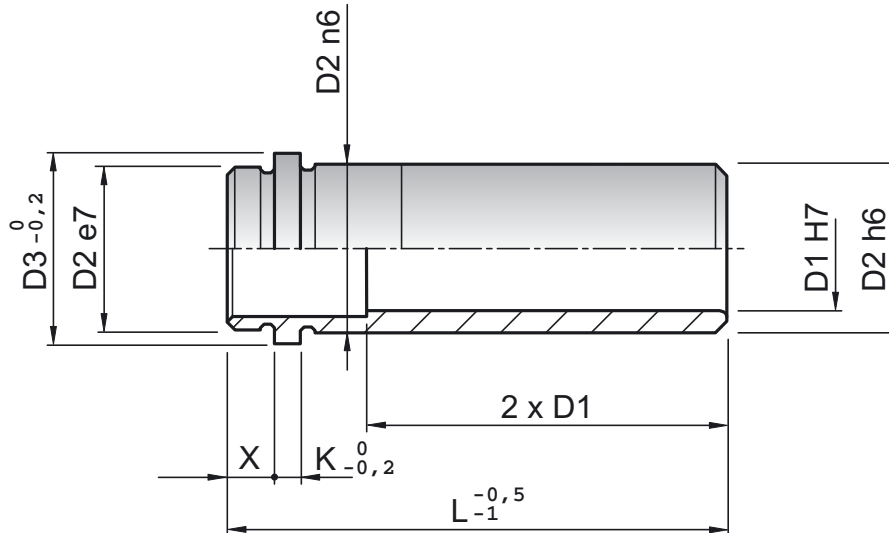
● a richiesta  
● on request

ESEMPIO DI ORDINAZIONE B1B D1xL  
EXAMPLE OF ORDER B1B D1xL

Materiale: 1.7131  
Material: 1.7131

Trattamento Termico:  
Cementazione + Tempra  
Heat Treatment: Cementing

Durezza: Hrc 61+63  
Hardness: Hrc 61+63



D1	D2	D3	K	X	L=lunghezza totale									
					26	36	46	56	66	76	86	96	106	124
16	22	26	5	10	★	★	★	★	★	★	★	★	★	
20	28	32	6	10	★	★	★	★	★	★	★	★	★	★
	30 <sup>●</sup>	34 <sup>●</sup>												
25	34	38	7	10			★	★	★	★	★	★	★	★
	36 <sup>●</sup>	40 <sup>●</sup>												
32	40	45	7	10			★	★	★	★	★	★	★	★
40	48	52	8	10				★	★	★	★	★	★	★

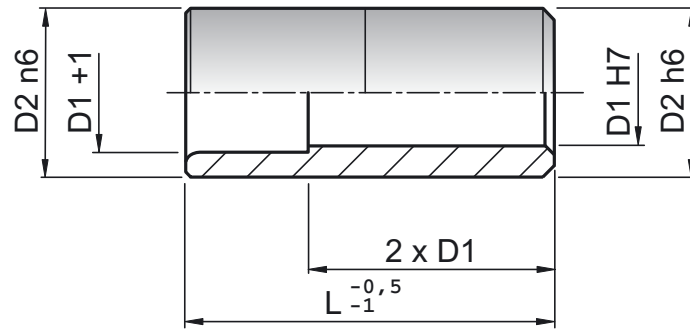
● a richiesta  
● on request

ESEMPIO DI ORDINAZIONE B1S D1xL  
EXAMPLE OF ORDER B1S D1xL

Materiale: 1.7131  
Material: 1.7131

Trattamento Termico:  
Cementazione + Tempra  
Heat Treatment: Cementing

Durezza: Hrc 61+63  
Hardness: Hrc 61+63



D1	12	14	16	18	20	25	32	40		
D2	18	20	22	26	28	30 <sup>●</sup>	34	36 <sup>●</sup>	40	48
L	22	★	★	★	★					
	26	★	★	★	★	★	★	★		
	36	★	★	★	★	★	★	★		
	46	★	★	★	★	★	★	★	★	
	56	★	★	★	★	★	★	★	★	
	66		★	★	★	★	★	★	★	
	76			★	★	★	★	★	★	
	86			★	★	★	★	★	★	
	96			★	★	★	★	★	★	
	106						★	★	★	
	116						★	★	★	
	126									
	136									
	146									
	156									
176										
196										

● a richiesta  
● on request

ESEMPIO DI ORDINAZIONE B2 D1xL  
EXAMPLE OF ORDER B2 D1xL

Materiale: 1.7131

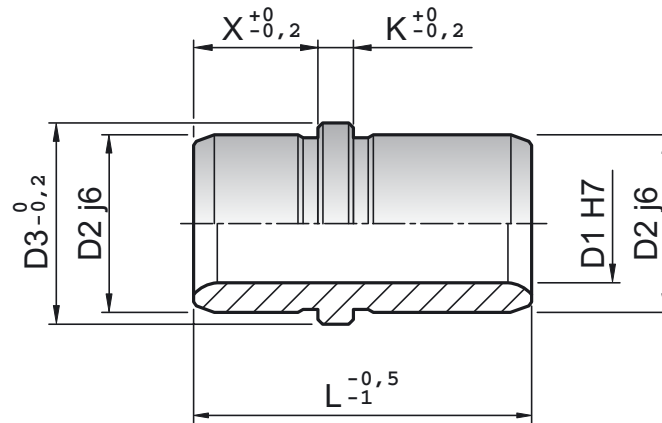
Material: 1.7131

Trattamento Termico:  
Cementazione + Tempra

Heat Treatment: Cementing

Durezza: Hrc 61+63

Hardness: Hrc 61+63

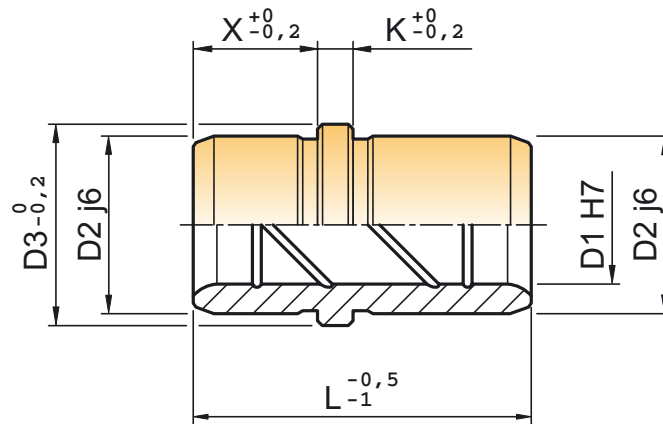


D1	D2	D3	X	K	L	
12	18	22	16	5	32	40
14	20	24	16	5	32	40
16	22	26	16	5	32	40
18	26	30	16	5	32	40
20	28	32	16	6	32	40
	30 <sup>●</sup>	34 <sup>●</sup>				
25	34	38	16	7	32	40
	36 <sup>●</sup>	40 <sup>●</sup>				
32	40	45	25	7	50	65
40	48	52	32	8	65	80
50	60	65	32	10	70	90

● a richiesta  
● on request

ESEMPIO DI ORDINAZIONE B3 D1xL  
EXAMPLE OF ORDER B3 D1xL

Materiale: Bronzo  
Material: Bronze



D1	D2	D3	X	K	L	
12	18	22	16	5	32	40
14	20	24	16	5	32	40
16	22	26	16	5	32	40
18	26	30	16	5	32	40
20	28	32	16	6	32	40
	30 <sup>●</sup>	34 <sup>●</sup>				
25	34	38	16	7	32	40
	36 <sup>●</sup>	40 <sup>●</sup>				
32	40	45	25	7	50	65
40	48	52	32	8	65	80
50	60	65	32	10	70	90

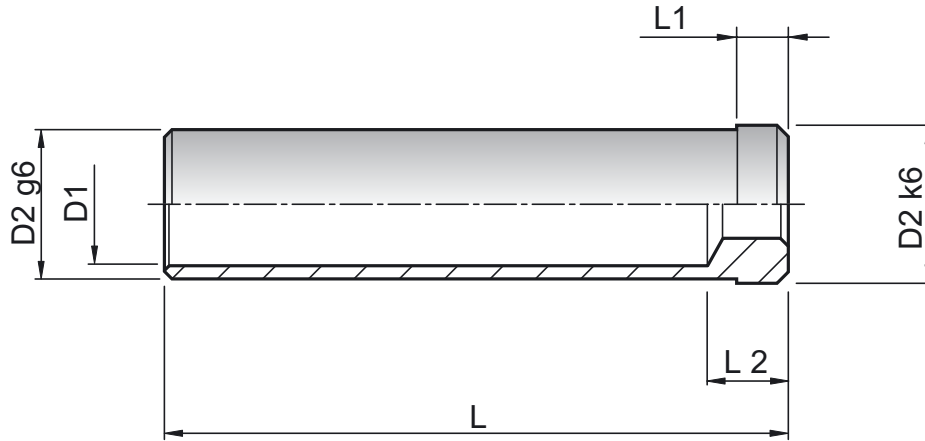
● a richiesta  
● on request

ESEMPIO DI ORDINAZIONE B3B D1xL  
EXAMPLE OF ORDER B3B D1xL

Materiale: 1.7131  
Material: 1.7131

Trattamento Termico:  
Cementazione + Tempra  
Heat Treatment: Cementing

Durezza: Hrc 61+63  
Hardness: Hrc 61+63

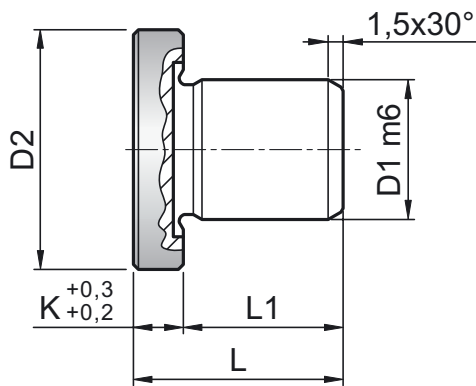


D2	D1	L2	L1	L						
				40	60	80	100	120	140	160
22	17	13	6	★	★	★	★	★	★	★
28	21	13	6		★	★	★	★	★	★
30 <sup>●</sup>	25	13	6		★	★	★	★	★	★
34 36 <sup>●</sup>	26	13	6		★	★	★	★	★	★
40	33	13	6		★	★	★	★	★	★

● a richiesta  
● on request

ESEMPIO DI ORDINAZIONE BC D2xL  
EXEMPLE OF ORDER BC D2xL





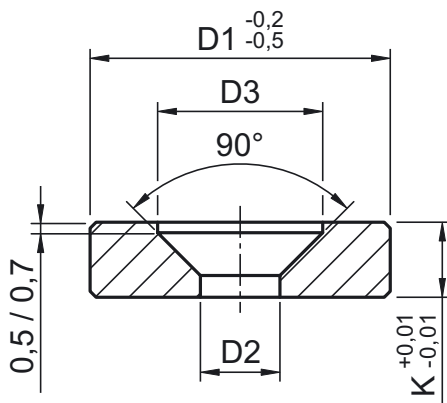
Materiale: 11 S Mn Pb 37  
Material: 11 S Mn Pb 37

Trattamento Termico:  
Cementazione + Tempra  
Heat Treatment: Cementing

Durezza: Hrc 58 + 60  
Hardness: Hrc 58 + 60

D1	D2	K	L
8	18	5	21
14	24	5	21

ESEMPIO DI ORDINAZIONE AT D1  
EXEMPLE OF ORDER AT D1



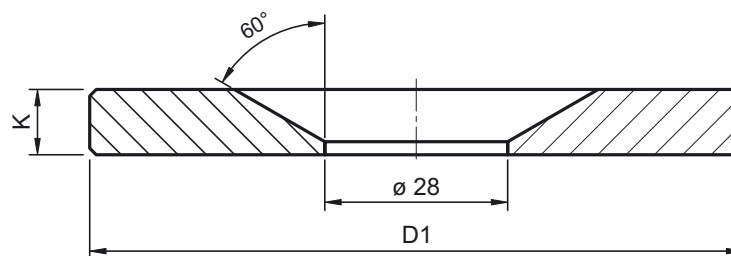
Materiale: 1.7131  
Material: 1.7131

Trattamento Termico:  
Cementazione + Tempra  
Heat Treatment: Cementing

Durezza: Hrc 61+63  
Hardness: Hrc 61+63

D1	D2	K
18	4,3	3
20	5,3	5

ESEMPIO DI ORDINAZIONE ATF D1  
EXEMPLE OF ORDER ATF D1



Materiale: 1.7131  
Material: 1.7131

DIAMETRO D1	60	70	80	90	100	125	150	175
K	10	10	10	10	10	10	10	10

ESEMPIO DI ORDINAZIONE AC D1  
EXEMPLE OF ORDER AC D1

Materiale: 1.7131

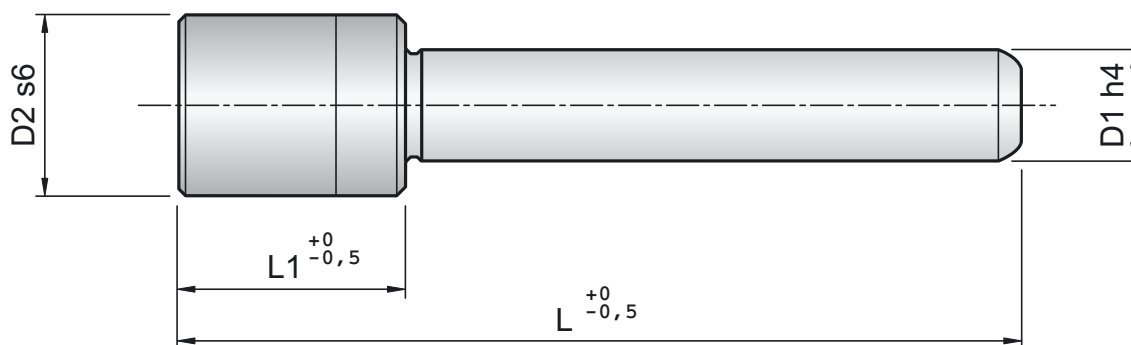
Material: 1.7131

Trattamento Termico:  
Cementazione + Tempra

Heat Treatment: Cementing

Durezza: Hrc 61+63

Hardness: Hrc 61+63



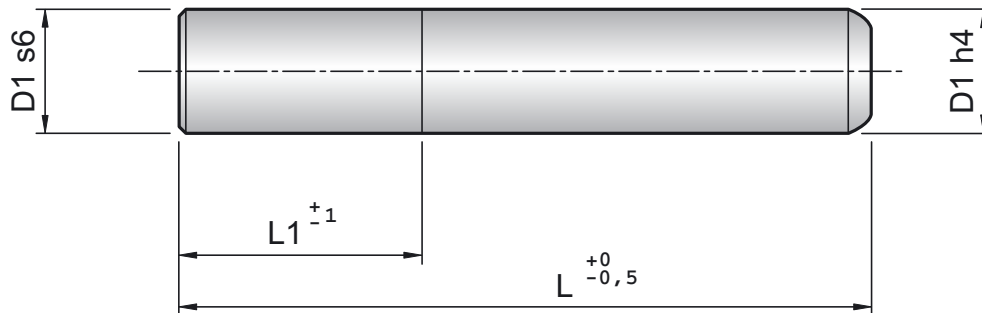
D1	D2	L1	85	95	105	115	125	135	145	155	170	185	200	225	250	275	300	325	350	400
15-16	26	30	★	★	★	★	★	★	★	★										
17-18	28	30	★	★	★	★														
		35					★	★	★	★	★	★	★							
19-20	30	30	★	★	★															
		35				★	★	★	★	★	★	★	★							
24-25	36	35				★	★	★												
		40							★	★	★	★	★	★	★					
30-31	45	40				★	★	★	★	★										
		45									★	★	★	★	★	★	★	★		
40-41	55	60							★	★										
		70									★	★	★	★	★	★	★	★	★	★
50-51	70	70									★	★	★	★	★	★	★	★	★	★

ESEMPIO DI ORDINAZIONE C3 D1xL  
EXEMPLE OF ORDER C3 D1xL

Materiale: 1.7131  
Material: 1.7131

Trattamento Termico:  
Cementazione + Tempra  
Heat Treatment: Cementing

Durezza: Hrc 61+63  
Hardness: Hrc 61+63



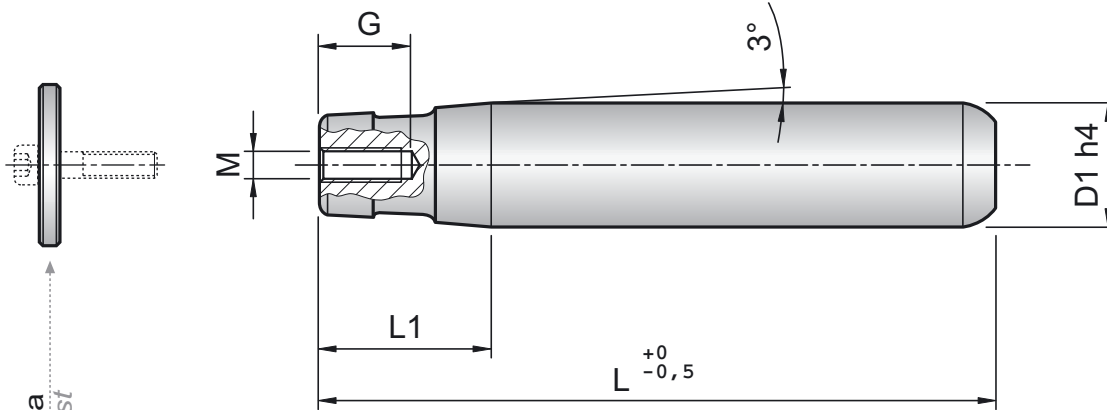
D1	L1	85	95	105	115	125	135	145	155	170	185	200	225	250	275	300	325	350	400
15-16	16	★	★	★	★	★	★	★	★										
17-18	18	★	★	★	★														
	18					★	★	★	★	★	★	★							
19-20	20	★	★	★															
	20				★	★	★	★	★	★	★	★							
24-25	25				★	★	★												
	25							★	★	★	★	★	★	★					
30-31	30				★	★	★	★	★										
	30									★	★	★	★	★	★	★			
40-41	40							★	★	★	★	★							
	40												★	★	★	★	★	★	★
50-51	50									★	★	★	★	★	★	★	★	★	★
63	63													★	★	★		★	★

ESEMPIO DI ORDINAZIONE C4 D1xL  
EXEMPLE OF ORDER C4 D1xL

Materiale: 1.7131  
Material: 1.7131

Trattamento Termico:  
Cementazione + Tempra  
Heat Treatment: Cementing

Durezza: Hrc 61+63  
Hardness: Hrc 61+63



Rondella a richiesta  
Washers on request

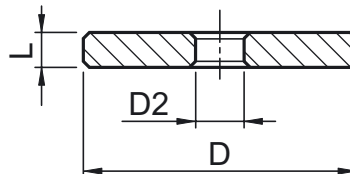
D1	L1	G	M	115	135	155	170	185	200	225	250	300	400
24-25	48	20	8	★	★	★	★	★	★				
30-31	57	20	8		★	★	★	★	★	★	★	★	
40-41	63	25	10				★	★	★	★	★	★	★
50-51	80	25	10					★	★	★	★	★	★
63	86	25	10						★	★	★	★	★

ESEMPIO DI ORDINAZIONE C5 D1xL  
EXEMPLE OF ORDER C5 D1xL

Materiale: 1.7131  
Material: 1.7131

Trattamento Termico:  
Cementazione + Tempra  
Heat Treatment: Cementing

Durezza: Hrc 61+63  
Hardness: Hrc 61+63



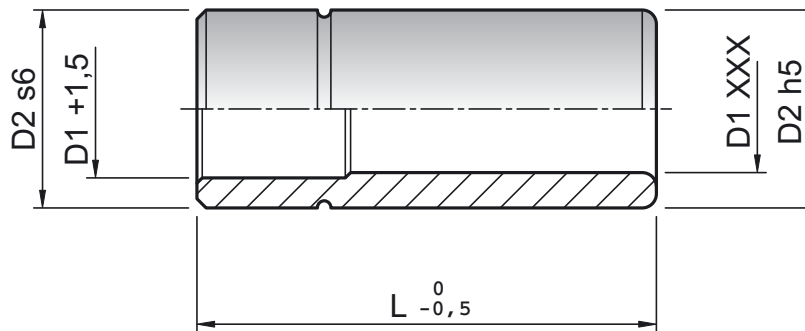
abbinare a Colonna C5	D	D2	L
24 - 25	28	8,7	6
30 - 31	36	8,7	6
40 - 41	43	10,7	8
50 - 51	53	10,7	8
63	70	10,7	8

ESEMPIO DI ORDINAZIONE RON D  
EXEMPLE OF ORDER RON D

Materiale: 1.7131  
Material: 1.7131

Trattamento Termico:  
Cementazione + Tempra  
Heat Treatment: Cementing

Durezza: Hrc 61+63  
Hardness: Hrc 61+63



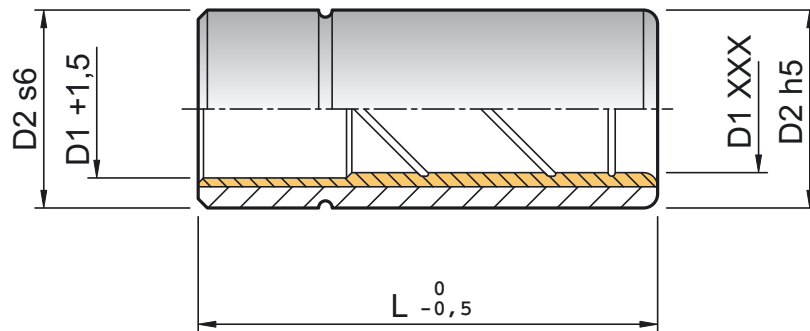
XXX	D1	D2	L	
			normale	corta
+ 0,006 + 0,010	15-16	26	50	35
	17-18	28	55	45
	19-20	30	60	45
	24-25	36	70	50
+ 0,008 + 0,012	30-31	45	80	55
	40-41	55	100	60
	50-51	70	100	60
	63	85	100	/

ESEMPIO DI ORDINAZIONE B4 D1xL  
EXEMPLE OF ORDER B4 D1xL

Materiale: 1.7131 + Bronzo  
Material: 1.7131 + Bronze

Trattamento Termico Acciaio:  
Cementazione + Tempra  
Heat Treatment Steel: Cementing

Durezza Acciaio: Hrc 61+63  
Hardness Steel: Hrc 61+63



XXX	D1	D2	L	
			normale	corta
+ 0,006 + 0,010	15-16	26	50	35
	17-18	28	55	45
	19-20	30	60	45
	24-25	36	70	50
+ 0,008 + 0,012	30-31	45	80	55
	40-41	55	100	60
	50-51	70	100	60
	63	85	100	/

ESEMPIO DI ORDINAZIONE B4B D1xL  
EXEMPLE OF ORDER B4B D1xL

Materiale: 1.7131

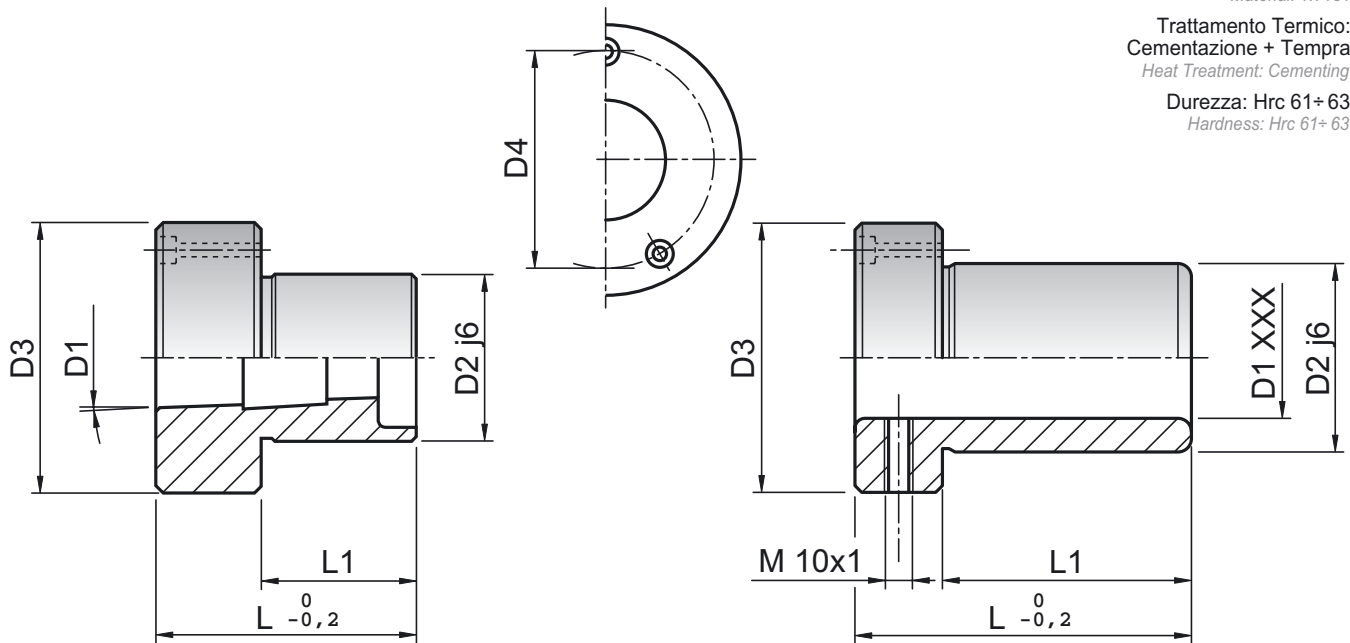
Material: 1.7131

Trattamento Termico:  
Cementazione + Tempra

Heat Treatment: Cementing

Durezza: Hrc 61+63

Hardness: Hrc 61+63



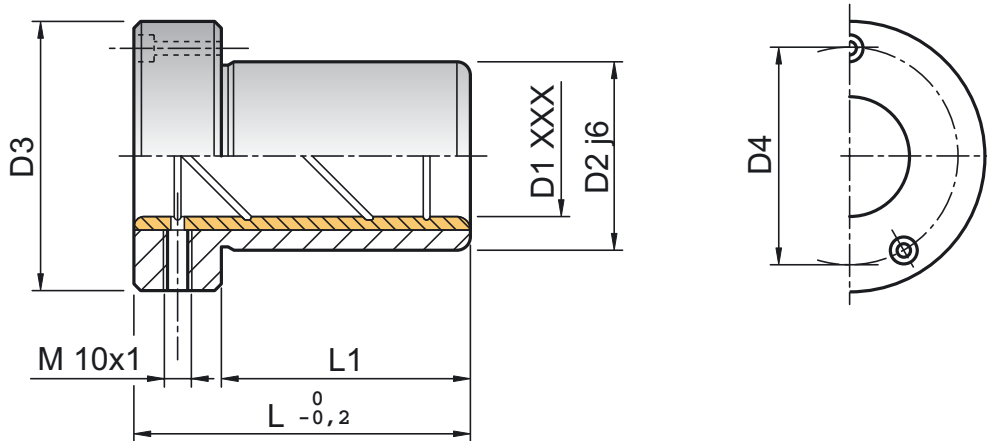
XXX	D1	D2	D3	D4	L1	L	VITI
+ 0,008 + 0,012	24-25	40	63	50	43	63	M5
	30-31	48	72	58	47	72	M5
	40-41	58	83	70	52	80	M6
	50-51	70	103	86	58	100	M8
	63	85	120	100	57	99	M8

ESEMPIO DI ORDINAZIONE B5 D1 (Cilindrico) - B5 D1 C (Conico)  
EXEMPLE OF ORDER B5 D1 (Cylindrical) - B5 D1 C (Conical)

Materiale: 1.7131 + Bronzo  
 Material: 1.7131 + Bronze

Trattamento Termico Acciaio:  
 Cementazione + Tempra  
 Heat Treatment Steel: Cementing

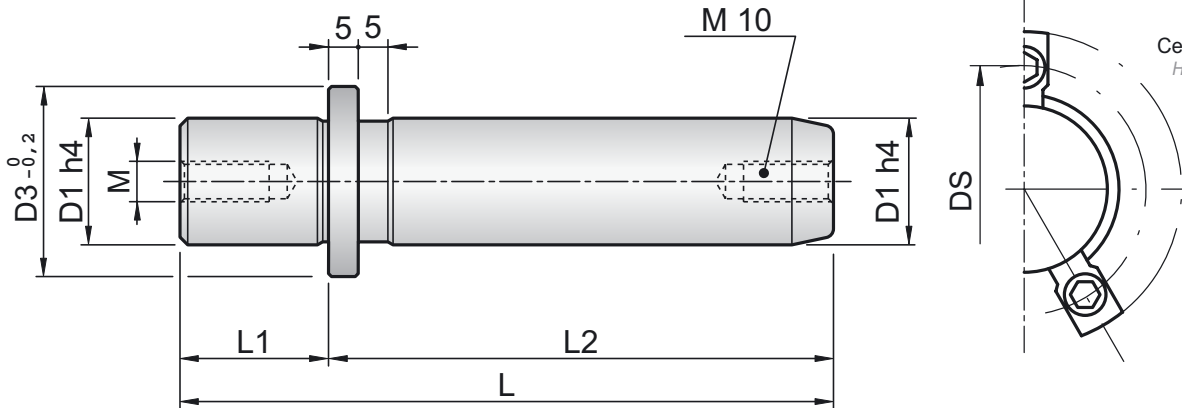
Durezza Acciaio: Hrc 61+63  
 Hardness Steel: Hrc 61+63



XXX	D1	D2	D3	D4	L1	L	VITI
	24-25	40	63	50	43	63	M5
	30-31	48	72	58	47	72	M5
	40-41	58	83	70	52	80	M6
+ 0,008 + 0,012	50-51	70	103	86	58	100	M8
	63	85	120	100	57	99	M8

**ESEMPIO DI ORDINAZIONE B5B D1**  
*EXEMPLE OF ORDER B5B D1*





Materiale: 1.7131  
Material: 1.7131

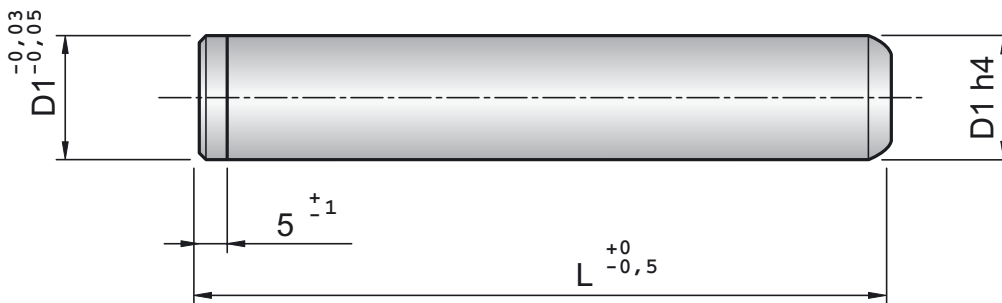
Trattamento Termico:  
Cementazione + Tempra  
Heat Treatment: Cementing

Durezza: Hrc 61+63  
Hardness: Hrc 61+63

D1	D3	M	DS	STAF	L1	L2																						
						100	110	120	130	140	150	160	170	180	200	220	240	260	280	300	320	360	400					
80	93	12	103	M8	59											★	★	★	★	★	★	★	★	★	★	★	★	★

ESEMPIO DI ORDINAZIONE CEW D1xL2  
EXAMPLE OF ORDER CEW D1xL2

STAFFETTE E VITI A RICHIESTA  
CLAMPS AND SCREWS ON REQUEST



Materiale: 1.7131  
Material: 1.7131

Trattamento Termico:  
Cementazione + Tempra  
Heat Treatment: Cementing

Durezza: Hrc 61+63  
Hardness: Hrc 61+63

D1	L																						
	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280	300	320	350	360	400	
18-19	★	★	★	★	★	★	★	★	★														
24-25			★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★					
30-32			★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★					
40-42						★	★	★	★	★	★	★	★	★	★	★	★	★	★	★			★
50-52							★	★	★	★	★	★	★	★	★	★	★	★	★	★			★
63									★		★		★		★		★	★	★			★	★
80																	★	★	★			★	★

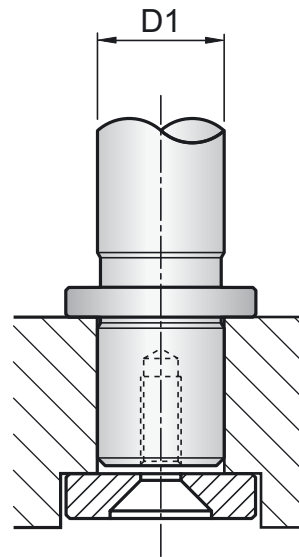
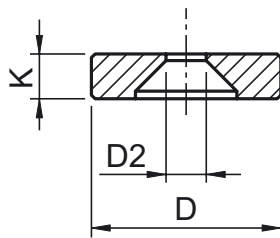
ESEMPIO DI ORDINAZIONE CIS D1xL  
EXAMPLE OF ORDER CIS D1xL

ESEGUIAMO PARTICOLARI A DISEGNO - WE PRODUCE PARTS ON DRAWING ON REQUEST

Materiale: 16 Cr Ni 4  
Material: 16 Cr Ni 4

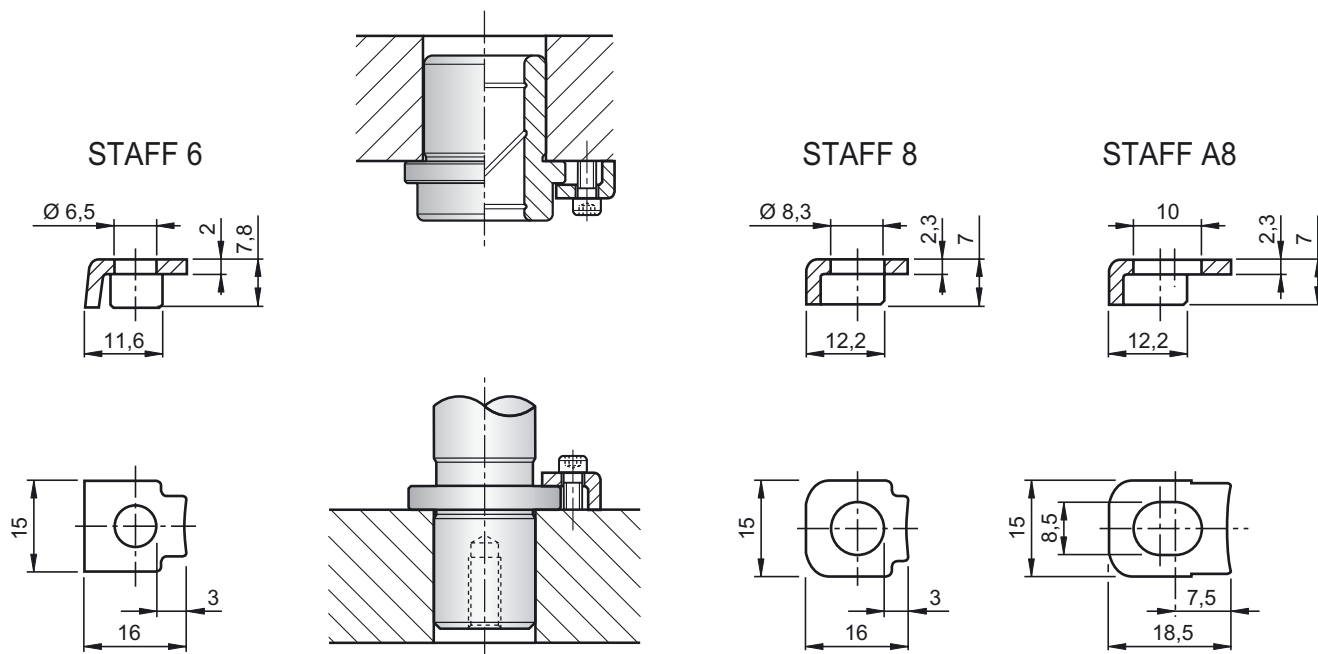
Trattamento Termico:  
Cementazione + Tempra  
Heat Treatment: Cementing

Durezza: Hrc 61+ 63  
Hardness: Hrc 61+ 63



CODICE	D1	D	K	D2
RTE 1	18-19	25	6	9
RTE 2	24-25	32	7	11
RTE 3	30-32	40	7	11
RTE 4	40-42	50	9	13
RTE 5	50-52	62	9	13
RTE 6	63	73	9	13
RTE 7	80	93	12	13

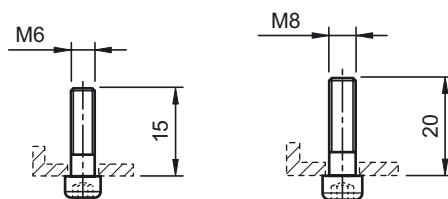
ESEMPIO DI ORDINAZIONE RTE D  
EXEMPLE OF ORDER RTE D



N°3 STAFFETTE / CLAMPS  
N°3 STAFFETTE / CLAMPS

M6 dal / from  $\varnothing$ 18 al / to  $\varnothing$ 25  
M8 dal / from  $\varnothing$ 30 al / to  $\varnothing$ 80

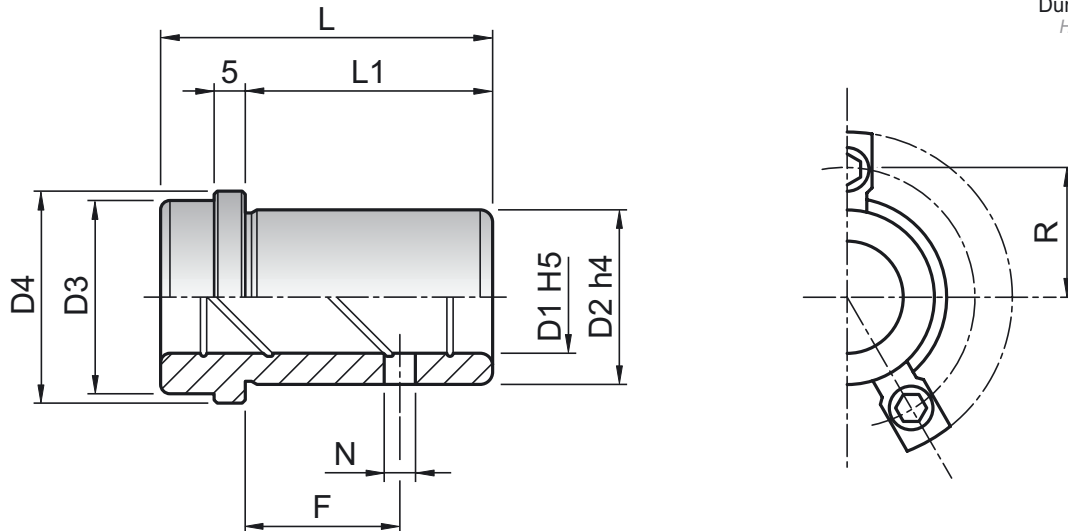
ESEMPIO DI ORDINAZIONE STAFF (6 - 8 - A8)  
EXAMPLE OF ORDER STAFF (6 - 8 - A8)



Materiale: 1.7131  
Material: 1.7131

Trattamento Termico:  
Cementazione + Tempra  
Heat Treatment: Cementing

Durezza: Hrc 61+63  
Hardness: Hrc 61+63



TIPO CORTO - C								
D1	L	D2	D3	D4	L1	R	N	F
18-19	31	28	29	34	18	21	5	8
24-25	36	38	39	44	23	26	5	9
30-32	43	45	48	53	30	31,5	5	11
40-42	51	54	58	63	38	36,5	8	11
50-52	61	65	74	79	48	44,5	8	14
63	74	81	87	92	61	51	8	19

ESEMPIO DI ORDINAZIONE BE D1 C  
STAFFETTE E VITI A RICHIESTA  
EXAMPLE OF ORDER BE D1 C  
CLAMPS AND SCREWS ON REQUEST

TIPO EXTRA MEDIO - XM								
D1	L	D2	D3	D4	L1	R	N	F
18-19	50	28	29	34	37	21	5	8
24-25	55	38	39	44	42	26	5	12
30-32	60	45	48	53	47	31,5	5	16
40-42	67	54	58	63	54	36,5	8	19
50-52	75	65	74	79	62	44,5	8	19
63	90	81	87	92	77	51	8	19

ESEMPIO DI ORDINAZIONE BE D1 XM  
(STAFFETTE E VITI A RICHIESTA)  
EXAMPLE OF ORDER BE D1 XM  
(CLAMPS AND SCREWS ON REQUEST)

Materiale: 1.7131

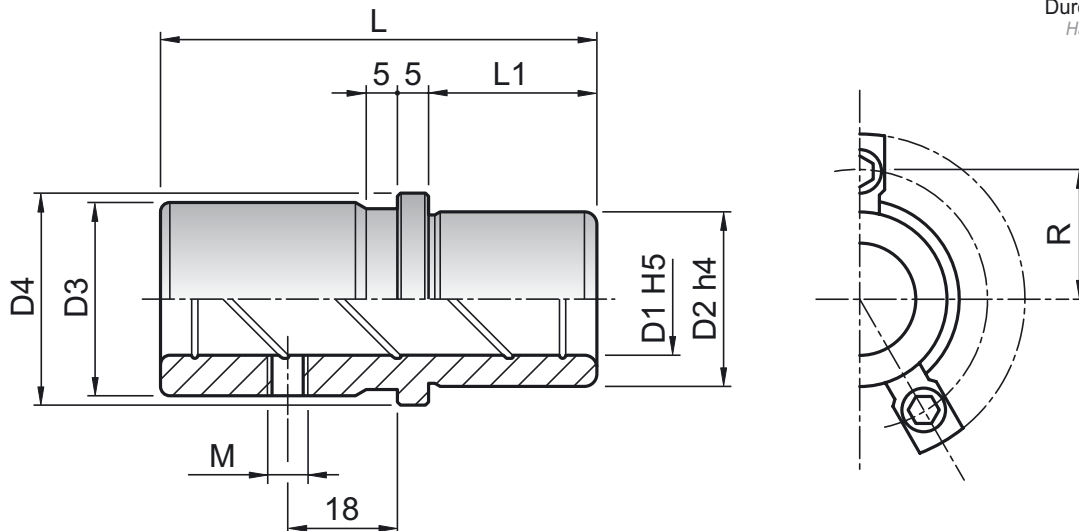
Material: 1.7131

Trattamento Termico:  
Cementazione + Tempra

Heat Treatment: Cementing

Durezza: Hrc 61+63

Hardness: Hrc 61+63



TIPO MEDIO - M							
D1	L	D2	D3	D4	L1	R	M
18-19	50	28	31	34	18	21	6x1
24-25	55	38	41	44	23	26	10x1
30-32	60	45	50	53	26	31,5	10x1
40-42	67	54	60	63	30	36,5	10x1
50-52	75	65	76	79	35	44,5	10x1
63	90	81	89	92	48	51	10x1

ESEMPIO DI ORDINAZIONE BE D1 M  
(STAFFETTE E VITI A RICHIESTA)  
EXAMPLE OF ORDER BE D1 M  
(CLAMPS AND SCREWS ON REQUEST)

TIPO LUNGO - L							
D1	L	D2	D3	D4	L1	R	M
18-19	70	28	31	34	18	21	6x1
24-25	80	38	41	44	23	26	10x1
30-32	90	45	50	53	26	31,5	10x1
40-42	100	54	60	63	30	36,5	10x1
50-52	110	65	76	79	35	44,5	10x1
63	130	81	89	92	48	51	10x1

ESEMPIO DI ORDINAZIONE BE D1 L  
(STAFFETTE E VITI A RICHIESTA)  
EXAMPLE OF ORDER BE D1 L  
(CLAMPS AND SCREWS ON REQUEST)

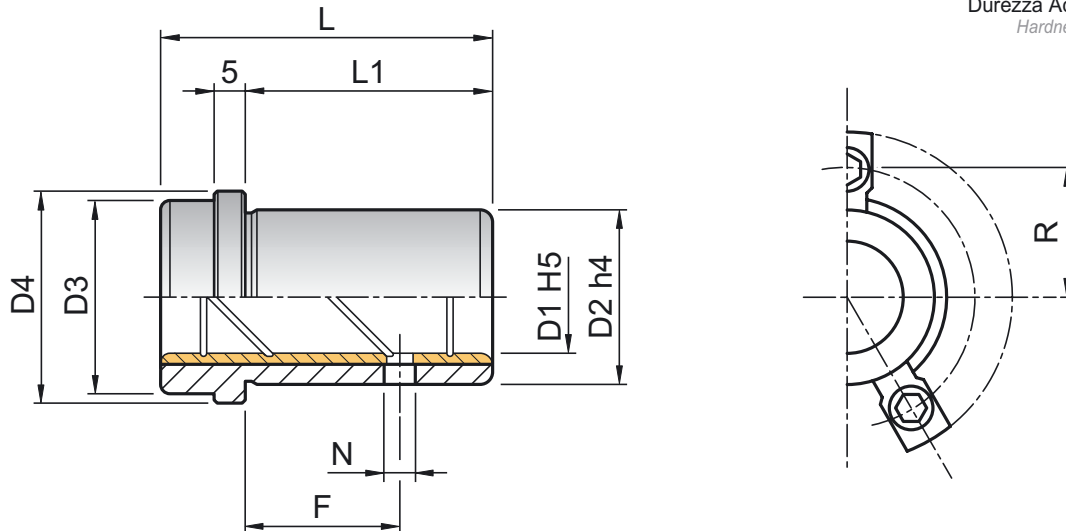
TIPO EXTRA LUNGO - XL							
D1	L	D2	D3	D4	L1	R	M
18-19	70	28	31	34	27	21	6x1
24-25	80	38	41	44	32	26	10x1
30-32	90	45	50	53	37	31,5	10x1
40-42	100	54	60	63	47	36,5	10x1
50-52	110	65	76	79	57	44,5	10x1
63	130	81	89	92	67	51	10x1

ESEMPIO DI ORDINAZIONE BE D1 XL  
(STAFFETTE E VITI A RICHIESTA)  
EXAMPLE OF ORDER BE D1 XL  
(CLAMPS AND SCREWS ON REQUEST)

Materiale: 1.7131 + Bronzo  
Material: 1.7131 + Bronze

Trattamento Termico Acciaio:  
Cementazione + Tempra  
Heat Treatment Steel: Cementing

Durezza Acciaio: Hrc 61+63  
Hardness Steel: Hrc 61+63



TIPO CORTO - C								
D1	L	D2	D3	D4	L1	R	N	F
18-19	31	28	29	34	18	21	5	8
24-25	36	38	39	44	23	26	5	12
30-32	43	45	48	53	30	31,5	5	16
40-42	51	54	58	63	38	36,5	8	19
50-52	61	65	74	79	48	44,5	8	19
63	74	81	87	92	61	51	8	19
80	91	100	106	111	78	60,5	8	19

**ESEMPIO DI ORDINAZIONE BEB D1 C**  
**(STAFFETTE E VITI A RICHIESTA)**  
EXAMPLE OF ORDER BEB D1 C  
(CLAMPS AND SCREWS ON REQUEST)

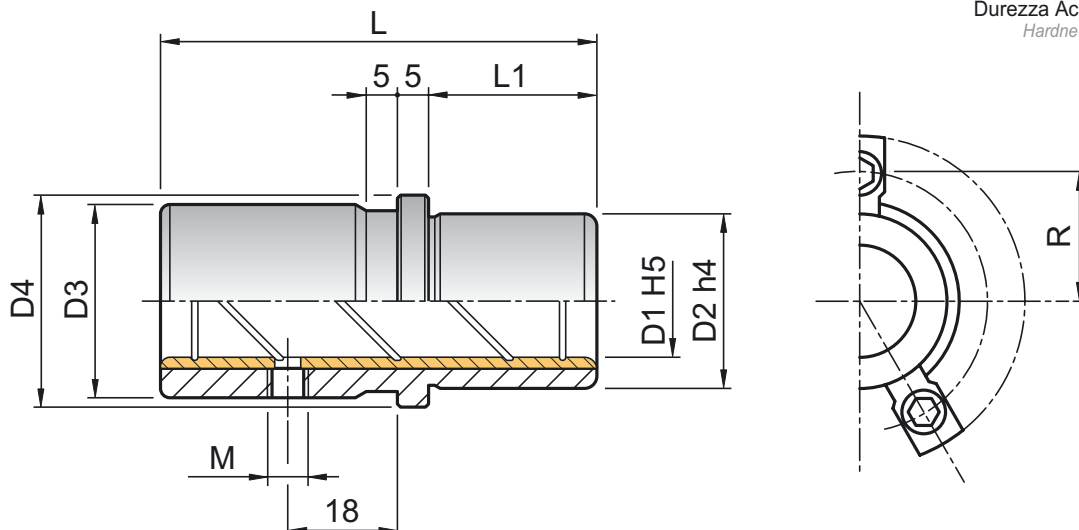
TIPO EXTRA MEDIO - XM								
D1	L	D2	D3	D4	L1	R	N	F
18-19	50	28	29	34	37	21	5	8
24-25	55	38	39	44	42	26	5	12
30-32	60	45	48	53	47	31,5	5	16
40-42	67	54	58	63	54	36,5	8	19
50-52	75	65	74	79	62	44,5	8	19
63	90	81	87	92	77	51	8	19

**ESEMPIO DI ORDINAZIONE BEB D1 XM**  
**(STAFFETTE E VITI A RICHIESTA)**  
EXAMPLE OF ORDER BEB D1 XM  
(CLAMPS AND SCREWS ON REQUEST)

Materiale: 1.7131 + Bronzo  
Material: 1.7131 + Bronze

Trattamento Termico Acciaio:  
Cementazione + Tempra  
Heat Treatment Steel: Cementing

Durezza Acciaio: Hrc 61+63  
Hardness Steel: Hrc 61+63



TIPO MEDIO - M							
D1	L	D2	D3	D4	L1	R	M
18-19	50	28	31	34	18	21	6x1
24-25	55	38	41	44	23	26	10x1
30-32	60	45	50	53	26	31,5	10x1
40-42	67	54	60	63	30	36,5	10x1
50-52	75	65	76	79	35	44,5	10x1
63	90	81	89	92	48	51	10x1
80	100	100	108	111	48	60,5	10x1

ESEMPIO DI ORDINAZIONE BEB D1 M  
(STAFFETTE E VITI A RICHIESTA)  
EXAMPLE OF ORDER BEB D1 M  
(CLAMPS AND SCREWS ON REQUEST)

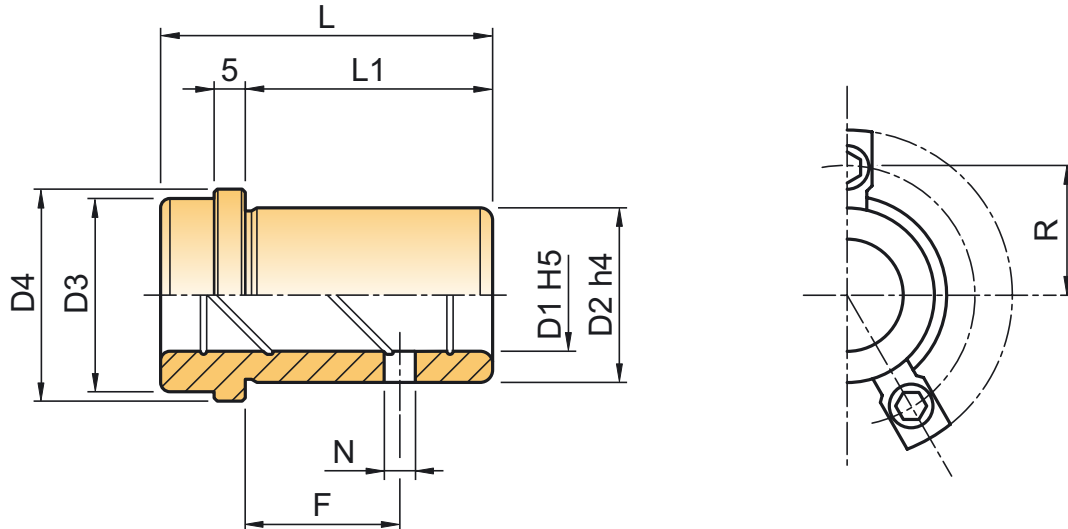
TIPO LUNGO - L							
D1	L	D2	D3	D4	L1	R	M
18-19	70	28	31	34	18	21	6x1
24-25	80	38	41	44	23	26	10x1
30-32	90	45	50	53	26	31,5	10x1
40-42	100	54	60	63	30	36,5	10x1
50-52	110	65	76	79	35	44,5	10x1
63	130	81	89	92	48	51	10x1
80	150	100	108	111	48	60,5	10x1

ESEMPIO DI ORDINAZIONE BEB D1 L  
(STAFFETTE E VITI A RICHIESTA)  
EXAMPLE OF ORDER BEB D1 L  
(CLAMPS AND SCREWS ON REQUEST)

TIPO EXTRA LUNGO - XL							
D1	L	D2	D3	D4	L1	R	M
18-19	70	28	31	34	27	21	6x1
24-25	80	38	41	44	32	26	10x1
30-32	90	45	50	53	37	31,5	10x1
40-42	100	54	60	63	47	36,5	10x1
50-52	110	65	76	79	57	44,5	10x1
63	130	81	89	92	67	51	10x1
80	150	100	108	111	77	60,5	10x1

ESEMPIO DI ORDINAZIONE BEB D1 XL  
(STAFFETTE E VITI A RICHIESTA)  
EXAMPLE OF ORDER BEB D1 XL  
(CLAMPS AND SCREWS ON REQUEST)

Materiale: Bronzo  
Material: Bronze

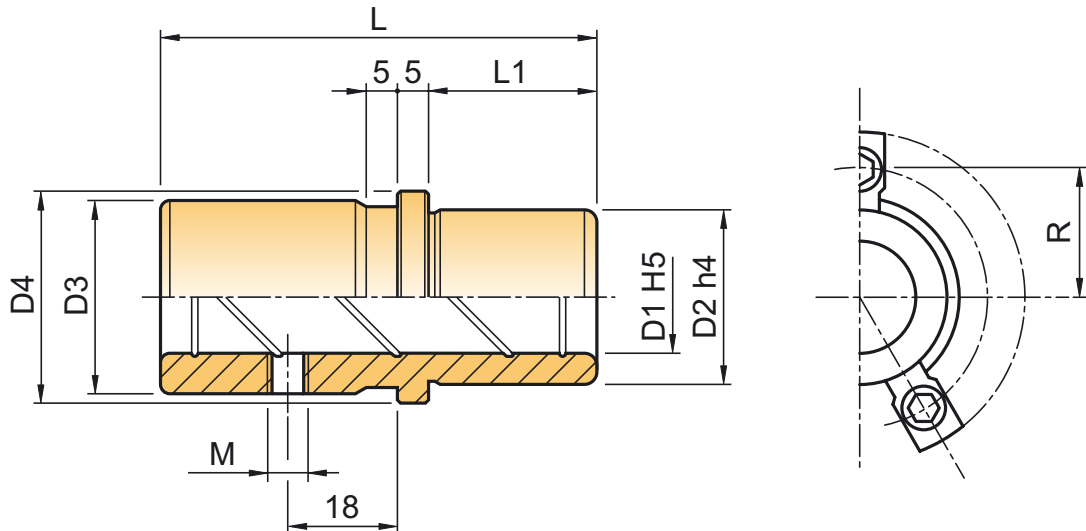


TIPO CORTO - C								
D1	L	D2	D3	D4	L1	R	N	F
18-19	31	28	29	34	18	21	5	8
24-25	36	38	39	44	23	26	5	12
30-32	43	45	48	53	30	31,5	5	16
40-42	51	54	58	63	38	36,5	8	19
50-52	61	65	74	79	48	44,5	8	19
63	74	81	87	92	61	51	8	19
80	91	100	106	111	78	60,5	8	19

**ESEMPIO DI ORDINAZIONE BBE D1 C**  
(STAFFETTE E VITI A RICHIESTA)  
EXAMPLE OF ORDER BBE D1 C  
(CLAMPS AND SCREWS ON REQUEST)

TIPO EXTRA MEDIO - XM								
D1	L	D2	D3	D4	L1	R	N	F
18-19	50	28	29	34	37	21	5	8
24-25	55	38	39	44	42	26	5	12
30-32	60	45	48	53	47	31,5	5	16
40-42	67	54	58	63	54	36,5	8	19
50-52	75	65	74	79	62	44,5	8	19
63	90	81	87	92	77	51	8	19

**ESEMPIO DI ORDINAZIONE BBE D1 XM**  
(STAFFETTE E VITI A RICHIESTA)  
EXAMPLE OF ORDER BBE D1 XM  
(CLAMPS AND SCREWS ON REQUEST)



TIPO MEDIO - M							
D1	L	D2	D3	D4	L1	R	M
18-19	50	28	31	34	18	21	6x1
24-25	55	38	41	44	23	26	10x1
30-32	60	45	50	53	26	31,5	10x1
40-42	67	54	60	63	30	36,5	10x1
50-52	75	65	76	79	35	44,5	10x1
63	90	81	89	92	48	51	10x1
80	100	100	108	111	48	60,5	10x1

ESEMPIO DI ORDINAZIONE BBE D1 M  
(STAFFETTE E VITI A RICHIESTA)  
EXAMPLE OF ORDER BBE D1 M  
(CLAMPS AND SCREWS ON REQUEST)

TIPO LUNGO - L							
D1	L	D2	D3	D4	L1	R	M
18-19	70	28	31	34	18	21	6x1
24-25	80	38	41	44	23	26	10x1
30-32	90	45	50	53	26	31,5	10x1
40-42	100	54	60	63	30	36,5	10x1
50-52	110	65	76	79	35	44,5	10x1
63	130	81	89	92	48	51	10x1
80	150	100	108	111	48	60,5	10x1

ESEMPIO DI ORDINAZIONE BBE D1 L  
(STAFFETTE E VITI A RICHIESTA)  
EXAMPLE OF ORDER BBE D1 L  
(CLAMPS AND SCREWS ON REQUEST)

TIPO EXTRA LUNGO - XL							
D1	L	D2	D3	D4	L1	R	M
18-19	70	28	31	34	27	21	6x1
24-25	80	38	41	44	32	26	10x1
30-32	90	45	50	53	37	31,5	10x1
40-42	100	54	60	63	47	36,5	10x1
50-52	110	65	76	79	57	44,5	10x1
63	130	81	89	92	67	51	10x1
80	150	100	108	111	77	60,5	10x1

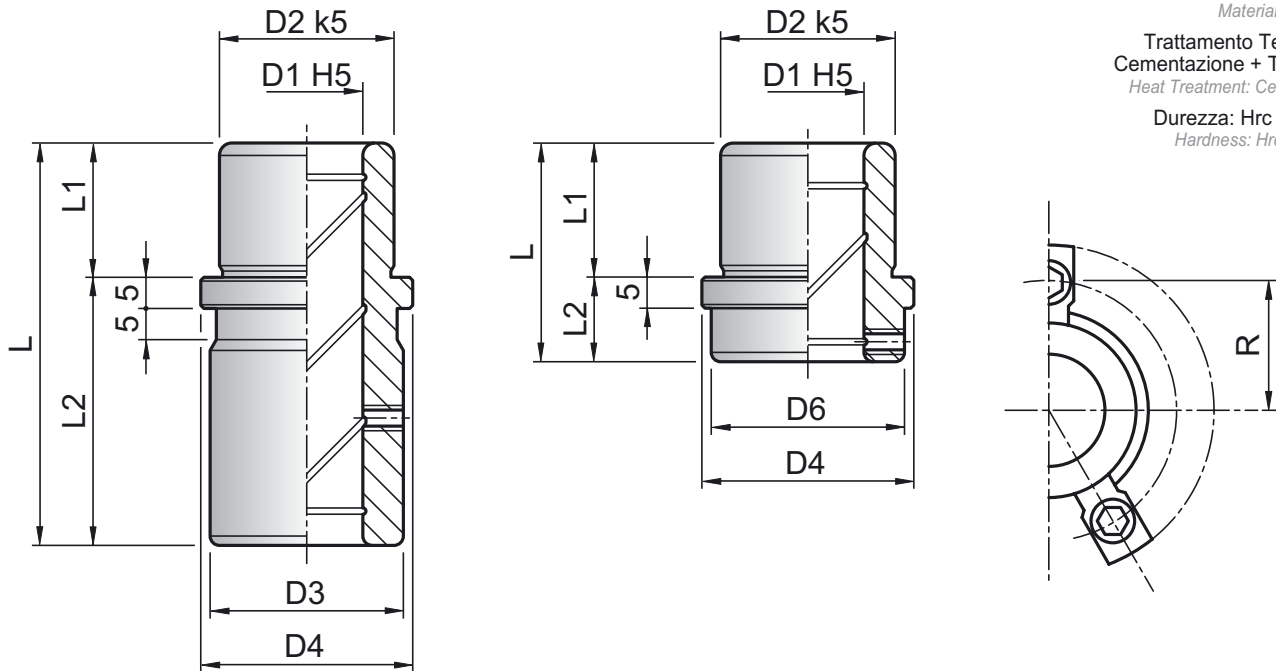
ESEMPIO DI ORDINAZIONE BBE D1 XL  
(STAFFETTE E VITI A RICHIESTA)  
EXAMPLE OF ORDER BBE D1 XL  
(CLAMPS AND SCREWS ON REQUEST)

Materiale: 1.7131

Material: 1.7131

Trattamento Termico:  
Cementazione + Tempra  
Heat Treatment: Cementing

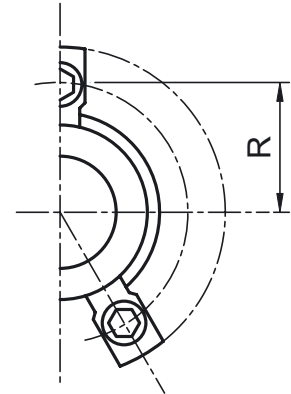
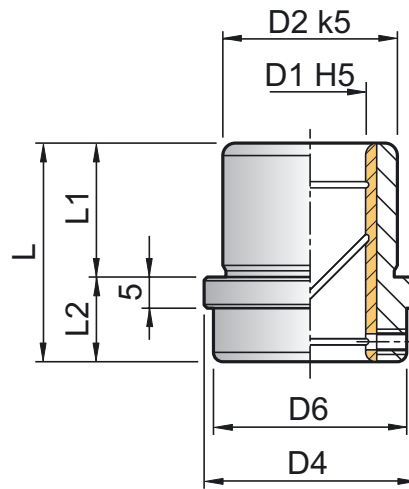
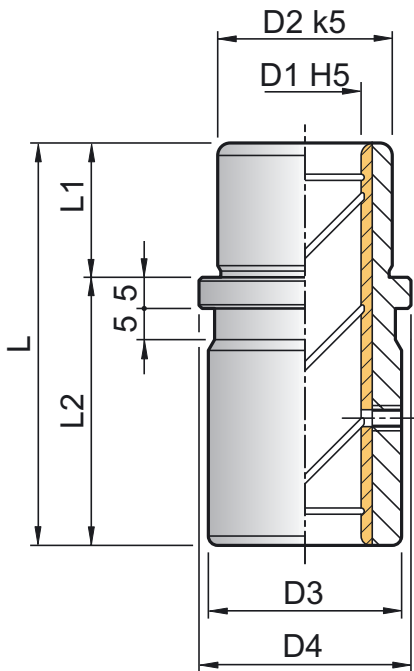
Durezza: Hrc 61+63  
Hardness: Hrc 61+63



D1	L		L1	L2	D2	D3	D4	D6	R
25	40	70	25	45	40	42	45	37	25,5
30	50	80	30	50	45	52	55	47	32,5
40	55	90	35	55	55	62	65	57	37,5
50	65	100	45	55	70	77	79	72	44,5
63	68	110	48	62	81	90	92	84	51

ESEMPIO DI ORDINAZIONE BESS D1xL  
STAFFETTE E VITI A RICHIESTA

EXAMPLE OF ORDER BESS D1xL  
CLAMPS AND SCREWS ON REQUEST



Materiale: 1.7131 + Bronzo  
Material: 1.7131 + Bronze

Trattamento Termico Acciaio:  
Cementazione + Tempra  
Heat Treatment Steel: Cementing

Durezza Acciaio: Hrc 61+63  
Hardness Steel: Hrc 61+63

D1	L		L1	L2	D2	D3	D4	D6	R
25	40	70	25	45	40	42	45	37	25,5
30	50	80	30	50	45	52	55	47	32,5
40	55	90	35	55	55	62	65	57	37,5
50	65	100	45	55	70	77	79	72	44,5
63	68	110	48	62	81	90	92	84	51

**ESEMPIO DI ORDINAZIONE BEBSS D1xL  
STAFFETTE E VITI A RICHIESTA**

**EXAMPLE OF ORDER BEBSS D1xL  
CLAMPS AND SCREWS ON REQUEST**

Materiale: ISO 12.9

Material: ISO 12.9

Durezza: Hrc 38 + 44

Hardness: Hrc 38 + 44

Resistenza al taglio: 730 N/mm<sup>2</sup>

Shear Strenght: 730 N/mm<sup>2</sup>

Tolleranza gambo rettificato: h8

Tolerance of the ground shaft: h8

Resistenza alla rottura per trazione:

100/120 Kg/mm<sup>2</sup>

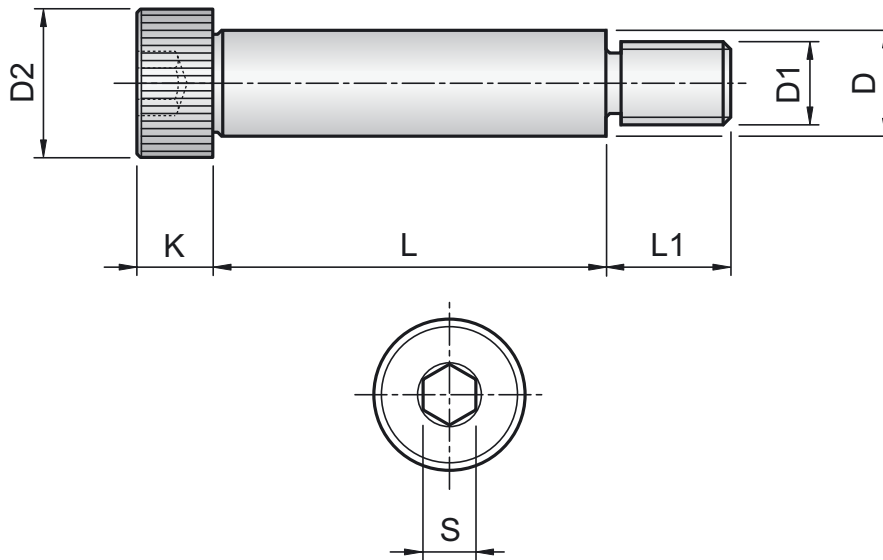
Tensile strength: 100/120 Kg/mm<sup>2</sup>

Allungamento: 9%

Stretch: 9%

Limite di elasticità: 90 Kg/mm min

Limit of elasticity: 90 Kg/mm min

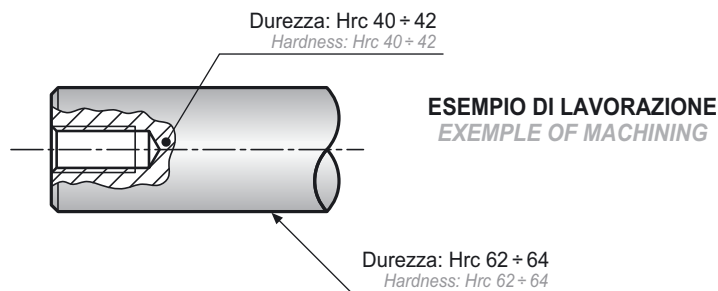
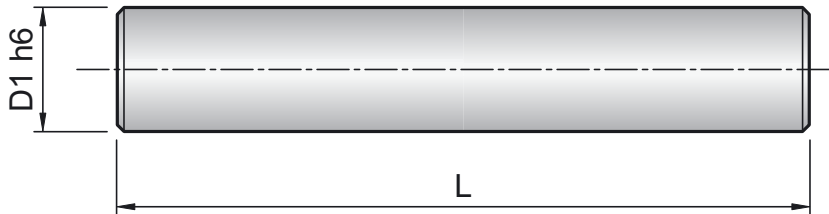


D	6	8	10	12	16	20	24
D1	M 5x0,8	M 6x1	M 8x1,25	M 10x1,5	M 12x1,75	M 16x2	M 20x2,5
D2	10	13	16	18	24	30	36
K	4,5	5,5	7	9	11	14	16
L1	9,5	11	13	16	18	22	27
S	3	4	5	6	8	10	12
L	10	★	★				
	12	★	★				
	16	★	★	★	★		
	20	★	★	★	★		
	25	★	★	★	★		
	30	★	★	★	★	★	
	35	★	★	★	★	★	
	40	★	★	★	★	★	★
	45	★	★	★	★	★	
	50	★	★	★	★	★	★
	55	★	★	★	★	★	★
	60		★	★	★	★	★
	65		★	★	★	★	
	70		★	★	★	★	★
80		★	★	★	★	★	
90				★	★	★	
100			★	★	★	★	
120				★	★	★	

ESEMPIO DI ORDINAZIONE VCOL DxL  
EXAMPLE OF ORDER VCOL DxL

Materiale: CF 53 - W. Nr. 1.1213  
Material: CF 53 - W. Nr. 1.1213

Trattamento Termico:  
Temperate a induzione  
Heat Treatment:  
Hardened for induction



D1	L = 1.000
5	★
6	★
8	★
10	★
12	★
14	★
15	★
16	★
18	★
20	★
22	★
25	★
28	★
30	★
32	★
35	★
40	★
45	★
50	★
60	★
70	★
80	★
90	★
100	★

a richiesta altre lunghezze  
on request different length

**ESEMPIO DI ORDINAZIONE BARRAT D1xL**  
*EXEMPLE OF ORDER BARRAT D1xL*

**Outside diameters (shafts):** Dimensions in  $\mu\text{m} = 0,001 \text{ mm}$ 

Range in mm	Tolerance class																	
	f6	f7	g6	h3	h4	h5	h6	h8	h9	j6	js6	js9	js14	js15	k6	m5	m6	n6
over 0 to 3	-6	-6	-2	0	0	0	0	0	0	+4	+3	+12,5	+125	+200	+6	+6	+8	+10
	-12	-12	-8	-2	-3	-4	-6	-14	-25	-2	-3	-12,5	-125	-200	0	+2	+2	+4
over 3 to 6	-10	-10	-4	0	0	0	0	0	0	+6	+4	+15	+150	+240	+9	+9	+12	+16
	-18	-22	-12	-2,5	-4	-5	-8	-18	-30	-2	-4	-15	-150	-240	+1	+4	+4	+8
over 6 to 10	-13	-13	-5	0	0	0	0	0	0	+7	+4,5	+18	+180	+290	+10	+12	+15	+19
	-22	-28	-14	-2,5	-4	-6	-9	-22	-36	-2	-4,5	-18	-180	-290	+1	+6	+6	+10
over 10 to 18	-16	-16	-6	0	0	0	0	0	0	+8	+5,5	+21,5	+215	+350	+12	+15	+18	+23
	-27	-34	-17	-3	-5	-8	-11	-27	-43	-3	-5,5	-21,5	-215	-350	+1	+7	+7	+12
over 18 to 30	-20	-20	-7	0	0	0	0	0	0	+9	+6,5	+26	+260	+420	+15	+17	+21	+28
	-33	-41	-20	-4	-6	-9	-13	-33	-52	-4	-6,5	-26	-260	-420	+1	+8	+8	+15
over 30 to 50	-25	-25	-9	0	0	0	0	0	0	+11	+8	+31	+310	+500	+18	+20	+25	+33
	-41	-50	-25	-4	-7	-11	-16	-39	-62	-5	-8	-31	-310	-500	+2	+9	+9	+17
over 50 to 80	-30	-30	-10	0	0	0	0	0	0	+12	+9,5	+37	+370	+600	+21	+24	+30	+39
	-49	-60	-29	-5	-8	-13	-19	-46	-74	-7	-9,5	-37	-370	-600	+2	+11	+11	+20
over 80 to 120	-36	-36	-12	0	0	0	0	0	0	+13	+11	+43,5	+435	+700	+25	+28	+35	+45
	-58	-71	-34	-6	-10	-15	-22	-54	-87	-9	-11	-43,5	-435	-700	+3	+13	+13	+23

**Inside diameters (bores):** Dimensions in  $\mu\text{m} = 0,001 \text{ mm}$ 

Range in mm	Tolerance class																	
	E8	F7	G7	H5	H6	H7	H8	H9	H10	H11	J7	JS5	K6	K7	M6	M7	P6	P7
over 0 to 3	+28	+16	+12	+4	+6	+10	+14	+25	+40	+60	+4	+2	0	0	-2	-2	-6	-6
	+14	+6	+2	0	0	0	0	0	0	0	-6	-2	-6	-10	-8	-12	-12	-16
over 3 to 6	+38	+22	+16	+5	+8	+12	+18	+30	+48	+75	+6	+2,5	+2	+3	-1	0	-9	-8
	+20	+10	+4	0	0	0	0	0	0	0	-6	-2,5	-6	-9	-9	-12	-17	-20
over 6 to 10	+47	+28	+20	+6	+9	+15	+22	+36	+58	+90	+8	+3	+2	+5	-3	0	-12	-9
	+25	+13	+5	0	0	0	0	0	0	0	-7	-3	-7	-10	-12	-15	-21	-24
over 10 to 18	+59	+34	+24	+8	+11	+18	+27	+43	+70	+110	+10	+4	+2	+6	-4	0	-15	-11
	+32	+16	+6	0	0	0	0	0	0	0	-8	-4	-9	-12	-15	-18	-26	-29
over 18 to 30	+73	+41	+28	+9	+13	+21	+33	+52	+84	+130	+12	+4,5	+2	+6	-4	0	-18	-14
	+40	+20	+7	0	0	0	0	0	0	0	-9	-4,5	-11	-15	-17	-21	-31	-35
over 30 to 50	+89	+50	+34	+11	+16	+25	+39	+62	+100	+160	+14	+5,5	+3	+7	-4	0	-21	-17
	+50	+25	+9	0	0	0	0	0	0	0	-11	-5,5	-13	-18	-20	-25	-37	-42
over 50 to 80	+106	+60	+40	+13	+19	+30	+46	+74	+120	+190	+18	+6,5	+4	+9	-5	0	-26	-21
	+60	+30	+10	0	0	0	0	0	0	0	-12	-6,5	-15	-21	-24	-30	-45	-51
over 80 to 120	+125	+71	+47	+15	+22	+35	+54	+87	+140	+220	+22	+7,5	+4	+10	-6	0	-30	-24
	+72	+36	+12	0	0	0	0	0	0	0	-13	-7,5	-18	-25	-28	-35	-52	-59



## CONDIZIONI GENERALI DI VENDITA

L'ordinazione di materiale implica da parte dell'acquirente la sua completa adesione alle presenti "Condizioni Generali di Vendita".

### Spedizione

La merce si intende resa franco ns. fabbrica e viaggia sempre ed in ogni caso ad esclusivo rischio e pericolo del Cliente anche se spedita in porto franco.

### Termini di consegna

Sono sempre approssimativi; i giorni si intendono lavorativi e decorrenti dalla data della ns. accettazione ordine.

### Reclami

Devono essere comunicati con fax o lettera entro 8 giorni dal ricevimento merce.

### Garanzia

La garanzia è limitata alla sostituzione gratuita del pezzo da noi riconosciuto difettoso. Essa non si applica ai prodotti che presentano manomissioni o errato impiego.

### Pagamenti e Riserva di proprietà

I pagamenti dovranno essere fatti presso la ns. Sede. Nel caso di ritardati pagamenti verranno conteggiati interessi bancari dalla scadenza alla data dell'effettivo pagamento.

La merce si intende di proprietà della ENS INTERNATIONAL SRL finché la fattura non è stata totalmente pagata. L'acquirente resta ugualmente, dopo la consegna, il solo responsabile di qualsiasi danno dovesse accadere a suddetta merce. Per qualsiasi controversia Foro competente è quello di Brescia.



## GENERAL CONDITIONS OF SALE

Every order placed by the Purchaser shall be deemed to incorporate these Conditions of Sale.

### Delivery

The goods are meant to be delivered free ex our works. The risk in the goods shall pass to the Purchaser upon their delivery at our premises, even when the cost includes the freight or when the transport takes places on our vehicles.

### Delivery dates

Such dates are always deemed as a guide and approximate only. The days stated are working days and counting from the date the order is accepted.

### Complaints

They have to be advised by fax or letter within 8 days from goods receipt.

### Guarantee

The guarantee is limited to the free replacement of the part which we will recognise as faulty. It doesn't apply to products showing defects because of tampering or non correct use.

### Payment and Property

The payments will have to be made at our premises. In case of delays in the payments, the purchaser will be charged bank interests calculated from the date of the due payment to the date of the actual payment.

The property of the goods shall remain with ENS INTERNATIONAL SRL until receipt of the payment in full for the relevant invoice. After delivery of the goods, the Purchaser is responsible for any damage to the mentioned goods. Any dispute or claim will be determined by the Court of Brescia.



## ALLGEMEINE VERKAUFSBEDINGUNGEN

Die Erteilung eines Auftrages beträgt für den Kinde eine volle Zustimmung zu den "Allgemeinen Verkaufsbedingungen".

### Fracht

Die Lieferungen sind immer ab unser Werk zu verstehen und die Ware wird immer und auf jeden Fall auf Risiko des Kunden reisen, auch im Falle einer frachtfreien Spedition oder wenn die Ware mit unseren Transportmitteln transportiert wird.

### Liefertermine

Sie sind immer annähernd, die Termine sind immer als Arbeitstage und ab unser Auftragsbestätigung zu verstehen.

### Reklamationen

Müssen per Fax oder per Post innerhalb 8 Tagen ab Erhalt der Ware mitgeteilt werden.

### Garantie

Die Garantie gilt nur für den kostenlosen Ersatz von uns als fehlerhaft erkannter Teile, und gilt nicht im Falle falschen Einsatzes oder Abänderung der Teile.

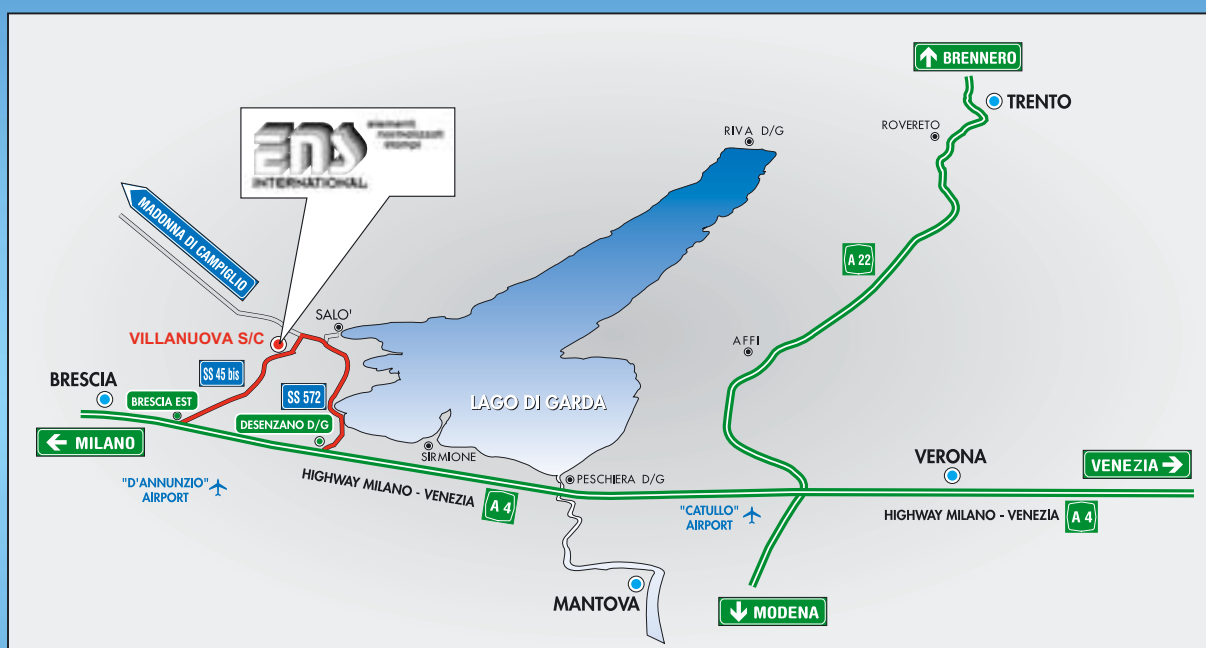
### Zahlungen und Eigentumsvorbehalt

Die Zahlungen müssen an unserem Firmensitz erfolgen. Bei Überschreitung des Zahlungstermins werden von Tage del Verzuges bis Zahlungs datum die Bankzinsen berechnet. Bis zur vollständigen Zahlung der Rechnung bleiben die gelieferten Waren Eigentum der ENS INTERNATIONAL SRL. Der Käufer bleibt nach der Lieferung auf jeden Fall für alle Schäden verantwortlich. Für alle Streitigkeiten ist das Gericht von Brescia zuständig.



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