



PORTASTAMPI PER LAMIERA STANDARD E SPECIALI  
STANDARD AND SPECIAL MOLD BASES

ELEMENTI NORMALIZZATI PER STAMPI LAMIERA,  
PLASTICA E PRESSOFUSIONE

STANDARD ELEMENTS FOR SHEET METAL MOLDS,  
PLASTIC INJECTION AND DIE CASTING

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SPECIAL MACHINING

# PORTASTAMPI STANDARD E SPECIALI STANDARD AND SPECIAL MOLD BASES

L'azienda Tassinari S.r.l., nata a San Giovanni di Ostellato (Ferrara) nel 2002, come piccola realtà artigiana per la produzione di portastampi per lamiera, è oggi affermata realtà nel settore che opera in tutto il territorio Italiano.

Il nostro principale obiettivo è la soddisfazione totale del cliente, cercando di creare un rapporto di stretta collaborazione affinché possa riconoscere nella nostra azienda un partner affidabile.

The company Tassinari S.r.l., founded in San Giovanni di Ostellato (Ferrara) in 2002 like a small reality for the production of blanking mold bases, is today a successful manufacturer in that field, that operates throughout the Italian territory.

Our main aim is customers satisfaction, trying to create a lasting relationship, so they can find in our firm a reliable partner.

## CARATTERISTICHE E TOLLERANZE CHARACTERISTICS AND TOLERANCES

Materiale Material	Norma DIN DIN Normative	Composizione chimica % Chemical composition %	Stato di fornitura Supply status
C45	C45	C 0,45 - Si 0,3 - Mn 0,7	Ricotto Annealing
2311	40 CrMnMo7	C 0,4 - Mn 1,5 - Si 0,3 - Cr 1,95 - Mo 0,2	Bonificato Austempering

Su richiesta disponibili altri materiali quali 1.2379, 1.2080, 1.2842, ecc..

Tutte le basi portastampo sono realizzate in C45, contornite di fresa sui lati e rettificata di tangenziale sui piani.

- Le tolleranze di serie sono:
- sulle dimensioni esterne + 0 - 4 mm;
  - sugli spessori ± 2 mm;
  - parallelismo piastra 0,012 su 100 mm;
  - parallelismo dei piani a base montata 0,015 su 100 mm;
  - ortogonalita' colonne 0,012 su 100 mm.

On request area available other materials as 1.2379, 1.2080, 1.2842, ecc..

All mold bases are made in C45 material, upper and lower surfaces are ground and external surfaces are milled.

- Standard tolerances are:
- external dimensions: + 0 - 4 mm;
  - thickness ± 2 mm;
  - parallelism plate on mounted mold bases 0,015 and 100 mm;
  - orthogonality pins 0,012 on 100 mm.

Si eseguono piastre con tolleranze e gradi di finitura diversi da quelli standard su specifica del cliente.

We produce plates with different tolerances and finish degrees, on customer request.

# PRODOTTI PRODUCTS

Nell'ottica di soddisfare le diverse e specifiche esigenze della clientela, l'azienda ha investito in macchinari, nuove tecnologie e risorse umane ed è oggi in grado di realizzare:

In order to satisfy the different and specific needs of the customers, we have invested in machinery, new technologies and human resources, so today we can realize:



CON ALTA QUALITA'  
WITH HIGH QUALITY



CON QUOTAZIONI  
COMPETITIVE  
WITH COMPETITIVE  
QUOTATIONS



IN TEMPI RAPIDI DI  
RISPOSTA E CONSEGNA  
WITH FAST DELIVERY  
AND RAPID REPLY

## TIPOLOGIE DI LAVORAZIONE THESE TYPES OF MACHINING

Piastre squadrate e spianate in diversi tipi di materiale e gradi di finitura (1.2311, 1.2379, 1.2080, 1.2842, ecc..)  
Squared and ground plates, in different types of material, and finish degrees (1.2311, 1.2379, 1.2080, 1.2842, etc..)

Basi portastampi per lamiera di serie e/o speciali a disegno secondo commessa del cliente  
Standard and special mold bases, on customer request

Lavorazioni meccaniche di precisione tradizionali e/o a C.N.C.  
Traditional or C.N.C. precision machining

Particolari torniti e/o fresati a disegno  
Turned or milled special items

## POSSIAMO INOLTRE FORNIRE WE CAN ALSO SUPPLY

Elementi normalizzati standard e/o speciali a disegno  
Standard and special elements by drawing and accessories

Cilindri all'azoto  
Nitrogen gas springs

Piastre e bussole autolubrificanti in bronzo/grafite  
Self-lubricating plates and bushes bronze graphite

## PIASTRE E PORTASTAMPI PER LAMIERA PLATES AND SHEET METAL MOLDS

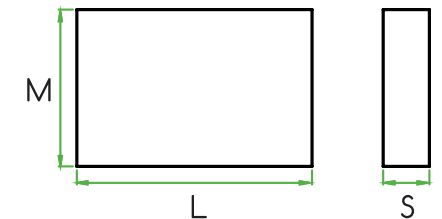
# PSR - PSF

## PIASTRA IN ACCIAIO C45 SQUADRATA E RETTIFICATA C45 STEEL PLATE SQUARED AND GROUND

## PIASTRA IN ACCIAIO C45 SQUADRATA E FRESATA C45 STEEL PLATE SQUARED AND MILLED

Materiale: UNI C 45  
Esterni contorniti di fresa +0 -4  
(PSR) Piani Rettificato di tangenziale  $\pm 2$   
(PSF) Piani Fresati  $\pm 2$

Material: UNI C 45  
External surfaces are milled +0 -4  
(PSR) Upper and lower surfaces are ground  $\pm 2$   
(PSF) Upper and lower surfaces are milled  $\pm 2$



DIMENSIONI NOMINALI - NOMINAL DIMENSIONS								
L	M	S						
		18	23	28	33	38	48	58
125	125	•	•	•	•			
140	80	•	•	•				
150	125		•	•		•		
150	150		•	•		•		
170	100	•	•	•	•			
175	175		•	•		•		
200	120	•	•	•	•			
200	150		•	•		•		
200	175		•	•		•		
200	200		•	•	•	•	•	
250	150		•	•	•	•		
250	200		•	•	•	•	•	
250	250			•	•	•	•	
300	150		•	•	•	•		
300	200		•	•	•	•	•	
300	250			•	•	•	•	
300	300			•	•	•	•	
350	200		•			•	•	
350	250			•		•	•	
350	300				•	•	•	
350	350				•	•	•	
400	200			•		•	•	
400	250			•		•	•	
400	300				•	•	•	•
400	350				•	•	•	•
400	400				•	•	•	•
450	250				•	•	•	•

DIMENSIONI NOMINALI - NOMINAL DIMENSIONS								
L	M	S						
		23	28	33	38	48	58	68
450	300			•	•	•	•	
450	350			•	•	•	•	
450	450			•	•	•	•	
500	300			•	•	•	•	
500	400				•	•	•	•
500	500				•	•	•	•
600	300				•	•	•	•
600	350				•	•	•	•
600	400				•	•	•	•
600	500				•	•	•	•
600	600				•	•	•	•
700	300				•	•	•	•
700	400				•	•	•	•
700	500				•	•	•	•
700	600				•	•	•	•
700	700				•	•	•	•
800	300				•	•	•	•
800	400				•	•	•	•
800	500				•	•	•	•
800	600				•	•	•	•
800	700				•	•	•	•
1000	300				•	•	•	•
1000	400				•	•	•	•
1000	500				•	•	•	•
1000	600				•	•	•	•
1000	800				•	•	•	•

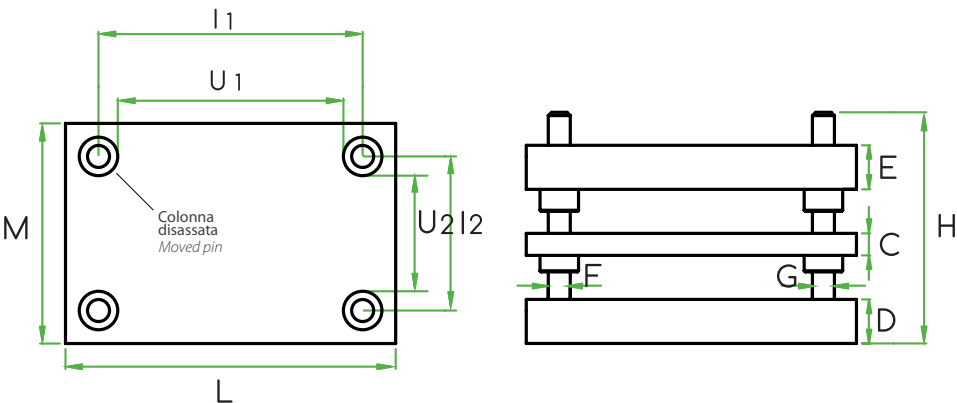


SU RICHIESTA POSSONO ESSERE FORNITE PIASTRE DI QUALSIASI DIMENSIONE E TIPOLOGIA DI ACCIAIO  
ON REQUEST WE CAN SUPPLY ANY DIMENSIONS AND QUALITY OF STEEL PLATES

2AFA - 2AFB - 3AFA - 3AFB

PORTASTAMPO 4 COLONNE 2 - 3 PIASTRE,  
COLONNE TIPO FISSO C4 E BUSSOLE TIPO FISSO  
ACCIAIO B4 O BRONZO B4B

MOLD BASE 4 PINS 2 OR 3 PLATES, FIXED PINS C4 AND FIXED  
BUSHES STEEL B4 OR BRONZE B4B



CARATTERISTICHE  
CHARACTERISTICS

Acciaio: C45  
Durezza: 180/225HB max  
Resistenza meccanica : 600/750 N/mm² max  
Esecuzione:  
Piani Rettificato di tangenziale +/- 2 mm.  
Esterni contorniti di fresa + 0 - 4 mm.

Colonna disassata verso l'esterno solo su asse X (vedi tabella)

Steel: C45  
Hardness: 180/225HB max  
Mechanics resistance: 600/750 N/mm² max  
Execution:  
Upper and lower surfaces are ground +/- 2 mm.  
External surfaces are milled + 0 - 4 mm.

The pin is moved outward only in X axis (see the table)

Distanza interasse colonne da esterno in mm Wheelbase pins distance from external in mm		
Colonna Disassata solo in asse X Pin moved outward only in X axis		
Ø Colonna Pin Ø	Distanza Distance	Disassamento colonna Pin Moving
18	25	1
25	29	1
30	35	1
40	42,5	2
50	50	2
63	58	2



DIVERSE CARATTERISTICHE A RICHIESTA DEL CLIENTE  
DIFFERENT CHARACTERISTICS ON CUSTOMER REQUEST

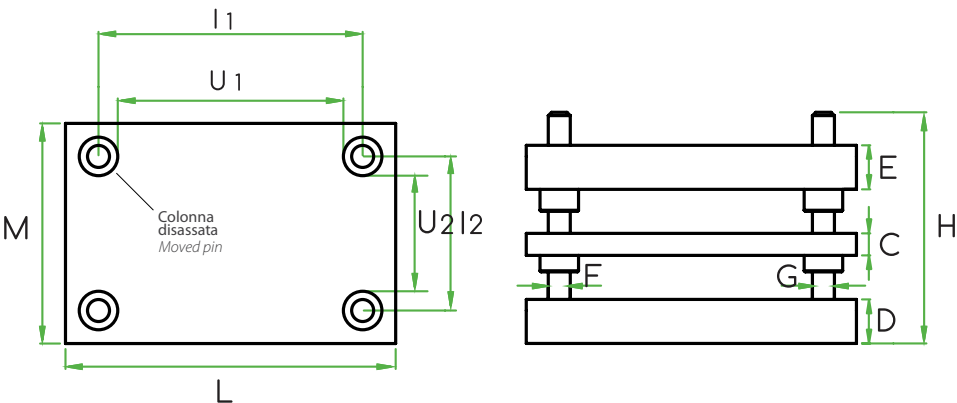
2AFA - 2AFB - 3AFA - 3AFB

	CODE	L	M	D	E	C	F-G	H	I <sub>1</sub>	I <sub>2</sub>	U <sub>1</sub>	U <sub>2</sub>	KG <sub>(2)</sub>	KG <sub>(3)</sub>
200 x 150	4001	200	150	28	28	23	18	145	150	100	122	72	14	19
	4002	200	150	38	28	23	18	145	150	100	122	72	17	21
200 x 175	4003	200	175	28	28	23	18	145	150	125	122	97	17	21
	4004	200	175	38	28	23	18	145	150	125	122	97	20	24
200 x 200	4005	200	200	28	28	23	18	145	150	150	122	122	19	23
	4006	200	200	38	28	23	18	145	150	150	122	122	22	28
250 x 200	4007	250	200	33	33	23	25	155	192	142	156	106	28	35
	4008	250	200	38	33	23	25	155	192	142	156	106	30	38
250 x 250	4009	250	250	33	33	23	25	155	192	192	156	156	28	35
	4010	250	250	38	33	23	25	155	192	192	156	156	30	38
300 x 200	4011	300	200	38	38	23	25	170	242	142	206	106	38	48
	4012	300	200	48	38	23	25	170	242	142	206	106	43	52
300 x 250	4013	300	250	38	38	28	30	185	230	180	185	135	48	62
	4014	300	250	48	38	28	30	185	230	180	185	135	54	68
300 x 300	4015	300	300	38	38	28	30	185	230	230	185	185	58	75
	4016	300	300	48	38	28	30	185	230	230	185	185	65	82
350 x 200	4017	350	200	38	38	23	25	185	292	142	256	106	45	55
	4018	350	200	48	38	23	25	185	292	142	256	106	50	61
350 x 250	4019	350	250	38	38	28	30	185	280	180	235	135	56	72
	4020	350	250	48	38	28	30	185	280	180	235	135	63	79
350 x 300	4021	350	300	38	38	33	30	185	280	230	235	185	67	91
	4022	350	300	48	38	33	30	185	280	230	235	185	76	99
350 x 350	4023	350	350	38	38	33	30	185	280	280	235	235	78	106
	4024	350	350	48	38	33	30	185	280	280	235	235	88	116
400 x 200	4025	400	200	38	38	28	25	185	342	142	306	106	51	66
	4026	400	200	48	38	28	25	185	342	142	306	106	58	73
400 x 250	4027	400	250	38	38	28	30	185	330	180	285	135	64	83
	4028	400	250	48	38	28	30	185	330	180	285	135	72	91
400 x 300	4029	400	300	48	48	33	40	200	315	215	260	160	96	124
	4030	400	300	58	48	33	40	200	315	215	260	160	106	133
400 x 350	4031	400	350	48	48	33	40	200	315	265	260	210	112	144
	4032	400	350	58	48	33	40	200	315	265	260	210	123	156
400 x 400	4033	400	400	48	48	33	40	200	315	315	260	260	128	165
	4034	400	400	58	48	33	40	200	315	315	260	260	141	178
450 x 250	4035	450	250	48	48	33	30	200	380	180	335	135	90	116
	4036	450	250	58	48	33	30	200	380	180	335	135	99	125
450 x 300	4037	450	300	48	48	33	40	200	365	215	310	160	108	139
	4038	450	300	58	48	33	40	200	365	215	310	160	119	150
450 x 350	4039	450	350	48	48	33	40	200	365	265	310	210	126	162
	4040	450	350	58	48	33	40	200	365	265	310	210	139	175
450 x 450	4041	450	450	48	48	33	40	200	365	365	310	310	161	208
	4042	450	450	58	48	33	40	200	365	365	310	310	178	225
500 x 300	4043	500	300	48	48	33	40	200	415	215	360	160	120	155
	4044	500	300	58	48	33	40	200	415	215	360	160	132	167

2AFA - 2AFB - 3AFA - 3AFB

PORTASTAMPO 4 COLONNE 2 - 3 PIASTRE,  
COLONNE TIPO FISSO C4 E BUSSOLE TIPO FISSO  
ACCIAIO B4 O BRONZO B4B

MOLD BASE 4 PINS 2 OR 3 PLATES, FIXED PINS C4 AND FIXED  
BUSHES STEEL B4 OR BRONZE B4B



CARATTERISTICHE  
CHARACTERISTICS

Acciaio: C45  
Durezza: 180/225HB max  
Resistenza meccanica : 600/750 N/mm² max  
Esecuzione:  
Piani Rettificato di tangenziale +/- 2 mm.  
Esterni contorniti di fresa + 0 - 4 mm.

Colonna disassata verso l'esterno solo su asse X (vedi tabella)

Steel: C45  
Hardness: 180/225HB max  
Mechanics resistance: 600/750 N/mm² max  
Execution:  
Upper and lower surfaces are ground +/- 2 mm.  
External surfaces are milled + 0 - 4 mm.

The pin is moved outward only in X axis (see the table)

Distanza interasse colonne da esterno in mm Wheelbase pins distance from external in mm		
Colonna Disassata solo in asse X Pin moved outward only in X axis		
Ø Colonna Pin Ø	Distanza Distance	Disassamento colonna Pin Moving
18	25	1
25	29	1
30	35	1
40	42,5	2
50	50	2
63	58	2



DIVERSE CARATTERISTICHE A RICHIESTA DEL CLIENTE  
DIFFERENT CHARACTERISTICS ON CUSTOMER REQUEST

2AFA - 2AFB - 3AFA - 3AFB

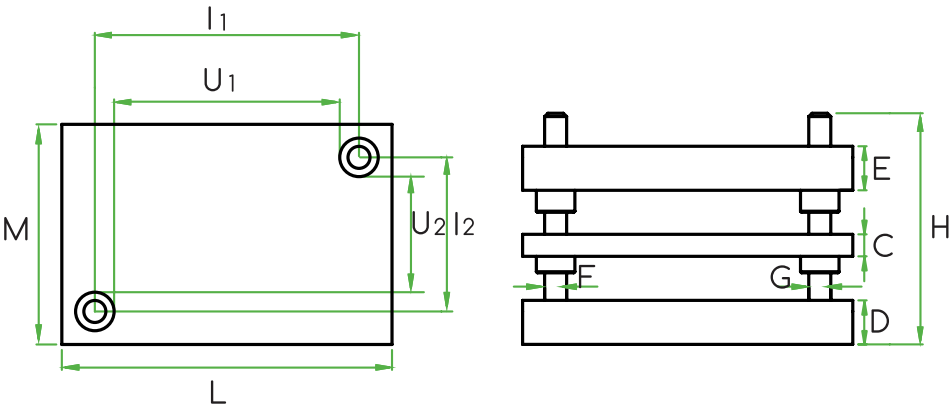
	CODE	L	M	D	E	C	F-G	H	I <sub>1</sub>	I <sub>2</sub>	U <sub>1</sub>	U <sub>2</sub>	KG <sub>(2)</sub>	KG <sub>(3)</sub>
500 x 400	4045	500	400	48	48	38	40	200	415	315	360	260	160	214
	4046	500	400	58	48	38	40	200	415	315	360	260	176	230
500 x 500	4047	500	500	48	48	38	40	200	415	415	360	360	200	268
	4048	500	500	58	48	38	40	200	415	415	360	360	220	288
600 x 300	4049	600	300	48	48	38	40	200	515	215	460	160	144	193
	4050	600	300	58	48	38	40	200	515	215	460	160	158	207
600 x 350	4051	600	350	48	48	38	40	200	515	265	460	210	168	225
	4052	600	350	58	48	38	40	200	515	265	460	210	185	242
600 x 400	4053	600	400	48	48	38	40	200	515	315	460	260	192	257
	4054	600	400	58	48	38	40	200	515	315	460	260	211	276
600 x 500	4055	600	500	48	48	38	50	200	500	400	430	330	240	322
	4056	600	500	58	48	38	50	200	500	400	430	330	264	346
600 x 600	4057	600	600	48	48	38	50	200	500	500	430	430	288	386
	4058	600	600	58	48	38	50	200	500	500	430	430	317	415
700 x 300	4059	700	300	48	48	38	40	200	615	215	560	160	168	225
	4060	700	300	58	48	38	40	200	615	215	560	160	185	242
700 x 400	4061	700	400	58	48	38	50	200	600	300	530	230	246	322
	4062	700	400	58	58	38	50	200	600	300	530	230	269	345
700 x 500	4063	700	500	58	48	38	50	200	600	400	530	330	308	403
	4064	700	500	58	58	38	50	200	600	400	530	330	336	431
700 x 600	4065	700	600	58	48	38	50	200	600	500	530	430	370	484
	4066	700	600	58	58	38	50	200	600	500	530	430	403	517
700 x 700	4067	700	700	58	48	38	50	200	600	600	530	530	431	565
	4068	700	700	58	58	38	50	200	600	600	530	530	470	604
800 x 300	4069	800	300	48	48	38	40	200	715	215	660	160	192	257
	4070	800	300	58	48	38	40	200	715	215	660	160	211	277
800 x 400	4071	800	400	58	48	38	50	200	700	300	630	230	282	368
	4072	800	400	58	58	38	50	200	700	300	630	230	307	394
800 x 500	4073	800	500	58	48	38	50	200	700	400	630	330	352	461
	4074	800	500	58	58	38	50	200	700	400	630	330	384	493
800 x 600	4075	800	600	58	48	38	50	200	700	500	630	430	422	553
	4076	800	600	58	58	38	50	200	700	500	630	430	461	591
800 x 700	4077	800	700	58	48	43	50	200	700	600	630	530	493	667
	4078	800	700	58	58	43	50	200	700	600	630	530	538	712
1000 x 300	4079	1000	300	58	48	43	50	200	900	200	830	130	264	358
	4080	1000	300	58	58	43	50	200	900	200	830	130	288	382
1000 x 400	4081	1000	400	58	48	43	50	200	900	300	830	230	352	477
	4082	1000	400	58	58	43	50	200	900	300	830	230	384	509
1000 x 500	4083	1000	500	58	48	43	50	200	900	400	830	330	440	596
	4084	1000	500	58	58	43	50	200	900	400	830	330	480	636
1000 x 600	4085	1000	600	58	48	43	50	200	900	500	830	430	528	715
	4086	1000	600	58	58	43	50	200	900	500	830	430	576	730
1000 x 800	4087	1000	800	58	48	43	50	200	900	700	830	630	704	954
	4088	1000	800	58	58	43	50	200	900	700	830	630	768	1018



2LFA - 2LFB - 3LFA - 3LFB

PORTASTAMPO 2 COLONNE DIAGONALI 2 - 3 PIASTRE,  
COLONNE TIPO FISSO C4 E BUSSOLE TIPO FISSO  
ACCIAIO B4 O BRONZO B4B

MOLD BASE 2 DIAGONAL PINS 2 OR 3 PLATES, FIXED PINS C4  
AND FIXED BUSHES STEEL B4 OR BRONZE B4B



CARATTERISTICHE  
CHARACTERISTICS

Acciaio: C45  
Durezza: 180 ÷ 225HB max  
Resistenza meccanica: 600/750 N/mm² max  
Esecuzione:  
Piani Rettificato di tangenziale +/- 2 mm.  
Esterni contorniti di fresa + 0 - 4 mm.

Steel: C45  
Hardness: 180 ÷ 225HB max  
Mechanics resistance: 600/750 N/mm² max  
Execution:  
Upper and lower surfaces are ground +/- 2 mm.  
External surfaces are milled + 0 - 4 mm.

Distanza interasse colonne da esterno in mm Wheelbase pins distance from external in mm	
Asse X ed Asse Y Pin moved outward in X axis and Y axis	
Ø Colonna Pin Ø	Distanza Distance
17/18	25
24/25	29
30/31	35
40/41	42.5
50/51	50
63	58



DIVERSE CARATTERISTICHE A RICHIESTA DEL CLIENTE  
DIFFERENT CHARACTERISTICS ON CUSTOMER REQUEST

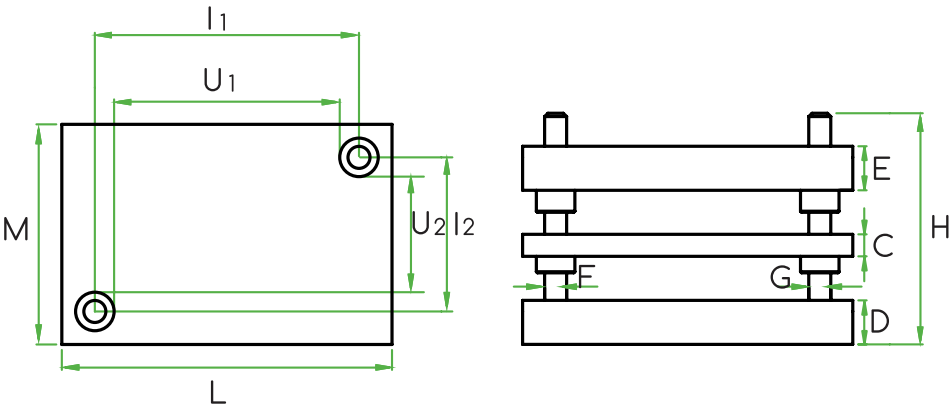
2LFA - 2LFB - 3LFA - 3LFB

	CODE	L	M	D	E	C	F-G	H	l <sub>1</sub>	l <sub>2</sub>	U <sub>1</sub>	U <sub>2</sub>	KG <sub>(2)</sub>	KG <sub>(3)</sub>
125 x 125	6001	125	125	23	23	18	17/18	125	75	75	47	47	6	10
	6002	125	125	33	23	18	17/18	125	75	75	47	47	8	12
140 x 80	6003	140	80	23	23	18	17/18	125	90	30	62	2	4	5
	6004	140	80	28	23	18	17/18	125	90	30	62	2	5	6
150 x 125	6005	150	125	23	23	23	17/18	125	100	75	72	47	8	12
	6006	150	125	28	23	23	17/18	125	100	75	72	47	9	14
150 x 150	6007	150	150	28	28	23	24/25	125	92	92	56	56	11	17
	6008	150	150	38	28	23	24/25	125	92	92	56	56	13	19
175 x 175	6009	175	175	28	28	23	24/25	125	117	117	81	81	15	23
	6010	175	175	38	28	23	24/25	125	117	117	81	81	17	26
170 x 100	6011	170	100	28	28	18	17/18	125	120	50	92	22	8	10
	6012	170	100	33	28	18	17/18	125	120	50	92	22	9	11
200 x 120	6013	200	120	28	28	18	17/18	145	150	70	122	42	12	14
	6014	200	120	33	28	18	17/18	145	150	70	122	42	13	15
200 x 150	6015	200	150	28	28	23	24/25	145	142	92	106	56	14	19
	6016	200	150	38	28	23	24/25	145	142	92	106	56	17	21
200 x 175	6017	200	175	28	28	23	24/25	145	142	117	106	81	17	23
	6018	200	175	38	28	23	24/25	145	142	117	106	81	20	25
200 x 200	6019	200	200	28	28	23	24/25	155	142	142	106	106	19	25
	6020	200	200	38	28	23	24/25	155	142	142	106	106	22	28
250 x 150	6021	250	150	33	33	23	24/25	155	192	92	156	56	21	27
	6022	250	150	38	33	23	24/25	155	192	92	156	56	23	30
250 x 200	6023	250	200	33	33	23	24/25	155	192	142	156	106	28	38
	6024	250	200	38	33	23	24/25	155	192	142	156	106	30	40
250 x 250	6025	250	250	33	33	28	30/31	170	180	180	135	135	35	50
	6026	250	250	38	33	28	30/31	170	180	180	135	135	38	52
300 x 150	6027	300	150	33	33	23	24/25	170	242	92	206	56	25	34
	6028	300	150	38	33	23	24/25	170	242	92	206	56	27	36
300 x 200	6029	300	200	38	38	23	24/25	170	242	142	206	106	38	47
	6030	300	200	48	38	23	24/25	170	242	142	206	106	43	52
300 x 250	6031	300	250	38	38	28	30/31	170	230	180	185	135	48	66
	6032	300	250	48	38	28	30/31	170	230	180	185	135	54	72
300 x 300	6033	300	300	38	38	28	30/31	170	230	230	185	185	58	79
	6034	300	300	48	38	28	30/31	170	230	230	185	185	65	86
350 x 200	6035	350	200	38	38	23	24/25	185	292	142	256	106	45	59
	6036	350	200	48	38	23	24/25	185	292	142	256	106	50	64
350 x 250	6037	350	250	38	38	28	30/31	185	280	180	235	135	56	77
	6038	350	250	48	38	28	30/31	185	280	180	235	135	63	84
350 x 300	6039	350	300	38	38	33	30/31	200	280	230	235	185	67	96
	6040	350	300	48	38	33	30/31	200	280	230	235	185	76	105
350 x 350	6041	350	350	38	38	33	40/41	200	265	265	210	210	78	113
	6042	350	350	48	38	33	40/41	200	265	265	210	210	88	122
400 x 200	6043	400	200	38	38	28	24/25	185	342	142	306	106	51	70
	6044	400	200	48	38	28	24/25	185	342	142	306	106	58	77
400 x 250	6045	400	250	38	38	33	30/31	200	330	180	285	135	64	92
	6046	400	250	48	38	33	30/31	200	330	180	285	135	72	100
400 x 300	6047	400	300	48	48	33	40/41	200	315	215	260	160	96	129
	6048	400	300	58	48	33	40/41	200	315	215	260	160	106	140
400 x 350	6049	400	350	48	48	33	40/41	200	315	265	260	210	112	151
	6050	400	350	58	48	33	40/41	200	315	265	260	210	123	163
400 x 400	6051	400	400	48	48	33	40/41	200	315	315	260	260	128	173
	6052	400	400	58	48	33	40/41	200	315	315	260	260	141	186

2LFA - 2LFB - 3LFA - 3LFB

PORTASTAMPO 2 COLONNE DIAGONALI 2 - 3 PIASTRE,  
COLONNE TIPO FISSO C4 E BUSSOLE TIPO FISSO  
ACCIAIO B4 O BRONZO B4B

MOLD BASE 2 DIAGONAL PINS 2 OR 3 PLATES, FIXED PINS C4  
AND FIXED BUSHES STEEL B4 OR BRONZE B4B



CARATTERISTICHE  
CHARACTERISTICS

Acciaio: C45  
Durezza: 180 ÷ 225HB max  
Resistenza meccanica: 600/750 N/mm² max  
Esecuzione:  
Piani Rettificato di tangenziale +/- 2 mm.  
Esterni contorniti di fresa + 0 - 4 mm.

Steel: C45  
Hardness: 180 ÷ 225HB max  
Mechanics resistance: 600/750 N/mm² max  
Execution:  
Upper and lower surfaces are ground +/- 2 mm.  
External surfaces are milled + 0 - 4 mm.

Distanza interasse colonne da esterno in mm Wheelbase pins distance from external in mm	
Asse X ed Asse Y Pin moved outward in X axis and Y axis	
Ø Colonna Pin Ø	Distanza Distance
17/18	25
24/25	29
30/31	35
40/41	42.5
50/51	50
63	58



DIVERSE CARATTERISTICHE A RICHIESTA DEL CLIENTE  
DIFFERENT CHARACTERISTICS ON CUSTOMER REQUEST

2LFA - 2LFB - 3LFA - 3LFB

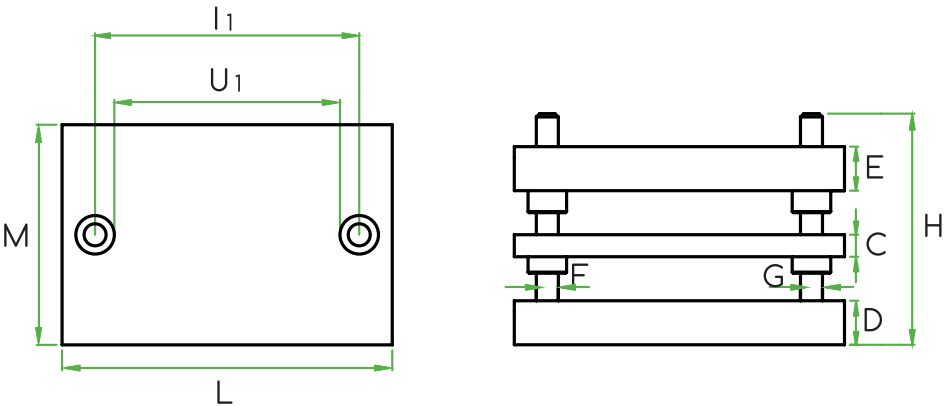
	CODE	L	M	D	E	C	F-G	H	l <sub>1</sub>	l <sub>2</sub>	U <sub>1</sub>	U <sub>2</sub>	KG <sub>(2)</sub>	KG <sub>(3)</sub>
450 x 250	6053	450	250	48	48	33	30/31	200	380	180	335	135	90	116
	6054	450	250	58	48	33	30/31	200	380	180	335	135	99	125
450 x 350	6055	450	350	48	48	33	40/41	200	365	265	310	210	126	163
	6056	450	350	58	48	33	40/41	200	365	265	310	210	139	175
450 x 450	6057	450	450	48	48	33	40/41	200	365	365	310	310	162	209
	6058	450	450	58	48	33	40/41	200	365	365	310	310	178	226
500 x 300	6059	500	300	48	48	33	40/41	200	415	215	360	160	120	155
	6060	500	300	58	48	33	40/41	200	415	215	360	160	132	167
500 x 400	6061	500	400	48	48	38	40/41	200	415	315	360	260	160	215
	6062	500	400	58	48	38	40/41	200	415	315	360	260	176	230
500 x 500	6063	500	500	48	48	38	50/51	200	400	400	330	330	200	268
	6064	500	500	58	48	38	50/51	200	400	400	330	330	220	288
600 x 300	6065	600	300	48	48	38	50/51	200	500	200	430	130	144	196
	6066	600	300	58	48	38	50/51	200	500	200	430	130	158	207
600 x 350	6067	600	350	48	48	38	50/51	200	500	250	430	180	168	225
	6068	600	350	58	48	38	50/51	200	500	250	430	180	185	242
600 x 400	6069	600	400	48	48	38	50/51	200	500	300	430	230	192	257
	6070	600	400	58	48	38	50/51	200	500	300	430	230	211	276
600 x 500	6071	600	500	48	48	38	50/51	200	500	400	430	330	240	322
	6072	600	500	58	48	38	50/51	200	500	400	430	330	264	346
600 x 600	6073	600	600	48	48	38	50/51	200	500	500	430	430	288	386
	6074	600	600	58	48	38	50/51	200	500	500	430	430	317	415
700 x 300	6075	700	300	48	48	38	50/51	200	600	200	530	130	168	225
	6076	700	300	58	48	38	50/51	200	600	200	530	130	185	242
700 x 400	6077	700	400	58	48	38	50/51	200	600	300	530	230	246	323
	6078	700	400	58	58	38	50/51	200	600	300	530	230	269	345
700 x 500	6079	700	500	58	48	38	50/51	200	600	400	530	330	308	403
	6080	700	500	58	58	38	50/51	200	600	400	530	330	336	431
700 x 600	6081	700	600	58	48	38	50/51	200	600	500	530	430	370	484
	6082	700	600	58	58	38	50/51	200	600	500	530	430	403	517
700 x 700	6083	700	700	58	48	38	50/51	200	600	600	530	530	431	565
	6084	700	700	58	58	38	50/51	200	600	600	530	530	470	604
800 x 300	6085	800	300	58	48	38	50/51	200	700	200	630	130	211	277
	6086	800	300	58	58	38	50/51	200	700	200	630	130	230	296
800 x 400	6087	800	400	58	48	38	50/51	200	700	300	630	230	282	369
	6088	800	400	58	58	38	50/51	200	700	300	630	230	307	395
800 x 500	6089	800	500	58	48	38	50/51	200	700	400	630	330	352	461
	6090	800	500	58	58	38	50/51	200	700	400	630	330	384	493
800 x 600	6091	800	600	58	48	38	50/51	200	700	500	630	430	422	553
	6092	800	600	58	58	38	50/51	200	700	500	630	430	461	591
800 x 700	6093	800	700	58	48	38	50/51	200	700	600	630	530	493	645
	6094	800	700	58	58	38	50/51	200	700	600	630	530	538	690
1000 x 300	6095	1000	300	58	48	38	50/51	200	900	200	830	130	264	346
	6096	1000	300	58	58	38	50/51	200	900	200	830	130	288	370
1000 x 400	6097	1000	400	58	48	38	50/51	200	900	300	830	230	352	461
	6098	1000	400	58	58	38	50/51	200	900	300	830	230	384	493
1000 x 500	6099	1000	500	58	48	38	50/51	200	900	400	830	330	440	576
	6100	1000	500	58	58	38	50/51	200	900	400	830	330	480	616
1000 x 600	6101	1000	600	58	48	38	50/51	200	900	500	830	430	528	691
	6102	1000	600	58	58	38	50/51	200	900	500	830	430	576	740
1000 x 800	6103	1000	800	58	48	38	50/51	200	900	700	830	630	704	922
	6104	1000	800	58	58	38	50/51	200	900	700	830	630	768	986



2MFA - 2MFB - 3MFA - 3MFB

PORTASTAMPO 2 COLONNE CENTRALI 2 - 3 PIASTRE,  
COLONNE TIPO FISSO C4 E BUSSOLE TIPO FISSO  
ACCIAIO B4 O BRONZO B4B

MOLD BASE 2 CENTRAL PINS 2 OR 3 PLATES, FIXED PINS C4 AND  
FIXED BUSHES STEEL B4 OR BRONZE B4B



CARATTERISTICHE  
CHARACTERISTICS

Acciaio: C45  
Durezza: 180 ÷ 225HB max  
Resistenza meccanica: 600/750 N/mm² max  
Esecuzione:  
Piani Rettificato di tangenziale +/- 2 mm.  
Esterni contorniti di fresa + 0 - 4 mm.

Steel: C45  
Hardness: 180 ÷ 225HB max  
Mechanics resistance: 600/750 N/mm² max  
Execution:  
Upper and lower surfaces are ground +/- 2 mm.  
External surfaces are milled + 0 - 4 mm.

Distanza interasse colonne da esterno in mm Wheelbase pins distance from external in mm	
Asse X X axis	
Ø Colonna Pin Ø	Distanza Distance
17/18	25
24/25	29
30/31	35
40/41	42.5
50/51	50
63	58



DIVERSE CARATTERISTICHE A RICHIESTA DEL CLIENTE  
DIFFERENT CHARACTERISTICS ON CUSTOMER REQUEST

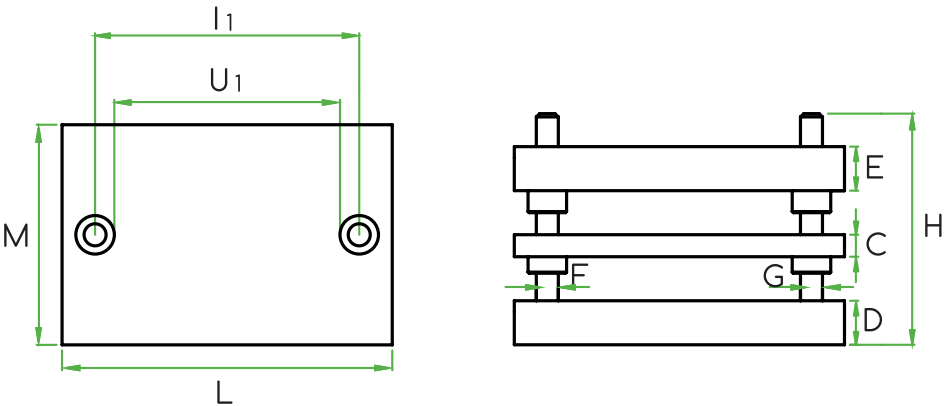
2MFA - 2MFB - 3MFA - 3MFB

	CODE	L	M	D	E	C	F-G	H	I <sub>1</sub>	U <sub>1</sub>	KG <sub>(2)</sub>	KG <sub>(3)</sub>
125 x 125	6001	125	125	23	23	18	17/18	125	75	47	6	10
	6002	125	125	33	23	18	17/18	125	75	47	8	12
140 x 80	6003	140	80	23	23	18	17/18	125	90	62	4	5
	6004	140	80	28	23	18	17/18	125	90	62	5	6
150 x 125	6005	150	125	23	23	23	17/18	125	100	72	8	12
	6006	150	125	28	23	23	17/18	125	100	72	9	14
150 x 150	6007	150	150	28	28	23	24/25	125	92	56	11	17
	6008	150	150	38	28	23	24/25	125	92	56	13	19
175 x 175	6009	175	175	28	28	23	24/25	125	117	81	15	23
	6010	175	175	38	28	23	24/25	125	117	81	17	26
170 x 100	6011	170	100	28	28	18	17/18	125	120	92	8	10
	6012	170	100	33	28	18	17/18	125	120	92	9	11
200 x 120	6013	200	120	28	28	18	17/18	145	150	122	12	14
	6014	200	120	33	28	18	17/18	145	150	122	13	15
200 x 150	6015	200	150	28	28	23	24/25	145	142	106	14	19
	6016	200	150	38	28	23	24/25	145	142	106	17	21
200 x 175	6017	200	175	28	28	23	24/25	145	142	106	17	23
	6018	200	175	38	28	23	24/25	145	142	106	20	25
200 x 200	6019	200	200	28	28	23	24/25	155	142	106	19	25
	6020	200	200	38	28	23	24/25	155	142	106	22	28
250 x 150	6021	250	150	33	33	23	24/25	155	192	156	21	27
	6022	250	150	38	33	23	24/25	155	192	156	23	30
250 x 200	6023	250	200	33	33	23	24/25	155	192	156	28	38
	6024	250	200	38	33	23	24/25	155	192	156	30	40
250 x 250	6025	250	250	33	33	28	30/31	170	180	135	35	50
	6026	250	250	38	33	28	30/31	170	180	135	38	52
300 x 150	6027	300	150	33	33	23	24/25	170	242	206	25	34
	6028	300	150	38	33	23	24/25	170	242	206	27	36
300 x 200	6029	300	200	38	38	23	24/25	170	242	206	38	47
	6030	300	200	48	38	23	24/25	170	242	206	43	52
300 x 250	6031	300	250	38	38	28	30/31	170	230	185	48	66
	6032	300	250	48	38	28	30/31	170	230	185	54	72
300 x 300	6033	300	300	38	38	28	30/31	170	230	185	58	79
	6034	300	300	48	38	28	30/31	170	230	185	65	86
350 x 200	6035	350	200	38	38	23	24/25	185	292	256	45	59
	6036	350	200	48	38	23	24/25	185	292	256	50	64
350 x 250	6037	350	250	38	38	28	30/31	185	280	235	56	77
	6038	350	250	48	38	28	30/31	185	280	235	63	84
350 x 300	6039	350	300	38	38	33	30/31	200	280	235	67	96
	6040	350	300	48	38	33	30/31	200	280	235	76	105
350 x 350	6041	350	350	38	38	33	40/41	200	265	210	78	113
	6042	350	350	48	38	33	40/41	200	265	210	88	122
400 x 200	6043	400	200	38	38	28	24/25	185	342	306	51	70
	6044	400	200	48	38	28	24/25	185	342	306	58	77
400 x 250	6045	400	250	38	38	33	30/31	200	330	285	64	92
	6046	400	250	48	38	33	30/31	200	330	285	72	100
400 x 300	6047	400	300	48	48	33	40/41	200	315	260	96	129
	6048	400	300	58	48	33	40/41	200	315	260	106	140
400 x 350	6049	400	350	48	48	33	40/41	200	315	260	112	151
	6050	400	350	58	48	33	40/41	200	315	260	123	163
400 x 400	6051	400	400	48	48	33	40/41	200	315	260	128	173
	6052	400	400	58	48	33	40/41	200	315	260	141	186

2MFA - 2MFB - 3MFA - 3MFB

PORTASTAMPO 2 COLONNE CENTRALI 2 - 3 PIASTRE,  
COLONNE TIPO FISSO C4 E BUSSOLE TIPO FISSO  
ACCIAIO B4 O BRONZO B4B

MOLD BASE 2 CENTRAL PINS 2 OR 3 PLATES, FIXED PINS C4 AND  
FIXED BUSHES STEEL B4 OR BRONZE B4B



CARATTERISTICHE  
CHARACTERISTICS

Acciaio: C45  
Durezza: 180 ÷ 225HB max  
Resistenza meccanica: 600/750 N/mm² max  
Esecuzione:  
Piani Rettificato di tangenziale +/- 2 mm.  
Esterni contorniti di fresa + 0 - 4 mm.

Steel: C45  
Hardness: 180 ÷ 225HB max  
Mechanics resistance: 600/750 N/mm² max  
Execution:  
Upper and lower surfaces are ground +/- 2 mm.  
External surfaces are milled + 0 - 4 mm.

Distanza interasse colonne da esterno in mm Wheelbase pins distance from external in mm	
Asse X X axis	
Ø Colonna Pin Ø	Distanza Distance
17/18	25
24/25	29
30/31	35
40/41	42.5
50/51	50
63	58



DIVERSE CARATTERISTICHE A RICHIESTA DEL CLIENTE  
DIFFERENT CHARACTERISTICS ON CUSTOMER REQUEST

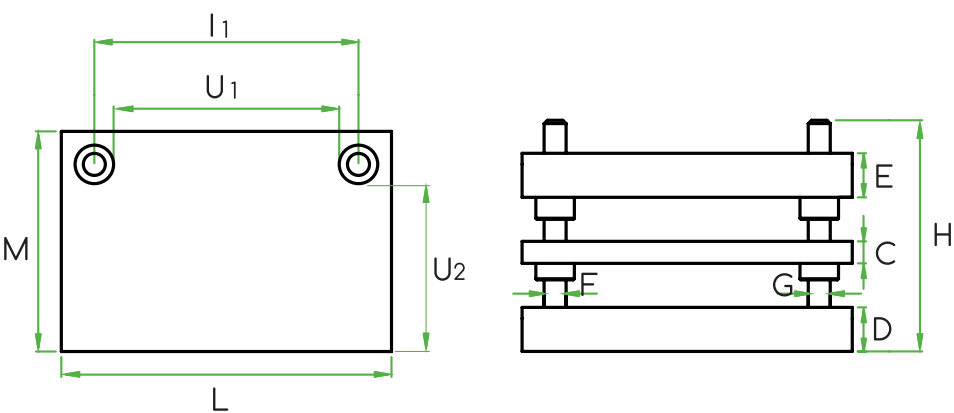
2MFA - 2MFB - 3MFA - 3MFB

	CODE	L	M	D	E	C	F-G	H	I <sub>1</sub>	U <sub>1</sub>	KG <sub>(2)</sub>	KG <sub>(3)</sub>
450 x 250	6053	450	250	48	48	33	30/31	200	380	335	90	116
	6054	450	250	58	48	33	30/31	200	380	335	99	125
450 x 350	6055	450	350	48	48	33	40/41	200	365	310	126	163
	6056	450	350	58	48	33	40/41	200	365	310	139	175
450 x 450	6057	450	450	48	48	33	40/41	200	365	310	162	209
	6058	450	450	58	48	33	40/41	200	365	310	178	226
500 x 300	6059	500	300	48	48	33	40/41	200	415	360	120	155
	6060	500	300	58	48	33	40/41	200	415	360	132	167
500 x 400	6061	500	400	48	48	38	40/41	200	415	360	160	215
	6062	500	400	58	48	38	40/41	200	415	360	176	230
500 x 500	6063	500	500	48	48	38	50/51	200	400	330	200	268
	6064	500	500	58	48	38	50/51	200	400	330	220	288
600 x 300	6065	600	300	48	48	38	50/51	200	500	430	144	196
	6066	600	300	58	48	38	50/51	200	500	430	158	207
600 x 350	6067	600	350	48	48	38	50/51	200	500	430	168	225
	6068	600	350	58	48	38	50/51	200	500	430	185	242
600 x 400	6069	600	400	48	48	38	50/51	200	500	430	192	257
	6070	600	400	58	48	38	50/51	200	500	430	211	276
600 x 500	6071	600	500	48	48	38	50/51	200	500	430	240	322
	6072	600	500	58	48	38	50/51	200	500	430	264	346
600 x 600	6073	600	600	48	48	38	50/51	200	500	430	288	386
	6074	600	600	58	48	38	50/51	200	500	430	317	415
700 x 300	6075	700	300	48	48	38	50/51	200	600	530	168	225
	6076	700	300	58	48	38	50/51	200	600	530	185	242
700 x 400	6077	700	400	58	48	38	50/51	200	600	530	246	323
	6078	700	400	58	58	38	50/51	200	600	530	269	345
700 x 500	6079	700	500	58	48	38	50/51	200	600	530	308	403
	6080	700	500	58	58	38	50/51	200	600	530	336	431
700 x 600	6081	700	600	58	48	38	50/51	200	600	530	370	484
	6082	700	600	58	58	38	50/51	200	600	530	403	517
700 x 700	6083	700	700	58	48	38	50/51	200	600	530	431	565
	6084	700	700	58	58	38	50/51	200	600	530	470	604
800 x 300	6085	800	300	58	48	38	50/51	200	700	630	211	277
	6086	800	300	58	58	38	50/51	200	700	630	230	296
800 x 400	6087	800	400	58	48	38	50/51	200	700	630	282	369
	6088	800	400	58	58	38	50/51	200	700	630	307	395
800 x 500	6089	800	500	58	48	38	50/51	200	700	630	352	461
	6090	800	500	58	58	38	50/51	200	700	630	384	493
800 x 600	6091	800	600	58	48	38	50/51	200	700	630	422	553
	6092	800	600	58	58	38	50/51	200	700	630	461	591
800 x 700	6093	800	700	58	48	38	50/51	200	700	630	493	645
	6094	800	700	58	58	38	50/51	200	700	630	538	690
1000 x 300	6095	1000	300	58	48	38	50/51	200	900	830	264	346
	6096	1000	300	58	58	38	50/51	200	900	830	288	370
1000 x 400	6097	1000	400	58	48	38	50/51	200	900	830	352	461
	6098	1000	400	58	58	38	50/51	200	900	830	384	493
1000 x 500	6099	1000	500	58	48	38	50/51	200	900	830	440	576
	6100	1000	500	58	58	38	50/51	200	900	830	480	616
1000 x 600	6101	1000	600	58	48	38	50/51	200	900	830	528	691
	6102	1000	600	58	58	38	50/51	200	900	830	576	740
1000 x 800	6103	1000	800	58	48	38	50/51	200	900	830	704	922
	6104	1000	800	58	58	38	50/51	200	900	830	768	986

2RFA - 2RFB - 3RFA - 3RFB

PORTASTAMPO 2 COLONNE POSTERIORI 2 - 3 PIASTRE,  
COLONNE TIPO FISSO C4 E BUSSOLE TIPO FISSO ACCIAIO  
B4 O BRONZO B4B

MOLD BASE 2 REAR PINS 2 OR 3 PLATES, FIXED PINS C4 AND  
FIXED BUSHES STEEL B4 OR BRONZE B4B



CARATTERISTICHE  
CHARACTERISTICS

Acciaio: C45  
Durezza: 180 ÷ 225HB max  
Resistenza meccanica: 600/750 N/mm² max  
Esecuzione:  
Piani Rettificato di tangenziale +/- 2 mm.  
Esterni contorniti di fresa + 0 - 4 mm.

Steel: C45  
Hardness: 180 ÷ 225HB max  
Mechanics resistance: 600/750 N/mm² max  
Execution:  
Upper and lower surfaces are ground +/- 2 mm.  
External surfaces are milled + 0 - 4 mm.

Distanza interasse colonne da esterno in mm Wheelbase pins distance from external in mm	
Asse X ed Asse Y Pin moved outward in X axis and Y axis	
Ø Colonna Pin Ø	Distanza Distance
18	25
25	29
30	35
40	42.5
50	50
63	58



DIVERSE CARATTERISTICHE A RICHIESTA DEL CLIENTE  
DIFFERENT CHARACTERISTICS ON CUSTOMER REQUEST

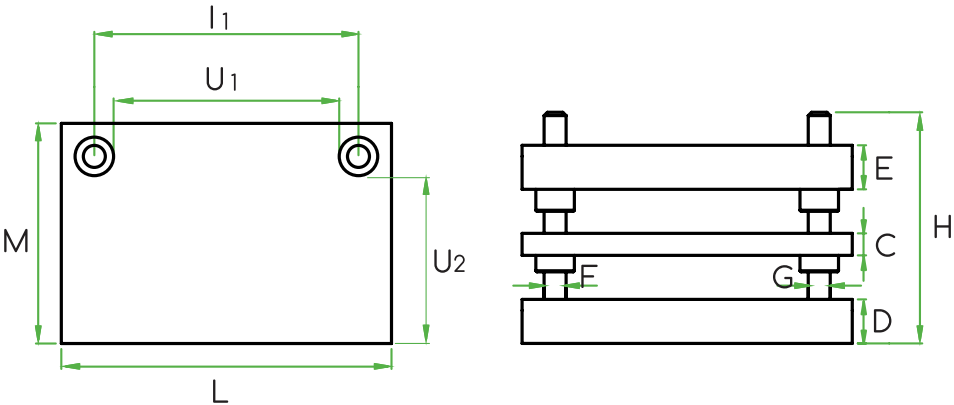
2RFA - 2RFB - 3RFA - 3RFB

	CODE	L	M	D	E	C	F-G	H	I <sub>1</sub>	U <sub>1</sub>	U <sub>2</sub>	KG <sub>(2)</sub>	KG <sub>(3)</sub>
125 x 125	6001	125	125	23	23	18	18	125	75	47	86	6	10
	6002	125	125	33	23	18	18	125	75	47	86	8	12
140 x 80	6003	140	80	23	23	18	18	125	90	62	41	4	5
	6004	140	80	28	23	18	18	125	90	62	41	5	6
150 x 125	6005	150	125	23	23	23	18	125	100	72	86	8	12
	6006	150	125	28	23	23	18	125	100	72	86	9	14
150 x 150	6007	150	150	28	28	23	25	125	92	56	103	11	17
	6008	150	150	38	28	23	25	125	92	56	103	13	19
175 x 175	6009	175	175	28	28	23	25	125	117	81	128	15	23
	6010	175	175	38	28	23	25	125	117	81	128	17	26
170 x 100	6011	170	100	28	28	18	18	125	120	92	61	8	10
	6012	170	100	33	28	18	18	125	120	92	61	9	11
200 x 120	6013	200	120	28	28	18	18	145	150	122	81	12	14
	6014	200	120	33	28	18	18	145	150	122	81	13	15
200 x 150	6015	200	150	28	28	18	25	145	142	106	103	14	19
	6016	200	150	38	28	18	25	145	142	106	103	17	21
200 x 175	6017	200	175	28	28	18	25	145	142	106	128	17	23
	6018	200	175	38	28	18	25	145	142	106	128	20	25
200 x 200	6019	200	200	28	28	23	25	155	142	106	153	19	25
	6020	200	200	38	28	23	25	155	142	106	153	22	28
250 x 150	6021	250	150	33	33	23	25	155	192	156	103	21	27
	6022	250	150	38	33	23	25	155	192	156	103	23	30
250 x 200	6023	250	200	33	33	23	25	155	192	156	153	28	38
	6024	250	200	38	33	23	25	155	192	156	153	30	40
250 x 250	6025	250	250	33	33	28	30	170	180	135	192	35	50
	6026	250	250	38	33	28	30	170	180	135	192	38	52
300 x 150	6027	300	150	33	33	23	25	170	242	206	103	25	34
	6028	300	150	38	33	23	25	170	242	206	103	27	36
300 x 200	6029	300	200	38	38	23	25	170	242	206	153	38	47
	6030	300	200	48	38	23	25	170	242	206	153	43	52
300 x 250	6031	300	250	38	38	28	30	170	230	185	192	48	66
	6032	300	250	48	38	28	30	170	230	185	192	54	72
300 x 300	6033	300	300	38	38	28	30	170	230	185	242	58	79
	6034	300	300	48	38	28	30	170	230	185	242	65	86
350 x 200	6035	350	200	38	38	23	25	185	292	256	153	45	59
	6036	350	200	48	38	23	25	185	292	256	153	50	64
350 x 250	6037	350	250	38	38	28	30	185	280	235	192	56	77
	6038	350	250	48	38	28	30	185	280	235	192	63	84
350 x 300	6039	350	300	38	38	33	30	200	280	235	242	67	96
	6040	350	300	48	38	33	30	200	280	235	242	76	105
350 x 350	6041	350	350	38	38	33	40	200	265	210	280	78	113
	6042	350	350	48	38	33	40	200	265	210	280	88	122
400 x 200	6043	400	200	38	38	28	25	185	342	306	153	51	70
	6044	400	200	48	38	28	25	185	342	306	153	58	77
400 x 250	6045	400	250	38	38	33	30	200	330	285	192	64	92
	6046	400	250	48	38	33	30	200	330	285	192	72	100
400 x 300	6047	400	300	48	48	33	40	200	315	260	230	96	129
	6048	400	300	58	48	33	40	200	315	260	230	106	140
400 x 350	6049	400	350	48	48	33	40	200	315	260	280	112	151
	6050	400	350	58	48	33	40	200	315	260	280	123	163
400 x 400	6051	400	400	48	48	33	40	200	315	260	330	128	173
	6052	400	400	58	48	33	40	200	315	260	330	141	186

2RFA - 2RFB - 3RFA - 3RFB

PORTASTAMPO 2 COLONNE POSTERIORI 2 - 3 PIASTRE,  
COLONNE TIPO FISSO C4 E BUSSOLE TIPO FISSO ACCIAIO  
B4 O BRONZO B4B

MOLD BASE 2 REAR PINS 2 OR 3 PLATES, FIXED PINS C4 AND  
FIXED BUSHES STEEL B4 OR BRONZE B4B



CARATTERISTICHE  
CHARACTERISTICS

Acciaio: C45  
Durezza: 180 ÷ 225HB max  
Resistenza meccanica: 600/750 N/mm² max  
Esecuzione:  
Piani Rettificato di tangenziale +/- 2 mm.  
Esterni contorniti di fresa + 0 - 4 mm.

Steel: C45  
Hardness: 180 ÷ 225HB max  
Mechanics resistance: 600/750 N/mm² max  
Execution:  
Upper and lower surfaces are ground +/- 2 mm.  
External surfaces are milled + 0 - 4 mm.

Distanza interasse colonne da esterno in mm Wheelbase pins distance from external in mm	
Asse X ed Asse Y Pin moved outward in X axis and Y axis	
Ø Colonna Pin Ø	Distanza Distance
18	25
25	29
30	35
40	42.5
50	50
63	58



DIVERSE CARATTERISTICHE A RICHIESTA DEL CLIENTE  
DIFFERENT CHARACTERISTICS ON CUSTOMER REQUEST

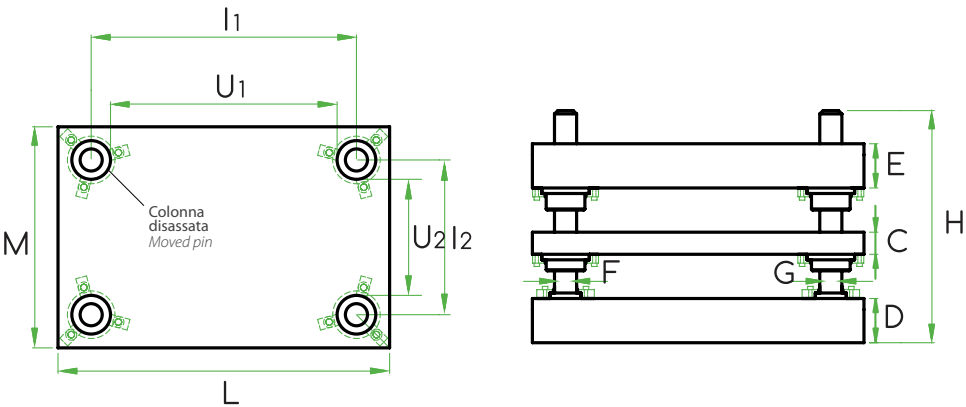
2RFA - 2RFB - 3RFA - 3RFB

	CODE	L	M	D	E	C	F-G	H	I <sub>1</sub>	U <sub>1</sub>	U <sub>2</sub>	KG <sub>(2)</sub>	KG <sub>(3)</sub>
450 x 250	6053	450	250	48	48	33	30	200	380	335	192	90	116
	6054	450	250	58	48	33	30	200	380	335	192	99	125
450 x 350	6055	450	350	48	48	33	40	200	365	310	280	126	163
	6056	450	350	58	48	33	40	200	365	310	280	139	175
450 x 450	6057	450	450	48	48	33	40	200	365	310	380	162	209
	6058	450	450	58	48	33	40	200	365	310	380	178	226
500 x 300	6059	500	300	48	48	33	40	200	415	360	230	120	155
	6060	500	300	58	48	33	40	200	415	360	230	132	167
500 x 400	6061	500	400	48	48	38	40	200	415	360	330	160	215
	6062	500	400	58	48	38	40	200	415	360	330	176	230
500 x 500	6063	500	500	48	48	38	50	200	400	330	415	200	268
	6064	500	500	58	48	38	50	200	400	330	415	220	288
600 x 300	6065	600	300	48	48	38	50	200	500	430	215	144	196
	6066	600	300	58	48	38	50	200	500	430	215	158	207
600 x 350	6067	600	350	48	48	38	50	200	500	430	265	168	225
	6068	600	350	58	48	38	50	200	500	430	265	185	242
600 x 400	6069	600	400	48	48	38	50	200	500	430	315	192	257
	6070	600	400	58	48	38	50	200	500	430	315	211	276
600 x 500	6071	600	500	48	48	38	50	200	500	430	415	240	322
	6072	600	500	58	48	38	50	200	500	430	415	264	346
600 x 600	6073	600	600	48	48	38	50	200	500	430	515	288	386
	6074	600	600	58	48	38	50	200	500	430	515	317	415
700 x 300	6075	700	300	48	48	38	50	200	600	530	215	168	225
	6076	700	300	58	48	38	50	200	600	530	215	185	242
700 x 400	6077	700	400	58	48	38	50	200	600	530	315	246	323
	6078	700	400	58	58	38	50	200	600	530	315	269	345
700 x 500	6079	700	500	58	48	38	50	200	600	530	415	308	403
	6080	700	500	58	58	38	50	200	600	530	415	336	431
700 x 600	6081	700	600	58	48	38	50	200	600	530	515	370	484
	6082	700	600	58	58	38	50	200	600	530	515	403	517
700 x 700	6083	700	700	58	48	38	50	200	600	530	615	431	565
	6084	700	700	58	58	38	50	200	600	530	615	470	604
800 x 300	6085	800	300	58	48	38	50	200	700	630	215	211	277
	6086	800	300	58	58	38	50	200	700	630	215	230	296
800 x 400	6087	800	400	58	48	38	50	200	700	630	315	282	369
	6088	800	400	58	58	38	50	200	700	630	315	307	395
800 x 500	6089	800	500	58	48	38	50	200	700	630	415	352	461
	6090	800	500	58	58	38	50	200	700	630	415	384	493
800 x 600	6091	800	600	58	48	38	50	200	700	630	515	422	553
	6092	800	600	58	58	38	50	200	700	630	515	461	591
800 x 700	6093	800	700	58	48	38	50	200	700	630	615	493	645
	6094	800	700	58	58	38	50	200	700	630	615	538	690
1000 x 300	6095	1000	300	58	48	38	50	200	900	830	215	264	346
	6096	1000	300	58	58	38	50	200	900	830	215	288	370
1000 x 400	6097	1000	400	58	48	38	50	200	900	830	315	352	461
	6098	1000	400	58	58	38	50	200	900	830	315	384	493
1000 x 500	6099	1000	500	58	48	38	50	200	900	830	415	440	576
	6100	1000	500	58	58	38	50	200	900	830	415	480	616
1000 x 600	6101	1000	600	58	48	38	50	200	900	830	515	528	691
	6102	1000	600	58	58	38	50	200	900	830	515	576	740
1000 x 800	6103	1000	800	58	48	38	50	200	900	830	715	704	922
	6104	1000	800	58	58	38	50	200	900	830	715	768	986

2AEA - 2AEB - 3AEA - 3AEB

PORTASTAMPO 4 COLONNE 2 - 3 PIASTRE, COLONNE ESTRAIBILI CE E BUSSOLE ESTRAIBILI ACCIAIO BEE O BRONZO BEEB

MOLD BASE 4 PINS 2 OR 3 PLATES, REMOVABLE PINS CE AND REMOVABLE BUSHES STEEL BEE OR BRONZE BEEB



CARATTERISTICHE CHARACTERISTICS

Acciaio: C45  
Durezza: 180/225HB max  
Resistenza meccanica : 600/750 N/mm² max  
Esecuzione:  
Piani Rettificato di tangenziale +/- 2 mm.  
Esterni contorniti di fresa + 0 - 4 mm.

Colonna disassata verso l'esterno solo su asse X (vedi tabella)

Steel: C45  
Hardness: 180/225HB max  
Mechanics resistance: 600/750 N/mm² max  
Execution:  
Upper and lower surfaces are ground +/- 2 mm.  
External surfaces are milled + 0 - 4 mm.

The pin is moved outward only in X axis (see the table)

Staffette/ Clamps	Distanza interasse colonne da esterno in mm Wheelbase pins distance from external in mm		
	Colonna Disassata solo in asse X Pin moved outward only in X axis		
	Ø Colonna Pin Ø	Distanza Distance	Disassamento colonna Pin Moving
M6	18	25	1
M6	25	29	1
M8	30	35	1
M8	40	42.5	2
M8	50	50	2
M8	63	58	2



DIVERSE CARATTERISTICHE A RICHIESTA DEL CLIENTE  
DIFFERENT CHARACTERISTICS ON CUSTOMER REQUEST

2AEA - 2AEB - 3AEA - 3AEB

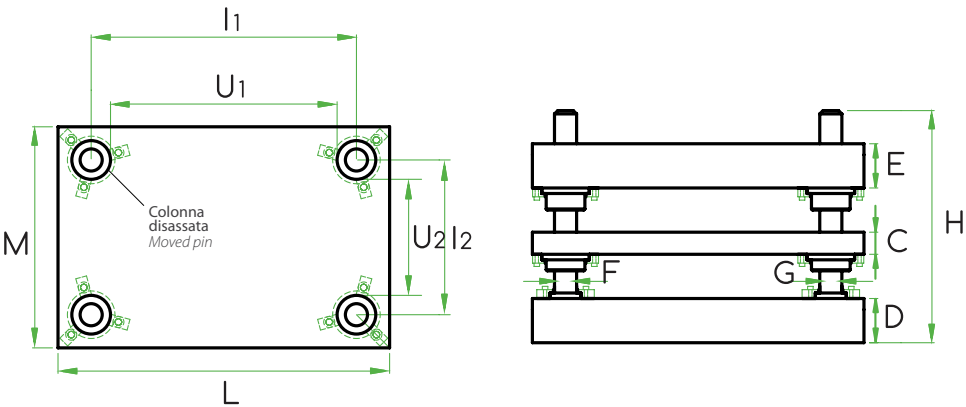
	CODE	L	M	D	E	C	F-G	H	I <sub>1</sub>	I <sub>2</sub>	U <sub>1</sub>	U <sub>2</sub>	KG <sub>(2)</sub>	KG <sub>(3)</sub>
200 x 150	4001	200	150	28	28	23	18	150	150	100	116	66	14	19
	4002	200	150	38	28	23	18	150	150	100	116	66	17	21
200 x 175	4003	200	175	28	28	23	18	150	150	125	116	91	17	21
	4004	200	175	38	28	23	18	150	150	125	116	91	20	24
200 x 200	4005	200	200	28	28	23	18	160	150	150	116	116	19	23
	4006	200	200	38	28	23	18	160	150	150	116	116	22	28
250 x 200	4007	250	200	33	33	23	25	160	192	142	148	98	28	35
	4008	250	200	38	33	23	25	160	192	142	148	98	30	38
250 x 250	4009	250	250	33	33	23	25	160	192	192	148	148	28	35
	4010	250	250	38	33	23	25	160	192	192	148	148	30	38
300 x 200	4011	300	200	38	38	23	25	170	242	142	198	98	38	48
	4012	300	200	48	38	23	25	170	242	142	198	98	43	52
300 x 250	4013	300	250	38	38	28	30	180	230	180	177	127	48	62
	4014	300	250	48	38	28	30	180	230	180	177	127	54	68
300 x 300	4015	300	300	38	38	28	30	180	230	230	177	177	58	75
	4016	300	300	48	38	28	30	180	230	230	177	177	65	82
350 x 200	4017	350	200	38	38	23	25	180	292	142	248	98	45	55
	4018	350	200	48	38	23	25	180	292	142	248	98	50	61
350 x 250	4019	350	250	38	38	28	30	180	280	180	227	127	56	72
	4020	350	250	48	38	28	30	180	280	180	227	127	63	79
350 x 300	4021	350	300	38	38	33	30	180	280	230	227	177	67	91
	4022	350	300	48	38	33	30	180	280	230	227	177	76	99
350 x 350	4023	350	350	38	38	33	30	180	280	280	227	227	78	106
	4024	350	350	48	38	33	30	180	280	280	227	227	88	116
400 x 200	4025	400	200	38	38	28	25	180	342	142	298	98	51	66
	4026	400	200	48	38	28	25	180	342	142	298	98	58	73
400 x 250	4027	400	250	38	38	28	30	180	330	180	277	127	64	83
	4028	400	250	48	38	28	30	180	330	180	277	127	72	91
400 x 300	4029	400	300	48	48	33	40	200	315	215	252	152	96	124
	4030	400	300	58	48	33	40	200	315	215	252	152	106	133
400 x 350	4031	400	350	48	48	33	40	200	315	265	252	202	112	144
	4032	400	350	58	48	33	40	200	315	265	252	202	123	156
400 x 400	4033	400	400	48	48	33	40	200	315	315	252	252	128	165
	4034	400	400	58	48	33	40	200	315	315	252	252	141	178
450 x 250	4035	450	250	48	48	33	30	200	380	180	327	127	90	116
	4036	450	250	58	48	33	30	200	380	180	327	127	99	125
450 x 300	4037	450	300	48	48	33	40	200	365	215	302	152	108	139
	4038	450	300	58	48	33	40	200	365	215	302	152	119	150
450 x 350	4039	450	350	48	48	33	40	200	365	265	302	202	126	162
	4040	450	350	58	48	33	40	200	365	265	302	202	139	175
450 x 450	4041	450	450	48	48	33	40	200	365	365	302	302	161	208
	4042	450	450	58	48	33	40	200	365	365	302	302	178	225
500 x 300	4043	500	300	48	48	33	40	200	415	215	352	152	120	155
	4044	500	300	58	48	33	40	200	415	215	352	152	132	167



2AEA - 2AEB - 3AEA - 3AEB

PORTASTAMPO 4 COLONNE 2 - 3 PIASTRE, COLONNE ESTRAIBILI CE E BUSSOLE ESTRAIBILI ACCIAIO BEE O BRONZO BEEB

MOLD BASE 4 PINS 2 OR 3 PLATES, REMOVABLE PINS CE AND REMOVABLE BUSHES STEEL BEE OR BRONZE BEEB



CARATTERISTICHE CHARACTERISTICS

Acciaio: C45  
Durezza: 180/225HB max  
Resistenza meccanica : 600/750 N/mm² max  
Esecuzione:  
Piani Rettificato di tangenziale +/- 2 mm.  
Esterni contorniti di fresa + 0 - 4 mm.

Colonna disassata verso l'esterno solo su asse X (vedi tabella)

Steel: C45  
Hardness: 180/225HB max  
Mechanics resistance: 600/750 N/mm² max  
Execution:  
Upper and lower surfaces are ground +/- 2 mm.  
External surfaces are milled + 0 - 4 mm.

The pin is moved outward only in X axis (see the table)

Staffette/ Clamps	Distanza interasse colonne da esterno in mm Wheelbase pins distance from external in mm		
	Colonna Disassata solo in asse X Pin moved outward only in X axis		
	Ø Colonna Pin Ø	Distanza Distance	Disassamento colonna Pin Moving
M6	18	25	1
M6	25	29	1
M8	30	35	1
M8	40	42.5	2
M8	50	50	2
M8	63	58	2



DIVERSE CARATTERISTICHE A RICHIESTA DEL CLIENTE  
DIFFERENT CHARACTERISTICS ON CUSTOMER REQUEST

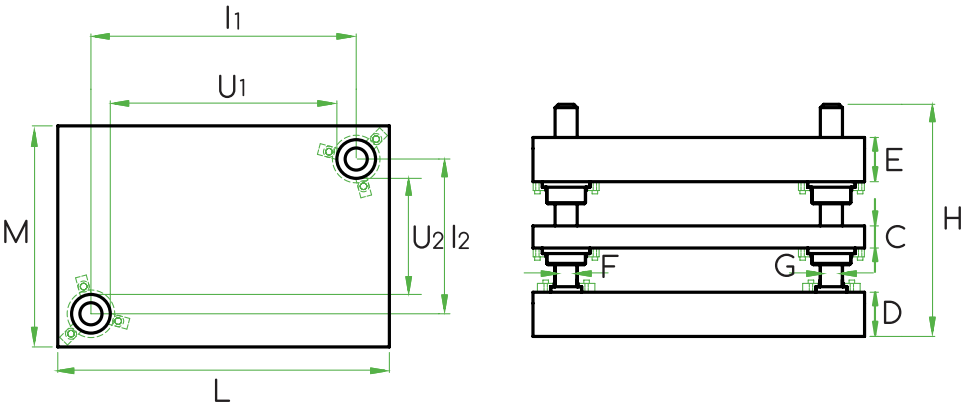
2AEA - 2AEB - 3AEA - 3AEB

	CODE	L	M	D	E	C	F-G	H	l <sub>1</sub>	l <sub>2</sub>	U <sub>1</sub>	U <sub>2</sub>	KG <sub>(2)</sub>	KG <sub>(3)</sub>
500 x 400	4045	500	400	48	48	38	40	200	415	315	352	252	160	214
	4046	500	400	58	48	38	40	200	415	315	352	252	176	230
500 x 500	4047	500	500	48	48	38	40	200	415	415	352	352	200	268
	4048	500	500	58	48	38	40	200	415	415	352	352	220	288
600 x 300	4049	600	300	48	48	38	40	200	515	215	452	152	144	193
	4050	600	300	58	48	38	40	200	515	215	452	152	158	207
600 x 350	4051	600	350	48	48	38	40	200	515	265	452	202	168	225
	4052	600	350	58	48	38	40	200	515	265	452	202	185	242
600 x 400	4053	600	400	48	48	38	40	200	515	315	452	252	192	257
	4054	600	400	58	48	38	40	200	515	315	452	252	211	276
600 x 500	4055	600	500	48	48	38	50	200	500	400	421	321	240	322
	4056	600	500	58	48	38	50	200	500	400	421	321	264	346
600 x 600	4057	600	600	48	48	38	50	200	500	500	421	421	288	386
	4058	600	600	58	48	38	50	200	500	500	421	421	317	415
700 x 300	4059	700	300	48	48	38	40	200	615	215	552	152	168	225
	4060	700	300	58	48	38	40	200	615	215	552	152	185	242
700 x 400	4061	700	400	58	48	38	50	200	600	300	521	221	246	322
	4062	700	400	58	58	38	50	200	600	300	521	221	269	345
700 x 500	4063	700	500	58	48	38	50	200	600	400	521	321	308	403
	4064	700	500	58	58	38	50	200	600	400	521	321	336	431
700 x 600	4065	700	600	58	48	38	50	200	600	500	521	421	370	484
	4066	700	600	58	58	38	50	200	600	500	521	421	403	517
700 x 700	4067	700	700	58	48	38	50	200	600	600	521	521	431	565
	4068	700	700	58	58	38	50	200	600	600	521	521	470	604
800 x 300	4069	800	300	48	48	38	40	200	715	215	652	152	192	257
	4070	800	300	58	48	38	40	200	715	215	652	152	211	277
800 x 400	4071	800	400	58	48	38	50	200	700	300	621	221	282	368
	4072	800	400	58	58	38	50	200	700	300	621	221	307	394
800 x 500	4073	800	500	58	48	38	50	200	700	400	621	321	352	461
	4074	800	500	58	58	38	50	200	700	400	621	321	384	493
800 x 600	4075	800	600	58	48	38	50	200	700	500	621	421	422	553
	4076	800	600	58	58	38	50	200	700	500	621	421	461	591
800 x 700	4077	800	700	58	48	43	50	200	700	600	621	521	493	667
	4078	800	700	58	58	43	50	200	700	600	621	521	538	712
1000 x 300	4079	1000	300	58	48	43	50	200	900	200	821	121	264	358
	4080	1000	300	58	58	43	50	200	900	200	821	121	288	382
1000 x 400	4081	1000	400	58	48	43	50	200	900	300	821	221	352	477
	4082	1000	400	58	58	43	50	200	900	300	821	221	384	509
1000 x 500	4083	1000	500	58	48	43	50	200	900	400	821	321	440	596
	4084	1000	500	58	58	43	50	200	900	400	821	321	480	636
1000 x 600	4085	1000	600	58	48	43	50	200	900	500	821	421	528	715
	4086	1000	600	58	58	43	50	200	900	500	821	421	576	730
1000 x 800	4087	1000	800	58	48	43	50	200	900	700	821	621	704	954
	4088	1000	800	58	58	43	50	200	900	700	821	621	768	1018

2LEA - 2LEB - 3LEA - 3LEB

PORTASTAMPO 2 COLONNE DIAGONALI 2 - 3 PIASTRE,  
COLONNE ESTRAIBILI CE E BUSSOLE ESTRAIBILI  
ACCIAIO BEE O BRONZO BEEB

MOLD BASE 2 DIAGONAL PINS 2 OR 3 PLATES, REMOVABLE PINS  
CE AND REMOVABLE BUSHES STEEL BEE OR BRONZE BEEB



CARATTERISTICHE  
CHARACTERISTICS

Acciaio: C45  
Durezza: 180 ÷ 225HB max  
Resistenza meccanica: 600/750 N/mm² max  
Esecuzione:  
Piani Rettificato di tangenziale +/- 2 mm.  
Esterni contorniti di fresa + 0 - 4 mm.

Steel: C45  
Hardness: 180 ÷ 225HB max  
Mechanics resistance: 600/750 N/mm² max  
Execution:  
Upper and lower surfaces are ground +/- 2 mm.  
External surfaces are milled + 0 - 4 mm.

Staffette/ Clamps	Distanza interasse colonne da esterno in mm Wheelbase pins distance from external in mm	
	Asse X ed Asse Y Pin moved outward in X axis and Y axis	
	Ø Colonna Pin Ø	Distanza Distance
M6	18/19	25
M6	24/25	29
M8	30/32	35
M8	40/42	42,5
M8	50/52	50
M8	63	58



DIVERSE CARATTERISTICHE A RICHIESTA DEL CLIENTE  
DIFFERENT CHARACTERISTICS ON CUSTOMER REQUEST

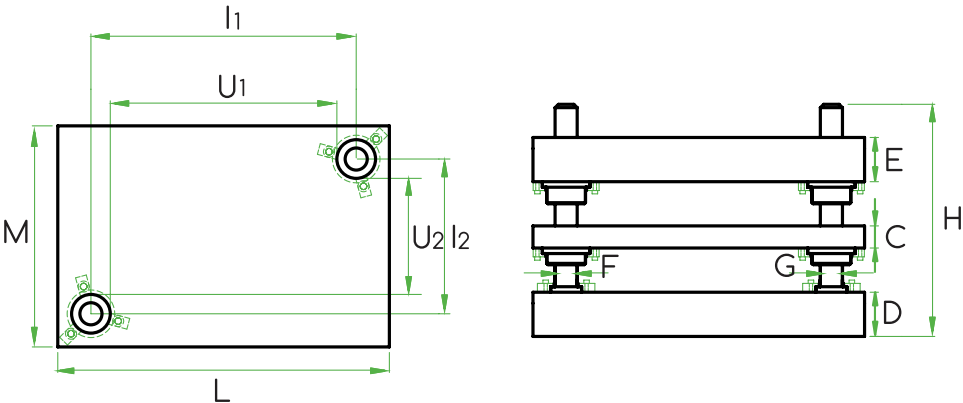
2LEA - 2LEB - 3LEA - 3LEB

	CODE	L	M	D	E	C	F-G	H	l <sub>1</sub>	l <sub>2</sub>	U <sub>1</sub>	U <sub>2</sub>	KG <sub>(2)</sub>	KG <sub>(3)</sub>
150 x 125	6005	150	125	23	23	23	18/19	130	100	75	66	41	8	12
	6006	150	125	28	23	23	18/19	130	100	75	66	41	9	14
150 x 150	6007	150	150	28	28	23	24/25	130	92	92	48	48	11	17
	6008	150	150	38	28	23	24/25	130	92	92	48	48	13	19
175 x 175	6009	175	175	28	28	23	24/25	130	117	117	73	73	15	23
	6010	175	175	38	28	23	24/25	130	117	117	73	73	17	26
170 x 100	6011	170	100	28	28	18	18/19	130	120	50	86	16	8	10
	6012	170	100	33	28	18	18/19	130	120	50	86	16	9	11
200 x 120	6013	200	120	28	28	18	18/19	150	150	70	116	36	12	14
	6014	200	120	33	28	18	18/19	150	150	70	116	36	13	15
200 x 150	6015	200	150	28	28	23	24/25	150	142	92	98	48	14	19
	6016	200	150	38	28	23	24/25	150	142	92	98	48	17	21
200 x 175	6017	200	175	28	28	23	24/25	150	142	117	98	73	17	23
	6018	200	175	38	28	23	24/25	150	142	117	98	73	20	25
200 x 200	6019	200	200	28	28	23	24/25	160	142	142	98	98	19	25
	6020	200	200	38	28	23	24/25	160	142	142	98	98	22	28
250 x 150	6021	250	150	33	33	23	24/25	160	192	92	148	48	21	27
	6022	250	150	38	33	23	24/25	160	192	92	148	48	23	30
250 x 200	6023	250	200	33	33	23	24/25	160	192	142	148	98	28	38
	6024	250	200	38	33	23	24/25	160	192	142	148	98	30	40
250 x 250	6025	250	250	33	33	28	30/32	170	180	180	127	127	35	50
	6026	250	250	38	33	28	30/32	170	180	180	127	127	38	52
300 x 150	6027	300	150	33	33	23	24/25	170	242	92	198	48	25	34
	6028	300	150	38	33	23	24/25	170	242	92	198	48	27	36
300 x 200	6029	300	200	38	38	23	24/25	170	242	142	198	98	38	47
	6030	300	200	48	38	23	24/25	170	242	142	198	98	43	52
300 x 250	6031	300	250	38	38	28	30/32	170	230	180	177	127	48	66
	6032	300	250	48	38	28	30/32	170	230	180	177	127	54	72
300 x 300	6033	300	300	38	38	28	30/32	170	230	230	177	177	58	79
	6034	300	300	48	38	28	30/32	170	230	230	177	177	65	86
350 x 200	6035	350	200	38	38	23	24/25	180	292	142	248	98	45	59
	6036	350	200	48	38	23	24/25	180	292	142	248	98	50	64
350 x 250	6037	350	250	38	38	28	30/32	180	280	180	227	127	56	77
	6038	350	250	48	38	28	30/32	180	280	180	227	127	63	84
350 x 300	6039	350	300	38	38	33	30/32	200	280	230	227	177	67	96
	6040	350	300	48	38	33	30/32	200	280	230	227	177	76	105
350 x 350	6041	350	350	38	38	33	40/42	200	265	265	202	202	78	113
	6042	350	350	48	38	33	40/42	200	265	265	202	202	88	122
400 x 200	6043	400	200	38	38	28	24/25	180	342	142	298	98	51	70
	6044	400	200	48	38	28	24/25	180	342	142	298	98	58	77
400 x 250	6045	400	250	38	38	33	30/32	200	330	180	277	127	64	92
	6046	400	250	48	38	33	30/32	200	330	180	277	127	72	100
400 x 300	6047	400	300	48	48	33	40/42	200	315	215	252	152	96	129
	6048	400	300	58	48	33	40/42	200	315	215	252	152	106	140
400 x 350	6049	400	350	48	48	33	40/42	200	315	265	252	202	112	151
	6050	400	350	58	48	33	40/42	200	315	265	252	202	123	163
400 x 400	6051	400	400	48	48	33	40/42	200	315	315	252	252	128	173
	6052	400	400	58	48	33	40/42	200	315	315	252	252	141	186
450 x 250	6053	450	250	48	48	33	30/32	200	380	180	327	127	90	116
	6054	450	250	58	48	33	30/32	200	380	180	327	127	99	125

2LEA - 2LEB - 3LEA - 3LEB

PORTASTAMPO 2 COLONNE DIAGONALI 2 - 3 PIASTRE,  
COLONNE ESTRAIBILI CE E BUSSOLE ESTRAIBILI  
ACCIAIO BEE O BRONZO BEEB

MOLD BASE 2 DIAGONAL PINS 2 OR 3 PLATES,  
CE AND REMOVABLE BUSHES STEEL BEE OR BRONZE BEEB



CARATTERISTICHE  
CHARACTERISTICS

Acciaio: C45  
Durezza: 180 ÷ 225HB max  
Resistenza meccanica: 600/750 N/mm² max  
Esecuzione:  
Piani Rettificato di tangenziale +/- 2 mm.  
Esterni contorniti di fresa + 0 - 4 mm.

Steel: C45  
Hardness: 180 ÷ 225HB max  
Mechanics resistance: 600/750 N/mm² max  
Execution:  
Upper and lower surfaces are ground +/- 2 mm.  
External surfaces are milled + 0 - 4 mm.

Staffette/ Clamps	Distanza interasse colonne da esterno in mm Wheelbase pins distance from external in mm	
	Asse X ed Asse Y Pin moved outward in X axis and Y axis	
	Ø Colonna Pin Ø	Distanza Distance
M6	18/19	25
M6	24/25	29
M8	30/32	35
M8	40/42	42,5
M8	50/52	50
M8	63	58



DIVERSE CARATTERISTICHE A RICHIESTA DEL CLIENTE  
DIFFERENT CHARACTERISTICS ON CUSTOMER REQUEST

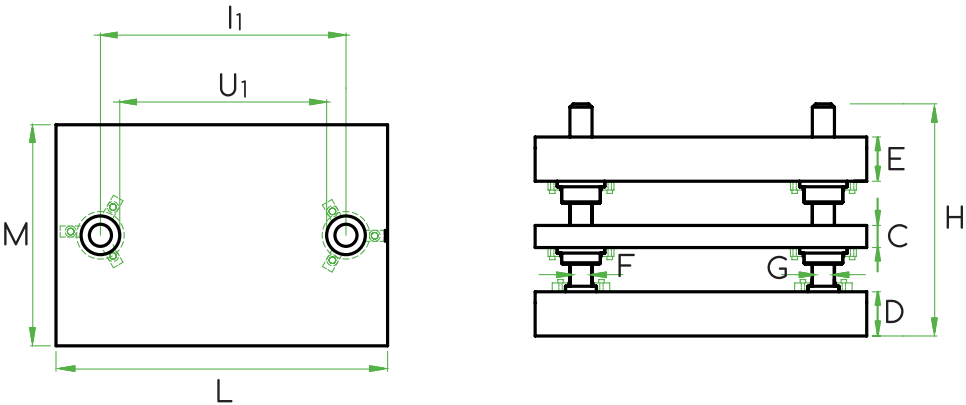
2LEA - 2LEB - 3LEA - 3LEB

	CODE	L	M	D	E	C	F-G	H	l <sub>1</sub>	l <sub>2</sub>	U <sub>1</sub>	U <sub>2</sub>	KG <sub>(2)</sub>	KG <sub>(3)</sub>
450 x 350	6055	450	350	48	48	33	40/42	200	365	265	302	202	126	163
	6056	450	350	58	48	33	40/42	200	365	265	302	202	139	175
450 x 450	6057	450	450	48	48	33	40/42	200	365	365	302	302	162	209
	6058	450	450	58	48	33	40/42	200	365	365	302	302	178	226
500 x 300	6059	500	300	48	48	33	40/42	200	415	215	352	152	120	155
	6060	500	300	58	48	33	40/42	200	415	215	352	152	132	167
500 x 400	6061	500	400	48	48	38	40/42	200	415	315	352	252	160	215
	6062	500	400	58	48	38	40/42	200	415	315	352	252	176	230
500 x 500	6063	500	500	48	48	38	50/52	200	400	400	321	321	200	268
	6064	500	500	58	48	38	50/52	200	400	400	321	321	220	288
600 x 300	6065	600	300	48	48	38	50/52	200	500	200	421	121	144	196
	6066	600	300	58	48	38	50/52	200	500	200	421	121	158	207
600 x 350	6067	600	350	48	48	38	50/52	200	500	250	421	171	168	225
	6068	600	350	58	48	38	50/52	200	500	250	421	171	185	242
600 x 400	6069	600	400	48	48	38	50/52	200	500	300	421	221	192	257
	6070	600	400	58	48	38	50/52	200	500	300	421	221	211	276
600 x 500	6071	600	500	48	48	38	50/52	200	500	400	421	321	240	322
	6072	600	500	58	48	38	50/52	200	500	400	421	321	264	346
600 x 600	6073	600	600	48	48	38	50/52	200	500	500	421	421	288	386
	6074	600	600	58	48	38	50/52	200	500	500	421	421	317	415
700 x 300	6075	700	300	48	48	38	50/52	200	600	200	521	121	168	225
	6076	700	300	58	48	38	50/52	200	600	200	521	121	185	242
700 x 400	6077	700	400	48	48	38	50/52	200	600	300	521	221	246	323
	6078	700	400	58	48	38	50/52	200	600	300	521	221	269	345
700 x 500	6079	700	500	48	48	38	50/52	200	600	400	521	321	308	403
	6080	700	500	58	48	38	50/52	200	600	400	521	321	336	431
700 x 600	6081	700	600	48	48	38	50/52	200	600	500	521	421	370	484
	6082	700	600	58	48	38	50/52	200	600	500	521	421	403	517
700 x 700	6083	700	700	48	48	38	50/52	200	600	600	521	521	431	565
	6084	700	700	58	48	38	50/52	200	600	600	521	521	470	604
800 x 300	6085	800	300	48	48	38	50/52	200	700	200	621	121	211	277
	6086	800	300	58	48	38	50/52	200	700	200	621	121	230	296
800 x 400	6087	800	400	48	48	38	50/52	200	700	300	621	221	282	369
	6088	800	400	58	48	38	50/52	200	700	300	621	221	307	395
800 x 500	6089	800	500	48	48	38	50/52	200	700	400	621	321	352	461
	6090	800	500	58	48	38	50/52	200	700	400	621	321	384	493
800 x 600	6091	800	600	48	48	38	50/52	200	700	500	621	421	422	553
	6092	800	600	58	48	38	50/52	200	700	500	621	421	461	591
800 x 700	6093	800	700	48	48	38	50/52	200	700	600	621	521	493	645
	6094	800	700	58	48	38	50/52	200	700	600	621	521	538	690
1000 x 300	6095	1000	300	48	48	38	50/52	200	900	200	821	121	264	346
	6096	1000	300	58	48	38	50/52	200	900	200	821	121	288	370
1000 x 400	6097	1000	400	48	48	38	50/52	200	900	300	821	221	352	461
	6098	1000	400	58	48	38	50/52	200	900	300	821	221	384	493
1000 x 500	6099	1000	500	48	48	38	50/52	200	900	400	821	321	440	576
	6100	1000	500	58	48	38	50/52	200	900	400	821	321	480	616
1000 x 600	6101	1000	600	48	48	38	50/52	200	900	500	821	421	528	691
	6102	1000	600	58	48	38	50/52	200	900	500	821	421	576	740
1000 x 800	6103	1000	800	48	48	38	50/52	200	900	700	821	621	704	922
	6104	1000	800	58	48	38	50/52	200	900	700	821	621	768	986

2MEA - 2MEB - 3MEA - 3MEB

PORTASTAMPO 2 COLONNE CENTRALI 2 - 3 PIASTRE,  
COLONNE ESTRAIBILI CE E BUSSOLE ESTRAIBILI  
ACCIAIO BEE O BRONZO BEEB

MOLD BASE 2 CENTRAL PINS 2 OR 3 PLATES, REMOVABLE PINS CE  
AND REMOVABLE BUSHES STEEL BEE OR BRONZE BEEB



CARATTERISTICHE  
CHARACTERISTICS

Acciaio: C45  
Durezza: 180 ÷ 225HB max  
Resistenza meccanica: 600/750 N/mm² max  
Esecuzione:  
Piani Rettificato di tangenziale +/- 2 mm.  
Esterni contorniti di fresa + 0 - 4 mm.

Steel: C45  
Hardness: 180 ÷ 225HB max  
Mechanics resistance: 600/750 N/mm² max  
Execution:  
Upper and lower surfaces are ground +/- 2 mm.  
External surfaces are milled + 0 - 4 mm.

Staffette/ Clamps	Distanza interasse colonne da esterno in mm Wheelbase pins distance from external in mm	
	Asse X X axis	
	Ø Colonna Pin Ø	Distanza Distance
M6	18/19	29
M6	24/25	34
M8	30/32	41
M8	40/42	46
M8	50/52	54
M8	63	62



DIVERSE CARATTERISTICHE A RICHIESTA DEL CLIENTE  
DIFFERENT CHARACTERISTICS ON CUSTOMER REQUEST

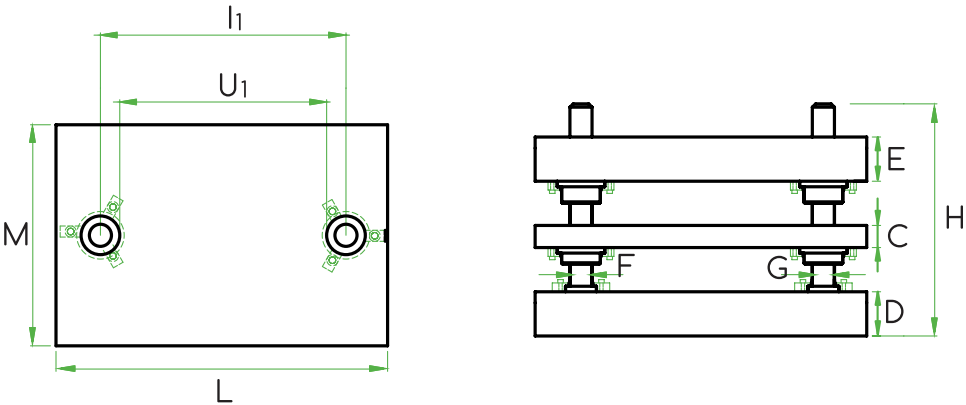
2MEA - 2MEB - 3MEA - 3MEB

	CODE	L	M	D	E	C	F-G	H	I <sub>1</sub>	U <sub>1</sub>	KG <sub>(2)</sub>	KG <sub>(3)</sub>
150 x 125	6005	150	125	23	23	23	18/19	130	92	58	8	12
	6006	150	125	28	23	23	18/19	130	92	58	9	14
150 x 150	6007	150	150	28	28	23	24/25	130	82	38	11	17
	6008	150	150	38	28	23	24/25	130	82	38	13	19
175 x 175	6009	175	175	28	28	23	24/25	130	107	63	15	23
	6010	175	175	38	28	23	24/25	130	107	63	17	26
170 x 100	6011	170	100	28	28	18	18/19	130	112	78	8	10
	6012	170	100	33	28	18	18/19	130	112	78	9	11
200 x 120	6013	200	120	28	28	18	18/19	150	142	108	12	14
	6014	200	120	33	28	18	18/19	150	142	108	13	15
200 x 150	6015	200	150	28	28	23	24/25	150	132	88	14	19
	6016	200	150	38	28	23	24/25	150	132	88	17	21
200 x 175	6017	200	175	28	28	23	24/25	150	132	88	17	23
	6018	200	175	38	28	23	24/25	150	132	88	20	25
200 x 200	6019	200	200	28	28	23	24/25	160	132	88	19	25
	6020	200	200	38	28	23	24/25	160	132	88	22	28
250 x 150	6021	250	150	33	33	23	24/25	160	182	138	21	27
	6022	250	150	38	33	23	24/25	160	182	138	23	30
250 x 200	6023	250	200	33	33	23	24/25	160	182	138	28	38
	6024	250	200	38	33	23	24/25	160	182	138	30	40
250 x 250	6025	250	250	33	33	28	30/32	170	168	115	35	50
	6026	250	250	38	33	28	30/32	170	168	115	38	52
300 x 150	6027	300	150	33	33	23	24/25	170	232	188	25	34
	6028	300	150	38	33	23	24/25	170	232	188	27	36
300 x 200	6029	300	200	38	38	23	24/25	170	232	188	38	47
	6030	300	200	48	38	23	24/25	170	232	188	43	52
300 x 250	6031	300	250	38	38	28	30/32	170	218	165	48	66
	6032	300	250	48	38	28	30/32	170	218	165	54	72
300 x 300	6033	300	300	38	38	28	30/32	170	218	165	58	79
	6034	300	300	48	38	28	30/32	170	218	165	65	86
350 x 200	6035	350	200	38	38	23	24/25	180	282	238	45	59
	6036	350	200	48	38	23	24/25	180	282	238	50	64
350 x 250	6037	350	250	38	38	28	30/32	180	268	215	56	77
	6038	350	250	48	38	28	30/32	180	268	215	63	84
350 x 300	6039	350	300	38	38	33	30/32	200	268	215	67	96
	6040	350	300	48	38	33	30/32	200	268	215	76	105
350 x 350	6041	350	350	38	38	33	40/42	200	258	195	78	113
	6042	350	350	48	38	33	40/42	200	258	195	88	122
400 x 200	6043	400	200	38	38	28	24/25	180	332	288	51	70
	6044	400	200	48	38	28	24/25	180	332	288	58	77
400 x 250	6045	400	250	38	38	33	30/32	200	318	265	64	92
	6046	400	250	48	38	33	30/32	200	318	265	72	100
400 x 300	6047	400	300	48	48	33	40/42	200	308	245	96	129
	6048	400	300	58	48	33	40/42	200	308	245	106	140
400 x 350	6049	400	350	48	48	33	40/42	200	308	245	112	151
	6050	400	350	58	48	33	40/42	200	308	245	123	163
400 x 400	6051	400	400	48	48	33	40/42	200	308	245	128	173
	6052	400	400	58	48	33	40/42	200	308	245	141	186
450 x 250	6053	450	250	48	48	33	30/32	200	368	315	90	116
	6054	450	250	58	48	33	30/32	200	368	315	99	125

2MEA - 2MEB - 3MEA - 3MEB

PORTASTAMPO 2 COLONNE CENTRALI 2 - 3 PIASTRE,  
COLONNE ESTRAIBILI CE E BUSSOLE ESTRAIBILI  
ACCIAIO BEE O BRONZO BEEB

MOLD BASE 2 CENTRAL PINS 2 OR 3 PLATES, REMOVABLE PINS CE  
AND REMOVABLE BUSHES STEEL BEE OR BRONZE BEEB



CARATTERISTICHE  
CHARACTERISTICS

Acciaio: C45  
Durezza: 180 ÷ 225HB max  
Resistenza meccanica: 600/750 N/mm² max  
Esecuzione:  
Piani Rettificato di tangenziale +/- 2 mm.  
Esterni contorniti di fresa + 0 - 4 mm.

Steel: C45  
Hardness: 180 ÷ 225HB max  
Mechanics resistance: 600/750 N/mm² max  
Execution:  
Upper and lower surfaces are ground +/- 2 mm.  
External surfaces are milled + 0 - 4 mm.

Staffette/ Clamps	Distanza interasse colonne da esterno in mm Wheelbase pins distance from external in mm	
	Asse X X axis	
	Ø Colonna Pin Ø	Distanza Distance
M6	18/19	29
M6	24/25	34
M8	30/32	41
M8	40/42	46
M8	50/52	54
M8	63	62



DIVERSE CARATTERISTICHE A RICHIESTA DEL CLIENTE  
DIFFERENT CHARACTERISTICS ON CUSTOMER REQUEST

2MEA - 2MEB - 3MEA - 3MEB

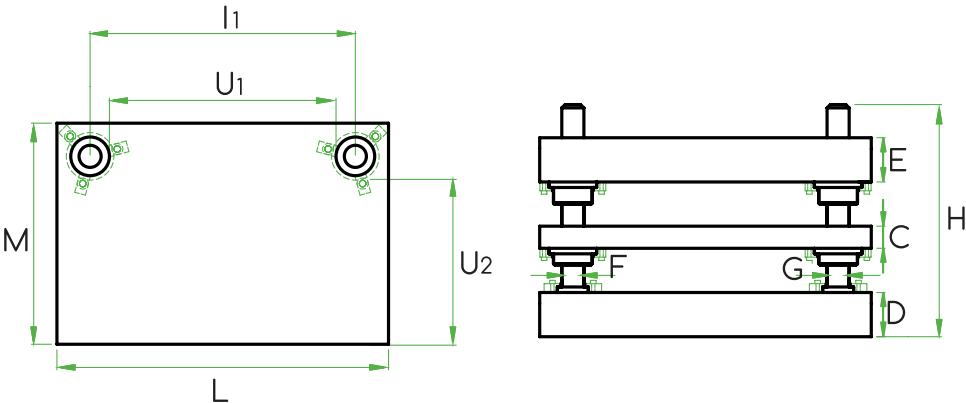
	CODE	L	M	D	E	C	F-G	H	I <sub>1</sub>	U <sub>1</sub>	KG <sub>(2)</sub>	KG <sub>(3)</sub>
450 x 350	6055	450	350	48	48	33	40/42	200	358	295	126	163
	6056	450	350	58	48	33	40/42	200	358	295	139	175
450 x 450	6057	450	450	48	48	33	40/42	200	358	295	162	209
	6058	450	450	58	48	33	40/42	200	358	295	178	226
500 x 300	6059	500	300	48	48	33	40/42	200	408	345	120	155
	6060	500	300	58	48	33	40/42	200	408	345	132	167
500 x 400	6061	500	400	48	48	38	40/42	200	408	345	160	215
	6062	500	400	58	48	38	40/42	200	408	345	176	230
500 x 500	6063	500	500	48	48	38	50/52	200	392	313	200	268
	6064	500	500	58	48	38	50/52	200	392	313	220	288
600 x 300	6065	600	300	48	48	38	50/52	200	492	413	144	196
	6066	600	300	58	48	38	50/52	200	492	413	158	207
600 x 350	6067	600	350	48	48	38	50/52	200	492	413	168	225
	6068	600	350	58	48	38	50/52	200	492	413	185	242
600 x 400	6069	600	400	48	48	38	50/52	200	492	413	192	257
	6070	600	400	58	48	38	50/52	200	492	413	211	276
600 x 500	6071	600	500	48	48	38	50/52	200	492	413	240	322
	6072	600	500	58	48	38	50/52	200	492	413	264	346
600 x 600	6073	600	600	48	48	38	50/52	200	492	413	288	386
	6074	600	600	58	48	38	50/52	200	492	413	317	415
700 x 300	6075	700	300	48	48	38	50/52	200	592	513	168	225
	6076	700	300	58	48	38	50/52	200	592	513	185	242
700 x 400	6077	700	400	58	48	38	50/52	200	592	513	246	323
	6078	700	400	58	58	38	50/52	200	592	513	269	345
700 x 500	6079	700	500	58	48	38	50/52	200	592	513	308	403
	6080	700	500	58	58	38	50/52	200	592	513	336	431
700 x 600	6081	700	600	58	48	38	50/52	200	592	513	370	484
	6082	700	600	58	58	38	50/52	200	592	513	403	517
700 x 700	6083	700	700	58	48	38	50/52	200	592	513	431	565
	6084	700	700	58	58	38	50/52	200	592	513	470	604
800 x 300	6085	800	300	58	48	38	50/52	200	692	613	211	277
	6086	800	300	58	58	38	50/52	200	692	613	230	296
800 x 400	6087	800	400	58	48	38	50/52	200	692	613	282	369
	6088	800	400	58	58	38	50/52	200	692	613	307	395
800 x 500	6089	800	500	58	48	38	50/52	200	692	613	352	461
	6090	800	500	58	58	38	50/52	200	692	613	384	493
800 x 600	6091	800	600	58	48	38	50/52	200	692	613	422	553
	6092	800	600	58	58	38	50/52	200	692	613	461	591
800 x 700	6093	800	700	58	48	38	50/52	200	692	613	493	645
	6094	800	700	58	58	38	50/52	200	692	613	538	690
1000 x 300	6095	1000	300	58	48	38	50/52	200	892	813	264	346
	6096	1000	300	58	58	38	50/52	200	892	813	288	370
1000 x 400	6097	1000	400	58	48	38	50/52	200	892	813	352	461
	6098	1000	400	58	58	38	50/52	200	892	813	384	493
1000 x 500	6099	1000	500	58	48	38	50/52	200	892	813	440	576
	6100	1000	500	58	58	38	50/52	200	892	813	480	616
1000 x 600	6101	1000	600	58	48	38	50/52	200	892	813	528	691
	6102	1000	600	58	58	38	50/52	200	892	813	576	740
1000 x 800	6103	1000	800	58	48	38	50/52	200	892	813	704	922
	6104	1000	800	58	58	38	50/52	200	892	813	768	986



2REA - 2REB - 3REA - 3REB

PORTASTAMPO 2 COLONNE POSTERIORI 2 - 3 PIASTRE,  
COLONNE ESTRAIBILI CE E BUSSOLE ESTRAIBILI  
ACCIAIO BEE O BRONZO BEEB

MOLD BASE 2 REAR PINS 2 OR 3 PLATES, REMOVABLE PINS CE  
AND REMOVABLE BUSHES STEEL BEE OR BRONZE BEEB



CARATTERISTICHE  
CHARACTERISTICS

Acciaio: C45  
Durezza: 180 ÷ 225HB max  
Resistenza meccanica: 600/750 N/mm² max  
Esecuzione:  
Piani Rettificato di tangenziale +/- 2 mm.  
Esterni contorniti di fresa + 0 - 4 mm.

Steel: C45  
Hardness: 180 ÷ 225HB max  
Mechanics resistance: 600/750 N/mm² max  
Execution:  
Upper and lower surfaces are ground +/- 2 mm.  
External surfaces are milled + 0 - 4 mm.

Staffette/ Clamps	Distanza interasse colonne da esterno in mm Wheelbase pins distance from external in mm	
	Asse X ed Asse Y Pin moved outward in X axis and Y axis	
	Ø Colonna Pin Ø	Distanza Distance
M6	18	25
M6	25	29
M8	30	35
M8	40	42,5
M8	50	50
M8	63	58



DIVERSE CARATTERISTICHE A RICHIESTA DEL CLIENTE  
DIFFERENT CHARACTERISTICS ON CUSTOMER REQUEST

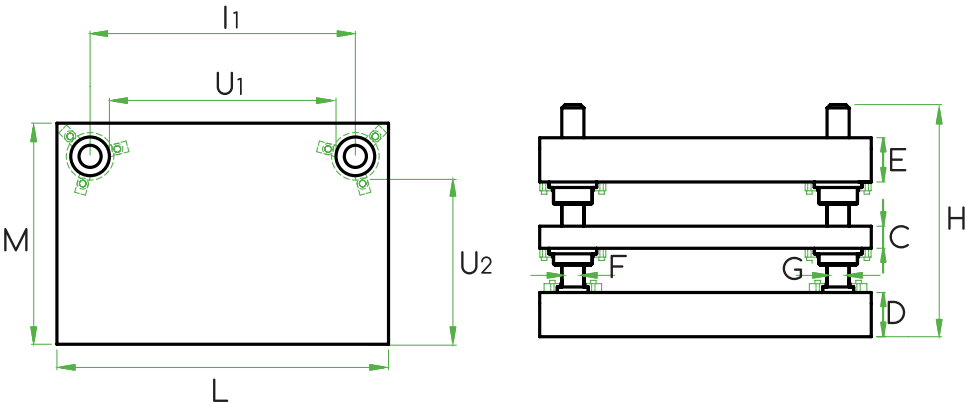
2REA - 2REB - 3REA - 3REB

	CODE	L	M	D	E	C	F-G	H	I <sub>1</sub>	U <sub>1</sub>	U <sub>2</sub>	KG <sub>(2)</sub>	KG <sub>(3)</sub>
150 x 125	6005	150	125	23	23	23	18	130	100	58	83	8	12
	6006	150	125	28	23	23	18	130	100	58	83	9	14
150 x 150	6007	150	150	28	28	23	25	130	92	41	99	11	17
	6008	150	150	38	28	23	25	130	92	41	99	13	19
175 x 175	6009	175	175	28	28	23	25	130	117	66	124	15	23
	6010	175	175	38	28	23	25	130	117	66	124	17	26
170 x 100	6011	170	100	28	28	18	18	130	120	78	58	8	10
	6012	170	100	33	28	18	18	130	120	78	58	9	11
200 x 120	6013	200	120	28	28	18	18	150	150	108	78	12	14
	6014	200	120	33	28	18	18	150	150	108	78	13	15
200 x 150	6015	200	150	28	28	23	25	150	142	91	99	14	19
	6016	200	150	38	28	23	25	150	142	91	99	17	21
200 x 175	6017	200	175	28	28	23	25	150	142	91	124	17	23
	6018	200	175	38	28	23	25	150	142	91	124	20	25
200 x 200	6019	200	200	28	28	23	25	160	142	91	149	19	25
	6020	200	200	38	28	23	25	160	142	91	149	22	28
250 x 150	6021	250	150	33	33	23	25	160	192	141	99	21	27
	6022	250	150	38	33	23	25	160	192	141	99	23	30
250 x 200	6023	250	200	33	33	23	25	160	192	141	149	28	38
	6024	250	200	38	33	23	25	160	192	141	149	30	40
250 x 250	6025	250	250	33	33	28	30	170	180	118	188	35	50
	6026	250	250	38	33	28	30	170	180	118	188	38	52
300 x 150	6027	300	150	33	33	23	25	170	242	191	99	25	34
	6028	300	150	38	33	23	25	170	242	191	99	27	36
300 x 200	6029	300	200	38	38	23	25	170	242	191	149	38	47
	6030	300	200	48	38	23	25	170	242	191	149	43	52
300 x 250	6031	300	250	38	38	28	30	170	230	168	188	48	66
	6032	300	250	48	38	28	30	170	230	168	188	54	72
300 x 300	6033	300	300	38	38	28	30	170	230	168	238	58	79
	6034	300	300	48	38	28	30	170	230	168	238	65	86
350 x 200	6035	350	200	38	38	23	25	180	292	241	149	45	59
	6036	350	200	48	38	23	25	180	292	241	149	50	64
350 x 250	6037	350	250	38	38	28	30	180	280	218	188	56	77
	6038	350	250	48	38	28	30	180	280	218	188	63	84
350 x 300	6039	350	300	38	38	33	30	200	280	218	238	67	96
	6040	350	300	48	38	33	30	200	280	218	238	76	105
350 x 350	6041	350	350	38	38	33	40	200	265	191	276	78	113
	6042	350	350	48	38	33	40	200	265	191	276	88	122
400 x 200	6043	400	200	38	38	28	25	180	342	291	149	51	70
	6044	400	200	48	38	28	25	180	342	291	149	58	77
400 x 250	6045	400	250	38	38	33	30	200	330	268	188	64	92
	6046	400	250	48	38	33	30	200	330	268	188	72	100
400 x 300	6047	400	300	48	48	33	40	200	315	241	226	96	129
	6048	400	300	58	48	33	40	200	315	241	226	106	140
400 x 350	6049	400	350	48	48	33	40	200	315	241	276	112	151
	6050	400	350	58	48	33	40	200	315	241	276	123	163
400 x 400	6051	400	400	48	48	33	40	200	315	241	326	128	173
	6052	400	400	58	48	33	40	200	315	241	326	141	186
450 x 250	6053	450	250	48	48	33	30	200	380	318	188	90	116
	6054	450	250	58	48	33	30	200	380	318	188	99	125

2REA - 2REB - 3REA - 3REB

PORTASTAMPO 2 COLONNE POSTERIORI 2 - 3 PIASTRE,  
COLONNE ESTRAIBILI CE E BUSSOLE ESTRAIBILI  
ACCIAIO BEE O BRONZO BEEB

MOLD BASE 2 REAR PINS 2 OR 3 PLATES, REMOVABLE PINS CE  
AND REMOVABLE BUSHES STEEL BEE OR BRONZE BEEB



CARATTERISTICHE  
CHARACTERISTICS

Acciaio: C45  
Durezza: 180 ÷ 225HB max  
Resistenza meccanica: 600/750 N/mm² max  
Esecuzione:  
Piani Rettificato di tangenziale +/- 2 mm.  
Esterni contorniti di fresa + 0 - 4 mm.

Steel: C45  
Hardness: 180 ÷ 225HB max  
Mechanics resistance: 600/750 N/mm² max  
Execution:  
Upper and lower surfaces are ground +/- 2 mm.  
External surfaces are milled + 0 - 4 mm.

Staffette/ Clamps	Distanza interasse colonne da esterno in mm Wheelbase pins distance from external in mm	
	Asse X ed Asse Y Pin moved outward in X axis and Y axis	
	Ø Colonna Pin Ø	Distanza Distance
M6	18	25
M6	25	29
M8	30	35
M8	40	42,5
M8	50	50
M8	63	58



DIVERSE CARATTERISTICHE A RICHIESTA DEL CLIENTE  
DIFFERENT CHARACTERISTICS ON CUSTOMER REQUEST

2REA - 2REB - 3REA - 3REB

	CODE	L	M	D	E	C	F-G	H	I <sub>1</sub>	U <sub>1</sub>	U <sub>2</sub>	KG <sub>(2)</sub>	KG <sub>(3)</sub>
450 x 350	6055	450	350	48	48	33	40	200	365	291	276	126	163
	6056	450	350	58	48	33	40	200	365	291	276	139	175
450 x 450	6057	450	450	48	48	33	40	200	365	291	376	162	209
	6058	450	450	58	48	33	40	200	365	291	376	178	226
500 x 300	6059	500	300	48	48	33	40	200	415	341	226	120	155
	6060	500	300	58	48	33	40	200	415	341	226	132	167
500 x 400	6061	500	400	48	48	38	40	200	415	341	326	160	215
	6062	500	400	58	48	38	40	200	415	341	326	176	230
500 x 500	6063	500	500	48	48	38	50	200	400	341	426	200	268
	6064	500	500	58	48	38	50	200	400	341	426	220	288
600 x 300	6065	600	300	48	48	38	50	200	500	410	210	144	196
	6066	600	300	58	48	38	50	200	500	410	210	158	207
600 x 350	6067	600	350	48	48	38	50	200	500	410	260	168	225
	6068	600	350	58	48	38	50	200	500	410	260	185	242
600 x 400	6069	600	400	48	48	38	50	200	500	410	310	192	257
	6070	600	400	58	48	38	50	200	500	410	310	211	276
600 x 500	6071	600	500	48	48	38	50	200	500	410	410	240	322
	6072	600	500	58	48	38	50	200	500	410	410	264	346
600 x 600	6073	600	600	48	48	38	50	200	500	410	510	288	386
	6074	600	600	58	48	38	50	200	500	410	510	317	415
700 x 300	6075	700	300	48	48	38	50	200	600	510	210	168	225
	6076	700	300	58	48	38	50	200	600	510	210	185	242
700 x 400	6077	700	400	58	48	38	50	200	600	510	310	246	323
	6078	700	400	58	58	38	50	200	600	510	310	269	345
700 x 500	6079	700	500	58	48	38	50	200	600	510	410	308	403
	6080	700	500	58	58	38	50	200	600	510	410	336	431
700 x 600	6081	700	600	58	48	38	50	200	600	510	510	370	484
	6082	700	600	58	58	38	50	200	600	510	510	403	517
700 x 700	6083	700	700	58	48	38	50	200	600	510	610	431	565
	6084	700	700	58	58	38	50	200	600	510	610	470	604
800 x 300	6085	800	300	58	48	38	50	200	700	610	210	211	277
	6086	800	300	58	58	38	50	200	700	610	210	230	296
800 x 400	6087	800	400	58	48	38	50	200	700	610	310	282	369
	6088	800	400	58	58	38	50	200	700	610	310	307	395
800 x 500	6089	800	500	58	48	38	50	200	700	610	410	352	461
	6090	800	500	58	58	38	50	200	700	610	410	384	493
800 x 600	6091	800	600	58	48	38	50	200	700	610	510	422	553
	6092	800	600	58	58	38	50	200	700	610	510	461	591
800 x 700	6093	800	700	58	48	38	50	200	700	610	610	493	645
	6094	800	700	58	58	38	50	200	700	610	610	538	690
1000 x 300	6095	1000	300	58	48	38	50	200	900	810	210	264	346
	6096	1000	300	58	58	38	50	200	900	810	210	288	370
1000 x 400	6097	1000	400	58	48	38	50	200	900	810	310	352	461
	6098	1000	400	58	58	38	50	200	900	810	310	384	493
1000 x 500	6099	1000	500	58	48	38	50	200	900	810	410	440	576
	6100	1000	500	58	58	38	50	200	900	810	410	480	616
1000 x 600	6101	1000	600	58	48	38	50	200	900	810	510	528	691
	6102	1000	600	58	58	38	50	200	900	810	510	576	740
1000 x 800	6103	1000	800	58	48	38	50	200	900	810	710	704	922
	6104	1000	800	58	58	38	50	200	900	810	710	768	986

ELEMENTI DI RIFERIMENTO,  
FISSAGGIO E MASCHERAGGIO  
REFERENCE ELEMENTS FIXING  
AND THE TOOLING

SC10

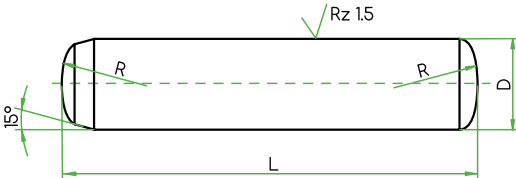
SPINA CILINDRICA  
DOWEL PIN

Materiale: Acciaio per utensili UNI 100 Cr6  
Durezza: Hrc 60±2  
Esecuzione: Temprata, rinvenuta, rettificata, lucidata  
Tolleranza: m6, a richiesta h6

DIN 6325

Material: Tool Steel UNI 100 Cr6  
Hardness: Hrc 60±2  
Finish: Hardened annealed, precision ground and lapped  
Tolerance: m6, on request h6

DIN 6325



L	D															
	1	1.5	2	2.5	3	4	5	6	8	10	12	14	16	18	20	
10	•	•	•	•	•	•	•	•								
12	•	•	•	•	•	•	•	•	•	•						
14	•	•	•	•	•	•	•	•	•	•						
16	•	•	•	•	•	•	•	•	•	•	•					
18		•	•	•	•	•	•	•	•	•	•					
20			•	•	•	•	•	•	•	•	•					
24			•	•	•	•	•	•	•	•	•		•			
28			•	•	•	•	•	•	•	•	•	•	•			
30			•	•	•	•	•	•	•	•	•	•	•			
32			•	•	•	•	•	•	•	•	•	•	•			
36					•	•	•	•	•	•	•	•	•			
40					•	•	•	•	•	•	•	•	•	•	•	
45					•	•	•	•	•	•	•	•	•	•	•	
50					•	•	•	•	•	•	•	•	•	•	•	
55					•	•	•	•	•	•	•	•	•	•	•	
60					•	•	•	•	•	•	•	•	•	•	•	
70						•		•	•	•	•	•	•	•	•	
80						•	•	•	•	•	•	•	•	•	•	
90								•	•	•	•	•	•	•	•	
100								•	•	•	•	•	•	•	•	
120									•	•	•	•	•	•	•	
130									•	•	•	•	•	•	•	
140									•	•	•	•	•	•	•	
150										•	•	•	•	•	•	
160										•	•	•	•	•	•	

SCF11

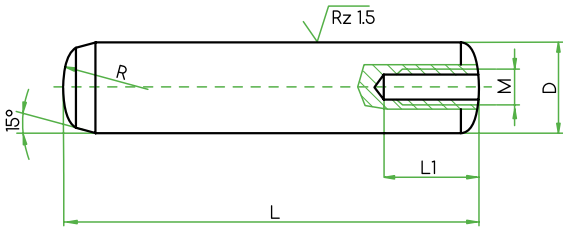
SPINA CILINDRICA CON FORO FILETTATO  
DOWEL PIN WITH TAPPED HOLE

Materiale: Acciaio per utensili UNI 100 Cr6  
Durezza: Hrc 60±2  
Esecuzione: Temprata, rinvenuta, rettificata, lucidata  
Tolleranza: m6, a richiesta h6

DIN 7979

Material: Tool Steel UNI 100 Cr6  
Hardness: Hrc 60±2  
Finish: Hardened annealed, precision ground and lapped  
Tolerance: m6, on request h6

DIN 7979



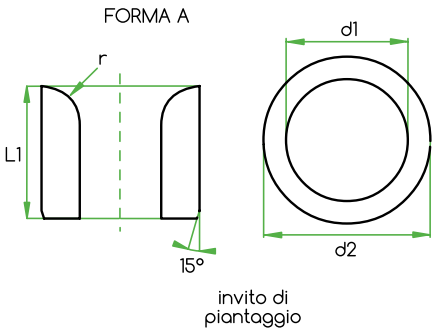
L1	10	10	12	16	16	20	20	22	25	30	36	48
D	5	6	8	10	12	14	16	18	20	25	30	40
L	x3MA	x4MA	x5MA	x6MA	x6MA	x8MA	x8MA	x10MA	x10MA	x16MA	x20MA	x20MA
16	•	•	•									
20	•	•	•	•	•							
24	•	•	•	•	•							
28	•	•	•	•	•							
30	•	•	•	•	•	•						
32	•	•	•	•	•	•						
36	•	•	•	•	•	•						
40	•	•	•	•	•	•	•	•	•			
45	•	•	•	•	•	•	•	•	•			
50	•	•	•	•	•	•	•	•	•	•		
55		•	•	•	•	•	•	•	•	•	•	
60		•	•	•	•	•	•	•	•	•	•	
70		•	•	•	•	•	•	•	•	•	•	
80		•	•	•	•	•	•	•	•	•	•	
90		•	•	•	•	•	•	•	•	•	•	•
100		•	•	•	•	•	•	•	•	•	•	•
120			•	•	•	•	•	•	•	•	•	•
130				•	•	•	•	•	•	•	•	•
140				•	•	•	•	•	•	•	•	•
150				•	•	•	•	•	•	•	•	•
160						•	•	•		•	•	•
170										•	•	•
180										•	•	•
190										•	•	•
200										•	•	•

B70 - B71

BUSSOLA DI MASCHERAGGIO LISCIA DIN 179  
DRILL BUSH DIN 179 WITHOUT HEAD

Materiale: Acciaio UNI 16 CrNi4  
Durezza: Hrc 60 ± 62  
Esecuzione: Temprata, rinvenuta, rettificata, lucidata  
Diametri superiori a richiesta

Material: Steel UNI 16 CrNi4  
Hardness: Hrc 60 ± 62  
Finish: Hardened annealed, precision ground and lapped  
Bigger diameters on request



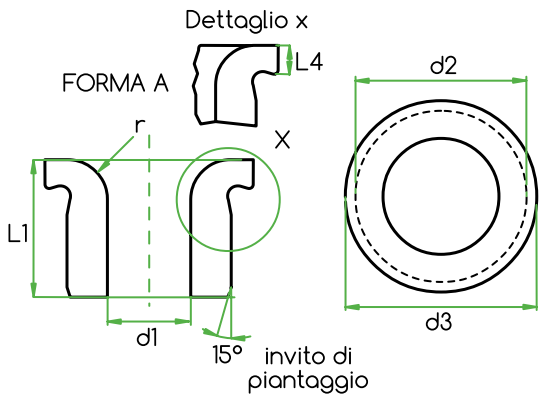
D1 F7	PROGRESSIONE	D2 n6	B70	B71
			L1 CORTA	L1 LUNGA
0.9 - 1.0	0.1	3	6	9
1.1 - 1.8	0.1	4	6	9
1.9 - 2.6	0.1 - 0.25	5	6	9
2.7 - 3.3	0.1 - 0.25	6	8	12
3.4 - 4.0	0.1 - 0.25	7	8	12
4.1 - 5.0	0.1 - 0.25	8	8	12
5.1 - 6.0	0.1 - 0.25	10	10	16
6.1 - 8.0	0.1 - 0.25	12	10	16
8.1 - 10	0.1 - 0.25	15	12	20
10.1 - 12	0.1 - 0.25	18	12	20
12.1 - 15	0.1 - 0.25	22	16	28
15.25 - 18	0.25	26	16	28
18.25 - 22	0.25	30	20	36
22.25 - 26	0.25	35	20	36
26.25 - 30	0.25	42	20/25	36/45
30.25 - 35	0.25	48	25	45
35.5 - 42	0.5	55	25/30	45/56
42.5 - 48	0.5	62	30	56
48.5 - 55	0.5	70	30	56
56 - 63	1	78	35	67/72

B72 - B73

BUSSOLA DI MASCHERAGGIO CON COLLARE DIN 172  
DRILL BUSH DIN 172 WITH HEAD

Materiale: Acciaio UNI 16 CrNi4  
Durezza: Hrc 60 ÷ 62  
Esecuzione: Temprata, rinvenuta, rettificata, lucidata  
Diametri superiori a richiesta

Material: Steel UNI 16 CrNi4  
Hardness: Hrc 60 ÷ 62  
Finish: Hardened annealed, precision ground and lapped  
Bigger diameters on request



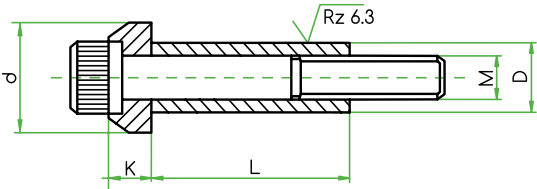
d1 F7	PROGRESSIONE GRADATION	d2 n6	d3	B72		B73	
				CORTE		LUNGHE	
				L1	L4	L1	L4
0.9 - 1.0	0.1	3	6	6	2	9	2
1.1 - 1.8	0.1	4	7	6	2	9	2
1.9 - 2.6	0.1 - 0.25	5	8	6	2	9	2
2.7 - 3.3	0.1 - 0.25	6	9	8	2.5	12	2.5
3.4 - 4.0	0.1 - 0.25	7	10	8	2.5	12	2.5
4.1 - 5.0	0.1 - 0.25	8	11	8	2.5	12	2.5
5.1 - 6.0	0.1 - 0.25	10	13	10	3	16	3
6.1 - 8.0	0.1 - 0.25	12	15	10	3	16	3
8.1 - 10	0.1 - 0.25	15	18	12	3	20	3
10.1 - 12	0.1 - 0.25	18	22	12	4	20	4
12.1 - 15	0.1 - 0.25	22	26	16	4	28	4
15.25 - 18	0.25	26	30	16	4	28	4
18.25 - 22	0.25	30	34	20	5	36	5
22.25 - 26	0.25	35	39	20	5	36	5
26.25 - 30	0.25	42	46	20/25	5	36/45	5
30.25 - 35	0.25	48	52	25	5	45	5
35.5 - 42	0.5	55	59	25/30	5	45/56	5
42.5 - 48	0.5	62	66	30	6	56	6
48.5 - 55	0.5	70	74	30	6	56	6
56 - 63	1	78	82	35	6	67/72	6

KRT96

VITE A COLLETO CON DISTANZIALE RETTIFICATO  
SHOULDER SCREW WITH GROUND SPACER

Materiale: Acciaio per viteria  
Rondella: acciaio temprato e brunito, resistenza 100Kg/mm²  
Distanziale: acciaio temprato e rettificato, resistenza 120-140Kg/mm²  
Tolleranza di rettifica: D = h 7

Material: Steel for bolts and screws  
Washer: steel heat-treated and burnished, strenght 100Kg/mm²  
Spacer Data: steel heat-threated and grinded, strenght 120-140Kg/mm²  
Tolerance of grinding: D = h 7



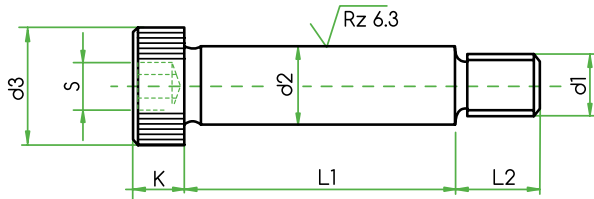
filetto M	6 MA	8 MA	10 MA	12 MA	16 MA
k	6	6.5	7.5	9	11
d	15	19	23	27	34
D	10	12.5	15	17.5	23
L	L = ±0,05 mm				
15	•				
20	•	•	•		
25	•	•	•		
30	•	•	•	•	
35	•	•	•	•	
40	•	•	•	•	•
45	•	•	•	•	•
50	•	•	•	•	•
55	•	•	•	•	•
60	•	•	•	•	•
65	•	•	•	•	•
70	•	•	•	•	•
80	•	•	•	•	•
90	•	•	•	•	•
100	•	•	•	•	•
110	•	•	•	•	•
120		•	•	•	•
140		•	•	•	•
150			•	•	•
160			•	•	•
180			•	•	•
200			•	•	•
220				•	•
230					•



VITE A TESTA CILINDRICA CON GAMBO  
RETTIFICATO ESAGONO INCASSATO  
CYLINDRICAL HEAD SCREW WITH RECTIFIED PIPE AND  
INSERTED HEXAGON

Materiale: Acciaio per viteria  
Resistenza alla rottura per trazione: 120Kg/mm²  
Limite di elasticità: 90/Kg/mm² min  
Allungamento: 9% min  
Grado di tolleranza del gambo rettificato: h8

Material: Steel for bolts and screws  
Tensile strenght: 120Kg/mm²  
Limit of elasticity: 90/Kg/mm² min  
Stretch: 9% min  
Tolerance rate of the ground shaft: h8

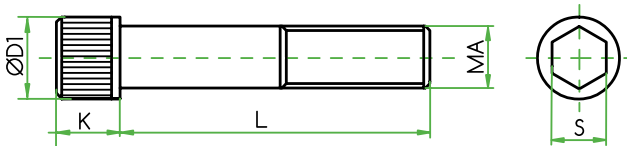


d2h8	5	6	8	10	12	16	20	24
d1	4 x	5 x 0.8	6 x 1	8 x 1.25	10 x 1.5	12 x 1.75	16 x 2	20 x 2.5
d3	8	10	13	16	18	24	30	36
K	4	4.5	5.5	7	9	10	14	16
L2	8	9.5	11	13	16	18	22	27
S=esagono	2.5	3	4	5	6	8	10	12
Kg. / mm	0.49	0.68	1.15	3	6	11	28	55
L1								
10	•	•	•					
12	•	•	•					
16	•	•	•	•	•			
20	•	•	•	•	•			
25	•	•	•	•	•			
30	•	•	•	•	•	•		
35	•	•	•	•	•	•		
40	•	•	•	•	•	•	•	
45	•	•	•	•	•	•	•	
50	•	•	•	•	•	•	•	•
55		•	•	•	•	•	•	•
60			•	•	•	•	•	•
65			•	•	•	•	•	•
70			•	•	•	•	•	•
80			•	•	•	•	•	•
90				•	•	•	•	•
100				•	•	•	•	•
120					•	•	•	•
140					•	•	•	•
160						•	•	•
200						•	•	•

VITE A TESTA CILINDRICA ESAGONO INCASSATO  
CYLINDRICAL HEAD SCREW WITH HEXAGON SOCKET

Materiale: Acciaio per viteria  
Resistenza a trazione: 130 Kg/mm²  
Resistenza a rinvenimento:  
Limite di elasticità: 110 Kg/mm²  
Allungamento a rottura: 9% min

Material: Steel for bolts and screws  
Tensile strenght: 130 Kg/mm²  
Limit of elasticity: 110 Kg/mm²  
Stretch: 9% min



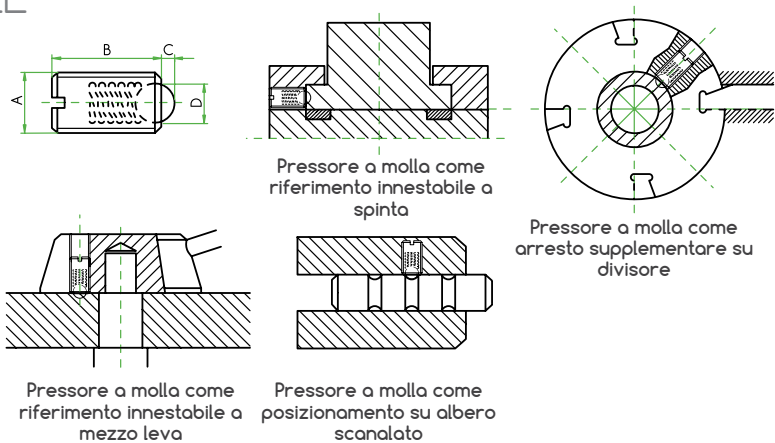
MA	3	4	5	6	8	10	12	14	16	18	20	24
passo	M3x0.5	M4x0.7	M5x0.8	M6x1	M8x1.25	M10x1.5	M12x1.75	M14x2	M16x2	M18x2.5	M20x2.5	M24x3
S	2.5	3	4	5	6	8	10	12	14	14	17	19
D1	5.5	7	8.5	10	13	16	18	21	24	27	30	36
K	3	4	5	6	8	10	12	14	16	18	20	24
c.s. Kg/mm	0.25	0.57	1.15	1.95	4.7	9.4	16.2	26	39.5	54.5	76.5	132
L												
6	•	•	•									
8	•	•	•	•								
10	•	•	•	•	•	•						
12	•	•	•	•	•	•	•					
15	•	•	•	•	•	•	•					
18	•	•	•	•	•	•	•					
20	•	•	•	•	•	•	•					
22		•	•	•	•	•	•		•			
25	•	•	•	•	•	•	•	•	•			
30	•	•	•		•	•	•	•	•		•	
35	•	•	•	•	•	•	•	•	•	•	•	
40		•	•	•	•	•	•	•	•	•	•	•
45		•	•	•	•	•	•	•	•	•	•	•
50		•	•	•	•	•	•	•	•	•	•	•
55			•	•	•	•	•	•	•	•	•	•
60			•	•	•	•	•	•	•	•	•	•
65			•	•	•	•	•	•	•	•	•	•
70			•	•	•	•	•	•	•	•	•	•
75				•	•	•	•	•	•	•	•	•
80				•	•	•	•	•	•	•	•	•
90				•	•	•	•	•	•	•	•	•
100				•	•	•	•	•	•	•	•	•
110				•	•	•	•	•	•	•	•	•
120				•	•	•	•	•	•	•	•	•
130					•	•	•		•		•	•
140					•	•	•		•		•	•
150					•	•	•		•		•	•
160					•	•	•		•		•	•
180					•	•	•		•		•	•
200					•	•	•		•		•	•
220						•	•		•		•	•
240						•	•		•		•	•
260							•		•		•	•
280									•		•	•
300									•		•	•

N.B. Sopra la riga gambo interamente filettato

PRESSORE A SFERA CON MOLLA  
THRUST WITH SPRING BALL

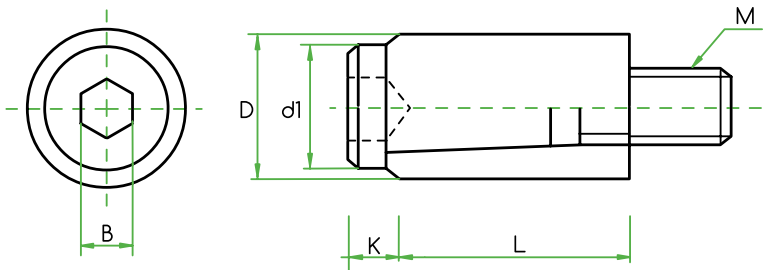
Material: Acciaio  
Trattamento superficiale Brunito  
Sfera completamente temperata lucida  
Acciaio INOX, lucido

Material: Steel  
Surface treatment Burnished  
Sphere completely hardened and lapped  
Bright stainless steel



A	B	C	D	Initial Force N	Final force N
M4	9	0.8	2.5	6	12
M5	12	0.9	3	7	13
M6	14	1.0	3.5	9	15
M8	16	1.5	5	20	35
M10	19	2.0	6	25	45
M12	22	2.5	8	35	60
M16	24	3.5	10	65	110

TRASCINATORE  
PARTING LOCK

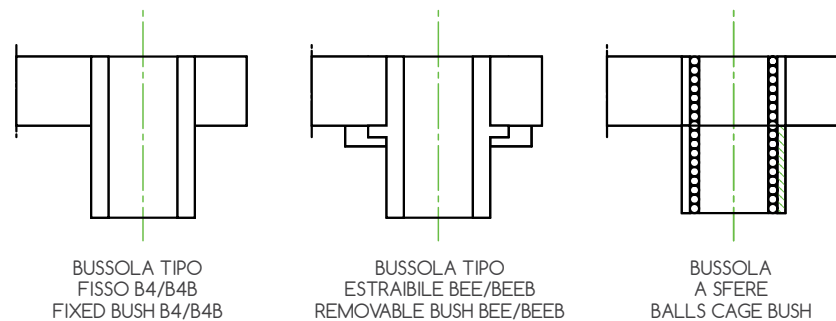
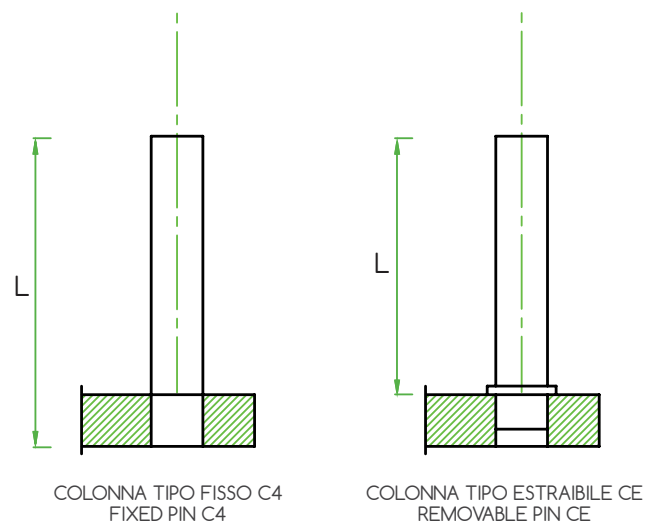


D	D1	M	B	L	H
12	11.5	6	5	20	4.5
16	14	8	6	25	4.5

ELEMENTI DI GUIDA PER  
STAMPI LAMIERA  
GUIDING ELEMENTS FOR  
SHEET METAL MOLDS

# SCHEMI DI INCOLONNAMENTO

## GUIDING ELEMENTS PLANS



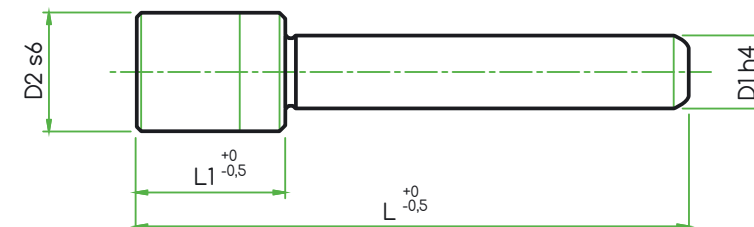
C3

## COLONNA CON TESTA

### HEAD PILOT PIN

Materiale: Acciaio 1.7131  
Trattamento Termico: Cementazione + Tempra  
Durezza: Hrc 61 + 63

Material: Steel 1.7131  
Heat Treatment: Cementing + Hardening  
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									•	•	•	•	•	•	•	•	•	•

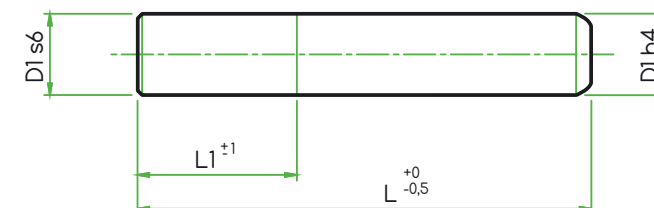
C4

## COLONNA SENZA TESTA

### SMOOTH PILOT PIN

Materiale: Acciaio 1.7131  
Trattamento Termico: Cementazione + Tempra  
Durezza: Hrc 61 + 63

Material: Steel 1.7131  
Heat Treatment: Cementing + Hardening  
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												•	•	•	•	•	•	•

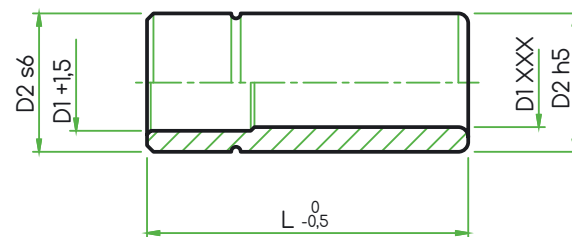
# B4

## BUSSOLA LISCIA ACCIAIO STEEL PILOT BUSH

Materiale: Acciaio 1.7131  
Trattamento Termico: Cementazione + Tempra  
Durezza: Hrc 61 ÷ 63

Material: Steel 1.7131  
Heat Treatment: Cementing + Hardening  
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	/



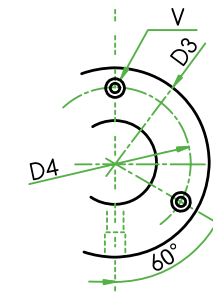
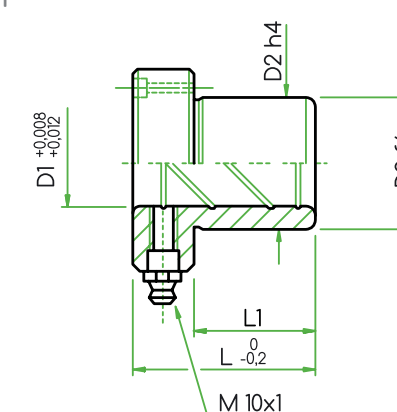
# B5

## BUSSOLA A COLLARE CON FORI DI FISSAGGIO ACCIAIO STEEL FLANGED GUIDE BUSH

Materiale: Acciaio 1.7131  
Trattamento Termico: Cementazione + Tempra  
Durezza: Hrc 61 ÷ 63

Material: Steel 1.7131  
Heat Treatment: Cementing + Hardening  
Hardness: Hrc 61 ÷ 63

XXX	D1	D2	D3	D4	L1	L	VIT1
+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



52

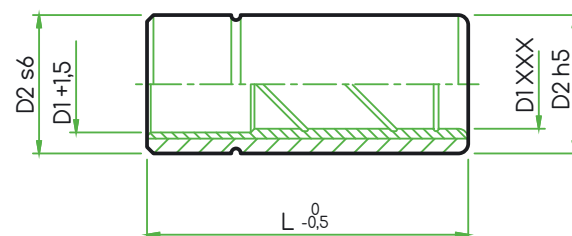
# B4B

## BUSSOLA LISCIA ACCIAIO/BRONZO STEEL/BRONZE PILOT BUSH

Materiale: Acciaio 1.7131 + Bronzo  
Trattamento Termico: Cementazione + Tempra  
Durezza: Hrc 61 ÷ 63

Material: Steel 1.7131 + Bronze  
Heat Treatment: Cementing + Hardening  
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	/



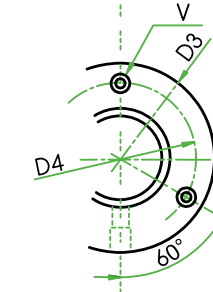
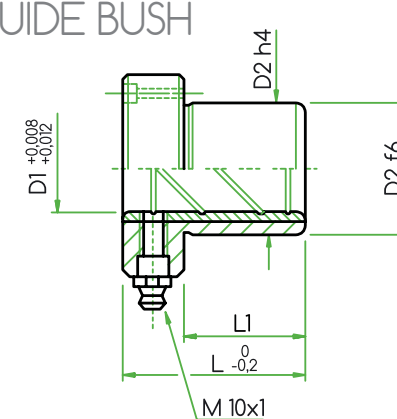
# B5B

## BUSSOLA A COLLARE CON FORI DI FISSAGGIO ACCIAIO/BRONZO STEEL/BRONZE FLANGED GUIDE BUSH

Materiale: Acciaio 1.7131 + Bronzo  
Trattamento Termico: Cementazione + Tempra  
Durezza: Hrc 61 ÷ 63

Material: Steel 1.7131 + Bronze  
Heat Treatment: Cementing + Hardening  
Hardness: Hrc 61 ÷ 63

XXX	D1	D2	D3	D4	L1	L	VIT1
+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



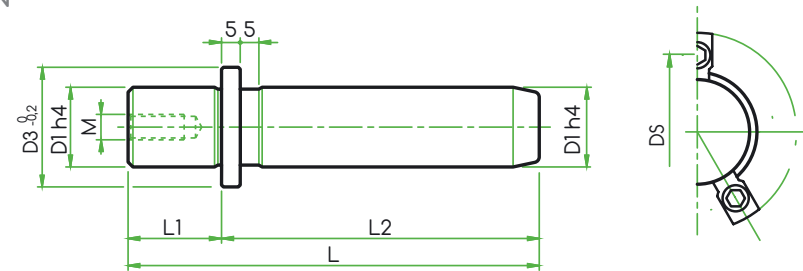
53

CE

COLONNA ESTRAIBILE  
REMOVABLE GUIDE PIN

Materiale: Acciaio 1.7131  
Trattamento Termico: Cementazione + Tempra  
Durezza: Hrc 61 + 63

Material: Steel 1.7131  
Heat Treatment: Cementing + Hardening  
Hardness: Hrc 61 + 63



D1	D3	M	DS	STAF	L1	100	110	120	130	140	150	160	170	180	200	220	240	260	280	300	320	360	400
18-19	25	8	33	M6	20	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
24-25	32	10	40	M6	25	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
30-32	40	10	50	M8	30	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
40-42	50	12	60	M8	35	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
50-52	62	12	72	M8	45	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
63	73	12	83	M8	49	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
63*	77	12	87	M8	49	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
80*	93	12	103	M8	59	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

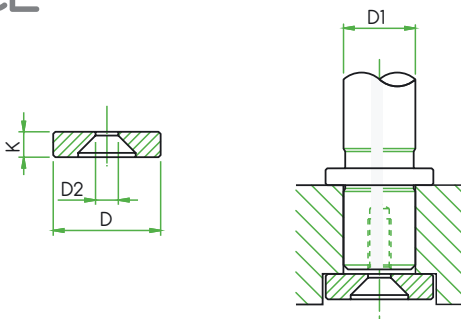
\* a richiesta  
\* on request

RTE

RONDELLA PER COLONNA CE  
WASHER FOR CE PIN

Materiale: Acciaio 1.7131  
Trattamento Termico: Cementazione + Tempra  
Durezza: Hrc 61 + 63

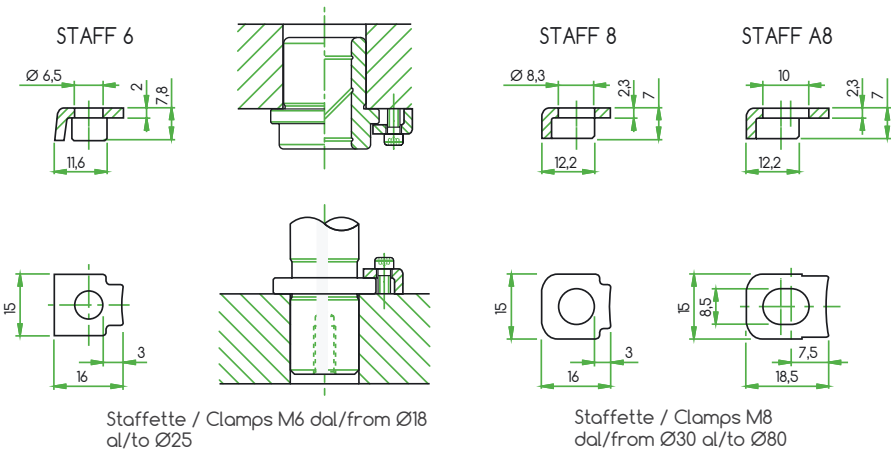
Material: Steel 1.7131  
Heat Treatment: Cementing + Hardening  
Hardness: Hrc 61 + 63



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

STAFF

STAFFETTA DI RITEGNO  
RETAINING CLAMP

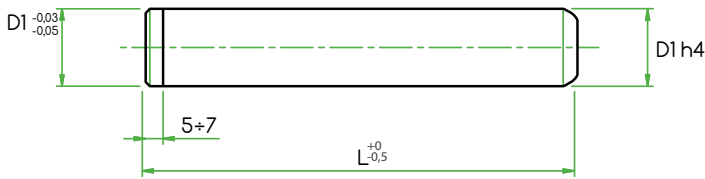


CIS

COLONNA LISCIA CON INVITO  
STRAIGHT GUIDE PIN

Materiale: Acciaio 1.7131  
Trattamento Termico: Cementazione + Tempra  
Durezza: Hrc 61 + 63

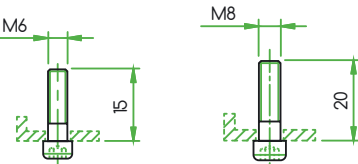
Material: Steel 1.7131  
Heat Treatment: Cementing + Hardening  
Hardness: Hrc 61 + 63



D1	L																							
	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280	300	315	355	360	400	450	500
18-19	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
24-25	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
30-32	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
40-42	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
50-52	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
63	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
80	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

VITI

VITE PER STAFFETTA  
SCREW FOR CLAMP



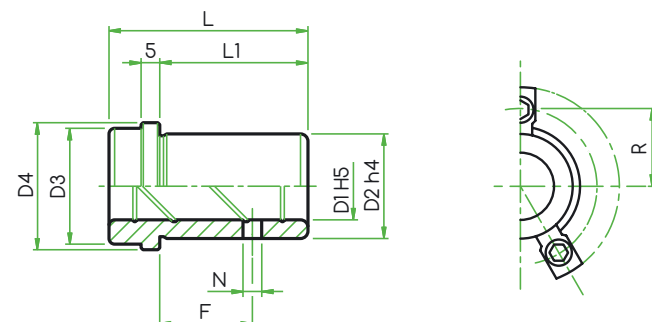


## BUSSOLA ESTRAIBILE ACCIAIO

STEEL REMOVABLE BUSH

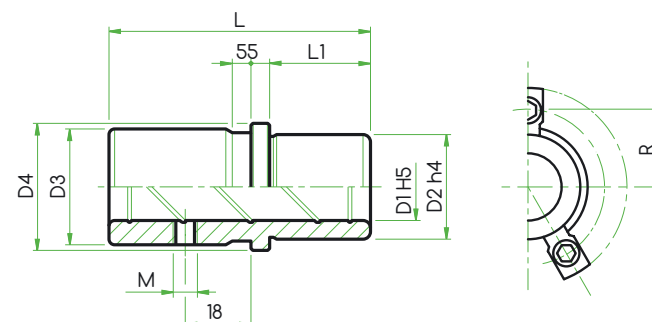
Materiale: Acciaio 1.7131  
Trattamento Termico: Cementazione + Tempra  
Durezza: Hrc 61 ÷ 63

Material: Steel 1.7131  
Heat Treatment: Cementing + Hardening  
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

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



Materiale: Acciaio 1.7131  
Trattamento Termico: Cementazione + Tempra  
Durezza: Hrc 61 ÷ 63

Material: Steel 1.7131  
Heat Treatment: Cementing + Hardening  
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

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

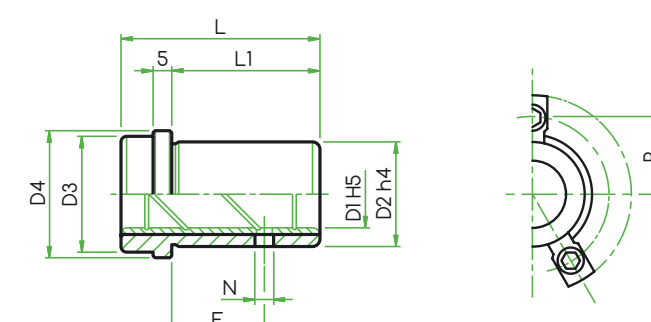
TIPO EXTRA LUNGO XL							
D1	L	D2	D3	D4	L1	R	M
18-19	70	28	31	34	27	21	6x1
24-25	80	38	41	44	32	26	10x1
30-32	90	45	50	53	37	31.5	10x1
40-42	100	54	60	63	47	36.5	10x1
50-52	110	65	76	79	57	44.5	10x1
63	130	81	89	92	67	51	10x1

## BUSSOLA ESTRAIBILE ACCIAIO/BRONZO

REMOVABLE STEEL/BRONZE GUIDE BUSH

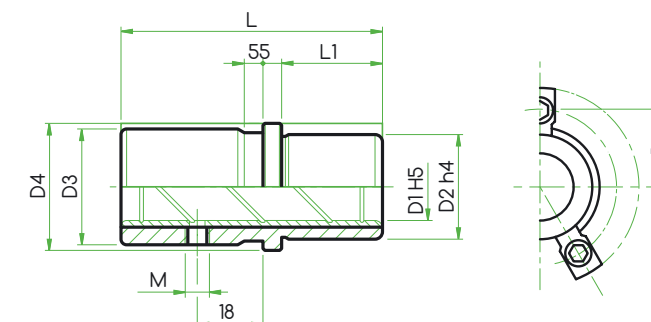
Materiale: Acciaio 1.7131 + Bronzo  
Trattamento Termico: Cementazione + Tempra  
Durezza: Hrc 61 ÷ 63

Material: Steel 1.7131 + Bronze  
Heat Treatment: Cementing + Hardening  
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	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

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



Materiale: Acciaio 1.7131 + Bronzo  
Trattamento Termico: Cementazione + Tempra  
Durezza: Hrc 61 ÷ 63

Material: Steel 1.7131 + Bronze  
Heat Treatment: Cementing + Hardening  
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
80	100	100	108	111	48	60.5	10x1

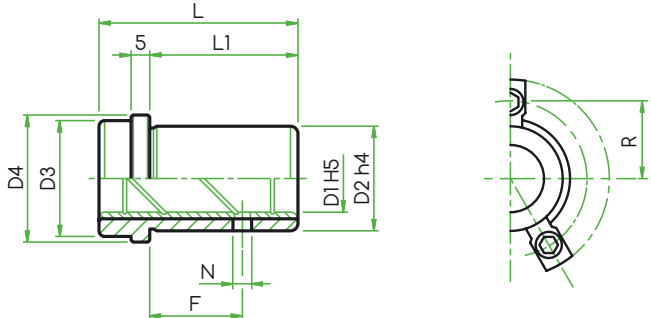
TIPO LUNGO L							
D1	L	D2	D3	D4	L1	R	M
18-19	70	28	31	34	18	21	6x1
24-25	80	38	41	44	23	26	10x1
30-32	90	45	50	53	26	31.5	10x1
40-42	100	54	60	63	30	36.5	10x1
50-52	110	65	76	79	35	44.5	10x1
63	130	81	89	92	48	51	10x1
80	150	100	108	111	48	60.5	10x1

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

BUSSOLA ESTRAIBILE BRONZO INTEGRALE  
REMOVABLE SHOULDER BRONZE GUIDE BUSH

Materiale: Bronzo  
Trattamento Termico: Cementazione + Tempra  
Durezza: Hrc 61 + 63

Material: Bronze  
Heat Treatment: Cementing + Hardening  
Hardness: Hrc 61 + 63

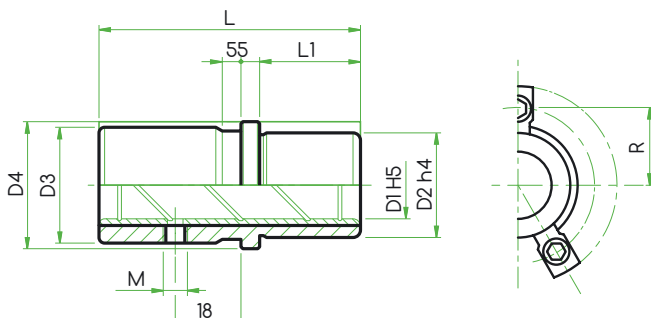


TIPO CORTO C								
D1	L	D2	D3	D4	L1	R	N	F
18-19	31	28	29	34	18	21	5	8
24-25	36	38	39	44	23	26	5	12
30-32	43	45	48	53	30	31.5	5	16
40-42	51	54	58	63	38	36.5	8	19
50-52	61	65	74	79	48	44.5	8	19
63	74	81	87	92	61	51	8	19
80	91	100	106	111	78	60.5	8	19

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

Materiale: Bronzo  
Trattamento Termico: Cementazione + Tempra  
Durezza: Hrc 61 + 63

Material: Bronze  
Heat Treatment: Cementing + Hardening  
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
80	100	100	108	111	48	60.5	10x1

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

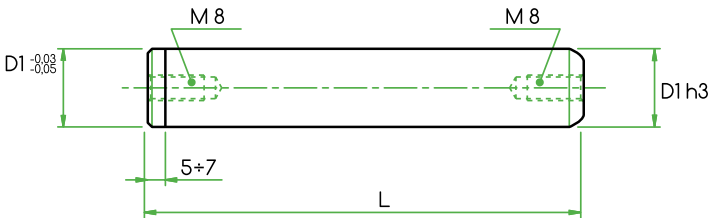
TIPO EXTRA LUNGO XL							
D1	L	D2	D3	D4	L1	R	M
18-19	70	28	31	34	27	21	6x1
24-25	80	38	41	44	32	26	10x1
30-32	90	45	50	53	37	31.5	10x1
40-42	100	54	60	63	47	36.5	10x1
50-52	110	65	76	79	57	44.5	10x1
63	130	81	89	92	67	51	10x1
80	150	100	108	111	77	60.5	10x1

ELEMENTI DI GUIDA ISO  
PER STAMPI LAMIERA  
ISO GUIDING ELEMENTS  
FOR SHEET METAL MOLDS

COLONNA LISCIA FILETTATA  
STRAIGHT GUIDE PIN WITH THREAD

Materiale: Acciaio 1.7131  
Trattamento Termico: Cementazione + Tempra  
Durezza: Hrc 61 ÷ 63

Material: Steel 1.7131  
Heat Treatment: Cementing + Hardening  
Hardness: Hrc 61 ÷ 63

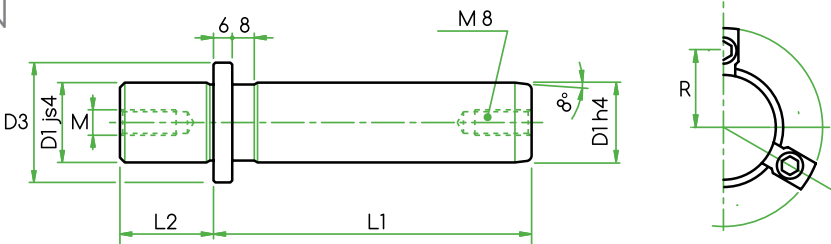


D1	L																	
	100	112	125	140	160	180	200	224	250	280	315	355	400	450	500	600	700	800
19-20	•	•	•	•	•	•	•	•	•									
24-25			•	•	•	•	•	•	•	•	•	•	•	•	•			
30-32			•	•	•	•	•	•	•	•	•	•	•	•	•			
38-40					•	•	•	•	•	•	•	•	•	•	•			
48-50							•	•	•	•	•	•	•	•	•			
60-63									•	•	•	•	•	•	•			
80										•	•	•	•	•	•	•	•	•

COLONNA ESTRAIBILE  
REMOVABLE GUIDE PIN

Materiale: Acciaio 1.7131  
Trattamento Termico: Cementazione + Tempra  
Durezza: Hrc 61 ÷ 63

Material: Steel 1.7131  
Heat Treatment: Cementing + Hardening  
Hardness: Hrc 61 ÷ 63

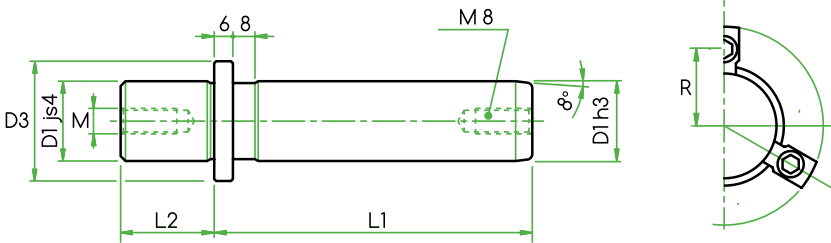


D1	D3	M	R	STAF	L2	L1												
						100	112	125	140	160	180	200	224	250	280	315	355	400
19-20	25	8	18	M8	23	•	•	•	•	•	•	•						
24-25	32	8	21.5	M8	30	•	•	•	•	•	•	•	•	•				
30-32	40	8	25.5	M8	37		•	•	•	•	•	•	•	•	•	•		
38-40	50	8	30.5	M8	37			•	•	•	•	•	•	•	•	•	•	
48-50	63	8	37	M8	47				•	•	•	•	•	•	•	•	•	•
60-63	80	8	45.5	M8	47					•	•	•	•	•	•	•	•	•
80	95	12	53	M8	60							•	•	•	•	•	•	•

COLONNA ESTRAIBILE  
REMOVABLE GUIDE PIN

Materiale: Acciaio 1.7131  
Trattamento Termico: Cementazione + Tempra  
Durezza: Hrc 61 ÷ 63

Material: Steel 1.7131  
Heat Treatment: Cementing + Hardening  
Hardness: Hrc 61 ÷ 63



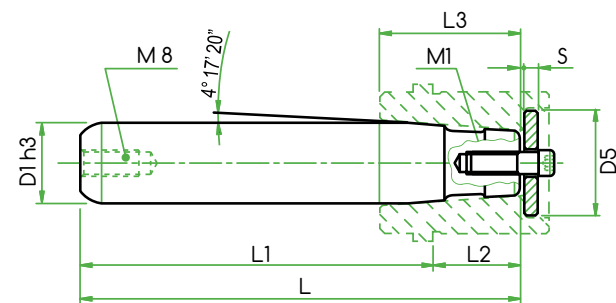
D1	D3	M	R	STAF	L2	L1												
						100	112	125	140	160	180	200	224	250	280	315	355	400
19-20	25	8	18	M8	23	•	•	•	•	•	•	•						
24-25	32	8	21.5	M8	30	•	•	•	•	•	•	•	•	•				
30-32	40	8	25.5	M8	37		•	•	•	•	•	•	•	•	•	•		
38-40	50	8	30.5	M8	37			•	•	•	•	•	•	•	•	•	•	
48-50	63	8	37	M8	47				•	•	•	•	•	•	•	•	•	•
60-63	80	8	45.5	M8	47					•	•	•	•	•	•	•	•	•
80	95	12	53	M8	60							•	•	•	•	•	•	•

# C5A

## COLONNA CONICA CONICAL PIN

Materiale: Acciaio 1.7131  
Trattamento Termico: Cementazione + Tempra  
Durezza: Hrc 61 + 63

Material: Steel 1.7131  
Heat Treatment: Cementing + Hardening  
Hardness: Hrc 61 + 63



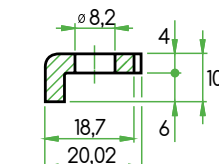
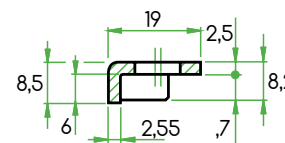
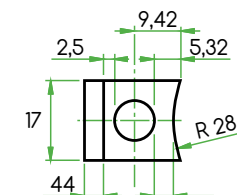
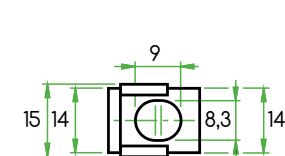
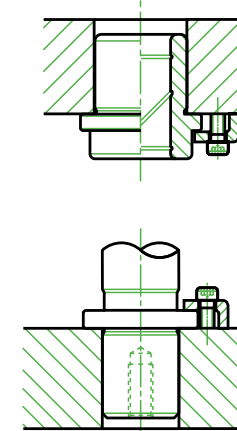
D1	M	L3	S	D5	L1													
					100	112	125	140	160	180	200	224	250	280	315	355	L	
24-25	M 8x20	35	4	25	123	135	148	163	183	203	223	247	273					
30-32	M 8x20	48	4	32		145	158	173	193	213	233	257	283	313				
38-40	M 8x20	48	4	40			158	173	193	213	233	257	283	313	348			
48-50	M 10x20	58	5	50				180	200	220	240	264	290	320	355	395		
60-63	M 12x30	69	6	63					211	231	251	275	301	331	366	406		

# STAFF

## STAFFETTA DI RITEGNO RETAINING CLAMP

STAFF ISO 8  
Staffetta ISO  
Retaining Clamps ISO

STAFF P ISO 8  
Staffetta Pesante ISO  
Stronger Retaining Clamps ISO

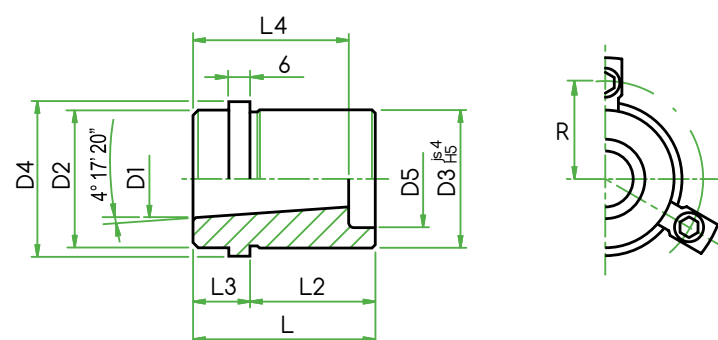


# BEAC

## BUSSOLA CONICA CONICAL BUSH

Materiale: Acciaio 1.7131  
Trattamento Termico: Cementazione + Tempra  
Durezza: Hrc 61 + 63

Material: Steel 1.7131  
Heat Treatment: Cementing + Hardening  
Hardness: Hrc 61 + 63

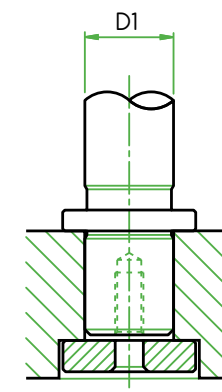
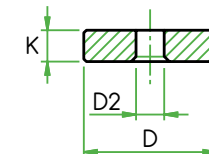


D1	D2	D3	D4	D5	R	L	L2	L3	L4
24-25	40	40	48	26	30	49-59	37-47	12	36
30-32	48	48	56	33	33,5	52-62	37-47	15	49
38-40	58	58	66	41	38,5	62-75	47-60	15	49
48-50	70	70	80	51	45,5	65-78	47-60	18	59
60-63	85	85	95	64	53	78-95	60-77	18	70

# RTI

## RONDELLA PER COLONNA CEA/CEAQ WASHER FOR CEA/CEAQ PIN

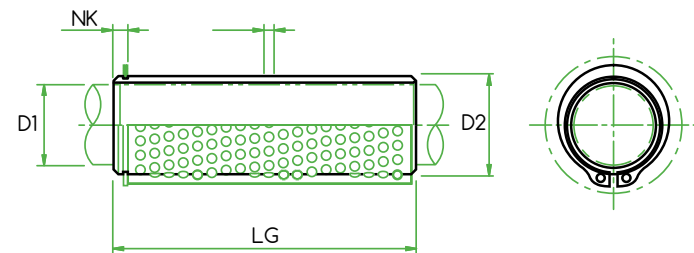
D1	D	K	D2
19-20	25	6	8.5
24-25	32	6	8.5
30-32	40	6	8.5
38-40	50	6	8.5
48-50	60	6	8.5
60-63	70	6	8.5
80	93	12	12.5



# GABBIA A SFERE BALLS CAGE

Materiale: Bronzo

Material: Bronze

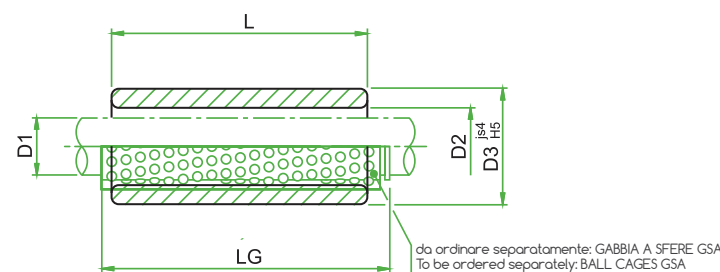


D1	19	20	24	25	30	32	38	40	48	50	60	63	80
D2	25	26	30	31	38	40	46	48	56	58	68	71	92
K	3		3		4		4		4		4		6
N	2.9		3.2		3.95		3.95		4.25		4.75		6.15
LG	40		160		120								
	45	180	180		140		168						
	50				160		192		224				
	56	240	240		180		216						
	63						264		308				
	71	320	320		240								
	80	360	360		280		336		392				
	95	440	440		340		408		476		544		
	105				380		456		532		608		
	120		560		440		528		616		704		540
	140				520		624		728		832		648
	160				600		720		840		960		756
	180						816		952		1088		864
	200						912		1064		1216		972
	240						1104		1288		1472		1152

# BUSSOLA LISCIA PER GABBIA A SFERE GUIDE BUSH FOR BALLS CAGE

Materiale: Acciaio 1.7131  
Trattamento Termico: Cementazione + Tempra  
Durezza: Hrc 61 ÷ 63

Material: Steel 1.7131  
Heat Treatment: Cementing + Hardening  
Hardness: Hrc 61 ÷ 63

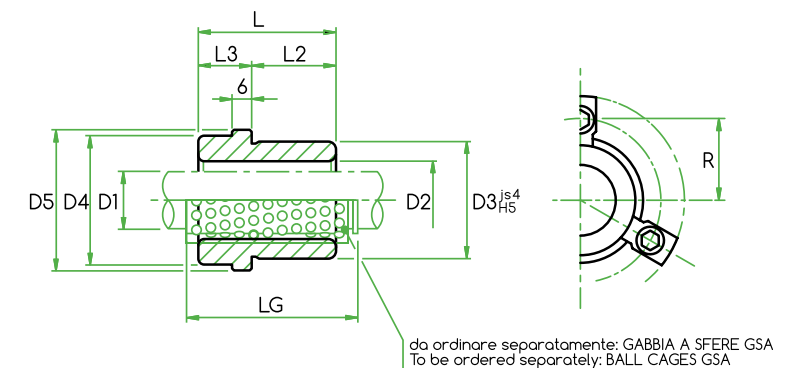


D1	19	20	24	25	30	32	38	40	48	50	60	63	80
D2	25	26	30	31	38	40	46	48	56	58	68	71	92
D3	32	32	40	40	48	48	58	58	70	70	85	85	105
L	LG												
23	45	•	•	•	•								
30	45	•	•	•	•	•	•	•	•				
37	45	•	•	•	•								
37	50					•	•	•	•	•			
47	56	•	•	•	•	•	•						
47	63						•	•	•	•			
60	71	•	•	•	•	•	•						
60	80						•	•	•	•			
60	95										•	•	
77	95	•	•	•	•	•	•	•	•	•	•	•	
95	120					•	•	•	•	•	•	•	
120	140						•	•	•	•	•	•	•

# BUSSOLA ESTRAIBILE PER GABBIA A SFERE REMOVABLE BUSH FOR BALLS CAGE

Materiale: Acciaio 1.7131  
Trattamento Termico: Cementazione + Tempra  
Durezza: Hrc 61 ÷ 63

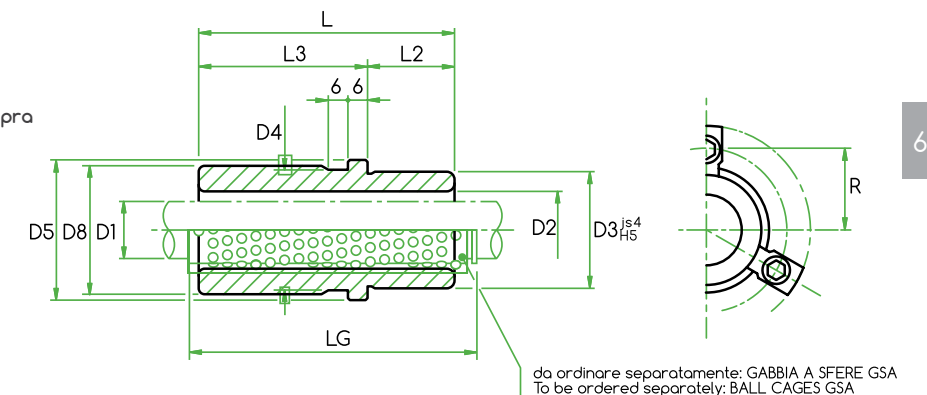
Material: Steel 1.7131  
Heat Treatment: Cementing + Hardening  
Hardness: Hrc 61 ÷ 63



TIPO 7										
D1	D2	D3	D4	D5	R	L	L2	L3	LG	
19-20	25-26	32	32	40	26	35	23	12	45	
24-25	30-31	40	40	48	30	35	23	12	45	
30-32	38-40	48	48	56	33.5	42	30	12	56	
38-40	46-48	58	58	66	38.5	52	37	15	63	
48-50	56-58	70	70	80	45.5	65	47	18	80	
60-63	68-71	85	85	95	53	80	60	20	95	
80	92	105	105	118	64.5	80	60	20	120	

Materiale: Acciaio 1.7131  
Trattamento Termico: Cementazione + Tempra  
Durezza: Hrc 61 ÷ 63

Material: Steel 1.7131  
Heat Treatment: Cementing + Hardening  
Hardness: Hrc 61 ÷ 63



TIPO 4										
D1	D2	D3	D4	D5	D8	R	L	L2	L3	LG
19-20	25-26	32	32	40	39	26	59	23	36	71
24-25	30-31	40	40	48	46	30	79	23	56	95
30-32	38-40	48	48	56	53	33.5	93	30	63	120
38-40	46-48	58	58	66	63	38.5	108	37	71	120
48-50	56-58	70	70	80	77	45.5	127	47	80	140
60-63	68-71	85	85	95	92	53	150	60	90	160
80	92	105	105	118	115	64.5	150	60	90	160

TIPO 5										
D1	D2	D3	D4	D5	D8	R	L	L2	L3	LG
24-25	30-31	40	40	48	46	30	80	30	50	95
30-32	38-40	48	48	56	53	33.5	93	37	56	120
38-40	46-48	58	58	66	63	38.5	110	47	63	140
48-50	56-58	70	70	80	77	45.5	131	60	71	160

TIPO 6										
D1	D2	D3	D4	D5	D8	R	L	L2	L3	LG
19-20	25-26	32	32	40	39	26	43	23	20	56
24-25	30-31	40	40	48	46	30	59	23	36	71
30-32	38-40	48	48	56	53	33.5	75	30	45	95
38-40	46-48	58	58	66	63	38.5	82	37	45	105
48-50	56-58	70	70	80	77	45.5	97	47	50	120
60-63	68-71	85	85	95	92	53	116	60	56	140
80	92	105	105	118	115	64.5	120	60	60	140

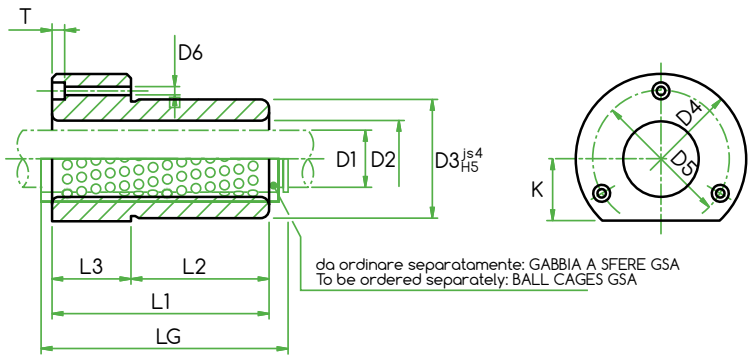
TIPO 9										
D1	D2	D3	D4	D5	D8	R	L	L2	L3	LG
24-25	30-31	40	40	48	46	30	55	30	25	71
30-32	38-40	48	48	56	53	33.5	69	37	32	80
38-40	46-48	58	58	66	63	38.5	79	47	32	95
48-50	56-58	70	70	80	77	45.5	96	60	36	120



BUSSOLA A COLLARE PER GABBIA A SFERE  
FLANGED GUIDE BUSH FOR BALLS CAGE

Materiale: Acciaio 1.7131  
Trattamento Termico: Cementazione + Tempra  
Durezza: Hrc 61 ÷ 63

Material: Steel 1.7131  
Heat Treatment: Cementing + Hardening  
Hardness: Hrc 61 ÷ 63



TIPO 4										
D1	D2	D3	D4	D5	K	L1	L2	L3	LG	
19-20	25-26	40	50	40	18	52	37	15	71	
24-25	30-31	48	63	50	23	62	37	25	71	
30-32	38-40	58	72	58	28	72	47	25	80	
38-40	46-48	70	85	70	33	77	47	30	95	
48-50	56-58	85	104	86	38	102	60	42	120	
60-63	68-71	105	120	100	46	102	60	42	120	
80	92	105	148	125	56	125	75	50	140	

TIPO 5											
D1	D2	D3	D4	D5	K	L1	L2	L3	LG		
19-20	25-26	32	50	40	18	45	30	15	56		
24-25	30-31	40	63	50	23	55	30	25	71		
30-32	38-40	48	72	58	28	62	37	25	71		
38-40	46-48	58	85	70	33	67	37	30	80		
48-50	56-58	70	104	86	38	89	47	42	95		
60-63	68-71	85	120	100	46	89	47	42	95		

D1	D6	T
19-20	4.5	4.6
24-25	5.5	5.7
30-32	5.5	5.7
38-40	6.6	6.8
48-50	9	9
60-63	9	9
80	11	11

TIPO 6											
D1	D2	D3	D4	D5	K	L1	L2	L3	LG		
19-20	25-26	32	50	40	18	38	23	15	45		
24-25	30-31	40	63	50	23	38	23	15	45		
30-32	38-40	48	72	58	28	45	30	15	56		
38-40	46-48	58	85	70	33	55	30	25	63		
48-50	56-58	70	104	86	38	62	37	25	80		

BUSSOLA ESTRAIBILE ACCIAIO  
STEEL REMOVABLE BUSH

Materiale: Acciaio 1.7131  
Trattamento Termico: Cementazione + Tempra  
Durezza: Hrc 61 ÷ 63

Material: Steel 1.7131  
Heat Treatment: Cementing + Hardening  
Hardness: Hrc 61 ÷ 63

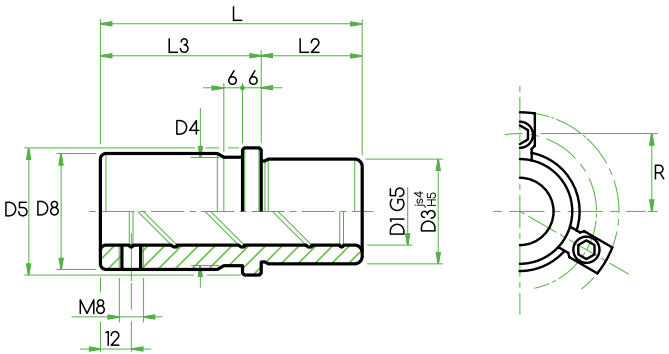
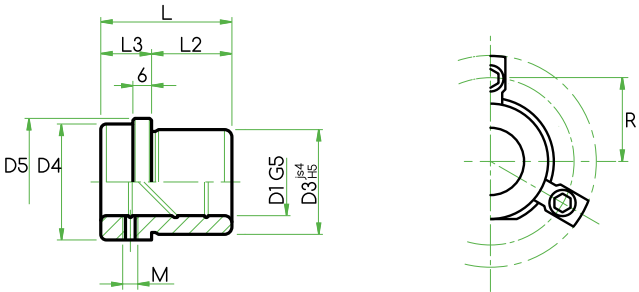
TIPO 5									
D1	D3	D4	D5	R	M	L	L2	L3	
19-20	32	32	40	26	8	35	23	12	
24-25	40	40	48	30	8	35	23	12	
30-32	48	48	56	33.5	8	42	30	12	
38-40	58	58	66	38.5	8	52	37	15	
48-50	70	70	80	45.5	8	65	47	18	
60-63	85	85	95	53	8	80	60	20	

Materiale: Acciaio 1.7131  
Trattamento Termico: Cementazione + Tempra  
Durezza: Hrc 61 ÷ 63

Material: Steel 1.7131  
Heat Treatment: Cementing + Hardening  
Hardness: Hrc 61 ÷ 63

TIPO 4									
D1	D3	D4	D5	D8	R	L	L2	L3	
19-20	32	32	40	39	26	43	23	20	
24-25	40	40	48	46	30	59	23	36	
30-32	48	48	56	53	33.5	75	30	45	
38-40	58	58	66	63	38.5	82	37	45	
48-50	70	70	80	77	45.5	97	47	50	
60-63	85	85	95	92	53	116	60	56	

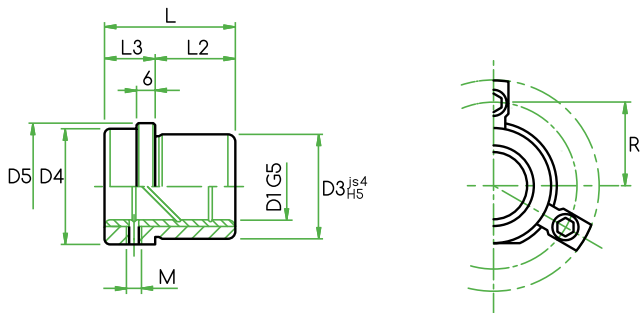
TIPO 1									
D1	D3	D4	D5	D8	R	L	L2	L3	
19-20	32	32	40	39	26	59	23	36	
24-25	40	40	48	46	30	79	23	56	
30-32	48	48	56	53	33.5	93	30	63	
38-40	58	58	66	63	38.5	108	37	71	
48-50	70	70	80	77	45.5	127	47	80	
60-63	85	85	95	92	53	150	60	90	



BUSSOLA ESTRAIBILE ACCIAIO/BRONZO  
STEEL/BRONZE REMOVABLE BUSH

Materiale: Acciaio 1.7131  
Trattamento Termico: Cementazione + Tempra  
Durezza: Hrc 61 ÷ 63

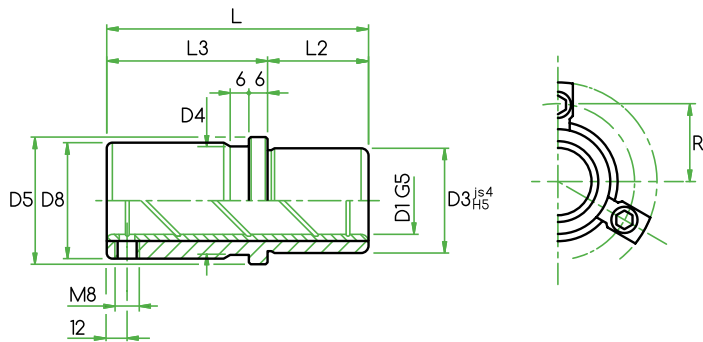
Material: Steel 1.7131  
Heat Treatment: Cementing + Hardening  
Hardness: Hrc 61 ÷ 63



TIPO 5								
D1	D3	D4	D5	R	L	L2	L3	
19-20	32	32	40	26	35	23	12	
24-25	40	40	48	30	35	23	12	
30-32	48	48	56	33.5	42	30	12	
38-40	58	58	66	38.5	52	37	15	
48-50	70	70	80	45.5	65	47	18	
60-63	85	85	95	53	80	60	20	
80	105	105	118	64.5	80	60	20	

Materiale: Acciaio 1.7131  
Trattamento Termico: Cementazione + Tempra  
Durezza: Hrc 61 ÷ 63

Material: Steel 1.7131  
Heat Treatment: Cementing + Hardening  
Hardness: Hrc 61 ÷ 63



TIPO 4								
D1	D3	D4	D5	D8	R	L	L2	L3
19-20	32	32	40	39	26	43	23	20
24-25	40	40	48	46	30	59	23	36
30-32	48	48	56	53	33.5	75	30	45
38-40	58	58	66	63	38.5	82	37	45
48-50	70	70	80	77	45.5	97	47	50
60-63	85	85	95	92	53	116	60	56
80	105	105	118	115	64.5	120	60	60

TIPO 1								
D1	D3	D4	D5	D8	R	L	L2	L3
19-20	32	32	40	39	26	59	23	36
24-25	40	40	48	46	30	79	23	56
30-32	48	48	56	53	33.5	93	30	63
38-40	58	58	66	63	38.5	108	37	71
48-50	70	70	80	77	45.5	127	47	80
60-63	85	85	95	92	53	150	60	90
80	105	105	118	115	64.5	150	60	90

PUNZONI DI TRANCIATURA  
BLANKING PUNCHES

PUNZONE CON TESTA SVASATA  
PUNCH WITH CONICAL HEAD

Materiale: Acciaio al Cromo-Vanadio-Volframio  
Lunghezze standard: 71-80-100mm  
Durezza gambo: Hrc 60 ÷ 62  
Durezza testa: Hrc 45±5  
Esecuzione: Rettificato-Lappato / Testa riscalcata a caldo  
A richiesta: rivestimento TIN

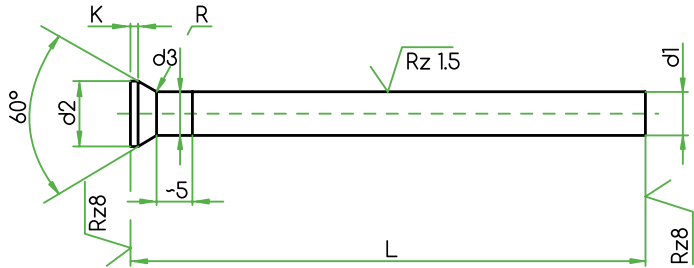
DIN 9861

Forma D - WS

Material: Special Alloy Steel  
Standard lengths: 71-80-100mm  
Shaft Hardness: Hrc 60 ÷ 62  
Head Hardness: Hrc 45±5  
Finish: Ground-Lapped / The head is hot forged  
On request: TIN

DIN 9861

Form D - WS



d1 h6	d2	d3 max	K +0.2	L + 0.5		
				71	80	100
0.5	0.9	d1 + 0.02	0.2	•	•	•
0.6	1.1			•	•	•
0.7	1.3		0.4	•	•	•
0.8	1.4			•	•	•
0.9	1.6	d1 + 0.03	0.5	•	•	•
1.0/1.1	1.8			•	•	•
1.2/1.3	2.0		0.5	•	•	•
1.4/1.5	2.2			•	•	•
1.6/1.7	2.5	d1 + 0.03	0.5	•	•	•
1.8/1.9	2.8			•	•	•
2.0	3.0		0.5	•	•	•
2.1/2.2	3.2			•	•	•
2.3/2.5	3.5	d1 + 0.03	0.5	•	•	•
2.6/2.9	4.0			•	•	•
3.0/3.4	4.5	d1 + 0.03	0.5	•	•	•
3.5/3.9	5.0			•	•	•
4.0/4.4	5.5			•	•	•
4.5/4.9	6.0			•	•	•

d1 h6	d2	d3 max	K +0.2	L + 0.5		
				71	80	100
5.0/5.4	6.5	d1 + 0.03	0.5	•	•	•
5.5/5.9	7.0			•	•	•
6.0/6.4	8.0			•	•	•
6.5/7.4	9.0	d1 + 0.04	1.0	•	•	•
7.5/8.4	10.0			•	•	•
8.5/9.4	11.0			•	•	•
9.5/10.4	12.0	d1 + 0.04	1.0	•	•	•
10.5/11.4	13.0			•	•	•
11.5/12.4	14.0			•	•	•
12.5/13.4	15.0	d1 + 0.04	1.5	•	•	•
13.5/14.4	16.0			•	•	•
14.5/15.0	17.0			•	•	•
15.1/16.0	18.0	d1 + 0.04	1.5	•	•	•
16.1/17.0	19.0			•	•	•
17.1/18.0	20.0			•	•	•
18.1/19.0	21.0	d1 + 0.04	1.5	•	•	•
19.1/20.0	22.0			•	•	•
20.1/21.0	23.0			•	•	•
21.1/22.0	24.0	d1 + 0.04	1.5	•	•	•

PUNZONE CON TESTA SVASATA  
PUNCH WITH CONICAL HEAD

HWS21  
Materiale: Acciaio HWS  
Durezza gambo: Hrc 60 ÷ 62  
Durezza testa: Hrc 45±5

HSS22  
Materiale: Acciaio HSS  
Durezza gambo: Hrc 62 ÷ 64  
Durezza testa: Hrc 52±3

Lunghezze standard: 71-80-100mm  
Esecuzione: Rettificato-Lappato / Testa riscalcata a caldo  
A richiesta: rivestimento TIN

DIN 9861

Forma D - HWS - HSS

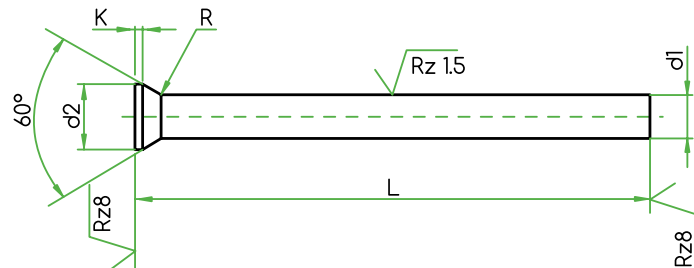
HWS21  
Material: Steel HWS  
Shaft Hardness: Hrc 60 ÷ 62  
Head Hardness: Hrc 45±5

HSS22  
Material: Steel HSS  
Shaft Hardness: Hrc 62 ÷ 64  
Head Hardness: Hrc 52±3

Standard lengths: 71-80-100mm  
Finish: Ground-Lapped / The head is hot forged  
On request: TIN

DIN 9861

Form D - HWS - HSS



d1 h6	d2	K +0.2	L + 0.5		
			71	80	100
0.5	0.9	0.2	•	•	•
0.6	1.1		•	•	•
0.7	1.3		•	•	•
0.8	1.4	0.4	•	•	•
0.9	1.6		•	•	•
1.0/1.1	1.8		•	•	•
1.2/1.3	2.0	0.5	•	•	•
1.4/1.5	2.2		•	•	•
1.6/1.7	2.5		•	•	•
1.8/1.9	2.8	0.5	•	•	•
2.0	3.0		•	•	•
2.1/2.2	3.2		•	•	•
2.3/2.5	3.5	0.5	•	•	•
2.6/2.9	4.0		•	•	•
3.0/3.4	4.5		•	•	•
3.5/3.9	5.0	0.5	•	•	•
4.0/4.4	5.5		•	•	•
4.5/4.9	6.0		•	•	•

d1 h6	d2	K +0.2	L + 0.5		
			71	80	100
5.0/5.4	6.5	0.5	•	•	•
5.5/5.9	7.0		•	•	•
6.0/6.4	8.0		•	•	•
6.5/7.4	9.0	1.0	•	•	•
7.5/8.4	10.0		•	•	•
8.5/9.4	11.0		•	•	•
9.5/10.4	12.0	1.0	•	•	•
10.5/11.4	13.0		•	•	•
11.5/12.4	14.0		•	•	•
12.5/13.4	15.0	1.5	•	•	•
13.5/14.4	16.0		•	•	•
14.5/15.0	17.0		•	•	•
15.1/16.0	18.0	1.5	•	•	•
16.1/17.0	19.0		•	•	•
17.1/18.0	20.0		•	•	•
18.1/19.0	21.0	1.5	•	•	•
19.1/20.0	22.0		•	•	•
20.1/21.0	23.0		•	•	•
21.1/22.0	24.0	1.5	•	•	•

PUNZONE CON TESTA SVASATA  
PUNCH WITH CONICAL HEAD

Materiale: Acciaio Super rapido  
Lunghezze standard: 130-160-200mm  
Durezza gambo: Hrc 62 ÷ 64  
Durezza testa: Hrc 52±3  
Esecuzione: Rettificato-Lappato / Testa riscalcata a caldo  
A richiesta: rivestimento TIN

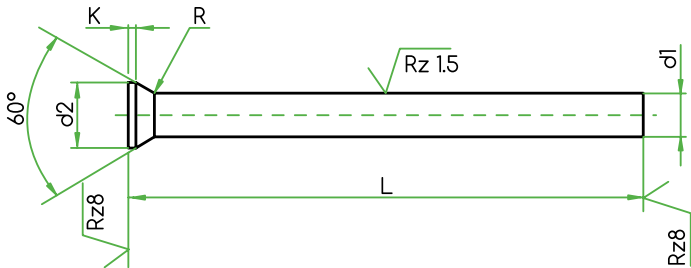
DIN 9861

Forma D - HSS

Material: High speed steel  
Standard lengths: 130-160-200mm  
HSS Shaft Hardness: Hrc 62 ÷ 64  
HSS Head Hardness: Hrc 52±3  
Finish: Ground-Lapped / The head is hot forged  
On request: TIN

DIN 9861

Form D - HSS



d1 h6	d2	K +0.2	L + 0.5		
			130	160	200
2.0	3.0	0.5	•	•	•
2.1/2.2	3.2	0.5	•	•	•
2.3/2.5	3.5		•	•	•
2.6/2.9	4.0		•	•	•
3.0/3.4	4.5		•	•	•
3.5/3.9	5.0	0.5	•	•	•
4.0/4.4	5.5		•	•	•
4.5/4.9	6.0		•	•	•
5.0/5.4	6.5		•	•	•
5.5/5.9	7.0	0.5	•	•	•
6.0/6.4	8.0		•	•	•
6.5/7.4	9.0		•	•	•
7.5/8.4	10.0		•	•	•
8.5/9.4	11.0	1.0	•	•	•

d1 h6	d2	K +0.2	L + 0.5		
			130	160	200
9.5/10.0	12.0	1.0	•	•	•
10.5/11.0	13.0		•	•	•
11.5/12.0	14.0		•	•	•
12.5/13.0	15.0		•	•	•
13.5/14.0	16.0	1.5	•	•	•
14.5/15.0	17.0		•	•	•
15.5/16.0	18.0		•	•	•
16.5/17.0	19.0		•	•	•
17.5/18.0	20.0	1.5	•	•	•
18.5/19.0	21.0		•	•	•
19.5/20.0	22.0		•	•	•

PUNZONE CON TESTA SVASATA  
PUNCH WITH CONICAL HEAD

Materiale: Acciaio ASP 2023  
Lunghezze standard: 71-80-100mm  
Durezza gambo: Hrc 62 ÷ 66  
Durezza testa: Hrc 45±5  
Esecuzione: Rettificato-Lappato / Testa riscalcata a caldo  
A richiesta: rivestimento TIN

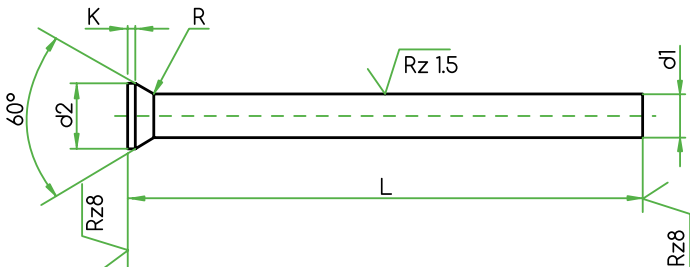
DIN 9861

Forma D - ASP23

Material: Steel ASP 2023  
Standard lengths: 71-80-100mm  
Shaft Hardness: Hrc 62 ÷ 66  
Head Hardness: Hrc 45±5  
Finish: Ground-Lapped / The head is hot forged  
On request: TIN

DIN 9861

Form D - ASP23



d1 h6	d2	K +0.2	L + 0.5		
			71	80	100
0.5	0.9	0.2	•	•	•
0.6	1.1		•	•	•
0.7	1.3		•	•	•
0.8	1.4		•	•	•
0.9	1.6	0.4	•	•	•
1.0/1.1	1.8		•	•	•
1.2/1.3	2.0		•	•	•
1.4/1.5	2.2		•	•	•
1.6/1.7	2.5	0.5	•	•	•
1.8/1.9	2.8		•	•	•
2.0	3.0		•	•	•
2.1/2.2	3.2		•	•	•
2.3/2.5	3.5	0.5	•	•	•
2.6/2.9	4.0		•	•	•
3.0/3.4	4.5		•	•	•
3.5/3.9	5.0		•	•	•
4.0/4.4	5.5	0.5	•	•	•
4.5/4.9	6.0		•	•	•

d1 h6	d2	K +0.2	L + 0.5		
			71	80	100
5.0/5.4	6.5	0.5	•	•	•
5.5/5.9	7.0		•	•	•
6.0/6.4	8.0		•	•	•
6.5/7.4	9.0		•	•	•
7.5/8.4	10.0	1.0	•	•	•
8.5/9.4	11.0		•	•	•
9.5/10.0	12.0		•	•	•
10.5/11.0	13.0		•	•	•
11.5/12.0	14.0	1.0	•	•	•
12.5/13.0	15.0		•	•	•
13.5/14.0	16.0		•	•	•
14.5/15.0	17.0		•	•	•
15.5/16.0	18.0	1.5	•	•	•

WS25

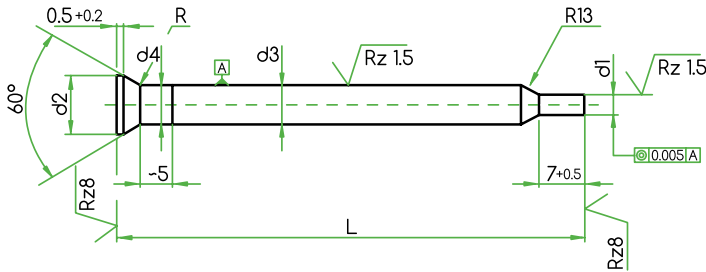
PUNZONE CON TESTA SVASATA FORMA C  
PUNCH WITH CONICAL HEAD FORM C

Materiale: Acciaio WS  
Durezza gambo: Hrc 60 ÷ 62  
Durezza testa: Hrc 45±5  
Esecuzione: Rettificato-Lappato / Testa riscalcata a caldo  
Altre misure, materiali ed esecuzioni a richiesta

DIN 9861  
Forma C - WS

Material: Steel WS  
Shaft Hardness: Hrc 60 ÷ 62  
Head Hardness: Hrc 45±5  
Finish: Ground-Lapped / The head is hot forged  
Other dimensions, materials and executions on request

DIN 9861  
Form C - WS



d1 h6	d2	d3 h6	d4 max	L + 0.5		
				71	80	100
0.5 - 1.5	3.0	2.0	d1 + 0.03	•	•	•
1.55 - 2.95	4.5	3.0	d1 + 0.03	•	•	•

HWS28

PUNZONE CON TESTA CILINDRICA  
PUNCH WITH CYLINDRICAL HEAD

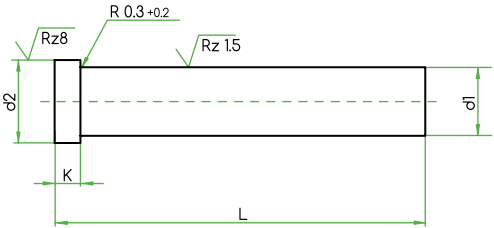
Materiale: Acciaio HWS  
Durezza gambo: Hrc 60 ÷ 62  
Durezza testa: Hrc 45±5  
Esecuzione: Rettificato-Lappato / Testa riscalcata a caldo  
A richiesta: rivestimento TIN

ISO 8020

Material: Steel HWS  
Shaft Hardness: Hrc 60 ÷ 62  
Head Hardness: Hrc 45±5  
Finish: Ground-Lapped / The head is hot forged  
On request: TIN

ISO 8020

d1 m5	d2 +0/-0.15	K +0.1/+0.2	L + 0.5		
			71	80	100
3	5	3	•	•	•
4	6	3	•	•	•
5	8	5	•	•	•
6	9	5	•	•	•
8	11	5	•	•	•
10	13	5	•	•	•
13	16	5	•	•	•
16	19	5	•	•	•
20	23	5	•	•	•
25	28	5	•	•	•
32	35	5	•	•	•



HWS26 - HSS27

PUNZONE CON TESTA SVASATA FORMA C  
PUNCH WITH CONICAL HEAD FORM C

HWS26  
Materiale: Acciaio HWS  
Durezza gambo: Hrc 60 ÷ 62  
Durezza testa: Hrc 45±5

HSS27  
Materiale: Acciaio HSS  
Durezza gambo: Hrc 62 ÷ 64  
Durezza testa: Hrc 52±3

Esecuzione: Rettificato-Lappato / Testa riscalcata a caldo  
Altre misure, materiali ed esecuzioni a richiesta

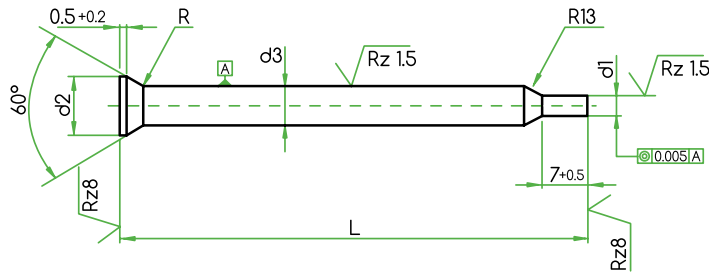
DIN 9861  
Forma C - HWS - HSS

HWS26  
Material: Steel HWS  
Shaft Hardness: Hrc 60 ÷ 62  
Head Hardness: Hrc 45±5

HSS27  
Material: Steel HSS  
Shaft Hardness: Hrc 62 ÷ 64  
Head Hardness: Hrc 52±3

Finish: Ground-Lapped / The head is hot forged  
Other dimensions, materials and executions on request

DIN 9861  
Form C - HWS - HSS



d1 h6	d2	d3 h6	L + 0.5		
			71	80	100
0.5 - 1.5	3.0	2.0	•	•	•
1.55 - 2.95	4.5	3.0	•	•	•

HSS32

PUNZONE CON TESTA CILINDRICA  
PUNCH WITH CYLINDRICAL HEAD

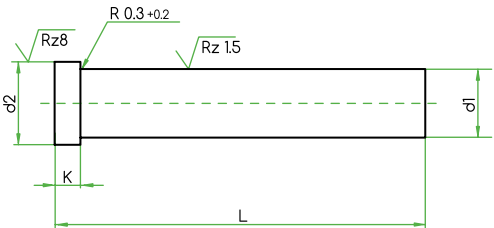
Materiale: Acciaio HSS  
Durezza gambo: Hrc 62 ÷ 64  
Durezza testa: Hrc 52±3  
Esecuzione: Rettificato-Lappato / Testa riscalcata a caldo  
A richiesta: rivestimento TIN

ISO 8020

Material: Steel HSS  
Shaft Hardness: Hrc 62 ÷ 64  
Head Hardness: Hrc 52±3  
Finish: Ground-Lapped / The head is hot forged  
On request: TIN

ISO 8020

d1 m5	d2 +0/-0.15	K +0.1/+0.2	L + 0.5		
			71	80	100
3	5	3	•	•	•
4	6	3	•	•	•
5	8	5	•	•	•
6	9	5	•	•	•
8	11	5	•	•	•
10	13	5	•	•	•
13	16	5	•	•	•
16	19	5	•	•	•
20	23	5	•	•	•
25	28	5	•	•	•
32	35	5	•	•	•



HWS29

PUNZONE CON TESTA CILINDRICA FORMA C  
PUNCH WITH CYLINDRICAL HEAD FORM C

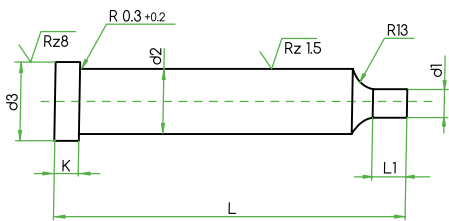
Materiale: Acciaio HWS  
Durezza gambo: Hrc 60 + 62  
Durezza testa: Hrc 45±5  
Esecuzione: Rettificato-Lappato / Testa riscalcata a caldo  
A richiesta: rivestimento TIN

ISO 8020

Material: Steel HWS  
Shaft Hardness: Hrc 60 + 62  
Head Hardness: Hrc 45±5  
Finish: Ground-Lapped / The head is hot forged  
On request: TIN

ISO 8020

d2 m5	d3 +0/-0.15	K +0.1/+0.2	L1 +0.5	d1 +0.01	L + 0.5		
					71	80	100
3	5	3	10	0.8 - 2.9	•	•	•
4	6	3	10	2.0 - 3.9	•	•	•
5	8	5	10	2.0 - 4.9	•	•	•
6	9	5	10	3.0 - 5.9	•	•	•
8	11	5	13	3.0 - 7.9	•	•	•
10	13	5	17	4.5 - 9.9	•	•	•
13	16	5	17	6.5 - 12.9	•	•	•
16	19	5	17	9.5 - 15.9	•	•	•
20	23	5	17	12.5 - 19.9	•	•	•
25	28	5	17	16.5 - 24.9	•	•	•



HSS34

PUNZONE CON TESTA CILINDRICA CON EIETTORE  
PUNCH WITH CYLINDRICAL HEAD WITH EJECTOR

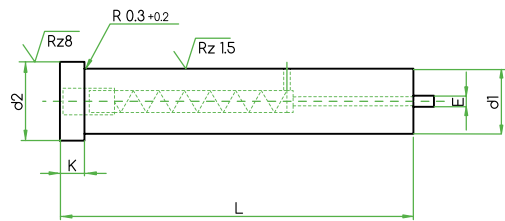
Materiale: Acciaio HSS  
Durezza gambo: Hrc 62 + 64  
Durezza testa: Hrc 52±3  
Esecuzione: Rettificato-Lappato / Testa riscalcata a caldo  
A richiesta: rivestimento TIN

ISO 8020

Material: Steel HSS  
Shaft Hardness: Hrc 62 + 64  
Head Hardness: Hrc 52±3  
Finish: Ground-Lapped / The head is hot forged  
On request: TIN

ISO 8020

d1 m5	d2 +0/-0.15	K +0/+0.2	E	L + 0.5			
				63	71	80	100
6	9	5	1.0	•	•	•	•
8	11	5	1.0	•	•	•	•
10	13	5	1.4	•	•	•	•
13	16	5	1.4	•	•	•	•
16	19	5	2.1	•	•	•	•
20	23	5	2.1	•	•	•	•
25	28	5	2.1	•	•	•	•
32	35	5	2.1	•	•	•	•



HSS33

PUNZONE CON TESTA CILINDRICA FORMA C  
PUNCH WITH CYLINDRICAL HEAD FORM C

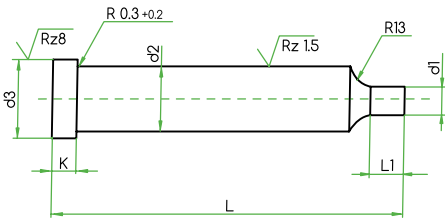
Materiale: Acciaio HSS  
Durezza gambo: Hrc 62 + 64  
Durezza testa: Hrc 52±3  
Esecuzione: Rettificato-Lappato / Testa riscalcata a caldo  
A richiesta: rivestimento TIN

ISO 8020

Material: Steel HSS  
Shaft Hardness: Hrc 62 + 64  
Head Hardness: Hrc 52±3  
Finish: Ground-Lapped / The head is hot forged  
On request: TIN

ISO 8020

d2 m5	d3 +0/-0.15	K +0.1/+0.2	L1 +0.5	d1 +0.01	L + 0.5		
					71	80	100
3	5	3	10	0.8 - 2.9	•	•	•
4	6	3	10	2.0 - 3.9	•	•	•
5	8	5	10	2.0 - 4.9	•	•	•
6	9	5	10	3.0 - 5.9	•	•	•
8	11	5	13	3.0 - 7.9	•	•	•
10	13	5	17	4.5 - 9.9	•	•	•
13	16	5	17	6.5 - 12.9	•	•	•
16	19	5	17	9.5 - 15.9	•	•	•
20	23	5	17	12.5 - 19.9	•	•	•
25	28	5	17	16.5 - 24.9	•	•	•



HSS35

PUNZONE CON TESTA CILINDRICA CON EIETTORE FORMA C  
PUNCH WITH CYLINDRICAL HEAD WITH EJECTOR FORM C

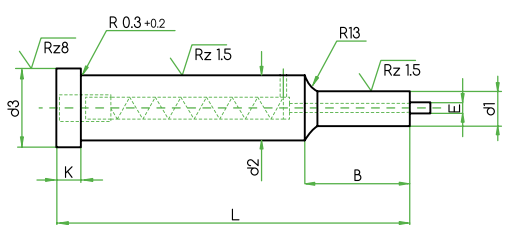
Materiale: Acciaio HSS  
Durezza gambo: Hrc 62 + 64  
Durezza testa: Hrc 52±3  
Esecuzione: Rettificato-Lappato / Testa riscalcata a caldo  
A richiesta: rivestimento TIN

ISO 8020

Material: Steel HSS  
Shaft Hardness: Hrc 62 + 64  
Head Hardness: Hrc 52±3  
Finish: Ground-Lapped / The head is hot forged  
On request: TIN

ISO 8020

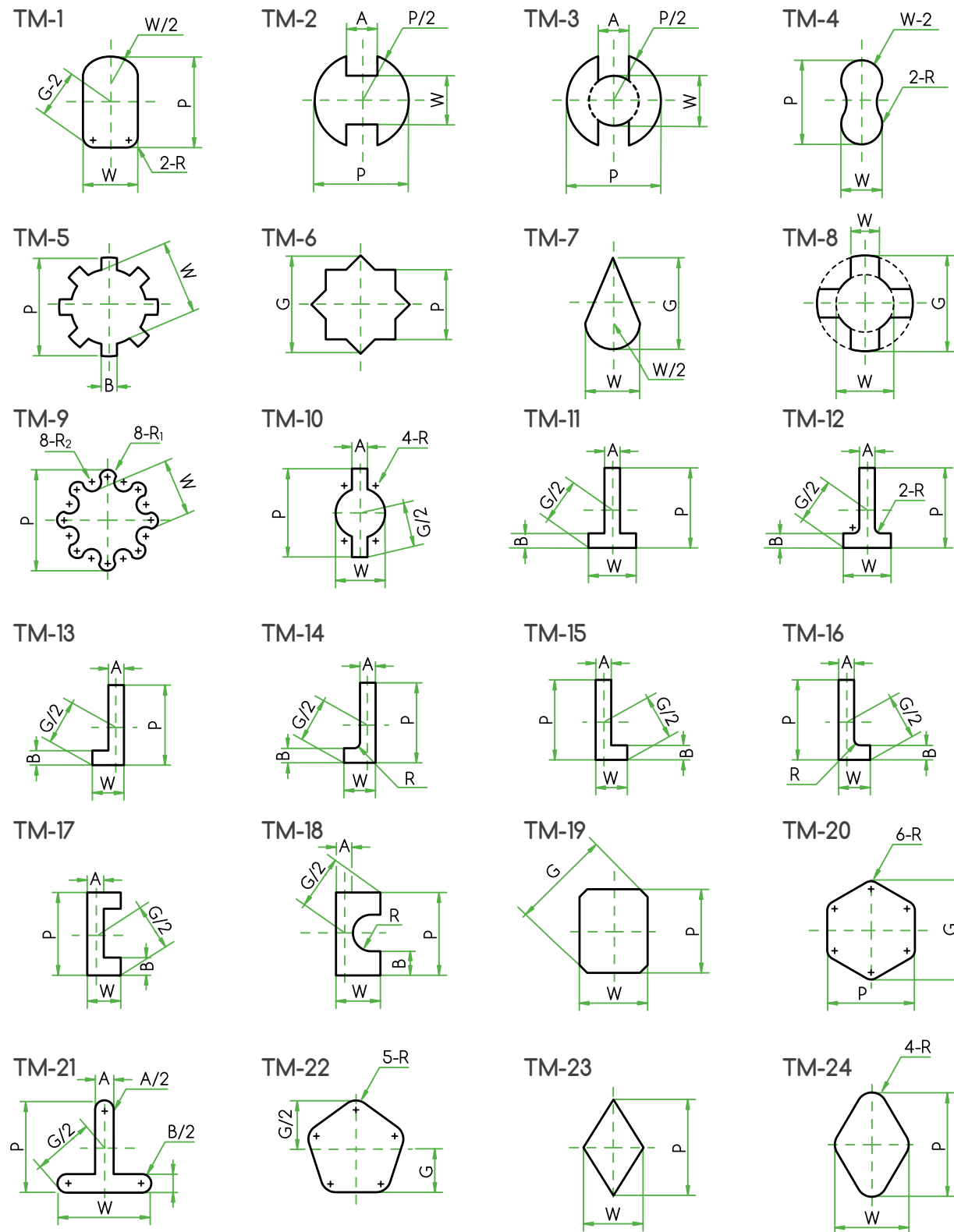
d2 m5	d3 +0/-0.15	d1 +0/+0.01	K +0.1/+0.2	E	B		L + 0.5			
					Standard	Max	63	71	80	100
6	9	2.5 - 5.9	5	1.0	13	25	•	•	•	•
8	11	3.0 - 7.9	5	1.0	14	32	•	•	•	•
10	13	4.0 - 9.9	5	1.4	16	32	•	•	•	•
13	16	5.0 - 12.9	5	1.4	21	32	•	•	•	•
16	19	8.0 - 15.9	5	2.1	24	32	•	•	•	•
20	23	12.0 - 19.9	5	2.1	27	32	•	•	•	•
25	28	17.0 - 24.9	5	2.1	32	32	•	•	•	•
32	35	20.0 - 31.9	5	2.1	32	32	•	•	•	•





## PUNZONE SAGOMATO A RICHIESTA

### PUNCH AS DRAWING ON REQUEST



## PUNZONE CON TESTA CILINDRICA SEMILAVORATO

### PUNCH WITH CYLINDRICAL HEAD

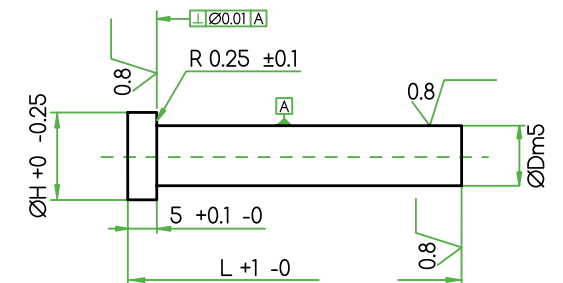
Materiale: Acciaio HSS  
Durezza gambo: Hrc 60 ÷ 64  
Durezza testa: Hrc 47/57  
Esecuzione: Rettificato-Lappato / Testa riscaldata a caldo  
A richiesta: rivestimento TIN  
Altre misure, materiali ed esecuzioni a richiesta

ISO 8020

Material: Steel HSS  
Shaft Hardness: Hrc 60 ÷ 64  
Head Hardness: Hrc 47/57  
Finish: Ground-Lapped / The head is hot forged  
On request: TIN  
Other dimensions, materials and executions on request

ISO 8020

Ø D	Ø H	L			
		71	80	100	120
5	8	•	•	•	•
6	9	•	•	•	•
8	11	•	•	•	•
10	13	•	•	•	•
13	16	•	•	•	•
16	19	•	•	•	•
20	23	•	•	•	•
25	28	•	•	•	•
32	35	•	•	•	•



## PUNZONE CON TESTA CILINDRICA TRINCIANTE TONDO

### PUNCH WITH CYLINDRICAL HEAD WITH ROUND SHAPE

Materiale: Acciaio HSS  
Durezza gambo: Hrc 60 ÷ 64  
Durezza testa: Hrc 47 ÷ 57  
Esecuzione: Rettificato-Lappato / Testa riscaldata a caldo  
A richiesta: rivestimento TIN

Altre misure, materiali ed esecuzioni a richiesta

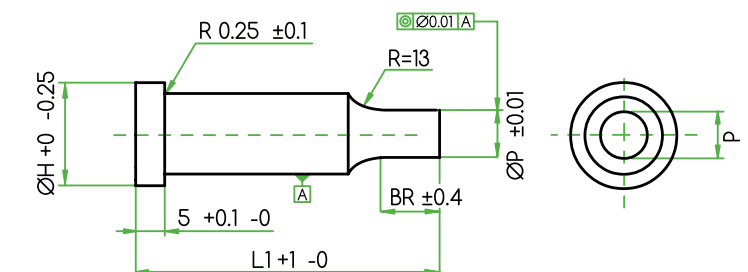
ISO 8020

Material: Steel HSS  
Shaft Hardness: Hrc 60 ÷ 64  
Head Hardness: Hrc 47 ÷ 57  
Finish: Ground-Lapped / The head is hot forged  
On request: TIN

Other dimensions, materials and executions on request

ISO 8020

Ø D	Ø H	P	BR	L1			
				71	80	100	120
5	8	0.8 - 4.9	10	•	•	•	•
6	9	1.5 - 5.9	10	•	•	•	•
8	11	2.5 - 7.9	13	•	•	•	•
10	13	4.5 - 9.9	13	•	•	•	•
13	16	6.5 - 12.9	16	•	•	•	•
16	19	9.5 - 15.9	20	•	•	•	•
20	23	12.5 - 19.9	20	•	•	•	•
25	28	16.5 - 24.9	20	•	•	•	•
32	35	22.5 - 31.9	20	•	•	•	•



PUNZONE CON TESTA CILINDRICA TRANCIANTE SEMIASOLA  
PUNCH WITH CYLINDRICAL HEAD WITH FLATTENED SHAPE

Materiale: Acciaio HSS  
Durezza gambo: Hrc 60 ÷ 64  
Durezza testa: Hrc 47 ÷ 57  
Esecuzione: Rettificato-Lappato / Testa riscalcata a caldo  
A richiesta: rivestimento TIN  
Altre misure, materiali ed esecuzioni a richiesta

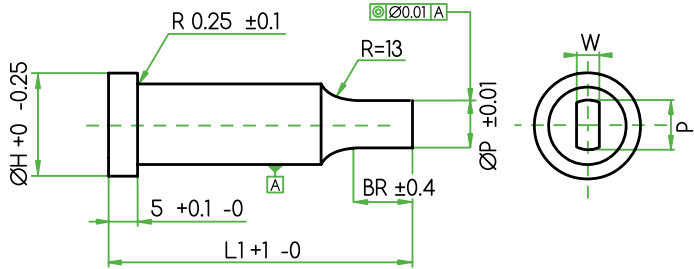
ISO 8020

Chiavetta di posizionamento sagoma standard T=0  
con supplemento di prezzo

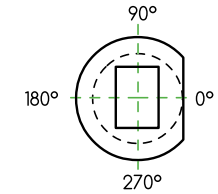
Material: Steel HSS  
Shaft Hardness: Hrc 60 ÷ 64  
Head Hardness: Hrc 47 ÷ 57  
Finish: Ground-Lapped / The head is hot forged  
On request: TIN  
Other dimensions, materials and executions on request

ISO 8020

Key standard positioning with extra price T=0



Ø D	Ø H	P	W	BR	L1			
					71	80	100	120
5	8	1.5 - 4.9	1.0 - 4.5	10	•	•	•	
6	9	2.0 - 5.9	1.5 - 5.5	10	•	•	•	•
8	11	2.5 - 7.9	2.0 - 7.5	13	•	•	•	•
10	13	4.0 - 9.9	3.5 - 9.5	13	•	•	•	•
13	16	5.0 - 12.9	4.5 - 12.5	16	•	•	•	•
16	19	7.0 - 15.9	6.5 - 15.5	20	•	•	•	•
20	23	8.5 - 19.9	8.0 - 19.5	20		•	•	•
25	28	11.5 - 24.9	11.0 - 24.5	20		•	•	•
32	35	20.5 - 31.9	20.0 - 31.5	20		•	•	•



Chiavetta di posizionamento  
standard  
Key standard positioning

PUNZONE CON TESTA CILINDRICA TRANCIANTE ASOLA  
PUNCH WITH CYLINDRICAL HEAD WITH OVAL SHAPE

Materiale: Acciaio HSS  
Durezza gambo: Hrc 60 ÷ 64  
Durezza testa: Hrc 47 ÷ 57  
Esecuzione: Rettificato-Lappato / Testa riscalcata a caldo  
A richiesta: rivestimento TIN  
Altre misure, materiali ed esecuzioni a richiesta

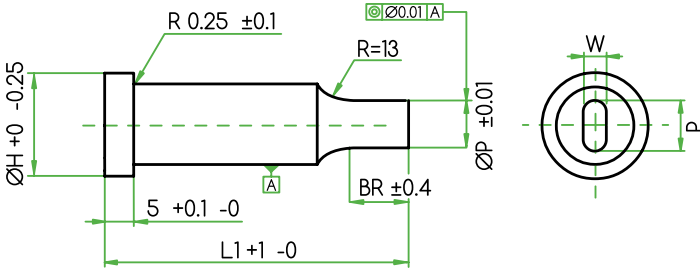
ISO 8020

Chiavetta di posizionamento sagoma standard T=0  
con supplemento di prezzo

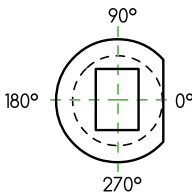
Material: Steel HSS  
Shaft Hardness: Hrc 60 ÷ 64  
Head Hardness: Hrc 47 ÷ 57  
Finish: Ground-Lapped / The head is hot forged  
On request: TIN  
Other dimensions, materials and executions on request

ISO 8020

Key standard positioning with extra price T=0



Ø D	Ø H	P	W	BR	L1			
					71	80	100	120
5	8	1.5 - 4.9	1.0 - 4.5	10	•	•	•	
6	9	2.0 - 5.9	1.5 - 5.5	10	•	•	•	•
8	11	2.5 - 7.9	2.0 - 7.5	13	•	•	•	•
10	13	4.0 - 9.9	3.5 - 9.5	13	•	•	•	•
13	16	5.0 - 12.9	4.5 - 12.5	16	•	•	•	•
16	19	7.0 - 15.9	6.5 - 15.5	20	•	•	•	•
20	23	8.5 - 19.9	8.0 - 19.5	20		•	•	•
25	28	11.5 - 24.9	11.0 - 24.5	20		•	•	•
32	35	20.5 - 31.9	20.0 - 31.5	20		•	•	•



Chiavetta di posizionamento  
standard  
Key standard positioning

PUNZONE CON TESTA CILINDRICA  
TRINCIANTE RETTANGOLARE  
PUNCH WITH CYLINDRICAL HEAD WITH RECTANGULAR SHAPE

Materiale: Acciaio HSS  
Durezza gambo: Hrc 60 ÷ 64  
Durezza testa: Hrc 47 ÷ 57  
Esecuzione: Rettificato-Lappato / Testa riscalcata a caldo  
A richiesta: rivestimento TIN  
Altre misure, materiali ed esecuzioni a richiesta

ISO 8020

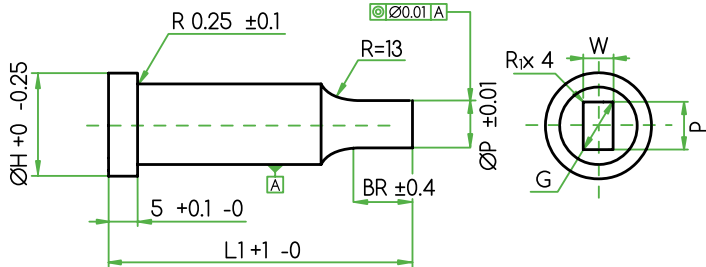
Chiavetta di posizionamento sagoma standard T=0  
con supplemento di prezzo

Material: Steel HSS  
Shaft Hardness: Hrc 60 ÷ 64  
Head Hardness: Hrc 47 ÷ 57  
Finish: Ground-Lapped / The head is hot forged

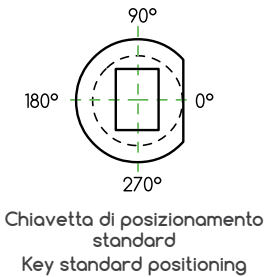
On request: TIN  
Other dimensions, materials and executions on request

ISO 8020

Key standard positioning with extra price T=0



Ø D	Ø H	P	W	BR	L1			
					71	80	100	120
5	8	1.5 - 3.5	1.5 - 3.0	10	•	•	•	
6	9	1.5 - 5.0	1.5 - 3.0	10	•	•	•	•
8	11	2.0 - 6.0	2.0 - 4.0	13	•	•	•	•
10	13	3.5 - 7.0	3.5 - 6.0	13	•	•	•	•
13	16	4.5 - 9.5	4.5 - 8.0	16	•	•	•	•
16	19	6.0 - 12.5	6.0 - 9.0	20	•	•	•	•
20	23	8.0 - 17.0	8.0 - 10.0	20		•	•	•
25	28	10.0 - 22.0	10.0 - 12.0	20		•	•	•
32	35	12.0 - 26.0	12.0 - 18.0	20		•	•	•



Chiavetta di posizionamento  
standard  
Key standard positioning

PUNZONE CON TESTA CILINDRICA  
TRINCIANTE QUADRATO  
PUNCH WITH CYLINDRICAL HEAD WITH SQUARED SHAPE

Materiale: Acciaio HSS  
Durezza gambo: Hrc 60 ÷ 64  
Durezza testa: Hrc 47 ÷ 57  
Esecuzione: Rettificato-Lappato / Testa riscalcata a caldo  
A richiesta: rivestimento TIN  
Altre misure, materiali ed esecuzioni a richiesta

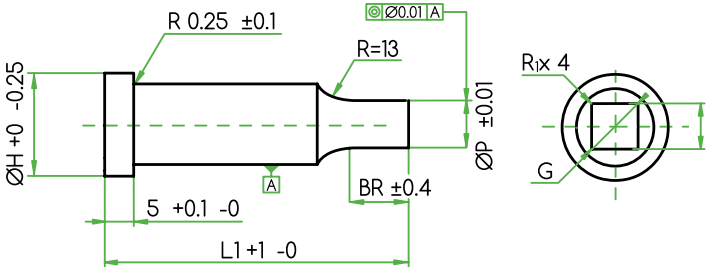
ISO 8020

Chiavetta di posizionamento sagoma standard T=0  
con supplemento di prezzo

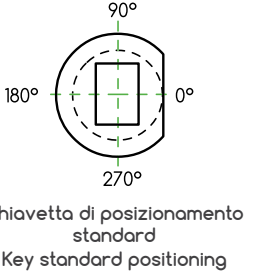
Material: Steel HSS  
Shaft Hardness: Hrc 60 ÷ 64  
Head Hardness: Hrc 47 ÷ 57  
Finish: Ground-Lapped / The head is hot forged  
On request: TIN  
Other dimensions, materials and executions on request

ISO 8020

Key standard positioning with extra price T=0



Ø D	Ø H	P	BR	L1			
				71	80	100	120
5	8	1.5 - 3.4	10	•	•	•	
6	9	2.0 - 4.1	10	•	•	•	•
8	11	3.0 - 5.5	13	•	•	•	•
10	13	3.5 - 7.0	13	•	•	•	•
13	16	4.5 - 9.1	16	•	•	•	•
16	19	6.1 - 11.2	20	•	•	•	•
20	23	9.5 - 14.0	20		•	•	•
25	28	12.5 - 17.6	20		•	•	•
32	35	17.0 - 22.9	20		•	•	•



Chiavetta di posizionamento  
standard  
Key standard positioning

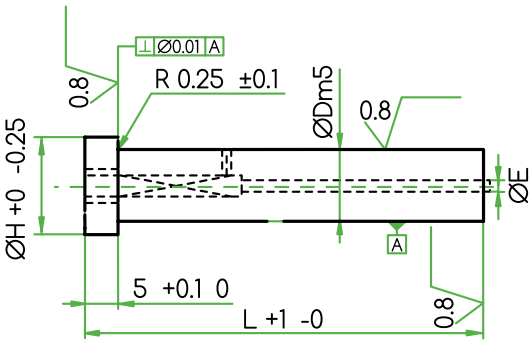
PUNZONE CON TESTA CILINDRICA CON  
EIETTORE SEMILAVORATO  
PUNCH WITH CYLINDRICAL HEAD WITH EJECTOR

Materiale: Acciaio HSS  
Durezza gambo: Hrc 60 ÷ 64  
Durezza testa: Hrc 47 ÷ 57  
Esecuzione: Rettificato-Lappato / Testa riscalcata a caldo  
A richiesta: rivestimento TIN  
Altre misure, materiali ed esecuzioni a richiesta

ISO 8020

Material: Steel HSS  
Shaft Hardness: Hrc 60 ÷ 64  
Head Hardness: Hrc 47 ÷ 57  
Finish: Ground-Lapped / The head is hot forged  
On request: TIN  
Other dimensions, materials and executions on request

ISO 8020



Ø D	Ø H	Ø E	L		
			71	80	100
5	8	1.1	•	•	•
6	9	1.1	•	•	•
8	11	1.1	•	•	•
10	13	1.3	•	•	•
13	16	1.3	•	•	•
16	19	2.2	•	•	•
20	23	2.2	•	•	•
25	28	2.2	•	•	•
32	35	2.2	•	•	•

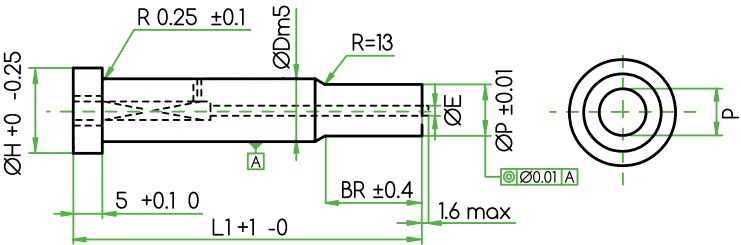
PUNZONE CON TESTA CILINDRICA CON  
EIETTORE TRACIANTE TONDO  
PUNCH WITH CYLINDRICAL HEAD WITH ROUND SHAPE AND  
EJECTOR

Materiale: Acciaio HSS  
Durezza gambo: Hrc 60 ÷ 64  
Durezza testa: Hrc 47 ÷ 57  
Esecuzione: Rettificato-Lappato /  
Testa riscalcata a caldo  
A richiesta: rivestimento TIN  
Altre misure, materiali ed esecuzioni a richiesta

ISO 8020

Material: Steel HSS  
Shaft Hardness: Hrc 60 ÷ 64  
Head Hardness: Hrc 47 ÷ 57  
Finish: Ground-Lapped / The head is hot forged  
On request: TIN  
Other dimensions, materials and executions on request

ISO 8020



Ø D	Ø H	Ø E	P	BR	L		
					71	80	100
5	8	1.1	2.0 - 4.9	10	•	•	•
6	9	1.1	2.5 - 5.9	10	•	•	•
8	11	1.1	3.0 - 7.9	13	•	•	•
10	13	1.3	4.0 - 9.9	13	•	•	•
13	16	1.3	6.0 - 12.9	16	•	•	•
16	19	2.2	9.9 - 15.9	20	•	•	•
20	23	2.2	12.0 - 19.9	20	•	•	•
25	28	2.2	17.0 - 24.9	20	•	•	•
32	35	2.2	22.5 - 31.9	20	•	•	•

PUNZONE CON TESTA CILINDRICA CON EIETTORE TRANCIANTE SEMIASOLA

PUNCH WITH CYLINDRICAL HEAD WITH FLATTENED SHAPE AND EJECTOR

Materiale: Acciaio HSS  
Durezza gambo: Hrc 60 ÷ 64  
Durezza testa: Hrc 47 ÷ 57  
Esecuzione: Rettificato-Lappato / Testa riscalcata a caldo  
A richiesta: rivestimento TIN  
Altre misure, materiali ed esecuzioni a richiesta

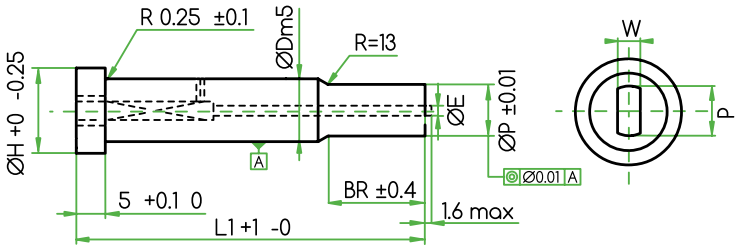
ISO 8020

Chiavetta di posizionamento sagoma standard T=0 con supplemento di prezzo

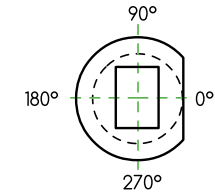
Material: Steel HSS  
Shaft Hardness: Hrc 60 ÷ 64  
Head Hardness: Hrc 47 ÷ 57  
Finish: Ground-Lapped / The head is hot forged  
On request: TIN  
Other dimensions, materials and executions on request

ISO 8020

Key standard positioning with extra price T=0



Ø D	Ø H	Ø E	P	W	BR	L		
						71	80	100
5	8	1.1	2.0 - 4.9	2.0 - 4.5	10	•	•	•
6	9	1.1	3.0 - 4.9	2.5 - 5.5	10	•	•	•
8	11	1.1	3.5 - 7.9	3.0 - 7.5	13	•	•	•
10	13	1.3	5.0 - 9.9	4.0 - 9.5	13	•	•	•
13	16	1.3	6.5 - 12.9	6.0 - 12.5	16	•	•	•
16	19	2.2	9.5 - 15.9	9.0 - 15.5	20	•	•	•
20	23	2.2	12.5 - 19.9	12.0 - 19.5	20	•	•	•
25	28	2.2	17.5 - 24.9	17.0 - 24.5	20	•	•	•
32	35	2.2	20.5 - 31.9	20.0 - 31.5	20	•	•	•



Chiavetta di posizionamento standard  
Key standard positioning

PUNZONE CON TESTA CILINDRICA CON EIETTORE TRANCIANTE ASOLA

PUNCH WITH CYLINDRICAL HEAD WITH OVAL SHAPE AND EJECTOR

Materiale: Acciaio HSS  
Durezza gambo: Hrc 60 ÷ 64  
Durezza testa: Hrc 47 ÷ 57  
Esecuzione: Rettificato-Lappato / Testa riscalcata a caldo  
A richiesta: rivestimento TIN  
Altre misure, materiali ed esecuzioni a richiesta

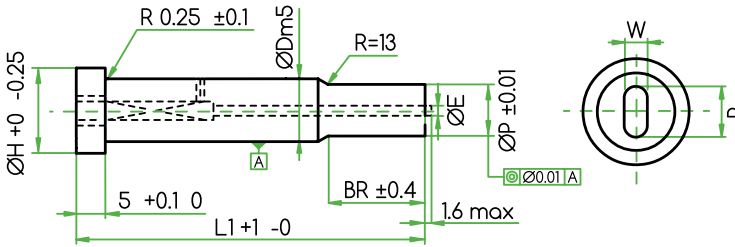
ISO 8020

Chiavetta di posizionamento sagoma standard T=0 con supplemento di prezzo

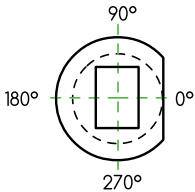
Material: Steel HSS  
Shaft Hardness: Hrc 60 ÷ 64  
Head Hardness: Hrc 47 ÷ 57  
Finish: Ground-Lapped / The head is hot forged  
On request: TIN  
Other dimensions, materials and executions on request

ISO 8020

Key standard positioning with extra price T=0



Ø D	Ø H	Ø E	P	W	BR	L		
						71	80	100
5	8	1.1	2.0 - 4.9	2.0 - 4.5	10	•	•	•
6	9	1.1	3.0 - 4.9	2.5 - 5.5	10	•	•	•
8	11	1.1	3.5 - 7.9	3.0 - 7.5	13	•	•	•
10	13	1.3	5.0 - 9.9	4.0 - 9.5	13	•	•	•
13	16	1.3	6.5 - 12.9	6.0 - 12.5	16	•	•	•
16	19	2.2	9.5 - 15.9	9.0 - 15.5	20	•	•	•
20	23	2.2	12.5 - 19.9	12.0 - 19.5	20	•	•	•
25	28	2.2	17.5 - 24.9	17.0 - 24.5	20	•	•	•
32	35	2.2	20.5 - 31.9	20.0 - 31.5	20	•	•	•



Chiavetta di posizionamento standard  
Key standard positioning

PUNZONE CON TESTA CILINDRICA CON EIETTORE TRINCIANTE RETTANGOLARE

PUNCH WITH CYLINDRICAL HEAD WITH RECTANGULAR SHAPE AND EJECTOR

Materiale: Acciaio HSS  
Durezza gambo: Hrc 60 ÷ 64  
Durezza testa: Hrc 47 ÷ 57  
Esecuzione: Rettificato-Lappato / Testa riscalcata a caldo  
A richiesta: rivestimento TIN  
Altre misure, materiali ed esecuzioni a richiesta

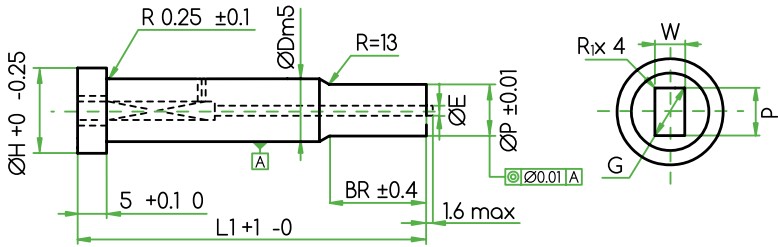
ISO 8020

Chiavetta di posizionamento sagoma standard T=0 con supplemento di prezzo

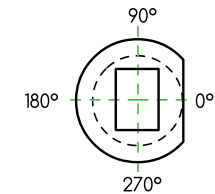
Material: Steel HSS  
Shaft Hardness: Hrc 60 ÷ 64  
Head Hardness: Hrc 47 ÷ 57  
Finish: Ground-Lapped / The head is hot forged  
On request: TIN  
Other dimensions, materials and executions on request

ISO 8020

Key standard positioning with extra price T=0



Ø D	Ø H	Ø E	P	W	BR	L		
						71	80	100
5	8	1.1	2.0 - 3.5	2.0 - 3.0	10	•	•	•
6	9	1.1	2.5 - 5.0	2.5 - 3.0	10	•	•	•
8	11	1.1	3.0 - 6.0	3.0 - 4.0	13	•	•	•
10	13	1.3	4.5 - 7.0	4.5 - 6.0	13	•	•	•
13	16	1.3	6.0 - 9.5	6.0 - 8.0	16	•	•	•
16	19	2.2	7.0 - 12.5	7.0 - 9.0	20	•	•	•
20	23	2.2	8.0 - 17.0	8.0 - 10.0	20	•	•	•
25	28	2.2	10.0 - 22.0	10.0 - 12.0	20	•	•	•
32	35	2.2	12.0 - 26.0	12.0 - 18.0	20	•	•	•



Chiavetta di posizionamento standard  
Key standard positioning

PUNZONE CON TESTA CILINDRICA CON EIETTORE TRINCIANTE QUADRATO

PUNCH WITH CYLINDRICAL HEAD WITH SQUARED SHAPE AND EJECTOR

Materiale: Acciaio HSS  
Durezza gambo: Hrc 60 ÷ 64  
Durezza testa: Hrc 47 ÷ 57  
Esecuzione: Rettificato-Lappato / Testa riscalcata a caldo  
A richiesta: rivestimento TIN  
Altre misure, materiali ed esecuzioni a richiesta

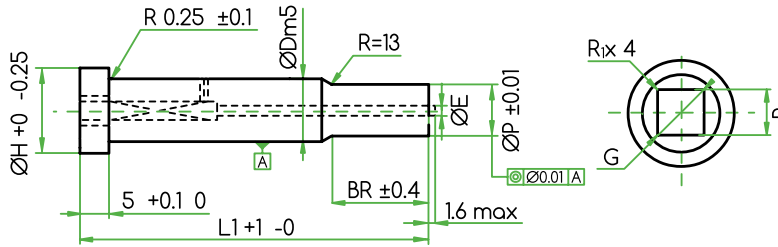
ISO 8020

Chiavetta di posizionamento sagoma standard T=0 con supplemento di prezzo

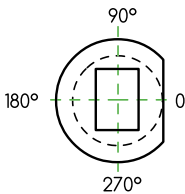
Material: Steel HSS  
Shaft Hardness: Hrc 60 ÷ 64  
Head Hardness: Hrc 47 ÷ 57  
Finish: Ground-Lapped / The head is hot forged  
On request: TIN  
Other dimensions, materials and executions on request

ISO 8020

Key standard positioning with extra price T=0



Ø D	Ø H	Ø E	P	BR	L		
					71	80	100
5	8	1.1	2.0 - 3.4	10	•	•	•
6	9	1.1	2.5 - 4.1	10	•	•	•
8	11	1.1	3.0 - 5.5	13	•	•	•
10	13	1.3	4.5 - 7.0	13	•	•	•
13	16	1.3	6.0 - 9.1	16	•	•	•
16	19	2.2	7.0 - 11.2	20	•	•	•
20	23	2.2	9.5 - 14.0	20	•	•	•
25	28	2.2	12.5 - 17.6	20	•	•	•
32	35	2.2	17.0 - 22.9	20	•	•	•



Chiavetta di posizionamento standard  
Key standard positioning



# MATRICI DI TRANCIATURA SHEARING MATRICES

## M76 - M77

### MATRICE TIPO A LISCIA MATRIX TYPE A WITHOUT HEAD

Materiale: Acciaio HWS  
Durezza: Hrc 60 + 62  
Esecuzione: Temprata, rinvenuta, rettificata, lucidata  
Diametri superiori a richiesta

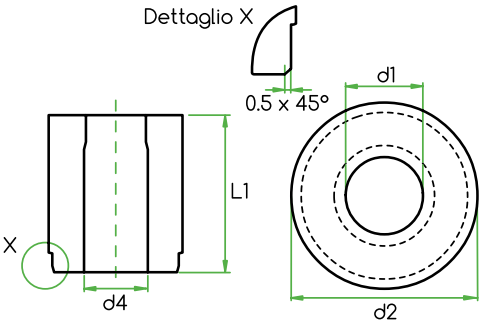
Materiale: Acciaio HSS a richiesta

DIN 9845

Material: Steel HWS  
Hardness: Hrc 60 + 62  
Finish: Hardened annealed, precision ground and lapped  
Bigger diameters on request

Material: Steel HSS on request

DIN9845



d1 H8	PROGRESSIONE	d2 n6	d4	M76		M77
				L1 20	L1 28	
0.8 - 1.0	0.1	5	d1 + 0.3	•	•	
1.1 - 2.0	0.1	6	d1 + 0.3	•	•	
2.1 - 3.3	0.1	7	d1 + 0.5	•	•	
3.4 - 4.0	0.1	8	d1 + 0.5	•	•	
4.1 - 5.0	0.1	10	d1 + 0.7	•	•	
5.1 - 6.0	0.1	12	d1 + 0.7	•	•	
6.1 - 8.0	0.1	15	d1 + 0.7	•	•	

d1 H8	PROGRESSIONE	d2 n6	d4	M76		M77
				L1 20	L1 28	
8.1 - 10.0	0.1	18	d1 + 1.0	•	•	
10.1 - 12.0	0.1	22	d1 + 1.0	•	•	
12.1 - 15.0	0.1	26	d1 + 1.0	•	•	
15.5 - 18.0	0.5	30	d1 + 1.0	•	•	
18.5 - 22.0	0.5	35	d1 + 1.0	•	•	
22.5 - 26.0	0.5	42	d1 + 1.0	•	•	
26.5 - 30.0	0.5	48	d1 + 2.0	•	•	

## M78 - M79

### MATRICE TIPO B CON TESTA MATRIX TYPE B WITH HEAD

Materiale: Acciaio HWS  
Durezza: Hrc 60 + 62  
Esecuzione: Temprata, rinvenuta, rettificata, lucidata  
Diametri superiori a richiesta

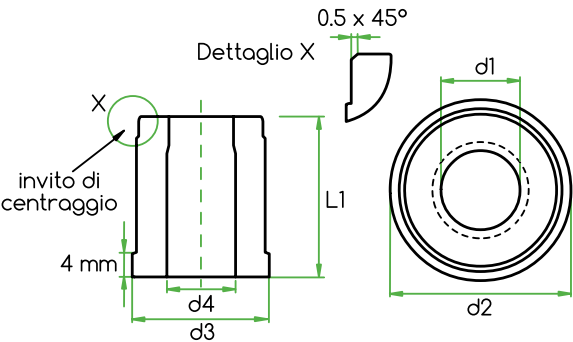
Materiale: Acciaio HSS a richiesta

DIN 9845

Material: Steel HWS  
Hardness: Hrc 60 + 62  
Finish: Hardened annealed, precision ground and lapped  
Bigger diameters on request

Material: Steel HSS on request

DIN9845



d1 H8	PROGRESSIONE	d2 n6	d3	d4	M78		M79
					L1 20	L1 28	
0.8 - 1.0	0.1	5	7	d1 + 0.3	•	•	
1.1 - 2.0	0.1	6	8	d1 + 0.3	•	•	
2.0 - 3.3	0.1	7	9	d1 + 0.5	•	•	
3.1 - 4.0	0.1	8	10	d1 + 0.5	•	•	
4.1 - 5.0	0.1	10	12	d1 + 0.7	•	•	
5.1 - 6.0	0.1	12	14	d1 + 0.7	•	•	
6.1 - 8.0	0.1	15	17	d1 + 0.7	•	•	

d1 H8	PROGRESSIONE	d2 n6	d3	d4	M78		M79
					L1 20	L1 28	
8.1 - 10.0	0.1	18	20	d1 + 1.0	•	•	
10.1 - 12.0	0.1	22	24	d1 + 1.0	•	•	
12.1 - 15.0	0.1	26	28	d1 + 1.0	•	•	
15.5 - 18.0	0.5	30	32	d1 + 1.0	•	•	
18.5 - 22.0	0.5	35	37	d1 + 1.0	•	•	
22.5 - 26.0	0.5	42	44	d1 + 1.0	•	•	
26.5 - 30.0	0.5	48	50	d1 + 2.0	•	•	

# TNCZ

## MATRICE LISCIA SEMILAVORATA MATRIX WITHOUT HEAD

Materiale: Acciaio HWS  
Durezza: Hrc 60 ÷ 62  
Esecuzione: Temprata, rettificata

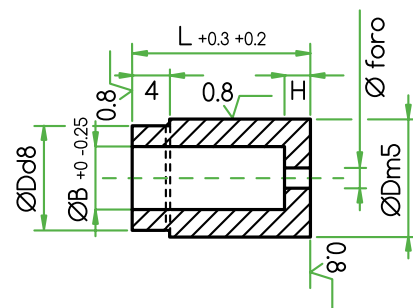
Materiale: Acciaio HSS a richiesta

ISO 8977

Material: Steel HWS  
Hardness: Hrc 60 ÷ 62  
Finish: Hardened, ground

Material: Steel HSS on request

ISO 8977



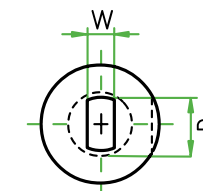
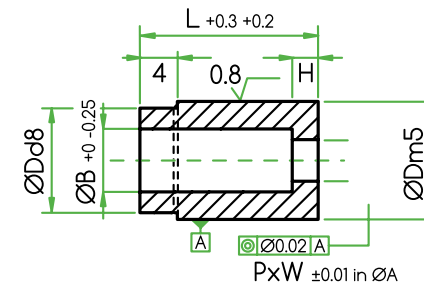
ØD	ØB	H	Ø foro	L		
				20	25	32
6	3.5	3	1	•	•	
8	4	4	1	•	•	
10	5.8	5	8	•	•	•
13	8	5	8	•	•	•
16	9.5	5	8	•	•	•
20	12	5	8	•	•	•
25	17.3	5	8		•	•
32	20.7	8	2			•
40	27.7	8	2			•
50	37	8	2			•

# TNCF

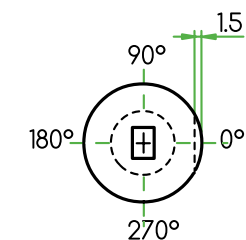
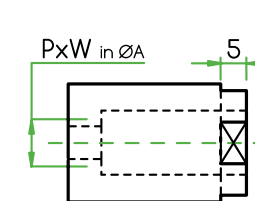
## MATRICE LISCIA TRANCIANTE SEMIASOLA MATRIX WITHOUT HEAD WITH FLATTENED SHAPE

Materiale: Acciaio HWS  
Durezza: Hrc 60 ÷ 62  
Esecuzione: Temprata, rettificata  
Materiale: Acciaio HSS a richiesta  
ISO 8977  
Chiavetta di posizionamento sagoma standard T=0  
con supplemento di prezzo

Material: Steel HWS  
Hardness: Hrc 60 ÷ 62  
Finish: Hardened, ground  
Material: Steel HSS on request  
ISO 8977  
Key standard positioning with extra price T=0



ØD	ØB	H	ØA	P	W	L		
						20	25	32
6	3.5	3	3	1.5 - 3.0	1.5 - 2.5	•	•	
8	4	4	3.5	1.5 - 3.5	1.5 - 3.0	•	•	
10	5.8	5	8	2.0 - 5.0	2.0 - 4.0	•	•	•
13	8	5	8	2.0 - 7.0	2.0 - 5.0	•	•	•
16	9.5	5	8	3.5 - 9.0	2.5 - 6.5	•	•	•
20	12	5	8	5.0 - 11.0	2.5 - 9.5	•	•	•
25	17.3	5	8	7.0 - 16.0	2.5 - 15.0		•	•
32	20.7	8	20	8.0 - 20.0	2.5 - 18.0			•
40	27.7	8	27	9.0 - 27.0	2.5 - 24.5			•
50	37	8	36	10.0 - 36.0	2.5 - 32.0			•



Chiavetta di posizionamento  
standard  
Key standard positioning

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# TNC

## MATRICE LISCIA TRANCIANTE TONDO MATRIX WITHOUT HEAD WITH ROUND SHAPE

Materiale: Acciaio HWS  
Durezza: Hrc 60 ÷ 62  
Esecuzione: Temprata, rettificata

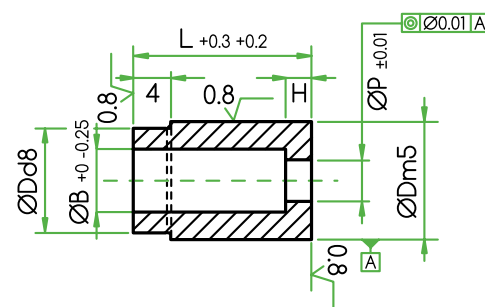
Materiale: Acciaio HSS a richiesta

ISO 8977

Material: Steel HWS  
Hardness: Hrc 60 ÷ 62  
Finish: Hardened, ground

Material: Steel HSS on request

ISO 8977



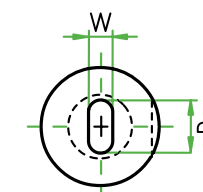
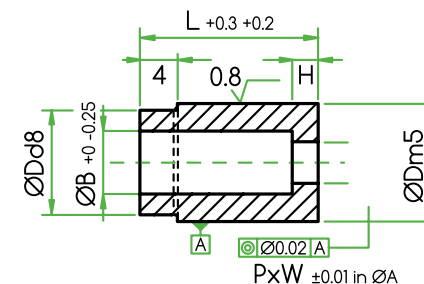
ØD	ØB	H	ØP	L		
				20	25	32
6	3.5	3	15 - 3.0	•	•	
8	4	4	1.5 - 3.5	•	•	
10	5.8	5	8	•	•	•
13	8	5	8	•	•	•
16	9.5	5	8	•	•	•
20	12	5	8	•	•	•
25	17.3	5	8		•	•
32	20.7	8	2.5 - 20.0			•
40	27.7	8	2.5 - 27.0			•
50	37	8	2.5 - 36.0			•

# TNCO

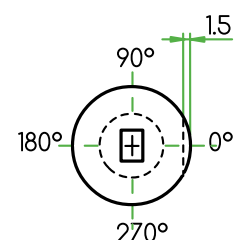
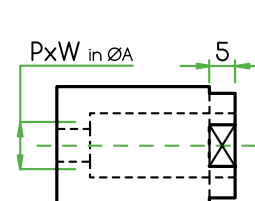
## MATRICE LISCIA TRANCIANTE ASOLA MATRIX WITHOUT HEAD WITH OVAL SHAPE

Materiale: Acciaio HWS  
Durezza: Hrc 60 ÷ 62  
Esecuzione: Temprata, rettificata  
Materiale: Acciaio HSS a richiesta  
ISO 8977  
Chiavetta di posizionamento sagoma standard T=0  
con supplemento di prezzo

Material: Steel HWS  
Hardness: Hrc 60 ÷ 62  
Finish: Hardened, ground  
Material: Steel HSS on request  
ISO 8977  
Key standard positioning with extra price T=0



ØD	ØB	H	ØA	P	W	L		
						20	25	32
6	3.5	3	3	1.5 - 3.0	1.5 - 2.5	•	•	
8	4	4	3.5	1.5 - 3.5	1.5 - 3.0	•	•	
10	5.8	5	8	2.0 - 5.0	2.0 - 4.0	•	•	•
13	8	5	8	2.0 - 7.0	2.0 - 5.0	•	•	•
16	9.5	5	8	3.5 - 9.0	2.5 - 6.5	•	•	•
20	12	5	8	5.0 - 11.0	2.5 - 9.5	•	•	•
25	17.3	5	8	7.0 - 16.0	2.5 - 15.0		•	•
32	20.7	8	20	8.0 - 20.0	2.5 - 18.0			•
40	27.7	8	27	9.0 - 27.0	2.5 - 24.5			•
50	37	8	36	10.0 - 36.0	2.5 - 32.0			•



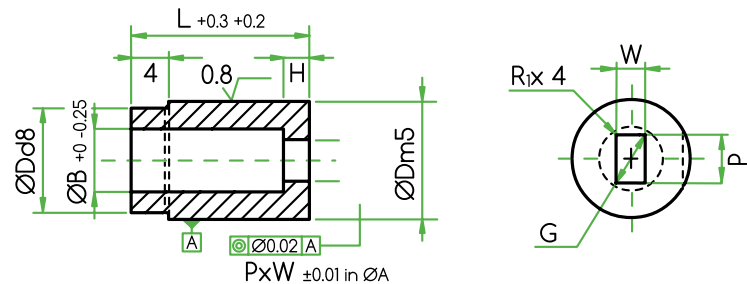
Chiavetta di posizionamento  
standard  
Key standard positioning

## MATRICE LISCIA TRINCIANTE RETTANGOLARE

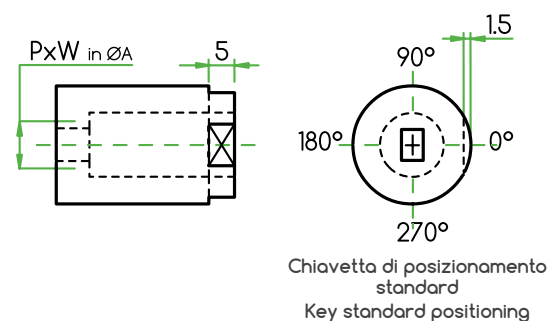
### MATRIX WITHOUT HEAD WITH RECTANGULAR SHAPE

Materiale: Acciaio HWS  
Durezza: Hrc 60 ÷ 62  
Esecuzione: Temprata, rettificata  
Materiale: Acciaio HSS a richiesta  
ISO 8977  
Chiavetta di posizionamento sagoma standard T=0  
con supplemento di prezzo

Material: Steel HWS  
Hardness: Hrc 60 ÷ 62  
Finish: Hardened, ground  
Material: Steel HSS on request  
ISO 8977  
Key standard positioning with extra price T=0



ØD	ØB	H	ØA	P	W	L		
						20	25	32
6	3.5	3	3	1.5 - 2.2	1.5 - 1.8	•	•	
8	4	4	3.5	1.5 - 3.2	1.5 - 2.7	•	•	
10	5.8	5	8	5	2.0 - 4.2	•	•	•
13	8	5	8	7	2.0 - 6.5	•	•	•
16	9.5	5	8	9	3.5 - 7.6	•	•	•
20	12	5	8	11	5.0 - 9.7	•	•	•
25	17.3	5	8	16	7.0 - 14.6		•	•
32	20.7	8	20	8.0 - 17.9	2.5 - 16.5			•
40	27.7	8	27	9.0 - 25.0	2.5 - 23.0			•
50	37	8	36	10.0 - 34.4	2.5 - 30.5			•



Chiavetta di posizionamento standard  
Key standard positioning

## MATRICE CON TESTA SEMILAVORATA

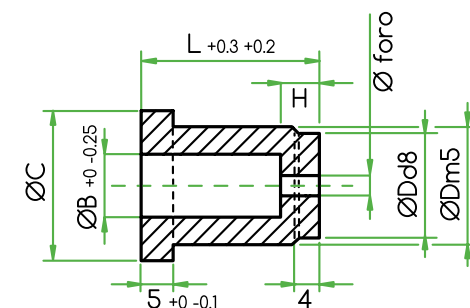
### MATRIX WITH HEAD

Materiale: Acciaio HWS  
Durezza: Hrc 60 ÷ 62  
Esecuzione: Temprata, rettificata

Materiale: Acciaio HSS a richiesta  
ISO 8977

Material: Steel HWS  
Hardness: Hrc 60 ÷ 62  
Finish: Hardened, ground

Material: Steel HSS on request  
ISO 8977



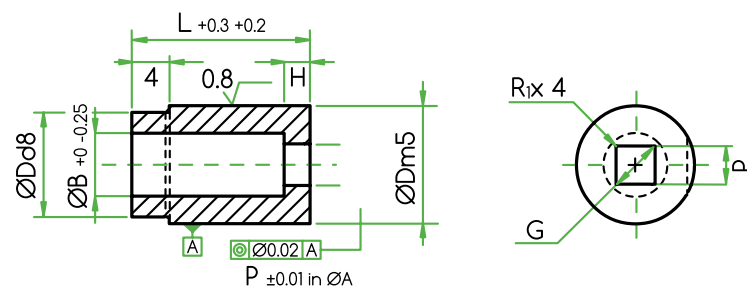
ØD	ØC	ØB	H	Ø foro	L		
					20	25	32
6	9	3.5	3	1	•	•	
8	11	4	4	1	•	•	
10	13	5.8	5	8	1.5	•	•
13	16	8	5	8	1.5	•	•
16	19	9.5	5	8	2	•	•
20	23	12	5	8	2	•	•
25	28	17.3	5	8	2		•
32	35	20.7	8	2			•
40	43	27.7	8	2			•
50	53	37	8	2			•

## MATRICE LISCIA TRINCIANTE QUADRATO

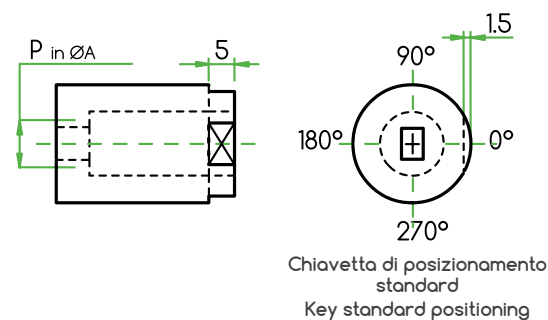
### MATRIX WITHOUT HEAD WITH SQUARED SHAPE

Materiale: Acciaio HWS  
Durezza: Hrc 60 ÷ 62  
Esecuzione: Temprata, rettificata  
Materiale: Acciaio HSS a richiesta  
ISO 8977  
Chiavetta di posizionamento sagoma standard T=0  
con supplemento di prezzo

Material: Steel HWS  
Hardness: Hrc 60 ÷ 62  
Finish: Hardened, ground  
Material: Steel HSS on request  
ISO 8977  
Key standard positioning with extra price T=0



ØD	ØB	H	ØA	P	L		
					20	25	32
6	3.5	3	3	1.5 - 1.8	•	•	
8	4	4	3.5	1.5 - 2.5	•	•	
10	5.8	5	8	5	2.0 - 3.2	•	•
13	8	5	8	7	2.0 - 4.7	•	•
16	9.5	5	8	9	2.5 - 5.8	•	•
20	12	5	8	11	2.5 - 7.5	•	•
25	17.3	5	8	16	2.5 - 11.3		•
32	20.7	8	20	2.5 - 13.7			•
40	27.7	8	27	2.5 - 18.7			•
50	37	8	36	2.5 - 25.2			•



Chiavetta di posizionamento standard  
Key standard positioning

## MATRICE CON TESTA TRINCIANTE TONDO

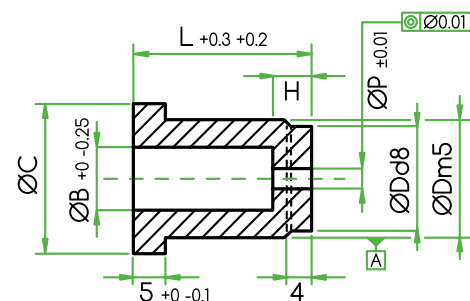
### MATRIX WITH HEAD WITH ROUND SHAPE

Materiale: Acciaio HWS  
Durezza: Hrc 60 ÷ 62  
Esecuzione: Temprata, rettificata

Materiale: Acciaio HSS a richiesta  
ISO 8977

Material: Steel HWS  
Hardness: Hrc 60 ÷ 62  
Finish: Hardened, ground

Material: Steel HSS on request  
ISO 8977

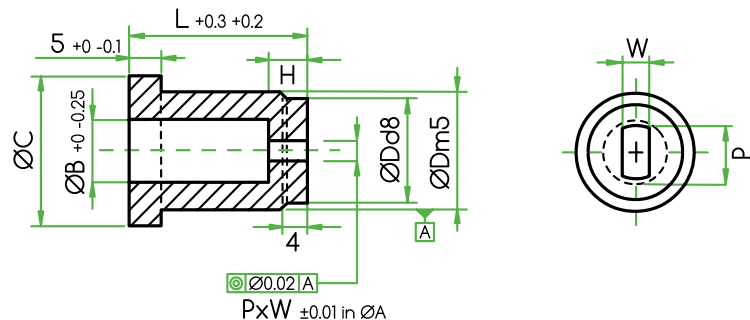


ØD	ØC	ØB	H	ØP	L		
					20	25	32
6	9	3.5	3	1.5 - 3.0	•	•	
8	11	4	4	1.5 - 3.5	•	•	
10	13	5.8	5	8	2.0 - 5.0	•	•
13	16	8	5	8	2.0 - 7.0	•	•
16	19	9.5	5	8	2.5 - 9.0	•	•
20	23	12	5	8	2.5 - 11.0	•	•
25	28	17.3	5	8	2.5 - 16.0		•
32	35	20.7	8	2.5 - 20.0			•
40	43	27.7	8	2.5 - 27.0			•
50	53	37	8	2.5 - 36.0			•

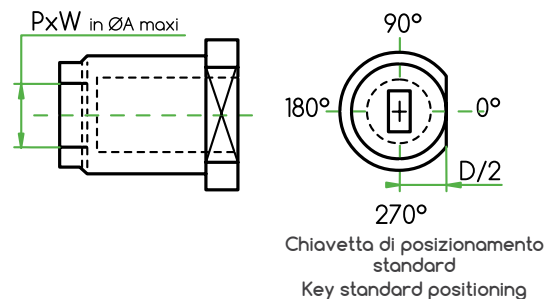
## MATRICE CON TESTA TRANCIANTE SEMIASOLA MATRIX WITH HEAD WITH FLATTENED SHAPE

Materiale: Acciaio HWS  
Durezza: Hrc 60 ÷ 62  
Esecuzione: Temprata, rettificata  
Materiale: Acciaio HSS a richiesta  
ISO 8977  
Chiavetta di posizionamento sagoma standard T=0  
con supplemento di prezzo

Material: Steel HWS  
Hardness: Hrc 60 ÷ 62  
Finish: Hardened, ground  
Material: Steel HSS on request  
ISO 8977  
Key standard positioning with extra price T=0



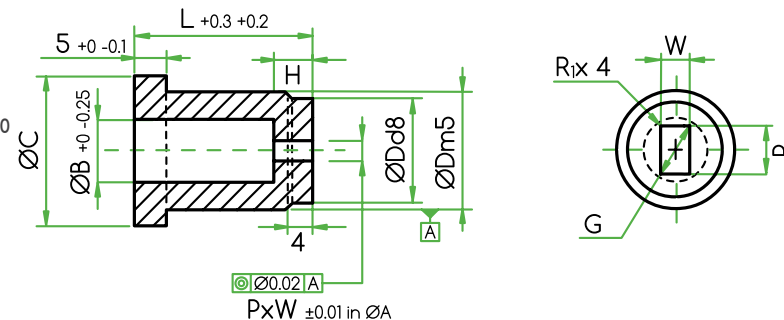
ØD	ØC	ØB	H	ØA	P	W	L		
							20	25	32
6	9	3.5	3	3	1.5 - 3.0	1.5 - 2.5	•	•	
8	11	4	4	3.5	1.5 - 3.5	1.5 - 3.0	•	•	
10	13	5.8	5	8	2.0 - 5.0	2.0 - 4.0	•	•	•
13	16	8	5	8	2.0 - 7.0	2.0 - 5.0	•	•	•
16	19	9.5	5	8	3.5 - 9.0	2.5 - 6.5	•	•	•
20	23	12	5	8	5.0 - 11.0	2.5 - 9.5	•	•	•
25	28	17.3	5	8	7.0 - 16.0	2.5 - 15.0		•	•
32	35	20.7	8	20	8.0 - 20.0	2.5 - 18.0			•
40	43	27.7	8	27	9.0 - 27.0	2.5 - 24.5			•
50	53	37	8	36	10.0 - 36.0	2.5 - 32.0			•



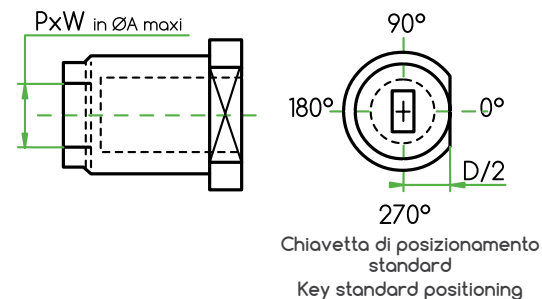
## MATRICE CON TESTA TRANCIANTE RETTANGOLARE MATRIX WITH HEAD WITH RECTANGULAR SHAPE

Materiale: Acciaio HWS  
Durezza: Hrc 60 ÷ 62  
Esecuzione: Temprata, rettificata  
Materiale: Acciaio HSS a richiesta  
ISO 8977  
Chiavetta di posizionamento sagoma standard T=0  
con supplemento di prezzo

Material: Steel HWS  
Hardness: Hrc 60 ÷ 62  
Finish: Hardened, ground  
Material: Steel HSS on request  
ISO 8977  
Key standard positioning with extra price T=0



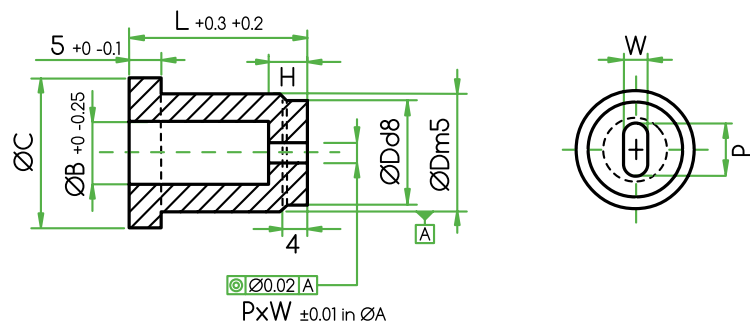
ØD	ØC	ØB	H	ØA	P	W	L		
							20	25	32
6	9	3.5	3	3	1.5 - 2.2	1.5 - 1.8	•	•	
8	11	4	4	3.5	1.5 - 3.2	1.5 - 2.7	•	•	
10	13	5.8	5	8	2.0 - 4.2	2.0 - 3.7	•	•	•
13	16	8	5	8	2.0 - 6.5	2.0 - 4.8	•	•	•
16	19	9.5	5	8	3.5 - 7.6	2.5 - 5.9	•	•	•
20	23	12	5	8	5.0 - 9.7	2.5 - 8.5	•	•	•
25	28	17.3	5	8	7.0 - 14.6	2.5 - 13.5		•	•
32	35	20.7	8	20	8.0 - 17.9	2.5 - 16.5			•
40	43	27.7	8	27	9.0 - 25.0	2.5 - 23.0			•
50	53	37	8	36	10.0 - 34.4	2.5 - 30.5			•



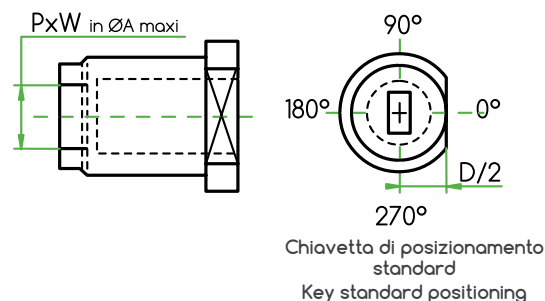
## MATRICE CON TESTA TRANCIANTE ASOLA MATRIX WITH HEAD WITH OVAL SHAPE

Materiale: Acciaio HWS  
Durezza: Hrc 60 ÷ 62  
Esecuzione: Temprata, rettificata  
Materiale: Acciaio HSS a richiesta  
ISO 8977  
Chiavetta di posizionamento sagoma standard T=0  
con supplemento di prezzo

Material: Steel HWS  
Hardness: Hrc 60 ÷ 62  
Finish: Hardened, ground  
Material: Steel HSS on request  
ISO 8977  
Key standard positioning with extra price T=0



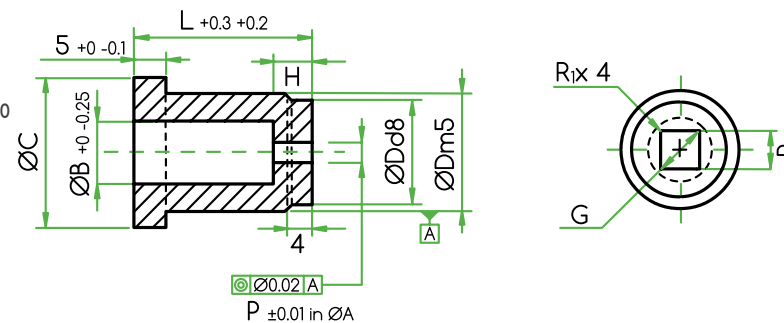
ØD	ØC	ØB	H	ØA	P	W	L		
							20	25	32
6	9	3.5	3	3	1.5 - 3.0	1.5 - 2.5	•	•	
8	11	4	4	3.5	1.5 - 3.5	1.5 - 3.0	•	•	
10	13	5.8	5	8	2.0 - 5.0	2.0 - 4.0	•	•	•
13	16	8	5	8	2.0 - 7.0	2.0 - 5.0	•	•	•
16	19	9.5	5	8	3.5 - 9.0	2.5 - 6.5	•	•	•
20	23	12	5	8	5.0 - 11.0	2.5 - 9.5	•	•	•
25	28	17.3	5	8	7.0 - 16.0	2.5 - 15.0		•	•
32	35	20.7	8	20	8.0 - 20.0	2.5 - 18.0			•
40	43	27.7	8	27	9.0 - 27.0	2.5 - 24.5			•
50	53	37	8	36	10.0 - 36.0	2.5 - 32.0			•



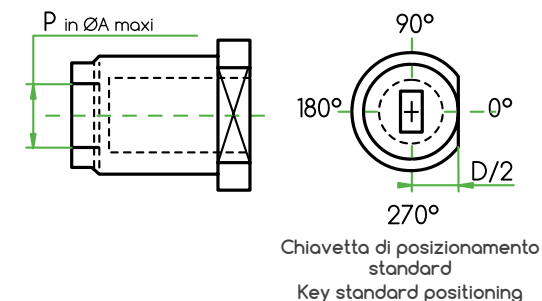
## MATRICE CON TESTA TRANCIANTE QUADRATO MATRIX WITH HEAD WITH SQUARED SHAPE

Materiale: Acciaio HWS  
Durezza: Hrc 60 ÷ 62  
Esecuzione: Temprata, rettificata  
Materiale: Acciaio HSS a richiesta  
ISO 8977  
Chiavetta di posizionamento sagoma standard T=0  
con supplemento di prezzo

Material: Steel HWS  
Hardness: Hrc 60 ÷ 62  
Finish: Hardened, ground  
Material: Steel HSS on request  
ISO 8977  
Key standard positioning with extra price T=0



ØD	ØC	ØB	H	ØA	P	W	L		
							20	25	32
6	9	3.5	3	3	1.5 - 1.8		•	•	
8	11	4	4	3.5	1.5 - 2.5		•	•	
10	13	5.8	5	8	2.0 - 3.2		•	•	•
13	16	8	5	8	2.0 - 4.7		•	•	•
16	19	9.5	5	8	2.5 - 5.8		•	•	•
20	23	12	5	8	2.5 - 7.5		•	•	•
25	28	17.3	5	8	2.5 - 11.3			•	•
32	35	20.7	8	20	2.5 - 13.7				•
40	43	27.7	8	27	2.5 - 18.7				•
50	53	37	8	36	2.5 - 25.2				•



MOLLE IN GOMMA, MOLLE A  
FILO, CILINDRI ALL’AZOTO  
POLYURETHANE SPRINGS, WIRE  
SPRINGS, NITROGEN CYLINDERS

BP86

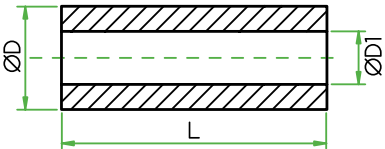
BARRA IN POLIURETANO 80SH FORATA  
80SH POLYURETHANE HOLLOW BARS

Materiale: Elastomero Poliuretano  
Durezza: ShA 80  
Deformazione massima: 35%  
Colore: giallo

A richiesta: piena

Material: Polyurethane Elastomer  
Hardness: ShA 80  
Max deformation: 35%  
Color: yellow

On request: solid



D	D1	L	
		250	500
16	6.5	•	
20	8.5	•	
25	10.5	•	
32	13.5		•
40	13.5		•
50	17.0		•
63	17.0		•
80	21.0		•
100	21.0		•
125	27.0		•

BP88

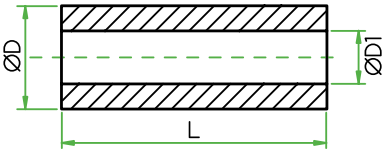
BARRA IN POLIURETANO 95SH FORATA  
95SH POLYURETHANE HOLLOW BARS

Materiale: Elastomero Poliuretano  
Durezza: ShA 95  
Deformazione massima: 25%  
Colore: grigio

A richiesta: piena

Material: Polyurethane Elastomer  
Hardness: ShA 95  
Max deformation: 25%  
Color: grey

On request: solid



D	D1	L	
		250	500
16	6.5	•	
20	8.5	•	
25	10.5	•	
32	13.5		•
40	13.5		•
50	17.0		•
63	17.0		•
80	21.0		•
100	21.0		•
125	27.0		•

BP87

BARRA IN POLIURETANO 90SH FORATA  
90SH POLYURETHANE HOLLOW BARS

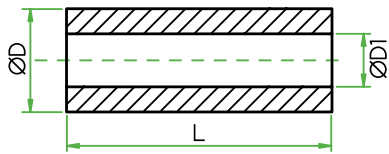
Materiale: Elastomero Poliuretano  
Durezza: ShA 90  
Deformazione massima: 30%  
Colore: rosso

A richiesta: piena

Material: Polyurethane Elastomer  
Hardness: ShA 90  
Max deformation: 30%  
Color: red

On request: solid

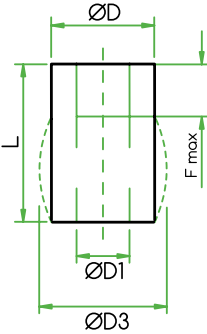
D	D1	Carico max Kg	L	
			250	500
16	6.5	110	•	
20	8.5	220	•	
25	10.5	330	•	
32	13.5	500		•
40	13.5	980		•
50	17.0	1750		•
63	17.0	2830		•
80	21.0	4250		•
100	21.0	7050		•
125	27.0	8520		•



MP87

MOLLA IN POLIURETANO 90SH  
90SH POLYURETHANE SPRINGS

D	L	D1	Carico max Kg	Deformazione max	Carico per mm di compressione Kg
40	32	13.5	980	9.5	103
	40			12.0	81
	50			15.0	65
	63			19.0	51.5
	80			24.0	40.8
50	40	17.0	1750	12.0	145
	50			15.0	116
	63			19.0	92
	80			24.0	73
	100			30.0	58
63	50	17.7	2830	15.0	188
	63			19.0	149
	80			24.0	118
	100			30.0	94
	125			37.5	75.5
80	63	21.0	4250	19.0	223
	80			24.0	177
	100			30.0	141
	125			37.5	113
	160			48.0	88.5
100	80	21.0	7050	24.0	293
	100			30.0	235
	125			37.5	188
	160			48.0	146
125	80	27.0	8520	24.0	355
	100			30.0	284
	125			37.5	227
	160			48.0	177



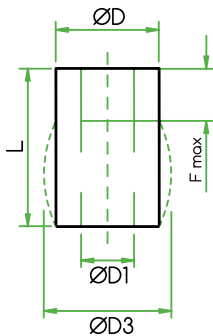
MP87

MOLLA IN POLIURETANO 90SH  
90SH POLYURETHANE SPRINGS

Materiale: Elastomero Poliuretano  
Durezza: ShA 90  
Colore: rosso

Material: Polyurethane Elastomer  
Hardness: ShA 90  
Color: red

D	L	D1	Carico max Kg	Deformazione max	Carico per mm di compressione Kg
16	12	6.5	110	3.6	30
	16			4.8	23
	20			6.0	18
	25			7.5	15
20	16	8.5	220	4.8	46
	20			6.0	36
	25			7.5	29
	32			9.5	23
25	20	10.5	330	6.0	55
	25			7.5	44
	32			9.5	34
	40			12.0	27
	50			15.0	22
32	25	13.5	500	7.5	66
	32			9.5	52
	40			12.0	41
	50			15.0	33
	63			19.0	26



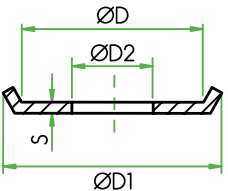
SM89

SEDE METALLICA PER MOLLA IN POLIURETANO  
METAL SEAT FOR POLYURETHANE HOLLOW BARS

Materiale: Acciaio stampato

Material: Pressed Steel

D	D1	D2	S
16	20.0	6.5	1.5
20	25.0	8.5	
25	30.0	10.5	
32	37.0	13.5	
40	45.0	17.0	2.0
50	55.0		





MOLLA CARICO EXTRA LEGGERO  
EXTRA LIGHT LOAD SPRING

ISO 10243

LEGENDA DELLE TABELLE

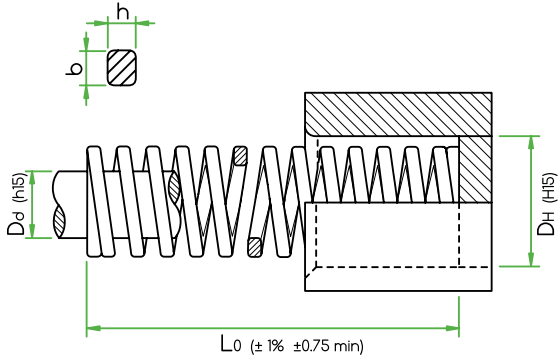
D<sub>H</sub> diametro del foro di alloggiamento  
D<sub>d</sub> diametro della spina di guida  
b x h, d sezione del profilo  
L<sub>0</sub> lunghezza libera della molla  
R carico (N) necessario per deflettere la molla di 1 millimetro  
A deflessione totale consigliata per una lunga durata della molla  
B deflessione totale consigliata per una media durata della molla  
C deflessione totale massima consentita  
D deflessione approssimativa per molla bloccata

Consigli, raccomandazioni e limiti: consultare pagina 112

EXPLANATION OF THE SPRING TABLE

D<sub>H</sub> hole diameter  
D<sub>d</sub> rod diameter  
b x h, d cross wire section  
L<sub>0</sub> spring free length  
R spring rate (load required for 1 mm deflection)  
A advised working deflection for long spring life  
B advised working deflection for medium spring life  
C maximum operating deflection  
D solid deflection (approximate value)

Advice, prescriptions and limitations: see page 112



Serie Series	Colore Color	Carico Load	Max deflessione Max deflection	Lunghezza libera Free length	Rigidità Rate
CXL	Verde chiaro Light green	Extra-leggero Extra-light	50% L <sub>0</sub>	± 1% L <sub>0</sub> ±0.75 min	± 10%

D <sub>H</sub>	D <sub>d</sub>	b x h	L <sub>0</sub>	Rigidità Rate	A 30% 3.000.000		B 40% 1.500.000		C 50% max deflessione		D approx	
mm	mm	mm	mm	N/mm	mm	N	mm	N	mm	N	mm	N
20	10	4.3 x 1.7	25	29.4	7.5	221	10.0	294	12.5	368	13.9	409
			32	22.6	9.6	217	12.8	289	16.0	362	18.2	411
			38	18.6	11.4	212	15.2	283	19.0	353	22.0	409
			44	15.7	13.2	207	17.6	276	22.0	345	25.8	405
			51	13.7	15.3	210	20.4	279	25.5	349	30.3	415
			64	11.3	19.2	217	25.6	289	32.0	362	38.9	440
			76	9.8	22.8	223	30.4	298	38.0	372	47.0	461
			89	8.3	26.7	222	35.6	295	44.5	369	55.7	462
			102	7.4	30.6	226	40.8	302	51.0	377	64.2	475
			115	6.4	34.5	221	46.0	294	57.5	368	72.9	467
			127	5.9	38.1	225	50.8	300	63.5	375	80.7	476
			139	5.4	41.7	225	55.6	300	69.5	375	88.4	477
			152	4.9	45.6	223	60.8	298	76.0	372	96.7	474
			305	2.5	91.5	229	122.0	305	152.5	381	196.3	491

Note: 1 N = 0.102 Kg (force)

D <sub>H</sub>	D <sub>d</sub>	b x h	L <sub>0</sub>	Rigidità Rate	A 30% 3.000.000		B 40% 1.500.000		C 50% max deflessione		D approx	
mm	mm	mm	mm	N/mm	mm	N	mm	N	mm	N	mm	N
25	12.5	5.4 x 2.2	25	53.9	7.5	404	10.0	539	12.5	674	12.9	695
			32	42.2	9.6	405	12.8	540	16.0	675	17.2	726
			38	35.8	11.4	408	15.2	544	19.0	680	20.7	741
			44	31.4	13.2	414	17.6	553	22.0	691	24.4	766
			51	27.0	15.3	413	20.4	551	25.5	689	28.5	760
			64	21.6	19.2	415	25.6	553	32.0	691	36.5	788
			76	18.1	22.8	413	30.4	550	38.0	688	43.9	795
			89	15.2	26.7	406	35.6	541	44.5	676	51.4	781
			102	13.2	30.6	404	40.8	539	51.0	673	59.3	783
			115	11.8	34.5	407	46.0	543	57.5	679	67.2	793
			127	10.6	38.1	404	50.8	538	63.5	673	74.4	789
			139	9.6	41.7	400	55.6	534	69.5	667	81.6	783
			152	8.8	45.6	401	60.8	535	76.0	669	89.5	788
			178	7.6	53.4	406	71.2	541	89.0	676	105.4	801
			203	6.7	60.9	408	81.2	544	101.5	680	120.7	809
32	16	6.5 x 2.6	305	4.4	91.5	403	122.0	537	152.5	671	182.4	803
			38	43.1	11.4	491	15.2	655	19.0	819	19.9	858
			44	37.3	13.2	492	17.6	656	22.0	821	23.5	877
			51	32.4	15.3	496	20.4	661	25.5	826	27.6	894
			64	25.5	19.2	490	25.6	653	32.0	816	35.2	898
			76	21.6	22.8	492	30.4	657	38.0	821	42.4	916
			89	18.1	26.7	483	35.6	644	44.5	805	50.0	905
			102	15.7	30.6	480	40.8	641	51.0	801	57.6	904
			115	14.2	34.5	490	46.0	653	57.5	817	65.5	930
			127	12.7	38.1	484	50.8	645	63.5	806	72.5	921
			139	11.6	41.7	484	55.6	645	69.5	806	79.4	921
			152	10.6	45.6	483	60.8	644	76.0	806	87.3	925
			178	9.0	53.4	481	71.2	641	89.0	801	102.9	926
			203	7.8	60.9	475	81.2	633	101.5	792	117.7	918
			254	6.4	76.2	488	101.6	650	127.0	813	148.1	948
40	20	8.0 x 3.4	305	5.3	91.5	485	122.0	647	152.5	808	178.3	945
			51	48.1	15.3	736	20.4	981	25.5	1227	28.0	1347
			64	39.2	19.2	753	25.6	1004	32.0	1254	36.2	1419
			76	33.3	22.8	759	30.4	1012	38.0	1265	43.7	1455
			89	28.4	26.7	758	35.6	1011	44.5	1264	51.7	1468
			102	24.5	30.6	750	40.8	1000	51.0	1250	59.8	1465
			115	22.1	34.5	762	46.0	1017	57.5	1271	67.9	1501
			127	19.6	38.1	747	50.8	996	63.5	1245	75.2	1474
			139	17.7	41.7	738	55.6	984	69.5	1230	82.4	1458
			152	16.2	45.6	739	60.8	985	76.0	1231	90.6	1468
			178	13.7	53.4	732	71.2	975	89.0	1219	106.5	1459
			203	12.3	60.9	749	81.2	999	101.5	1248	122.2	1503
			254	9.8	76.2	747	101.6	996	127.0	1245	153.6	1505
			305	8.3	91.5	759	122.0	1013	152.5	1266	185.4	1539
50	25	10.5 x 4.1	64	86.3	19.2	1657	25.6	2209	32.0	2762	35.1	3029
			76	70.6	22.8	1610	30.4	2146	38.0	2683	42.2	2979
			89	59.8	26.7	1597	35.6	2129	44.5	2661	50.3	3008
			102	52.0	30.6	1591	40.8	2122	51.0	2652	58.4	3037
			115	46.1	34.5	1590	46.0	2121	57.5	2651	66.1	3047
			127	42.2	38.1	1608	50.8	2144	63.5	2680	73.8	3114
			139	38.2	41.7	1593	55.6	2124	69.5	2655	80.9	3090
			152	34.3	45.6	1564	60.8	2085	76.0	2607	89.0	3053
			178	29.4	53.4	1570	71.2	2093	89.0	2617	105.3	3096
			203	25.5	60.9	1553	81.2	2071	101.5	2588	120.6	3075
			254	20.6	76.2	1570	101.6	2093	127.0	2616	152.2	3135
			305	17.2	91.5	1574	122.0	2098	152.5	2623	183.7	3160

Note: 1 N = 0.102 Kg (force)

MOLLA CARICO LEGGERO  
LIGHT LOAD SPRING

ISO 10243

LEGENDA DELLE TABELLE

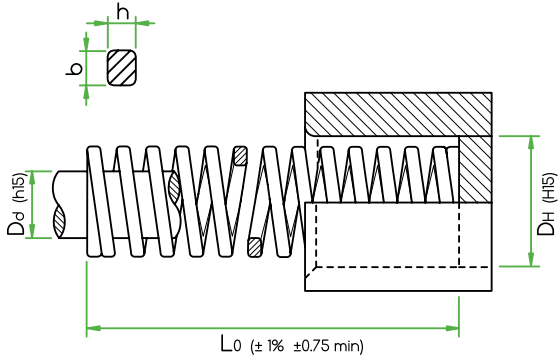
D<sub>H</sub> diametro del foro di alloggiamento  
D<sub>d</sub> diametro della spina di guida  
b x h, d sezione del profilo  
L<sub>0</sub> lunghezza libera della molla  
R carico (N) necessario per deflettere la molla di 1 millimetro  
A deflessione totale consigliata per una lunga durata della molla  
B deflessione totale consigliata per una media durata della molla  
C deflessione totale massima consentita  
D deflessione approssimativa per molla bloccato

Consigli, raccomandazioni e limiti: consultare pagina 112

EXPLANATION OF THE SPRING TABLE

D<sub>H</sub> hole diameter  
D<sub>d</sub> rod diameter  
b x h, d cross wire section  
L<sub>0</sub> spring free length  
R spring rate (load required for 1 mm deflection)  
A advised working deflection for long spring life  
B advised working deflection for medium spring life  
C maximum operating deflection  
D solid deflection (approximate value)

Advice, prescriptions and limitations: see page 112



Serie Series	Colore Color	Carico Load	Max deflessione Max deflection	Lunghezza libera Free length	Rigidità Rate
CLV	Verde Green	Leggero Light	40% L <sub>0</sub>	± 1% L <sub>0</sub> ±0.75 min	± 10%

D <sub>H</sub>	D <sub>d</sub>	b x h	L <sub>0</sub>	Rigidità Rate	A 25% 3.000.000		B 30% 1.500.000		C 40% max deflessione		D approx	
mm	mm	mm	mm	N/mm	mm	N	mm	N	mm	N	mm	N
10	5	1.7 x 1.1	25	10.0	6.3	63	7.5	75	10.0	100	13.5	135
			32	8.5	8.0	68	9.6	82	12.8	109	17.5	149
			38	6.8	9.5	65	11.4	78	15.2	103	20.8	141
			44	6.0	11.0	66	13.2	79	17.6	106	23.9	143
			51	5.0	12.8	64	15.3	77	20.4	102	28.9	145
			64	4.3	16.0	69	19.2	83	25.6	110	36.1	155
			76	3.2	19.0	61	22.8	73	30.4	97	43.2	138
			305	1.1	76.3	84	91.5	101	122.0	134	178.7	197
			25	17.9	6.3	113	7.5	134	10.0	179	13.2	236
			32	16.4	8.0	131	9.6	157	12.8	210	18.0	295
12.5	6.3	2.4 x 1.4	38	13.6	9.5	129	11.4	155	15.2	207	21.0	286
			44	12.1	11.0	133	13.2	160	17.6	213	24.0	290
			51	11.4	12.8	146	15.3	174	20.4	233	28.7	327
			64	9.3	16.0	149	19.2	179	25.6	238	35.8	333
			76	7.1	19.0	135	22.8	162	30.4	216	42.7	303
			89	5.4	22.3	120	26.7	144	35.6	192	50.4	272
			102	4.1	25.5	105	30.6	125	40.8	167	58.4	239
			305	1.4	76.3	107	91.5	128	122.0	171	172.0	241
			25	23.4	6.3	147	7.5	176	10.0	234	12.6	295
			32	22.9	8.0	183	9.6	220	12.8	293	16.4	376
16	8	3.2 x 1.5	38	19.3	9.5	183	11.4	220	15.2	293	19.7	380
			44	17.1	11.0	188	13.2	226	17.6	301	22.5	385
			51	15.7	12.8	201	15.3	240	20.4	320	26.3	413
			64	10.7	16.0	171	19.2	205	25.6	274	33.3	356
			76	10.0	19.0	190	22.8	228	30.4	304	40.2	402
			89	8.6	22.3	192	26.7	230	35.6	306	47.6	409
			102	7.8	25.5	199	30.6	239	40.8	318	55.4	432
			115	6.6	28.8	190	34.5	228	46.0	304	60.8	401
			305	2.5	76.3	191	91.5	229	122.0	305	165.3	413
			25	23.4	6.3	147	7.5	176	10.0	234	12.6	295

Note: 1 N = 0.102 Kg (force)

D <sub>H</sub>	D <sub>d</sub>	b x h	L <sub>0</sub>	Rigidità Rate	A 25% 3.000.000		B 30% 1.500.000		C 40% max deflessione		D approx	
mm	mm	mm	mm	N/mm	mm	N	mm	N	mm	N	mm	N
20	10	4.0 x 2.1	25	55.8	6.3	352	7.5	419	10.0	558	12.1	675
			32	45.0	8.0	360	9.6	432	12.8	576	15.3	689
			38	33.3	9.5	316	11.4	380	15.2	506	18.9	629
			44	30.0	11.0	330	13.2	396	17.6	528	21.5	645
			51	24.5	12.8	314	15.3	375	20.4	500	25.0	613
			64	20.0	16.0	320	19.2	384	25.6	512	31.1	622
			76	16.0	19.0	304	22.8	365	30.4	486	37.3	597
			89	14.0	22.3	312	26.7	374	35.6	498	44.5	623
			102	12.0	25.5	306	30.6	367	40.8	490	51.1	613
			115	10.9	28.8	314	34.5	376	46.0	501	58.2	634
			127	9.5	31.8	302	38.1	362	50.8	483	64.9	617
			139	8.4	35.0	294	42.0	353	56.0	470	71.5	601
			152	7.5	38.0	285	45.6	342	60.8	456	78.8	591
			305	4.0	76.3	305	91.5	366	122.0	488	157.4	630
25	12.5	5.4 x 2.7	25	100.0	6.3	630	7.5	750	10.0	1000	11.9	1190
			32	80.3	8.0	642	9.6	771	12.8	1028	16.0	1285
			38	62.0	9.5	589	11.4	707	15.2	942	18.3	1135
			44	52.9	11.0	582	13.2	698	17.6	931	21.4	1132
			51	44.0	12.8	563	15.3	673	20.4	898	24.9	1096
			64	35.2	16.0	563	19.2	676	25.6	901	31.4	1105
			76	28.0	19.0	532	22.8	638	30.4	851	37.5	1050
			89	24.0	22.3	535	26.7	641	35.6	854	43.5	1044
			102	21.1	25.5	538	30.6	646	40.8	861	51.1	1078
			115	18.7	28.8	539	34.5	645	46.0	860	58.1	1086
			127	16.7	31.8	531	38.1	636	50.8	848	64.1	1070
			139	15.3	35.0	536	42.0	643	56.0	857	70.4	1077
			152	14.0	38.0	532	45.6	638	60.8	851	77.1	1079
			178	12.5	44.5	556	53.4	668	71.2	890	93.1	1164
32	16	6.8 x 3.3	203	10.4	50.8	528	60.9	633	81.2	844	102.7	1068
			305	7.0	76.3	534	91.5	641	122.0	854	155.9	1091
			38	94.0	9.5	893	11.4	1072	15.2	1429	18.3	1720
			44	79.5	11.0	875	13.2	1049	17.6	1399	21.5	1709
			51	67.0	12.8	858	15.3	1025	20.4	1367	25.5	1709
			64	53.0	16.0	848	19.2	1018	25.6	1357	31.9	1691
			76	44.0	19.0	836	22.8	1003	30.4	1338	38.6	1698
			89	37.2	22.3	830	26.7	1993	35.6	1324	46.5	1730
			102	32.0	25.5	816	30.6	979	40.8	1306	53.2	1702
			115	29.0	28.8	835	34.5	1001	46.0	1334	60.0	1740
			127	25.0	31.8	795	38.1	953	50.8	1270	66.7	1668
			139	23.0	35.0	805	42.0	966	56.0	1288	71.8	1651
			152	21.5	38.0	817	45.6	980	60.8	1307	78.5	1688
			178	18.2	44.5	810	53.4	972	71.2	1296	94.4	1718
40	20	8.1 x 4.0	203	15.8	50.8	803	60.9	962	81.2	1283	107.1	1692
			254	12.5	63.5	794	76.2	953	101.6	1270	136.5	1706
			305	10.3	76.3	786	91.5	942	122.0	1257	162.7	1676
			51	92.0	12.8	1178	15.3	1408	20.4	1877	25.5	2346
			64	73.0	16.0	1168	19.2	1402	25.6	1869	31.4	2292
			76	63.0	19.0	1197	22.8	1436	30.4	1915	37.8	2381
			89	51.0	22.3	1137	26.7	1362	35.6	1816	44.3	2259
			102	43.0	25.5	1097	30.6	1316	40.8	1754	50.7	2180
			115	39.6	28.8	1140	34.5	1366	46.0	1822	58.1	2301
			127	37.0	31.8	1177	38.1	1410	50.8	1880	64.6	2390
			139	32.0	35.0	1120	42.0	1344	56.0	1792	70.1	2243
			152	28.0	38.0	1064	45.6	1277	60.8	1702	76.6	2145
			178	25.2	44.5	1121	53.4	1346	71.2	1794	90.4	2278
			50	25	10.9 x 5.3	203	22.7	50.8	1153	60.9	1382	81.2
254	17.0	63.5				1080	76.2	1295	101.6	1727	128.8	2190
305	14.8	76.3				1129	91.5	1354	122.0	1806	156.1	2310
64	156.0	16.0				2496	19.2	2995	25.6	3994	31.0	4836
76	125.0	19.0				2375	22.8	2850	30.4	3800	37.2	4650
89	109.0	22.3				2431	26.7	2910	35.6	3880	43.6	4752
102	94.0	25.5				2397	30.6	2876	40.8	3835	50.3	4728
115	81.0	28.8				2333	34.5	2795	46.0	3726	58.1	4706
127	71.0	31.8				2258	38.1	2705	50.8	3607	63.7	4523
139	66.5	35.0				2328	42.0	2793	56.0	3724	69.5	4622
152	60.0	38.0				2280	45.6	2736	60.8	3648	76.5	4590
178	52.0	44.5				2314	53.4	2777	71.2	3702	91.9	4779
203	44.0	50.8				2235	60.9	2680	81.2	3573	104.7	4607
254	35.0	63.5				2223	76.2	2667	101.6	3556	130.6	4571
63	38	11.0 x 7.8	305	28.5	76.3	2175	91.5	2608	122.0	3477	154.9	4415
			76	189.0	19.0	3591	22.8	4309	30.4	5746	36.5	6899
			89	158.0	22.3	3523	26.7	4219	35.6	5625	43.4	6857
			102	131.0	25.5	3341	30.6	4009	40.8	5345	49.7	6511
			115	116.0	28.8	3341	34.5	4002	46.0	5336	55.6	6450
			127	103.0	31.8	3275	38.1	3924	50.8	5232	62.7	6458
			152	84.3	38.0	3203	45.6	3844	60.8	5125	77.1	6500
			178	71.5	44.5	3182	53.4	3818	71.2	5091	92.2	6592
			203	61.7	50.8	3134	60.9	3758	81.2	5010	103.5	6386
			254	47.0	63.5	2985	76.2	3581	101.6	4775	130.4	6129
305	38.2	76.3	2915	91.5	3495	122.0	4660	157.4	6013			

MOLLA CARICO MEDIO
MEDIUM LOAD SPRING

ISO 10243

LEGENDA DELLE TABELLE

D\_H diametro del foro di alloggiamento
D\_ø diametro della spina di guida
b x h, d sezione del profilo
L\_0 lunghezza libera della molla
R carico (N) necessario per deflettere la molla di 1 millimetro
A deflessione totale consigliata per una lunga durata della molla
B deflessione totale consigliata per una media durata della molla
C deflessione totale massima consentita
D deflessione approssimativa per molla bloccato

Consigli, raccomandazioni e limiti: consultare pagina 112

EXPLANATION OF THE SPRING TABLE

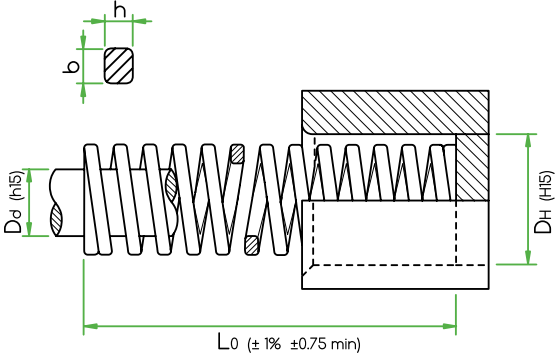
D\_H hole diameter
D\_ø rod diameter
b x h, d cross wire section
L\_0 spring free length
R spring rate (load required for 1 mm deflection)
A advised working deflection for long spring life
B advised working deflection for medium spring life
C maximum operating deflection
D solid deflection (approximate value)

Advice, prescriptions and limitations: see page 112

Table with 6 columns: Serie, Colore, Carico, Max deflessione, Lunghezza libera, Rigidità. Row 1: CMB, Blu, Medio, 37.5% L\_0, ± 1% L\_0 ±0.75 min, ± 10%.

Large table with 13 columns: D\_H, D\_ø, b x h, L\_0, Rigidità, A 25%, B 30%, C 37.5%, D approx. Rows include dimensions like 10, 12.5, 16 and wire sizes like 1.9 x 1.3, 2.5 x 1.5, 3.2 x 2.0.

Note: 1 N = 0.102 Kg (force)



Large table with 13 columns: D\_H, D\_ø, b x h, L\_0, Rigidità, A 25%, B 30%, C 37.5%, D approx. Rows include dimensions like 20, 25, 32, 40, 50, 63 and wire sizes like 4.1 x 2.4, 5.4 x 3.3, 6.8 x 4.0, 8.2 x 4.7, 11.1 x 5.8, 11.5 x 9.1.

Note: 1 N = 0.102 Kg (force)

MOLLA CARICO FORTE  
HEAVY LOAD SPRING

ISO 10243

LEGENDA DELLE TABELLE

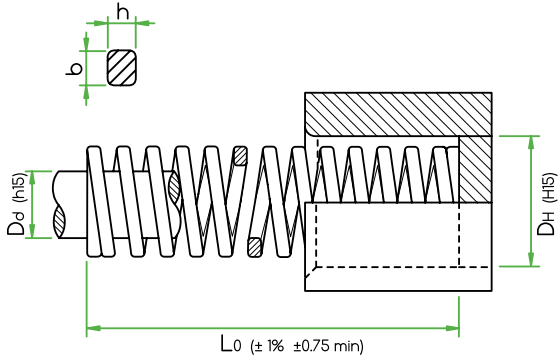
D<sub>H</sub> diametro del foro di alloggiamento  
D<sub>d</sub> diametro della spina di guida  
b x h, d sezione del profilo  
L<sub>0</sub> lunghezza libera della molla  
R carico (N) necessario per deflettere la molla di 1 millimetro  
A deflessione totale consigliata per una lunga durata della molla  
B deflessione totale consigliata per una media durata della molla  
C deflessione totale massima consentita  
D deflessione approssimativa per molla bloccato

Consigli, raccomandazioni e limiti: consultare pagina 112

EXPLANATION OF THE SPRING TABLE

D<sub>H</sub> hole diameter  
D<sub>d</sub> rod diameter  
b x h, d cross wire section  
L<sub>0</sub> spring free length  
R spring rate (load required for 1 mm deflection)  
A advised working deflection for long spring life  
B advised working deflection for medium spring life  
C maximum operating deflection  
D solid deflection (approximate value)

Advice, prescriptions and limitations: see page 112



Serie Series	Colore Color	Carico Load	Max deflessione Max deflection	Lunghezza libera Free length	Rigidità Rate
CFR	Rosso Red	Forte Heavy	30% L <sub>0</sub>	± 1% L <sub>0</sub> ±0.75 min	± 10%

D <sub>H</sub>	D <sub>d</sub>	b x h	L <sub>0</sub>	Rigidità Rate	A 20% 3.000.000		B 25% 1.500.000		C 30% max deflessione		D approx	
mm	mm	mm	mm	N/mm	mm	N	mm	N	mm	N	mm	N
10	5	1.9 x 1.5	25	22.1	5.0	111	6.3	139	7.5	166	9.2	203
			32	17.5	6.4	112	8.0	140	9.6	168	12.1	212
			38	17.1	7.6	130	9.5	162	11.4	195	13.2	226
			44	15.0	8.8	132	11.0	165	13.2	198	15.1	227
			51	12.8	10.2	131	12.8	164	15.3	196	19.5	250
			64	10.7	12.8	137	16.0	171	19.2	205	21.8	233
			76	7.5	15.2	114	19.0	143	22.8	171	27.9	209
			305	2.1	61.0	128	76.3	160	91.5	192	127.2	267
12.5	6.3	2.4 x 1.9	25	42.1	5.0	211	6.3	265	7.5	316	9.8	413
			32	33.2	6.4	212	8.0	266	9.6	319	13.6	452
			38	29.3	7.6	223	9.5	278	11.4	334	14.6	428
			44	24.6	8.8	216	11.0	271	13.2	325	18.1	445
			51	19.6	10.2	200	12.8	251	15.3	300	22.3	437
			64	15.0	12.8	192	16.0	240	19.2	288	27.3	410
			76	13.2	15.2	201	19.0	251	22.8	310	33.1	437
			89	11.4	17.8	203	22.3	254	26.7	304	38.9	443
			102	8.4	20.4	171	25.5	214	30.6	257	43.8	368
16	8	3.1 x 2.5	305	2.8	61.0	171	76.3	214	91.5	256	139.7	391
			25	75.7	5.0	379	6.3	477	7.5	568	8.4	636
			32	52.8	6.4	338	8.0	422	9.6	507	10.5	554
			38	48.5	7.6	369	9.5	461	11.4	553	13.6	660
			44	42.8	8.8	377	11.0	471	13.2	565	15.9	681
			51	37.1	10.2	378	12.8	475	15.3	568	18.9	701
			64	30.3	12.8	388	16.0	485	19.2	582	24.9	754
			76	25.7	15.2	391	19.0	488	22.8	586	29.2	750
			89	21.7	17.8	386	22.3	484	26.7	579	34.5	749
			102	19.3	20.4	394	25.5	492	30.6	591	39.1	755
			115	15.7	23.0	361	28.8	452	34.5	542	44.0	691
			305	7.1	61.0	433	76.3	542	91.5	650	103.6	736

Note: 1 N = 0.102 Kg (force)

D <sub>H</sub>	D <sub>d</sub>	b x h	L <sub>0</sub>	Rigidità Rate	A 20% 3.000.000		B 25% 1.500.000		C 30% max deflessione		D approx	
mm	mm	mm	mm	N/mm	mm	N	mm	N	mm	N	mm	N
20	10	4.0 x 3.3	25	216.0	5.0	1080	6.3	1361	7.5	1620	8.3	1793
			32	168.0	6.4	1075	8.0	1344	9.6	1613	10.9	1831
			38	129.0	7.6	980	9.5	1226	11.4	1471	12.5	1613
			44	112.0	8.8	986	11.0	1232	13.2	1478	15.0	1680
			51	94.0	10.2	959	12.8	1203	15.3	1438	17.6	1654
			64	72.1	12.8	923	16.0	1154	19.2	1384	22.6	1629
			76	59.7	15.2	907	19.0	1134	22.8	1361	27.5	1642
			89	50.5	17.8	899	22.3	1126	26.7	1348	31.7	1601
			102	44.2	20.4	902	25.5	1127	30.6	1353	37.5	1658
			115	38.4	23.0	883	28.8	1106	34.5	1325	42.6	1636
			127	34.1	25.4	866	31.8	1084	38.1	1299	45.5	1552
			139	31.0	28.0	868	35.0	1085	42.0	1302	50.1	1553
			152	28.2	30.4	857	38.0	1072	45.6	1286	55.8	1574
			305	15.0	61.0	915	76.3	1145	91.5	1373	114.1	1712
25	12.5	5.5 x 4.2	25	375.0	5.0	1875	6.3	2363	7.5	2813	8.5	3188
			32	297.0	6.4	1901	8.0	2376	9.6	2851	11.0	3267
			38	219.0	7.6	1664	9.5	2081	11.4	2497	12.6	2759
			44	187.0	8.8	1646	11.0	2057	13.2	2468	14.8	2768
			51	156.0	10.2	1591	12.8	1997	15.3	2387	17.9	2792
			64	123.0	12.8	1574	16.0	1968	19.2	2362	23.1	2841
			76	99.0	15.2	1505	19.0	1881	22.8	2257	26.3	2604
			89	84.0	17.8	1495	22.3	1873	26.7	2243	30.5	2562
			102	73.0	20.4	1489	25.5	1862	30.6	2234	37.3	2723
			115	65.0	23.0	1495	28.8	1872	34.5	2243	41.9	2724
			127	57.7	25.4	1466	31.8	1835	38.1	2198	46.2	2666
			139	52.7	28.0	1476	35.0	1845	42.0	2213	49.3	2598
			152	47.8	30.4	1453	38.0	1816	45.6	2180	55.7	2662
			178	41.0	35.6	1460	44.5	1825	53.4	2189	65.1	2669
			203	35.8	40.6	1453	50.8	1819	60.9	2180	74.5	2667
			305	22.9	61.0	1397	76.3	1747	91.5	2095	110.2	2524
32	16	7.1 x 5.4	38	388.0	7.6	2949	9.5	3686	11.4	4423	12.5	4850
			44	324.0	8.8	2851	11.0	3564	13.2	4277	14.9	4828
			51	272.0	10.2	2774	12.8	3482	15.3	4162	17.8	4842
			64	212.0	12.8	2714	16.0	3392	19.2	4070	22.4	4749
			76	172.0	15.2	2614	19.0	3268	22.8	3922	26.1	4489
			89	141.0	17.8	2510	22.3	3144	26.7	3765	30.8	4343
			102	122.0	20.4	2489	25.5	3111	30.6	3733	36.8	4490
			115	107.0	23.0	2461	28.8	3082	34.5	3692	41.4	4430
			127	93.0	25.4	2362	31.8	2957	38.1	3543	44.4	4129
			139	86.0	28.0	2408	35.0	3010	42.0	3612	48.5	4171
			152	78.0	30.4	2371	38.0	2964	45.6	3557	54.8	4274
			178	67.2	35.6	2392	44.5	2990	53.4	3588	63.6	4274
			203	59.1	40.6	2399	50.8	3002	60.9	3599	72.5	4285
			254	46.4	50.8	2357	63.5	2946	76.2	3536	92.8	4306
			305	38.0	61.0	2388	76.3	2899	91.5	3477	111.8	4248
40	20	8.4 x 6.2	51	350.0	10.2	3570	12.8	4480	15.3	5355	17.0	5950
			64	269.0	12.8	3443	16.0	4304	19.2	5165	21.9	5891
			76	219.0	15.2	3329	19.0	4161	22.8	4993	26.7	5847
			89	190.0	17.8	3382	22.3	4237	26.7	5073	31.3	5947
			102	163.0	20.4	3325	25.5	4157	30.6	4988	37.1	6047
			115	142.0	23.0	3266	28.8	4090	34.5	4899	41.0	5822
			127	128.0	25.4	3251	31.8	4070	38.1	4877	46.5	5952
			139	115.0	28.0	3220	35.0	4025	42.0	4830	53.1	6107
			152	105.0	30.4	3192	38.0	3990	45.6	4788	56.1	5891
			178	89.0	35.6	3168	44.5	3961	53.4	4753	67.4	5999
			203	77.0	40.6	3126	50.8	3912	60.9	4689	76.2	5867
			254	61.0	50.8	3099	63.5	3874	76.2	4648	96.2	5868
			305	51.0	61.0	3111	76.3	3891	91.5	4667	114.8	5855
50	25	11.1 x 7.6	64	413.0	12.8	5286	16.0	6608	19.2	7930	22.4	9251
			76	339.0	15.2	5153	19.0	6441	22.8	7729	26.5	8984
			89	288.0	17.8	5126	22.3	6422	26.7	7690	31.5	9072
			102	245.0	20.4	4998	25.5	6248	30.6	7497	37.6	9212
			115	215.0	23.0	4945	28.8	6192	34.5	7418	42.7	9181
			127	192.0	25.4	4877	31.8	6106	38.1	7315	47.5	9120
			139	168.0	28.0	4704	35.0	5880	42.0	7056	51.8	8702
			152	154.0	30.4	4682	38.0	5852	45.6	7022	57.8	8901
			178	134.0	35.6	4770	44.5	5963	53.4	7156	68.5	9179
			203	117.0	40.6	4750	50.8	5944	60.9	7125	77.6	9079
			254	89.0	50.8	4521	63.5	5652	76.2	6782	97.9	8783
			305	73.0	61.0	4453	76.3	5570	91.5	6680	120.7	8811
			63	38	11.6 x 12.3	76	618.0	15.2	9394	19.0	11742	22.8
89	515.0	17.8				9167	22.3	11485	26.7	13751	30.0	15450
102	438.0	20.4				8935	25.5	11169	30.6	13403	35.1	15374
115	370.0	23.0				8510	28.8	10656	34.5	12765	37.5	13875
127	33.0	25.4				8458	31.8	10589	38.1	12687	45.9	15285
152	269.0	30.4				8178	38.0	10222	45.6	12266	56.5	15199
178	226.0	35.6				8046	44.5	10057	53.4	12068	66.8	15097
203	198.0	40.6				8039	50.8	10058	60.9	12058	78.8	15602
254	155.0	50.8				7874	63.5	9843	76.2	11811	101.7	15763
305	128.0	61.0	7808	76.3	9766	91.5	11712	122.4	15667			



MOLLA CARICO EXTRA FORTE  
EXTRA HEAVY LOAD SPRING

ISO 10243

LEGENDA DELLE TABELLE

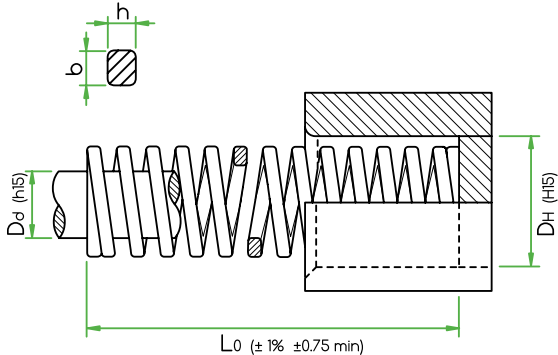
D<sub>H</sub> diametro del foro di alloggiamento  
D<sub>d</sub> diametro della spina di guida  
b x h, d sezione del profilo  
L<sub>0</sub> lunghezza libera della molla  
R carico (N) necessario per deflettere la molla di 1 millimetro  
A deflessione totale consigliata per una lunga durata della molla  
B deflessione totale consigliata per una media durata della molla  
C deflessione totale massima consentita  
D deflessione approssimativa per molla bloccato

Consigli, raccomandazioni e limiti: consultare pagina 112

EXPLANATION OF THE SPRING TABLE

D<sub>H</sub> hole diameter  
D<sub>d</sub> rod diameter  
b x h, d cross wire section  
L<sub>0</sub> spring free length  
R spring rate (load required for 1 mm deflection)  
A advised working deflection for long spring life  
B advised working deflection for medium spring life  
C maximum operating deflection  
D solid deflection (approximate value)

Advice, prescriptions and limitations: see page 112



Serie Series	Colore Color	Carico Load	Max deflessione Max deflection	Lunghezza libera Free length	Rigidità Rate
CXF	Giallo Yellow	Extra-forte Extra-heavy	25% L <sub>0</sub>	± 1% L <sub>0</sub> ±0.75 min	± 10%

D <sub>H</sub>	D <sub>d</sub>	b x h	L <sub>0</sub>	Rigidità Rate	A 17% 3.000.000		B 20% 1.500.000		C 25% max deflessione		D approx	
mm	mm	mm	mm	N/mm	mm	N	mm	N	mm	N	mm	N
10	5	1.9 x 1.6	25	36.8	4.3	158	5.0	184	6.3	232	7.7	283
			32	27.9	5.4	151	6.4	179	8.0	223	10.6	296
			38	23.7	6.5	154	7.6	180	9.5	225	12.6	299
			44	19.2	7.5	144	8.8	169	11.0	211	13.8	265
			51	16.5	8.7	144	10.2	168	12.8	211	16.2	267
			64	13.2	10.9	144	12.8	169	16.0	211	20.4	269
			76	10.9	12.9	141	15.2	166	19.0	207	25.2	275
			305	2.6	51.9	135	61.0	159	76.3	198	110.8	288
			25	58.5	4.3	252	5.0	293	6.3	369	8.1	474
			32	43.9	5.4	237	6.4	281	8.0	351	9.9	435
12.5	6.3	2.6 x 2.0	38	36.0	6.5	234	7.6	274	9.5	342	12.9	464
			44	30.3	7.5	227	8.8	267	11.0	333	14.1	427
			51	26.2	8.7	228	10.2	267	12.8	335	17.4	456
			64	21.2	10.9	231	12.8	271	16.0	339	21.0	445
			76	17.1	12.9	221	15.2	260	19.0	325	26.4	451
			89	14.5	15.1	219	17.8	258	22.3	323	31.5	457
			102	12.7	17.3	220	20.4	259	25.5	324	36.0	457
			305	4.3	51.9	223	61.0	262	76.3	328	111.3	479
			25	118.0	4.3	507	5.0	590	6.3	743	8.5	1003
			32	89.0	5.4	481	6.4	570	8.0	712	11.0	979
16	8	3.2 x 2.9	38	72.1	6.5	469	7.6	548	9.5	685	13.2	952
			44	60.9	7.5	457	8.8	536	11.0	670	14.7	895
			51	52.3	8.7	455	10.2	533	12.8	669	17.7	926
			64	41.2	10.9	449	12.8	527	16.0	659	21.9	902
			76	34.1	12.9	440	15.2	518	19.0	648	27.8	948
			89	29.5	15.1	445	17.8	525	22.3	658	31.2	920
			102	25.6	17.3	443	20.4	522	25.5	653	37.9	970
			115	22.4	19.6	439	23.0	515	28.8	645	44.5	997
			305	8.4	51.9	436	61.0	512	76.3	641	113.5	953
			25	118.0	4.3	507	5.0	590	6.3	743	8.5	1003

Note: 1 N = 0.102 Kg (force)

D <sub>H</sub>	D <sub>d</sub>	b x h	L <sub>0</sub>	Rigidità Rate	A 17% 3.000.000		B 20% 1500.000		C 25% max deflessione		D approx				
mm	mm	mm	mm	N/mm	mm	N	mm	N	mm	N	mm	N			
20	10	4.1 x 3.8	25	293.0	4.3	1260	5.0	1465	6.3	1846	6.9	2022			
			32	224.0	5.4	1210	6.4	1434	8.0	1792	9.4	2106			
			38	177.0	6.5	1151	7.6	1345	9.5	1682	12.0	2124			
			44	149.0	7.5	1118	8.8	1311	11.0	1639	13.5	2012			
			51	128.0	8.7	1114	10.2	1306	12.8	1638	16.2	2074			
			64	99.0	10.9	1079	12.8	1267	16.0	1584	21.2	2099			
			76	81.7	12.9	1054	15.2	1242	19.0	1552	24.7	2018			
			89	69.5	15.1	1049	17.8	1237	22.3	1550	28.8	2002			
			102	60.6	17.3	1048	20.4	1236	25.5	1545	34.8	2109			
			115	53.0	19.6	1039	23.0	1219	28.8	1526	39.0	2067			
			127	47.5	21.6	1026	25.4	1207	31.8	1511	43.0	2043			
			139	43.0	23.8	1023	28.0	1204	35.0	1505	45.3	1948			
			152	39.0	25.8	1006	30.4	1186	38.0	1482	50.4	1966			
			305	21.2	51.9	1100	61.0	1293	76.3	1618	103.5	2194			
25	12.5	5.4 x 4.6	25	459.0	4.3	1974	5.0	2295	6.3	2892	7.3	3351			
			32	374.4	5.4	2022	6.4	2396	8.0	2995	10.7	4006			
			38	346.0	6.5	2249	7.6	2630	9.5	3287	12.0	4152			
			44	244.0	7.5	1830	8.8	2147	11.0	2684	14.4	3514			
			51	207.5	8.7	1805	10.2	2117	12.8	2656	17.4	3611			
			64	161.0	10.9	1755	12.8	2061	16.0	2576	21.4	3445			
			76	130.8	12.9	1687	15.2	1988	19.0	2485	26.9	3519			
			89	110.5	15.1	1669	17.8	1967	22.3	2464	30.9	3414			
			102	96.3	17.3	1666	20.4	1965	25.5	2456	36.7	3534			
			115	85.7	19.6	1680	23.0	1971	28.8	2468	40.3	3454			
			127	76.3	21.6	1648	25.4	1938	31.8	2426	45.1	3441			
			139	68.9	23.8	1640	28.0	1929	35.0	2412	47.6	3280			
			152	63.5	25.8	1638	30.4	1930	38.0	2413	53.5	3397			
			178	53.9	30.3	1633	35.6	1919	44.5	2399	63.9	3444			
203	47.0	34.5	1622	40.6	1908	50.8	2388	70.2	3299						
305	30.9	51.9	1604	61.0	1885	76.3	2358	110.1	3402						
32	16	7.3 x 5.9	38	528.2	6.5	3433	7.6	4014	9.5	5018	11.4	6021			
			44	424.4	7.5	3183	8.8	3735	11.0	4668	13.7	5814			
			51	353.0	8.7	3071	10.2	3601	12.8	4518	15.6	5507			
			64	269.2	10.9	2934	12.8	3446	16.0	4307	20.0	5384			
			76	218.5	12.9	2819	15.2	3321	19.0	4152	24.4	5331			
			89	180.3	15.1	2723	17.8	3209	22.3	4021	29.7	5355			
			102	155.0	17.3	2682	20.4	3162	25.5	3953	35.1	5441			
			115	140.0	19.6	2744	23.0	3220	28.8	4032	39.0	5460			
			127	124.0	21.6	2678	25.4	3150	31.8	3943	42.8	5307			
			139	112.3	23.8	2673	28.0	3144	35.0	3931	48.6	5458			
			152	102.0	25.8	2632	30.4	3101	38.0	3876	52.4	5345			
			178	88.2	30.3	2672	35.6	3140	44.5	3925	60.9	5371			
			203	76.0	34.5	2622	40.6	3086	50.8	3861	69.2	5259			
			254	60.8	43.2	2627	50.8	3089	63.5	3861	88.1	5356			
305	49.0	51.9	2543	61.0	2989	76.3	3739	104.2	5106						
40	20	8.4 x 7.5	51	628.0	8.7	5464	10.2	6406	12.8	8038	15.0	9420			
			64	487.0	10.9	5308	12.8	6234	16.0	7792	19.5	9497			
			76	379.0	12.9	4889	15.2	5761	19.0	7201	23.3	8831			
			89	321.0	15.1	4847	17.8	5714	22.3	7158	26.7	8571			
			102	281.0	17.3	4861	20.4	5732	25.5	7166	33.8	9498			
			115	245.0	19.6	4802	23.0	5635	28.8	7056	36.2	8869			
			127	221.0	21.6	4774	25.4	5613	31.8	7028	40.7	8995			
			139	190.0	23.8	4522	28.0	5320	35.0	6650	44.5	8455			
			152	168.0	25.8	4334	30.4	5107	38.0	6384	49.6	8333			
			178	146.0	30.3	44424	35.6	5198	44.5	6497	59.9	8745			
			203	132.0	34.5	4554	40.6	5359	50.8	6706	67.1	8857			
			254	107.0	43.2	4662	50.8	5436	63.5	6795	86.3	9234			
			305	87.8	51.9	4557	61.0	5356	76.3	6699	103.6	9096			
			50	25	11.5 x 9.0	64	709.0	10.9	7728	12.8	9075	16.0	11344	19.3	13684
76	572.0	12.9				7379	15.2	8694	19.0	10868	24.2	13842			
89	475.0	15.1				7173	17.8	8455	22.3	10593	28.0	13300			
102	405.0	17.3				7007	20.4	8262	25.5	10328	33.5	13568			
115	352.0	19.6				6899	23.0	8096	28.8	10138	38.6	13587			
127	316.0	21.6				6826	25.4	8026	31.8	10049	41.4	13082			
139	274.0	23.8				6521	28.0	7672	35.0	9590	47.3	12960			
152	239.0	25.8				6166	30.4	7266	38.0	9082	50.2	11998			
178	215.0	30.3				6515	35.6	7654	44.5	9568	61.1	13137			
203	187.0	34.5				6452	40.6	7592	50.8	9500	67.7	12660			
254	153.0	43.2				6610	50.8	7772	63.5	9716	87.0	13111			
305	127.0	51.9				6591	61.0	7747	76.3	9690	103.4	13132			
63	38	11.6 x 14.9				76	952.0	12.9	12280	15.2	14470	*	*	15.5	14756
						89	819.0	15.1	12360	17.8	14580	*	*	20.0	19040
			102	700.0	17.3	12110	20.4	14280	25.5	17850	30.7	21449			
			115	620.0	19.6	12152	23.0	14260	28.8	17860	34.9	21640			
			127	565.0	21.6	12204	25.4	14351	31.8	17967	38.0	21470			
			152	458.0	25.8	11816	30.4	13923	38.0	17404	47.2	21618			
			178	384.0	30.3	11635	35.6	13670	44.5	17088	55.8	21427			
			203	337.0	34.5	11627	40.6	13682	50.8	17120	64.8	21838			
			254	263.0	43.2	11362	50.8	13360	63.5	16701	86.7	22802			
			305	218.0	51.9	11314	61.0	13298	76.3	16633	105.7	23043			

# CONSIGLI, RACCOMANDAZIONI E LIMITI

## ADVICE, PRESCRIPTIONS AND LIMITATIONS

Le innovazioni tecnologiche introdotte ed utilizzate permettono per la prima volta di fornire un'indicazione di durata minima delle molle alle deflessioni di lavoro minima e media.  
Per un'ottimale utilizzo delle molle e per il rispetto dei valori indicativi di durata minima si raccomanda sempre:

- selezionare accuratamente le molle sempre in fase di progettazione;
- guida interna con spina o esterna con foro di alloggiamento assolutamente necessari per rapporti tra lunghezza libera e diametro superiori a 3.5;
- massima perpendicolarità delle molle rispetto ai piani di appoggio e compressione;
- precarico minimo del 5% della lunghezza libera;
- utilizzo di molle con lunghezza maggiore e carico inferiore. Sarà conseguentemente aumentata la freccia di precarico;
- non utilizzare le molle (precarico e corsa lavoro) oltre la deflessione massima prevista a catalogo, colonna "C";
- verificare sempre le altezze di alloggiamento e le corse di lavoro degli elementi elastici dopo la riaffilatura degli utensili nello stampo. Normalmente tale operazione aumenta la freccia complessiva di compressione;
- proteggere le molle da elementi corrosivi;
- non superare temperature di utilizzo di 250° C. Fino alla temperatura di 120° C non si hanno perdite di carico significative, oltre a considerare una perdita di carico del 1% circa ogni 40° C;
- non sostituire solo una molla, ma procedere con una manutenzione programmata di tutte le molle utilizzate;
- non alterare le condizioni fisiche delle molle (tagli, molature interne e/o esterne).

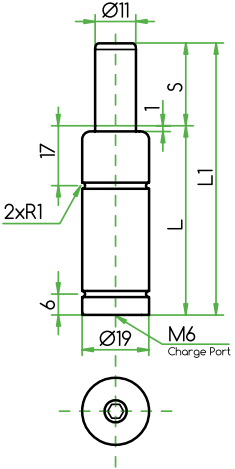
I valori indicativi di durata minima decadono sempre qualora non soddisfatti i punti di cui sopra. Per contro l'utilizzo corretto delle molle è sempre garanzia di massime prestazioni ben superiori alle indicazioni di durata minima fornite come confermano con soddisfazione tutti gli utilizzatori.

# TCW 170 V1

## CILINDRO ALL'AZOTO

### NITROGEN GAS SPRING

ORDER	S (mm)	L1 ±0.25 (mm)	L (mm)	Kg
TCW 170 007 V1	7	44	37	0.06
TCW 170 010 V1	10	50	40	0.06
TCW 170 013 V1	13	56	43	0.07
TCW 170 015 V1	15	60	45	0.07
TCW 170 019 V1	19	68	49	0.08
TCW 170 025 V1	25	80	55	0.09
TCW 170 038 V1	38	106	68	0.11
TCW 170 050 V1	50	130	80	0.13
TCW 170 063 V1	63	156	93	0.15
TCW 170 075 V1	75	185	110	0.18
TCW 170 080 V1	80	195	115	0.19
TCW 170 100 V1	100	235	135	0.22
TCW 170 125 V1	125	285	160	0.26



For the first time technological innovations introduces and used make it possible to indicate the minimum lifetime of springs under minimum and average working deflections.  
For optimum use of the springs, and to obtain the minimum lifetime values indicated, observe the following guide lines:

- select springs carefully at the design stage;
- use a guide pin, a locating bore as a guide - this is essential for springs having a free length/diameter ratio exceeding 3.5;
- assure perpendicularity of the springs to the supporting and compression surfaces;
- apply a minimum pre-load of 5% of the free length;
- use a longer springs at lower loadings where possible (pre-loading must be suitably increased);
- never compress springs beyond the maximum deflection (pre-load and working stroke) specified in column "C" of the catalogue;
- always check spring holder heights and working strokes of moving elements after die tools have been re-ground. Normally this operation causes an increase in the overall compression of the springs;
- protect springs from corrosive agents;
- do not exceed a working temperature of 250° C. Up to 120° C no significant load reduction occurs, beyond this temperature an average loss of 1% for every 40° C must be calculated;
- do not replace one spring at a time; instead, adopt a programmed maintenance procedure in which all the springs are changed at the same time;
- do not alter the physical characteristics of springs (cutting, internal and/or external grinding).

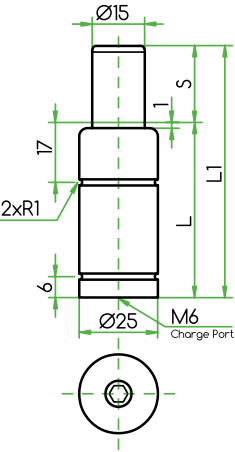
Guideline minimum lifetime indications are invalidated immediately if the above conditions are not complied with. When used correctly, the springs ensure performance levels well above the minimum lifetime values indicated, as confirmed by feedback from all the end users.

# TCW 320 V1

## CILINDRO ALL'AZOTO

### NITROGEN GAS SPRING

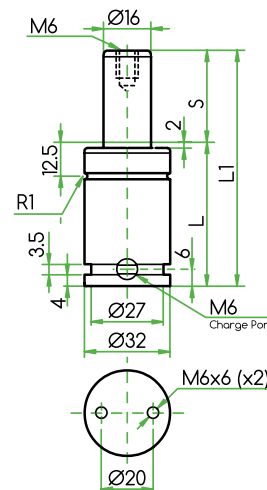
ORDER	S (mm)	L1 ±0.25 (mm)	L (mm)	Kg
TCW 320 007 V1	7	44	37	0.11
TCW 320 010 V1	10	50	40	0.12
TCW 320 012 V1	12	54	42	0.13
TCW 320 015 V1	15	60	45	0.13
TCW 320 019 V1	19	68	49	0.15
TCW 320 025 V1	25	80	55	0.16
TCW 320 038 V1	38	106	68	0.20
TCW 320 050 V1	50	130	80	0.24
TCW 320 063 V1	63	156	93	0.28
TCW 320 075 V1	75	185	110	0.32
TCW 320 080 V1	80	195	115	0.33
TCW 320 100 V1	100	235	135	0.39
TCW 320 125 V1	125	285	160	0.46



# TCW 350

## CILINDRO ALL'AZOTO NITROGEN GAS SPRING

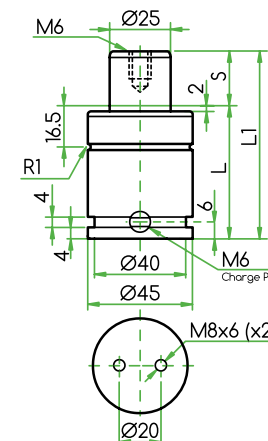
ORDER	S (mm)	L1 ±0.25 (mm)	L (mm)	Kg
TCW 350 010	10	50	40	0.18
TCW 350 013	13	56	43	0.20
TCW 350 016	16	62	46	0.21
TCW 350 019	19	68	49	0.22
TCW 350 025	25	80	55	0.24
TCW 350 032	32	94	62	0.26
TCW 350 038	38	106	68	0.29
TCW 350 050	50	130	80	0.33
TCW 350 063	63	156	93	0.39
TCW 350 075	75	180	105	0.43
TCW 350 080	80	190	110	0.44
TCW 350 100	100	230	130	0.52
TCW 350 125	125	280	155	0.62



# TCW 750

## CILINDRO ALL'AZOTO NITROGEN GAS SPRING

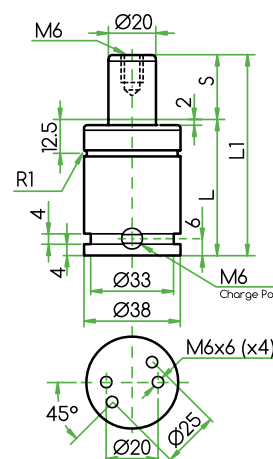
ORDER	S (mm)	L1 ±0.25 (mm)	L (mm)	Kg
TCW 750 010	10	52	42	0.37
TCW 750 013	13	58	45	0.39
TCW 750 016	16	64	48	0.41
TCW 750 019	19	70	51	0.43
TCW 750 025	25	82	57	0.49
TCW 750 032	32	96	64	0.50
TCW 750 038	38	108	70	0.57
TCW 750 050	50	132	82	0.69
TCW 750 063	63	158	95	0.73
TCW 750 075	75	182	107	0.80
TCW 750 080	80	192	112	0.84
TCW 750 100	100	232	132	0.97
TCW 750 125	125	282	157	1.10



# TCW 500

## CILINDRO ALL'AZOTO NITROGEN GAS SPRING

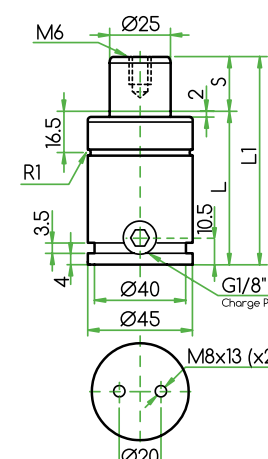
ORDER	S (mm)	L1 ±0.25 (mm)	L (mm)	Kg
TCW 500 010	10	50	40	0.26
TCW 500 013	13	56	43	0.27
TCW 500 016	16	62	46	0.29
TCW 500 019	19	68	49	0.30
TCW 500 025	25	80	55	0.33
TCW 500 032	32	94	62	0.37
TCW 500 038	38	106	68	0.40
TCW 500 050	50	130	80	0.47
TCW 500 063	63	156	93	0.52
TCW 500 075	75	180	105	0.58
TCW 500 080	80	190	110	0.62
TCW 500 100	100	230	130	0.72
TCW 500 125	125	280	155	0.83



# TCWC 750 V1

## CILINDRO ALL'AZOTO NITROGEN GAS SPRING

ORDER	S (mm)	L1 ±0.25 (mm)	L (mm)	Kg
TCWC 750 010 V1	10	62	52	0.39
TCWC 750 013 V1	13	68	55	0.41
TCWC 750 016 V1	16	74	58	0.43
TCWC 750 019 V1	19	80	61	0.45
TCWC 750 025 V1	25	92	67	0.51
TCWC 750 032 V1	32	106	74	0.53
TCWC 750 038 V1	38	118	80	0.60
TCWC 750 050 V1	50	142	92	0.73
TCWC 750 063 V1	63	168	105	0.76
TCWC 750 075 V1	75	192	117	0.84
TCWC 750 080 V1	80	202	122	0.88
TCWC 750 100 V1	100	242	142	1.02
TCWC 750 125 V1	125	292	167	1.20

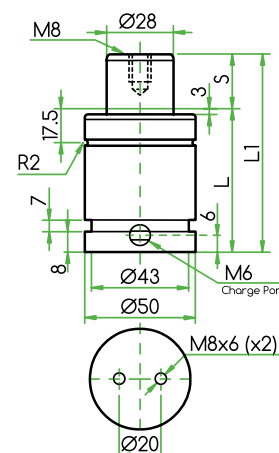




# TCW 1000 V1

## CILINDRO ALL'AZOTO NITROGEN GAS SPRING

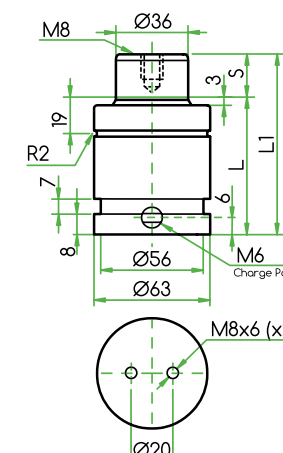
ORDER	S (mm)	L1 ±0.25 (mm)	L (mm)	Kg
TCW 1000 013 V1	13	64	51	0.60
TCW 1000 016 V1	16	70	54	0.63
TCW 1000 019 V1	19	76	57	0.65
TCW 1000 025 V1	25	88	63	0.72
TCW 1000 032 V1	32	102	70	0.79
TCW 1000 038 V1	38	114	76	0.83
TCW 1000 050 V1	50	138	88	0.95
TCW 1000 063 V1	63	164	101	1.07
TCW 1000 075 V1	75	188	113	1.18
TCW 1000 080 V1	80	198	118	1.24
TCW 1000 100 V1	100	238	138	1.42
TCW 1000 125 V1	125	288	163	1.69



# TCW 1500

## CILINDRO ALL'AZOTO NITROGEN GAS SPRING

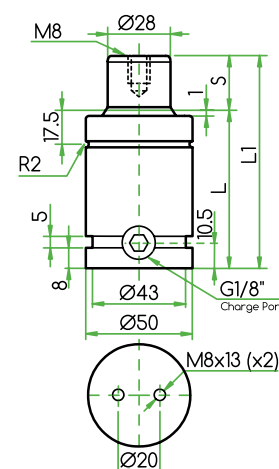
ORDER	S (mm)	L1 ±0.25 (mm)	L (mm)	Kg
TCW 1500 013	13	70	57	1.00
TCW 1500 016	16	76	60	1.06
TCW 1500 019	19	82	63	1.10
TCW 1500 025	25	94	69	1.20
TCW 1500 032	32	108	76	1.29
TCW 1500 038	38	120	82	1.38
TCW 1500 050	50	144	94	1.56
TCW 1500 063	63	170	107	1.72
TCW 1500 075	75	194	119	1.90
TCW 1500 080	80	204	124	1.98
TCW 1500 100	100	244	144	2.30
TCW 1500 125	125	294	169	2.65



# TCWC 1000 V1

## CILINDRO ALL'AZOTO NITROGEN GAS SPRING

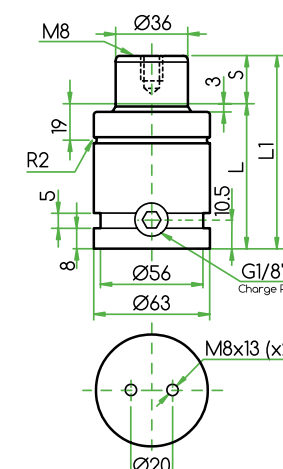
ORDER	S (mm)	L1 ±0.25 (mm)	L (mm)	Kg
TCWC 1000 013 V1	13	74	61	0.63
TCWC 1000 016 V1	16	80	64	0.66
TCWC 1000 019 V1	19	86	67	0.68
TCWC 1000 025 V1	25	98	73	0.75
TCWC 1000 032 V1	32	112	80	0.83
TCWC 1000 038 V1	38	124	86	0.87
TCWC 1000 050 V1	50	148	98	1.00
TCWC 1000 063 V1	63	174	111	1.13
TCWC 1000 075 V1	75	198	123	1.24
TCWC 1000 080 V1	80	208	128	1.31
TCWC 1000 100 V1	100	248	148	1.49
TCWC 1000 125 V1	125	298	173	1.77



# TCWC 1500

## CILINDRO ALL'AZOTO NITROGEN GAS SPRING

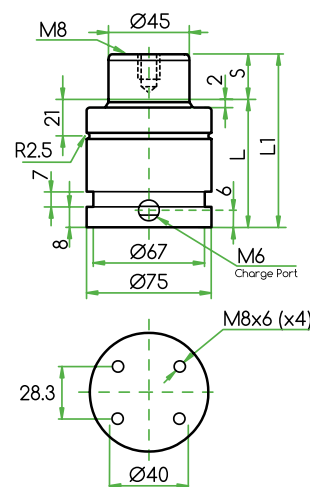
ORDER	S (mm)	L1 ±0.25 (mm)	L (mm)	Kg
TCWC 1500 013	13	80	67	1.05
TCWC 1500 016	16	86	70	1.12
TCWC 1500 019	19	92	73	1.16
TCWC 1500 025	25	104	79	1.26
TCWC 1500 032	32	118	86	1.35
TCWC 1500 038	38	130	92	1.45
TCWC 1500 050	50	154	104	1.64
TCWC 1500 063	63	180	117	1.81
TCWC 1500 075	75	204	129	2.00
TCWC 1500 080	80	214	134	2.08
TCWC 1500 100	100	254	154	2.42
TCWC 1500 125	125	304	179	2.79



# TCW 2400

## CILINDRO ALL'AZOTO NITROGEN GAS SPRING

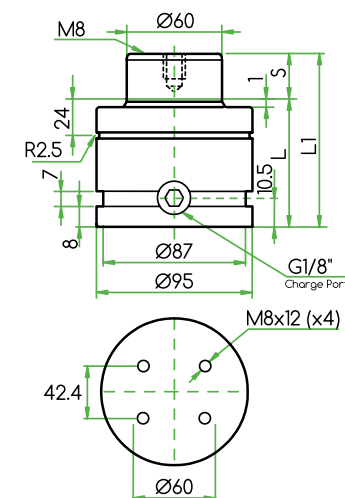
ORDER	S (mm)	L1 ±0.25 (mm)	L (mm)	Kg
TCW 2400 005	5	55	50	1.30
TCW 2400 010	10	65	55	1.42
TCW 2400 016	16	77	61	1.55
TCW 2400 019	19	83	64	1.61
TCW 2400 025	25	95	70	1.75
TCW 2400 032	32	109	77	1.88
TCW 2400 038	38	121	83	2.03
TCW 2400 050	50	145	95	2.28
TCW 2400 063	63	171	108	2.57
TCW 2400 075	75	195	120	2.86
TCW 2400 080	80	205	125	3.13
TCW 2400 100	100	245	145	3.43
TCW 2400 125	125	295	170	4.40



# TCW 4200

## CILINDRO ALL'AZOTO NITROGEN GAS SPRING

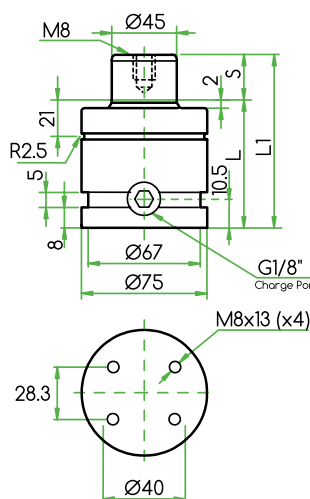
ORDER	S (mm)	L1 ±0.25 (mm)	L (mm)	Kg
TCW 4200 016	16	90	74	3.35
TCW 4200 019	19	96	77	3.45
TCW 4200 025	25	108	83	3.65
TCW 4200 032	32	122	90	3.90
TCW 4200 038	38	134	96	4.09
TCW 4200 050	50	158	108	4.50
TCW 4200 063	63	184	121	4.93
TCW 4200 075	75	208	133	5.30
TCW 4200 080	80	218	138	5.54
TCW 4200 100	100	258	158	6.29
TCW 4200 125	125	308	183	7.21



# TCWC 2400 V1

## CILINDRO ALL'AZOTO NITROGEN GAS SPRING

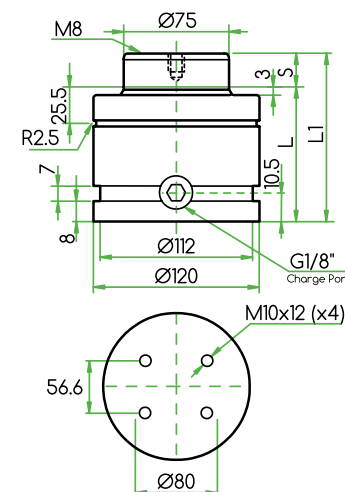
ORDER	S (mm)	L1 ±0.25 (mm)	L (mm)	Kg
TCWC 2400 010 V1	10	75	65	1.49
TCWC 2400 016 V1	16	87	71	1.63
TCWC 2400 019 V1	19	93	74	1.69
TCWC 2400 025 V1	25	105	80	1.84
TCWC 2400 032 V1	32	119	87	1.98
TCWC 2400 038 V1	38	131	93	2.13
TCWC 2400 050 V1	50	155	105	2.40
TCWC 2400 063 V1	63	181	118	2.71
TCWC 2400 075 V1	75	205	130	3.01
TCWC 2400 080 V1	80	215	135	3.29
TCWC 2400 100 V1	100	255	155	3.61
TCWC 2400 125 V1	125	305	180	4.63



# TCW 6600

## CILINDRO ALL'AZOTO NITROGEN GAS SPRING

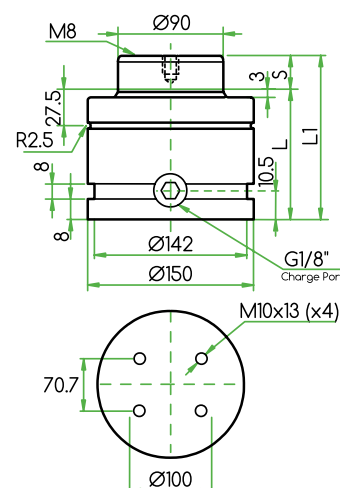
ORDER	S (mm)	L1 ±0.25 (mm)	L (mm)	Kg
TCW 6600 016	16	100	84	6.08
TCW 6600 019	19	106	87	6.24
TCW 6600 025	25	118	93	6.57
TCW 6600 032	32	132	100	6.95
TCW 6600 038	38	144	106	7.27
TCW 6600 050	50	168	118	7.92
TCW 6600 063	63	194	131	8.63
TCW 6600 075	75	218	143	9.28
TCW 6600 080	80	228	148	9.55
TCW 6600 100	100	268	168	10.64
TCW 6600 125	125	318	193	12.00



# TCW 9500

## CILINDRO ALL'AZOTO NITROGEN GAS SPRING

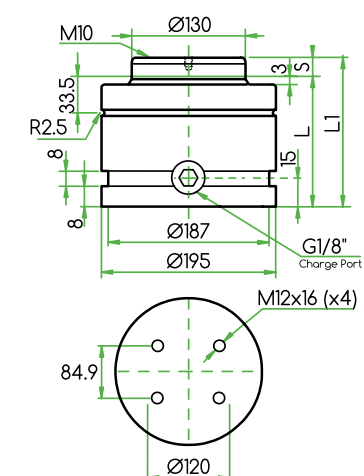
ORDER	S (mm)	L1 ±0.25 (mm)	L (mm)	Kg
TCW 9500 019	19	116	97	11.07
TCW 9500 025	25	128	103	11.56
TCW 9500 032	32	142	110	12.14
TCW 9500 038	38	154	116	12.63
TCW 9500 050	50	178	128	13.62
TCW 9500 063	63	204	141	14.69
TCW 9500 075	75	228	153	15.68
TCW 9500 080	80	238	158	16.10
TCW 9500 100	100	278	178	17.74
TCW 9500 125	125	328	203	19.81



# TCW 20000

## CILINDRO ALL'AZOTO NITROGEN GAS SPRING

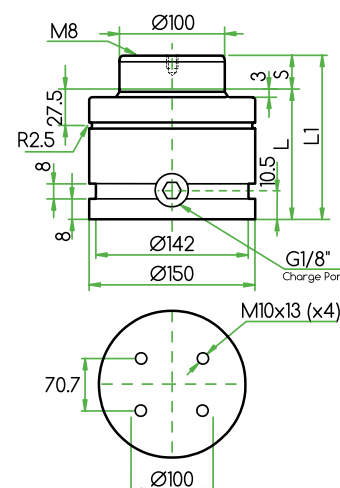
ORDER	S (mm)	L1 ±0.25 (mm)	L (mm)	Kg
TCW 20000 019	19	148	129	24.54
TCW 20000 025	25	160	135	25.39
TCW 20000 032	32	174	142	26.38
TCW 20000 038	38	186	148	27.22
TCW 20000 050	50	210	160	28.92
TCW 20000 063	63	236	173	30.76
TCW 20000 075	75	260	185	32.45
TCW 20000 080	80	270	190	33.16
TCW 20000 100	100	310	210	35.99
TCW 20000 125	125	360	235	39.52



# TCW 11800

## CILINDRO ALL'AZOTO NITROGEN GAS SPRING

ORDER	S (mm)	L1 ±0.25 (mm)	L (mm)	Kg
TCW 11800 019	19	116	97	10.90
TCW 11800 025	25	128	103	11.39
TCW 11800 032	32	142	110	11.96
TCW 11800 038	38	154	116	12.45
TCW 11800 050	50	178	128	13.44
TCW 11800 063	63	204	141	14.50
TCW 11800 075	75	228	153	15.48
TCW 11800 080	80	238	158	15.89
TCW 11800 100	100	278	178	17.53
TCW 11800 125	125	328	203	19.57

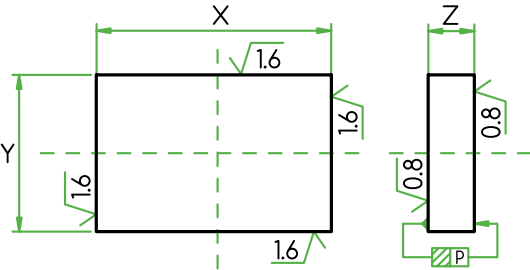


PIASTRE PER STAMPI  
PLASTICA E PRESSOFUSIONE  
PLATES FOR PLASTIC INJECTION  
AND DIE CASTING

PIASTRA IN ACCIAIO SQUADRATA E RETTIFICATA  
STEEL PLATE SQUARED AND GROUND

Materiale: Acciaio 1.1730 - 1.2311 - 1.2312 - 1.2344  
Material: Steel 1.1730 - 1.2311 - 1.2312 - 1.2344

Tolleranze (mm) / Tolerances (mm)			
X	Y	Z	P
+0.6 +0.8	+0.6 +0.8	+0.15 +0.25	0.0008/100



DIMENSIONI STANDARD - STANDARD DIMENSIONS										
Y	X									
	156	196	246	296	346	396	446	496	546	596
156	•	•	•							
196		•	•	•	•					
246			•	•	•	•				
296				•	•	•	•			
346					•	•	•	•		
396						•	•	•	•	
446							•	•	•	•

Y x X	Z										
	22	26	36	46	56	66	76	96	106	116	146
156x156	•	•	•	•	•	•	•				
156x196	•	•	•	•	•	•	•				
156x246	•	•	•	•	•	•	•				
196x196	•	•	•	•	•	•	•	•			
196x246	•	•	•	•	•	•	•	•			
196x296	•	•	•	•	•	•	•	•			
196x346	•	•	•	•	•	•	•	•			
246x246		•	•	•	•	•	•	•			
246x296		•	•	•	•	•	•	•			
246x346		•	•	•	•	•	•	•			
246x396		•	•	•	•	•	•	•			
296x296		•	•	•	•	•	•	•		•	
296x346		•	•	•	•	•	•	•		•	
296x396		•	•	•	•	•	•	•		•	
296x446		•	•	•	•	•	•	•		•	
346x346		•	•	•	•	•	•	•		•	
346x396		•	•	•	•	•	•	•		•	
346x446		•	•	•	•	•	•	•		•	
346x496		•	•	•	•	•	•	•		•	
396x396		•	•	•	•	•	•	•	•	•	•
396x446		•	•	•	•	•	•	•	•	•	•
396x496		•	•	•	•	•	•	•	•	•	•
396x546		•	•	•	•	•	•	•	•	•	•
446x446		•	•	•	•	•	•	•	•	•	•
446x496		•	•	•	•	•	•	•	•	•	•
446x546		•	•	•	•	•	•	•	•	•	•
446x596		•	•	•	•	•	•	•	•	•	•



SU RICHIESTA POSSONO ESSERE FORNITE PIASTRE DI QUALSIASI DIMENSIONE E TIPOLOGIA DI ACCIAIO  
ON REQUEST WE CAN SUPPLY ANY DIMENSIONS AND STEEL QUALITY

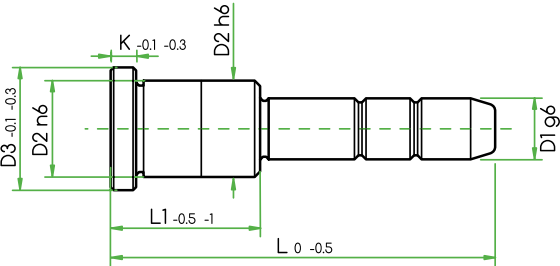
ELEMENTI DI GUIDA PER STAMPI  
PLASTICA E PRESSOFUSIONE  
GUIDING ELEMENTS FOR PLASTIC  
INJECTION AND DIE CASTING

C1

COLONNA GUIDA A DUE DIAMETRI  
GUIDE PILLAR

Materiale: Acciaio 1.7131  
Trattamento Termico: Cementazione + Tempra  
Durezza: Hrc 61 ÷ 63

Material: Steel 1.7131  
Heat Treatment: Cementing + Hardening  
Hardness: Hrc 61 ÷ 63



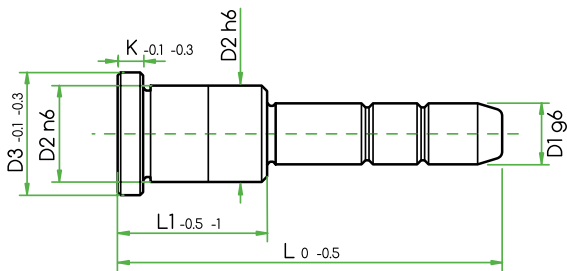
D1	D2	D3	K	L1	L																	
					50	60	70	80	90	100	120	140	160	180	200	220	240	260	280	300	340	400
12	18	22	5	22	•	•	•	•	•	•												
				26	•	•	•	•	•	•												
				36	•	•	•	•	•	•	•											
				46			•	•	•	•	•											
				56					•	•	•											
14	20	24	5	22	•	•	•	•	•	•												
				26		•	•	•	•	•	•											
				36			•	•	•	•	•	•										
				46			•	•	•	•	•	•										
				56					•	•	•	•										
16	22	26	5	22	•	•	•	•	•	•	•											
				26	•	•	•	•	•	•	•	•										
				36		•	•	•	•	•	•	•										
				46			•	•	•	•	•	•	•									
				56				•	•	•	•	•	•	•								
				66						•	•	•	•	•	•							
				76						•	•	•	•	•	•							
18	26	30	5	26		•	•	•	•	•												
				36		•	•	•	•	•	•	•										
				46			•	•	•	•	•	•	•									
				56				•	•	•	•	•	•	•								
				66						•	•	•	•	•	•							
20	28	32	6	26		•	•	•	•	•	•	•										
				36		•	•	•	•	•	•	•	•									
				46			•	•	•	•	•	•	•									
				56				•	•	•	•	•	•	•	•							
				66						•	•	•	•	•	•	•						
				76							•	•	•	•	•	•						
				86								•	•	•	•	•						
20	30	34	6	96								•	•	•	•							
				26		•	•	•	•	•	•	•	•									
				36		•	•	•	•	•	•	•	•									
				46			•	•	•	•	•	•	•									
				56				•	•	•	•	•	•	•	•							
				66						•	•	•	•	•	•	•						
				76							•	•	•	•	•	•						

C1

COLONNA GUIDA A DUE DIAMETRI  
GUIDE PILLAR

Materiale: Acciaio 1.7131  
Trattamento Termico: Cementazione + Tempra  
Durezza: Hrc 61 ÷ 63

Material: Steel 1.7131  
Heat Treatment: Cementing + Hardening  
Hardness: Hrc 61 ÷ 63



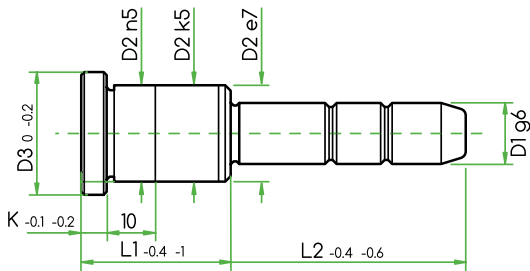
D1	D2	D3	K	L1	L																		
					50	60	70	80	90	100	120	140	160	180	200	220	240	260	280	300	340	400	
25	34	38	7	26				•	•	•													
				36				•	•	•	•	•	•										
				46					•	•	•	•	•	•									
				56						•	•	•	•	•	•	•	•						
				66							•	•	•	•	•	•	•	•	•				
				76							•	•	•	•	•	•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

C03M

COLONNA GUIDA A DUE DIAMETRI  
GUIDE PILLAR

Materiale: Acciaio 1.7131  
Trattamento Termico: Cementazione + Tempra  
Durezza: Hrc 61 ÷ 63

Material: Steel 1.7131  
Heat Treatment: Cementing + Hardening  
Hardness: Hrc 61 ÷ 63



D1	D2	D3	K	L1	L2											
					35	55	75	95	115	135	155	175	195	215	235	
14-15	20	25	6	17	•	•	•	•								
				22	•	•	•	•								
				27	•	•	•	•	•							
				36	•	•	•	•	•	•						
				46	•	•	•	•	•	•						
				56		•	•	•								
				66		•	•	•								
				76		•	•	•								
18-20	26	31	6	86		•	•	•								
				96		•	•	•								
				17	•	•	•	•								
				22	•	•	•	•								
				27	•	•	•	•	•							
				36	•	•	•	•	•	•						
				46	•	•	•	•	•	•	•					
				56		•	•	•	•	•						
22-24	30	35	6	66		•	•	•	•	•						
				76		•	•	•	•	•						
				86			•	•	•	•	•					
				96			•	•	•	•	•					
				116			•	•	•	•	•					
				126			•	•	•	•	•					
				136				•	•	•	•					
				156					•	•						

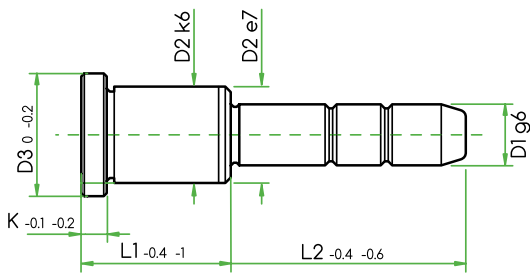
D1	D2	D3	K	L1												
					55	75	95	115	135	155	175	195	215	235	245	
30-32	42	47	6	27	•	•	•	•								
				36	•	•	•	•								
				46	•	•	•	•								
				56	•	•	•	•								
				66	•	•	•	•								
				76	•	•	•	•								
				86		•	•	•								
				96		•	•	•								
40-42	54	59	10	116		•	•	•								
				136			•	•								
				156				•								
				176				•								
				196					•							
				216						•						
				236							•					
				256								•				
50-52	66	71	10	76		•	•	•	•	•	•	•	•	•	•	
				96			•	•	•	•	•	•	•	•	•	
				116				•	•	•	•	•	•	•	•	
				136					•	•	•	•	•	•	•	
				156						•	•	•	•	•	•	
				176							•	•	•	•	•	
				196								•	•	•	•	
				216									•	•	•	

C03H

COLONNA GUIDA A DUE DIAMETRI  
GUIDE PILLAR

Materiale: Acciaio 1.7131  
Trattamento Termico: Cementazione + Tempra  
Durezza: Hrc 61 ÷ 63

Material: Steel 1.7131  
Heat Treatment: Cementing + Hardening  
Hardness: Hrc 61 ÷ 63



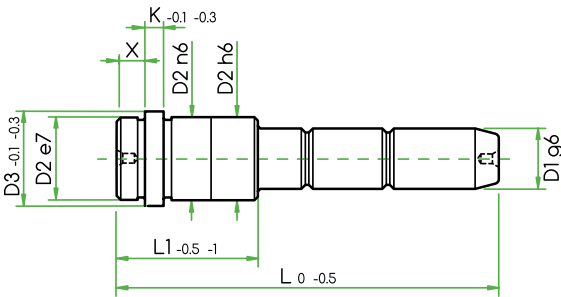
D1	D2	D3	K	L1	L2							
					115	135	155	175	195	235	275	315
60	80	86	20	96	•		•		•			
				116		•	•		•			
				136		•	•		•			
				156			•		•	•		
				196				•	•	•		
				246					•	•	•	•

C1S

COLONNA GUIDA SPALLATA  
GUIDE PILLAR WITH CENTRING COLLAR

Materiale: Acciaio 1.7131  
Trattamento Termico: Cementazione + Tempra  
Durezza: Hrc 61 ÷ 63

Material: Steel 1.7131  
Heat Treatment: Cementing + Hardening  
Hardness: Hrc 61 ÷ 63



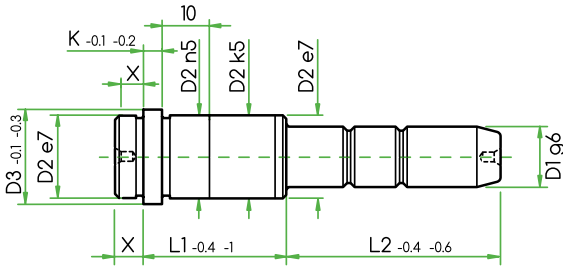
D1	X	D2	D3	K	L1	L									
						80	90	110	130	150	170	190	210		
16	10	22	26	5	36	•	•	•	•						
					46		•	•	•	•					
					56			•	•	•	•				
					66			•	•	•	•	•			
					76				•	•	•	•	•		
					86					•	•	•	•	•	
20	10	28	32	6	46	•	•	•	•	•					
					56		•	•	•	•	•				
					66			•	•	•	•	•			
					76				•	•	•	•	•		
					86					•	•	•	•	•	
					106					•	•	•	•	•	•
20	10	30	34	6	46	•	•	•	•	•					
					56		•	•	•	•	•				
					66			•	•	•	•	•			
					76				•	•	•	•	•		
					86					•	•	•	•	•	
					106					•	•	•	•	•	•
25	10	34	38	7	46		•	•	•	•					
					56		•	•	•	•	•				
					66			•	•	•	•	•			
					76				•	•	•	•	•		
					86					•	•	•	•	•	
					106					•	•	•	•	•	•
25	10	36	40	7	46		•	•	•	•					
					56		•	•	•	•	•				
					66			•	•	•	•	•			
					76				•	•	•	•	•		
					86					•	•	•	•	•	
					106					•	•	•	•	•	•
32	10	40	45	7	46	•	•	•	•						
					56	•	•	•	•	•					
					66	•	•	•	•	•	•				
					76		•	•	•	•	•	•			
					86			•	•	•	•	•	•		
					106				•	•	•	•	•	•	•
40	10	48	52	8	56		•	•							
					66		•	•	•	•					
					76			•	•	•	•	•			
					86			•	•	•	•	•	•		
					106				•	•	•	•	•	•	•



COLONNA GUIDA SPALLATA  
GUIDE PILLAR WITH CENTRAL COLLAR

Materiale: Acciaio 1.7131  
Trattamento Termico: Cementazione + Tempra  
Durezza: Hrc 61 ÷ 63

Material: Steel 1.7131  
Heat Treatment: Cementing + Hardening  
Hardness: Hrc 61 ÷ 63

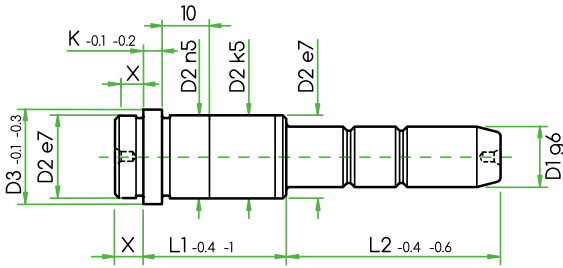


D1	D2	D3	K	X	L1	L2												
						25	35	55	75	95	115	135	155	195	215	235	245	275
14 - 15	20	25	6	9	17		•	•	•	•								
					22	•	•	•	•	•	•	•						
					27	•	•	•	•	•	•	•	•					
					36	•	•	•	•	•	•	•	•					
					46		•	•	•	•	•	•						
					56		•	•	•	•	•	•						
					66		•	•	•	•								
					76			•	•	•								
					86			•	•	•								
					96			•	•	•								
18 - 20	26	31	6	9	17		•	•	•	•	•							
					22		•	•	•	•	•	•						
					27		•	•	•	•	•	•	•	•		•		
					36		•	•	•	•	•	•	•	•		•		
					46		•	•	•	•	•	•	•	•		•		
					56		•	•	•	•	•	•	•	•				
					66		•	•	•	•	•	•	•	•				
					76			•	•	•	•	•	•	•				
					86			•	•	•	•	•	•	•				
					96			•	•	•	•	•	•	•				
					116				•	•	•							
136				•	•	•												
22 - 24	30	35	6	9	22		•	•	•	•	•	•						
					27		•	•	•	•	•		•	•		•		•
					36		•	•	•	•	•		•	•		•		•
					46		•	•	•	•	•		•	•		•		
					56		•	•	•	•	•		•	•				
					66			•	•	•	•		•	•				
					76			•	•	•	•	•	•	•				
					86			•	•	•	•	•	•	•		•		
					96				•	•	•	•	•	•		•		
					116				•	•	•	•	•	•		•		
					136					•	•		•					
156						•		•										

COLONNA GUIDA SPALLATA  
GUIDE PILLAR WITH CENTRAL COLLAR

Materiale: Acciaio 1.7131  
Trattamento Termico: Cementazione + Tempra  
Durezza: Hrc 61 ÷ 63

Material: Steel 1.7131  
Heat Treatment: Cementing + Hardening  
Hardness: Hrc 61 ÷ 63

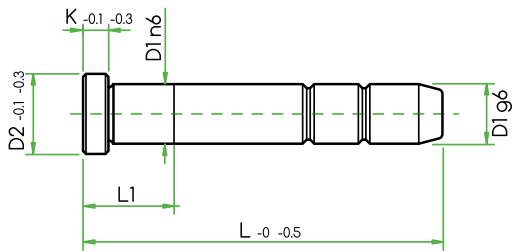


D1	D2	D3	K	X	L1	L2												
						25	35	55	75	95	115	135	155	195	215	235	245	275
30 -32	42	47	6	9	27			•	•	•	•		•	•		•		•
					36			•	•	•	•		•	•		•		•
					46			•	•	•	•		•	•		•		•
					56			•	•	•	•		•	•		•		•
					66			•	•	•	•		•	•		•		•
					76			•	•	•	•		•	•		•		
					86			•	•	•	•		•	•		•		
					96				•	•	•		•	•				
					116				•	•	•		•	•				
					136					•	•		•	•				
					156					•	•		•					
					176						•		•	•				
196							•		•	•								
40 - 42	54	59	10	12	36				•	•	•		•					
					46				•	•	•		•					
					56				•	•	•		•	•				
					66				•	•	•		•					
					76				•	•	•		•					
					86				•	•	•		•					
					96				•	•	•		•	•				
					116				•	•	•		•	•				
					136					•	•		•	•				
					156						•		•	•				
					176						•		•	•		•		
					196						•		•	•		•		
216										•	•							
246												•		•				

COLONNA GUIDA A UN DIAMETRO  
GUIDE PILLAR

Materiale: Acciaio 1.7131  
Trattamento Termico: Cementazione + Tempra  
Durezza: Hrc 61 ÷ 63

Material: Steel 1.7131  
Heat Treatment: Cementing + Hardening  
Hardness: Hrc 61 ÷ 63

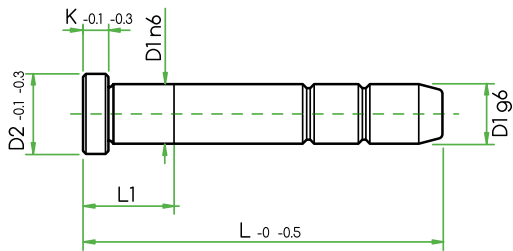


D1	D2	K	L1	L																							
				50	60	70	80	90	100	110	120	130	140	150	160	180	200	220	240	260	280	300	350	400			
12	16	5	13	•	•	•																					
			20				•	•																			
			25						•		•		•		•												
14	18	5	13	•	•	•																					
			20				•	•																			
			25						•	•	•	•	•	•	•												
			30													•											
16	20	5	13	•	•	•																					
			20				•	•																			
			25						•	•	•	•	•	•	•												
			30													•	•	•									
18	22	5	13	•	•	•																					
			20				•	•																			
			25						•	•	•	•	•	•	•												
			30													•	•	•									
20	24	6	14		•	•																					
			21				•	•																			
			26						•	•	•	•	•	•	•												
			31													•	•	•									
			41																•	•	•						
			51																			•					
25	30	7	22				•	•																			
			27						•		•		•		•												
			32													•	•	•									
			42																•	•	•						
			52																			•					
			62																				•	•			

COLONNA GUIDA A UN DIAMETRO  
GUIDE PILLAR

Materiale: Acciaio 1.7131  
Trattamento Termico: Cementazione + Tempra  
Durezza: Hrc 61 ÷ 63

Material: Steel 1.7131  
Heat Treatment: Cementing + Hardening  
Hardness: Hrc 61 ÷ 63



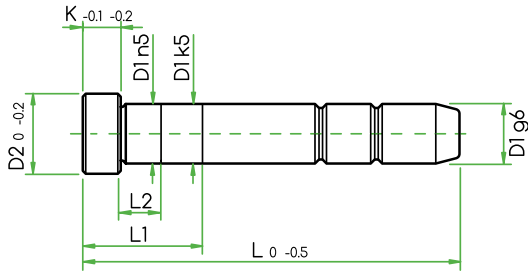
D1	D2	K	L1	L																							
				120	130	140	150	160	180	200	220	240	260	280	300	350	400	450	500	600	800						
32	37	7	27	•		•		•																			
			32						•	•	•																
			42									•	•	•													
			52												•												
			62													•	•										
			72																•								
40	45	8	28	•		•		•																			
			33						•	•	•																
			43									•	•	•													
			53												•												
			63													•	•										
			73																•	•							
50	55	10	45										•	•	•												
			55												•												
			65													•	•										
			75																•	•							
			85																				•				
60	68	12	67														•	•									
			77																•	•							
			87																				•	•			

C20M

COLONNA GUIDA A UN DIAMETRO  
GUIDE PILLAR

Materiale: Acciaio 1.7131  
Trattamento Termico: Cementazione + Tempra  
Durezza: Hrc 61 ÷ 63

Material: Steel 1.7131  
Heat Treatment: Cementing + Hardening  
Hardness: Hrc 61 ÷ 63



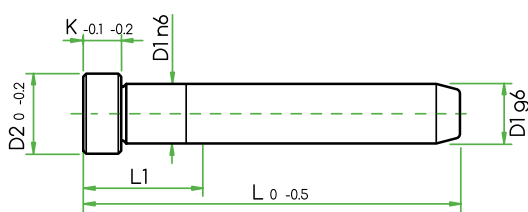
D1	D2	K	L1	L2	L															
					60	80	100	120	140	160	180	200	220	250	280	320	360	400	450	500
14	17	6	22	6	•	•	•	•												
			27	10					•	•										
15	18	6	22	6	•	•	•	•												
			27	10					•	•										
16	19	6	22	6		•	•	•												
			27	10					•	•										
18	21	6	22	6		•	•	•												
			27	10					•	•	•									
			36	10								•	•							
20	23	6	22	6		•	•	•												
			27	10					•	•	•									
			36	10								•	•							
22	25	6	27	10			•	•	•	•	•									
			36	10								•	•	•						
			46	10											•					
24	27	6	27	10			•	•	•	•	•									
			36	10								•	•	•						
			46	10											•					
30	35	6	36	10				•	•	•	•	•	•	•						
			46	10											•	•				
			56	10													•			
32	37	6	36	10				•	•	•	•	•	•	•						
			46	10											•	•				
			56	10													•			
40	45	10	46	15					•		•		•	•						
			56	15												•	•			
			66	15														•	•	
42	47	10	46	15					•		•		•	•						
			56	15												•	•			
			66	15														•	•	
50	55	10	56	15							•		•	•	•					
			66	15													•	•		
			76	15															•	•
52	57	10	56	15							•		•	•	•					
			66	15													•	•		
			76	15															•	•

C30M

COLONNA GUIDA A UN DIAMETRO LISCIA  
GUIDE PILLAR

Materiale: Acciaio 1.7131  
Trattamento Termico: Cementazione + Tempra  
Durezza: Hrc 61 ÷ 63

Material: Steel 1.7131  
Heat Treatment: Cementing + Hardening  
Hardness: Hrc 61 ÷ 63



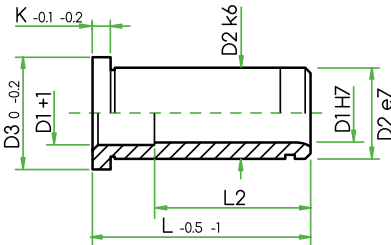
D1	D2	K	L1	L															
				60	80	100	120	140	160	180	200	220	240	250	280	320	360	400	
14	17	8	22	•	•	•	•	•	•										
16	19	8	22	•	•	•	•	•	•	•									
18	21	8	22	•	•	•	•	•	•	•	•								
20	23	8	22		•	•	•	•	•	•	•	•							
22	25	10	27		•	•	•	•	•	•	•	•		•					
24	27	10	27		•	•	•	•	•	•	•	•		•					
30	35	10	36			•	•	•	•	•	•	•		•	•	•			
32	35	10	36			•	•	•	•	•	•	•		•	•	•			
40	45	10	36					•	•	•	•			•	•	•	•		

B11H

BUSSOLA GUIDA CON COLLARE  
GUIDE BUSH, HEADED

Materiale: Acciaio 1.7131  
Trattamento Termico: Cementazione + Tempra  
Durezza: Hrc 61 ÷ 63

Material: Steel 1.7131  
Heat Treatment: Cementing + Hardening  
Hardness: Hrc 61 ÷ 63



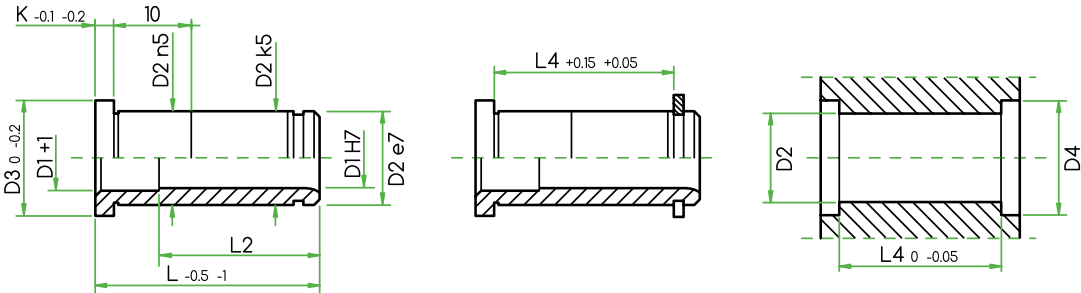
D1	D2	D3	K	L2	L					
					96	116	136	156	196	246
60	80	86	20	-	•	•	•			
				136				•	•	•

B11M

BUSSOLA GUIDA CON COLLARE  
GUIDE BUSH, HEADED

Materiale: Acciaio 1.7131  
Trattamento Termico: Cementazione + Tempra  
Durezza: Hrc 61 ÷ 63

Material: Steel 1.7131  
Heat Treatment: Cementing + Hardening  
Hardness: Hrc 61 ÷ 63



D1	D2	D3	D4	K	L2	L										
						17	22	27	36	46	56	66	76	86	96	116
						L4										
14 - 15	20	25	29	6	-	•	•	•	•	•	•	•	•	•	•	•
					46						•	•	•	•	•	

D1	D2	D3	D4	K	L2	L										
						17	22	27	36	46	56	66	76	86	96	116
						7	12	17	26	36	46	56	66	76	86	106
16	22	26	30.8	6	-	•	•	•	•	•						
					46						•	•	•	•	•	

D1	D2	D3	D4	K	L2	L										
						17	22	27	36	46	56	66	76	86	96	116
						7	12	17	26	36	46	56	66	76	86	106
18 - 20	26	31	35.5	6	-	•	•	•	•	•	•					
					56							•	•	•	•	•

D1	D2	D3	D4	K	L2	L										
						22	27	36	46	56	66	76	86	96	116	136
						11	16	25	35	45	55	65	75	85	105	125
22 - 24	30	35	40.5	6	-	•	•	•	•	•	•					
					76							•	•	•	•	•

D1	D2	D3	D4	K	L2	L										
						27	36	46	56	66	76	86	96	116	136	156
						14	23	33	43	53	63	73	83	103	123	143
30 - 32	42	47	55.7	6	-	•	•	•	•	•	•	•	•			
					96									•	•	•

B11M

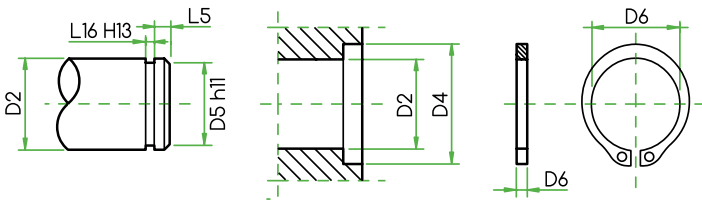
BUSSOLA GUIDA CON COLLARE  
GUIDE BUSH, HEADED

D1	D2	D3	D4	K	L2	L										
						46	56	66	76	86	96	116	136	156	196	
						L4										
40 - 42	54	59	69.2	10	-	•	•	•	•	•	•	•	•	•	•	•
					116									•	•	•

D1	D2	D3	D4	K	L2	L										
						46	56	66	76	96	116	136	156	196	246	
						L4										
50	66	71	81.4	10	-				•	•	•			•	•	•
					116							•	•	•	•	•

R

SEEGER DIN 471  
CIRCLIP GROVE DIN 471



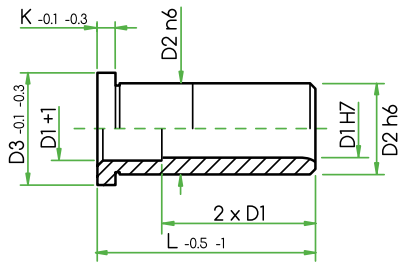
D2	D4	D5	D6	L5	L6	S
20	29	19	18.5	1.5	1.3	1.2
22	30.8	21	20.5	1.5	1.3	1.2
26	35.5	24.9	24.2	1.7	1.3	1.2
30	40.5	28.6	27.9	2.1	1.3	1.5
42	55.7	39.5	38.5	3.8	1.85	1.75
54	69.2	51	49.8	4.5	2.15	2
66	81.4	62	60.8	4.5	2.65	2.5

B1

BUSSOLA GUIDA CON COLLARE  
GUIDE BUSH, HEADED

Materiale: Acciaio 1.7131  
Trattamento Termico: Cementazione + Tempra  
Durezza: Hrc 61 ÷ 63

Material: Steel 1.7131  
Heat Treatment: Cementing + Hardening  
Hardness: Hrc 61 ÷ 63

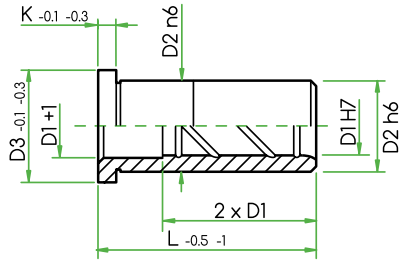


D1	D2	D3	K	L															
				22	26	36	46	56	66	76	86	96	106	116	126	136	146	156	176
12	18	22	5	•	•	•	•	•											
14	20	24	5	•	•	•	•	•	•										
16	22	26	5	•	•	•	•	•	•	•	•	•							
18	26	30	5	•	•	•	•	•	•	•	•	•							
20	28	32	6	•	•	•	•	•	•	•	•	•	•	•	•				
20	30	34	6	•	•	•	•	•	•	•	•	•	•	•	•			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

B1B

BUSSOLA GUIDA BRONZO INTEGRALE  
BRONZE GUIDE BUSH

Materiale: Bronzo  
Material: Bronze



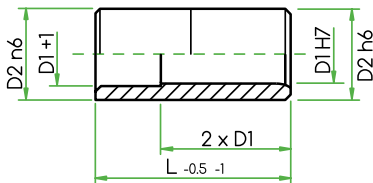
D1	D2	D3	K	L															
				22	26	36	46	56	66	76	86	96	106	116	126	136	146	156	176
16	22	26	5	•	•	•	•	•	•	•	•								
20	28	32	6	•	•	•	•	•	•	•	•	•	•	•					
20	30	34	6	•	•	•	•	•	•	•	•	•	•	•					
25	34	38	7		•	•	•	•	•	•	•	•	•	•					
25	36	40	7		•	•	•	•	•	•	•	•	•	•					
32	40	45	7		•	•	•	•	•	•	•	•	•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

B2

BUSSOLA GUIDA LISCIA  
SMOOTH BUSH

Materiale: Acciaio 1.7131  
Trattamento Termico: Cementazione + Tempra  
Durezza: Hrc 61 ÷ 63

Material: Steel 1.7131  
Heat Treatment: Cementing + Hardening  
Hardness: Hrc 61 ÷ 63



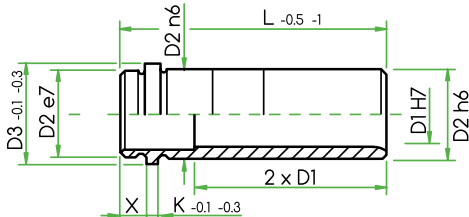
D1	D2	L										
		22	26	36	46	56	66	76	86	96	106	116
12	18	•	•	•	•	•						
14	20	•	•	•	•	•	•					
16	22	•	•	•	•	•	•	•	•	•		
18	26	•	•	•	•	•	•	•	•	•		
20	28		•	•	•	•	•	•	•	•		
20	30		•	•	•	•	•	•	•	•		
25	34		•	•	•	•	•	•	•	•	•	•
25	36		•	•	•	•	•	•	•	•	•	•
32	40		•	•	•	•	•	•	•	•	•	•
40	48				•	•	•	•	•	•	•	•

B1S

BUSSOLA GUIDA SPALLATA  
LOCATING GUIDE BUSH, HEADED

Materiale: Acciaio 1.7131  
Trattamento Termico: Cementazione + Tempra  
Durezza: Hrc 61 ÷ 63

Material: Steel 1.7131  
Heat Treatment: Cementing + Hardening  
Hardness: Hrc 61 ÷ 63



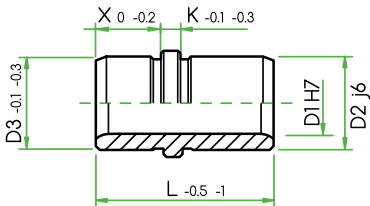
D1	D2	D3	K	X	L										
					26	36	46	56	66	76	86	96	106	116	126
16	22	26	5	10	•	•	•	•	•	•	•	•			
20	28	32	6	10	•	•	•	•	•	•	•	•			
20	30	34	6	10	•	•	•	•	•	•	•	•			
25	34	38	7	10		•	•	•	•	•	•	•			
25	36	40	7	10		•	•	•	•	•	•	•			
32	40	45	7	10			•	•	•	•	•	•	•	•	
40	48	52	8	10				•	•	•	•	•	•	•	

B3

BUSSOLA GUIDA SPALLATA  
EJECTOR GUIDE BUSH

Materiale: Acciaio 1.7131  
Trattamento Termico: Cementazione + Tempra  
Durezza: Hrc 61 ÷ 63

Material: Steel 1.7131  
Heat Treatment: Cementing + Hardening  
Hardness: Hrc 61 ÷ 63



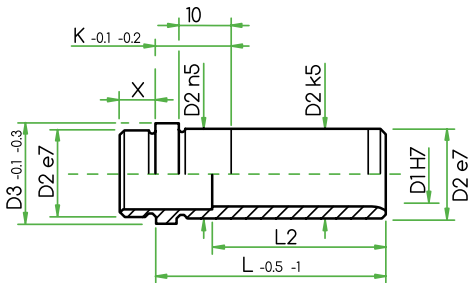
D1	D2	D3	K	X	L						
					32	40	50	65	70	80	90
12	18	22	5	16	•	•					
14	20	24	5	16	•	•					
16	22	26	5	16	•	•					
18	26	30	5	16	•	•					
20	28	32	6	16	•	•					
20	30	34	6	16	•	•					
25	34	38	7	16	•	•					
25	36	40	7	16	•	•					
32	40	45	7	25			•	•			
40	48	52	8	32				•		•	
50	60	65	10	32					•		•

B10M

BUSSOLA SPALLATA  
LOCATING GUIDE BUSH, HEADED

Materiale: Acciaio 1.7131  
Trattamento Termico: Cementazione + Tempra  
Durezza: Hrc 61 ÷ 63

Material: Steel 1.7131  
Heat Treatment: Cementing + Hardening  
Hardness: Hrc 61 ÷ 63

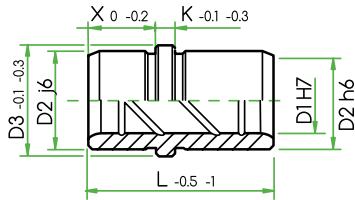


D1	D2	D3	K	X	L2	L													
						17	22	27	36	46	56	66	76	86	96	116	136	156	196
14 - 15	20	25	6	9	-	•	•	•	•	•									
					46						•	•	•	•	•				
18 - 20	26	31	6	9	-	•	•	•	•	•									
					56						•	•	•	•	•				
22 - 24	30	35	6	9	-		•	•	•	•	•	•							
					76								•	•	•	•			
30 - 32	42	47	6	9	-			•	•	•	•	•	•	•	•				
					96											•	•	•	
40 - 42	54	59	10	12	-				•	•	•	•	•	•	•				
					116												•	•	•

B3B

BUSSOLA GUIDA SPALLATA BRONZO INTEGRALE  
EJECTOR BRONZE GUIDE BUSH

Materiale: Bronzo  
Material: Bronze



D1	D2	D3	K	X	L						
					32	40	50	65	70	80	90
12	18	22	5	16	•	•					
14	20	24	5	16	•	•					
16	22	26	5	16	•	•					
18	26	30	5	16	•	•					
20	28	32	6	16	•	•					
20	30	34	6	16	•	•					

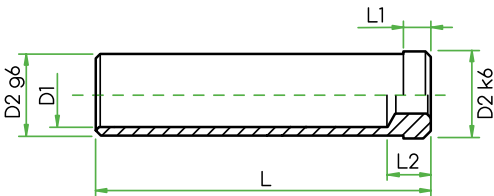
D1	D2	D3	K	X	L						
					32	40	50	65	70	80	90
25	34	38	7	16	•	•					
25	36	40	7	16	•	•					
32	40	45	7	25			•	•			
40	48	52	8	32				•		•	
50	60	65	10	32					•		•

BC

BUSSOLA GUIDA DI CENTRAGGIO  
CENTRING SLEEVE

Materiale: Acciaio 1.7131  
Trattamento Termico: Cementazione + Tempra  
Durezza: Hrc 61 ÷ 63

Material: Steel 1.7131  
Heat Treatment: Cementing + Hardening  
Hardness: Hrc 61 ÷ 63



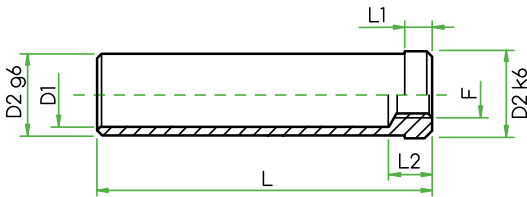
D1	D2	L1	L2	L						
				40	60	80	100	120	140	160
17	22	6	13	•	•	•	•	•	•	•
21	28	6	13		•	•	•	•	•	•
25	30	6	13		•	•	•	•	•	•
26	34	6	13		•	•	•	•	•	•
26	36	6	13		•	•	•	•	•	•
33	40	6	13		•	•	•	•	•	•

B60MH

BUSSOLA GUIDA DI CENTRAGGIO  
CENTRING SLEEVE

Materiale: Acciaio 1.7131  
Trattamento Termico: Cementazione + Tempra  
Durezza: Hrc 61 ÷ 63

Material: Steel 1.7131  
Heat Treatment: Cementing + Hardening  
Hardness: Hrc 61 ÷ 63



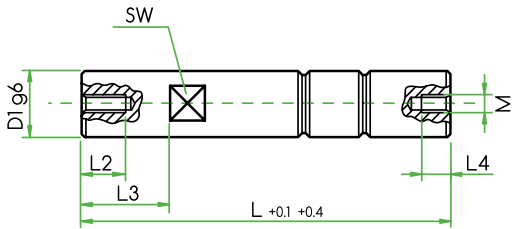
D1	D2	L1	L2	F	L														
					30	40	50	60	80	100	120	140	160	180	200	220	240	280	320
16	20	6	14	M12	•	•	•	•	•	•	•	•							
21	26	6	14	M12	•	•	•	•	•	•	•	•	•						
25	30	6	14	M12		•	•	•	•	•	•	•	•	•	•				
33	42	6	18	M12				•	•	•	•	•	•	•	•	•	•		
43	54	6	18	M12					•	•	•	•	•	•	•	•	•	•	

C50MH

DISTANZIALE FILETTATO  
THREADED ROD

Materiale: Acciaio 1.7131  
Trattamento Termico: Cementazione + Tempra  
Durezza: Hrc 61 ÷ 63

Material: Steel 1.7131  
Heat Treatment: Cementing + Hardening  
Hardness: Hrc 61 ÷ 63



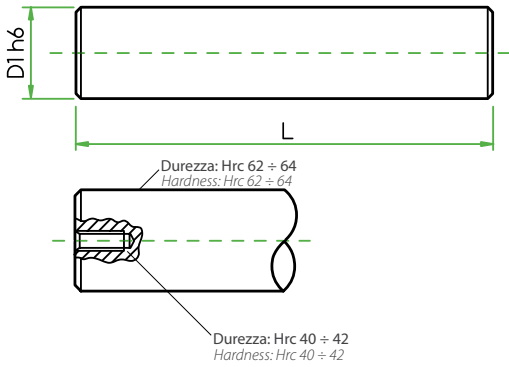
D1	L2	L3	L4	M	SW	L															
						60	70	80	100	120	140	160	180	200	220	240	260	300	340	380	
14	25	14	17	M8	12	•	•	•	•	•	•	•	•								
18	30	16	20	M10	14				•	•	•	•	•	•	•	•					
20	30	18	20	M12	17				•	•	•	•	•	•	•	•					
24	35	22	25	M12	19					•	•	•	•	•	•	•					
30	45	28	30	M16	24								•		•		•	•			
40	55	36	35	M20	36							•	•	•	•	•	•	•	•	•	

BARRAT

BARRA PER SCORRIMENTO LINEARE  
SHAFT FOR LINEAR MOTION

Materiale: CF 53 - W. Nr. 1.1213  
Trattamento a caldo: Temprato per induzione

Material: CF 53 - W. Nr. 1.1213  
Heat Treatment: Hardened for induction



D1	L	D1	L
	1000		1000
6	•	20	•
8	•	25	•
10	•	30	•
12	•	32	•
14	•	40	•
16	•	50	•
18	•	60	•



ESPULSORI  
EJECTORS

ETS30

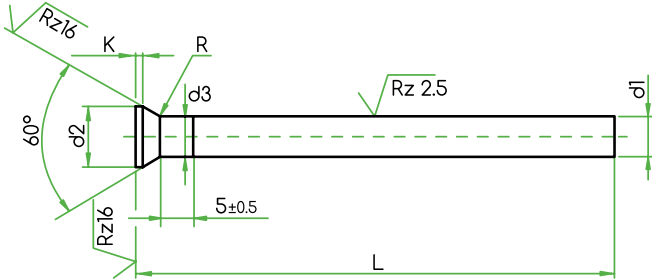
ESTRATTORE CON TESTA SVASATA  
CONICAL HEAD EJECTOR

Materiale: Acciaio WS  
Durezza Gambo: Hrc 60 ÷ 62  
Durezza Testa: Hrc 45±5  
Esecuzione: Temprato-Rettificato  
Testa riscalcata a caldo

DIN 1530

Material: Steel WS  
Shaft Hardness: Hrc 60 ÷ 62  
Head Hardness: Hrc 45±5  
Finish: Hardened - Ground  
The head is hot forged

DIN 1530



d1 g6	d2 -0,2	K 0/+0,2	R 0/+0,2	d3	L -0 +2				
					125	160	200	250	315
0.5	0.9	0.2	0.3	d1 + 0.02	•	•			
0.6	1.1	0.2			•	•			
0.7	1.3	0.2			•	•			
0.8	1.4	0.4			•	•			
0.9	1.6	0.4			•	•			
1.0 - 1.1	1.8	0.5		d1 + 0.03	•	•	•	•	
1.2 - 1.3	2.0	0.5			•	•	•	•	
1.4 - 1.5	2.2	0.5			•	•	•	•	
1.6 - 1.7	2.5	0.5			•	•	•	•	
1.8 - 1.9	2.8	0.5			•	•	•	•	
2.0	3.0	0.5			•	•	•	•	
2.1 - 2.2	3.2	0.5			•	•	•	•	
2.3 - 2.5	3.5	0.5			•	•	•	•	
2.6 - 2.9	4.0	0.5			•	•	•	•	
3.0 - 3.4	4.5	0.5			•	•	•	•	
3.5 - 3.9	5.0	0.5			•	•	•	•	
4.0 - 4.4	5.5	0.5			•	•	•	•	•
4.5 - 4.9	6.0	0.5			•	•	•	•	•
5.0 - 5.4	6.5	0.5			•	•	•	•	•
5.5 - 5.9	7.0	0.5			0.5	•	•	•	•
6.0 - 6.4	8.0	0.5	•	•		•	•	•	
6.5 - 7.4	9.0	1.0	•	•		•	•	•	
7.5 - 8.4	10.0	1.0	•	•		•	•	•	
8.5 - 9.4	11.0	1.0	•	•		•	•	•	
9.5 - 10.4	12.0	1.0	•	•		•	•	•	
10.5 - 11.4	13.0	1.0	d1 + 0.04	•		•	•	•	•
11.5 - 12.4	14.0	1.0		•		•	•	•	•
12.5 - 13.4	15.0	1.0		•	•	•	•	•	
13.5 - 14.4	16.0	1.0		•	•	•	•	•	
14.5 - 15.0	17.0	1.5		•	•	•	•	•	
15.1 - 16.0	18.0	1.5		•	•	•	•	•	
16.1 - 17.0	19.0	1.5		•	•	•	•	•	
17.1 - 18.0	20.0	1.5		•	•	•	•	•	
18.1 - 19.0	21.0	1.5	0.8	•	•	•	•	•	
19.1 - 20.0	22.0	1.5		•	•	•	•	•	
20.1 - 22.0	24.0	1.5		•	•	•	•	•	

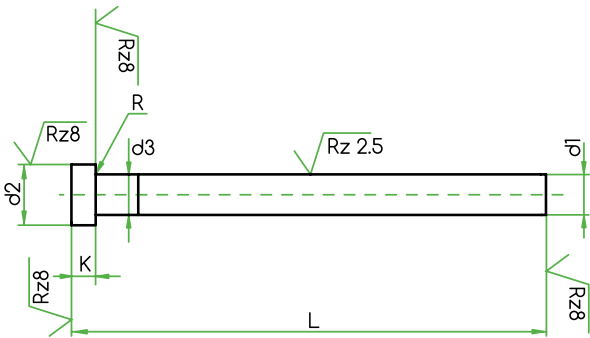
ESTRATTORE CON TESTA CILINDRICA TEMPRATO  
HARDENED EJECTOR PIN CYLINDRICAL HEAD

Materiale: Acciaio W5  
Durezza Gambo: Hrc 60 ÷ 62  
Durezza Testa: Hrc 45±5  
Esecuzione: Temprato - Rettificato  
Testa riscalcata a caldo

DIN ISO 6751 AH

Material: Steel W5  
Shaft Hardness: Hrc 60 ÷ 62  
Head Hardness: Hrc 45±5  
Finish: Hardened - Ground  
The head is hot forged

DIN ISO 6751 AH



d1 g6	d2 0/-0,2	k 0/-0,05	R +0,2/0	d3	L -0 +2																
					40	80	100	125	160	200	250	315	400	500	630						
1.0	2.5	1.2	0.2	d1 + 0.03	•	•	•	•	•	•											
1.1					•	•	•	•	•	•											
1.2					•	•	•	•	•	•											
1.3					•	•	•	•	•	•											
1.4	3	1.5			•	•	•	•	•	•											
1.5					•	•	•	•	•	•											
1.6					•	•	•	•	•	•											
1.7					•	•	•	•	•	•											
1.8					•	•	•	•	•	•											
1.9					•	•	•	•	•	•											
2.0					•	•	•	•	•	•											
2.2	4	2			•	•	•	•	•	•	•										
2.5	5		•		•	•	•	•	•	•											
2.7			•		•	•	•	•	•	•											
3.0			6		3	•	•	•	•	•	•	•	•								
3.2	•	•	•			•	•	•	•	•											
3.5	7	•	•			•	•	•	•	•	•										
3.7		•	•			•	•	•	•	•	•										
4.0		8	•			•	•	•	•	•	•	•	•	•							
4.2	•		•			•	•	•	•	•	•	•									
4.5	•		•			•	•	•	•	•	•	•									
4.7	•		•			•	•	•	•	•	•	•									
5.0	10	5	0.5			d1 + 0.04	•	•	•	•	•	•	•	•	•	•	•				
5.2							•	•	•	•	•	•	•	•	•	•					
5.5							•	•	•	•	•	•	•	•	•	•					
6.0							12	•	•	•	•	•	•	•	•	•	•	•			
6.2	•			•	•			•	•	•	•	•	•								
6.5	•			•	•			•	•	•	•	•	•								
7.0	•			•	•			•	•	•	•	•	•	•	•						
8.0	14			5	0.5		d1 + 0.04	•	•	•	•	•	•	•	•	•	•	•			
8.2								•	•	•	•	•	•	•	•	•	•	•			
8.5								•	•	•	•	•	•	•	•	•	•	•			
9.0								•	•	•	•	•	•	•	•	•	•	•			
10.0	16							5	0.5	d1 + 0.04	•	•	•	•	•	•	•	•	•	•	•
10.2		•	•			•					•	•	•	•	•	•	•	•			
10.5		•	•			•					•	•	•	•	•	•	•	•			
11.0		•	•			•					•	•	•	•	•	•	•	•			
12.0	18	7	0.8			d1 + 0.04					•	•	•	•	•	•	•	•	•	•	•
12.2											•	•	•	•	•	•	•	•	•	•	•
12.5											•	•	•	•	•	•	•	•	•	•	•
14.0											•	•	•	•	•	•	•	•	•	•	•
16.0	22			•	•		•				•	•	•	•	•	•	•				
18.0	24	8	1.0	d1 + 0.07	•	•	•				•	•	•	•	•	•	•				
20.0	26				•	•	•				•	•	•	•	•	•	•				

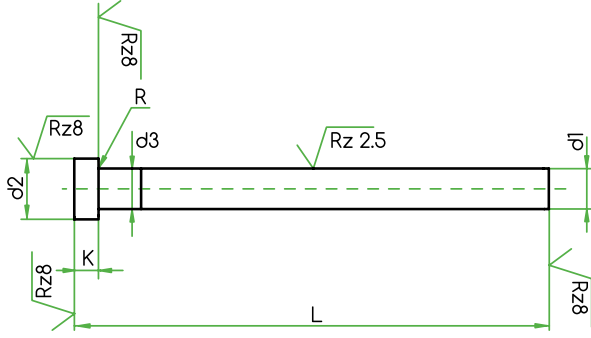
ESTRATTORE CON TESTA CILINDRICA TEMPRATO  
HARDENED EJECTOR PIN CYLINDRICAL HEAD

Materiale: Acciaio W5  
Durezza Gambo: Hrc 60 ÷ 62  
Durezza Testa: Hrc 45±5  
Esecuzione: Temprato - Rettificato  
Testa riscalcata a caldo

TIPO FIAT

Material: Steel W5  
Shaft Hardness: Hrc 60 ÷ 62  
Head Hardness: Hrc 45±5  
Finish: Hardened - Ground  
The head is hot forged

FIAT TYPE



d1 g6	d2 -0.2	K -0,05	R +0,2/0	d3	L -0 +2						
					100	125	160	200	250	315	400
2	4	2	0.2	d1 + 0.03	•	•	•	•	•	•	
2.2					•	•	•	•	•		
2.5					•	•	•	•	•	•	
3	3	0.3	•		•	•	•	•	•	•	
3.5			•		•	•	•	•	•	•	
4			•		•	•	•	•	•	•	
5	•		•		•	•	•	•	•		
6	5		0.5		•	•	•	•	•	•	•
7		•			•	•	•	•	•	•	
8		•			•	•	•	•	•	•	
10	6.5	d1 + 0.04		•	•	•	•	•	•	•	
12				•	•	•	•	•	•	•	
14			•	•	•	•	•	•	•		
16	7		0.8	•	•	•	•	•	•	•	
18				•	•	•	•	•	•	•	
20				•	•	•	•	•	•	•	
	28			1.0	d1 + 0.07	•	•	•	•	•	•

ETC60

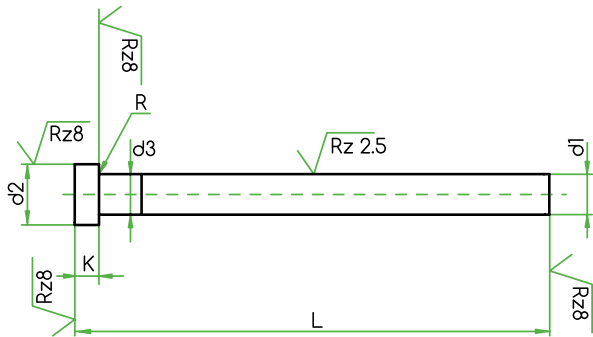
ESPULSORE CON TESTA CILINDRICA NITRURATO  
NITRIDED EJECTOR PIN CYLINDRICAL HEAD

Materiale: Acciaio 1.2344  
Durezza Gambo: Hrc 65+2  
Durezza Testa: Hrc 45±5  
Esecuzione: Nitruato - Rettificato  
Testa riscalcata a caldo

DIN ISO 6751 A

Material: Steel 1.2344  
Shaft Hardness: Hrc 65+2  
Head Hardness: Hrc 45±5  
Finish: Nitrided - Ground  
The head is hot forged

DIN ISO 6751 A



d1 g6	d2 -0,2	K -0,05	R	d3	L -0 +2												
					100	125	160	200	250	315	400	500	630	800	1000		
1.0	2.5	1.2	0.2	d1 + 0.03	•	•	•	•	•	•							
1.1					•	•	•	•	•	•							
1.2					•	•	•	•	•								
1.3	3	1.5			•	•	•	•	•	•							
1.4					•	•	•	•	•	•	•						
1.5					•	•	•	•	•	•	•						
1.6					•	•	•	•	•	•	•						
1.7					•	•	•	•	•	•							
1.8					•	•	•	•	•	•	•	•					
1.9					•	•	•	•	•	•	•	•					
2.0	4	2			•	•	•	•	•	•	•						
2.2					•	•	•	•	•	•	•	•					
2.5	5	2	0.3		•	•	•	•	•	•	•	•					
2.7					•	•	•	•	•	•	•	•	•	•	•	•	
3.0	6	3			•	•	•	•	•	•	•	•	•	•	•	•	
3.2					•	•	•	•	•	•	•	•	•	•	•	•	
3.5					•	•	•	•	•	•	•	•	•				
3.7	7				•	•	•	•	•	•	•	•	•	•	•	•	
4.0					•	•	•	•	•	•	•	•	•				
4.2					•	•	•	•	•	•	•	•	•				
4.5	8				•	•	•	•	•	•	•	•	•	•	•	•	
4.7					•	•	•	•	•	•	•	•	•	•	•	•	
5.0					•	•	•	•	•	•	•	•	•	•	•	•	
5.2	10				•	•	•	•	•	•	•	•	•	•	•	•	
5.5					•	•	•	•	•	•	•	•	•	•	•	•	
6.0					12	•	•	•	•	•	•	•	•	•	•	•	
6.2	•	•	•			•	•	•	•	•	•	•	•				
6.5	•	•	•			•	•	•	•	•	•	•	•				
7.0	14	5	0.5		•	•	•	•	•	•	•	•	•	•	•		
8.0					•	•	•	•	•	•	•	•	•	•	•	•	
8.2					•	•	•	•	•	•	•	•	•	•	•	•	
8.5	•				•	•	•	•	•	•	•	•	•	•	•		
9.0	16			•	•	•	•	•	•	•	•	•	•	•	•		
10.0				•	•	•	•	•	•	•	•	•	•	•	•		
10.2				•	•	•	•	•	•	•	•	•	•	•	•		
10.5				•	•	•	•	•	•	•	•	•	•	•	•		
11.0				•	•	•	•	•	•	•	•	•	•	•	•		
12.0	18			7	0.8	•	•	•	•	•	•	•	•	•	•	•	
12.2						•	•	•	•	•	•	•	•	•	•	•	•
12.5						•	•	•	•	•	•	•	•	•	•	•	•
14.0	22	•				•	•	•	•	•	•	•	•	•	•		
16.0		•				•	•	•	•	•	•	•	•	•	•		
18.0		•	•			•	•	•	•	•	•	•	•	•			
20.0	24	8	1.0			d1 + 0.07	•	•	•	•	•	•	•	•	•	•	
25.0	32					d1 + 0.1	•	•	•	•	•	•	•	•	•	•	
32.0	40						•	•	•	•	•	•	•	•	•	•	•

ETC60N

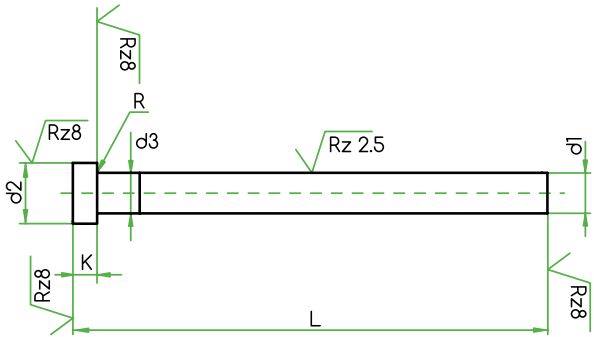
ESPULSORE CON TESTA CILINDRICA NITRURATO NERO  
BLACK NITRIDED EJECTOR PIN CYLINDRICAL HEAD

Materiale: Acciaio 1.2344  
Durezza Gambo: Hrc 65+2  
Durezza Testa: Hrc 45±5  
Esecuzione: Nitruato - Rettificato  
Testa riscalcata a caldo

DIN ISO 6751 A

Material: Steel 1.2344  
Shaft Hardness: Hrc 65+2  
Head Hardness: Hrc 45±5  
Finish: Nitrided - Ground  
The head is hot forged

DIN ISO 6751 A



d1 g6	d2 -0,2	K -0,05	R	d3	L -0 +2													
					100	125	160	200	250	315	400	500	630	800	1000			
1.0	2.5	1.2	0.2	d1 + 0.03	•	•	•	•	•	•								
1.1					•	•	•	•	•	•								
1.2					•	•	•	•	•									
1.3	3	1.5			•	•	•	•	•	•								
1.4					•	•	•	•	•	•	•							
1.5					•	•	•	•	•	•	•							
1.6					•	•	•	•	•	•	•							
1.7					•	•	•	•	•	•								
1.8					•	•	•	•	•	•	•	•						
1.9					•	•	•	•	•	•	•	•						
2.0	4	2			•	•	•	•	•	•	•							
2.2					•	•	•	•	•	•	•	•						
2.5	5	2	•		•	•	•	•	•	•	•	•						
2.7			•		•	•	•	•	•	•	•	•	•	•	•			
3.0	6	3	0.3		•	•	•	•	•	•	•	•	•					
3.2					•	•	•	•	•	•	•	•	•	•	•	•	•	
3.5					•	•	•	•	•	•	•	•	•	•				
3.7	7				•	•	•	•	•	•	•	•	•	•	•	•	•	
4.0					•	•	•	•	•	•	•	•	•	•				
4.2					•	•	•	•	•	•	•	•	•	•				
4.5	8				•	•	•	•	•	•	•	•	•	•	•	•	•	
4.7					•	•	•	•	•	•	•	•	•	•	•			
5.0					•	•	•	•	•	•	•	•	•	•	•			
5.2	10				•	•	•	•	•	•	•	•	•	•	•	•	•	
5.5					•	•	•	•	•	•	•	•	•	•	•	•	•	
6.0					•	•	•	•	•	•	•	•	•	•	•	•	•	
6.2	12	5	0.5		•	•	•	•	•	•	•	•	•	•	•	•		
6.5					•	•	•	•	•	•	•	•	•	•	•	•	•	
7.0					•	•	•	•	•	•	•	•	•	•	•	•	•	
8.0	14				•	•	•	•	•	•	•	•	•	•	•	•	•	
8.2					•	•	•	•	•	•	•	•	•	•	•	•	•	
8.5					•	•	•	•	•	•	•	•	•	•	•	•	•	
9.0	16			•	•	•	•	•	•	•	•	•	•	•	•	•		
10.0				•	•	•	•	•	•	•	•	•	•	•	•	•		
10.2				•	•	•	•	•	•	•	•	•	•	•	•	•		
10.5				•	•	•	•	•	•	•	•	•	•	•	•	•		
11.0				•	•	•	•	•	•	•	•	•	•	•	•	•		
12.0	18			7	0.8	•	•	•	•	•	•	•	•	•	•	•	•	
12.2			•			•	•	•	•	•	•	•	•	•	•	•	•	
12.5			•			•	•	•	•	•	•	•	•	•	•	•	•	
14.0	22		•			•	•	•	•	•	•	•	•	•	•	•	•	
16.0			•			•	•	•	•	•	•	•	•	•	•	•	•	
18.0			•			•	•	•	•	•	•	•	•	•	•	•	•	
20.0	26	8	1.0			d1 + 0.07	•	•	•	•	•	•	•	•	•	•	•	
25.0	32					d1 + 0.1	•	•	•	•	•	•	•	•	•	•	•	•
32.0	40	10				d1 + 0.1	•	•	•	•	•	•	•	•	•	•	•	•

ETC61

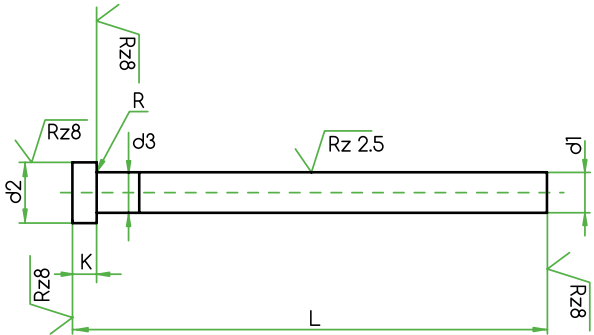
ESPULSORE CON TESTA CILINDRICA NITRURATO  
NITRIDED EJECTOR PIN CYLINDRICAL HEAD

Materiale: Acciaio 1.2344  
Durezza Gambo: Hrc 65+2  
Durezza Testa: Hrc 45±5  
Esecuzione: Nitrurato - Rettificato  
Testa riscalcata a caldo

TIPO FIAT

Material: Steel W5  
Shaft Hardness: Hrc 65+2  
Head Hardness: Hrc 45±5  
Finish: Nitrided - Ground  
The head is hot forged

FIAT TYPE



d1 g6	d2 -0,2	K -0,05	R	d3	L -0 +2											
					100	125	160	200	250	315	400	500	630	800	1000	
2	4	2	0.2	d1 + 0.03	•	•	•	•	•	•						
2.2			•		•	•	•	•	•							
2.5			•		•	•	•	•	•	•						
3	6	3	0.3		•	•	•	•	•	•	•					
3.2					•	•	•	•	•	•	•					
3.5					•	•	•	•	•	•	•					
4	8	4			•	•	•	•	•	•						
5	10	5			0.5	•	•	•	•	•	•	•	•	•	•	•
6	12					•	•	•	•	•	•	•	•	•	•	•
6.5			•			•	•	•	•	•	•					
7			•			•	•	•	•	•	•	•				
8			14			•	•	•	•	•	•	•	•	•	•	
10	17	6.5	d1 + 0.04			•	•	•	•	•	•	•	•	•	•	
12	20				•	•	•	•	•	•	•	•	•	•		
14	22				•	•	•	•	•	•	•	•	•	•		
16	24			•	•	•	•	•	•	•	•	•	•			
18	26		7	0.8	d1 + 0.07	•	•	•	•	•	•	•	•	•		
20	28	•				•	•	•	•	•	•	•	•	•		

ETC60F

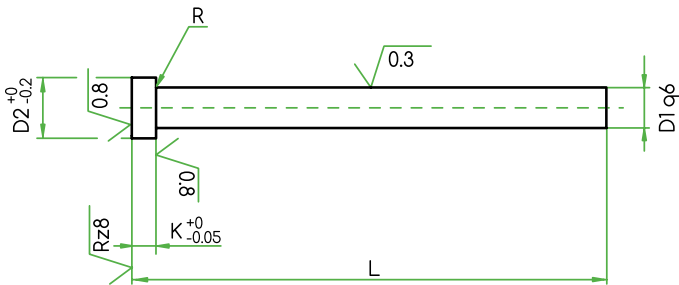
ESPULSORE CON TESTA CILINDRICA NITRURATO  
FORABILE  
PIERCABLE NITRIDED CYLINDRICAL HEAD EJECTOR

Materiale: Acciaio 1.8550  
Durezza gambo: 1000-1100 Vickers  
Durezza testa: Hrc 45±5  
Esecuzione: Rettificato - Lappato  
Resistenza alla trazione: 1000/1100 N/mm²

DIN 1530

Material: Steel 1.8550  
Shaft hardness: 1000-1100 Vickers  
Head hardness: Hrc 45±5  
Execution: Grinded - Lapped  
Resistance to tensile stress: 1000/1100 N/mm²

DIN 1530



D1	D2	K	L							
			100	125	160	200	250	315	400	
10	16	5	•	•	•	•	•	•	•	
12	20	7	•	•	•	•	•	•	•	
14	22	7	•	•	•	•	•	•	•	
16	22	7	•	•	•	•	•	•	•	
18	24	7	•	•	•	•	•	•	•	
20	26	8	•	•	•	•	•	•	•	
25	32	10			•	•	•	•	•	
32	40	10				•	•	•	•	

ETC31L

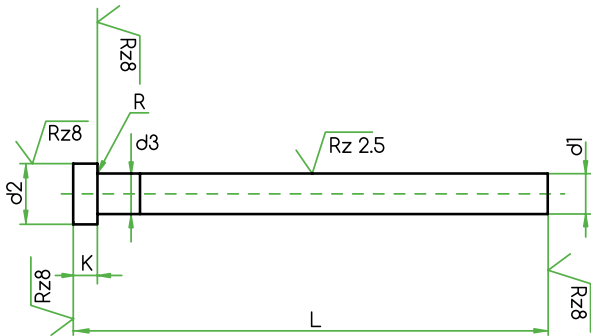
ESPULSORE CON TESTA CILINDRICA NON NITRURATO LAVORABILE  
NOT NITRIDED EJECTOR PIN WORKABLE

Materiale: Acciaio 1.2344  
Durezza Gambo: Hrc 38 ÷ 45  
Durezza Testa: Hrc 45±5  
Esecuzione: Rettificato  
Testa riscalcata a caldo

DIN ISO 6751 A

Material: Steel 1.2344  
Shaft Hardness: Hrc 38 ÷ 45  
Head Hardness: Hrc 45±5  
Finish: Ground  
The head is hot forged

DIN ISO 6751 A



d1 g6	d2 -0,2	K -0,05	R	d3	L -0 +2									
					100	125	160	200	250	315	400	500	630	
1.5	3	1.5	0.2	d1 + 0.03	•	•	•	•						
2.0	4	2			•	•	•	•						
2.2			•		•	•	•							
2.5	5	3	0.3		•	•	•	•						
3.0	6				•	•	•	•	•					
3.2					•	•	•	•						
3.5					•	•	•	•	•					
3.7	7				•	•	•	•						
4.0	8				•	•	•	•	•	•				
4.2					•	•	•	•	•	•				
4.5					•	•	•	•	•	•				
5.0	10				•	•	•	•	•	•	•			
5.2/5.5					•	•	•	•	•	•				
6.0	12	5	0.5	d1 + 0.04	•	•	•	•	•	•	•	•	•	
6.2/6.5/7					•	•	•	•	•	•				
8.0	14				•	•	•	•	•	•	•	•	•	
8.2/8.5/9					•	•	•	•	•	•	•	•	•	
10.0	16	•	•		•	•	•	•	•	•	•	•		
10.2/10.5		•	•		•	•	•	•	•					
11.0		•	•		•	•	•	•						
12.0	18	7	0.8		•	•	•	•	•	•	•	•	•	
12.2					•	•	•	•	•	•	•			
12.5					•	•	•	•	•	•	•			
14.0	22				•	•	•	•	•	•	•	•	•	
16.0					•	•	•	•	•	•	•	•	•	

ETC31R

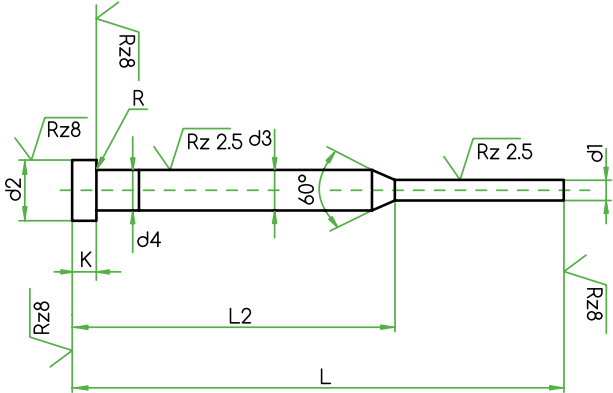
ESPULSORE CON TESTA CILINDRICA TEMPRATO FORMA C  
HARDENED EJECTOR PIN FORM C

Materiale: Acciaio W5  
Durezza Gambo: Hrc 60 ÷ 62  
Durezza Testa: Hrc 45±5  
Esecuzione: Temprato-Rettificato  
Testa riscalcata a caldo  
Altre misure a richiesta, Nitruato a richiesta

DIN ISO 8694 CH

Material: Steel W5  
Shaft Hardness: Hrc 60 ÷ 62  
Head Hardness: Hrc 45±5  
Finish: Hardened-Ground  
The head is hot forged  
Other dimensions on request, nitrided on request

DIN ISO 8694 CH



d1 g6	d2 0 -0,2	d3 g6	d4	k 0 -0,05	R +0,2 0	L +2 0			
						100	125	160	200
						L2 -1 -2			
d1 0.8 a 1.4	4	2	d3 + 0.03	2	0.2	•	•	•	•
d1 1.5 a 2.4	6	3		3	0.3	•	•	•	•
d1 2.5 a 2.9	6	3		3	0.3	•	•	•	•

ETC60R

ESPULSORE CON TESTA CILINDRICA NITRURATO  
FORMA C

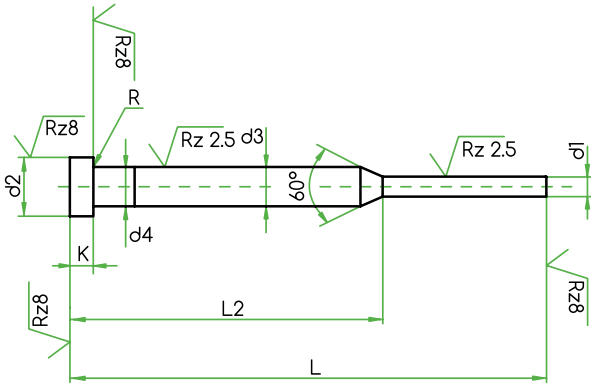
NITRIDED EJECTOR PIN FORM C

Materiale: Acciaio 1.2343  
Durezza Gambo: Hrc 60 ÷ 62  
Durezza Testa: Hrc 45±5  
Esecuzione: Nitruato-Rettificato  
Testa ricalcata a caldo  
Altre misure a richiesta

DIN ISO 8694 C

Material: Steel 1.2343  
Shaft Hardness: Hrc 60 ÷ 62  
Head Hardness: Hrc 45±5  
Finish: Nitrided-Ground  
The head is hot forged  
Other dimensions on request

DIN ISO 8694 C



d1 g6	d2 0 -0,2	d3 g6	d4	k 0 -0,05	R +0,2 0	L +2 0			
						100	125	160	200
						L2 -1 -2			
						50	50	75	75
da 0.8 a 1.4	4	2	d3 + 0.03	2	0.2	•	•	•	•
da 1.5 a 2.4	6	3		3	0.3	•	•	•	•
da 2.5 a 2.9	6	3		3	0.3	•	•	•	•

ETC60RN

ESPULSORE CON TESTA CILINDRICA NITRURATO  
NERO FORMA C

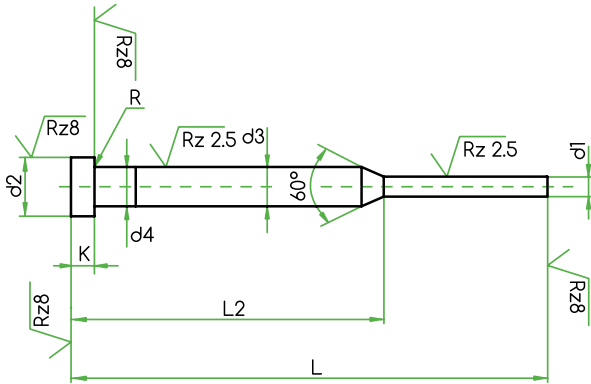
BLACK NITRIDED EJECTOR PIN FORM C

Materiale: Acciaio 1.2343  
Durezza Gambo: Hrc 60 ÷ 62  
Durezza Testa: Hrc 45±5  
Esecuzione: Temprato-Nitruato  
Testa ricalcata a caldo  
Altre misure a richiesta

DIN ISO 8694 C

Material: Steel 1.2343  
Shaft Hardness: Hrc 60 ÷ 62  
Head Hardness: Hrc 45±5  
Finish: Hardened-Nitrided  
The head is hot forged  
Other dimensions on request

DIN ISO 8694 C



d1 g6	d2 0 -0,2	d3 g6	d4	k 0 -0,05	R +0,2 0	L +2 0			
						100	125	160	200
						L2 -1 -2			
						50	50	75	75
da 0.8 a 1.4	4	2	d3 + 0.03	2	0.2	•	•	•	•
da 1.5 a 2.4	6	3		3	0.3	•	•	•	•
da 2.5 a 2.9	6	3		3	0.3	•	•	•	•

ETC63T

ESPULSORE CON TESTA CILINDRICA TEMPRATO A LAMELLA

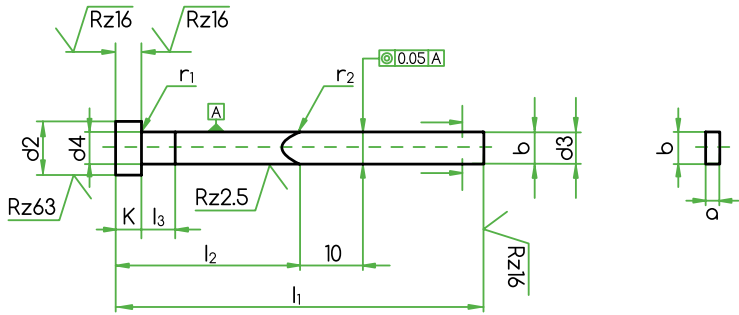
HARDENED BLADE EJECTOR

Materiale: Acciaio WS  
Durezza Gambo: Hrc 60 ÷ 62  
Durezza Testa: Hrc 45±5  
Esecuzione: Temprato-Rettificato  
Testa ricalcata a caldo  
Altre misure a richiesta, Nitruato a richiesta

DIN ISO 8693

Material: Steel WS  
Shaft Hardness: Hrc 60 ÷ 62  
Head Hardness: Hrc 45±5  
Finish: Hardened-Ground  
The head is hot forged  
Other dimensions on request, nitrided on request

DIN ISO 8693



a 0 -0.015	b 0 -0.015	d3 0 -0.1	d2 0 -0.2	d4	k 0 -0,05	r <sub>1</sub> +0,2 0	r <sub>2</sub> min	l <sub>1</sub> +2										l <sub>3</sub>
								63	80	100	125	160	200	250	315	400		
								l <sub>2</sub> -1 / 2										
								32	40	50	63	80	100	125	160	200		
1.0	3.5	4	8	3	0.3	10	•	•	•	•							5	
0.8	3.8	4.2	•				•	•	•									
1.0			•				•	•	•									
1.2			•				•	•	•									
1.0	4.5	5	•				•	•	•						6			
1.2			•				•	•	•									
1.5			•				•	•	•									
1.0	5.5	6	•	•	•		•						8					
1.2			•	•	•		•											
1.5					•		•	•										
2.0					•		•	•										
1.2	7.5	8	•	•	•		•						10					
1.5							•	•	•	•								
2.0								•	•	•	•							
1.5	9.5	10	•	•	•		•						12					
2.0								•	•	•	•							
2.0									•	•	•	•						
2.5	11.5	12	18		7		0.8						•	•	•	•		

ETC63N

ESPULSORE CON TESTA CILINDRICA NITRURATO A LAMELLA

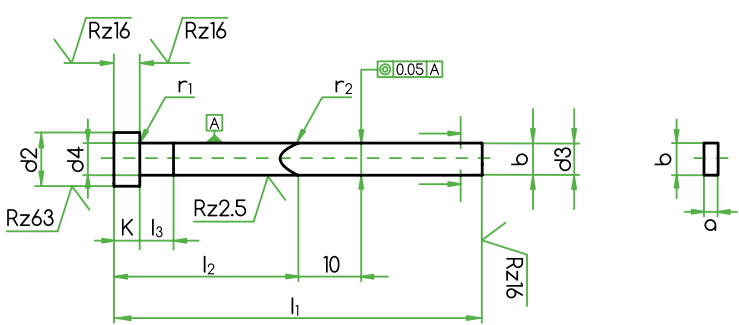
BLADE EJECTOR NITRIDED

Materiale: Acciaio 12343  
Durezza Gambo: Hrc 60 ÷ 62  
Durezza Testa: Hrc 45±5  
Esecuzione: Nitruato-Rettificato  
Testa ricalcata a caldo  
Altre misure a richiesta, Nitruato a richiesta

DIN ISO 8693 F

Material: Steel 1.2343  
Shaft Hardness: Hrc 60 ÷ 62  
Head Hardness: Hrc 45±5  
Finish: Nitrided-Ground  
The head is hot forged  
Other dimensions on request, nitrided on request

DIN ISO 8693 F



a 0 -0.015	b 0 -0.015	d3 0 -0.1	d2 0 -0.2	d4	k 0 -0,05	r <sub>1</sub> +0,2 0	r <sub>2</sub> min	l <sub>1</sub> +2										l <sub>3</sub>
								63	80	100	125	160	200	250	315	400		
								l <sub>2</sub> -1 / 2										
								32	40	50	63	80	100	125	160	200		
1.0	3.5	4	8	3	0.3	10	•	•	•	•							5	
0.8	3.8	4.2	•				•	•	•									
1.0			•				•	•	•									
1.2			•				•	•	•									
1.0	4.5	5	•				•	•	•						6			
1.2			•				•	•	•									
1.5			•				•	•	•									
1.0	5.5	6	12	•	•		•	•					8					
1.2				•	•		•	•										
1.5							•	•										
2.0							•	•										
1.2	7.5	8	14					•	•		•			10				
1.5								•	•		•							
2.0									•	•		•						
1.5	9.5	10	16	d3 + 0.04	7		0.8					•	•		•		12	
2.0												•	•		•			
2.0	11.5	12	18										•	•		•		
2.5													•	•		•		



ECT68

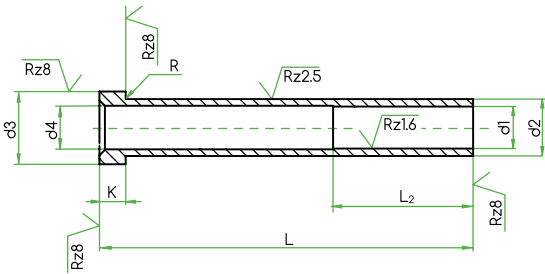
ESPULSORE A CANNOCCHIALE TEMPERATO  
HARDENED EJECTOR SLEEVE

Materiale: Acciaio W5  
Durezza Gambo: Hrc 60 ÷ 62  
Durezza Testa: Hrc 45±5  
Esecuzione: Temprato-Rettificato  
Testa riscalcata a caldo  
Altre misure a richiesta, Nitruato a richiesta

DIN ISO 8405

Material: Steel W5  
Shaft Hardness: Hrc 60 ÷ 62  
Head Hardness: Hrc 45±5  
Finish: Hardened-Ground  
The head is hot forged  
Other dimensions on request, nitrided on request

DIN ISO 8405



d1 H5	d2 g6	d4	d3 0 -0.2	k 0 -0.05	R +0.2 0	L2 +2 0	L -0 +1								
							75	100	125	150	175	200	225	250	
1.5	3	2	6	3	0.3	35	•	•	•	•					
1.6							•	•	•	•					
2	4	2.4	8				•	•	•	•	•	•	•		
2.2		2.6					•	•	•	•	•	•	•		
2.5	5	2.9	10			•	•	•	•	•	•	•	•		
2.7		3				•	•	•	•	•	•	•	•		
3		3.4				•	•	•	•	•	•	•	•		
3.2		3.6				•	•	•	•	•	•	•	•		
3.5	6	3.9	12	5	0.5	45	•	•	•	•	•	•	•	•	
3.7		4					•	•	•	•	•	•	•	•	•
4		4.4					•	•	•	•	•	•	•	•	•
4.2		4.6					•	•	•	•	•	•	•	•	•
5	8	5.4	14			•	•	•	•	•	•	•	•		
5.2		5.6				•	•	•	•	•	•	•	•		
6	10	6.4	16			•	•	•	•	•	•	•	•		
6.2		6.6				•	•	•	•	•	•	•	•	•	
8	12	8.4	20		7	0.7	45	•	•	•	•	•	•	•	•
8.2		8.6						•	•	•	•	•	•	•	•
10	14	10.4	22					•	•	•	•	•	•	•	•
10.5		11						•	•	•	•	•	•	•	•
12	16	12.4					•	•	•	•	•	•	•	•	
12.5		13					•	•	•	•	•	•	•	•	•

ECN69

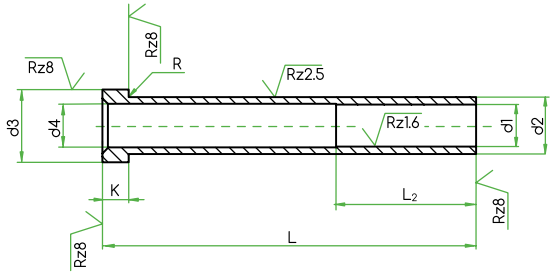
ESPULSORE A CANNOCCHIALE NITRURATO  
NITRIDED EJECTOR SLEEVE

Materiale: Acciaio 12343  
Durezza Gambo: Hrc 65+2  
Durezza Testa: Hrc 50±5  
Esecuzione: Nitruato-Rettificato  
Testa riscalcata a caldo  
Altre misure a richiesta

DIN ISO 8405

Material: Steel 12343  
Shaft Hardness: Hrc 65+2  
Head Hardness: Hrc 50±5  
Finish: Nitrided-Ground  
The head is hot forged  
Other dimensions on request

DIN ISO 8405



d1 H5	d2 g6	d4	d3 0 -0.2	k 0 -0.05	R +0.2 0	L2 +2 0	L -0 +1									
							75	100	125	150	175	200	225	250		
1.5	3	2	6	3	0.3	35	•	•	•	•						
1.6							•	•	•	•						
2	4	2.4	8				•	•	•	•	•	•	•			
2.2		2.6					•	•	•	•	•	•	•			
2.5	5	2.9	10				•	•	•	•	•	•	•	•		
2.7		3					•	•	•	•	•	•	•	•		
3		3.4					•	•	•	•	•	•	•	•		
3.2		3.6					•	•	•	•	•	•	•	•		
3.5	6	3.9	12	5	0.5	45	•	•	•	•	•	•	•	•		
3.7		4					•	•	•	•	•	•	•	•	•	
4		4.4					•	•	•	•	•	•	•	•	•	
4.2		4.6					•	•	•	•	•	•	•	•	•	
5	8	5.4	14				•	•	•	•	•	•	•	•		
5.2		5.6					•	•	•	•	•	•	•	•		
6	10	6.4	16				•	•	•	•	•	•	•	•		
6.2		6.6					•	•	•	•	•	•	•	•	•	
8	12	8.4	20		7	0.7	45	•	•	•	•	•	•	•	•	
8.2		8.6						•	•	•	•	•	•	•	•	•
10	14	10.4	22					•	•	•	•	•	•	•	•	•
10.5		11						•	•	•	•	•	•	•	•	•
12	16	12.4						•	•	•	•	•	•	•	•	•
12.5		13						•	•	•	•	•	•	•	•	•

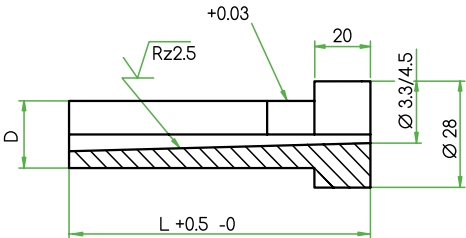
ACCESSORI  
ACCESSORIES

BI66 - BIT67

BUSSOLA DI INIEZIONE  
SPRUE BUSHING

Materiale: Acciaio 38 NCD4  
Durezza: Hrc 50 ÷ 55  
Esecuzione BI66: non temprata - rettificata  
Esecuzione BIT67: temprata - rettificata  
Foro conico 1° 50'  
Altre misure a richiesta

Material: Steel 38 NCD4  
Hardness: Hrc 50 ÷ 55  
BI66 Finish: not hardened - ground  
BIT67 Finish: hardened - ground  
Conical hole: 1° 50'  
Other dimensions on request



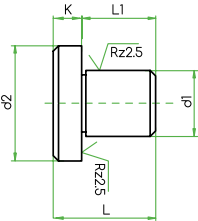
D	L	BI66	BIT67
		non Temprata not hardened	Temprata hardened
14 - 18	50	•	•
	65	•	•
	75	•	•
	85	•	•
	95	•	•
	105	•	•
	115	•	•
	125	•	•
	135	•	•
	150	•	•

PA731

PIEDINO APOGGIO TAVOLINO  
STOP PIN

Materiale: Acciaio 16 NCR4  
Durezza: Hrc 60 ÷ 62  
Esecuzione: Temprato - Rettificato

Material: Steel 16 NCR4  
Hardness: Hrc 60 ÷ 62  
Finish: Hardened - Ground



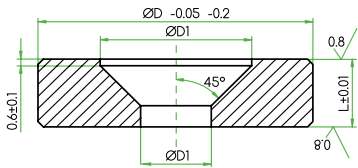
d1	d2	K	L	L1
8	16	5	17	12
14	24	6	21	15

PAV730

PIEDINO APPOGGIO TAVOLINO  
STOP PIN

Materiale: Acciaio 16 NCR4  
Durezza: Hrc 60 ÷ 62  
Esecuzione: Temprato - Rettificato

Material: Steel 16 NCR4  
Hardness: Hrc 60 ÷ 62  
Finish: Hardened - Ground



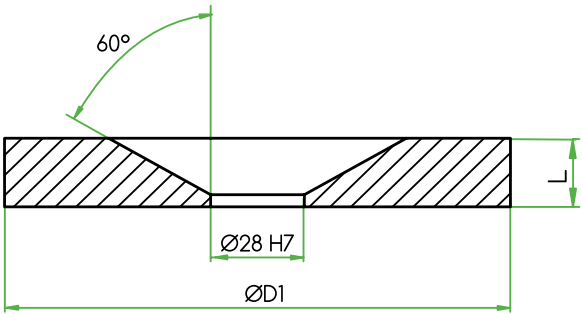
D	D1	D2	L
20	5.3	11	5

AC64

ANELLO DI CENTRAGGIO  
LOCATING RING

Materiale: Acciaio C40  
Esecuzione: Tornito

Material: Steel C40  
Finish: Turned



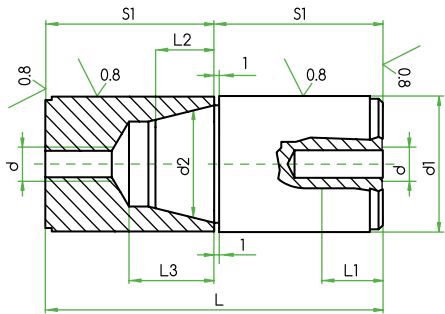
D1									
L	60	70	80	90	100	125	150	175	
10	•	•	•	•	•	•	•	•	•
20			•		•	•	•	•	•

CC59

CENTRAGGIO CONICO  
LOCATING ELEMENT

Materiale: Acciaio 16 Cr Ni4  
Esecuzione: Cementato - temprato - rettificato  
Normalizzazione Europea

Material: Steel 16 Cr Ni4  
Finish: Case hardened - hardened throughout - ground  
Euro Norm



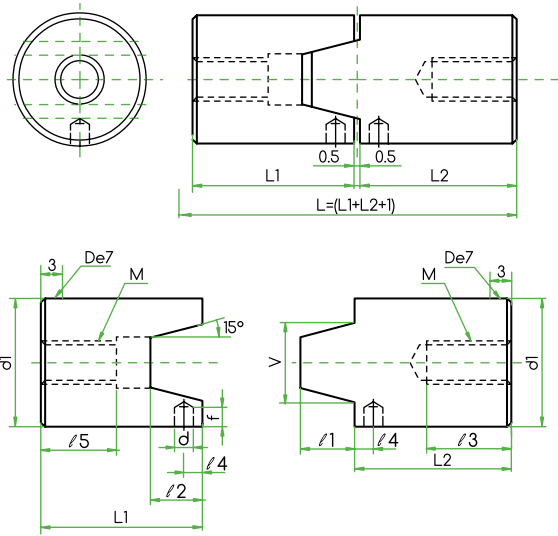
d	d1	d2	L1	L2	L3	S1	L
M5	14	9	12	6	8	16	34
M5	16	10	12	6	8	24	50
M5	16	9	12	6	8	16	34
M8	20	14	15	10	13	26	54
M8	20	15	15	9	13	31	64
M8	25	18.5	15	10	13	26	54
M8	26	18.5	15	10	13	26	54
M8	25	20	15	10	13	31	64
M10	30	23.5	18	14	20	35	72
M10	32	25	18	14	20	39	80
M10	32	23.5	18	14	20	35	72
M10	40	31.5	18	17	25	45	92
M10	40	35	18	18	25	48	100
M10	42	33.5	18	17	25	45	92

CC59S

UNITA' DI CENTRAGGIO  
CENTERING ELEMENT

Materiale: Acciaio 1.2767  
Durezza: Hrc 52 ÷ 54

Material: Steel 1.2767  
Hardness: Hrc 52 ÷ 54

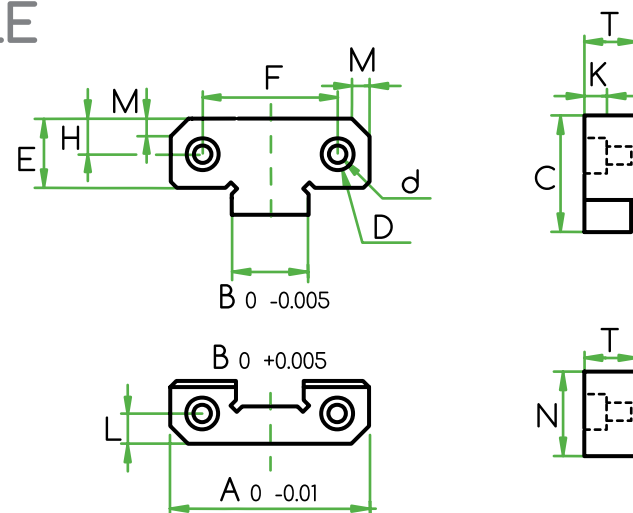


D g6	L	d H7	V	L1	L2	f1	f2	f3	f4	f5	f	M	
30	72	4	18	35.5	35.5	10.5	11.5	20	4.5	16.5	5	M10	•
42	92	5	23	45.5	45.5	14.5	15.5	20	5.5	18.5	7	M10	•
54	112	6	30	55.5	55.5	17.5	18.5	25	7.5	20.5	8	M12	•
80	152	8	42	75.5	75.5	27.5	28.5	30	7.5	25.5	11	M16	•

# CL01

## CENTRAGGIO LATERALE SIDE LOCK

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

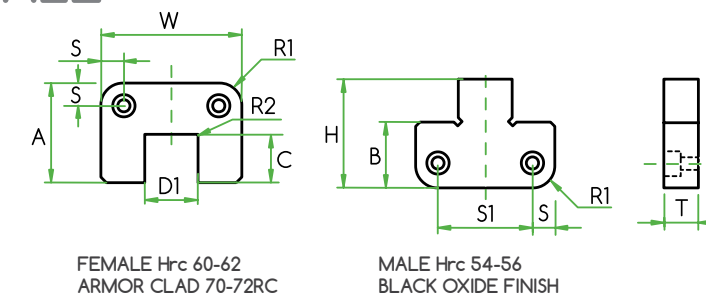


Model	A	B	C	D	d	E	F	H	L	M	T	K	N
CL01-050	50	17	30	10.5	6.5	21.5	34	11	11	5	16	8	21.5
CL01-075	75	25	50	16.5	10.5	36	50	18	18	8	19	12	36
CL01-100	100	35	65	16.5	10.5	45	70	22	22	10	19	12	45
CL01-125	125	45	65	16.5	10.5	45	84	22	22	10	25	12	45

# CL03

## CENTRAGGIO LATERALE SIDE LOCK

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



FEMALE Hrc 60-62  
ARMOR CLAD 70-72RC

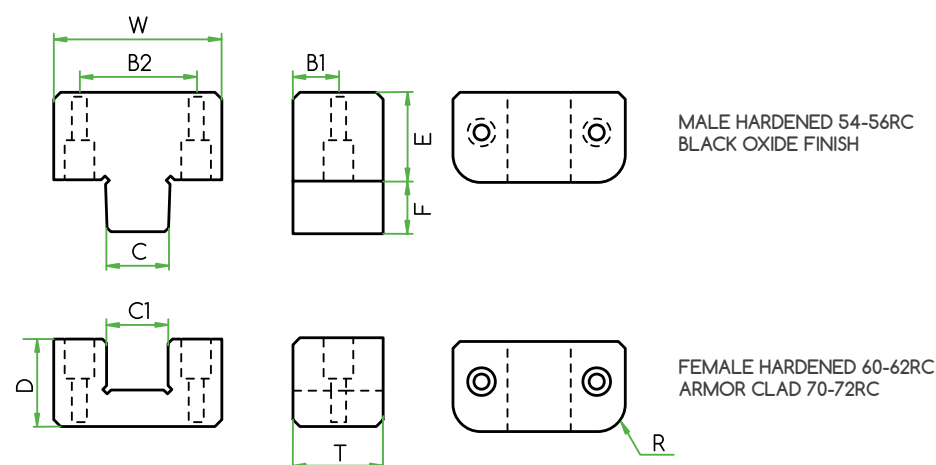
MALE Hrc 54-56  
BLACK OXIDE FINISH

Model	W 0 -0.0005	T +0.001	A +0.001	B +0.001	C	D1 +0.003 0	D2 0 -0.003	H	R1	POCKET RADIUS	S +0.010	S1 +0.010
CL03-025	25.4	9.525	28.575	22.225	13.462	12.7	12.69746	34.798	5.588	3/16	6.35	12.7
CL03-032	31.75	12.446	28.575	22.225	16.764	12.7	12.69746	38.1	5.588	3/16	6.35	19.05
CL03-040	38.1	12.7	22.225	22.225	14.224	14.3002	14.29766	35.56	5.588	3/16	6.35	25.4
CL03-050	50.8	12.7	34.925	22.225	16.764	19.05	19.04746	38.1	5.588	3/16	7.9248	34.9504
CL03-075	76.2	19.05	47.625	22.225	28.702	31.75	31.74746	49.784	7.112	1/4	9.525	57.15
CL03-100	101.6	25.4	60.325	34.925	31.75	38.1	38.09746	65.786	13.462	1/2	12.7	76.2
CL03-125	127	31.75	73.025	34.925	41.402	50.8	50.79746	75.184	13.462	1/2	15.875	95.25
CL03-150	152.4	38.1	73.025	34.925	44.45	63.5	63.79746	78.486	13.462	1/2	15.875	120.65

# CL02

## CENTRAGGIO LATERALE SIDE LOCK

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



MALE HARDENED 54-56RC  
BLACK OXIDE FINISH

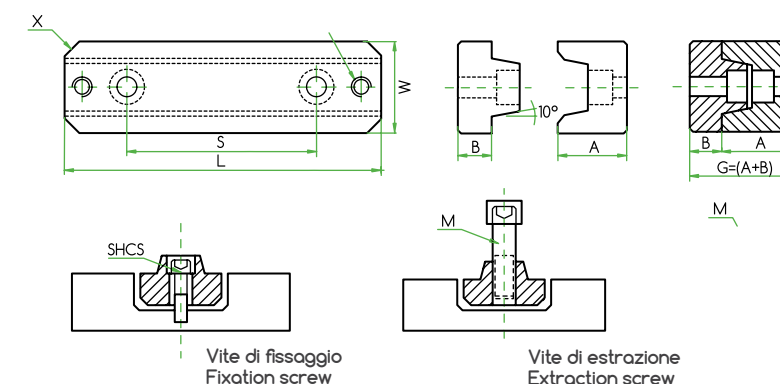
FEMALE HARDENED 60-62RC  
ARMOR CLAD 70-72RC

Model	W 0 -0.0005	T 0 -0.002	F 0 -0.010	OVERALL HEIGHT	C 0.0002 TOTAL	B1 +0.010	B2 +0.010	D +0.000 -0.002	R RADIUS	E +0.000 -0.002
CL02-032	31.75	15.875	9.525	28.575	11.1252	7.9248	22.225	15.875	6.604	12.7
CL02-040	38.1	22.225	12.7	41.275	12.7	11.0998	25.4	22.225	6.604	19.05
CL02-050	50.8	25.4	15.875	47.625	19.05	12.7	34.925	28.575	9.652	19.05
CL02-075	76.2	28.575	19.05	57.15	28.575	14.2748	57.15	38.1	12.954	19.05

# BC101

## BLOCCO DI CENTRAGGIO TAPER BLOCK

Acciaio: 16 Cr Ni 4  
Durezza: Hrc 58 + 60  
Steel: 16 Cr Ni 4  
Hardness: Hrc 58 ÷ 60



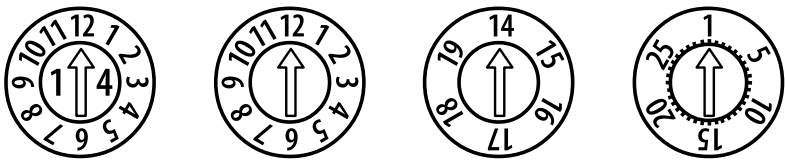
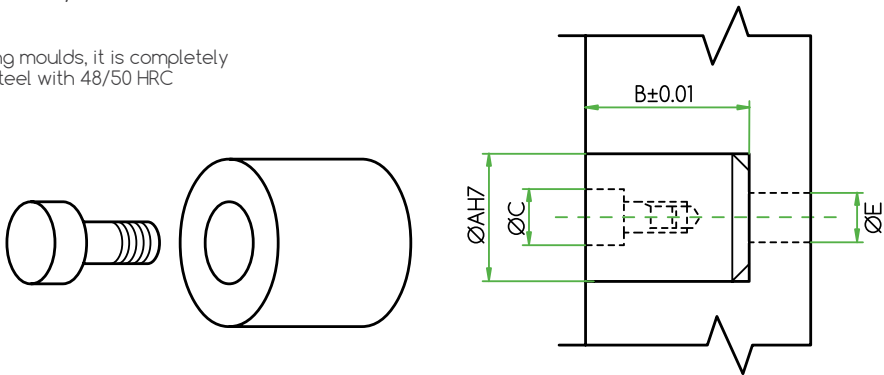
W 0 -0.01	L 0 -0.1	A 0 -0.01	B 0 -0.01	G +0.03 0	S	X	M	SHCS	
25	50	17.5	8	25.5	-	5	M5	M5	•
30	100	22	10	32	60	5	M6	M6	•
40	150	25	13	38	100	5	M8	M8	•

DVP735

DATARIO A VITE  
DATE STAMP

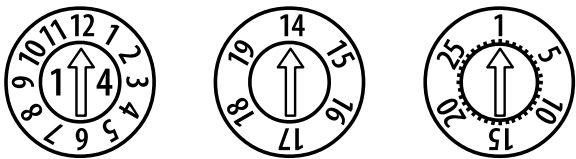
Datario per stampi ad iniezione e pressofusione, costruito in acciaio 1.2083 rettificato e temperato 48/50 HRC

Date stamp for injection and die-casting moulds, it is completely made in ground and hardened 1.2083 steel with 48/50 HRC



DATARIO DATE STAMP				
Ø6	DMA06	DMF06	DAF06	
Ø8	DMA08	DMF08	DAF08	
Ø10	DMA10	DMF10	DAF10	DG10
Ø12	DMA12	DMF12	DAF12	DG12
Ø16	DMA16	DMF16	DAF16	DG16
Ø20	DMA20	DMF20	DAF20	DG20

ØA	B	ØC	ØE
6	8	3.1	3
8	10	4.4	4
10	12	5.2	5
12	14	6.2	6
16	14	8.2	8
20	16	11	8



CORPO BODY			
Ø6	CM06	CA06	
Ø8	CM08	CA08	
Ø10	CM10	CA10	CG10
Ø12	CM12	CA12	CG12
Ø16	CM16	CA16	CG16
Ø20	CM20	CA20	CG20



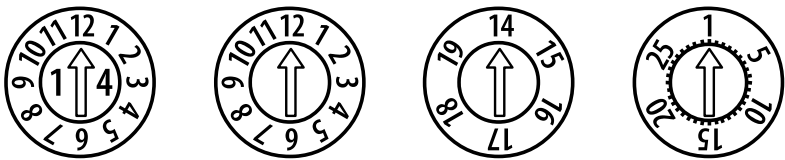
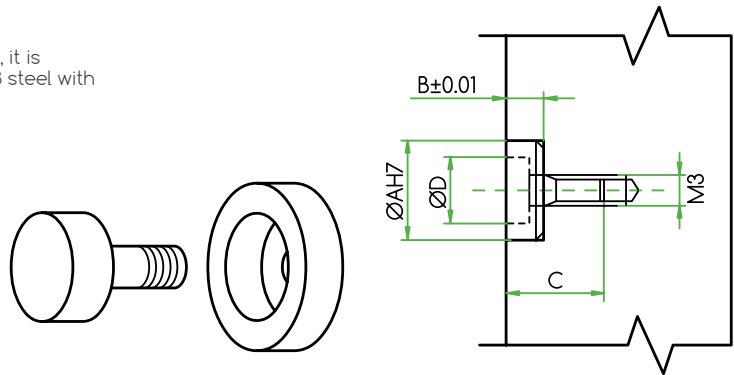
INSERTO INSERT		
Ø6	IA06	IF06
Ø8	IA08	IF08
Ø10	IA10	IF10
Ø12	IA12	IF12
Ø16	IA16	IF16
Ø20	IA20	IF20

DVB735

DATARIO BASSO  
DATE STAMP

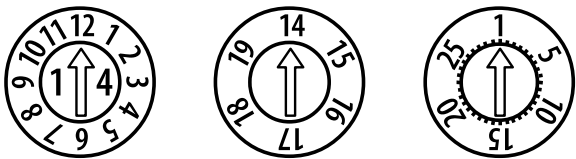
Datario per stampi ad iniezione e pressofusione, costruito in acciaio 1.2083 rettificato e temperato 48/50 HRC

Date stamp for injection and die-casting moulds, it is completely made in ground and hardened 1.2083 steel with 48/50 HRC



DATARIO DATE STAMP				
Ø8	FDBMA08	FDBMF08	FDBAF08	
Ø10	FDBMA10	FDBMF10	FDBAF10	FDBG10
Ø16	FDBMA16	FDBMF16	FDBAF16	FDBG16
Ø25	FDBMA25	FDBMF25	FDBAF25	FDBG25

ØA	B	C	ØD
8	4	8	4
10	4	8	5
16	4	8	9
25	8	12	13



CORPO BODY		
Ø8	RCBM08	RCBA08
Ø10	RCBM10	RCBA10
Ø16	RCBM16	RCBA16
Ø25	RCBM25	RCBA25



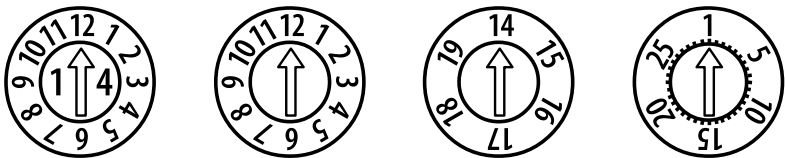
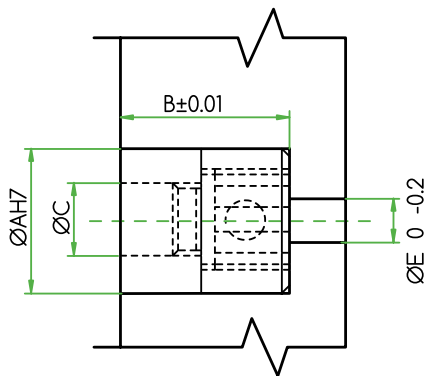
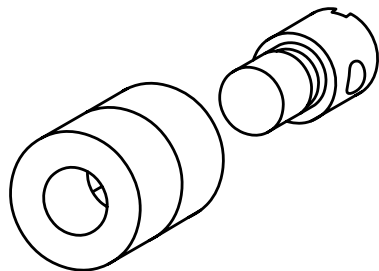
INSERTO INSERT		
Ø8	RIBA08	RIBF08
Ø10	RIBA10	RIBF10
Ø16	RIBA16	RIBF16
Ø25	RIBA25	RIBF25

DSP735

DATARIO A SFERA  
DATE STAMP

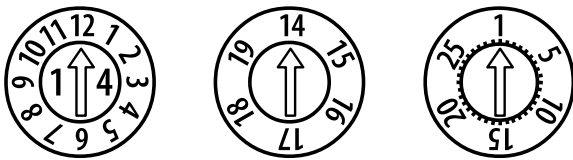
Datario per stampi ad iniezione e pressofusione, costruito in acciaio 1.2083 rettificato e temperato 48/50 HRC

Date stamp for injection and die-casting moulds, it is completely made in ground and hardened 1.2083 steel with 48/50 HRC

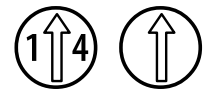


DATARIO DATE STAMP				
Ø6	FDMA06	FDMF06	FDAF06	
Ø8	FDMA08	FDMF08	FDAF08	
Ø10	FDMA10	FDMF10	FDAF10	FDG10
Ø12	FDMA12	FDMF12	FDAF12	FDG12
Ø16	FDMA16	FDMF16	FDAF16	FDG16
Ø20	FDMA20	FDMF20	FDAF20	FDG20
Ø32	FDMA32	FDMF32	FDAF32	FDG32

ØA	B	ØC	ØE
6	8	2.8	2
8	10	4	2.5
10	12	5	3.5
12	12	7	4.5
16	14	9	6
20	16	10.5	8
32	28	18	16



CORPO BODY			
Ø6	RCM06	RCA06	
Ø8	RCM08	RCA08	
Ø10	RCM10	RCA10	RCG10
Ø12	RCM12	RCA12	RCG12
Ø16	RCM16	RCA16	RCG16
Ø20	RCM20	RCA20	RCG20
Ø32	RCM32	RCA32	RCG32



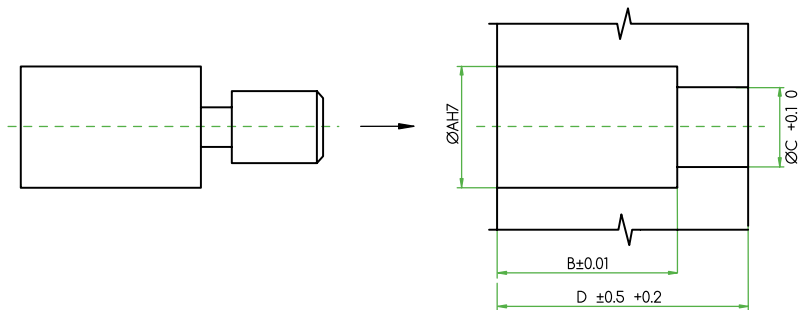
INSERTO INSERT		
Ø6	RIA06	RIF06
Ø8	RIA08	RIF08
Ø10	RIA10	RIF10
Ø12	RIA12	RIF12
Ø16	RIA16	RIF16
Ø20	RIA20	RIF20
Ø32	RIA32	RIF32

VPA732

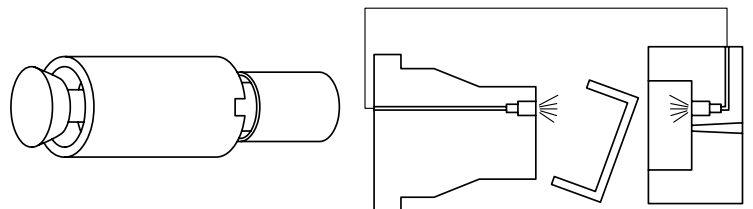
VALVOLA PER ARIA ALTA  
AIR VALVE

Viene impiegata per compensare il vuoto durante la fase di estrazione in cavità profonde o per immettere aria. E' interamente in acciaio 1.2083, rettificata e temperata, con dado autobloccante

This is used to balance the vacuum during the extraction phase in deep holes or to let air in. Completely made in 1.2083 steel, it is ground and hardened and includes a self-locking nut



Code	ØAH7	B ±0.01	ØC +0.1 0	ØD +0.5 +0.2
VPA08	8	11	6.5	26
VPA10	10	11	6.5	26
VPA12	12	18	8	32
VPA16	16	20	11	40.5
VPA18	18	22	11	40.5
VPA25	25	20	19	57

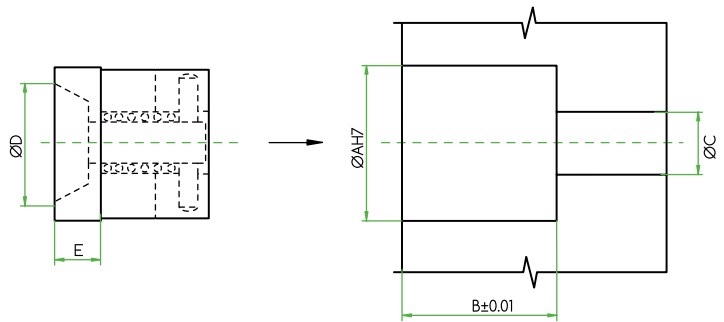


VPB732

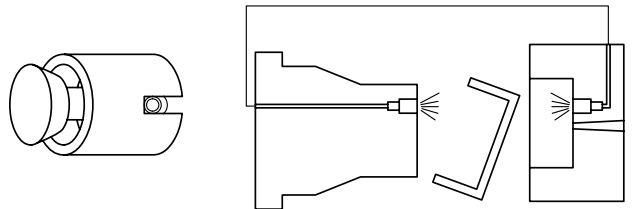
VALVOLA PER ARIA RIBASSATA  
AIR VALVE

Materiale: Acciaio 1.2083  
Durezza: Hrc 58 + 60  
Esecuzione: Temprata - Rettificata

Material: Steel 1.2083  
Hardness: Hrc 58 + 60  
Finish: Hardened - Ground



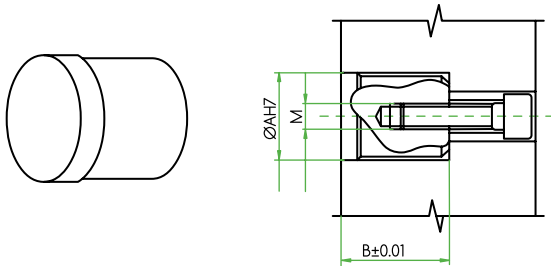
Code	ØAH7	B ±0.01	ØC	ØD	E
VPB06	6	8	3.5	4.5	4
VPB08	8	12	4	5.6	4
VPB10	10	14	4.5	8	5
VPB12	12	14	5.5	10	5
VPB16	16	20	6.5	12	6
VPB20	20	20	8	16	6



MARCHIO DI RICICLAGGIO  
RECYCLING INSERT

Il marchio di riciclaggio ha lo scopo di contrassegnare i manufatti per facilitare il riconoscimento dei materiali da inviare alla rottamazione. E' costruito in acciaio 12083 temperato 48/50 HRC, rettificato e corrisponde alla normativa di identificazione DIN ISO 11469  
I marchi neutri non sono temperati, su ordinazione fornibili versioni speciali

The purpose of recycling label is to mark products to ease tracing the materials to be scrapped. They are completely made in ground and hardened 1.2083 steel with 48/50 HRC  
Neutral marks are not hardened. Special versions supplied on request.



	Code	ØA	B	M		
	MN10 / MN16 / MN20	Ø10 / Ø16 / Ø20	12 / 14 / 16	M4 / M6 / M8	Solo frecce Only arrows	
	MS0110 / MS0116 / MS0120	Ø10 / Ø16 / Ø20	12 / 14 / 16	M4 / M6 / M8	Polietilene tereftalato Polyethylene tereftalate	PET
	MS0210 / MS0216 / MS0220	Ø10 / Ø16 / Ø20	12 / 14 / 16	M4 / M6 / M8	Polietilene alta densità High-density polyethylene	PE-HD
	MS0310 / MS0316 / MS0320	Ø10 / Ø16 / Ø20	12 / 14 / 16	M4 / M6 / M8	Poli cloruro di vinile Polyvinyl chloride	PVC
	MS0410 / MS0416 / MS0420	Ø10 / Ø16 / Ø20	12 / 14 / 16	M4 / M6 / M8	Polietilene bassa densità Low-density polyethylene	PE-LD
	MS0510 / MS0516 / MS0520	Ø10 / Ø16 / Ø20	12 / 14 / 16	M4 / M6 / M8	Polipropilene Polypropylene	PP
	MS0610 / MS0616 / MS0620	Ø10 / Ø16 / Ø20	12 / 14 / 16	M4 / M6 / M8	Polistirolo Polystyrene	PS
	MABS10 / MABS16 / MABS20	Ø10 / Ø16 / Ø20	12 / 14 / 16	M4 / M6 / M8	Termopolimero acrilon butad. stirolo Acrylonitrile butadiene styrene	ABS
	MA10 / MA16 / MA20	Ø10 / Ø16 / Ø20	12 / 14 / 16	M4 / M6 / M8	Alimenti Foodstuff	
	MPA10 / MPA16 / MPA20	Ø10 / Ø16 / Ø20	12 / 14 / 16	M4 / M6 / M8	Nylon Polyamid	PA
	MPOM10 / MPOM16 / MPOM20	Ø10 / Ø16 / Ø20	12 / 14 / 16	M4 / M6 / M8	Poliacetato Polyacetate	POM
	MPC10 / MPC16 / MPC20	Ø10 / Ø16 / Ø20	12 / 14 / 16	M4 / M6 / M8	Policarbonato Polycarbonate	PC
	MPP010 / MPP016 / MPP020	Ø10 / Ø16 / Ø20	12 / 14 / 16	M4 / M6 / M8	Polifenil-ossido Polypheniloxide	PPO

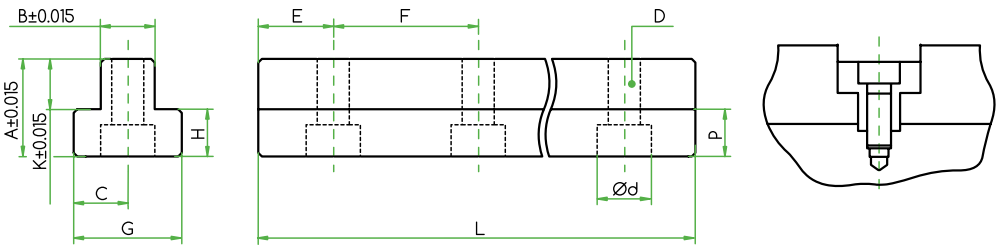
GUIDA A T  
T SHAPED GUIDE

Questo piano viene utilizzato nelle più svariate soluzioni tecniche di scorrimento. Grazie alla foratura a passo, possono essere tagliati con una normale troncatrice per utilizzarne anche il più piccolo spezzone

Durezza: 60 HRC

This flat surface is used in the most various technical solutions shifting. Thanks to their perfectly pitched perforation, they can be cut with normal shears in order to use even the smallest crop end

Hardness: 60 HRC



Code	A ± 0.015	B ± 0.015	C	D	Ød	P	E	F	G	H	K ± 0.015	L
TGT250	19	9	9.5	M5	9.5	5.5	12.5	25	19	9	10	250
TGT500	19	9	9.5	M5	9.5	5.5	12.5	25	19	9	10	500
TGT250	24	14	12	M6	10.5	6.5	12.5	25	24	10	14	250
TGT500	24	14	12	M6	10.5	6.5	12.5	25	24	10	14	500

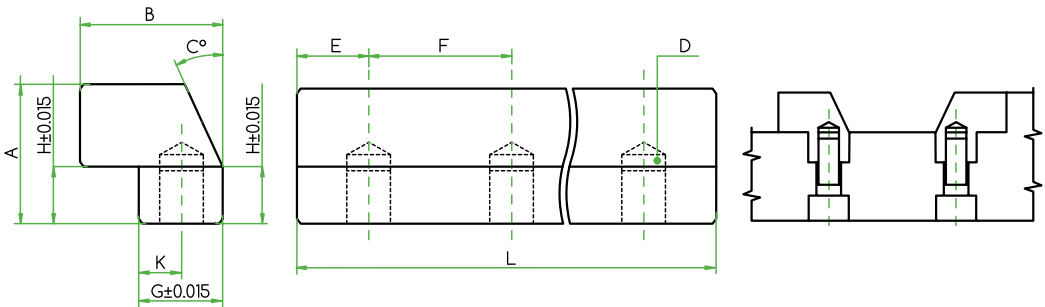
CUNEO  
WEDGE

Questo cuneo viene utilizzato nelle più svariate soluzioni tecniche di scorrimento. Grazie alla foratura a passo, possono essere tagliati con una normale troncatrice per utilizzarne anche il più piccolo spezzone

Durezza: 60 HRC

This wedge is used in the most various technical solutions shifting. Thanks to their perfectly pitched perforation, they can be cut with normal shears in order to use even the smallest crop end

Hardness: 60 HRC



Code	A	B	C°	D	E	F	G ± 0.015	H ± 0.015	K	L
TGC250	24	24	25	M8	12.5	25	14	10	7	250
TGC500	24	24	25	M8	12.5	25	14	10	7	500
TGC250	34	34	25	M10	12.5	25	20	12	10	250
TGC500	34	34	25	M10	12.5	25	20	12	10	500



## GUIDA PIANA

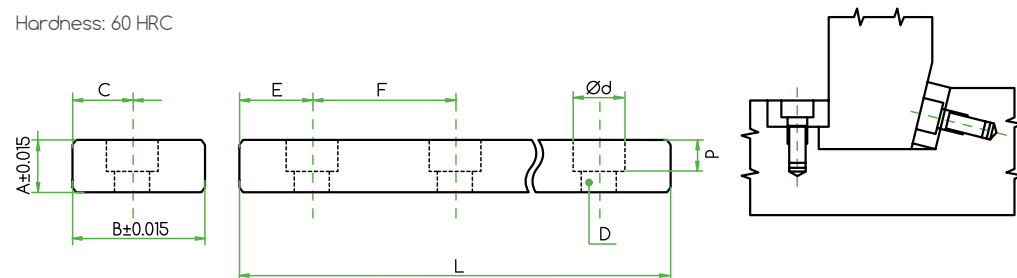
### PLANE GUIDE

Questo piano viene utilizzato nelle più svariate soluzioni tecniche di scorrimento. Grazie alla foratura a passo, possono essere tagliati con una normale troncatrice per utilizzarne anche il più piccolo spezzone

Durezza: 60 HRC

This flat surface is used in the most various technical solutions shifting. Thanks to their perfectly pitched perforation, they can be cut with normal shears in order to use even the smallest crop end

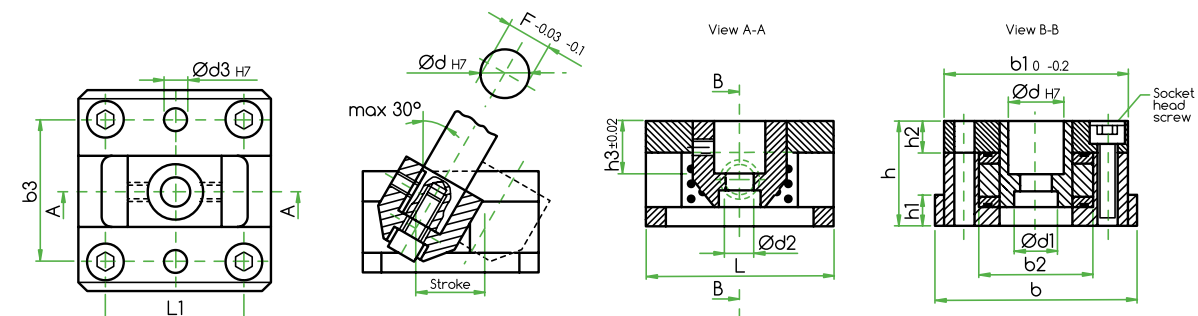
Hardness: 60 HRC



Code	A ± 0.015	B ± 0.015	C	D	Ød	P	E	F	L
TGP250	6	17	7.5	M5	9.5	4	12.5	25	250
TGP500	6	17	7.5	M5	9.5	4	12.5	25	500
TGP250	9	22	10	M6	10.5	5	12.5	25	250
TGP500	9	22	10	M6	10.5	5	12.5	25	500

## GUIDA INCLINATA

### BOLT GUIDE



b	L	h	b1	b2	b3	L1	h1	h2	h3	Ød	Ød1	Ød2	Ød3	F
33	32	22	30	19	24	20	5	7	8	8	8	4.5	3	7
45	45	27	40	25	32	30	5	8	10	10	10	5.5	4	9
57	50	32	51	31	39	35	7	10	12	12	11	7	6	11
65	65	36	58	38	46	40	8	10	16	16	14	9	6	14.5
80	80	42	72	44	56	55	11	12	20	20	17	11	8	18
93	90	50	85	52	66	65	15	15	25	25	20	14	10	22.5
101	100	55	93	60	74	70	15	15	30	30	20	14	10	27
120	120	62	110	70	85	80	15	18	35	35	26	14	10	32
130	135	70	120	80	95	90	15	18	40	40	26	17.5	10	36
140	150	80	130	90	105	110	15	20	45	45	26	17.5	10	40

## GUIDA A L

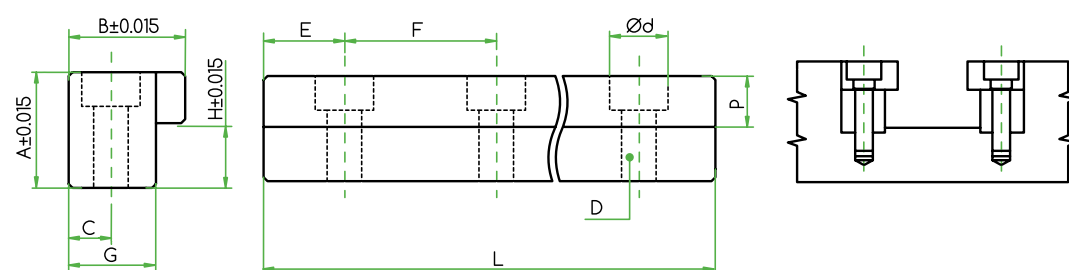
### L SHAPED GUIDE

Questo cuneo viene utilizzato nelle più svariate soluzioni tecniche di scorrimento. Grazie alla foratura a passo, possono essere tagliati con una normale troncatrice per utilizzarne anche il più piccolo spezzone

Durezza: 60 HRC

This wedge is used in the most various technical solutions shifting. Thanks to their perfectly pitched perforation, they can be cut with normal shears in order to use even the smallest crop end

Hardness: 60 HRC



Code	A ± 0.015	B ± 0.015	C	D	Ød	P	E	F	G	H ± 0.015	L
TGL250	19	19	7	M6	10.5	6.5	12.5	25	14	10	250
TGL500	19	19	7	M6	10.5	6.5	12.5	25	14	10	500
TGL250	24	19	7	M6	10.5	6.5	12.5	25	14	14	250
TGL500	24	19	7	M6	10.5	6.5	12.5	25	14	14	500

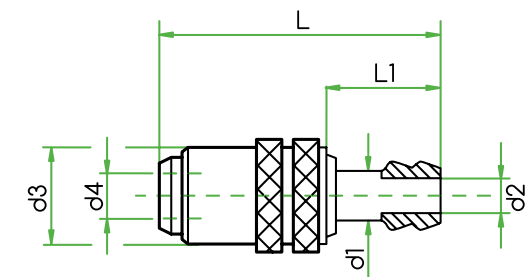
## RR737

## INNESTO E RACCORDO RAPIDO

### WATER CONNECTOR

Materiale: Ottone  
Fornibili con e senza valvola

Material: Brass  
Supplied with or without valve

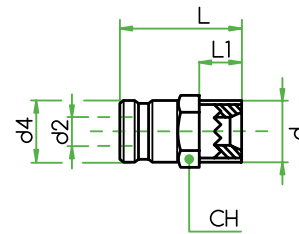


ATTACCO RAPIDO	d4	d2	d1	d3	L	L1
VALVOLA R R 6	10	6	10	18	49	18
VALVOLA R R 9	14	9	14	24	61	25

IR736

## INNESTO E RACCORDO RAPIDO WATER CONNECTOR

Materiale: Ottone con o senza valvola  
Material: Brass with or without valve

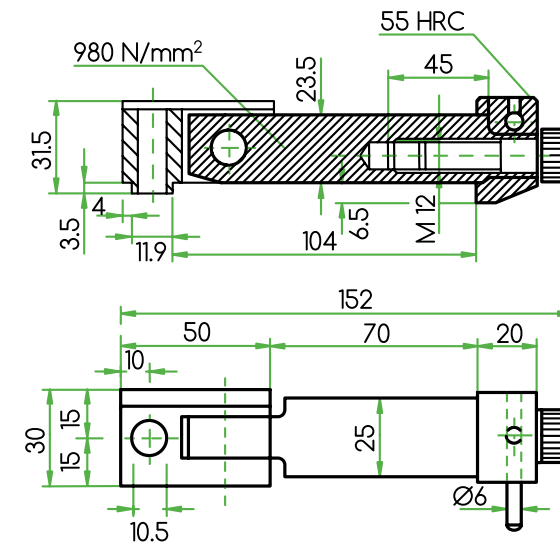


RACCORDI	d	d2	d4	L1	L	CH
INNESTO I R 6	1/8" GAS	6	9	8	28	13
INNESTO I R 6	1/4" GAS	6	9	8	28	13
INNESTO I R 6	M 10	6	9	8	28	13
INNESTO I R 9	1/4" GAS	9	13.5	10.5	28	14

Tipo EUROPEO	d	d2	d4	L1	L	CH
ER	1/4" GAS	6	9.5	9	24	14
ER	1/8" GAS	6	9.5	9	24	14
ER	1/4" GAS	9	13.5	12.5	34	14
ER	1/8" GAS	9	13.5	12.5	34	14

ZH90

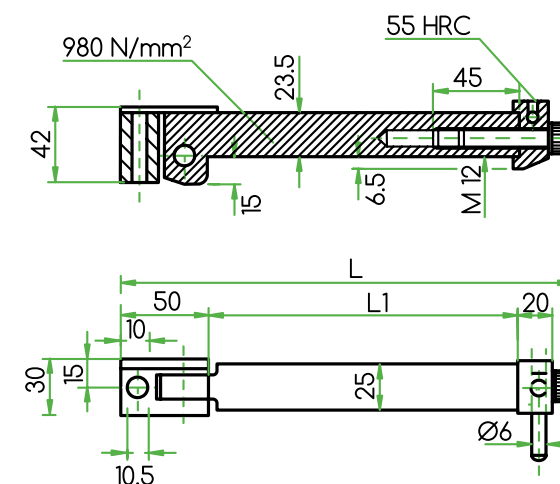
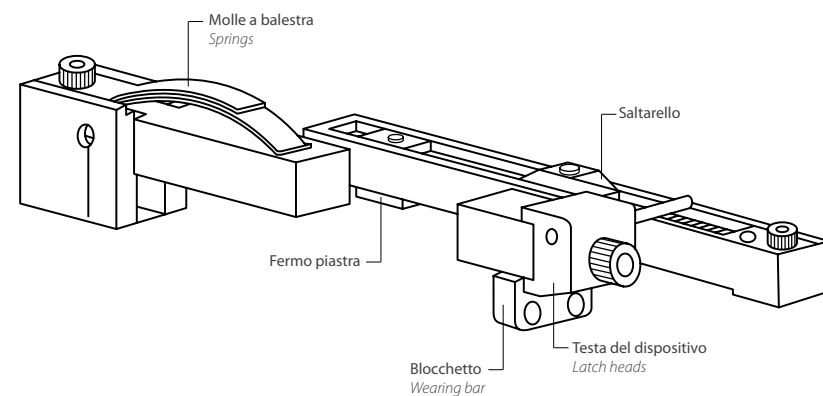
## LEVA LATCH LOCK



TIPO	SERIE	L	L1
1	ZH 90/1	-	-

ZH

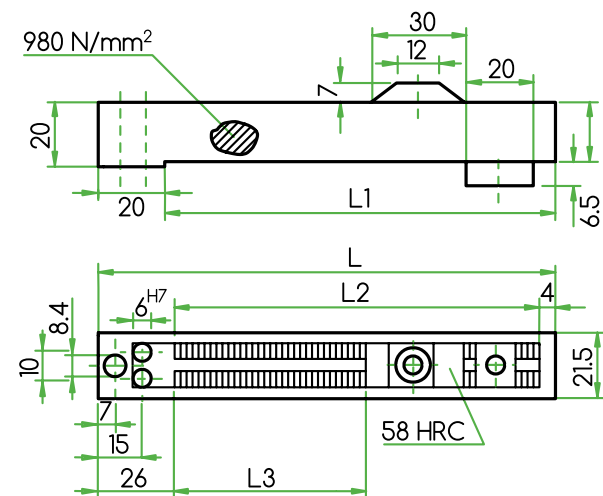
## DISPOSITIVO DI AGGANCIO E SGANCIO LATCH LOCK



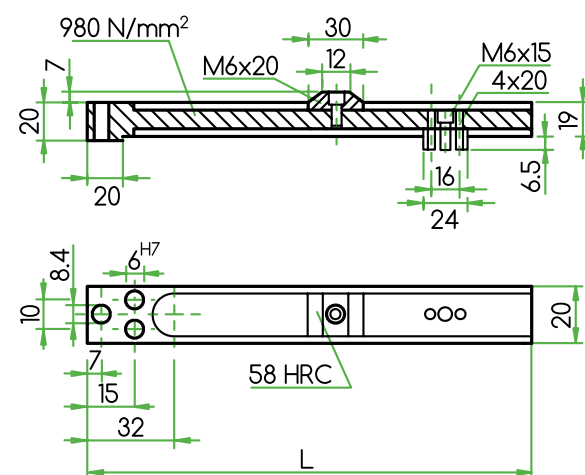
TIPO	SERIE	L	L1
2	ZH 90/2	252	170
3	ZH 90/3	302	220
4	ZH 90/4	352	270
1 BIS	ZH 90/1 BIS	172	90

# ZH90/0..

## BARRA DI APPOGGIO CAM



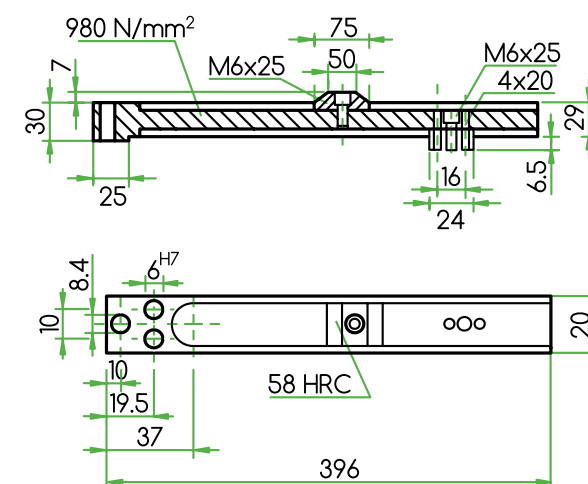
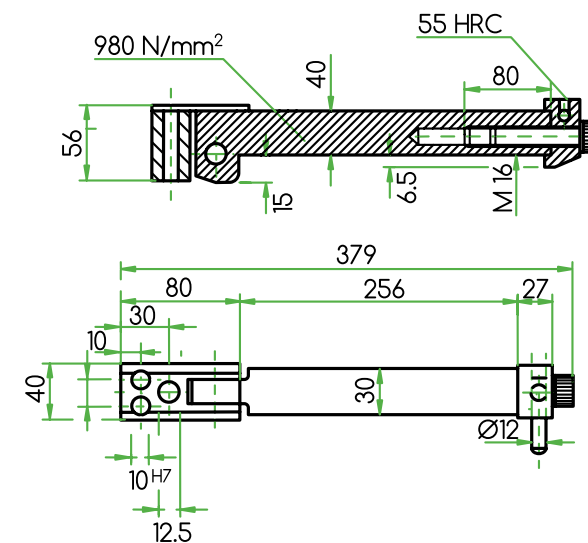
TIPO	SERIE	L	L1	L2	L3 MAX
01	ZH 90/01	140	120	110	60
02	ZH 90/02	204	184	174	124
06	ZH 90/06	250	230	220	170



TIPO	SERIE	L	L1	L2	L3 MAX
03	ZH 90/03	200	-	-	-
04	ZH 90/04	250	-	-	-
05	ZH 90/05	300	-	-	-

# ZH91

## DISPOSITIVO EXTRA COMPLETO ENGLISH

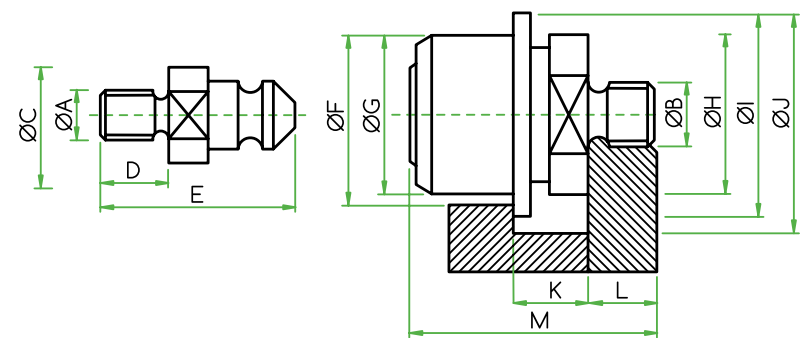


CODE	
BOX 140 R	N° 2 ZH 90/1 N° 2 ZH 90/01
BOX 200 R	N° 2 ZH 90/2 N° 2 ZH 90/02
BOX 250 R	N° 2 ZH 90/3 N° 2 ZH 90/06
BOX 140 BIS	N° 2 ZH 90/1 BIS N° 2 ZH 90/01

CODE	
BOX 200 FIX	N° 2 ZH 90/2 N° 2 ZH 90/03
BOX 250 FIX	N° 2 ZH 90/3 N° 2 ZH 90/04
BOX 300 FIX	N° 2 ZH 90/4 N° 2 ZH 90/05
BOX 400 FIX	N° 2 ZH 91/A N° 2 ZH 91/B

# AG-S

## DISPOSITIVO AUTOMATICO DI ESTRAZIONE QUICK KNOCKOUT COUPLER



CODE	MASCHIO MALE	A	C	D	E
301	MICRO	M10 X 1.5 M12 X 1.75 M14 X 2	22.8	20	45.5
401	MIGNON	M10 X 1.5 M12 X 1.75 M14 X 2	25.8	20	55
411	NORMALE	M16 X 2 M18 X 2.5 M20 X 2.5 M24 X 3 M27 X 3 M30 X 3.5	35	35	68
421	EXTRA	M24 X 3 M27 X 3 M30 X 3.5 M36 X 4	43	30	80

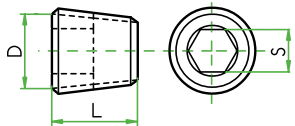
CODE	FEMMINA FEMALE	B	F	G	H	I	J	K	L	M
302	MICRO	M16 X 1.5	34	32	32	39	43	9	15	42.5
402	MIGNON	M16 X 1.5	40	38	38	48	53	13	15	52
412	NORMALE	M16 X 1.5 M18 X 1.5 M20 X 1.5 M24 X 1.5 M27 X 1.5 M30 X 1.5	58	56	52	65	70	17	18	68
422	EXTRA	M24 X 1.5 M27 X 1.5 M30 X 1.5 M36 X 2	66	64	60	74	79	22	23	84

# TC624

## TAPPO CONICO CON ESAGONO INCASSATO TAPER THREADED PLUG

Materiale: Acciaio o Ottone  
INOX a richiesta

Material: Steel or Brass  
INOX on request



DGas	L	S
1/8" GAS	9.78	3/16"
1/4" GAS	12.9	1/4"
3/8" GAS	14.5	5/16"
1/2" GAS	17.7	3/8"

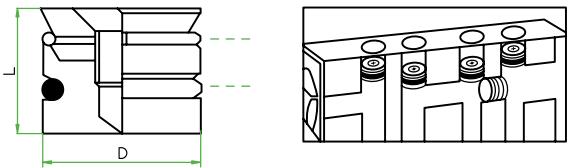
# TCR625

## TAPPO PER CIRCUITI DI RAFFREDDAMENTO PLUG WITH O-RING SEAL

Materiale: Ottone

Material: Brass

D	L	
6	10	•
8	10	•
10	11	•
12	12	•

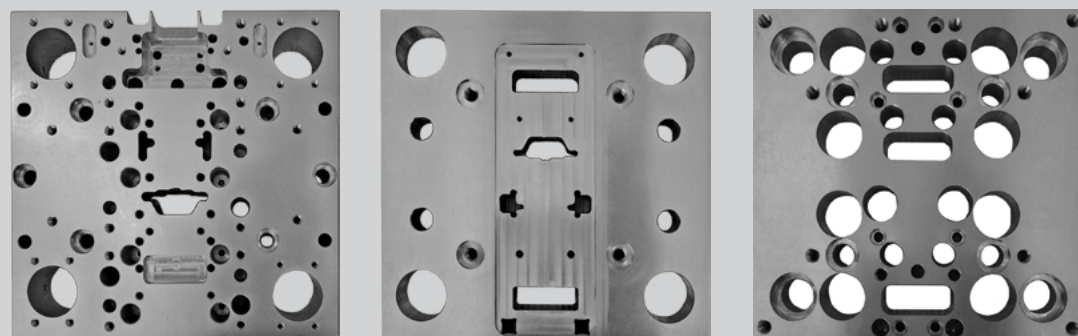




# LAVORAZIONI SPECIALI A DISEGNO SPECIAL MACHINING

Tassinari S.r.l. realizza oggi, con qualità, precisione e quotazioni competitive, piastre e portastampi di dimensioni fuori standard e lavorazioni su specifica del cliente.

Tassinari S.r.l. produces today any kind of special plates and mold bases, with high quality, precision and competitive prices, on customer request.



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Zona Industriale S.I.PRO  
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