



OFFICINE MECCANICHE
MORARI

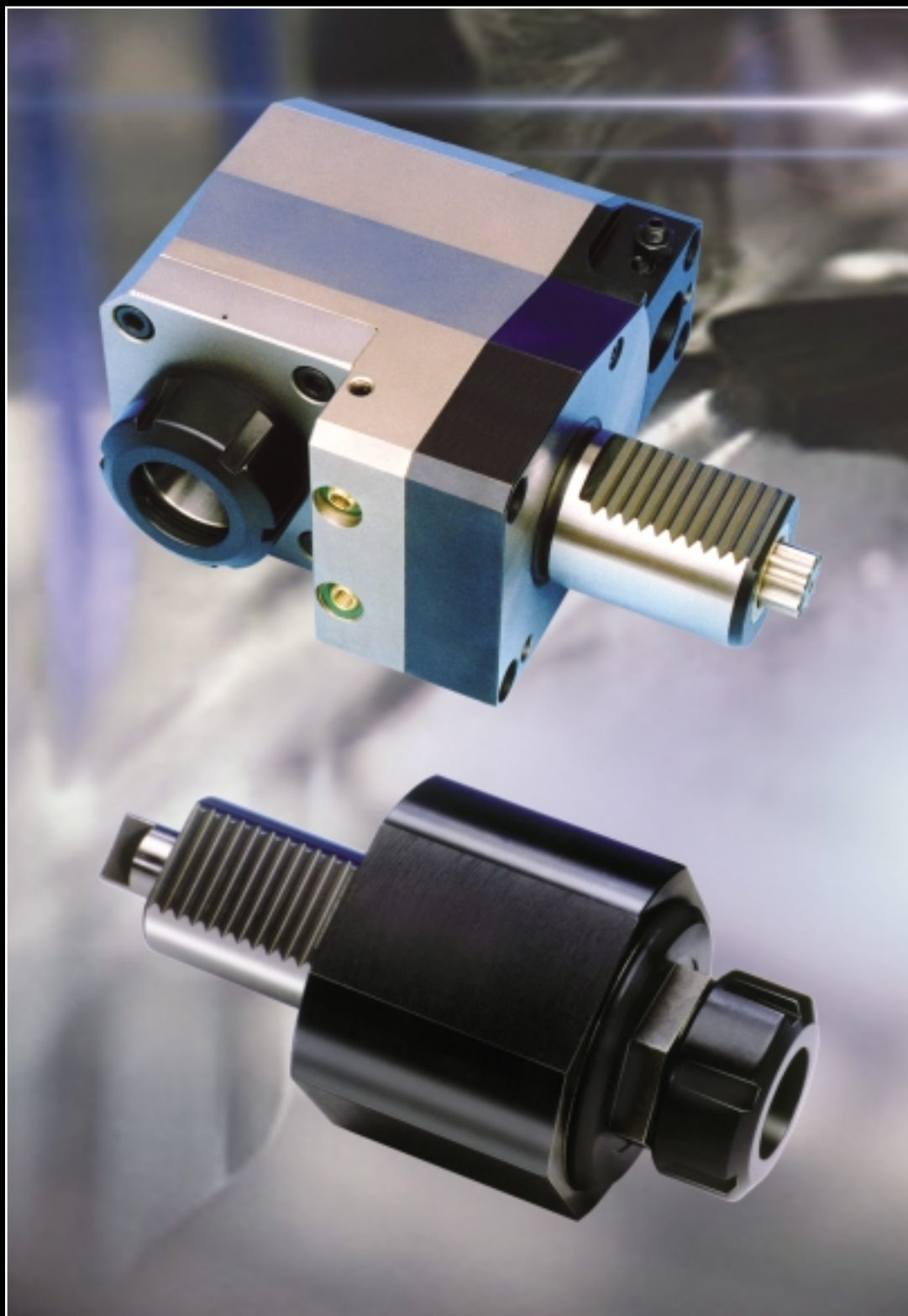
ACCESSORI DI PRECISIONE
PER MACCHINE UTENSILI

MODULI ROTANTI

Esecuzioni speciali
a richiesta

DRIVEN TOOLS

Special type tools
on request



EDIZIONE 2003



OFFICINE MECCANICHE
MORARI



Il modulo rotante è un accessorio che montato sulle macchine tornitrici a controllo numerico, dotate di torretta motorizzata, permette esecuzioni di foratura, fresatura, e maschiatura, altrimenti non eseguibili se non con lavorazioni di ripresa pezzo. Consentono quindi nei limiti delle loro capacità di eseguire il maggior numero di lavorazioni sui pezzi diminuendone i costi dovuti ad ulteriori piazzamenti ed alla costruzione di eventuali attrezzature. L'esperienza acquisita dalla ditta MORARI in questo ramo permette di offrire al cliente un'ampia gamma di modelli, anche personalizzati, per risolvere i problemi che insorgono nell'esecuzione di particolari lavorazioni.

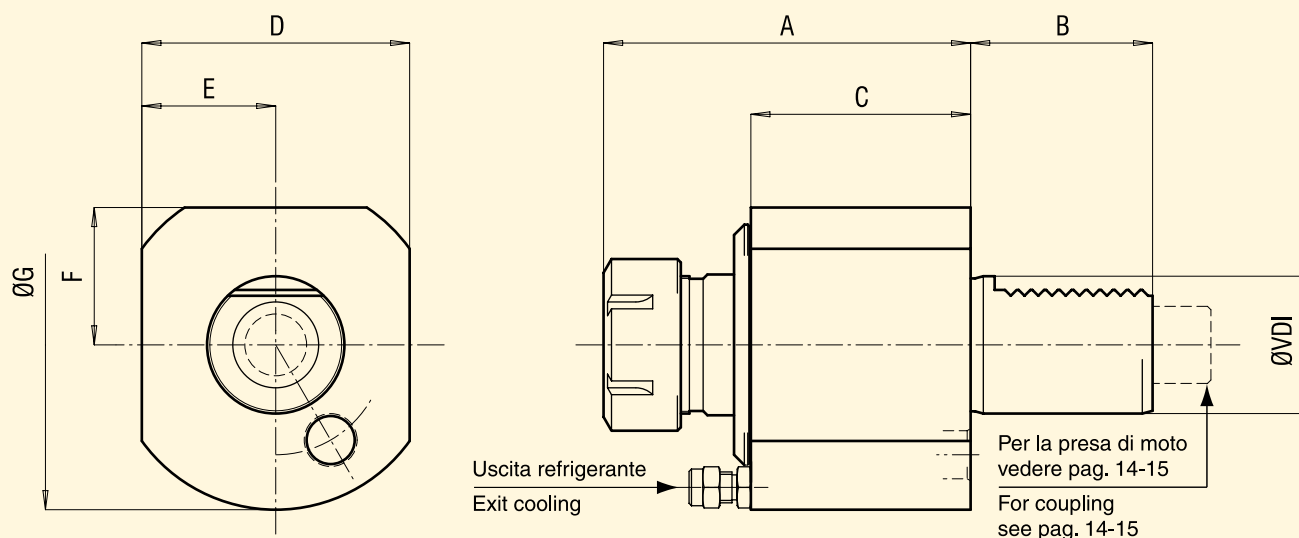
The driven tools is an accessory for numeric controlled lathes with motorized turret, they can drilling, milling and tapping, without change the position of the rough piece.

With the driven tools you can execute a wide range of works on the same rough piece, in that way you don't have to build other equipments or change machine tools, so you can decrease the costs.

Morari's firm can offer, at the customer, a wide range of models, we can also build special driven tools, according to the customer requests.

Modulo assiale per utensili rotanti tipo RA 100

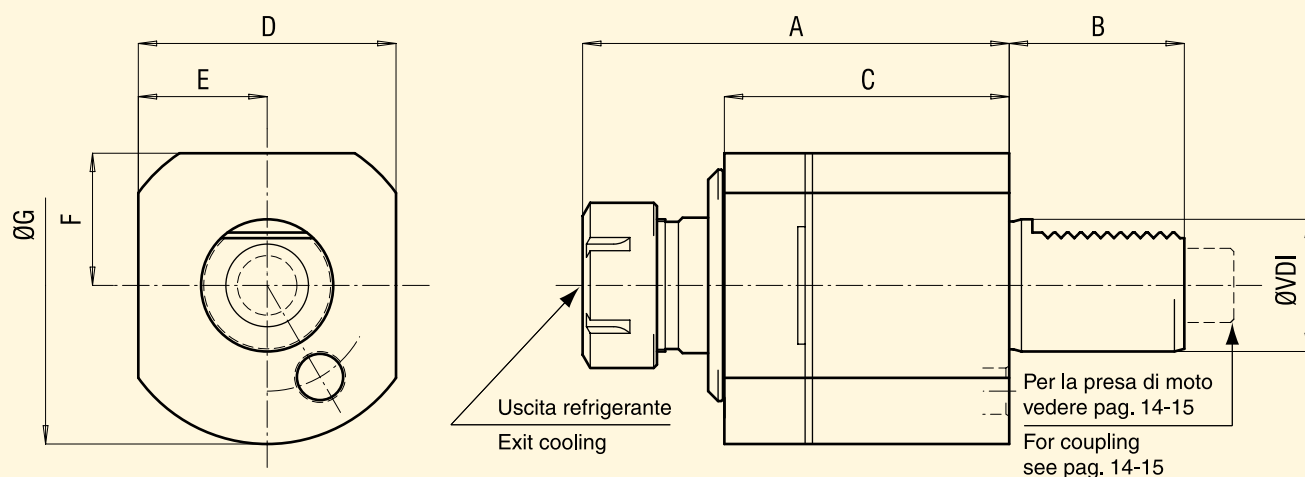
Axial tool head RA 100



Ø VDI	A	B	C	D	E	F	G	n. max	M Nm	Tipo pinza Collet type	Tipo Type	Codice Item
20	82	35	54	50	25	25	56	9000	6	ER 16 ø1-ø10	DIN 1809	31001
											DIN 5480 W10x0,8	31002
											TBM 120 Baruffaldi	-
											IDT-1 Diplomatic	-
30	98,5	45	67	68	34	34	78	9000	20	ER 20 ø2-ø13	DIN 1809	31101
											DIN 5482 B15x12	31102
											DIN 5480 W16x0,8	323000
											TBM 160 Baruffaldi	31103
											IDT-1 Diplomatic	31103C
30	99	45	67	68	34	34	78	9000	20	ER 25 ø2-ø16	DIN 1809	316100
											DIN 5482 B15x12	328300
											DIN 5480 W16x0,8	312900
											TBM 160 Baruffaldi	338200
											IDT-1 Diplomatic	-
40	107	53	64	78	39	40	96	6000	60	ER 32 ø2-ø20	DIN 1809	31201
											DIN 5482 B17x14	31202
											DIN 5480 W20x0,8	312400
											TBM 200 Baruffaldi	31203
											IDT-2 Diplomatic	31203IDT
50	117,5	69	71,5	84	42	47	98	6000	100	ER 40 ø3-ø26	DIN 1809	31301
											DIN 5482 B20x14	31302
											TBM 250 Baruffaldi	31303
											IDT-2 Diplomatic	314000
60	155	94	101	98	49	49	122	3000	150	ER 50	DIN 1809	31401
											DIN 5482 B25x22	31402

Modulo assiale per utensili rotanti refrigerazione interna tipo RA 100 RI

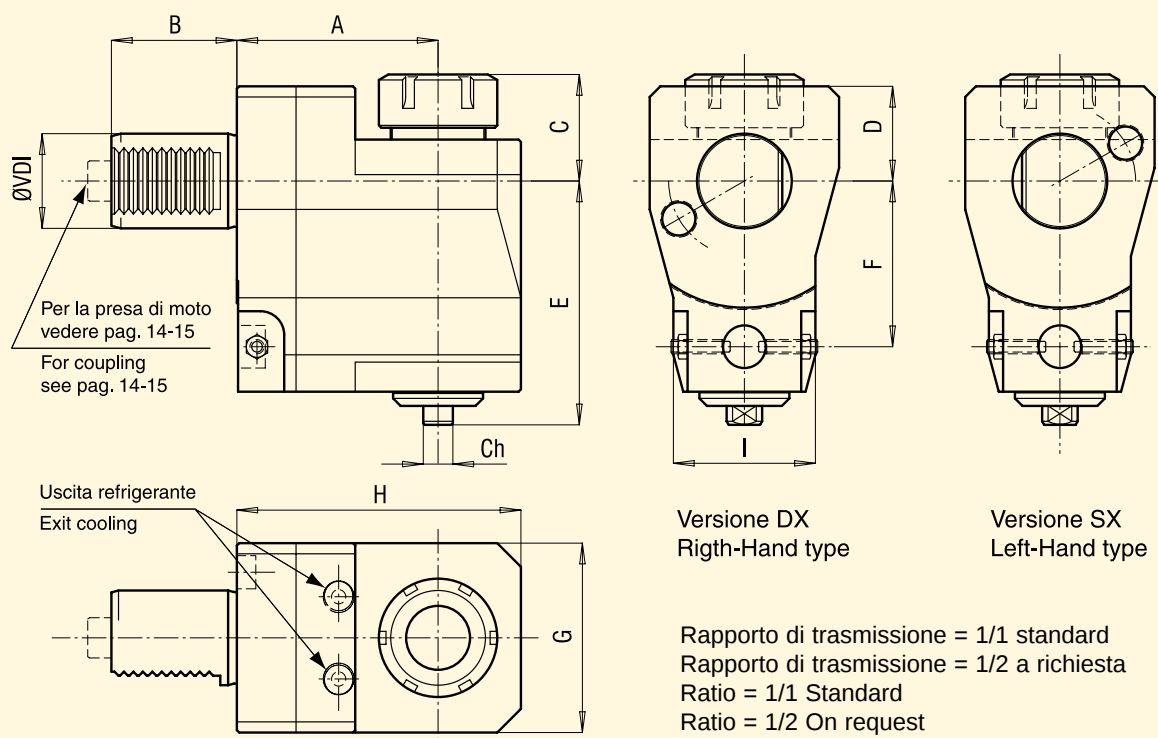
Axial tool head RA 100 RI



Ø VDI	A	B	C	D	E	F	G	n. max	M Nm	Tipo pinza Collet type	Tipo Type	Codice Item
30	123	45	91,5	68	34	34	78	4000	20	ER 20 ø2-ø13	DIN 1809	314100
											DIN 5482 B15x12	387102
											DIN 5480 W16x0,8	-
											TBM 160 Baruffaldi	317800
											IDT-1 Diplomatic	-
40	136	53	93	78	39	40	96	3000	60	ER 32 ø2-ø20	DIN 1809	337000
											DIN 5482 B17x14	324700
											DIN 5480 W20x0,8	341300
											TBM 200 Baruffaldi	336900
											IDT-2 Diplomatic	-
50	147	69	101	84	42	47	98	3000	100	ER 40 ø3-ø26	DIN 1809	325301
											DIN 5482 B20x14	311400
											TBM 250 Baruffaldi	325303
											IDT-2 Diplomatic	-
60	190	94	136	98	49	49	122	2500	150	ER 50 ø7-ø34	DIN 1809	-
											DIN 5482 B25x22	-

Modulo radiale per utensili rotanti RR 200

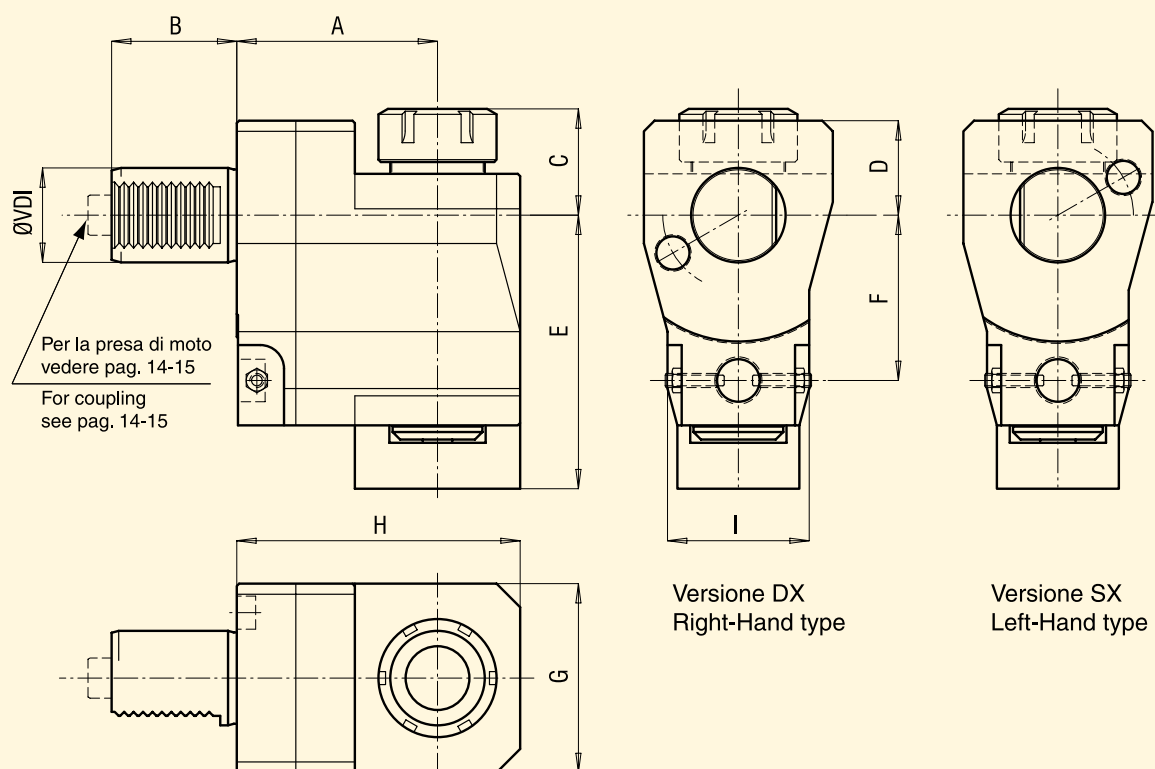
Radial tool head RR 200



Ø VDI	A	B	C	D	E	F	G	H	I	n. max	M Nm	Tipo pinza Collet type	Tipo Type	Codice Item
20	48	35	37	22,5	54	32	50	68	34	6000	6	ER 16 ø1-ø10	DIN 1809	32001
													DIN 5480 W10x0,8	32002
													TBM 120 Baruffaldi	-
													IDT-1 Duplomatic	322800
30	65	45	30	30,5	81,5	40	68	91	50	3500	20	ER 20 ø2-ø13	DIN 1809	32101
													DIN 5482 B15x12	32102
													DIN 5480 W16x0,8	328100
													TBM 160 Baruffaldi	32103
													IDT-1 Duplomatic	32103C
30	65	45	30	41,5	81,5	40	68	91	50	3500	20	ER 25 ø2-ø16	DIN 1809	316200
													DIN 5482 B15x12	328400
													DIN 5480 W16x0,8	332200
													TBM 160 Baruffaldi	326300
													IDT-1 Duplomatic	-
40	85	53	45	40	103	63/70	80	120	60	3000	45	ER 32 ø2-ø20	DIN 1809	32201
													DIN 5482 B17x14	32202
													DIN 5480 W20x0,8	338700
													TBM 200 Baruffaldi	32203
													IDT-2 Duplomatic	32203IDT
50	85	69	43	47	103	70	96	125	63	3000	65	ER 40 ø3-ø26	DIN 1809	32301
													DIN 5482 B20x14	32302
													TBM 250 Baruffaldi	32303
													IDT-2 Duplomatic	323900
60	120	94	74	50	145,5	88	106	170	106	2500	80	ER 50	DIN 1809	335400
													DIN 5482 B25x22	338000

Modulo radiale per utensili rotanti RR 200

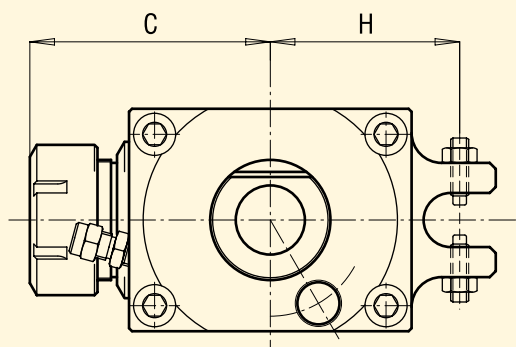
Radial tool head RR 200



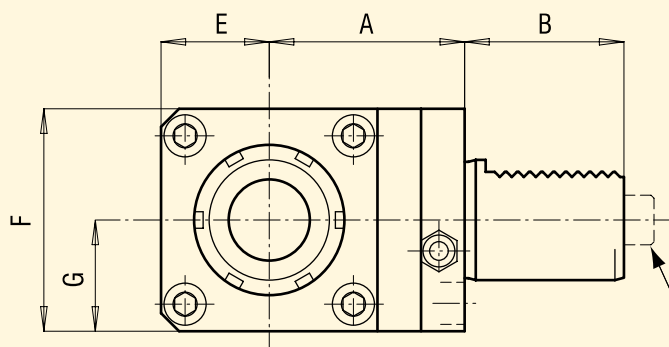
Ø VDI	A	B	C	D	E	F	G	H	I	n. max	M Nm	Tipo pinza Collet type	Tipo Type	Codice Item
30	65	45	35	30,5	100	40	68	91	50	3500	20	ER 20 Ø2-Ø13	DIN 1809	317300
													DIN 5482 B15x12	317400
													DIN 5480 W16x0,8	-
													TBM 160 Baruffaldi	317500
													IDT-1 Duplomatic	-
40	85	53	50	40	120	63/70	80	120	60	3000	45	ER 32 Ø2-Ø20	DIN 1809	316700
													DIN 5482 B17x14	316800
													DIN 5480 W20x0,8	-
													TBM 200 Baruffaldi	316900
													IDT-2 Duplomatic	-
50	85	69	50	47	125	70	96	125	63	3000	65	ER 40 Ø3-Ø26	DIN 1809	32301RI
													DIN 5482 B20x14	313800
													TBM 250 Baruffaldi	-
													IDT-2 Duplomatic	-
60	120	94	75	50	175	88	106	170	106	2500	80	ER 50	DIN 1809	-
													DIN 5482 B25x22	340600

Modulo radiale per utensili rotanti RR 300

Radial tool head RR 300

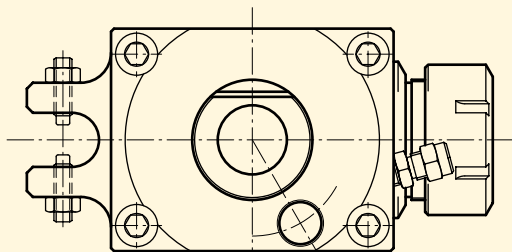


Versione DX
Righth-Hand type

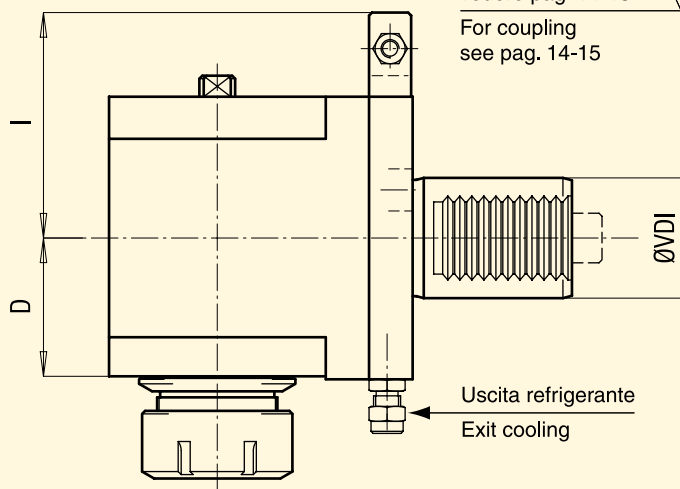


Per la presa di moto
vedere pag. 14-15

For coupling
see pag. 14-15



Versione SX
Left-Hand type

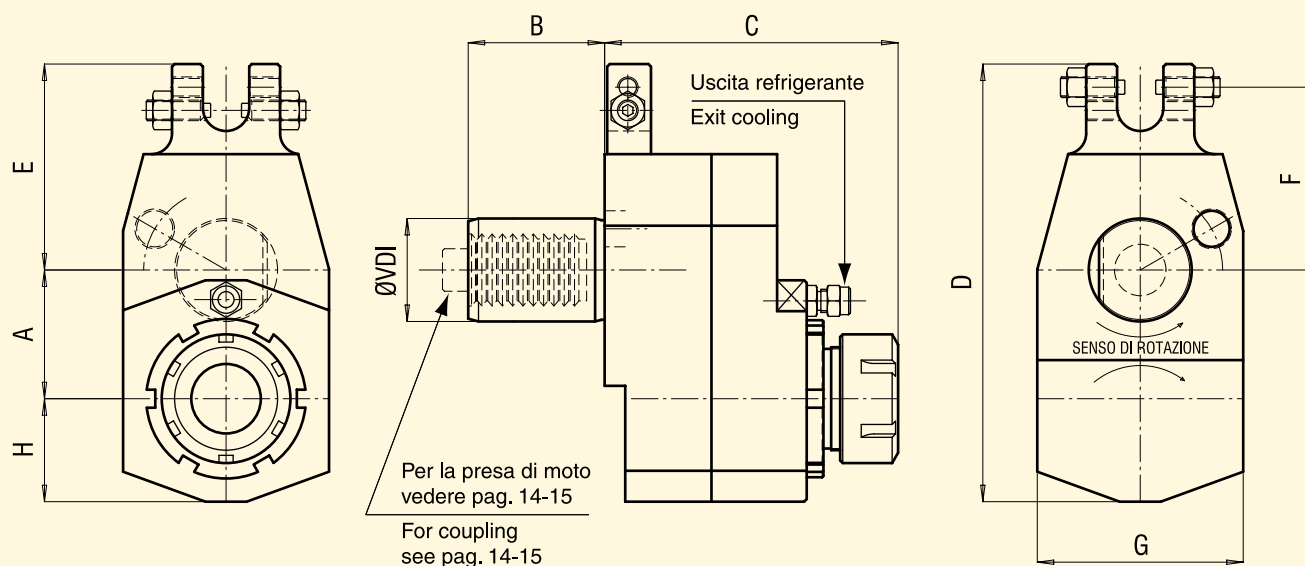


Uscita refrigerante
Exit cooling

Ø VDI	A	B	C	D	E	F	G	H	I	n. max	M Nm	Tipo pinza Collet type	Tipo Type	Codice Item
30	54	45	60	37	28	68	34	40	51	3500	20	ER 20 ø2-ø13	DIN 1809	33101
													DIN 5482 B15x12	33102
													DIN 5480 W16x0,8	-
													TBM 160 Baruffaldi	33102
													IDT-1 Duplomatic	337300
40	65	53	80	47	36	74	37	63/70	75	3000	45	ER 32 ø2-ø20	DIN 1809	33201
													DIN 5482 B17x14	33202
													DIN 5480 W20x0,8	-
													TBM 200 Baruffaldi	33203
													IDT-2 Duplomatic	321800
50	85	69	101	59,5	40	84	44	70	79	3000	65	ER 40 ø3-ø26	DIN 1809	329100
													DIN 5482 B20x14	33302
													TBM 250 Baruffaldi	326000
													IDT-2 Duplomatic	315100
60	120	94	130	85	50	106	53	90	108	2500	80	ER 50 ø7-ø34	DIN 1809	-
													DIN 5482 B25x22	338400

Modulo assiale disassato per utensili rotanti RAS 101 40

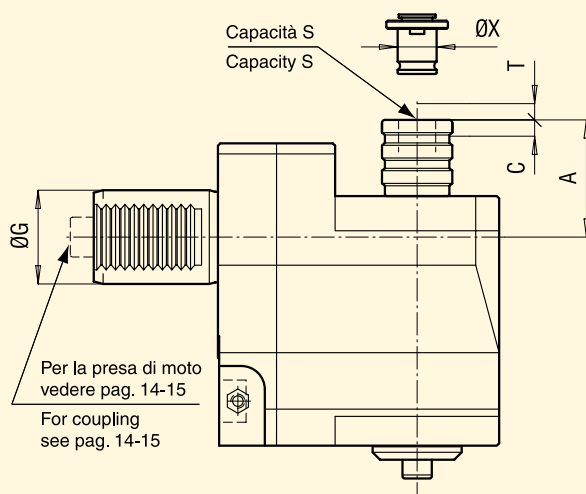
Off-centre axial head for rotating tools RAS 101 40



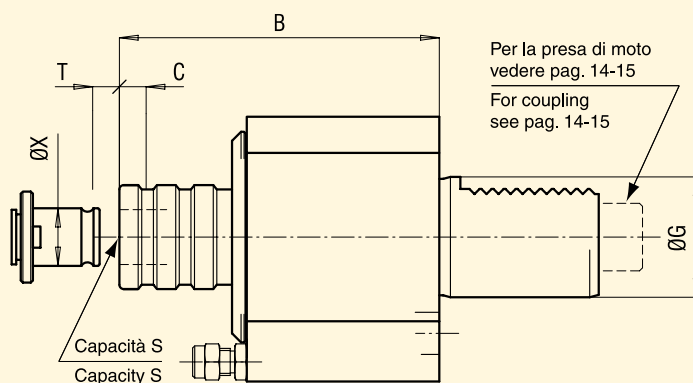
Ø VDI	A	B	C	D	E	F	G	H	n. max	M Nm	Tipo pinza Collet type	Tipo Type	Codice Item
30	40	45	109	116	48	40	63	28	3500	20	ER 20 Ø2-Ø13	DIN 1809	3109101
												DIN 5482 B15x12	332600
												TBM 160 Baruffaldi	317700
40	50	53	114	170	80	63/70	80	40	3000	45	ER 32 Ø2-Ø20	DIN 1809	354201
												DIN 5482 B17x14	334400
												TBM 200 Baruffaldi	-
												IDT-2 Diplomatic	-
50	60	69	145	182,5	80	70	90	42,5	3000	65	ER 40 Ø3-Ø26	DIN 1809	72213357-1
												DIN 5482 B20x14	-
												TBM 250 Baruffaldi	72213357
												IDT-2 Diplomatic	-
60	60	94	145	175,5	73	63	100	42,5	2500	80	ER 40 Ø3-Ø26	DIN 1809	314400
												DIN 5482 B25x22	-

Moduli radiali di maschiatura con bussole a cambio rapido RR 400 e RA 500

Radial tool head with quik change tapping chuk RR 400 e RA 500



Modello RR 400
Model RR 400

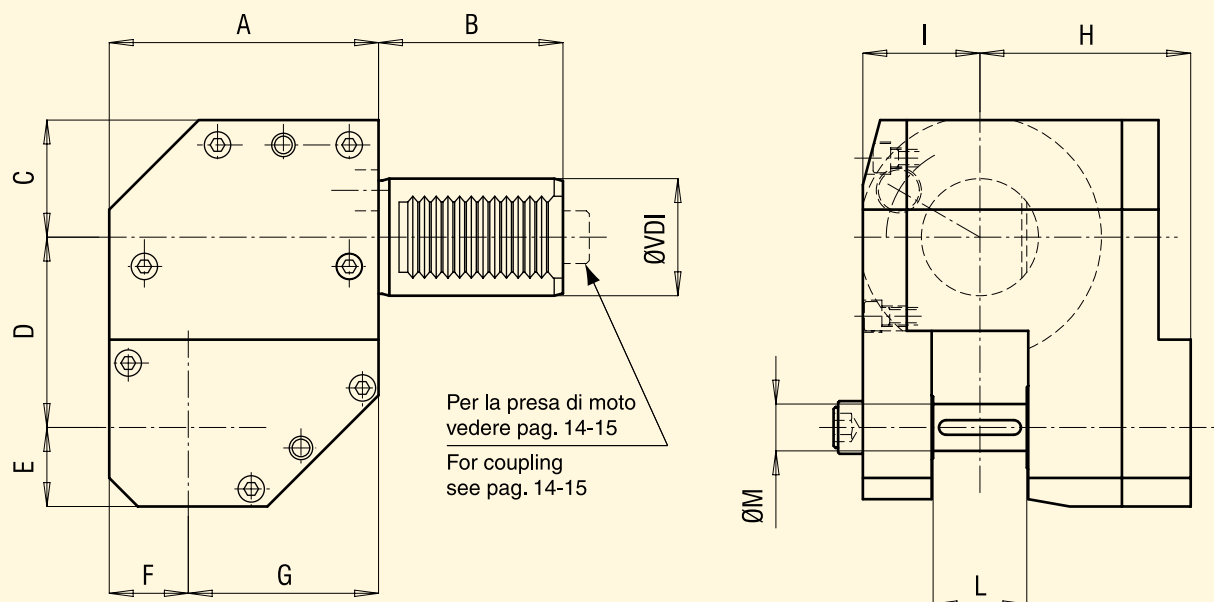


Modello RA 500
Model RA 500

Ø VDI	A	C	T	X	S	Radiale codice Radial item	Tipo innesto Coupling type	B	Assiale codice Axial item
30	37	6,5	6,5	13	M1-M10	324101	DIN 1809	105	35101
						34102	DIN 5482 B15x12	105	35102
						34103	TBM 160 Baruffaldi	105	35103
							IDT-1 Duplomatic	105	-
40	40	7,5	7,5	19	M3-M12	34201	DIN 1809	110	35201
						34202	DIN 5482 B17x14	110	35202
						34203	TBM 200 Baruffaldi	110	35203
							IDT-2 Duplomatic	110	340300
50	52	12,5	12,5	21	M8-M20	34301	DIN 1809	150	35301
						34302	DIN 5482 B20x14	150	35302
						34303	TBM 250 Baruffaldi	150	35303
							IDT-2 Duplomatic	150	-
60	60	12,5	12,5	21	M8-M20	34401	DIN 1809	150	35401
						34402	DIN 5482 B25x22	150	35402

Modulo per frese a disco RD 600

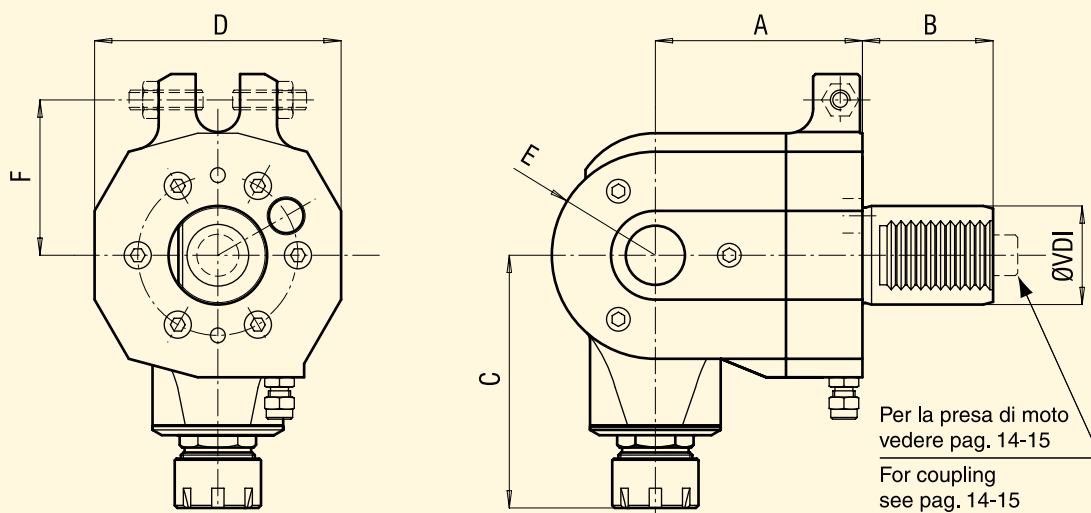
Heads for side milling cutter RD 600



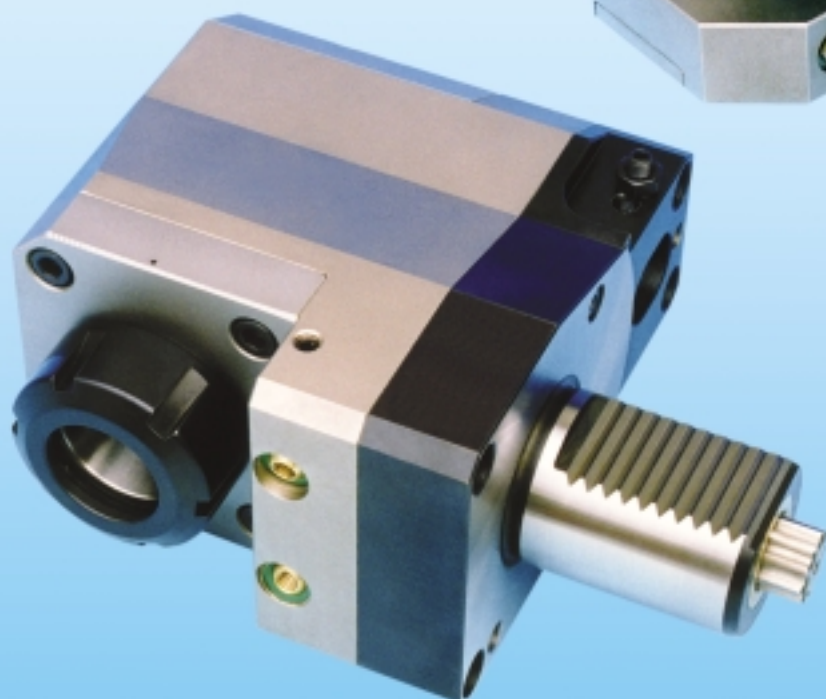
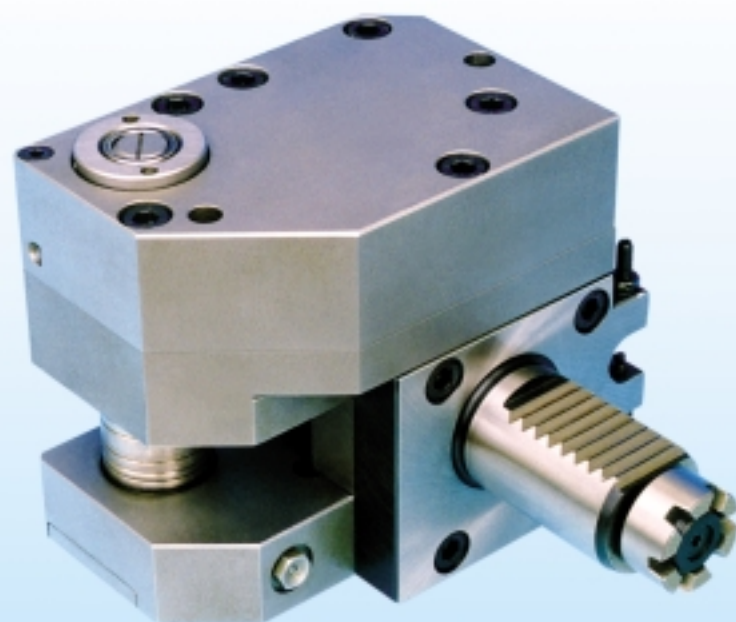
Ø VDI	A	B	C	D	E	F	G	H	I	L	M	n. max	M Nm	I	Tipo innesto Coupling type	Codice Item
30	80	45	28	56	26	26	54	65	35	23	16	3000	20	1/1	DIN 1809	36101
															DIN 5482 B15x12	345102
															DIN 5480 W16x0,8	-
															TBM 160 Baruffaldi	36103
															IDT-1 Diplomatic	-
40	92	53	40	65	27	27	65	72	40	32	22	3000	45	1/1	DIN 1809	36201
															DIN 5482 B17x14	36202
															DIN 5480 W20x0,8	-
															TBM 200 Baruffaldi	311800
															IDT-2 Diplomatic	-
50	104	69	45	75	32	32	72	80	50	36	27	2500	65	1/2	DIN 1809	316300
															DIN 5482 B20x14	315900
															TBM 250 Baruffaldi	314700
															IDT-2 Diplomatic	-
60	122	94	65	116	45	52	70	119	79	55	32	2500	80	1/4	DIN 1809	36401
															DIN 5482 B25x22	36402

Modulo rotante orientabile RO 700

Heads with swivelling spindle RO 700

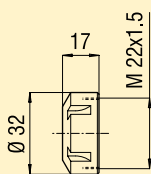


Ø VDI	A	B	C	D	E	F	Tipo pinza Collet Type	I	Tipo Type	Codice Item
30	84	45	102,5	100	42	40	ER 25 Ø2-Ø16	1/1	DIN 1809	37101
									DIN 5482 B15X12	37102
									TBM 160 Baruffaldi	37103
30	63	45	81	91	38	40			DIN 5480 W16X0,8	323200
40	84	53	102,5	100	42	70	ER 25 Ø2-Ø16	1/1	DIN 1809	37201
									DIN 5482 B17X14	37202
									TBM 200 Baruffaldi	318400
									IDT-2 Diplomatic	-
50	84	69	102,5	100	42	90	ER 25 Ø2-Ø16	1/1	DIN 1809	37301
									DIN 5482 B20x14	37302
									TBM 250 Baruffaldi	37303
									IDT-2 Diplomatic	-
60	84	94	102,5	100	42	90	ER 25 Ø2-Ø16	1/1	DIN 1809	37401
									DIN 5482 B25x22	37402

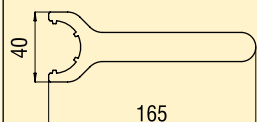


Accessori per moduli rotanti con pinza ER 16 - Tool head equipment with collet ER 16

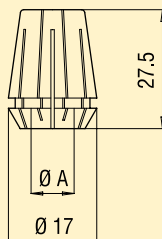
Ghiera G16 S cd 140G16S
Nut G16 S item 140G16S



Chiave CH16 S
cd 250CH16S
Key CH16 S item
250CH16S

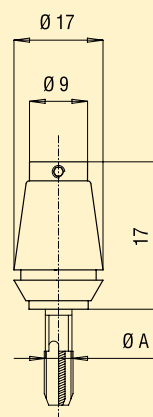


Pinza ER 16 DIN 6499
Collet ER 16 DIN 6499



Ø A	Codice
1	2500050
1,5	2500051
2	2500052
2,5	2500053
3	2500054
4	2500055
5	2500056
6	2500057
7	2500058
8	2500059
9	2500060
10	2500061

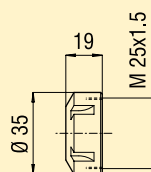
Pinze portamaschio
con compensazione
in trazione ERC 16 TP



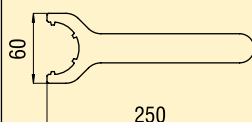
M	Ø A	≠ B	Codice
M 1	2,5	2,1	2500100
M 2	2,8	2,1	2500101
M 2,5	2,8	2,1	2500102
M 3	3,5	2,7	2500103
M 3,5	4	3	2500104
M 4	4,5	3,4	2500105
M 5	6	4,9	2500106
M 6	6	4,9	2500107

Accessori per moduli rotanti con pinza ER 20 - Tool head equipment with collet ER 20

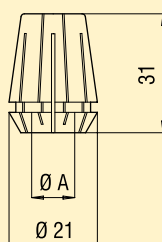
Ghiera G 20 S cd 140G20S
Nut G20 S item 140GG20S



Chiave CH20 S cd
250CH20S
Key CH20 S item
250CH20S

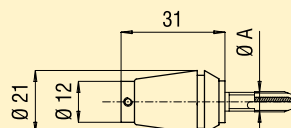


Pinza ER 20 DIN 6499
Collet ER 20 DIN 6499



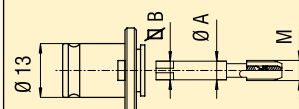
Ø A	Codice
1	2100052
1,5	2100053
2	2100054
2,5	2100055
3	2100056
4	2100057
5	2100058
6	2100059
7	2100060
8	2100061
9	2100062
10	2100063
11	2100064
12	2100065
13	2100066

Pinze portamaschio
con compensazione in trazione
ERC 20 TP



M	Ø A	≠ B	Codice
M 1	2,5	2,1	2100100
M 2	2,8	2,1	2100101
M 2,5	2,8	2,1	2100101
M 3	3,5	2,7	2100103
M 3,5	4	3	2100105
M 4	4,5	3,4	2100107
M 5	6	4,9	2100109
M 6	6	4,9	2100109
M 8	6	4,9	2100109
M 10	7	5,5	2100111

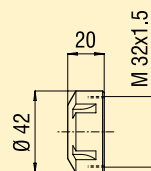
Bussola portamaschi



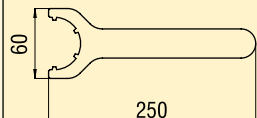
M	Ø A	≠ B	Codice
M 1	2,5	2,1	389100
M 2	2,8	2,1	389101
M 2,5	2,8	2,1	389101
M 3	3,5	2,7	389103
M 3,5	4	3	389105
M 4	4,5	3,4	389107
M 5	6	4,9	389109
M 6	6	4,9	389109
M 8	6	4,9	389109
M 8	8	6,3	607828
M 10	7	5,5	389111

Accessori per moduli rotanti con pinza ER 25 - Tool head equipment with collet ER 25

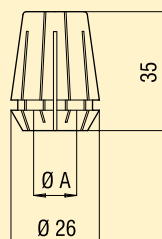
Ghiera G 25 S cd 140G25S
Nut G25 S item 140GG25S



Chiave CH25 S cd
250CH25S
Key CH25 S item
250CH25S

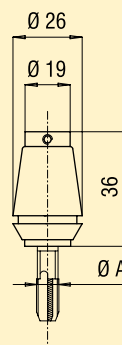


Pinza ER 25 DIN 6499
Collet ER 25 DIN 6499



Ø A	Codice
1,5	2000050
2	2000051
2,5	2000052
3	2000053
4	2000054
5	2000055
6	2000056
7	2000057
8	2000058
9	2000059
10	2000060
11	2000061
12	2000062
13	2000063
14	2000064
15	2000065
16	2000066

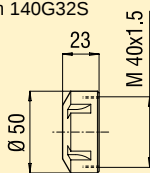
Pinza portamaschio
con compensazione
in trazione



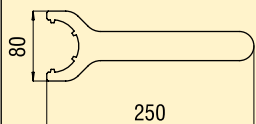
M	Ø A	≠ B	Codice
M 3,5	4	3	2000100
M 4	4,5	3,4	2000101
M 5	6	4,9	2000102
M 6	6	4,9	2000102
M 8	6	4,9	2000102
M 10	7	5,5	2000103
M 8	8	6,3	2000104
M 10	10	8	2000105
M 12*	9	7,1	2000106

Accessori per moduli rotanti con pinza ER 32 - Tool head equipment with collet ER 32

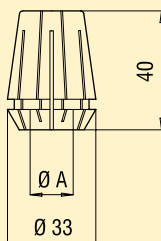
Ghiera G32 S
cd 140G32S
Nut G32 S
item 140G32S



Chiave CH 32 S
cd 250CH32S
Key CH 32 S
item 250CH32S

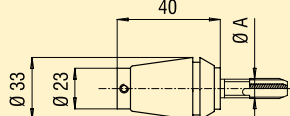


Pinza ER 32 DIN 6499
Collet ER 32 DIN 6499



Ø A	Codice
2	2200052
3	2200053
4	2200054
5	2200055
6	2200056
7	2200057
8	2200058
9	2200059
10	2200060
11	2200061
12	2200062
13	2200063
14	2200064
15	2200065
16	2200066
17	22000627
18	2200068
19	2200069
20	2200070

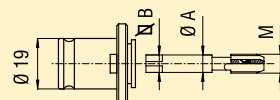
Pinze portamaschio
con compensazione in trazione
ERC 32 TP



M	Ø A	≠ B	Codice
M 4	4,5	3,4	2200100
M 5	6	4,9	2200101
M 6	6	4,9	2200101
M 8	6	4,9	2200101
M 8	8	6,3	2200102
M 10	7	5,5	2200103
M 10	10	8	2200104
M 12	9	7,1	2200105
M 14	11	9	2200106
M 16*	12	9	2200107

* solo per materiali a bassa resistenza

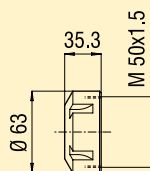
Bussola portamaschi



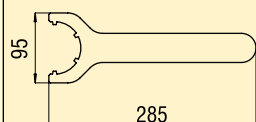
M	Ø A	≠ B	Codice
M 3	3,5	2,7	389115
M 3,5	4	3	389117
M 4	4,5	3,4	389119
M 5	6	4,9	389121
M 6	6	4,9	389121
M 8	6	4,9	389121
M 8	8	6,3	389124
M 10	7	5,5	389123
M 10	10	8	389126
M 12	9	7,1	389125

Accessori per moduli rotanti con pinza ER 40 - Tool head equipment with collet ER 40

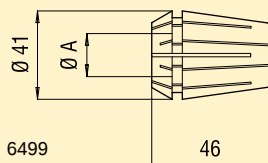
Ghiera G40 S
cd 140G40S
Nut G40 S
item 140G40S



Chiave CH40 S
cd 250CH40S
Key CH40 S
item 250CH40S

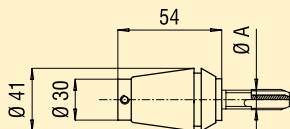


Pinza ER 40 DIN 6499
Collet ER 40 DIN 6499



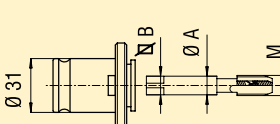
Ø A	Codice	Ø A	Codice
3	2300052	17	2300066
4	2300053	18	2300067
5	2300054	19	2300068
6	2300055	20	2300069
7	2300056	21	2300070
8	2300057	22	2300071
9	2300058	23	2300072
10	2300059	24	2300073
11	2300060	25	2300074
12	2300061	26	2300075
13	2300062	27	2300076
14	2300063	28	2300077
15	2300064	29	2300078
16	2300065	30	2300079

Pinze portamaschio
con compensazione in trazione
ERC 40 TP



M	Ø A	≠ B	Codice
M 5	6	4,9	2300101
M 6	6	4,9	2300101
M 8	6	4,9	2300101
M 8	8	6,2	2300102
M 10	7	5,5	2300103
M 10	10	8	2300104
M 12	9	7	2300105
M 14	11	9	2300106
M 16	12	9	2300107
M 18*	14	11	2300108
M 20*	16	12	2300109

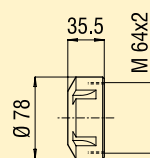
Bussola portamaschi



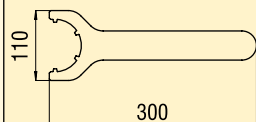
M	Ø A	≠ B	Codice
M 5	3,5	4,9	389127
M 6	3,5	4,9	389127
M 8	3,5	4,9	389127
M 8	8	6,3	389130
M 10	7	5,5	389129
M 10	10	8	189132
M 12	9	7,1	389131
M 14	11	9	389133
M 16	12	9	389135
M 18	14	11	389137
M 20	16	12	389139

Accessori per moduli rotanti con pinza ER 50 - Tool head equipment with collet ER 50

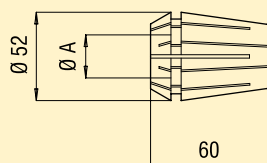
Ghiera G50 S cd 140G50S
Nut G50 S item 140G50S



Chiave CH50 S cd
250CH50S
Key CH50 S item
250CH50S

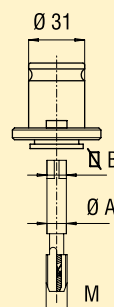


Pinza ER 50 DIN 6499
Collet ER 50 DIN 6499



Ø A	Codice	Ø A	Codice	Ø A	Codice
7	3400007	17	3400017	27	3400027
8	3400008	18	3400018	28	3400028
9	3400009	19	3400019	29	3400029
10	3400010	20	3400020	30	3400030
11	3400011	21	3400021	31	3400031
12	3400012	22	3400022	32	3400032
13	3400013	23	3400023	33	3400033
14	3400014	24	3400024	34	3400034
15	3400015	25	3400025		
16	3400016	26	3400026		

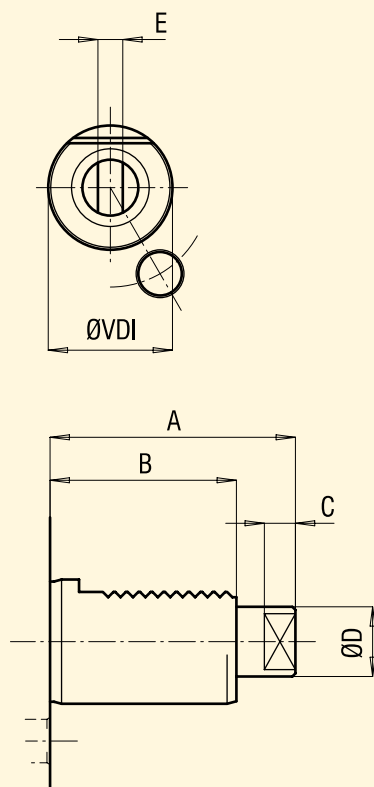
Bussola portamaschi



M	Ø A	≠ B	Codice
M 5	3,5	4,9	389127
M 6	3,5	4,9	389127
M 8	3,5	4,9	389127
M 8	8	6,3	389130
M 10	7	5,5	389129
M 10	10	8	189132
M 12	9	7,1	389131
M 14	11	9	389133
M 16	12	9	389135
M 18	14	11	389137
M 20	16	12	389139

Presa di moto tipo 1 innesto DIN 1809

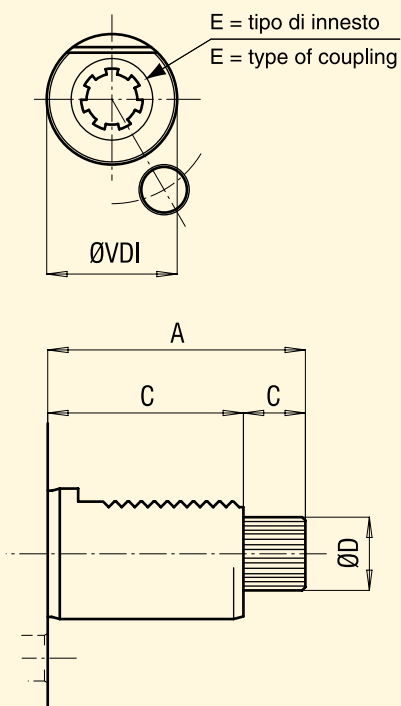
Coupling 1 DIN 1809



Ø VDI	A	B	C	Ø D	E
20	48	35	6,5	10	5
30	62	45	8	12	6
40	72	53	10	18	8
50	91	78	13	24	13
60	107	94	16	29	14

Presa di moto tipo 2 innesto DIN 5482 o DIN 5480

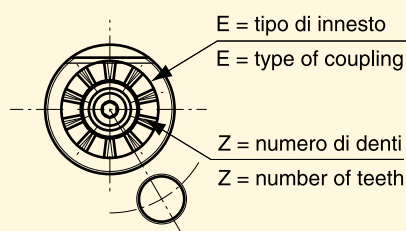
Coupling 2 DIN 5482 or DIN 5480



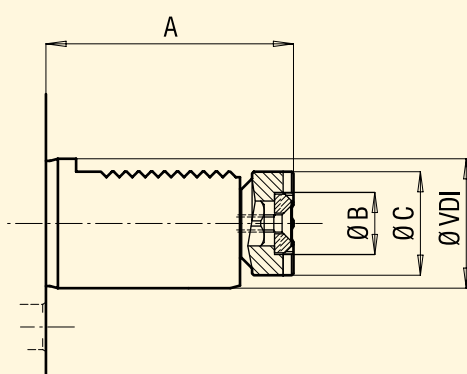
Ø VDI	A	B	C	Ø D	E DIN 5482	E DIN5480
20	51	35	16	9,84	-	W10x0,8x30x11
30	67	55	12	15,84	-	W16x0,8x30x18
30	55	45	10	14,5	B 15x12	-
40	75	63	12	19,84	-	W20x0,8x30x24
40	63	53	10	16,5	B 17x14	-
50	93	78	15	19,5	B 20x17	-
60	108	94	14	24,5	B 25x22	-

Presa di moto tipo 3 innesto frontale tipo "TBM" BARUFFALDI

Coupling 3 frontal attack type BARUFFALDI "TBM"

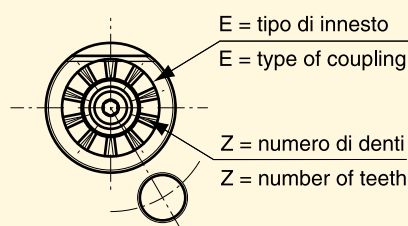


Ø VDI	A	B	C	Z N. denti	E
20	44	10,2	19	6	TBM 120
30	59	15,2	24	6	TBM 160
40	68	17,2	32	8	TBM 200
50	84	20,5	40	8	TBM 250
60	-	-	-	-	-

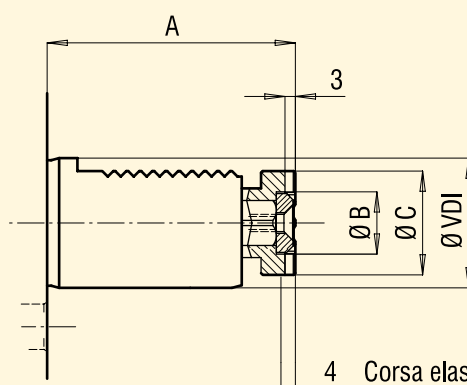


Presa di moto tipo 3 innesto frontale tipo "MDT" DUPLOMATIC

Coupling 3 frontal attack type BARUFFALDI "MDT" DUPLOMATIC



Ø VDI	A	B	C	Z N. denti	E
20	45	12	20	8	MDT - 1
30	60,5	12	20	8	MDT - 1
40	68,5	18	30	10	MDT - 2
50	83,5	18	30	10	MDT - 2
60	-	-	-	-	-



4 Corsa elastica per torrette in versione IDT
Elastic stroke for turret in version IDT

