MANDRINI

2011

Mainod

Angelo Ghezzi & C SpA

INDICE PRODOTTI

Tipologia attacco	PAG.
DIN 2080	3
DIN 69871	11
BT MAS 403	33
HSK DIN 69893	49

ACCESSORI

BUSSOLE PORTAMASCHI	62
PINZE	64
GHIERE	70
MANDRINO CON COMPENSAZIONE	72
RIDUZIONE WELDON	72
PORTAPINZE	73
TIRANTI	74
PROLUNGA	78
SPESSORI	78
ACCESSORI VARI E BOX	79-80
INFORMAZIONI TECNICHE	81

NUMERI DI CODICE ARTICOLO IN PROGRESSIONE

Codice	Pagina
ANTR	79
BSID	70
BTAC	45
BTAS	43
BTCL	42
BTCM	48
BTD	43
BTDS	44
BTER	34
BTFI	46
BTFS	38
BTID	36
BTIDE	36
BTMK	47
BTMS	37
BTOZ	35
BTWE	39
BTWN	41
CLSPZ	78
CVCR	79
CVER	71
CVERM	71
CVOZ	70
ERUP	67
ERVU	68
GRERA	71
GRERB	71
GRERC	71
GRERD	71
GRERE	71
GRERF	71
GRID1	70
GRID2	70
GRID3	70
GRID4	70

Codice	Pagina
HSKCL	58
HSKCM	60
HSKDS	57
HSKDSB	57
HSKER	50
HSKFI	59
HSKFS	52
HSKGR	77
HSKID	51
HSKIDE	51
HSKLB	77
HSKMK	60
HSKMS	56
HSKWE	53
HSKWEG	55
HSKWN	54
ISOAC	27
ISOAS	25
ISOCK	32
ISOCL	24
ISOCM	30
ISOD	25
ISODS	26
ISODSB	26
ISOER	12
ISOFI	29
ISOFIB	29
ISOFS	17
ISOID	14
ISOIDE	14
ISOIX	16
ISOMK	31
ISOMS	15
ISOOZ	13
ISOWE	18

Codice	Pagina
ISOWEG	23
ISOWN	22
PGCL	73
PRCL	78
PZCFR	62
PZER	65
PZOZ	64
PZSFR	63
PZSQ	69
RWE	72
SCO	80
SER	80
SWE	73
TEVT	74
TRBTS	76
TRBTXL	76
TRISOC	74
TRXLS	75
VTCR	79
WEMS	72
2080AC	8
2080AS	7
2080CM	10
2080D	8
2080DS	7
2080ER	4
2080FI	9
2080MK	10
2080MS	6
2080OZ	4
2080T	74
2080WE	5
2080WN	6
7388BC	74
7388LS	75

ESEMPIO ORDINE

ARTICOLO	MISURA
2080WE	30X6X40

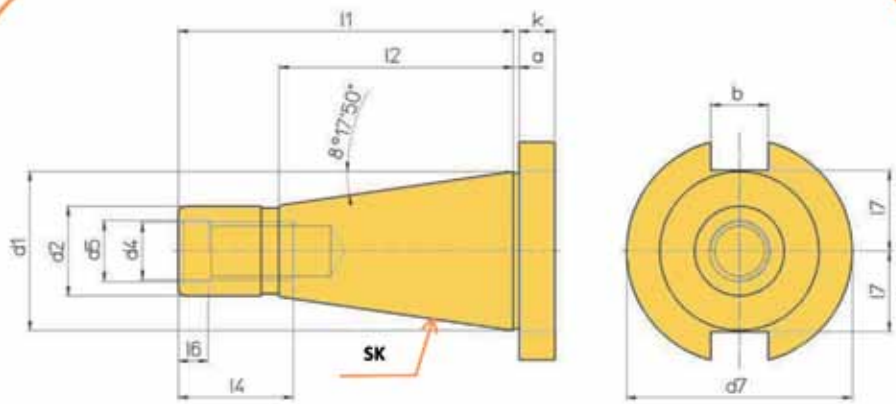
ARTICOLO

MISURA EVIDENZIATA IN GIALLO

ART	MISURA SK x d1 x A	L	D	€
2080WE	30 x 6 x 40	108	25	79,10
[illegible]	30 x 8 x 40	108	28	73,30
2080WE	30 x 10 x 40	108	35	73,30
2080WE	30 x 12 x 40	108	42	73,30
2080WE	30 x 16 x 50	118	48	73,30
2080WE	30 x 20 x 63	131	52	73,30

CARATTERISTICHE DEL CONO DIN 2080

D I N 2 0 8 0



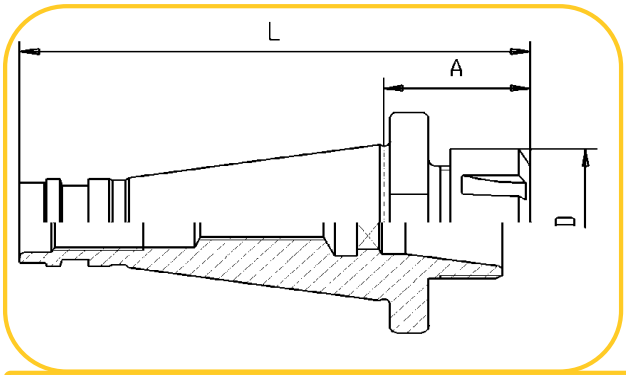
SK	a±0,2	b H12	d 1	d2a10	d4	d5	d7 -0,4 0	k±0,15	l1	l2	l4	l6 -0,5 0	l7 max
30	1,6	16,1	31,75	17,4	M12	13	50	8	68,4	48,4	24	5,5	16,2
40	1,6	16,1	44,45	25,3	M16	17	63	10	93,4	65,4	32	8,2	22,5
50	3,2	25,7	69,85	39,6	M24	26	97,5	12	127	102	47	11,5	35,3

DIN 2080

Portautensili DIN 2080

Mandrino Portapinze ER / DIN 6499

2080ER

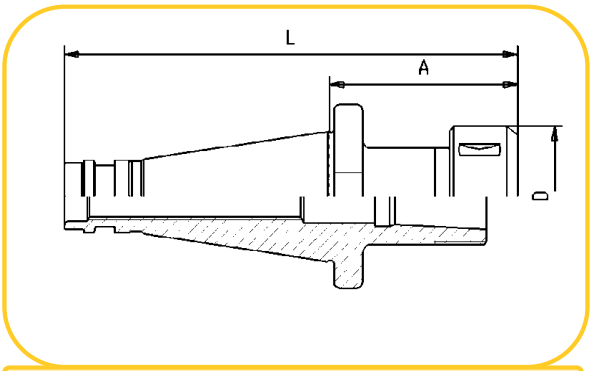


ART	MISURA SK x ER x A	L	D		€
2080ER	30 x 25 x 50	119	42	2-16mm	102,50
2080ER	30 x 32 x 50	119	50	2-20mm	105,50
2080ER	40 x 16 x 50	143	32	1-10mm	86,30
2080ER	40 x 25 x 50	143	42	2-16mm	80,80
2080ER	40 x 32 x 45	153	50	2-20mm	83,70
2080ER	40 x 40 x 80	173	63	3-26mm	86,70
2080ER	50 x 25 x 60	187	42	2-16mm	137,00
2080ER	50 x 32 x 70	197	50	2-20mm	137,00
2080ER	50 x 40 x 80	207	63	3-26mm	143,00

Accessori
PINZE ER DIN 6499B Pag.65
GHIERE DI BLOCCAGGIO ER DIN 6499 Pag.71
CHIAVE DI BLOCCAGGIO ER Pag.71

Mandrino Portapinze OZ / DIN 6388

2080OZ



ART	MISURA SK x OZ x A	L	D		€
2080OZ	30 x 16 x 50	118	43	2-16mm	107,00
2080OZ	30 x 25 x 80	148	60	2-25mm	107,00
2080OZ	40 x 16 x 70	163	43	2-16mm	97,60
2080OZ	40 x 25 x 70	163	60	2-25mm	99,00
2080OZ	40 x 32 x 95	173	72	3-32mm	114,50
2080OZ	50 x 25 x 70	197	60	2-25mm	139,00
2080OZ	50 x 32 x 80	207	72	3-32mm	158,50

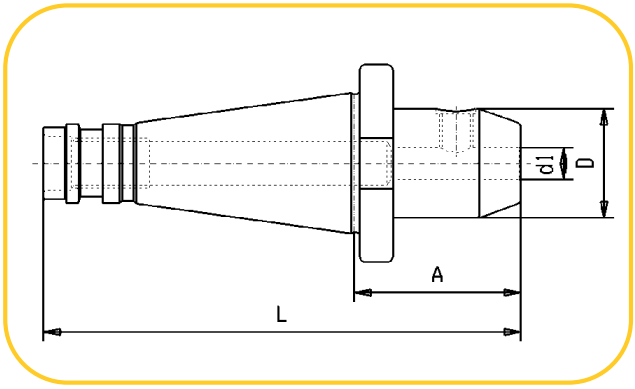
Accessori
PINZE OZ DIN 6388B Pag.64
GHIERE DI BLOCCAGGIO ER DIN 6388D Pag.70
CHIAVE DI BLOCCAGGIO OZ Pag.70

DIN 2080

Portautensili DIN 2080

Mandrino Portafrese Weldon

2080WE



ART	MISURA SK x d1 x A	L	D	€
2080WE	30 x 6 x 40	108	25	79,10
2080WE	30 x 8 x 40	108	28	73,30
2080WE	30 x 10 x 40	108	35	73,30
2080WE	30 x 12 x 40	108	42	73,30
2080WE	30 x 16 x 50	118	48	73,30
2080WE	30 x 20 x 63	131	52	73,30
2080WE	40 x 6 x 50	143	25	62,40
2080WE	40 x 8 x 50	143	28	60,40
2080WE	40 x 10 x 50	143	35	60,40
2080WE	40 x 12 x 50	143	42	60,40
2080WE	40 x 14 x 50	143	42	60,40
2080WE	40 x 16 x 63	156	48	60,40
2080WE	40 x 18 x 63	156	48	60,40
2080WE	40 x 20 x 35	128	52	△
2080WE	40 x 20 x 63	156	52	60,40
2080WE	40 x 25 x 35	124	63	△
2080WE	40 x 25 x 80	173	63	68,70
2080WE	40 x 32 x 80	173	70	76,10

ART	MISURA SK x d1 x A	L	D	€
2080WE	50 x 6 x 63	190	25	94,30
2080WE	50 x 8 x 63	190	28	88,40
2080WE	50 x 10 x 63	190	35	88,40
2080WE	50 x 12 x 63	190	42	88,40
2080WE	50 x 14 x 63	190	44	88,40
2080WE	50 x 16 x 63	190	48	88,40
2080WE	50 x 18 x 63	190	48	88,40
2080WE	50 x 20 x 63	190	52	88,40
2080WE	50 x 25 x 80	207	65	97,60
2080WE	50 x 32 x 80	207	72	106,00
2080WE	50 x 40 x 90	217	90	116,00

△ = su richiesta

Accessori

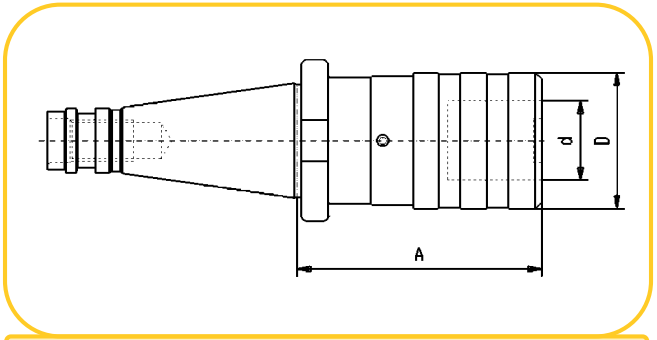
RIDUZIONI Pag.72
VITE DI BLOCCAGGIO Pag.73

DIN 2080

Portautensili DIN 2080

Mandrino con compensazione per bussole a cambio rapido

2080MS



ART	MISURA SK x Tipo	A	d	D	Filetto	€
2080MS	30 x 1	51	19	38	M3-12	392,00
2080MS	30 x 2	86	31	55	M8-20	454,00
2080MS	40 x 1	53	19	38	M3-12	349,00
2080MS	40 x 2	77	31	55	M8-20	378,00
2080MS	40 x 3	118	48	79	M14-33	659,00
2080MS	50 x 1	57	19	38	M3-12	454,00
2080MS	50 x 2	79	31	55	M8-20	466,00
2080MS	50 x 3	125	48	79	M14-33	641,00

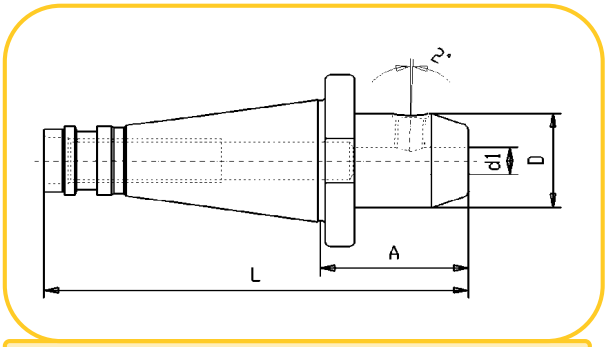
Accessori

PINZE CON FRIZIONE Pag.62

PINZE SENZA FRIZIONE Pag.63

Mandrino portafrese con attacco Whistle Notch

2080WS



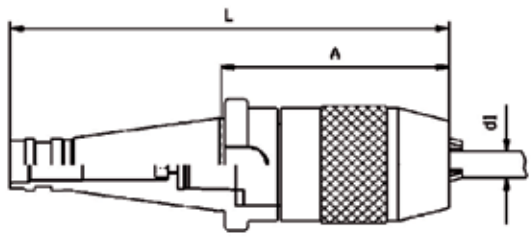
ART	MISURA SK x d1 x A	L	D	€
2080WN	40 x 6 x 50	143	25	102,50
2080WN	40 x 8 x 50	143	28	102,50
2080WN	40 x 10 x 50	143	35	102,50
2080WN	40 x 12 x 50	143	42	102,50
2080WN	40 x 14 x 50	143	42	116,50
2080WN	40 x 16 x 63	156	48	116,50
2080WN	40 x 18 x 63	156	48	116,50
2080WN	40 x 20 x 63	156	52	116,50
2080WN	40 x 25 x 80	173	63	124,50
2080WN	40 x 32 x 80	173	70	128,00
2080WN	50 x 6 x 63	190	25	161,50
2080WN	50 x 8 x 63	190	28	147,50
2080WN	50 x 10 x 63	190	35	147,50
2080WN	50 x 12 x 63	190	42	147,50
2080WN	50 x 14 x 63	190	44	147,50
2080WN	50 x 16 x 63	190	48	152,50
2080WN	50 x 18 x 63	190	48	152,50
2080WN	50 x 20 x 63	190	52	152,50
2080WN	50 x 25 x 80	207	65	169,50
2080WN	50 x 32 x 80	207	72	187,00
2080WN	50 x 40 x 90	217	90	247,00

DIN 2080

Portautensili DIN 2080

Mandrino autoserrante Standard

2080AS

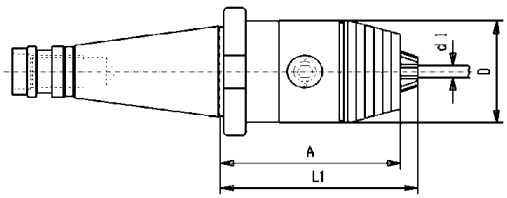


ART.	MISURA SK x d1	A	L	€
2080AS	40 x 1-13	90	184	256,00
2080AS	40 x 3-16	110	204	277,00
2080AS	50 x 3-16	90	217	304,00

Massimo runout: 50µm

Mandrino autoserrante ad alta precisione rotazione destra e sinistra

2080DS



ART.	MISURA SK x d1	A	L1	D	€
2080DS	30 x 0,5-8	60	63	36	502,00
2080DS	30 x 1-13	98	104	50	533,00
2080DS	40 x 0,5-8	62	65	36	Δ
2080DS	40 x 1-13	83	89	50	366,00
2080DS	40 x 3-16	88	95	57	390,00
2080DS	50 x 1-13	100	106	50	426,00
2080DS	50 x 3-16	105	111	57	454,00

Massimo runout: 30µm a 3xd1

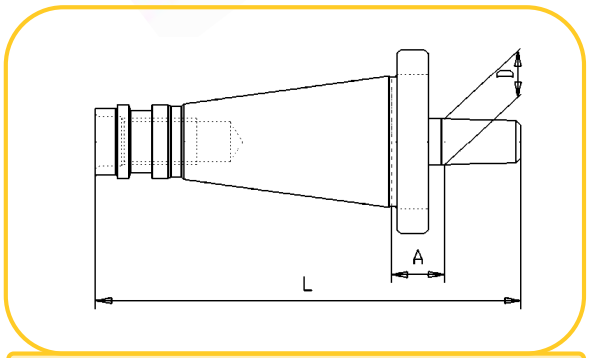
Δ= su richiesta

DIN 2080

Portautensili DIN 2080

Mandrino con attacco conico DIN 238

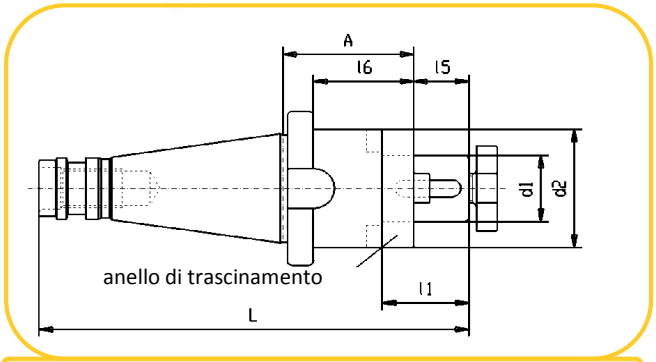
2080D



ART.	MISURA SK x D	A	L	€
2080D	30 x 12	13	100	98,10
2080D	30 x 16	15	107	98,10
2080D	40 x 12	15	127	86,30
2080D	40 x 16	17	134	86,30
2080D	40 x 18	17	142	86,30
2080D	50 x 16	20	171	105,50
2080D	50 x 18	20	179	105,50

Mandrino portafrese con attacco combinato

2080AC



ART.	MISURA SK x d1 x A	L	l1	l5	l6	d2	€
2080AC	30 x 16 x 35	120	27	17	25	32	93,80
2080AC	30 x 22 x 35	122	31	19	25	40	93,80
2080AC	30 x 27 x 35	124	33	21	25	48	99,50
2080AC	30 x 32 x 50	142	38	24	40	58	99,50
2080AC	40 x 16 x 52	162	27	17	40	32	74,70
2080AC	40 x 22 x 52	164	31	19	40	40	76,10
2080AC	40 x 27 x 52	166	33	21	40	48	76,10
2080AC	40 x 32 x 52	169	38	24	40	58	85,30
2080AC	40 x 40 x 52	172	41	27	40	70	97,60
2080AC	50 x 16 x 55	199	27	17	40	32	107,50
2080AC	50 x 22 x 55	201	31	19	40	40	104,00
2080AC	50 x 27 x 55	203	33	21	40	48	106,00
2080AC	50 x 32 x 55	206	38	24	40	58	109,00
2080AC	50 x 40 x 55	209	41	27	40	70	125,00
2080AC	50 x 50 x 55	212	46	30	40	90	△

Accessori

ANELLO DI TRASCINAMENTO DIN 6366 Pag.79

VITE DI BLOCCAGGIO DIN 6367 Pag.79

CHIAVE DI BLOCCAGGIO DIN 6368 Pag.79

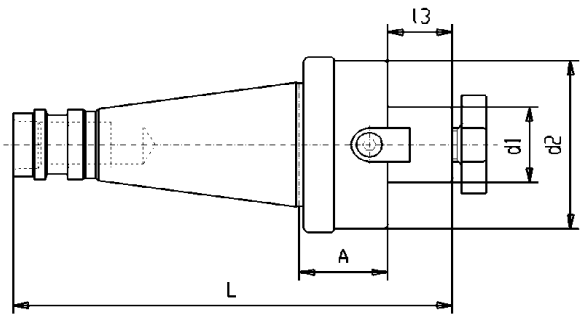
DIN 2080

△ = a richiesta

Portautensili DIN 2080

Mandrino portafrese DIN 6357

2080FI



ART.	MISURA SK x d1 x A	L	l3	d2	€
2080FI	40 x 22 x 30	142	19	48	82,30
2080FI	40 x 27 x 30	144	21	60	83,70
2080FI	40 x 32 x 30	147	24	78	90,20
2080FI	40 x 40 x 30	150	27	89	108,50
2080FI	50 x 22 x 35	181	19	48	110,00
2080FI	50 x 27 x 35	183	21	60	110,00
2080FI	50 x 32 x 40	191	24	78	119,00
2080FI	50 x 40 x 33	187	27	89	143,00
2080FI	50 x 60 x 55	202	40	129	302,00

Accessori

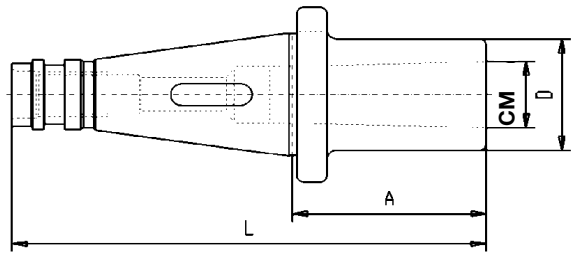
VITE DI BLOCCAGGIO DIN 6367 Pag.79

CHIAVE DI BLOCCAGGIO DIN 6368 Pag.79

Portautensili DIN 2080

Mandrino portapunte attacco Cono Morse con tenone DIN 6383

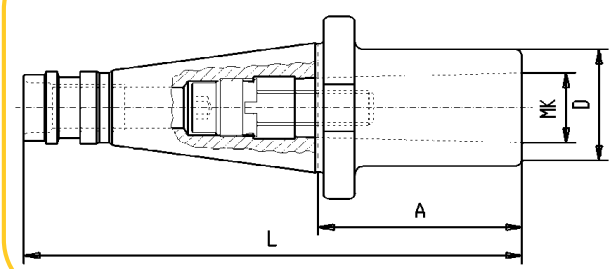
2080CM



ART.	MISURA SK x CM x A	L	D	€
2080CM	30 x 1 x 50	118	25	73,30
2080CM	30 x 2 x 50	118	32	73,30
2080CM	30 x 3 x 72	140	40	73,30
2080CM	40 x 1 x 50	143	25	60,70
2080CM	40 x 2 x 50	143	32	60,70
2080CM	40 x 3 x 65	158	40	60,70
2080CM	40 x 4 x 95	188	48	64,00
2080CM	50 x 1 x 45	172	25	88,60
2080CM	50 x 2 x 50	177	32	88,60
2080CM	50 x 3 x 65	192	40	88,60
2080CM	50 x 4 x 70	197	48	88,60
2080CM	50 x 5 x 105	232	63	100,50

Mandrino portafrese attacco Cono Morse con vite DIN 6364

2080MK

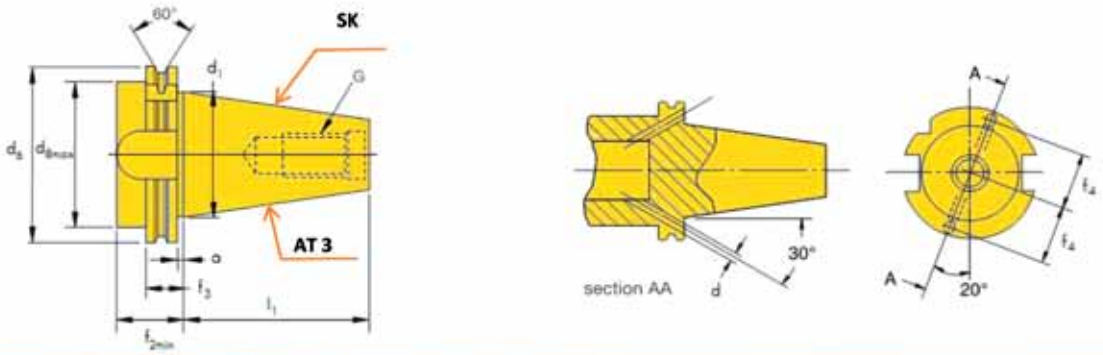


ART.	MISURA SK x MK x A	L	D	€
2080MK	40 x 1 x 50	143	25	99,00
2080MK	40 x 2 x 50	143	32	99,00
2080MK	40 x 3 x 65	158	40	99,00
2080MK	40 x 4 x 95	188	48	107,00
2080MK	50 x 1 x 45	172	25	135,50
2080MK	50 x 2 x 60	187	32	135,50
2080MK	50 x 3 x 65	192	40	135,50
2080MK	50 x 4 x 65	192	48	149,50
2080MK	50 x 5 x 120	247	63	155,50

DIN 2080

CARATTERISTICHE DEL CONO DIN 69871

D I N 6 9 8 7 1



SK		d_1	d_5	$d_{8max.}$	l_1	$f_{2min.}$	f_3	a	G	d	f_4
30	mm	31.75	50.00	45.00	47.80	35.00	19.05	3.20	M12	4.00	21.00
40	mm	44,45	63,00	50,00	68,25	35,00	19,05	3,20	M16	4,00	27,00
50	mm	69,85	97,45	80,00	101,6	35,00	19,05	3,20	M24	6,00	42,00

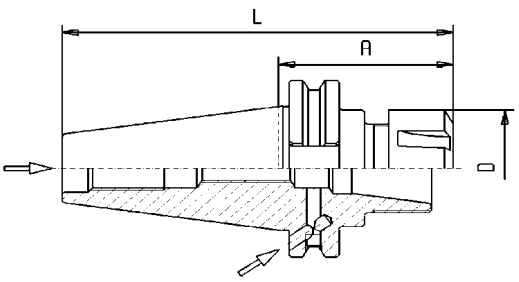
DIN 69871

Portautensili DIN 69871

Mandrino Portapinze ER / DIN 6499

ISOER

Forma AD/B



ART.	MISURA SK	x	ER	x	A	L	D	Forma	€
ISOER	30		16		70	118	32	AD	102,50
ISOER	30		16		100	148	32	AD	102,50
ISOER	30		20		110	158	34	AD	△
ISOER	30		25		70	118	42	AD	96,60
ISOER	30		25		100	148	42	AD	102,50
ISOER	30		32		70	118	50	AD	96,60
ISOER	30		32		100	148	50	AD	108,50
ISOER	40	x	16	x	63	132	32		71,60
ISOER	40	x	16	x	100	169	32		81,10
ISOER	40	x	16	x	160	229	32		139,50
ISOER	40	x	16	x	200	269	32		224,00
ISOER	40	x	25	x	60	129	42		56,50
ISOER	40	x	25	x	100	169	42		84,40
ISOER	40	x	25	x	160	229	42		142,50
ISOER	40	x	25	x	200	269	42		230,50
ISOER	40	x	32	x	70	139	50		56,50
ISOER	40	x	32	x	100	169	50		85,80
ISOER	40	x	32	x	120	189	50		111,50
ISOER	40	x	32	x	160	229	50		149,50
ISOER	40	x	32	x	200	269	50		242,00
ISOER	40	x	40	x	80	149	63		67,90
ISOER	40	x	40	x	120	189	63		132,00
ISOER	40	x	40	x	160	229	63		192,00
ISOER	50	x	16	x	100	202	32		155,50
ISOER	50	x	16	x	160	262	32		217,00
ISOER	50	x	16	x	200	302	32		275,00
ISOER	50	x	25	x	60	162	42		137,00
ISOER	50	x	25	x	100	202	42		176,50
ISOER	50	x	25	x	160	262	42		237,50
ISOER	50	x	25	x	200	302	42		277,00
ISOER	50	x	32	x	70	172	50		108,00
ISOER	50	x	32	x	100	202	50		173,50
ISOER	50	x	32	x	160	262	50		250,00
ISOER	50	x	32	x	200	302	50		289,00
ISOER	50	x	40	x	80	182	63		108,00
ISOER	50	x	40	x	100	202	63		207,00
ISOER	50	x	40	x	160	262	63		250,00
ISOER	50	x	50	x	84	286	78		△

BILANCIATURA:
Classe G6.3 a 12.000 giri/min.

Accessori
PINZE ER DIN 6499 B Pag.65
GHIERE DI BLOCCAGGIO ER DIN 6499 Pag. 71
CHIAVE DI BLOCCAGGIO ER Pag.71

△ = su richiesta

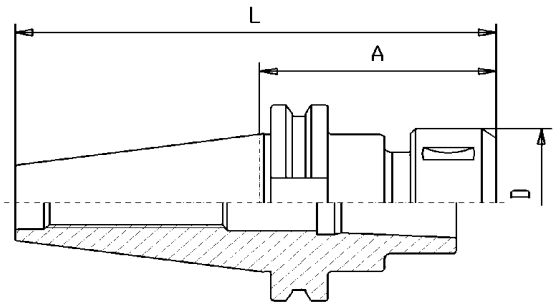
DIN 69871

Portautensili DIN 69871

Mandrino Portapinze OZ / DIN 6388

ISOOZ

Forma AD/B



ART.	MISURA							€
	SK	x	OZ	x	A	L	D	Forma
ISOOZ	30	x	16	x	64	112	43	AD	114,50
ISOOZ	30	x	25	x	80	128	60	AD	123,00
ISOOZ	40	x	16	x	70	138	43		97,90
ISOOZ	40	x	25	x	70	138	60		97,90
ISOOZ	40	x	25	x	100	168	60		△
ISOOZ	40	x	32	x	90	158	72		114,50
ISOOZ	50	x	25	x	70	172	60		139,50
ISOOZ	50	x	32	x	80	182	72		160,00

Accessori
PINZE OZ DIN 6388B Pag.64
GHIERE DI BLOCCAGGIO ER DIN 6388D Pag.70
CHIAVE DI BLOCCAGGIO OZ Pag.70

BILANCIATURA:
Classe G6.3 a 12.000 giri/min.

△ = **su richiesta**

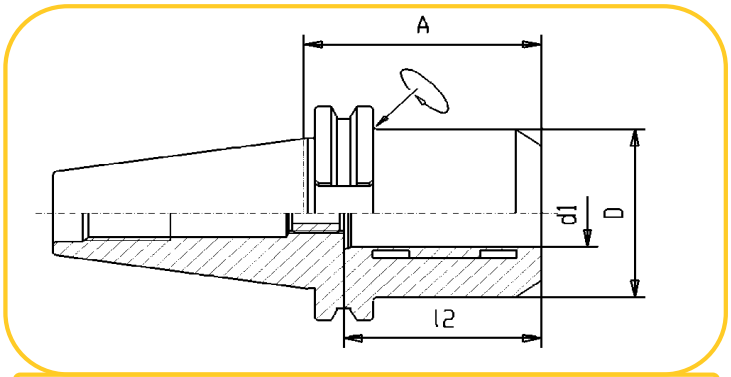
DIN 69871

Portautensili DIN 69871

Mandrino a serraggio idraulico

ISOID

Forma AD/B



ART.	MISURA SK x d1	A	l2	D	€
ISOID	40 x 6	80	37	49,5	605,00
ISOID	40 x 8	80	37	49,5	605,00
ISOID	40 x 10	80	41	49,5	605,00
ISOID	40 x 12	80	46	49,5	536,00
ISOID	40 x 16	80	49	49,5	605,00
ISOID	40 x 20	80	51	49,5	536,00
ISOID	40 x 25	80	57	63	605,00
ISOID	40 x 32	80	61	70	605,00
ISOID	50 x 6	80	37	49,5	841,00
ISOID	50 x 8	80	37	49,5	841,00
ISOID	50 x 10	80	41	49,5	841,00
ISOID	50 x 12	80	46	49,5	779,00
ISOID	50 x 16	80	49	49,5	841,00
ISOID	50 x 20	80	51	49,5	779,00
ISOID	50 x 25	100	57	63	841,00
ISOID	50 x 32	100	61	70	841,00
Versine economica corta					
ISOIDE	40 x 20	64,5	51	49,5	435,00
ISOIDE	50 x 32	81	61	70	542,00

Accessori
BUSSOLE DI RIDUZIONE Pag.70

BILANCIATURA:
Classe G6.3 a 15.000 giri/min.
Vedi informazioni tecniche Pag.85

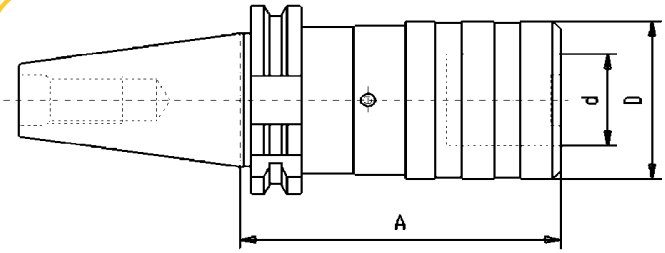
DIN 69871

Portautensili DIN 69871

Mandrino con compensazione per bussole a cambio rapido

ISOMS

Forma A



ART.	MISURA SK x Tipo	A	d	D	Filetto	€
ISOMS	30 x 1	60	19	38	M3-M12	337,00
ISOMS	30 x 2	101	31	55	M8-M20	366,00
ISOMS	40 x 1	60	19	38	M3-M12	283,00
ISOMS	40 x 2	100	31	55	M8-M20	305,00
ISOMS	40 x 3	138	48	78	M14-M33	594,00
ISOMS	50 x 1	62	19	38	M3-M12	414,00
ISOMS	50 x 2	83	31	55	M8-M20	433,00
ISOMS	50 x 3	133	48	78	M14-M33	636,00

Accessori
PINZE CON FRIZIONE Pag.62
PINZE SENZA FRIZIONE Pag.63

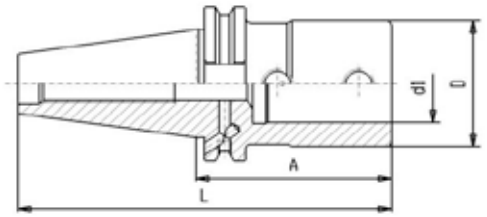
DIN 69871

Portautensili DIN 69871

Mandrino portapunte tipo WELDON

ISOIX

Forma AD/B



ART.	MISURA SK	x	d1	A	L	D	€
ISOIX	40	x	20	65	133	40	107,50
ISOIX	40	x	25	70	138	45	104,00
ISOIX	40	x	32	75	143	52	104,00
ISOIX	50	x	20	70	172	70	158,00
ISOIX	50	x	25	70	172	45	154,50
ISOIX	50	x	32	70	172	52	154,50
ISOIX	50	x	40	80	182	60	154,50

BILANCIATURA:
Classe G6.3 a 12.000 giri/min.

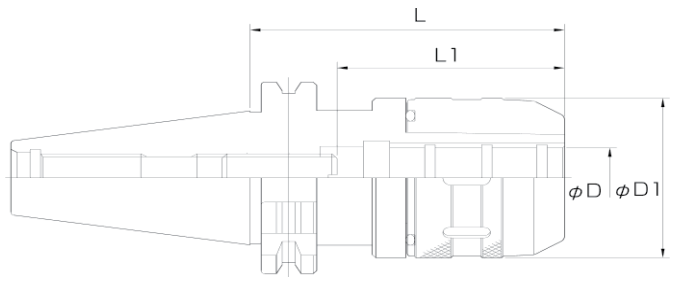
DIN 69871

Portautensili DIN 69871

Mandrino a forte serraggio

ISOFS

Forma AD



ART.	MISURA SK x D x L	D1	€
ISOFS	40 x 20 x 90	48	420,00
ISOFS	40 x 32 x 105	68	442,00
ISOFS	50 x 20 x 70	48	479,00
ISOFS	50 x 32 x 95	68	571,00

Accessori
BUSSOLE DI RIDUZIONE Pag.70

Massimo runout: 10µm

BILANCIATURA:
Classe G6.3 a 8.000 giri/min.
Vedi informazioni tecniche Pag.82

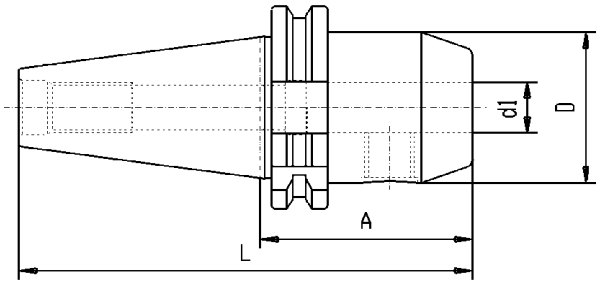
DIN 69871

Portautensili DIN 69871

Mandrino portafrese tipo Weldon

ISOWE

Forma AD/B



ART.	MISURA SK	x	d1	x	A	L	D	Forma	€
ISOWE	30	x	6	x	50	98	25	AD	76,10
ISOWE	30	x	8	x	50	98	28	AD	76,10
ISOWE	30	x	10	x	50	98	35	AD	76,10
ISOWE	30	x	12	x	50	98	42	AD	76,10
ISOWE	30	x	14	x	50	98	42	AD	76,10
ISOWE	30	x	16	x	63	111	48	AD	76,10
ISOWE	30	x	18	x	63	111	48	AD	82,00
ISOWE	30	x	20	x	63	111	52	AD	82,00
ISOWE	40	x	6	x	50	118	25		56,70
ISOWE	40	x	6	x	100	168	25		68,70
ISOWE	40	x	6	x	160	228	25		141,50
ISOWE	40	x	6	x	200	268	25		241,00
ISOWE	40	x	8	x	50	118	28		50,00
ISOWE	40	x	8	x	100	168	28		66,90
ISOWE	40	x	8	x	160	228	28		141,50
ISOWE	40	x	8	x	200	268	28		241,00
ISOWE	40	x	10	x	50	118	35		50,00
ISOWE	40	x	10	x	100	168	35		66,90
ISOWE	40	x	10	x	160	228	35		135,50
ISOWE	40	x	10	x	200	268	35		234,50
ISOWE	40	x	12	x	50	118	42		50,00
ISOWE	40	x	12	x	100	168	42		66,90
ISOWE	40	x	12	x	160	228	42		135,50
ISOWE	40	x	12	x	200	268	42		234,50
ISOWE	40	x	14	x	50	118	42		53,40
ISOWE	40	x	14	x	100	168	42		66,90
ISOWE	40	x	14	x	160	228	42		141,50

BILANCIATURA:
Classe G6.3 a 12.000 giri/min.

Accessori
RIDUZIONE Pag.72
VITE DI BLOCCAGGIO Pag.73

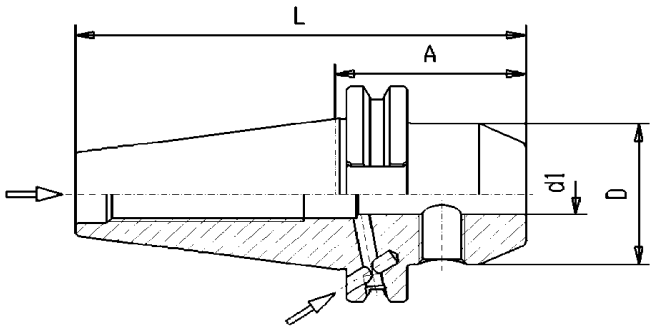
DIN 69871

Portautensili DIN 69871

Mandrino portafrese tipo Weldon

ISOWE

Forma AD/B



ART.	MISURA. SK	x	d1	x	A	L	D	€
ISOWE	40	x	16	x	63	131	48	50,00
ISOWE	40	x	16	x	100	168	48	66,90
ISOWE	40	x	16	x	160	228	48	135,50
ISOWE	40	x	18	x	63	131	48	53,40
ISOWE	40	x	18	x	100	168	48	66,90
ISOWE	40	x	18	x	160	228	48	135,50
ISOWE	40	x	20	x	63	131	52	50,00
ISOWE	40	x	20	x	100	168	52	66,90
ISOWE	40	x	20	x	160	228	52	135,50
ISOWE	40	x	25	x	35	103	44	79,40
ISOWE	40	x	25	x	100	168	63	59,10
ISOWE	40	x	25	x	160	228	63	146,00
ISOWE	40	x	32	x	100	168	70	62,00
ISOWE	40	x	32	x	160	228	70	162,00
ISOWE	40	x	40	x	120	188	80	108,50

Accessori
RIDUZIONE **Pag.72**
VITE DI BLOCCAGGIO **Pag.73**

BILANCIATURA:
Classe G6.3 a 12.000 giri/min.

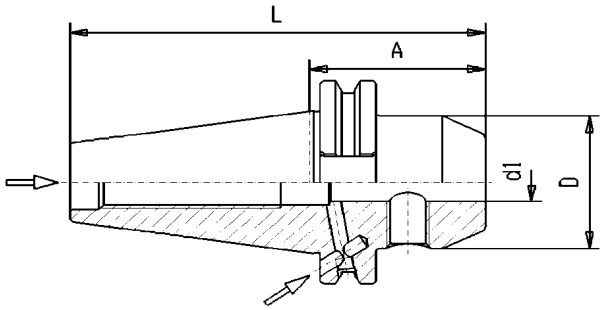
DIN 69871

Portautensili DIN 69871

Mandrino portafrese tipo Weldon

ISOWE

Forma AD/B



ART.	MISURA SK	x	d1	x	A	L	D	€
ISOWE	50	x	6	x	63	165	25	88,60
ISOWE	50	x	6	x	100	202	25	128,00
ISOWE	50	x	6	x	160	262	25	188,50
ISOWE	50	x	8	x	63	165	28	85,30
ISOWE	50	x	8	x	100	202	28	122,00
ISOWE	50	x	8	x	160	262	28	188,50
ISOWE	50	x	8	x	200	302	28	296,00
ISOWE	50	x	10	x	63	165	35	85,30
ISOWE	50	x	10	x	100	202	35	122,00
ISOWE	50	x	10	x	160	262	35	182,50
ISOWE	50	x	10	x	200	302	35	296,00
ISOWE	50	x	12	x	63	165	42	85,30
ISOWE	50	x	12	x	100	202	42	122,00
ISOWE	50	x	12	x	160	262	42	182,50
ISOWE	50	x	12	x	200	302	42	296,00
ISOWE	50	x	14	x	63	165	42	85,30
ISOWE	50	x	14	x	100	202	42	128,00
ISOWE	50	x	16	x	63	165	48	75,30
ISOWE	50	x	16	x	100	202	48	122,00
ISOWE	50	x	16	x	160	262	48	182,50
ISOWE	50	x	16	x	200	302	48	296,00
ISOWE	50	x	18	x	63	165	48	85,30
ISOWE	50	x	18	x	100	202	48	128,00
ISOWE	50	x	18	x	160	262	48	182,50

Accessori
RIDUZIONE Pag.72
VITE DI BLOCCAGGIO Pag.73

BILANCIATURA:
Classe G6.3 a 12.000 giri/min.

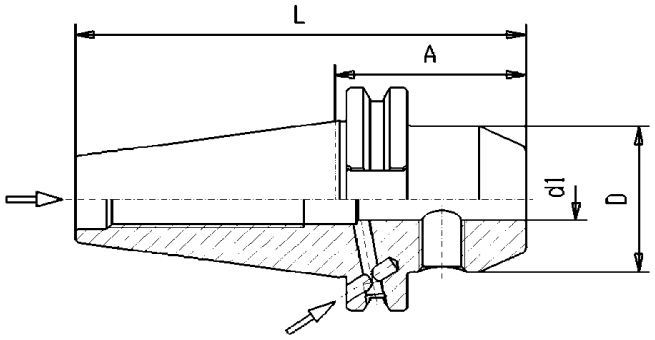
DIN 69871

Portautensili DIN 69871

Mandrino portafrese tipo Weldon

ISOWE

Forma AD/B



ART.	MISURA SK	x	d1	x	A	L	D	€
ISOWE	50	x	20	x	63	165	52	75,30
ISOWE	50	x	20	x	100	202	52	122,00
ISOWE	50	x	20	x	160	262	52	182,50
ISOWE	50	x	20	x	200	302	52	296,00
ISOWE	50	x	25	x	80	182	63	86,70
ISOWE	50	x	25	x	160	262	63	200,00
ISOWE	50	x	25	x	200	302	63	322,00
ISOWE	50	x	32	x	100	202	70	90,90
ISOWE	50	x	32	x	160	262	70	209,00
ISOWE	50	x	32	x	200	302	70	350,00
ISOWE	50	x	40	x	100	202	80	146,50
ISOWE	50	x	50	x	120	212	90	Δ

Accessori
RIDUZIONE Pag.72
VITE DI BLOCCAGGIO Pag.73

BILANCIATURA:
Classe G6.3 a 12.000 giri/min.

Δ = su richiesta

DIN 69871

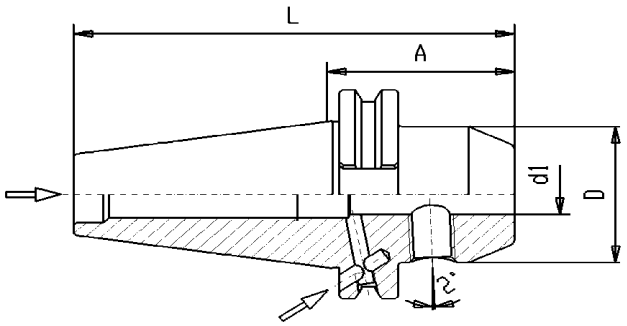
Klainod

Portautensili DIN 69871

Mandrino portafrese con attacco Whistle Notch DIN 1835-E

ISOWN

Forma AD/B



ART.	MISURA SK	x	d1	x	A	L	D	€
ISOWN	40	x	6	x	50	118	25	79,80
ISOWN	40	x	8	x	50	118	28	74,60
ISOWN	40	x	10	x	50	118	35	74,60
ISOWN	40	x	12	x	50	118	42	74,60
ISOWN	40	x	14	x	50	118	42	74,60
ISOWN	40	x	16	x	63	131	48	74,60
ISOWN	40	x	18	x	63	131	48	74,60
ISOWN	40	x	20	x	63	131	52	74,60
ISOWN	40	x	25	x	100	168	63	86,50
ISOWN	40	x	32	x	100	168	70	104,00
ISOWN	50	x	6	x	63	165	25	119,00
ISOWN	50	x	8	x	63	165	28	113,00
ISOWN	50	x	10	x	63	165	35	113,00
ISOWN	50	x	12	x	63	165	42	113,00
ISOWN	50	x	14	x	63	165	42	113,00
ISOWN	50	x	16	x	63	165	48	113,00
ISOWN	50	x	18	x	63	165	48	113,00
ISOWN	50	x	20	x	63	165	52	113,00
ISOWN	50	x	25	x	80	182	63	125,00
ISOWN	50	x	32	x	100	202	70	134,50
ISOWN	50	x	40	x	100	202	80	173,50

Accessori
VITE DI BLOCCAGGIO Pag.73

BILANCIATURA:
Classe G6.3 a 12.000 giri/min.

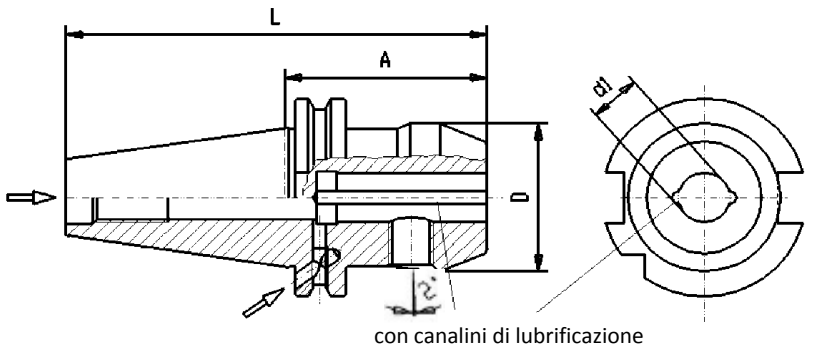
DIN 69871

Portautensili DIN 69871

Mandrino portafrese con attacco Whistle Notch DIN 1835-B con canalini di lubrificazione

ISOWEG

Forma AD/B



ART.	MISURA SK x d1 x A	L	D	€
ISOWEG	40 x 6 x 50	119	25	85,00
ISOWEG	40 x 6 x 100	169	25	△
ISOWEG	40 x 8 x 50	119	28	79,10
ISOWEG	40 x 8 x 100	169	28	△
ISOWEG	40 x 10 x 50	119	35	79,10
ISOWEG	40 x 10 x 100	169	35	△
ISOWEG	40 x 12 x 50	119	42	79,10
ISOWEG	40 x 12 x 100	169	42	△
ISOWEG	40 x 14 x 50	119	42	79,10
ISOWEG	40 x 16 x 63	132	48	79,10
ISOWEG	40 x 16 x 100	169	48	△
ISOWEG	40 x 18 x 63	132	48	79,10
ISOWEG	40 x 20 x 63	132	52	79,10
ISOWEG	40 x 20 x 100	169	52	△
ISOWEG	40 x 25 x 100	169	63	101,50
ISOWEG	50 x 6 x 63	165	25	123,00
ISOWEG	50 x 8 x 63	165	28	117,00
ISOWEG	50 x 10 x 63	165	35	117,00
ISOWEG	50 x 12 x 63	165	42	117,00
ISOWEG	50 x 14 x 63	165	42	117,00
ISOWEG	50 x 16 x 63	165	48	117,00
ISOWEG	50 x 18 x 63	165	48	117,00
ISOWEG	50 x 20 x 63	165	52	117,00
ISOWEG	50 x 25 x 80	182	63	129,00
ISOWEG	50 x 32 x 100	202	70	135,00
ISOWEG	50 x 40 x 100	202	90	145,00

BILANCIATURA:
Classe G6.3 a 12.000 giri/min.

△ = su richiesta

Accessori
VITE DI BLOCCAGGIO Pag.73

DIN 69871

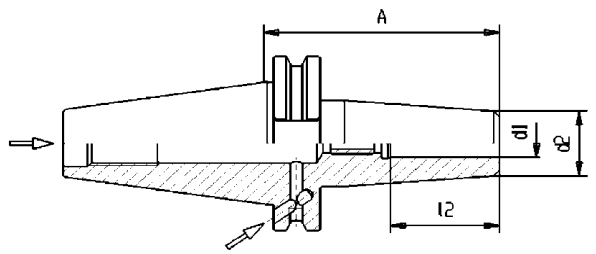
Klainod

Portautensili DIN 69871

Mandrino a calettamento termico

ISOCL

Forma AD/B



ART.	MISURA SK	x	d1	x	A	l2	d2	€
ISOCL	40	x	6	x	80	36	20	213,00
ISOCL	40	x	6	x	160	36	20	307,00
ISOCL	40	x	8	x	80	36	20	213,00
ISOCL	40	x	8	x	160	36	20	307,00
ISOCL	40	x	10	x	80	42	24	213,00
ISOCL	40	x	10	x	160	42	24	307,00
ISOCL	40	x	12	x	80	47	24	213,00
ISOCL	40	x	12	x	160	47	24	307,00
ISOCL	40	x	14	x	80	47	27	213,00
ISOCL	40	x	14	x	160	47	27	307,00
ISOCL	40	x	16	x	80	50	27	213,00
ISOCL	40	x	16	x	160	50	27	307,00
ISOCL	40	x	18	x	80	50	33	242,50
ISOCL	40	x	18	x	160	50	33	307,00
ISOCL	40	x	20	x	80	52	33	213,00
ISOCL	40	x	20	x	160	52	33	307,00
ISOCL	40	x	25	x	100	58	44	213,00
ISOCL	40	x	25	x	160	58	44	307,00
ISOCL	40	x	32	x	100	58	44	213,00
ISOCL	40	x	32	x	160	58	44	307,00
ISOCL	50	x	6	x	80	36	20	350,00
ISOCL	50	x	6	x	160	36	20	454,00
ISOCL	50	x	8	x	80	36	20	350,00
ISOCL	50	x	8	x	160	36	20	454,00
ISOCL	50	x	10	x	80	42	24	350,00
ISOCL	50	x	10	x	160	42	24	454,00
ISOCL	50	x	12	x	80	47	24	350,00
ISOCL	50	x	12	x	160	47	24	454,00
ISOCL	50	x	14	x	80	47	27	350,00
ISOCL	50	x	16	x	80	50	27	350,00
ISOCL	50	x	16	x	160	50	27	454,00
ISOCL	50	x	18	x	80	50	33	350,00
ISOCL	50	x	20	x	80	52	33	350,00
ISOCL	50	x	20	x	160	52	33	454,00
ISOCL	50	x	25	x	100	58	44	350,00
ISOCL	50	x	25	x	160	58	44	454,00
ISOCL	50	x	32	x	100	58	44	350,00
ISOCL	50	x	32	x	160	58	44	454,00

BILANCIATURA:
Classe G6.3 a 12.000 giri/min.
Vedi informazioni tecniche Pag.84

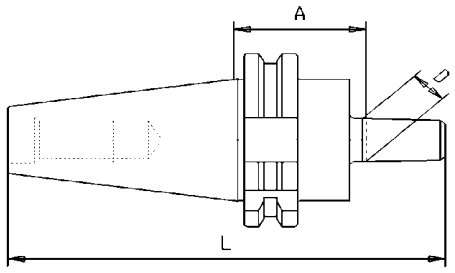
Accessori
PROLUNGHE PER CALETTAMENTO TERMICO Pag. 78

DIN 69871

Portautensili DIN 69871

Mandrino con attacco conico DIN 238

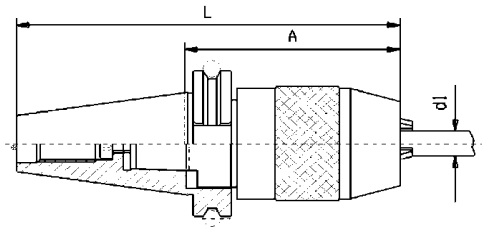
ISOD



ART.	MISURA SK x D	A	L	€
ISOD	30 x 12	39	108	95,20
ISOD	30 x 16	40	112	95,20
ISOD	40 x 12	25	112	88,60
ISOD	40 x 16	25	117	88,60
ISOD	40 x 18	35	135	88,60
ISOD	50 x 16	25	151	132,00
ISOD	50 x 18	25	159	132,00

Mandrino autoserrante Standard

ISOAS



ART.	MISURA SK x d1	A	L	€
ISOAS	40 x 13	87	156	228,50
ISOAS	40 x 16	110	179	256,00
ISOAS	50 x 13	84	186	280,00
ISOAS	50 x 16	90	192	297,00

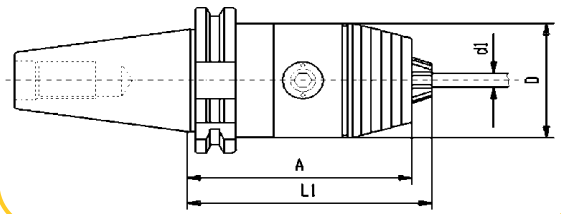
Massimo runout: 50µm

DIN 69871

Portautensili DIN 69871

Mandrino autoserrante ad alta precisione rotazione destra e sinistra

ISODS



Forma A

ART.	MISURA SK x d1	A	L1	D	€
ISODS	30 x 8	70	73	36	571,00
ISODS	30 x 13	111	117	50	510,00
ISODS	40 x 8	70	73	36	411,00
ISODS	40 x 13	90	96	50	350,00
ISODS	40 x 16	90	101	57	384,00
ISODS	50 x 13	110	112	50	419,00
ISODS	50 x 16	110	117	57	445,00

Forma AD/B

ART.	MISURA SK x d1	A	L1	D	€
ISODSB	40 x 8	70	76	36	524,00
ISODSB	40 x 13	90	96	50	454,00
ISODSB	40 x 16	90	101	57	495,00
ISODSB	50 x 13	110	112	50	542,00
ISODSB	50 x 16	110	117	57	597,00

Massimo runout: 30µm a 3xd1

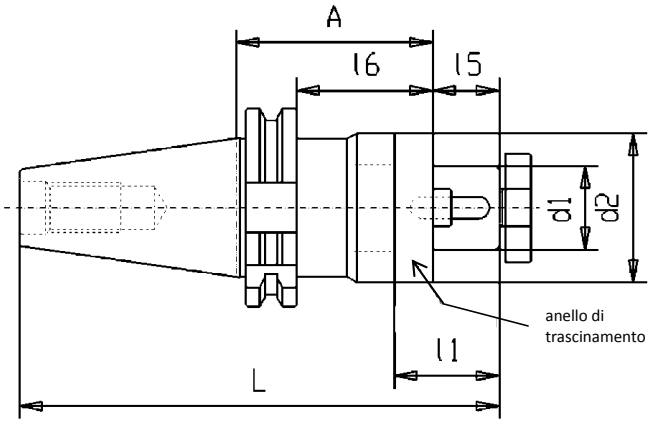
DIN 69871

Portautensili DIN 69871

Mandrino portafrese con attacco combinato

ISOAC

Forma A



ART.	MISURA SK x d1 x A	L	l5	l6	l1	d2	€
ISOAC	30 x 16 x 50	115	17	31	27	32	101,50
ISOAC	30 x 22 x 50	117	19	31	31	40	101,50
ISOAC	30 x 27 x 55	119	21	31	33	48	104,00
ISOAC	30 x 32 x 60	122	24	41	38	58	104,00
ISOAC	40 x 16 x 55	141	17	40	27	32	68,00
ISOAC	40 x 16 x 100	186	17	81	27	32	96,60
ISOAC	40 x 16 x 160	248	17	141	27	32	173,50
ISOAC	40 x 22 x 55	143	19	40	31	40	71,10
ISOAC	40 x 22 x 100	188	19	81	31	40	99,50
ISOAC	40 x 22 x 160	248	19	141	31	40	173,50
ISOAC	40 x 27 x 62	152	21	43	33	48	71,10
ISOAC	40 x 27 x 100	190	21	81	33	48	113,00
ISOAC	40 x 27 x 160	250	21	141	33	48	180,00
ISOAC	40 x 32 x 69	162	24	50	38	58	77,20
ISOAC	40 x 32 x 100	193	24	81	38	58	119,50
ISOAC	40 x 32 x 160	253	24	141	38	58	186,00
ISOAC	40 x 40 x 60	156	27	41	41	70	86,70

Accessori

ANELLO DI TRASCINAMENTO DIN 6366 Pag.79

VITE DI BLOCCAGGIO DIN 6367 Pag.79

CHIAVE DI BLOCCAGGIO DIN 6368 Pag. 79

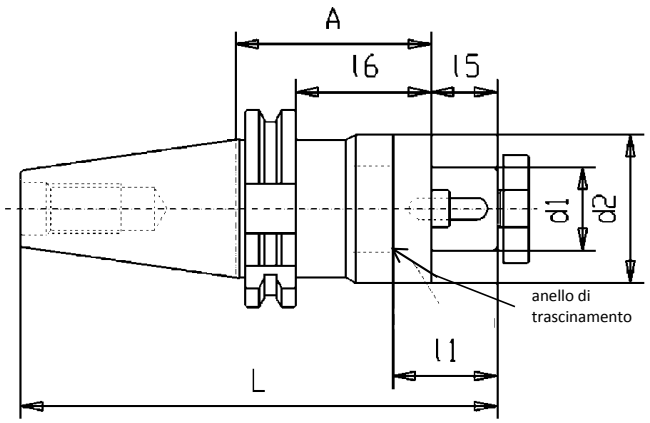
DIN 69871

Portautensili DIN 69871

Mandrino portafrese con attacco combinato

ISOAC

Forma A



ART.	MISURA										€
	SK	x	d1	x	A	L	l5	l6	l1	d2	
ISOAC	50	x	16	x	55	174	17	36	27	32	94,30
ISOAC	50	x	16	x	100	219	17	81	27	32	131,00
ISOAC	50	x	16	x	160	279	17	141	27	32	△
ISOAC	50	x	22	x	55	176	19	36	31	40	94,30
ISOAC	50	x	22	x	100	221	19	81	31	40	131,00
ISOAC	50	x	22	x	160	281	19	141	31	40	221,00
ISOAC	50	x	27	x	55	178	21	36	33	48	97,60
ISOAC	50	x	27	x	100	223	21	81	33	48	131,00
ISOAC	50	x	27	x	160	283	21	141	33	48	224,00
ISOAC	50	x	32	x	55	181	24	36	38	58	102,00
ISOAC	50	x	32	x	100	226	24	81	38	58	137,00
ISOAC	50	x	32	x	160	286	24	141	38	58	228,50
ISOAC	50	x	40	x	55	184	27	36	41	70	134,50
ISOAC	50	x	40	x	100	229	27	81	41	70	170,50
ISOAC	50	x	40	x	160	289	27	141	41	70	271,00
ISOAC	50	x	50	x	70	207	30	56	46	90	259,00

△ = su richiesta

Accessori

ANELLO DI TRASCINAMENTO DIN 6366 Pag.79

VITE DI BLOCCAGGIO DIN 6367 Pag.79

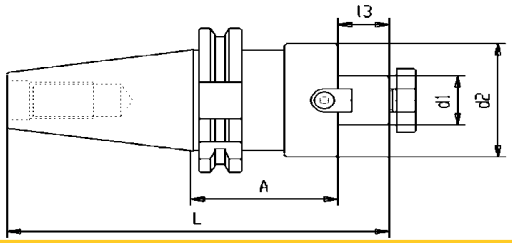
CHIAVE DI BLOCCAGGIO DIN 6368 Pag.79

DIN 69871

Portautensili DIN 69871

Mandrino portafrese DIN 6357

ISOFI



Forma A

ART.	MISURA SK x d1 x A	d2	L	l3	€
ISOFI	40 x 16 x 35	40	121	17	73,30
ISOFI	40 x 16 x 100	40	186	17	113,00
ISOFI	40 x 22 x 35	44,45	123	19	71,40
ISOFI	40 x 22 x 50	48	138	19	71,40
ISOFI	40 x 22 x 100	48	188	19	119,00
ISOFI	40 x 22 x 160	48	248	19	Δ
ISOFI	40 x 27 x 35	44,45	125	21	73,30
ISOFI	40 x 27 x 50	60	140	21	73,30
ISOFI	40 x 27 x 100	58	190	21	131,00
ISOFI	40 x 32 x 55	78	148	24	76,60
ISOFI	40 x 32 x 100	78	193	24	143,00
ISOFI	40 x 40 x 60	89	156	27	116,00
ISOFI	50 x 22 x 35	48	156	19	92,90
ISOFI	50 x 22 x 100	48	221	19	180,00
ISOFI	50 x 27 x 35	58	158	21	94,30
ISOFI	50 x 27 x 100	58	223	21	186,00
ISOFI	50 x 32 x 35	78	161	24	104,00
ISOFI	50 x 32 x 100	78	244	24	190,50
ISOFI	50 x 40 x 55	89	184	27	134,50
ISOFI	50 x 60 x 60	129	202	40	303,00

Δ = su richiesta

Forma AD/B

ART.	MISURA SK x d1 x A	d2	L	l3	€
ISOFIB	40 x 22 x 35	44,45	123	19	90,00
ISOFIB	40 x 22 x 50	48	138	19	102,50
ISOFIB	40 x 22 x 100	48	188	19	111,00
ISOFIB	40 x 27 x 35	44,45	125	21	91,40
ISOFIB	40 x 27 x 50	60	140	21	91,40
ISOFIB	40 x 32 x 55	78	148	24	99,00
ISOFIB	40 x 40 x 60	89	156	27	120,50
ISOFIB	50 x 22 x 35	48	156	19	133,50
ISOFIB	50 x 27 x 35	58	158	21	137,50
ISOFIB	50 x 32 x 35	78	161	24	141,00
ISOFIB	50 x 40 x 55	89	184	27	175,50

Accessori

VITE DI BLOCCAGGIO DIN 6367 Pag.79

CHIAVE DI BLOCCAGGIO DIN 6368 Pag.79

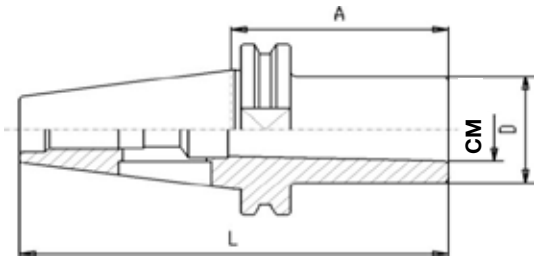
DIN 69871

Portautensili DIN 69871

Mandrino portapunte
attacco Cono Morse con tenone DIN 6383

ISOCM

Forma AD



ART.	MISURA							€
	SK	x	CM	x	A	D	L	
ISOCM	30	x	1	x	50	25	103	96,40
ISOCM	30	x	2	x	65	32	113	96,40
ISOCM	30	x	3	x	80	40	128	104,00
ISOCM	40	x	1	x	50	25	119	56,20
ISOCM	40	x	2	x	50	32	119	56,00
ISOCM	40	x	2	x	117	32	186	147,50
ISOCM	40	x	2	x	150	32	219	△
ISOCM	40	x	3	x	70	40	139	56,00
ISOCM	40	x	3	x	133	40	202	122,00
ISOCM	40	x	4	x	95	48	164	62,40
ISOCM	40	x	4	x	156	48	226	159,50
ISOCM	50	x	1	x	45	25	147	85,30
ISOCM	50	x	2	x	50	32	152	85,30
ISOCM	50	x	2	x	117	32	219	△
ISOCM	50	x	2	x	150	32	252	△
ISOCM	50	x	3	x	65	40	167	85,30
ISOCM	50	x	3	x	137	40	239	△
ISOCM	50	x	3	x	150	33	252	301,00
ISOCM	50	x	4	x	95	48	197	85,30
ISOCM	50	x	4	x	167	48	269	△
ISOCM	50	x	4	x	200	48	302	△
ISOCM	50	x	5	x	105	63	207	88,60

△ = su richiesta

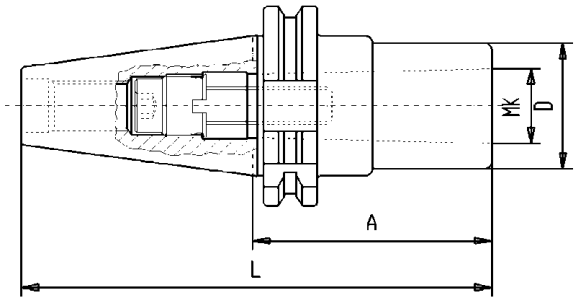
DIN 69871

Portautensili DIN 69871

Mandrino portafrese
attacco Cono Morse con vite DIN 6364

ISOMK

Forma AD

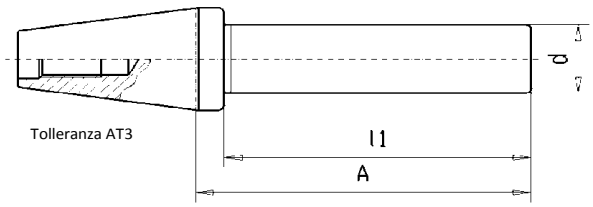


ART.	MISURA SK x MK x A	D	L	€
ISOMK	30 x 1 x 50	25	98	113,00
ISOMK	30 x 2 x 63	32	111	114,50
ISOMK	30 x 3 x 82	40	130	121,50
ISOMK	40 x 1 x 50	25	119	96,00
ISOMK	40 x 2 x 50	32	119	96,00
ISOMK	40 x 3 x 70	40	139	96,00
ISOMK	40 x 4 x 95	48	164	111,50
ISOMK	50 x 1 x 45	25	147	137,00
ISOMK	50 x 2 x 60	32	162	137,00
ISOMK	50 x 3 x 65	40	167	137,00
ISOMK	50 x 4 x 95	48	197	146,50
ISOMK	50 x 5 x 105	63	207	155,50

DIN 69871

Barra di controllo DIN 69871

ISOCK



ART.	MISURA						€
	SK	x	d	x	A	l1	
ISOCK	40	x	30	x	325	312	347,00
ISOCK	50	x	36	x	345	328	472,00

Dati Tecnici

Uso: Per controllo accurato della rotazione del mandrino

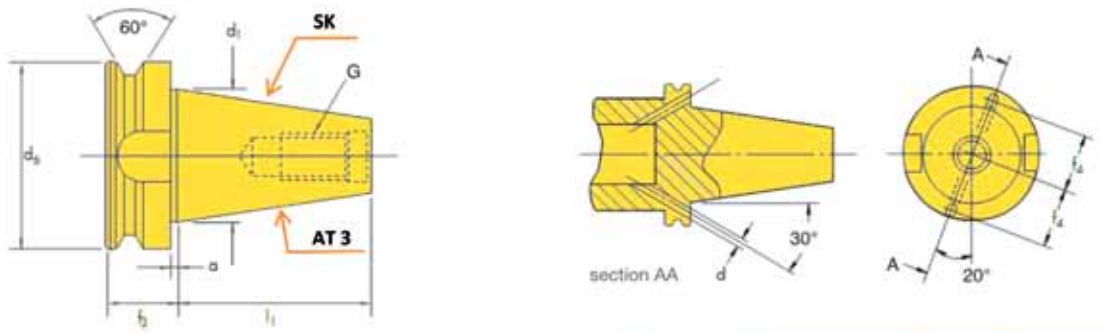
Materiale: Acciaio legato, bonificato
con carico di rottura di 800N/mm².
Temprato secondo scala Vickers min. 630 HV10
(min. 56 HRC).
Attacco e superfice di controllo sono rettificate

Caratteristiche: E' utilizzabile x MAS-BT
Con tirante apposito sono utilizzabili
per DIN 2080
Max Runaut 0,003 mm.

DIN 69871

CARATTERISTICHE DEL CONO **BT MAS 403**

B T M A S 4 0 3



SK		d_1	d_6	l_1	f_3	a	G	d	f_4
30	mm	31.75	46.00	48.40	22.00	2.00	M12	4.00	21.00
40	mm	44,45	63,00	65,40	27,00	2,00	M16	4,00	27,00
50	mm	69,85	100,00	101,80	38,00	3,00	M24	6,00	42,00

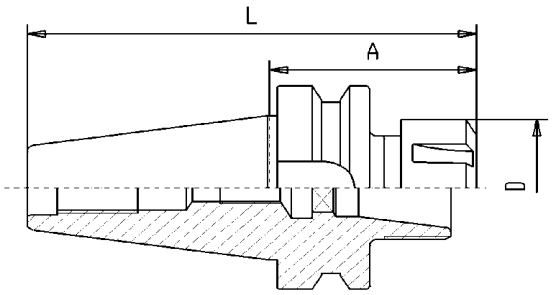
BT MAS 403

Portautensili BT MAS 403

Mandrino Portapinze ER / DIN 6499

BTER

Forma AD



ART.	MISURA SK	x	ER	x	A	L	D	€
BTER	30	x	16	x	70	118	32	96,60
BTER	30	x	16	x	100	148	32	101,50
BTER	30	x	25	x	70	118	42	96,60
BTER	30	x	32	x	70	118	50	102,50
BTER	40	x	16	x	60	126	32	65,20
BTER	40	x	16	x	100	166	32	79,10
BTER	40	x	16	x	160	226	32	132,50
BTER	40	x	25	x	60	126	42	56,50
BTER	40	x	25	x	100	166	42	85,30
BTER	40	x	25	x	160	226	42	176,50
BTER	40	x	32	x	60	126	50	62,30
BTER	40	x	32	x	100	166	50	88,60
BTER	40	x	32	x	160	226	50	100,50
BTER	40	x	40	x	80	146	63	65,10
BTER	40	x	40	x	120	186	63	107,00
BTER	40	x	40	x	160	226	63	186,00
BTER	50	x	32	x	70	172	50	125,00
BTER	50	x	32	x	160	262	50	231,50
BTER	50	x	40	x	80	182	63	125,00

Accessori

PINZE ER DIN 6499B Pag.65
GHIRA DI BLOCCAGGIO DIN 6499 Pag.71
CHIAVE DI BLOCCAGGIO Pag.71

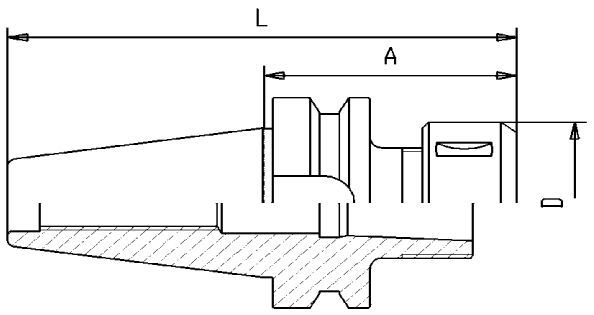
BILANCIATURA:
Classe G6.3 a 12.000 giri/min.

Portautensili BT MAS 403

Mandrino Portapinze OZ / DIN 6388

BTOZ

Forma AD



ART.	MISURA SK	x	OZ	x	A	L	D	€
BTOZ	30	x	16	x	60	108	43	132,00
BTOZ	30	x	25	x	80	128	60	132,00
BTOZ	40	x	16	x	70	136	43	107,00
BTOZ	40	x	25	x	70	136	60	88,60
BTOZ	40	x	32	x	90	156	72	119,00
BTOZ	50	x	25	x	85	187	60	149,50
BTOZ	50	x	32	x	90	192	72	158,50

Accessori
PINZE OZ DIN 6388B Pag. 64
GHIERA DI BLOCCAGGIO OZ DIN 6388D Pag.70
CHIAVE DI BLOCCAGGIO TIPO OZ Pag.70

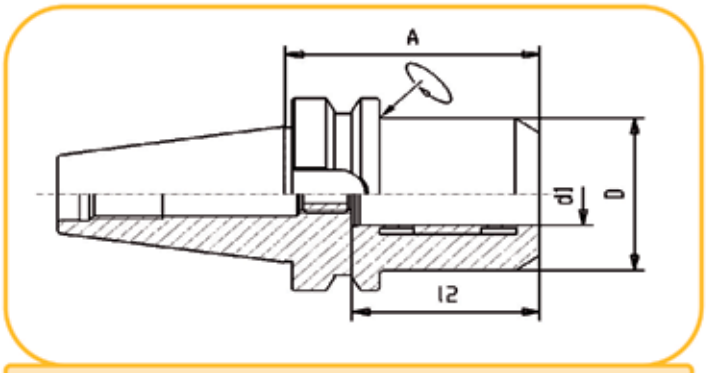
BILANCIATURA:
Classe G6.3 a 12.000 giri/min.

Portautensili BT MAS 403

Mandrino a serraggio idraulico

BTID

Forma AD/B



ART.	MISURA SK x d1	A	l2	D	€
BTID	40 x 6	90	37	49,5	605,00
BTID	40 x 8	90	37	49,5	605,00
BTID	40 x 10	90	41	49,5	605,00
BTID	40 x 12	90	46	49,5	536,00
BTID	40 x 16	90	49	49,5	605,00
BTID	40 x 20	90	51	49,5	536,00
BTID	40 x 25	90	57	55	605,00
BTID	40 x 32	90	61	63	605,00
BTID	50 x 10	90	41	49,5	841,00
BTID	50 x 12	90	46	49,5	779,00
BTID	50 x 16	90	49	49,5	841,00
BTID	50 x 20	90	51	49,5	779,00
BTID	50 x 25	110	57	63	841,00
BTID	50 x 32	110	61	70	841,00
Versione economica corta					
BTIDE	40 x 20	72,5	51	49,5	435,00
BTIDE	50 x 32	90	61	72	542,00

BILANCIATURA:
Classe G6.3 a 15.000 giri/min.
Vedi informazioni tecniche Pag.85

Accessori
BUSSOLE DI RIDUZIONE Pag.70

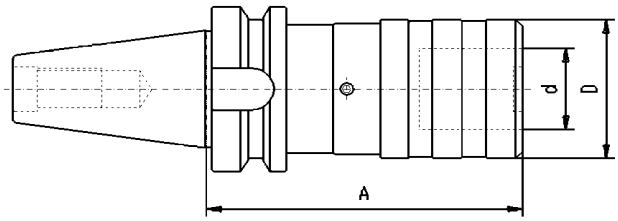
BT MAS 403

Portautensili MAS BT 403

Mandrino con compensazione per bussole a cambio rapido

BTMS

Forma A



ART.	MISURA SK x Tipo	A	d	D	Filetto	€
BTMS	30 x 1	63	19	38	M3-M12	352,00
BTMS	30 x 2	96	31	55	M8-M20	378,00
BTMS	40 x 1	68	19	38	M3-M12	308,00
BTMS	40 x 2	93	31	55	M8-M20	328,00
BTMS	40 x 3	138	48	79	M14-M33	583,00
BTMS	50 x 1	80	19	38	M3-M12	401,00
BTMS	50 x 2	102	31	55	M8-M20	419,00
BTMS	50 x 3	133	48	79	M14-M33	732,00

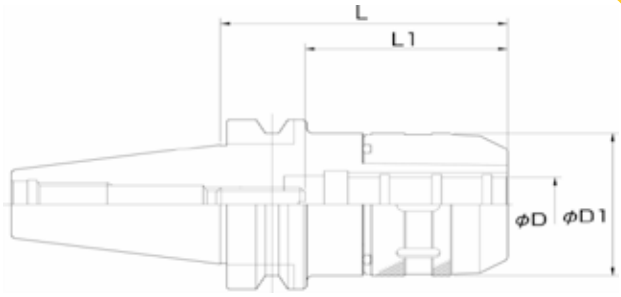
Accessori
PINZE CON FRIZIONE Pag.62
PINZE SENZA FRIZIONE Pag.63

Portautensili BT MAS 403

Mandrino a forte serraggio

BTFS

Forma AD



ART.	MISURA SK x D	L	D1	€
BTFS	40 x 20	75	48	420,00
BTFS	40 x 32	90	68	442,00
BTFS	50 x 20	90	48	479,00
BTFS	50 x 32	95	68	571,00

Accessori
BUSSOLE DI RIDUZIONE Pag. 70

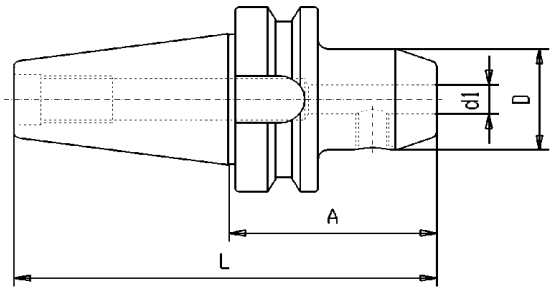
BILANCIATURA:
Classe G6.3 a 8.000 giri/min.
Vedi informazioni tecniche Pag.82

Portautensili BT MAS 403

Mandrino portafrese tipo Weldon

BTWE

Forma AD



ART.	MISURA SK x d1 x A	L	D	€
BTWE	30 x 6 x 50	98	25	73,30
BTWE	30 x 8 x 50	98	28	73,30
BTWE	30 x 10 x 50	98	35	73,30
BTWE	30 x 12 x 55	98	42	73,30
BTWE	30 x 14 x 55	98	42	73,30
BTWE	30 x 16 x 63	111	48	73,30
BTWE	30 x 20 x 63	111	52	73,30
BTWE	40 x 6 x 50	116	25	52,70
BTWE	40 x 6 x 100	166	25	67,10
BTWE	40 x 8 x 50	116	28	49,20
BTWE	40 x 8 x 100	166	28	62,30
BTWE	40 x 10 x 63	129	35	49,20
BTWE	40 x 10 x 100	166	35	62,30
BTWE	40 x 12 x 63	129	42	49,20
BTWE	40 x 12 x 100	166	42	62,30
BTWE	40 x 14 x 63	129	42	49,20
BTWE	40 x 16 x 63	129	48	56,50
BTWE	40 x 16 x 100	166	48	62,30
BTWE	40 x 18 x 63	129	48	49,20
BTWE	40 x 20 x 63	129	52	46,90
BTWE	40 x 20 x 100	166	52	62,30
BTWE	40 x 25 x 35	101	65	80,80
BTWE	40 x 25 x 100	166	63	58,30
BTWE	40 x 32 x 100	166	70	61,10
BTWE	40 x 40 x 120	176	80	111,00

Accessori
RIDUZIONE Pag.72
VITE DI BLOCCAGGIO Pag.73

BILANCIATURA:
Classe G6.3 a 12.000 giri/min.

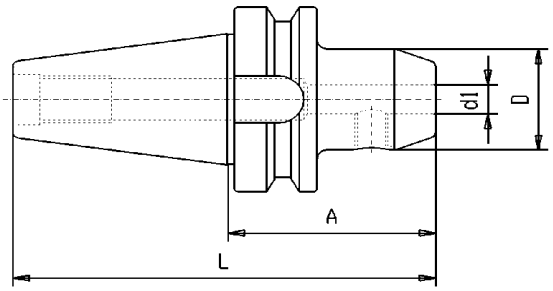
BT MAS 403

Portautensili BT MAS 403

Mandrino portafrese tipo Weldon

BTWE

Forma AD



ART.	MISURA							€
	SK	x	d1	x	A	L	D	
BTWE	50	x	6	x	63	165	25	102,50
BTWE	50	x	8	x	63	165	28	102,50
BTWE	50	x	10	x	63	165	35	102,50
BTWE	50	x	12	x	80	182	42	102,50
BTWE	50	x	14	x	80	182	42	102,50
BTWE	50	x	16	x	80	182	48	102,50
BTWE	50	x	18	x	80	182	48	102,50
BTWE	50	x	20	x	80	182	52	102,50
BTWE	50	x	25	x	100	202	63	104,00
BTWE	50	x	32	x	105	207	70	111,50
BTWE	50	x	40	x	120	222	80	198,00

Accessori
RIDUZIONE Pag.72
VITE DI BLOCCAGGIO Pag.73

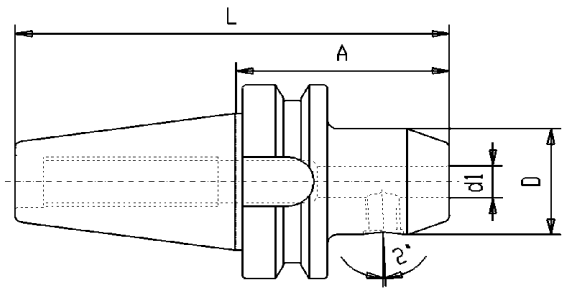
BILANCIATURA:
Classe G6.3 a 12.000 giri/min.

Portautensili BT MAS 403

Mandrino portafrese con attacco Whistle Notch DIN 1835-E

BTWN

Forma AD



ART.	MISURA SK	x	d1	x	A	L	D	€
BTWN	40	x	6	x	50	116	25	79,10
BTWN	40	x	8	x	50	116	28	74,70
BTWN	40	x	10	x	63	129	35	74,70
BTWN	40	x	12	x	63	129	42	74,70
BTWN	40	x	14	x	63	129	42	74,70
BTWN	40	x	16	x	63	129	48	74,70
BTWN	40	x	18	x	63	129	48	74,70
BTWN	40	x	20	x	63	129	52	74,70
BTWN	40	x	25	x	100	166	65	98,10
BTWN	40	x	32	x	100	166	72	105,50
BTWN	50	x	6	x	63	165	25	110,00
BTWN	50	x	8	x	63	165	28	107,00
BTWN	50	x	10	x	63	165	35	107,00
BTWN	50	x	12	x	80	182	42	107,00
BTWN	50	x	14	x	80	182	42	107,00
BTWN	50	x	16	x	80	182	48	107,00
BTWN	50	x	18	x	80	182	48	107,00
BTWN	50	x	20	x	80	182	52	107,00
BTWN	50	x	25	x	100	202	65	119,00
BTWN	50	x	32	x	100	202	72	128,00
BTWN	50	x	40	x	120	222	80	149,50

Accessori
VITE DI BLOCCAGGIO Pag.73

BILANCIATURA:
Classe G6.3 a 12.000 giri/min.

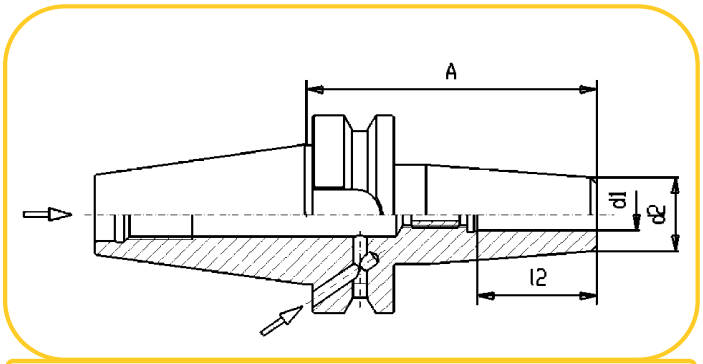
BT MAS 403

Portautensili BT MAS 403

Mandrino a calettamento termico

BTCL

Forma AD/B



ART.	MISURA SK	x	d1	x	A	l2	d2	€
BTCL	40	x	6	x	90	36	20	247,00
BTCL	40	x	8	x	90	36	20	247,00
BTCL	40	x	10	x	90	42	24	247,00
BTCL	40	x	12	x	90	47	24	247,00
BTCL	40	x	14	x	90	47	27	247,00
BTCL	40	x	16	x	90	50	27	247,00
BTCL	40	x	18	x	90	50	33	247,00
BTCL	40	x	20	x	90	52	33	247,00
BTCL	40	x	25	x	100	58	44	247,00
BTCL	40	x	32	x	100	58	44	247,00
BTCL	50	x	6	x	100	36	20	341,00
BTCL	50	x	8	x	100	36	20	341,00
BTCL	50	x	10	x	100	42	24	341,00
BTCL	50	x	12	x	100	47	24	341,00
BTCL	50	x	14	x	100	47	27	341,00
BTCL	50	x	16	x	100	50	27	341,00
BTCL	50	x	18	x	100	50	33	341,00
BTCL	50	x	20	x	100	52	33	341,00
BTCL	50	x	25	x	110	58	44	341,00
BTCL	50	x	32	x	110	58	44	341,00

Accessori
PROLUNGHE PER CALETTAMENTO TERMICO Pag.78

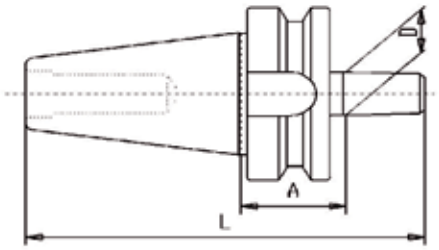
BILANCIATURA:
Classe G6.3 a 15.000 giri/min.
Vedi informazioni tecniche Pag.84

BT MAS 403

Portautensili BT MAS 403

Mandrino con attacco conico DIN 238

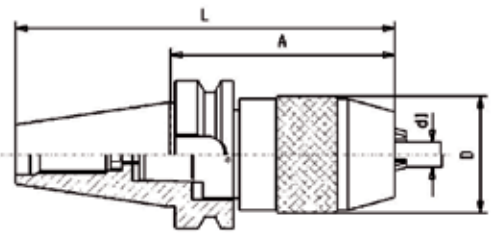
BTD



ART.	MISURA SK x D	A	L	€
	30 x 12	25	92	86,30
BTD	30 x 16	27	99	86,30
BTD	40 x 12	32	114	77,70
BTD	40 x 16	32	121	77,70
BTD	40 x 18	32	129	77,70
BTD	50 x 16	43	169	116,00
BTD	50 x 18	43	177	116,00

Mandrino autoserrante Standard

BTAS



ART.	MISURA SK x d1	A	L	D	€
BTAS	40 x 13	105	171	50	231,50
BTAS	40 x 16	110	176	57	259,00
BTAS	50 x 16	125	227	57	302,00

Massimo runout: 50µm

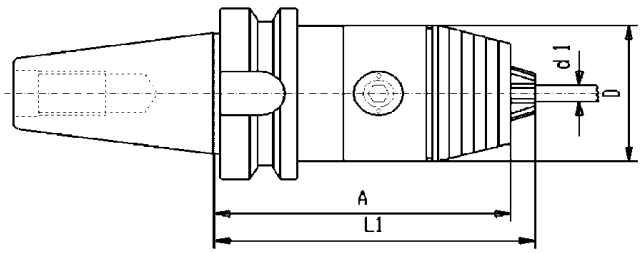
BT MAS 403

Portautensili BT MAS 403

Mandrino autoserrante
ad alta precisione
rotazione destra e sinistra

BTDS

Forma A



ART.	MISURA						€
	SK	x	d1	A	L1	D	
BTDS	30	x	8	73	76	36	566,00
BTDS	30	x	13	98	101	50	542,00
BTDS	40	x	8	81	84	36	411,00
BTDS	40	x	13	98	104	50	350,00
BTDS	40	x	16	103	114	57	366,00
BTDS	50	x	13	110	116	50	463,00
BTDS	50	x	16	115	126	57	496,00

Massimo runout: 30µm a 3xd1

BILANCIATURA:
Classe G6.3 a 12.000 giri/min.

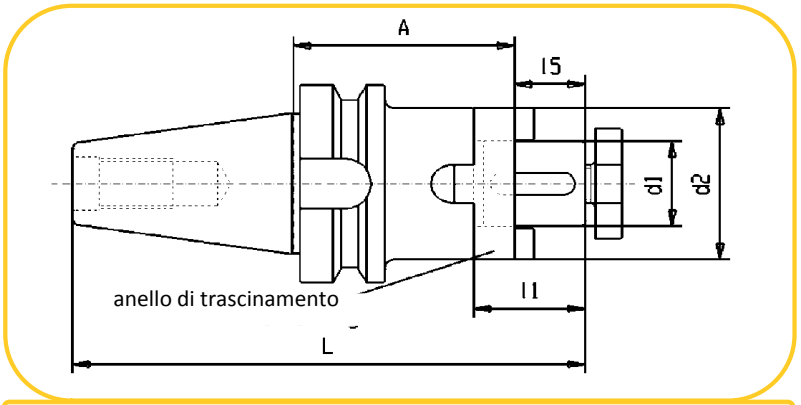
BT MAS 403

Portautensili BT MAS 403

Mandrino portafrese con attacco combinato

BTAC

Forma A



ART.	MISURA SK	x	d1	x	A	L	l5	l1	d2	€
BTAC	30	x	16	x	45	110	17	27	32	93,80
BTAC	30	x	22	x	47	114	19	31	40	93,80
BTAC	30	x	27	x	49	118	21	33	48	93,80
BTAC	40	x	16	x	55	138	17	27	32	70,00
BTAC	40	x	16	x	160	243	17	27	32	165,00
BTAC	40	x	22	x	55	140	19	31	40	73,30
BTAC	40	x	22	x	160	245	19	31	40	165,00
BTAC	40	x	27	x	55	142	21	33	48	73,30
BTAC	40	x	27	x	160	247	21	33	48	170,50
BTAC	40	x	32	x	60	150	24	38	58	83,60
BTAC	40	x	32	x	160	250	24	38	58	176,50
BTAC	40	x	40	x	60	153	27	41	70	96,90
BTAC	40	x	40	x	160	253	27	41	70	231,50
BTAC	50	x	16	x	70	189	17	27	32	105,50
BTAC	50	x	16	x	160	279	17	27	32	△
BTAC	50	x	22	x	70	191	19	31	40	105,50
BTAC	50	x	22	x	160	281	19	31	40	△
BTAC	50	x	27	x	70	193	21	33	48	105,50
BTAC	50	x	27	x	160	283	21	33	48	△
BTAC	50	x	32	x	70	196	24	38	58	108,50
BTAC	50	x	32	x	160	286	24	38	58	△
BTAC	50	x	40	x	70	199	27	41	70	140,50
BTAC	50	x	40	x	160	289	27	41	70	△

BILANCIATURA:
Classe G6.3 a 12.000 giri/min.

△ = su richiesta

Accessori
ANELLO DI TRASCINAMENTO DIN 6366 Pag.79
VITE DI BLOCCAGGIO DIN 6367 Pag.79
CHIAVE DI BLOCCAGGIO DIN 6368 Pag.79

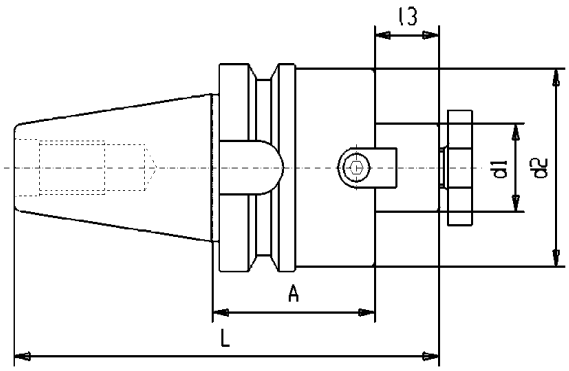
BT MAS 403

Portautensili BT MAS 403

Mandrino portafrese DIN 6357

BTFI

Forma A



ART.	MISURA SK x d1 x A	d2	L	l3	€
BTFI	40 x 16 x 45	38	128	17	88,60
BTFI	40 x 16 x 100	40	183	17	151,00
BTFI	40 x 22 x 45	48	130	19	70,00
BTFI	40 x 22 x 100	48	185	19	151,00
BTFI	40 x 27 x 45	60	132	21	70,00
BTFI	40 x 32 x 50	78	140	24	81,30
BTFI	40 x 40 x 55	89	148	27	116,00
BTFI	50 x 22 x 55	48	176	19	109,50
BTFI	50 x 22 x 100	48	221	19	176,50
BTFI	50 x 27 x 55	60	178	21	111,00
BTFI	50 x 27 x 100	58	223	21	186,00
BTFI	50 x 32 x 55	78	181	24	116,50
BTFI	50 x 32 x 100	78	226	24	190,50
BTFI	50 x 40 x 55	89	184	27	146,50
BTFI	50 x 40 x 100	89	229	27	Δ
BTFI	50 x 60 x 80	129	212	40	302,00

Δ = su richiesta

Accessori
VITE DI BLOCCAGGIO DIN 6367 Pag.79
CHIAVE DI BLOCCAGGIO DIN 6368 Pag.79

BILANCIATURA:
Classe G6.3 a 12.000 giri/min.

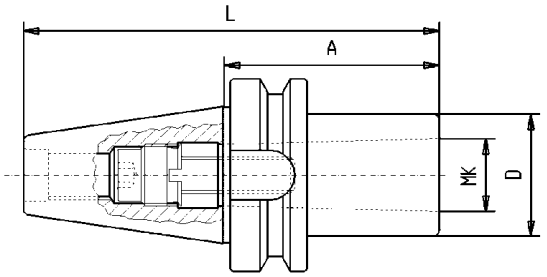
BT MAS 403

Portautensili BT MAS 403

Mandrino portafrese
attacco Cono Morse con vite DIN 6364

BTMK

Forma A



ART.	MISURA							€
	SK	x	MK	x	A	D	L	
BTMK	30	x	1	x	45	25	93	106,00
BTMK	30	x	2	x	60	32	108	106,00
BTMK	30	x	3	x	77	40	125	111,50
BTMK	40	x	1	x	50	25	116	102,00
BTMK	40	x	2	x	50	32	116	102,00
BTMK	40	x	3	x	70	40	136	102,00
BTMK	40	x	4	x	95	48	161	110,00
BTMK	50	x	1	x	45	25	147	130,50
BTMK	50	x	2	x	55	32	157	130,50
BTMK	50	x	3	x	65	40	167	130,50
BTMK	50	x	4	x	80	48	182	143,00
BTMK	50	x	5	x	110	63	212	146,00

Massimo runout: 10µm

BILANCIATURA:
Classe G6.3 a 12.000 giri/min.

BT MAS 403

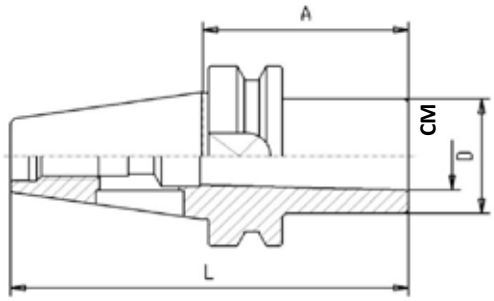
Klainod

Portautensili BT MAS 403

Mandrino portapunte
attacco Cono Morse con tenone DIN 6383

BTCM

Forma AD



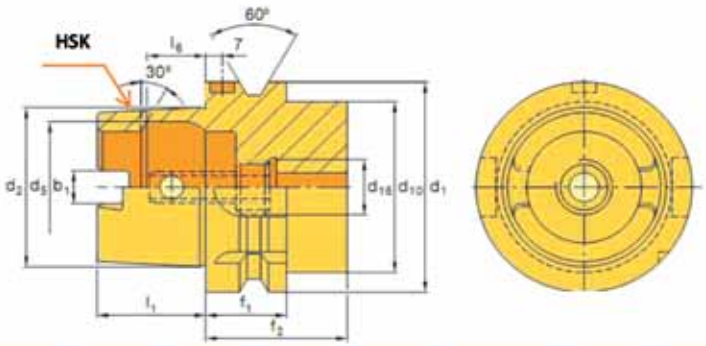
ART.	MISURA BT	x	CM	x	A	D	L	€
BTCM	30	x	1	x	45	25	93	73,30
BTCM	30	x	2	x	60	32	108	76,10
BTCM	30	x	3	x	77	40	125	79,10
BTCM	40	x	1	x	50	25	116	57,60
BTCM	40	x	2	x	50	32	116	57,60
BTCM	40	x	3	x	70	40	136	57,60
BTCM	40	x	4	x	95	48	161	63,30
BTCM	50	x	1	x	45	25	147	91,00
BTCM	50	x	2	x	50	32	152	91,00
BTCM	50	x	3	x	65	40	167	91,00
BTCM	50	x	4	x	95	48	197	94,30
BTCM	50	x	5	x	105	63	207	105,50

Massimo runout: 10µm

BILANCIATURA:
Classe G6.3 a 12.000 giri/min.

CARATTERISTICHE DEL CONO HSK DIN 69893

HSK DIN 69893



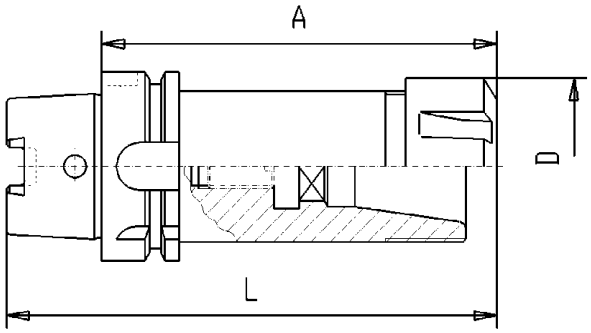
HSK	b_1 ± 0,04	d_1 h10	d_2	d_5 h11	$d_{10\,max}$	d_{16}	f_1 - 0,1	$f_{2\,min}$	l_1 - 0,2	l_6 JS10	n_{max} (min-1)
63	12,54	63	48	40	53	M18x1	26	42	32	18,13	25.000
100	20,0	100	75	63	85	M24x1,5	29	46	50	28,56	16.000

Portautensili HSK DIN 69893

Mandrino Portapinze ER / DIN 6499

HSKER

Forma AD



ART.	MISURA HSK x ER x A	L	D	€
HSKER	63 x 16 x 100	132	32	158,50
HSKER	63 x 16 x 160	192	32	258,50
HSKER	63 x 25 x 100	132	42	158,50
HSKER	63 x 25 x 160	192	42	250,00
HSKER	63 x 32 x 100	132	50	167,00
HSKER	63 x 32 x 160	192	50	243,00
HSKER	63 x 40 x 120	152	63	186,50
HSKER	63 x 40 x 160	192	63	249,00
HSKER	100 x 32 x 100	150	50	221,00
HSKER	100 x 32 x 160	210	50	296,00
HSKER	100 x 40 x 120	170	63	238,50
HSKER	100 x 40 x 160	210	63	314,00

Accessori
PINZA ER DIN 6499B Pag.65
GHIERA DI BLOCCAGGIO DIN 6499 Pag.71
CHIAVE DI BLOCCAGGIO Pag.71

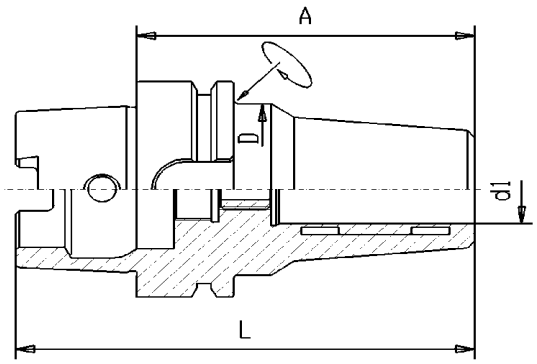
BILANCIATURA:
Classe G6.3 a 12.000 giri/min.

Portautensili HSK DIN 69893

Mandrino a serraggio idraulico

HSKID

Forma AD



ART.	MISURA HSK x	d1	x	A	L	D	€
HSKID	63 x	6	x	70	102	50	657,00
HSKID	63 x	8	x	70	102	50	657,00
HSKID	63 x	10	x	80	112	50	657,00
HSKID	63 x	12	x	85	117	50	605,00
HSKID	63 x	16	x	90	122	50	657,00
HSKID	63 x	20	x	90	122	50	605,00
HSKID	63 x	25	x	120	152	53	657,00
HSKID	63 x	32	x	125	157	59	657,00
HSKID	100 x	10	x	90	140	50	858,00
HSKID	100 x	12	x	95	145	50	858,00
HSKID	100 x	16	x	100	150	50	858,00
HSKID	100 x	20	x	105	155	50	858,00
HSKID	100 x	25	x	115	165	57	858,00
HSKID	100 x	32	x	120	170	63	858,00
Versione economica corta							
HSKIDE	63 x	20	x	80	112	57	516,00

Accessori
BUSSOLE DI RIDUZIONE Pag.70
TUBO DI LUBRIFICAZIONE Pag.77

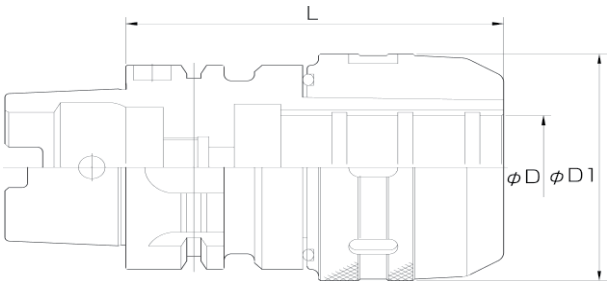
BILANCIATURA:
Classe G6.3 a 15.000 giri/min.
Vedi informazioni tecniche Pag.85

Portautensili HSK DIN 69893

Mandrino a forte serraggio

HSKFS

Forma AD



ART.	MISURA					€
	HSK	x	D	x	L	D1	
HSKFS	63	x	20	x	95	52	567,00
HSKFS	100	x	32	x	100	69	605,00

Accessori
BUSSOLE DI RIDUZIONE Pag.70
TUBO LUBRIFICAZIONE Pag.70

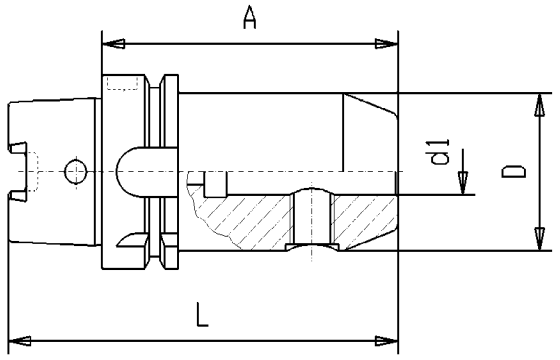
BILANCIATURA:
Classe G6.3 a 8.000 giri/min.
Vedi informazioni tecniche Pag.82

Portautensili HSK DIN 69893

Mandrino portafrese tipo Weldon

HSKWE

Forma AD



ART.	MISURA HSK x d1 x A	L	D	€
HSKWE	63 x 6 x 65	97	25	155,50
HSKWE	63 x 6 x 160	192	18	251,50
HSKWE	63 x 8 x 65	97	28	153,00
HSKWE	63 x 8 x 160	192	22	251,50
HSKWE	63 x 10 x 65	97	35	153,00
HSKWE	63 x 10 x 160	192	30	251,50
HSKWE	63 x 12 x 80	112	42	153,00
HSKWE	63 x 12 x 160	192	34	251,50
HSKWE	63 x 14 x 80	112	44	153,00
HSKWE	63 x 14 x 160	192	36	251,50
HSKWE	63 x 16 x 80	112	48	153,00
HSKWE	63 x 16 x 160	192	42	251,50
HSKWE	63 x 18 x 80	112	50	153,00
HSKWE	63 x 18 x 160	192	44	251,50
HSKWE	63 x 20 x 80	112	52	153,00
HSKWE	63 x 20 x 160	192	45	251,50
HSKWE	63 x 25 x 110	142	65	178,00
HSKWE	63 x 32 x 110	142	70	192,50
HSKWE	100 x 6 x 90	140	25	215,00
HSKWE	100 x 6 x 160	210	18	297,00
HSKWE	100 x 8 x 90	140	28	206,50
HSKWE	100 x 8 x 160	210	22	292,00
HSKWE	100 x 10 x 90	140	35	206,50
HSKWE	100 x 10 x 160	210	30	292,00
HSKWE	100 x 12 x 100	150	42	206,50
HSKWE	100 x 12 x 160	210	35	292,00
HSKWE	100 x 14 x 100	150	44	206,50
HSKWE	100 x 16 x 100	150	48	206,50
HSKWE	100 x 16 x 160	210	42	292,00
HSKWE	100 x 18 x 100	150	50	206,50
HSKWE	100 x 20 x 110	160	52	206,50
HSKWE	100 x 20 x 160	210	45	292,00
HSKWE	100 x 25 x 120	170	65	237,50
HSKWE	100 x 32 x 120	170	72	251,50
HSKWE	100 x 40 x 120	170	80	260,00

BILANCIATURA:
Classe G6.3 a 12.000 giri/min.

Accessori
TUBO LUBRIFICAZIONE Pag.77
VITE DI BLOCCAGGIO Pag.73

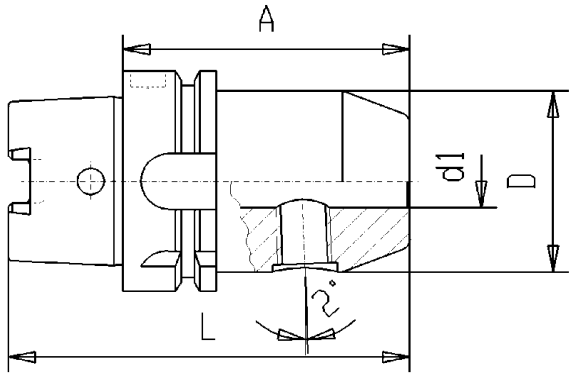
HSK DIN 69893

Portautensili HSK DIN 69893

Mandrino portafrese con attacco Whistle Notch DIN 1835-E

HSKWN

Forma AD



ART.	MISURA HSK x	d1	x	A	L	D	€
HSKWN	63 x	6	x	80	112	25	192,50
HSKWN	63 x	8	x	80	112	28	186,50
HSKWN	63 x	10	x	80	112	35	186,50
HSKWN	63 x	12	x	90	122	42	186,50
HSKWN	63 x	14	x	90	122	44	186,50
HSKWN	63 x	16	x	100	132	48	186,50
HSKWN	63 x	18	x	100	132	50	186,50
HSKWN	63 x	20	x	105	137	52	186,50
HSKWN	63 x	25	x	110	142	65	212,00
HSKWN	63 x	32	x	110	142	72	223,50
HSKWN	100 x	6	x	90	140	25	260,00
HSKWN	100 x	8	x	90	140	28	253,00
HSKWN	100 x	10	x	90	140	35	253,00
HSKWN	100 x	12	x	100	150	42	253,00
HSKWN	100 x	14	x	100	150	44	253,00
HSKWN	100 x	16	x	100	150	48	253,00
HSKWN	100 x	18	x	100	150	50	253,00
HSKWN	100 x	20	x	110	160	52	253,00
HSKWN	100 x	25	x	120	170	65	272,00
HSKWN	100 x	32	x	120	170	72	282,00
HSKWN	100 x	40	x	130	180	80	288,00

BILANCIATURA:
Classe G6.3 a 12.000 giri/min.

Accessori
TUBO LUBRIFICAZIONE Pag.77
VITE DI BLOCCAGGIO Pag.73

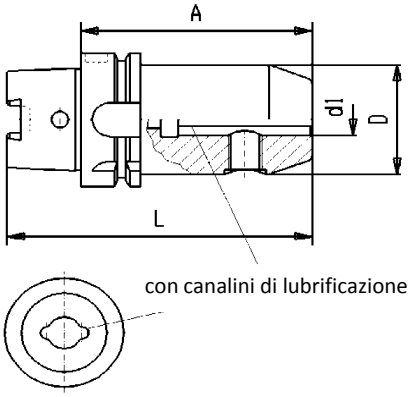
HSK DIN 69893

Portautensili HSK DIN 69893

Mandrino portafrese
con attacco Whistle Notch DIN 1835-B
con canalini di lubrificazione

HSKWEG

Forma AD



ART.	MISURA HSK x d1 x A	L	D	€
HSKWEG	63 x 6 65	97	25	195,00
HSKWEG	63 x 8 65	97	28	195,00
HSKWEG	63 x 10 65	97	35	195,00
HSKWEG	63 x 12 80	112	42	195,00
HSKWEG	63 x 14 80	112	44	195,00
HSKWEG	63 x 16 80	112	48	195,00
HSKWEG	63 x 18 80	112	50	195,00
HSKWEG	63 x 20 80	112	52	195,00
HSKWEG	63 x 25 110	142	65	225,00
HSKWEG	63 x 32 110	142	72	246,00
HSKWEG	63 x 40 125	157	80	266,00

Accessori
TUBO LUBRIFICAZIONE Pag.77
VITE DI BLOCCAGGIO Pag.73

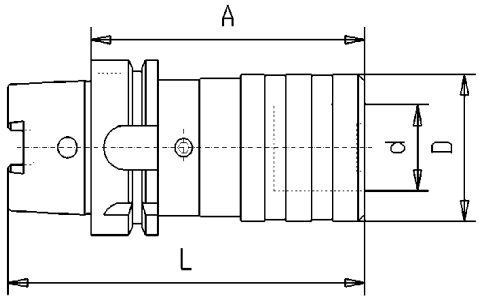
BILANCIATURA:
Classe G6.3 a 12.000 giri/min.

Portautensili HSK DIN 69893

Mandrino con compensazione per bussole a cambio rapido

HSKMS

Forma A



ART.	MISURA						€
	HSK	x Tipo	A	d	D	L	
HSKMS	63	x 1	102	19	38	134	639,00
HSKMS	64	x 2	152	31	54	184	727,00
HSKMS	100	x 1	112	19	38	162	△
HSKMS	100	x 2	155	31	54	205	△
HSKMS	100	x 3	144	48	86	194	△

Accessori
PINZE CON FRIZIONE Pag.62
PINZE SENZA FRIZIONE Pag.63

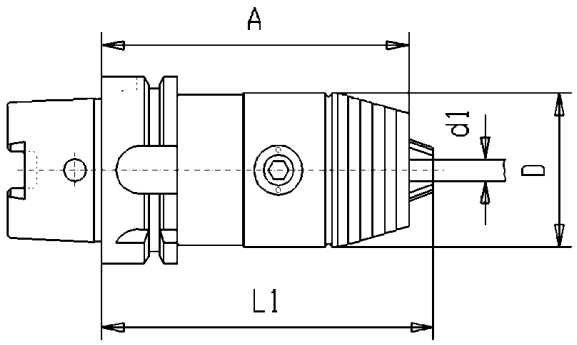
△ = su richiesta

Portautensili HSK DIN 69893

Mandrino autoserrante
ad alta precisione
rotazione destra e sinistra

HSKDS

Forma A

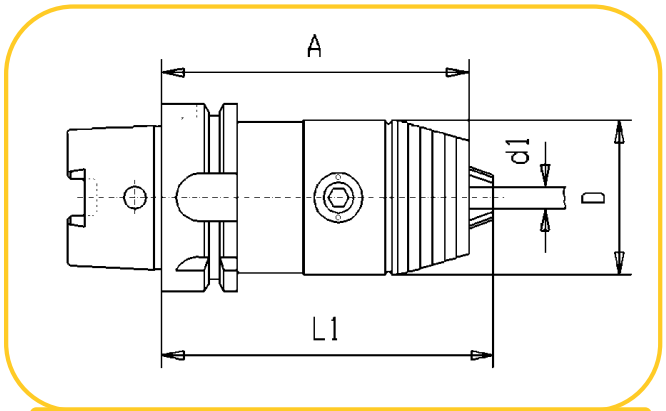


ART.	MISURA					€
	HSK x	d1	A	L1	D	
HSKDS	63 x	13	104	110	50	591,00
HSKDS	63 x	16	109	115	57	612,00
HSKDS	100 x	13	111	177	50	709,00
HSKDS	100 x	16	116	122	57	770,00

Massimo runout: 30µm a 3xd1

HSKDSB

Forma AD



ART.	MISURA					€
	HSK x	d1	A	L1	D	
HSKDSB	63 x	13	104	110	50	650,00
HSKDSB	63 x	16	109	115	57	682,00
HSKDSB	100 x	13	111	117	50	779,00
HSKDSB	100 x	16	116	122	57	828,00

Massimo runout: 30µm a 3xd1

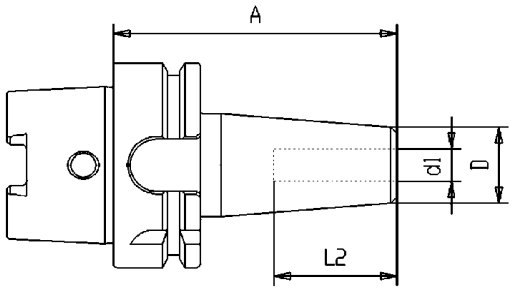
HSK DIN 69893

Portautensili HSK DIN 69893

Mandrino a calettamento termico

HSKCL

Forma AD



ART.	MISURA HSK x d1 x A	D	l2	€
HSKCL	63 x 6 x 80	10	36	267,00
HSKCL	63 x 6 x 160	10	36	357,00
HSKCL	63 x 8 x 80	20	36	267,00
HSKCL	63 x 8 x 160	20	36	357,00
HSKCL	63 x 10 x 80	24	42	267,00
HSKCL	63 x 10 x 160	24	42	357,00
HSKCL	63 x 12 x 90	24	47	267,00
HSKCL	63 x 12 x 160	24	47	357,00
HSKCL	63 x 14 x 90	27	47	267,00
HSKCL	63 x 14 x 160	27	47	357,00
HSKCL	63 x 16 x 90	27	50	267,00
HSKCL	63 x 16 x 160	27	50	357,00
HSKCL	63 x 18 x 95	33	50	267,00
HSKCL	63 x 18 x 160	33	50	357,00
HSKCL	63 x 20 x 100	33	52	267,00
HSKCL	63 x 20 x 160	33	52	357,00
HSKCL	63 x 25 x 115	44	58	267,00
HSKCL	63 x 25 x 160	44	58	357,00
HSKCL	100 x 6 x 85	20	36	457,00
HSKCL	100 x 6 x 160	20	36	536,00
HSKCL	100 x 8 x 85	20	36	457,00
HSKCL	100 x 8 x 160	20	36	536,00
HSKCL	100 x 10 x 90	24	42	457,00
HSKCL	100 x 10 x 160	24	42	536,00
HSKCL	100 x 12 x 95	24	47	457,00
HSKCL	100 x 12 x 160	24	47	536,00
HSKCL	100 x 14 x 95	27	47	457,00
HSKCL	100 x 14 x 160	27	47	536,00
HSKCL	100 x 16 x 100	27	50	457,00
HSKCL	100 x 16 x 160	27	50	536,00
HSKCL	100 x 18 x 100	33	50	457,00
HSKCL	100 x 18 x 160	33	50	536,00
HSKCL	100 x 20 x 105	33	52	457,00
HSKCL	100 x 20 x 160	33	52	536,00
HSKCL	100 x 25 x 115	44	58	457,00
HSKCL	100 x 25 x 160	44	58	536,00

BILANCIATURA:
Classe G6.3 a 15.000 giri/min.
Vedi informazioni tecniche Pag.84

Accessori
PROLUNGHE Pag.78
TUBO LUBRIFICAZIONE Pag.77

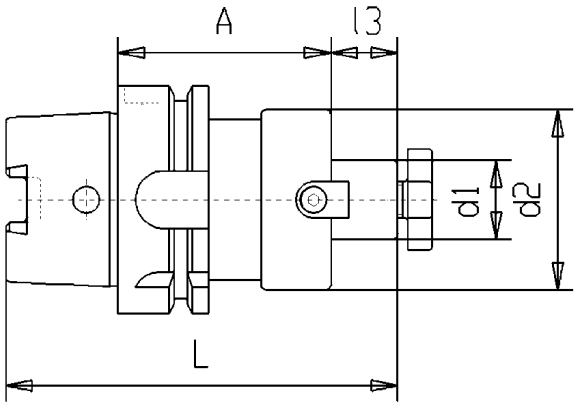
HSK DIN 69893

Portautensili HSK DIN 69893

Mandrino portafrese DIN 6357

HSKFI

Forma AD



ART.	MISURA							€
	HSK x	d1	x	A	l3	d2	L	
HSKFI	63 x	16	x	45	17	38	94	184,50
HSKFI	63 x	16	x	160	17	32	209	254,00
HSKFI	63 x	22	x	50	19	48	101	189,00
HSKFI	63 x	22	x	160	19	40	211	258,00
HSKFI	63 x	27	x	60	21	60	113	194,50
HSKFI	63 x	27	x	160	21	48	213	263,00
HSKFI	63 x	32	x	60	24	78	116	202,50
HSKFI	63 x	32	x	160	24	58	216	263,00
HSKFI	63 x	40	x	60	27	89	119	256,00
HSKFI	63 x	40	x	160	27	70	219	274,00
HSKFI	100 x	16	x	55	17	32	122	224,00
HSKFI	100 x	16	x	160	17	32	222	Δ
HSKFI	100 x	22	x	55	19	40	124	224,00
HSKFI	100 x	22	x	160	19	40	224	Δ
HSKFI	100 x	27	x	55	21	48	126	224,00
HSKFI	100 x	27	x	160	21	48	226	Δ
HSKFI	100 x	32	x	60	24	58	134	231,50
HSKFI	100 x	32	x	160	24	58	234	Δ
HSKFI	100 x	40	x	60	27	70	137	240,00
HSKFI	100 x	40	x	160	27	70	237	Δ

Δ = su richiesta

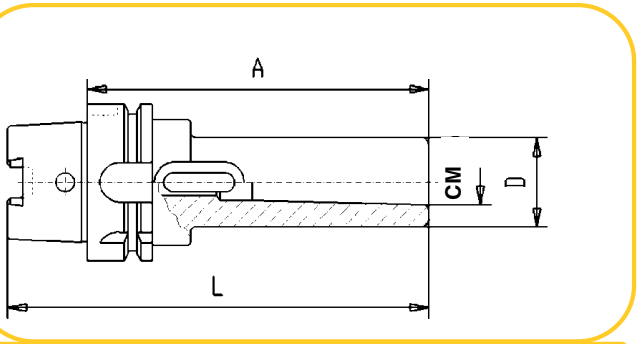
Accessori
CHIAVE DI BLOCCAGGIO DIN 6368 Pag.79
VITE DIBLOCCAGGIO DIN 6367 Pag.79

HSK DIN 69893

Portautensili HSK DIN 69893

Mandrino portapunte attacco Cono Morse con tenone DIN 6383

HSKCM — **Forma AD**

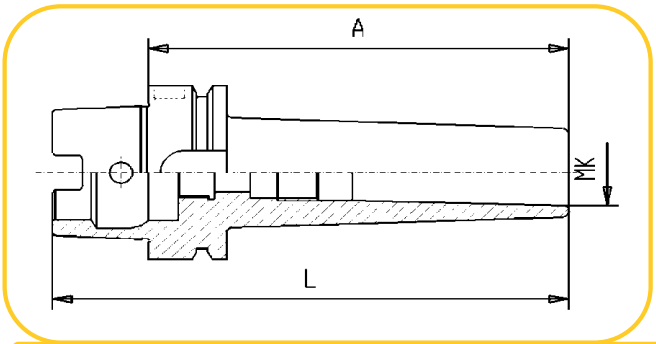


ART.	MISURA HSK x	CM x	A	D	L	€
HSKCM	63 x	1 x	100	25	132	154,50
HSKCM	63 x	2 x	120	32	152	154,50
HSKCM	63 x	3 x	140	40	172	157,00
HSKCM	63 x	4 x	160	48	192	161,50
HSKCM	100 x	2 x	120	32	170	215,50
HSKCM	100 x	3 x	150	40	200	224,00
HSKCM	100 x	4 x	170	48	220	246,00

BILANCIATURA:
Classe G6.3 a 12.000 giri/min.

Mandrino portafrese attacco Cono Morse con vite DIN 6364

HSKMK — **Forma A**



ART.	MISURA HSK x	MK x	A	D	L	€
HSKMK	63 x	1 x	100	25	132	176,50
HSKMK	63 x	2 x	120	32	152	176,50
HSKMK	63 x	3 x	140	40	172	181,50
HSKMK	63 x	4 x	160	48	192	190,50
HSKMK	100 x	2 x	120	32	170	228,50
HSKMK	100 x	3 x	150	40	200	237,50
HSKMK	100 x	4 x	170	48	220	258,50

BILANCIATURA:
Classe G6.3 a 12.000 giri/min.

HSK DIN 69893