



MONOd'

Toolholders

Werkzeugaufnahmen

Oprawki narzędziowe

Porte-outils

Portautensili



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MONOd'

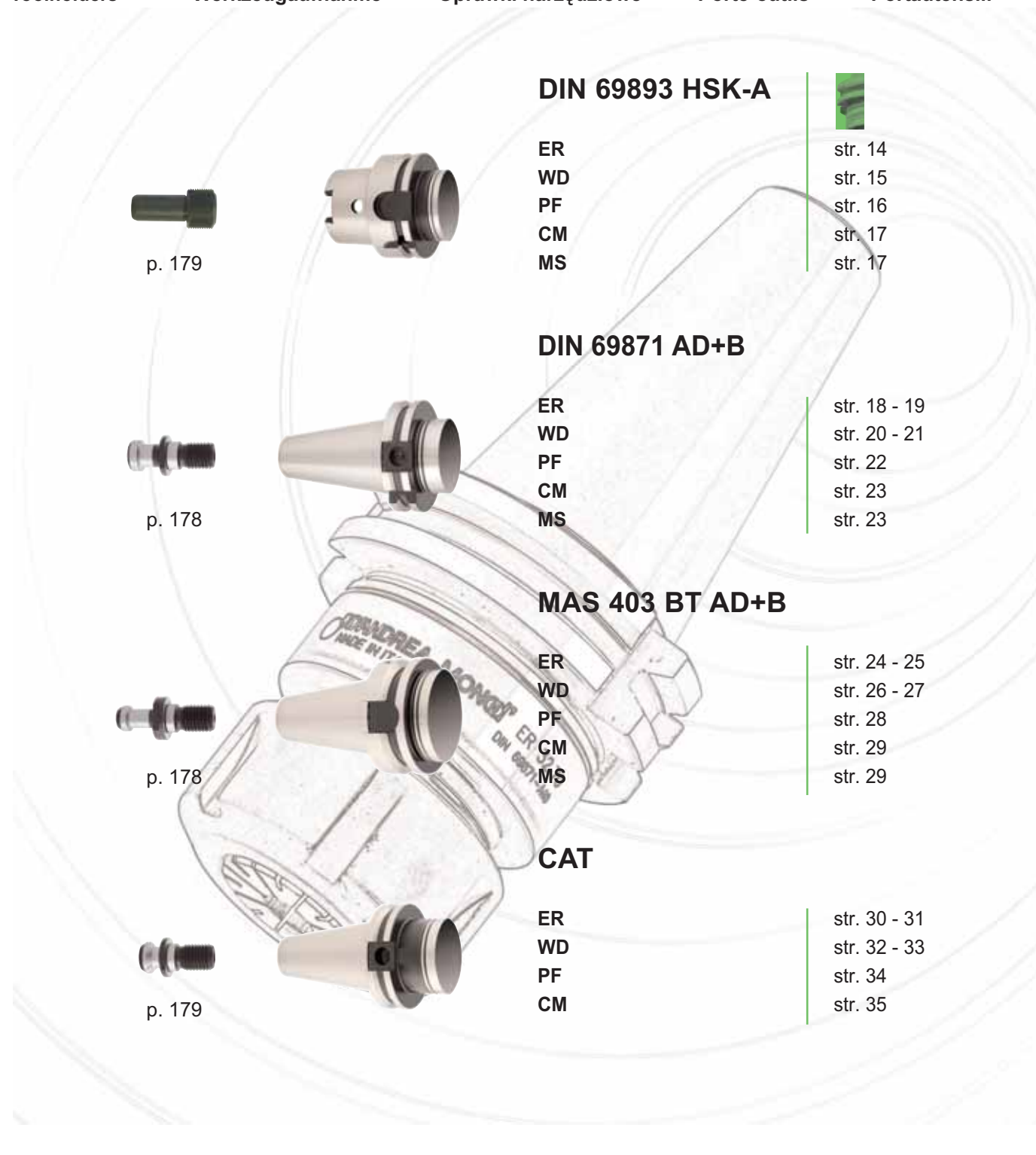
Toolholders

Werkzeugaufnahme

Oprawki narzędziowe

Porte-outils

Portautensili



DIN 69893 HSK-A



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DIN 69871 AD+B

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CAT

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MONOd'



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Toolholders

MONOd' is a new line of monobloc toolholders by D'Andrea, which has been designed in addition to the worldwide well known Modulhard'Andrea and Toprun toolholder systems. Entirely produced by D'Andrea, the complete **MONOd'** range is guaranteed by design, manufacturing sales procedures according ISO 9001 standard.

MONOd' line represents the perfect solution for all machine tool equipment: it guarantees users the advantages of excellent quality and a remarkable level of precision, while maintaining a highly competitive price.

MONOd', available in HSK 63, DIN 69871, MAS-BT and CAT spindle versions, size ISO 40 and 50, comprises ER collet chuck holders in different lengths, WD Weldon toolholders, PF mill holders, CM Morse taper toolholders and MS tapping toolholders.

Werkzeugaufnahmen

MONOd' ist D'Andrea neue Serie von Monoblock –Werkzeughaltern, die zur Erweiterung der zwei bereits bekannten Werkzeughaltersysteme Modulhard'Andrea und Toprun entworfen worden ist. Die Reihe von **MONOd'** Werkzeughaltern wird ganz bei D'Andrea Produktionsanlagen unter der Entwurfs-, Herstellungs- und Verkaufsstandards der ISO 9001 Bescheinigung konstruiert und sie verkörpert die ideale Lösung für die Ausrüstung jeder Werkzeugmaschine.

MONOd' garantiert dem Benutzer die Vorteile herausragender Qualität und höchster Genauigkeit zu einem absolut wettbewerbsfähigen Preis. Das Kompletprogramm für Werkzeugspindeln HSK 63, DIN 69871, MAS-BT und CAT in den Größen ISO 40 und 50 umfasst Spannzangenfutter ER in verschiedenen Längen, Werkzeugaufnahmen für Weldon WD, Werkzeugaufnahmen für Aufsteckfräser PF, Werkzeugaufnahmen für Morsekegel CM sowie Aufnahmen mit Gewindeschneidschnellwechselfutter MS.

Oprawki narzędziowe

Porte-outils

Portautensili

MONOd' jest nową linią opravek monolitycznych firmy D'Andrea, zaprojektowaną i stworzoną w celu uzupełnienia gamy dwóch systemów już znanych na całym świecie - Modulhard'Andrea i Toprun. W całości zaprojektowana w firmie D'Andrea, linia opravek **MONOd'** spełnia normy ISO 9001 w zakresie projektowania, wykonania i sprzedaży. Linia opravek **MONOd'** jest idealną propozycją wyposażenia każdego typu obrabiarki. **MONOd'** zapewnia użytkownikowi wysoką jakość i dużą dokładność, przy zachowaniu konkurencyjnej ceny rynkowej. Program **MONOd'** w wersji HSK 63, DIN 69871, MAS-BT i CAT, w wielkościach ISO 40 i 50, obejmuje oprawy z wyjściem pod: tulejki ER w różnych wymiarach, Weldon WD, głowice frezarskie PF, stożki Morse'a CM i oprawy do gwintowania z kompensacją osiową MS. **MONOd'** AD+B Cały program opravek ze stożkami ISO 40 i 50 jest wykonany w wersji AD+B. Aby móc stosować wersję B, należy usunąć korki z poz.B i używać zaciągaczy bez otworów (str.178).

MONOd' est la nouvelle ligne de porte-outils monobloc D'Andrea qui complète les systèmes de porte-outils modulhard'andrea e Toprun, déjà connus dans le monde entier. Entièrement produit par D'Andrea, le système de porte-outils **MONOd'** est certifié selon les procédures d'étude, de fabrication et de vente des normes ISO 9001. **MONOd'** représente la solution idéale pour l'équipement de toutes les machines outils. **MONOd'** est en mesure d'assurer à l'utilisateur une excellente qualité et un remarquable degré de précision, associés à un prix hautement concurrentiel. Le programme **MONOd'** en version HSK 63, DIN 69871, MAS-BT et CAT de la grandeur ISO 40 et 50, comprend : porte-pinces ER en différent longueurs, porte-outils Weldon WD, porte-fraises PF, porte-outils de taraudage MS.

MONOd' è la nuova linea di portautensili monoblocco D'Andrea, progettata a completamento dei due sistemi già noti in tutto il mondo, Modulhard'Andrea e Toprun. Interamente prodotta in D'Andrea, la gamma dei portautensili **MONOd'** è garantita da procedure di progettazione, fabbricazione e vendita conformi alla norma ISO 9001. La linea di portautensili **MONOd'** rappresenta la soluzione ideale per attrezzare ogni tipo di macchina utensile. **MONOd'** garantisce all'utilizzatore i vantaggi dell'elevata qualità e dell'alto grado di precisione ad un prezzo di mercato altamente concorrenziale. Il programma **MONOd'** nelle versioni HSK 63, DIN 69871, MAS-BT e CAT a grandezza ISO 40 e 50 comprende portapinze ER in differenti lunghezze, Weldon WD, portafrese PF, riduzioni CM e maschiatori MS.



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Collet chuck holder

Spannzangenfutte

Wyjście pod tulejki ER

Porte-pinces

Portapinze



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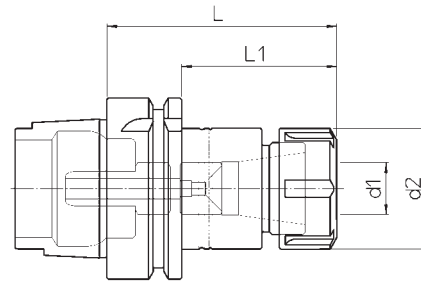


fig.1

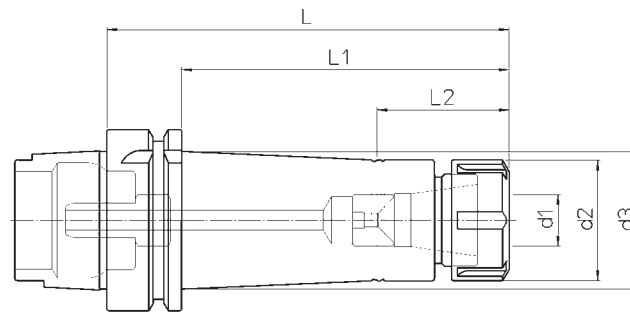


fig.2

Supplied with coolant tube - without collets and clamping wrenches

Lieferung inklusive Kühlmittelrohr. Ohne Spannzangen und Spannschlüssel.

Wyposażona w złączkę do wewnętrznego doprowadzenia chłodziwa - nie zawiera tulejek rozprężnych i kluczy do nakrętek

Pourvu de raccord pour liquide d'arrosage - Sans pinces et clés de serrage

Completo di raccordo per il refrigerante - Pinze elastiche e chiavi di serraggio escluse

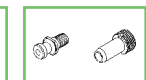
HSK-A	ARTYKUŁ	KOD	TYP	d ₁	d ₂	d ₃	L	L ₁	L ₂	kg	fig.
63	HSK-A63 ER16.80	71HSKA063ER1608	ER 16	0.5 ~ 10	24	32	80	54	41	1.1	2
	HSK-A63 ER16.120	71HSKA063ER1612				31	120	94	41	1.9	2
	HSK-A63 ER25.80	71HSKA063ER2508	ER 25	1 ~ 16	42	-	80	54	-	1.3	1
	HSK-A63 ER25.140	71HSKA063ER2514				47.5	140	114	46	1.7	2
	HSK-A63 ER32.90	71HSKA063ER3209	ER 32	2 ~ 20	50	-	90	64	-	1.6	1
	HSK-A63 ER32.160	71HSKA063ER3216				-	160	134	-	2.2	1

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DIN 69893 HSK-A

WD - DIN 1835-B



Weldon
toolholder

Werkzeugaufnahme
für Weldon

Wyjście
pod Weldon

Porte-outil
Weldon

Portautensile
Weldon

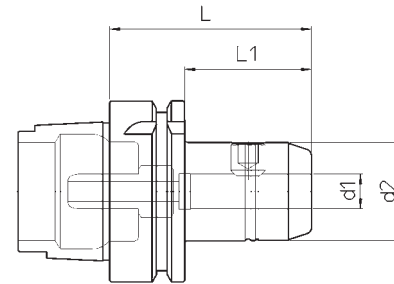


fig.1

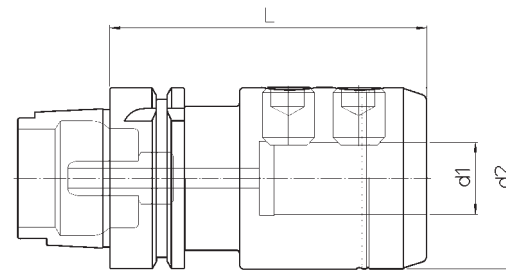


fig.2



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Supplied with coolant
tube

Lieferung inklusive
Kühlmitelrohr

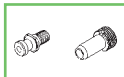
Wyposażona w złączkę
do wewnętrznego dopro-
wadzenia chłodziwa

Pourvu de raccord pour
liquide d'arrosage

Completo di raccordo
per il refrigerante

HSK-A	ARTYKUŁ	KOD	d ₁ ^{H5}	d ₂	L	L ₁	kg	fig.
63	HSK-A63 WD06.60	71HSKA063WD0606	6	23	60	34	0.8	1
	HSK-A63 WD08.65	71HSKA063WD0806	8	26	65	39	1.1	1
	HSK-A63 WD10.70	71HSKA063WD1007	10	30	70	44	1.1	1
	HSK-A63 WD12.70	71HSKA063WD1207	12	34	70	44	1.2	1
	HSK-A63 WD16.80	71HSKA063WD1608	16	42	80	54	1.4	1
	HSK-A63 WD20.80	71HSKA063WD2008	20	50	80	54	1.5	1
	HSK-A63 WD25.110	71HSKA063WD2511	25	63	110	-	2.3	2
	HSK-A63 WD32.110	71HSKA063WD3211	32	70	110	-	2.5	2

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str. 188



str. 209



MONOd'

PF

DIN 69893 HSK-A

Mill holder

Werkzeugaufnahme
für Aufsteckfräser

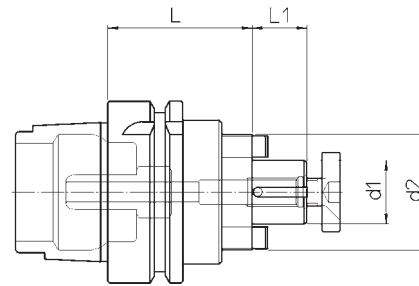
Wyjście pod głowice
frezarskie

Porte-fraises

Portafrese



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Supplied with coolant
tube

Lieferung inklusive
Kühlmittelrohr.

Wyposażona w złączkę
do wewnętrznego dopro-
wadzenia chłodziwa

Pourvu de raccord pour
liquide d'arrosage.

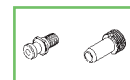
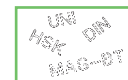
Completo di raccordo
per il refrigerante

HSK-A	ARTYKUŁ	KOD	d ₁	d ₂	L	L ₁	kg
63	HSK-A63 PF16.50	71HSKA063PF1605	16	32	50	17	1.1
	HSK-A63 PF22.50	71HSKA063PF2205	22	40	50	19	1.2
	HSK-A63 PF27.55	71HSKA063PF2705	27	50	55	21	1.4
	HSK-A63 PF32.60	71HSKA063PF3206	32	60	60	24	1.8

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DIN 69893 HSK-A

CM - DIN 228 AB



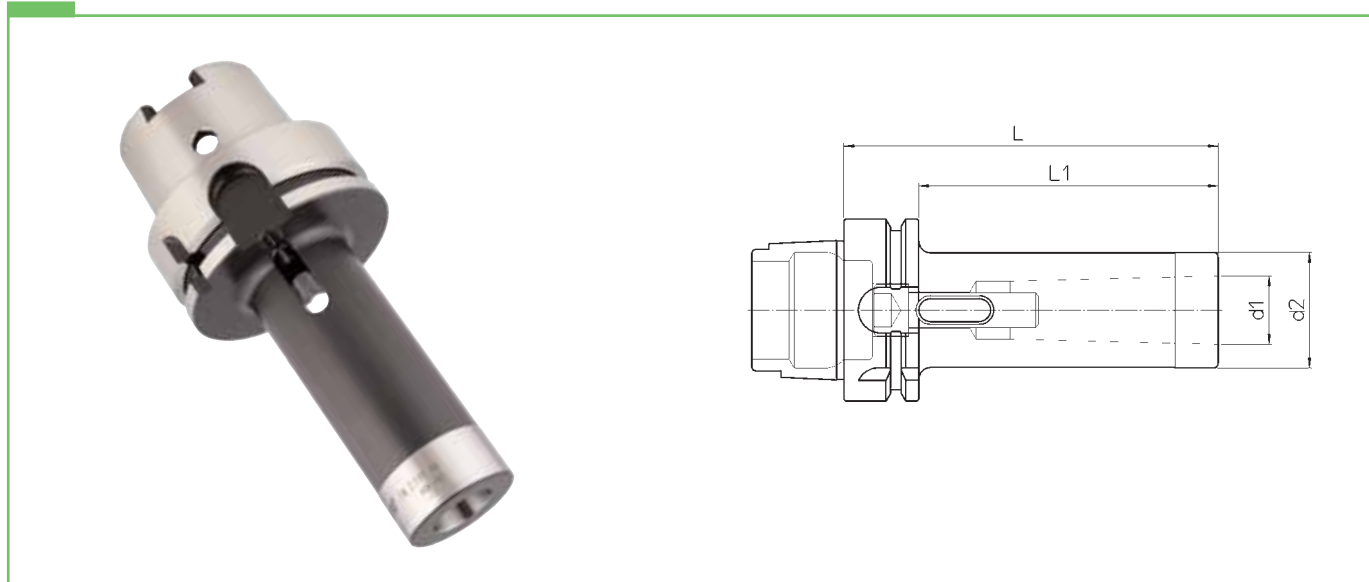
Morse taper
toolholder

Werkzeugaufnahme
für Morsekegel

Wyjście pod
stożki Morse'a

Porte-outil cone
morse

Portautensile cono
morse



HSK-A	ARTYKUŁ	KOD	MORSE	d ₁	d ₂	L	L ₁	kg
63	HSK-A63 CM2.110 A-B	71HSKA063CMB211	2	17.780	32	110	84	2
	HSK-A63 CM3.130 A-B	71HSKA063CMB313	3	23.825	40	130	104	2.2
	HSK-A63 CM4.155 A-B	71HSKA063CMB415	4	31.267	48	155	129	2.6

DIN 69893 HSK-A

MS

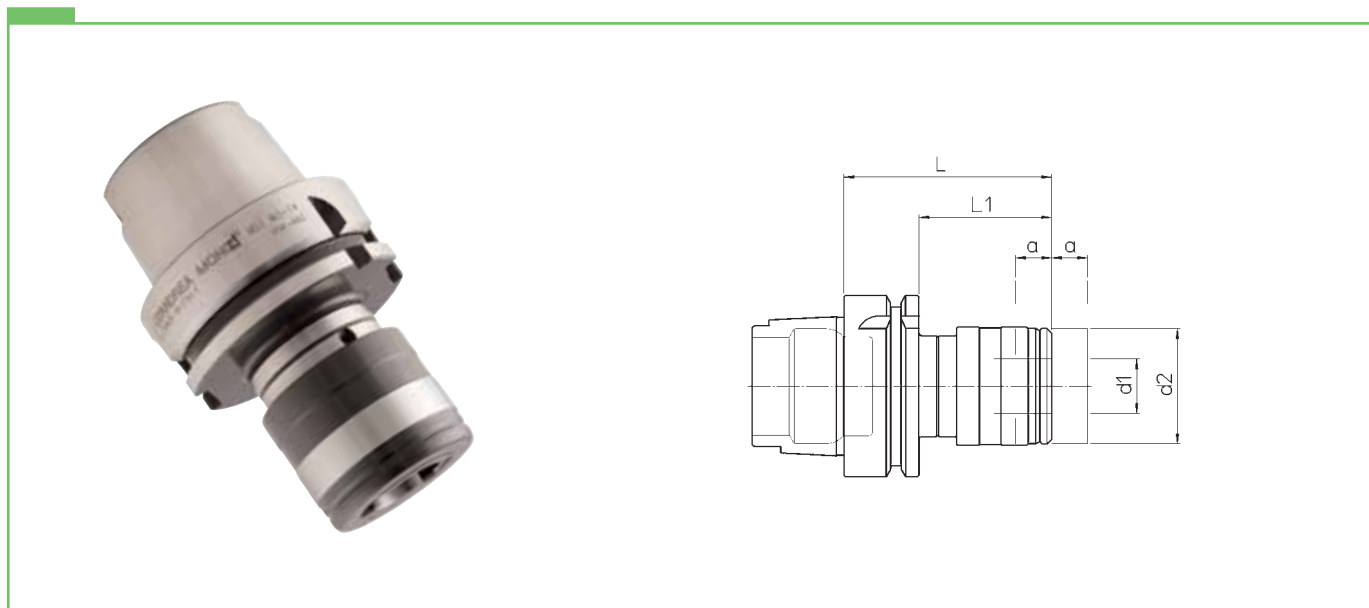
Tapping toolholder

Aufnahme mit
Gewindeschneid-
schnellwechselfutter

Oprawki do gwintowania
z kompensacją osiową

Porte-outil de
taradage

Portautensile
maschiatore



HSK-A	ARTYKUŁ	KOD	d ₁	d ₂	L	L ₁	a	kg
63	HSK-A63 MS1 M3-12	71HSKA063M10312	19	39	72	46	7.5	1
	HSK-A63 MS2 M8-20	71HSKA063M20820	31	60	110	84	10	1.7

str. 184-185

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Collet chuck holder

Spannzangenfutter

Wyjście pod tulejki ER

Porte-pinces

Portapinze



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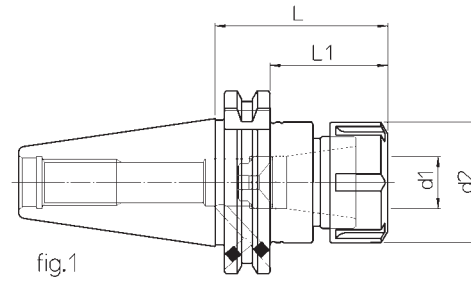


fig.1

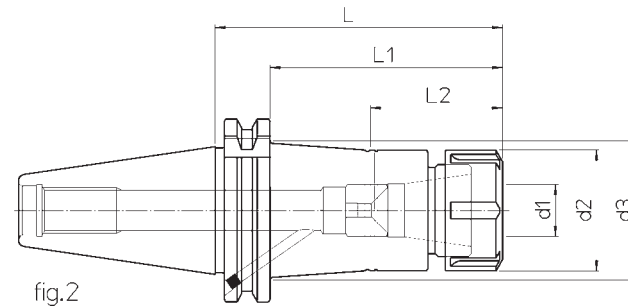


fig.2

Supplied without collets and clamping wrenches

Ohne Spannzangen und Spannschlüssel.

Nie zawiera tulejek rozprężnych i kluczy do nakrętek

Sans pinces et clés de serrage

Pinze elastiche e chiavi di serraggio escluse

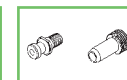
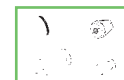
ISO	ARTYKUŁ	KOD	TYP	d ₁	d ₂	d ₃	L	L ₁	L ₂	kg	fig.
40	DIN69871-AD+B40 ER16.60	71DIN-B40ER1606	ER 16	0.5 ~ 10	24	-	60	41	-	0.9	1
	DIN69871-AD+B40 ER16.100	71DIN-B40ER1610				29.5	100	81	41	1	2
	DIN69871-AD+B40 ER16.160	71DIN-B40ER1616				38	160	141	41	2	2
	DIN69871-AD+B40 ER25.60	71DIN-B40ER2506	ER 25	1 ~ 16	42	-	60	41	-	1.1	1
	DIN69871-AD+B40 ER25.100	71DIN-B40ER2510				47	100	81	46	1.6	2
	DIN69871-AD+B40 ER25.160	71DIN-B40ER2516				50	160	141	46	2.1	2
	DIN69871-AD+B40 ER32.70	71DIN-B40ER3207	ER 32	2 ~ 20	50	-	70	51	-	1.2	1
	DIN69871-AD+B40 ER32.110	71DIN-B40ER3211				-	110	91	-	1.7	1
	DIN69871-AD+B40 ER32.160	71DIN-B40ER3216				-	160	141	-	2.7	1
	DIN69871-AD+B40 ER40.80	71DIN-B40ER4008	ER 40	3 ~ 26	63	-	80	61	-	1.3	1
	DIN69871-AD+B40 ER40.120	71DIN-B40ER4012				-	120	101	-	2.3	1
	DIN69871-AD+B40 ER40.160	71DIN-B40ER4016				-	160	141	-	3.3	1

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str. 180-183

str. 178



DIN 69871 AD+B50

ER - DIN 6499



Collet chuck holder

Spannzangenfutter

Wyjście pod tulejki ER

Porte-pinces

Portapinze

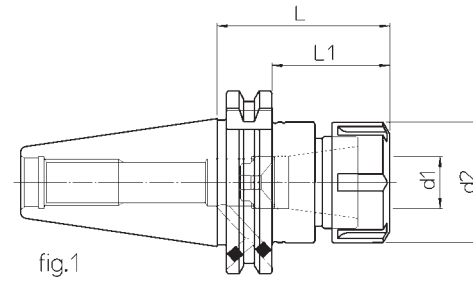


fig.1

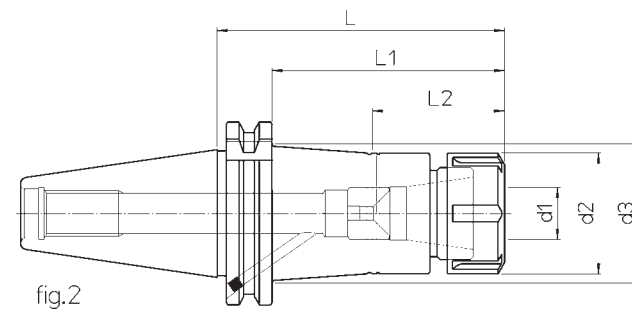


fig.2



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Supplied without collets and clamping wrenches

Ohne Spannzangen und Spannschlüssel.

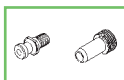
Nie zawiera tulejek rozprężnych i kluczy do nakrętek

Sans pinces et clés de serrage

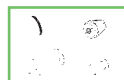
Pinze elastiche e chiavi di serraggio escluse

ISO	ARTYKUŁ	KOD	TYP	d ₁	d ₂	d ₃	L	L ₁	L ₂	kg	fig.
50	DIN69871-AD+B50 ER16.100	71DIN-B50ER1610	ER 16	0.5 ~ 10	24	29.5	100	81	41	2.5	2
	DIN69871-AD+B50 ER16.160	71DIN-B50ER1616				32.5	160	141	41	3.3	2
	DIN69871-AD+B50 ER25.70	71DIN-B50ER2507	ER 25	1 ~ 16	42	-	70	51	-	2.5	1
	DIN69871-AD+B50 ER25.110	71DIN-B50ER2511				48	110	91	46	2.8	2
	DIN69871-AD+B50 ER25.160	71DIN-B50ER2516				50	160	141	46	3.6	2
	DIN69871-AD+B50 ER32.70	71DIN-B50ER3207	ER 32	2 ~ 20	50	-	70	51	-	2.9	1
	DIN69871-AD+B50 ER32.110	71DIN-B50ER3211				55	110	91	52	3.4	2
	DIN69871-AD+B50 ER32.160	71DIN-B50ER3216				57.5	160	141	52	4	2
	DIN69871-AD+B50 ER40.100	71DIN-B50ER4010	ER 40	3 ~ 26	63	65	100	81	55	3.8	2
	DIN69871-AD+B50 ER40.160	71DIN-B50ER4016				70	160	141	55	4.3	2

str. 178



str. 180-183



str. 188



str. 210



Weldon
toolholder

Werkzeugaufnahme
für Weldon

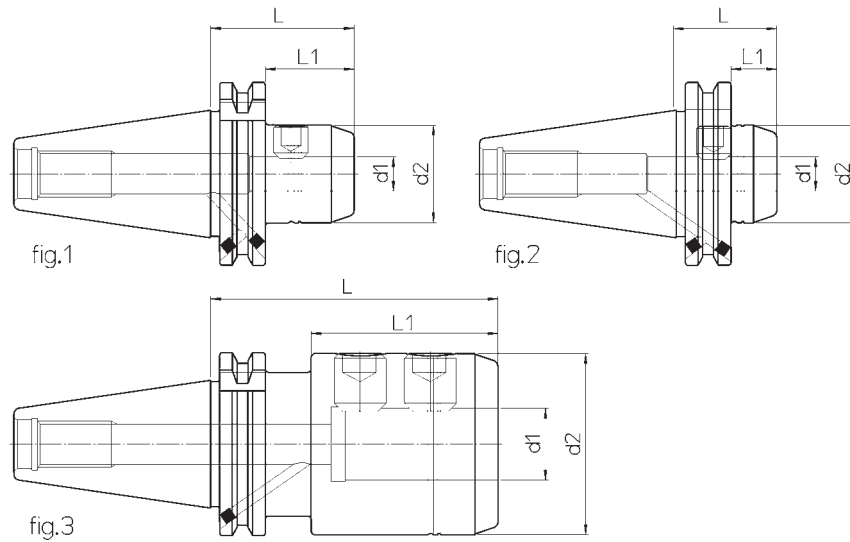
Wyjście
pod Weldon

Porte-outil
Weldon

Portautensile
Weldon



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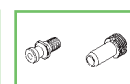
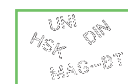


ISO	ARTYKUŁ	KOD	d ₁ ^{H5}	d ₂	L	L ₁	kg	fig.
40	DIN69871-AD+B40 WD06.50	71DIN-B40WD0605	6	23	50	31	0.8	1
	DIN69871-AD+B40 WD06.110	71DIN-B40WD0611	6	23	110	91	1	1
	DIN69871-AD+B40 WD06.160	71DIN-B40WD0616	6	23	160	141	1.1	1
	DIN69871-AD+B40 WD08.50	71DIN-B40WD0805	8	26	50	31	0.9	1
	DIN69871-AD+B40 WD08.110	71DIN-B40WD0811	8	26	110	91	1.1	1
	DIN69871-AD+B40 WD08.160	71DIN-B40WD0816	8	26	160	141	1.3	1
	DIN69871-AD+B40 WD10.50	71DIN-B40WD1005	10	30	50	31	1	1
	DIN69871-AD+B40 WD10.110	71DIN-B40WD1011	10	30	110	91	1.4	1
	DIN69871-AD+B40 WD10.160	71DIN-B40WD1016	10	30	160	141	1.6	1
	DIN69871-AD+B40 WD12.35	71DIN-B40WD1203	12	34	35	16	1	2
	DIN69871-AD+B40 WD12.50	71DIN-B40WD1205	12	34	50	31	1.1	1
	DIN69871-AD+B40 WD12.110	71DIN-B40WD1211	12	34	110	91	1.4	1
	DIN69871-AD+B40 WD12.160	71DIN-B40WD1216	12	34	160	141	1.7	1
	DIN69871-AD+B40 WD14.50	71DIN-B40WD1405	14	38	50	31	1.2	1
	DIN69871-AD+B40 WD14.110	71DIN-B40WD1411	14	38	110	91	1.6	1
	DIN69871-AD+B40 WD16.35	71DIN-B40WD1603	16	42	35	16	1.1	2
	DIN69871-AD+B40 WD16.63	71DIN-B40WD1606	16	42	63	44	1.3	1
	DIN69871-AD+B40 WD16.110	71DIN-B40WD1611	16	42	110	91	1.7	1
	DIN69871-AD+B40 WD16.160	71DIN-B40WD1616	16	42	160	141	2.2	1
	DIN69871-AD+B40 WD18.63	71DIN-B40WD1806	18	46	63	44	1.4	1
	DIN69871-AD+B40 WD18.110	71DIN-B40WD1811	18	46	110	91	1.9	1
	DIN69871-AD+B40 WD20.35	71DIN-B40WD2003	20	44	35	16	1.2	2
	DIN69871-AD+B40 WD20.63	71DIN-B40WD2006	20	50	63	44	1.5	1
	DIN69871-AD+B40 WD20.110	71DIN-B40WD2011	20	50	110	91	2.1	1
	DIN69871-AD+B40 WD20.160	71DIN-B40WD2016	20	50	160	141	2.6	1
	DIN69871-AD+B40 WD25.35	71DIN-B40WD2503	25	44	35	16	1.3	2
	DIN69871-AD+B40 WD25.100	71DIN-B40WD2510	25	63	100	65	2	3
	DIN69871-AD+B40 WD25.160	71DIN-B40WD2516	25	63	160	125	3.2	3
	DIN69871-AD+B40 WD32.100	71DIN-B40WD3210	32	70	100	65	2.5	3
	DIN69871-AD+B40 WD32.160	71DIN-B40WD3216	32	70	160	125	3.9	3

str. 210

str. 188

str. 178



DIN 69871 AD+B50

WD - DIN 1835-B



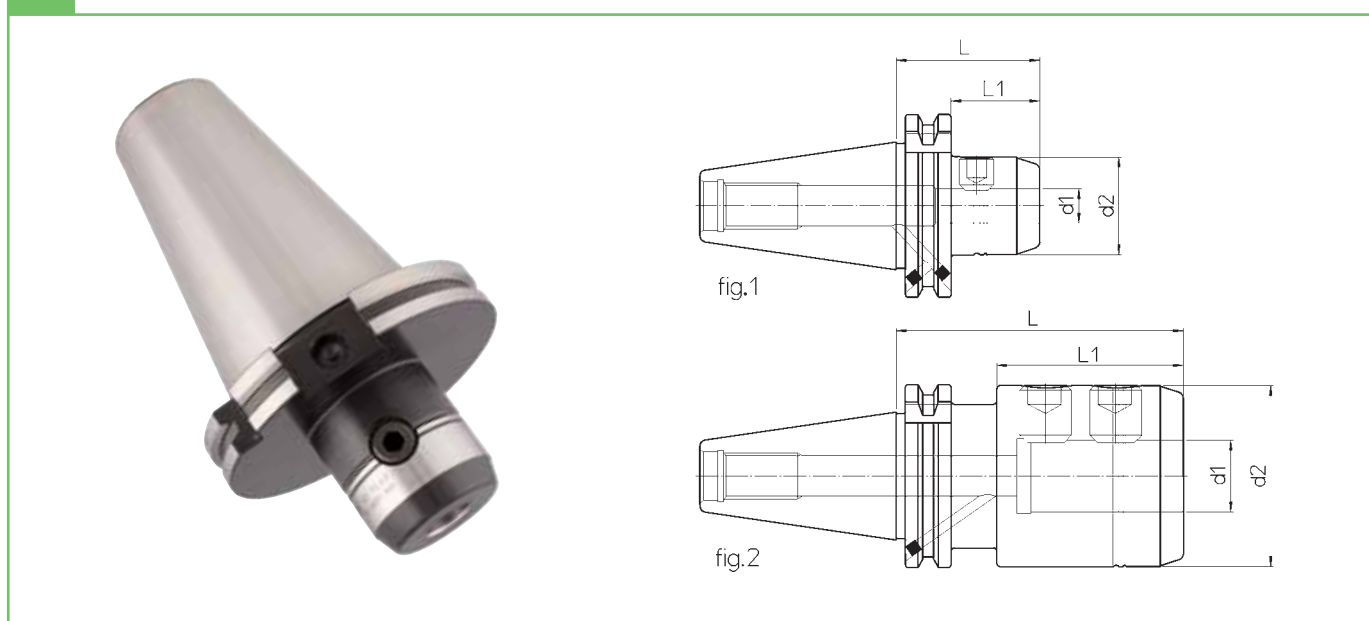
Weldon
toolholder

Werkzeugaufnahme
für Weldon

Wyjście
pod Weldon

Porte-outil
Weldon

Portautensile
Weldon



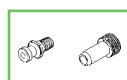
21

ISO	ARTYKUŁ	KOD	d ₁ ^{H5}	d ₂	L	L ₁	kg	fig.
50	DIN69871-AD+B50 WD06.63	71DIN-B50WD0606	6	23	63	44	2.3	1
	DIN69871-AD+B50 WD06.110	71DIN-B50WD0611	6	23	110	91	2.4	1
	DIN69871-AD+B50 WD06.160	71DIN-B50WD0616	6	23	160	141	2.5	1
	DIN69871-AD+B50 WD08.63	71DIN-B50WD0806	8	26	63	44	2.4	1
	DIN69871-AD+B50 WD08.110	71DIN-B50WD0811	8	26	110	91	2.5	1
	DIN69871-AD+B50 WD08.160	71DIN-B50WD0816	8	26	160	141	2.7	1
	DIN69871-AD+B50 WD10.63	71DIN-B50WD1006	10	30	63	44	2.5	1
	DIN69871-AD+B50 WD10.110	71DIN-B50WD1011	10	30	110	91	2.7	1
	DIN69871-AD+B50 WD10.160	71DIN-B50WD1016	10	30	160	141	2.9	1
	DIN69871-AD+B50 WD12.63	71DIN-B50WD1206	12	34	63	44	2.6	1
	DIN69871-AD+B50 WD12.110	71DIN-B50WD1211	12	34	110	91	2.8	1
	DIN69871-AD+B50 WD12.160	71DIN-B50WD1216	12	34	160	141	3.2	1
	DIN69871-AD+B50 WD14.63	71DIN-B50WD1406	14	38	63	44	2.7	1
	DIN69871-AD+B50 WD14.110	71DIN-B50WD1411	14	38	110	91	3	1
	DIN69871-AD+B50 WD16.63	71DIN-B50WD1606	16	42	63	44	2.8	1
	DIN69871-AD+B50 WD16.110	71DIN-B50WD1611	16	42	110	91	3.2	1
	DIN69871-AD+B50 WD16.160	71DIN-B50WD1616	16	42	160	141	3.7	1
	DIN69871-AD+B50 WD18.63	71DIN-B50WD1806	18	46	63	44	2.9	1
	DIN69871-AD+B50 WD18.110	71DIN-B50WD1811	18	46	110	91	3.4	1
	DIN69871-AD+B50 WD20.63	71DIN-B50WD2006	20	50	63	44	3	1
	DIN69871-AD+B50 WD20.110	71DIN-B50WD2011	20	50	110	91	3.6	1
	DIN69871-AD+B50 WD20.160	71DIN-B50WD2016	20	50	160	141	4.2	1
	DIN69871-AD+B50 WD25.80	71DIN-B50WD2508	25	63	80	61	3.5	1
	DIN69871-AD+B50 WD25.110	71DIN-B50WD2511	25	63	110	91	4.1	2
	DIN69871-AD+B50 WD25.160	71DIN-B50WD2516	25	63	160	141	5.1	2
	DIN69871-AD+B50 WD32.100	71DIN-B50WD3210	32	70	100	81	4.6	2
	DIN69871-AD+B50 WD32.160	71DIN-B50WD3216	32	70	160	141	6	2
	DIN69871-AD+B50 WD40.100	71DIN-B50WD4010	40	80	100	81	4.8	2
	DIN69871-AD+B50 WD40.160	71DIN-B50WD4016	40	80	160	141	6.5	2

str. 178

str. 188

str. 210



MONOd'

PF

DIN 69871 AD+B

Mill holder

Werkzeugaufnahme
für Aufsteckfräser

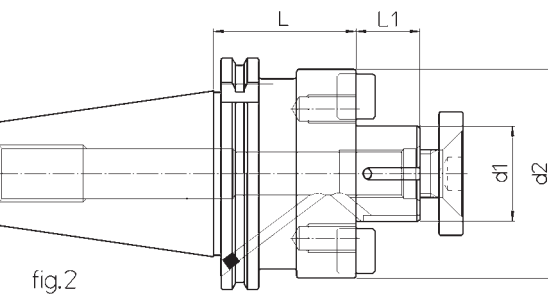
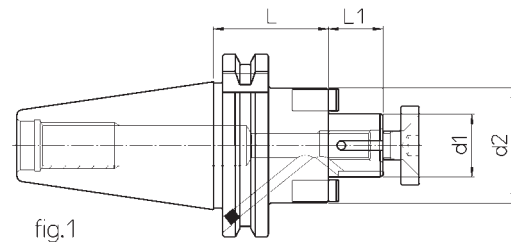
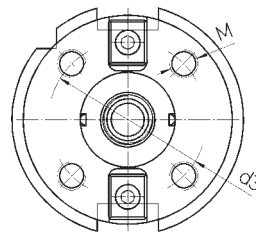
Wyjście pod głowice
frezarskie

Porte-fraises

Portafrese



22

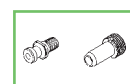


ISO	ARTYKUŁ	KOD	d ₁	d ₂	d ₃	M	L	L ₁	kg	fig.
40	DIN69871-AD+B40 PF16.35	71DIN-B40PF1603	16	32	-	-	35	17	0.9	1
	DIN69871-AD+B40 PF16.110	71DIN-B40PF1611	16	32	-	-	110	17	1.3	1
	DIN69871-AD+B40 PF16.160	71DIN-B40PF1616	16	32	-	-	160	17	1.9	1
	DIN69871-AD+B40 PF22.40	71DIN-B40PF2204	22	40	-	-	40	19	1	1
	DIN69871-AD+B40 PF22.110	71DIN-B40PF2211	22	40	-	-	110	19	1.7	1
	DIN69871-AD+B40 PF22.160	71DIN-B40PF2216	22	40	-	-	160	19	2.1	1
	DIN69871-AD+B40 PF27.45	71DIN-B40PF2704	27	50	-	-	45	21	1.2	1
	DIN69871-AD+B40 PF27.110	71DIN-B40PF2711	27	50	-	-	110	21	2.2	1
	DIN69871-AD+B40 PF27.160	71DIN-B40PF2716	27	50	-	-	160	21	2.9	1
	DIN69871-AD+B40 PF32.50	71DIN-B40PF3205	32	60	-	-	50	24	1.7	1
	DIN69871-AD+B40 PF32.110	71DIN-B40PF3211	32	60	-	-	110	24	3	1
	DIN69871-AD+B40 PF40.55	71DIN-B40PF4005	40	70	-	-	55	27	2.1	1
50	DIN69871-AD+B50 PF16.40	71DIN-B50PF1604	16	32	-	-	40	17	2.4	1
	DIN69871-AD+B50 PF16.110	71DIN-B50PF1611	16	32	-	-	110	17	2.8	1
	DIN69871-AD+B50 PF16.160	71DIN-B50PF1616	16	32	-	-	160	17	3.1	1
	DIN69871-AD+B50 PF22.45	71DIN-B50PF2204	22	40	-	-	45	19	2.6	1
	DIN69871-AD+B50 PF22.110	71DIN-B50PF2211	22	40	-	-	110	19	3.2	1
	DIN69871-AD+B50 PF22.160	71DIN-B50PF2216	22	40	-	-	160	19	3.7	1
	DIN69871-AD+B50 PF27.50	71DIN-B50PF2705	27	50	-	-	50	21	2.7	1
	DIN69871-AD+B50 PF27.110	71DIN-B50PF2711	27	50	-	-	110	21	3.6	1
	DIN69871-AD+B50 PF27.160	71DIN-B50PF2716	27	50	-	-	160	21	4.4	1
	DIN69871-AD+B50 PF32.55	71DIN-B50PF3205	32	60	-	-	55	24	3.2	1
	DIN69871-AD+B50 PF32.120	71DIN-B50PF3212	32	60	-	-	120	24	5.5	1
	DIN69871-AD+B50 PF40.60	71DIN-B50PF4006	40	88	66.7	M12	60	27	4.3	2
	DIN69871-AD+B50 PF40.120	71DIN-B50PF4012	40	88	66.7	M12	120	27	7.1	2
	DIN69871-AD+B50 PF60.70	71DIN-B50PF6007	60	128.5	101.6	M16	70	40	6.6	2

str. 210

str. 188

str. 178



DIN 69871 AD+B

CM - DIN 228 AB



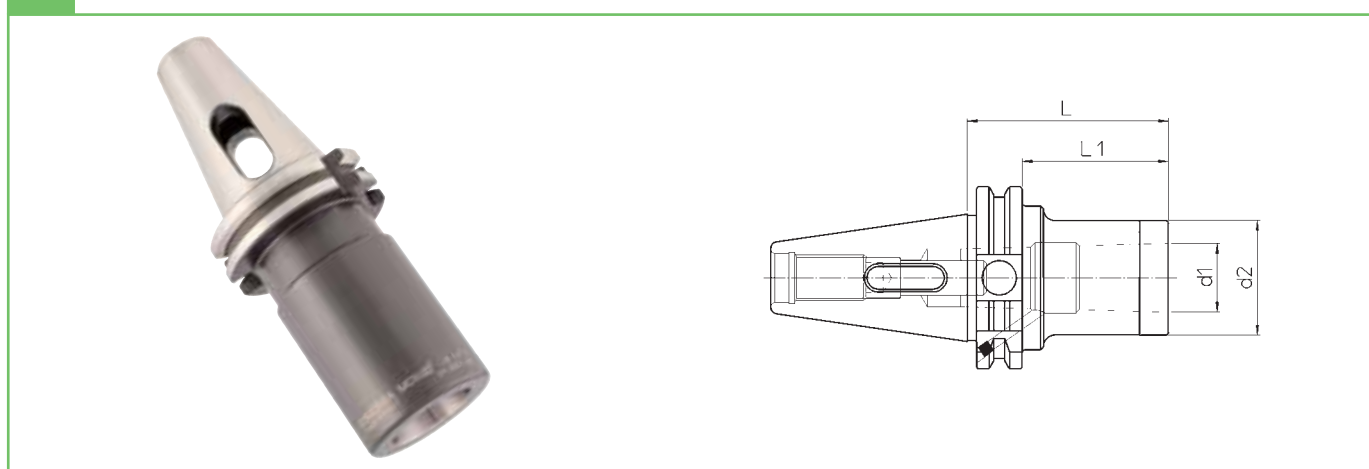
Morse taper
toolholder

Werkzeugaufnahme
für Morsekegel

Wyjście pod
stożki Morse'a

Porte-outil
cone morse

Portautensile cono
morse



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ISO	ARTYKUŁ	KOD	MORSE	d ₁	d ₂	L	L ₁	kg
40	DIN69871-AD+B40 CM2.50 A-B	71DIN-B40CMB205	2	17.780	32	50	31	1
	DIN69871-AD+B40 CM2.125 A-B	71DIN-B40CMB212	2	17.780	32	125	106	1.4
	DIN69871-AD+B40 CM3.70 A-B	71DIN-B40CMB307	3	23.825	40	70	51	1.1
	DIN69871-AD+B40 CM3.140 A-B	71DIN-B40CMB314	3	23.825	42	140	121	1.5
50	DIN69871-AD+B50 CM2.60 A-B	71DIN-B50CMB206	2	17.780	32	60	41	2.6
	DIN69871-AD+B50 CM2.125 A-B	71DIN-B50CMB212	2	17.780	32	125	106	2.8
	DIN69871-AD+B50 CM3.60 A-B	71DIN-B50CMB306	3	23.825	40	60	41	2.7
	DIN69871-AD+B50 CM3.140 A-B	71DIN-B50CMB314	3	23.825	42	140	121	3.2
	DIN69871-AD+B50 CM4.80 A-B	71DIN-B50CMB408	4	31.267	48	80	61	2.9

DIN 69871 A

MS

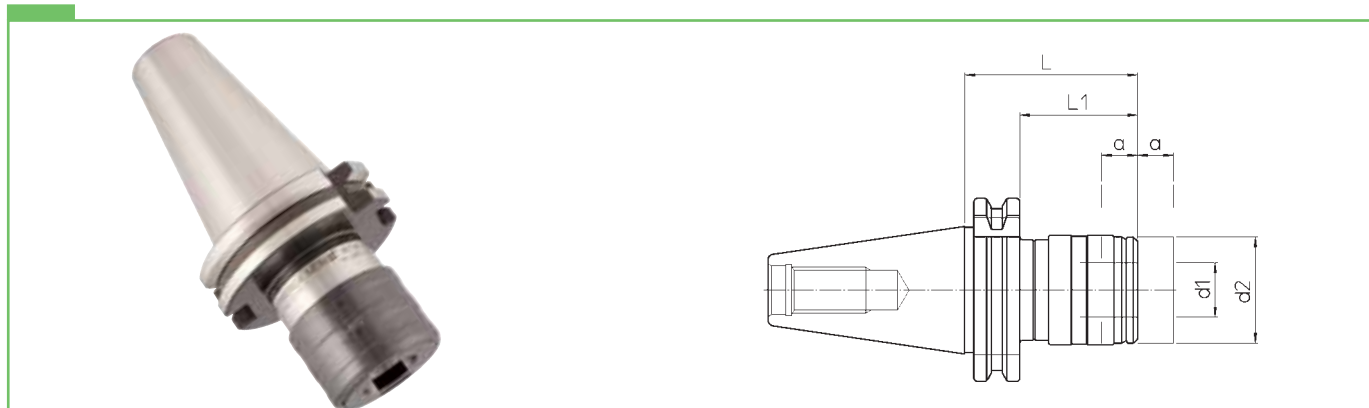
Tapping toolholder

Aufnahme mit
Gewindeschneid-schnellwechselfutter

Oprawki do gwintowania
z kompensacją osiową

Porte-outil de
taraudage

Portautensile
maschiatore

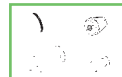
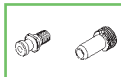


ISO	ARTYKUŁ	KOD	d ₁	d ₂	L	L ₁	a	kg
40	DIN69871-A40 MS1 M3-12	71DIN-A40M10312	19	36	60	40.9	7.5	0.9
	DIN69871-A40 MS2 M8-20	71DIN-A40M20820	31	53	98	78.9	12.5	1.3
50	DIN69871-A50 MS1 M3-12	71DIN-A50M10312	19	38	62	42.9	7.5	2.8
	DIN69871-A50 MS2 M8-20	71DIN-A50M20820	31	53	84	64.9	12.5	3.1
	DIN69871-A50 MS3 M14-33	71DIN-A50M31433	48	78	139	119.9	20	4.3

str. 178

str. 184-185

str. 210



Collet chuck holder

Spannzangenfutter

Wyjście pod tulejki ER

Porte-pinces

Portapinze



24

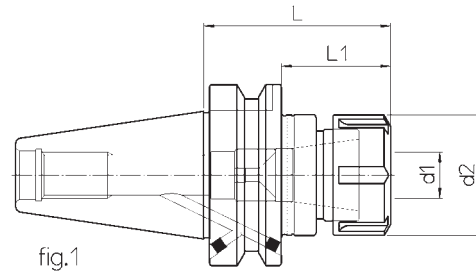


fig.1

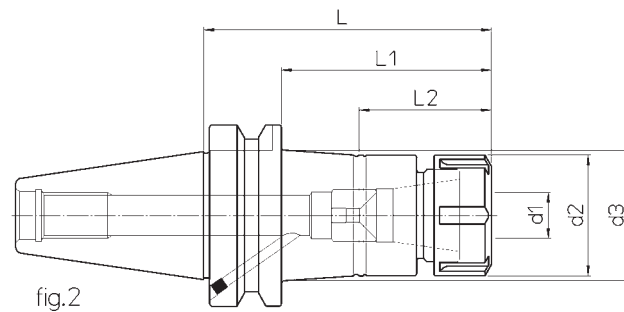


fig.2

Supplied without collets and clamping wrenches

Ohne Spannzangen und Spannschlüssel.

Nie zawiera tulejek rozprężnych i kluczy do nakrętek

Sans pincettes et clés de serrage

Pinze elastiche e chiavi di serraggio escluse

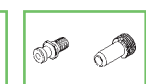
ISO	ARTYKUŁ	KOD	TYP	d ₁	d ₂	d ₃	L	L ₁	L ₂	kg	fig.
40	MAS403 BT40-AD+B ER16.60	71MBT-B40ER1606	ER 16	0.5 ~ 10	24	-	60	33	-	1	1
	MAS403 BT40-AD+B ER16.100	71MBT-B40ER1610				28	100	73	41	1.1	2
	MAS403 BT40-AD+B ER16.160	71MBT-B40ER1616				36.5	160	133	41	2.1	2
	MAS403 BT40-AD+B ER25.65	71MBT-B40ER2506	ER 25	1 ~ 16	42	-	65	38	-	1.2	1
	MAS403 BT40-AD+B ER25.100	71MBT-B40ER2510				45.5	100	73	46	1.7	2
	MAS403 BT40-AD+B ER25.160	71MBT-B40ER2516				49.5	160	133	46	2.2	2
	MAS403 BT40-AD+B ER32.70	71MBT-B40ER3207	ER 32	2 ~ 20	50	-	70	43	-	1.3	1
	MAS403 BT40-AD+B ER32.110	71MBT-B40ER3211				-	110	83	-	1.8	1
	MAS403 BT40-AD+B ER32.160	71MBT-B40ER3216				-	160	133	-	2.8	1
	MAS403 BT40-AD+B ER40.80	71MBT-B40ER4008	ER 40	3 ~ 26	63	-	80	53	-	1.4	1
	MAS403 BT40-AD+B ER40.120	71MBT-B40ER4012				-	120	93	-	2.4	1
	MAS403 BT40-AD+B ER40.160	71MBT-B40ER4016				-	160	133	-	3.4	1

str. 211

str. 188

str. 180-183

str. 178



MAS 403 BT50 AD+B

ER - DIN 6499



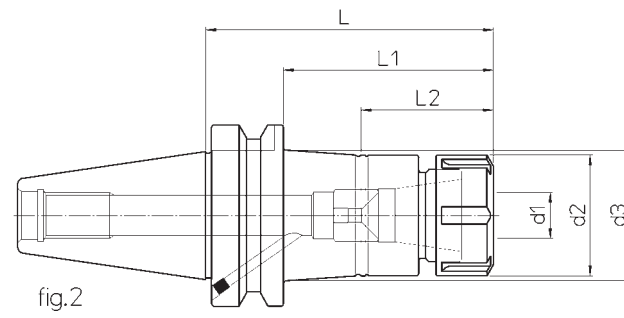
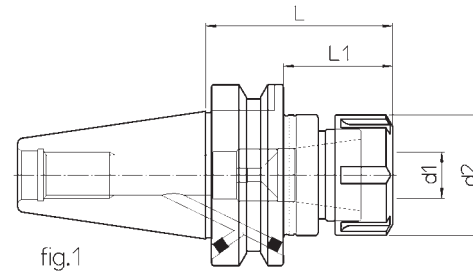
Collet chuck holder

Spannzangenfutter

Wyjście pod tulejki ER

Porte-pinces

Portapinze



25

Supplied without collets and clamping wrenches

Ohne Spannzangen und Spannschlüssel.

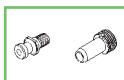
Nie zawiera tulejek rozprężnych i kluczy do nakrętek

Sans pinces et clés de serrage

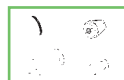
Pinze elastiche e chiavi di serraggio escluse

ISO	ARTYKUŁ	KOD	TYP	d ₁	d ₂	d ₃	L	L ₁	L ₂	kg	fig.
50	MAS403 BT50-AD+B ER16.100	71MBT-B50ER1610	ER 16	0.5 ~ 10	24	26.5	100	62	41	3.6	2
	MAS403 BT50-AD+B ER16.160	71MBT-B50ER1616				31	160	122	41	4.3	2
	MAS403 BT50-AD+B ER25.75	71MBT-B50ER2507	ER 25	1 ~ 16	42	-	75	37	-	3.5	1
	MAS403 BT50-AD+B ER25.110	71MBT-B50ER2511				45.5	110	72	46	3.8	2
	MAS403 BT50-AD+B ER25.160	71MBT-B50ER2516				48.5	160	122	46	4.6	2
	MAS403 BT50-AD+B ER32.80	71MBT-B50ER3208	ER 32	2 ~ 20	50	-	80	42	-	3.9	1
	MAS403 BT50-AD+B ER32.110	71MBT-B50ER3211				52.5	110	72	52	4.4	2
	MAS403 BT50-AD+B ER32.160	71MBT-B50ER3216				56	160	122	52	5	2
	MAS403 BT50-AD+B ER40.100	71MBT-B50ER4010	ER 40	3 ~ 26	63	-	100	62	-	4.8	1
	MAS403 BT50-AD+B ER40.160	71MBT-B50ER4016				68.5	160	122	55	5.3	2

str. 178



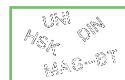
str. 180-183



str. 188



str. 211



Weldon
toolholder

Werkzeugaufnahme
für Weldon

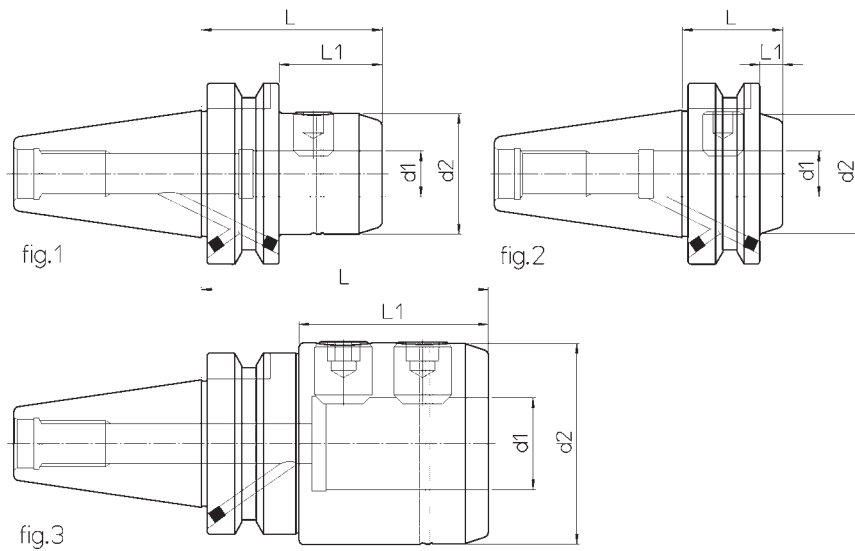
Wyjście
pod Weldon

Porte-outil
Weldon

Portautensile
Weldon



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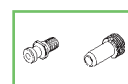
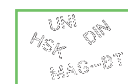


ISO	ARTYKUŁ	KOD	d ₁ ^{H5}	d ₂	L	L ₁	kg	fig.
40	MAS403 BT40-AD+B WD06.50	71MBT-B40WD0605	6	23	50	23	0.8	1
	MAS403 BT40-AD+B WD06.110	71MBT-B40WD0611	6	23	110	83	0.9	1
	MAS403 BT40-AD+B WD06.160	71MBT-B40WD0616	6	23	160	133	1.1	1
	MAS403 BT40-AD+B WD08.50	71MBT-B40WD0805	8	26	50	23	0.9	1
	MAS403 BT40-AD+B WD08.110	71MBT-B40WD0811	8	26	110	83	1.1	1
	MAS403 BT40-AD+B WD08.160	71MBT-B40WD0816	8	26	160	133	1.3	1
	MAS403 BT40-AD+B WD10.56	71MBT-B40WD1005	10	30	56	29	1	1
	MAS403 BT40-AD+B WD10.110	71MBT-B40WD1011	10	30	110	83	1.2	1
	MAS403 BT40-AD+B WD10.160	71MBT-B40WD1016	10	30	160	133	1.5	1
	MAS403 BT40-AD+B WD12.35	71MBT-B40WD1203	12	34	35	8	0.9	2
	MAS403 BT40-AD+B WD12.56	71MBT-B40WD1205	12	34	56	29	1.1	1
	MAS403 BT40-AD+B WD12.110	71MBT-B40WD1211	12	34	110	83	1.4	1
	MAS403 BT40-AD+B WD12.160	71MBT-B40WD1216	12	34	160	133	1.7	1
	MAS403 BT40-AD+B WD14.56	71MBT-B40WD1405	14	38	56	29	1.2	1
	MAS403 BT40-AD+B WD14.110	71MBT-B40WD1411	14	38	110	83	1.6	1
	MAS403 BT40-AD+B WD16.35	71MBT-B40WD1603	16	42	35	8	1	2
	MAS403 BT40-AD+B WD16.63	71MBT-B40WD1606	16	42	63	36	1.3	1
	MAS403 BT40-AD+B WD16.110	71MBT-B40WD1611	16	42	110	83	1.7	1
	MAS403 BT40-AD+B WD16.160	71MBT-B40WD1616	16	42	160	133	2.2	1
	MAS403 BT40-AD+B WD18.63	71MBT-B40WD1806	18	46	63	36	1.4	1
	MAS403 BT40-AD+B WD18.110	71MBT-B40WD1811	18	46	110	83	1.9	1
	MAS403 BT40-AD+B WD20.35	71MBT-B40WD2003	20	50	35	8	1.1	2
	MAS403 BT40-AD+B WD20.63	71MBT-B40WD2006	20	50	63	36	1.5	1
	MAS403 BT40-AD+B WD20.110	71MBT-B40WD2011	20	50	110	83	2.1	1
	MAS403 BT40-AD+B WD20.160	71MBT-B40WD2016	20	50	160	133	2.6	1
	MAS403 BT40-AD+B WD25.35	71MBT-B40WD2503	25	63	35	8	1	2
	MAS403 BT40-AD+B WD25.100	71MBT-B40WD2510	25	63	100	73	2	3
	MAS403 BT40-AD+B WD25.160	71MBT-B40WD2516	25	63	160	133	3.2	3
	MAS403 BT40-AD+B WD32.100	71MBT-B40WD3210	32	70	100	67	2.5	3
	MAS403 BT40-AD+B WD32.160	71MBT-B40WD3216	32	70	160	127	3.9	3

str. 211

str. 188

str. 178



MAS 403 BT50 AD+B WD - DIN 1835-B



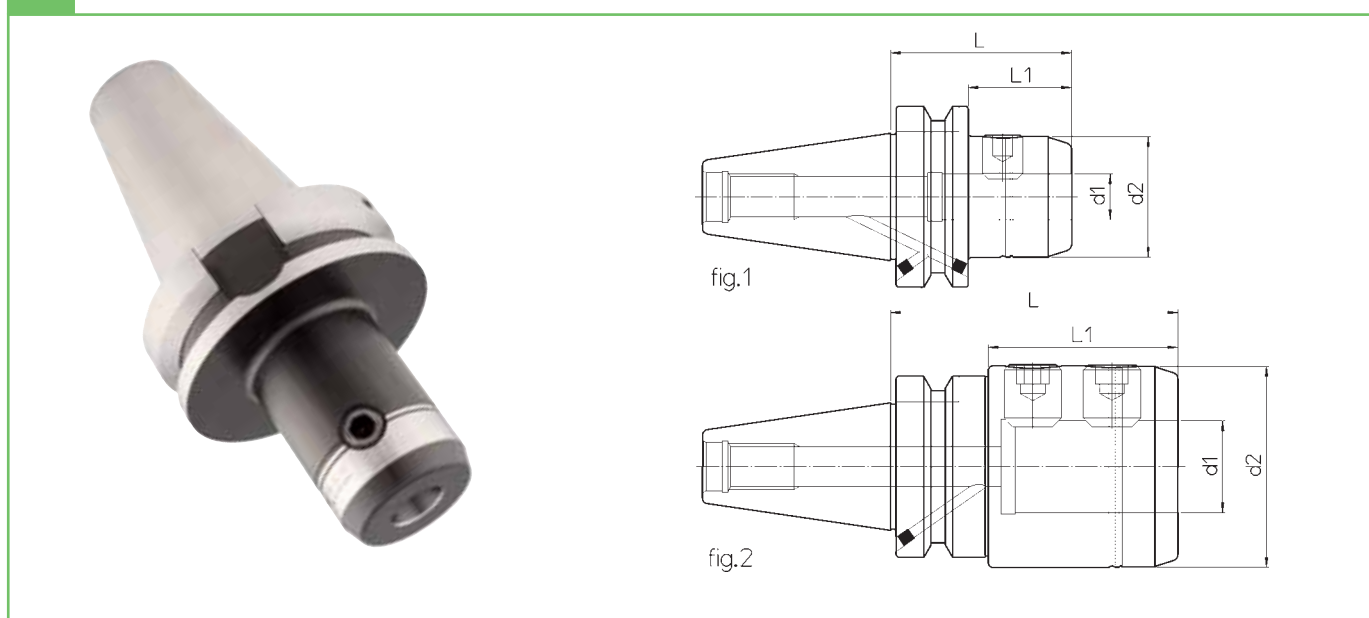
Weldon
toolholder

Werkzeugaufnahme
für Weldon

Wyjście
pod Weldon

Porte-outil
Weldon

Portautensile
Weldon



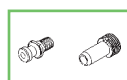
27

ISO	ARTYKUŁ	KOD	d ₁ ^{H5}	d ₂	L	L ₁	kg	fig.
50	MAS403 BT50-AD+B WD06.63	71MBT-B50WD0606	6	23	63	25	2.3	1
	MAS403 BT50-AD+B WD06.110	71MBT-B50WD0611	6	23	110	72	2.4	1
	MAS403 BT50-AD+B WD06.160	71MBT-B50WD0616	6	23	160	122	2.6	1
	MAS403 BT50-AD+B WD08.63	71MBT-B50WD0806	8	26	63	25	2.4	1
	MAS403 BT50-AD+B WD08.110	71MBT-B50WD0811	8	26	110	72	2.5	1
	MAS403 BT50-AD+B WD08.160	71MBT-B50WD0816	8	26	160	122	2.7	1
	MAS403 BT50-AD+B WD10.70	71MBT-B50WD1007	10	30	70	32	3	1
	MAS403 BT50-AD+B WD10.110	71MBT-B50WD1011	10	30	110	72	3.2	1
	MAS403 BT50-AD+B WD10.160	71MBT-B50WD1016	10	30	160	122	3.4	1
	MAS403 BT50-AD+B WD12.70	71MBT-B50WD1207	12	34	70	32	3.1	1
	MAS403 BT50-AD+B WD12.110	71MBT-B50WD1211	12	34	110	72	3.3	1
	MAS403 BT50-AD+B WD12.160	71MBT-B50WD1216	12	34	160	122	3.6	1
	MAS403 BT50-AD+B WD14.70	71MBT-B50WD1407	14	38	70	32	3.2	1
	MAS403 BT50-AD+B WD14.110	71MBT-B50WD1411	14	38	110	72	3.5	1
	MAS403 BT50-AD+B WD16.80	71MBT-B50WD1608	16	42	80	42	3.3	1
	MAS403 BT50-AD+B WD16.110	71MBT-B50WD1611	16	42	110	72	3.5	1
	MAS403 BT50-AD+B WD16.160	71MBT-B50WD1616	16	42	160	122	4	1
	MAS403 BT50-AD+B WD18.80	71MBT-B50WD1808	18	46	80	42	3.4	1
	MAS403 BT50-AD+B WD18.110	71MBT-B50WD1811	18	46	110	72	3.7	1
	MAS403 BT50-AD+B WD20.80	71MBT-B50WD2008	20	50	80	42	3.5	1
	MAS403 BT50-AD+B WD20.110	71MBT-B50WD2011	20	50	110	72	3.8	1
	MAS403 BT50-AD+B WD20.160	71MBT-B50WD2016	20	50	160	122	4.5	1
	MAS403 BT50-AD+B WD25.100	71MBT-B50WD2510	25	63	100	62	4.5	2
	MAS403 BT50-AD+B WD25.125	71MBT-B50WD2512	25	63	125	87	5	2
	MAS403 BT50-AD+B WD25.160	71MBT-B50WD2516	25	63	160	122	5.7	2
	MAS403 BT50-AD+B WD32.100	71MBT-B50WD3210	32	70	100	62	5.6	2
	MAS403 BT50-AD+B WD32.160	71MBT-B50WD3216	32	70	160	122	7	2
	MAS403 BT50-AD+B WD40.110	71MBT-B50WD4011	40	80	110	72	5.8	2
	MAS403 BT50-AD+B WD40.160	71MBT-B50WD4016	40	80	160	122	7.4	2

str. 178

str. 188

str. 211



MONOd'

PF

MAS 403 BT AD+B

Mill holder

Werkzeugaufnahme
für Aufsteckfräser

Wyjście pod głowice
frezarskie

Porte-fraises

Portafrese



28

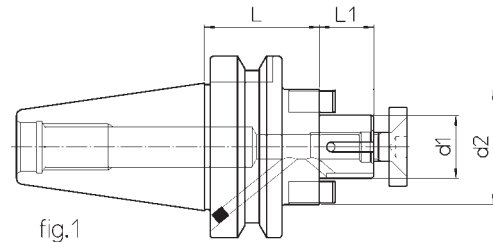
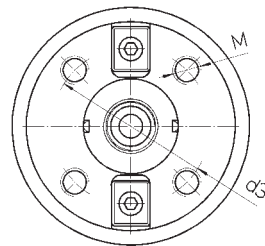


fig.1

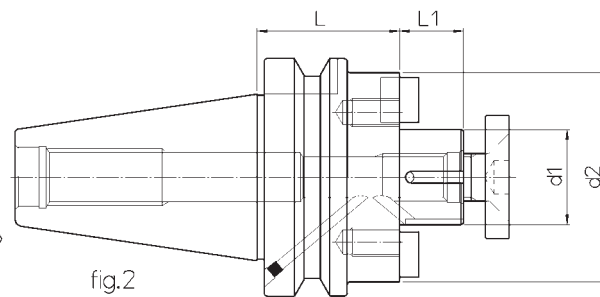


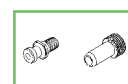
fig.2

ISO	ARTYKUŁ	KOD	d ₁	d ₂	d ₃	M	L	L ₁	kg	fig.
40	MAS403 BT40-AD+B PF16.40	71MBT-B40PF1604	16	32	-	-	40	17	0.9	1
	MAS403 BT40-AD+B PF16.110	71MBT-B40PF1611	16	32	-	-	110	17	1.3	1
	MAS403 BT40-AD+B PF16.160	71MBT-B40PF1616	16	32	-	-	160	17	1.6	1
	MAS403 BT40-AD+B PF22.40	71MBT-B40PF2204	22	40	-	-	40	19	1	1
	MAS403 BT40-AD+B PF22.110	71MBT-B40PF2211	22	40	-	-	110	19	1.6	1
	MAS403 BT40-AD+B PF22.160	71MBT-B40PF2216	22	40	-	-	160	19	2.1	1
	MAS403 BT40-AD+B PF27.45	71MBT-B40PF2704	27	50	-	-	45	21	1.2	1
	MAS403 BT40-AD+B PF27.110	71MBT-B40PF2711	27	50	-	-	110	21	2.2	1
	MAS403 BT40-AD+B PF27.160	71MBT-B40PF2716	27	50	-	-	160	21	2.9	1
	MAS403 BT40-AD+B PF32.50	71MBT-B40PF3205	32	60	-	-	50	24	1.7	1
	MAS403 BT40-AD+B PF32.110	71MBT-B40PF3211	32	60	-	-	110	24	3	1
	MAS403 BT40-AD+B PF40.55	71MBT-B40PF4005	40	70	-	-	55	27	2.1	1
50	MAS403 BT50-AD+B PF16.50	71MBT-B50PF1605	16	32	-	-	50	17	2.4	1
	MAS403 BT50-AD+B PF16.110	71MBT-B50PF1611	16	32	-	-	110	17	2.8	1
	MAS403 BT50-AD+B PF16.160	71MBT-B50PF1616	16	32	-	-	160	17	3.1	1
	MAS403 BT50-AD+B PF22.50	71MBT-B50PF2205	22	40	-	-	50	19	2.6	1
	MAS403 BT50-AD+B PF22.110	71MBT-B50PF2211	22	40	-	-	110	19	3.2	1
	MAS403 BT50-AD+B PF22.160	71MBT-B50PF2216	22	40	-	-	160	19	3.7	1
	MAS403 BT50-AD+B PF27.55	71MBT-B50PF2705	27	50	-	-	55	21	2.7	1
	MAS403 BT50-AD+B PF27.110	71MBT-B50PF2711	27	50	-	-	110	21	3.6	1
	MAS403 BT50-AD+B PF27.160	71MBT-B50PF2716	27	50	-	-	160	21	4.3	1
	MAS403 BT50-AD+B PF32.55	71MBT-B50PF3205	32	60	-	-	55	24	3.2	1
	MAS403 BT50-AD+B PF32.120	71MBT-B50PF3212	32	60	-	-	120	24	5.5	1
	MAS403 BT50-AD+B PF40.60	71MBT-B50PF4006	40	88	66.7	M12	60	27	4.3	2
	MAS403 BT50-AD+B PF40.120	71MBT-B50PF4012	40	88	66.7	M12	120	27	7.1	2
	MAS403 BT50-AD+B PF60.80	71MBT-B50PF6008	60	128.5	101.6	M16	80	40	6.8	2

str. 211

str. 188

str. 178



MAS 403 BT AD+B

CM - DIN 228 AB



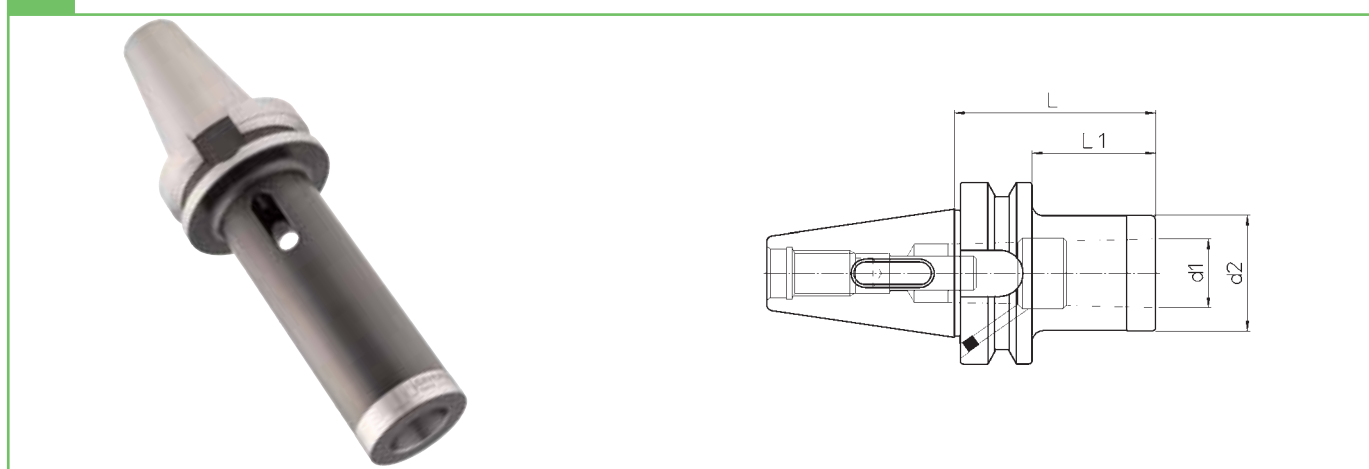
Morse taper
toolholder

Werkzeugaufnahme
für Morsekegel

Wyjście pod
stożki Morse'a

Porte-outil cone
morse

Portautensile cono
morse



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ISO	ARTYKUŁ	KOD	MORSE	d ₁	d ₂	L	L ₁	kg
40	MAS403 BT40-AD+B CM2.50 A-B	71MBT-B40CMB205	2	17.780	32	50	23	1
	MAS403 BT40-AD+B CM2.125 A-B	71MBT-B40CMB212	2	17.780	32	125	98	1.3
	MAS403 BT40-AD+B CM3.70 A-B	71MBT-B40CMB307	3	23.825	40	70	43	1.1
	MAS403 BT40-AD+B CM3.140 A-B	71MBT-B40CMB314	3	23.825	40	140	113	1.5
50	MAS403 BT50-AD+B CM2.60 A-B	71MBT-B50CMB206	2	17.780	32	60	22	2.6
	MAS403 BT50-AD+B CM2.125 A-B	71MBT-B50CMB212	2	17.780	32	125	87	2.8
	MAS403 BT50-AD+B CM3.60 A-B	71MBT-B50CMB306	3	23.825	40	60	22	2.7
	MAS403 BT50-AD+B CM3.145 A-B	71MBT-B50CMB314	3	23.825	40	145	107	3.2
	MAS403 BT50-AD+B CM4.80 A-B	71MBT-B50CMB408	4	31.267	48	80	42	2.9

MAS 403 BT

MS

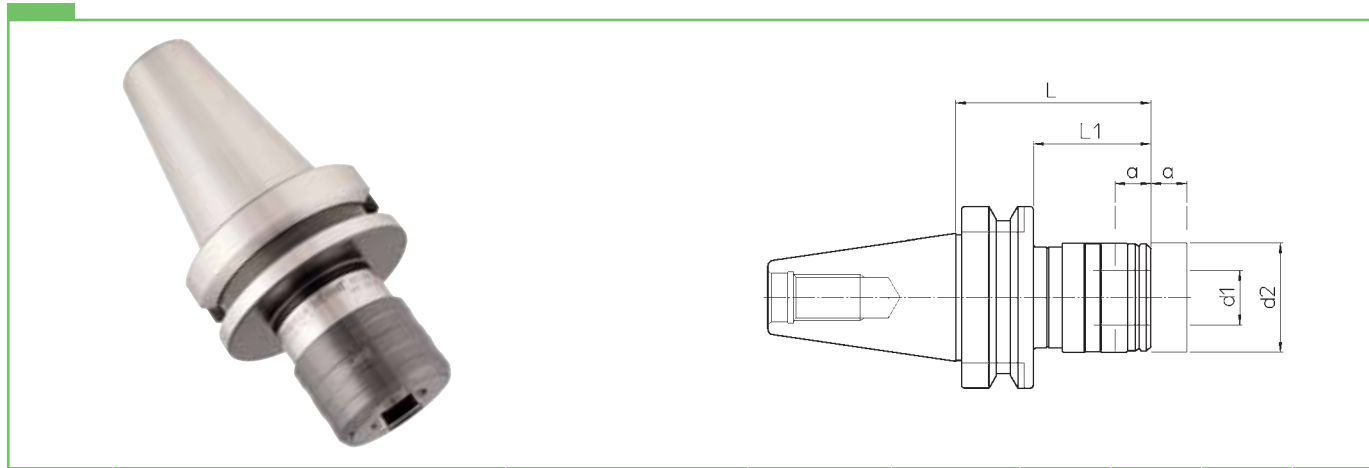
Tapping toolholder

Aufnahme mit
Gewindeschneidnellschnellwechselfutter

Oprawki do gwintowania
z kompensacją osiową

Porte-outil de
taradage

Portautensile
maschiatore

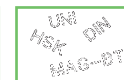
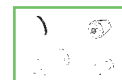
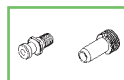


ISO	ARTYKUŁ	KOD	d ₁	d ₂	L	L ₁	a	kg
40	MAS403 BT40 MS1 M3-12	71MBT-40-M10312	19	36	67.5	40.5	7.5	0.9
	MAS403 BT40 MS2 M8-20	71MBT-40-M20820	31	53	94.5	67.5	12.5	1.3
50	MAS403 BT50 MS1 M3-12	71MBT-50-M10312	19	38	80	42	7.5	2.8
	MAS403 BT50 MS2 M8-20	71MBT-50-M20820	31	53	102.5	64.5	12.5	3.1
	MAS403 BT50 MS3 M14-33	71MBT-50-M31433	48	78	154.5	116.5	20	4.3

str. 178

str. 184-185

str. 211



Collet chuck holder

Spannzangenfutter

Wyjście pod tulejki ER

Porte-pinces

Portapinze



30

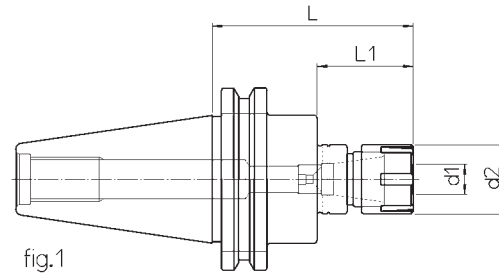


fig.1

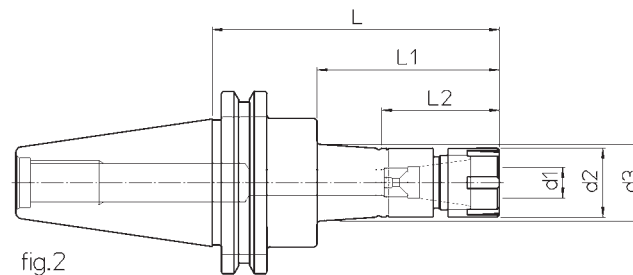


fig.2

Supplied without collets and clamping wrenches

Ohne Spannzangen und Spannschlüssel.

Nie zawiera tulejek rozprężnych i kluczy do nakrętek

Sans pinces et clés de serrage

Pinze elastiche e chiavi di serraggio escluse

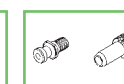
CAT	ARTYKUŁ	KOD	TYP	d ₁	d ₂	d ₃	L	L ₁	L ₂	kg	fig.
40	CAT40 UNC ER16 2.75	71CAT-40-ER1607	ER 16	.019-.40"	.94"	-	2.75"	1.31"	-	0.7	1
	CAT40 UNC ER16 4.00	71CAT-40-ER1610				1.06"	4.00"	2.56"	1.61"	0.8	2
	CAT40 UNC ER16 6.00	71CAT-40-ER1616				1.34"	6.00"	4.56"	1.61"	1.8	2
	CAT40 UNC ER25 2.75	71CAT-40-ER2507	ER 25	.039-.63"	1.65"	-	2.75"	1.99"	-	0.9	1
	CAT40 UNC ER25 4.00	71CAT-40-ER2510				-	4.00"	2.56"	-	1.4	1
	CAT40 UNC ER25 6.00	71CAT-40-ER2516				-	6.00"	4.56"	-	1.9	1
	CAT40 UNC ER32 3.00	71CAT-40-ER3207	ER 32	.078-.79"	1.96"	-	3.00"	2.24"	-	0.9	1
	CAT40 UNC ER32 4.25	71CAT-40-ER3211				-	4.25"	2.81"	-	1.5	1
	CAT40 UNC ER32 6.00	71CAT-40-ER3216				-	6.00"	4.56"	-	2.5	1
	CAT40 UNC ER40 3.25	71CAT-40-ER4008	ER 40	.118-1.02"	2.48"	-	3.25"	2.49"	-	1.1	1
	CAT40 UNC ER40 4.75	71CAT-40-ER4012				-	4.75"	3.31"	-	2.1	1
	CAT40 UNC ER40 6.00	71CAT-40-ER4016				-	6.00"	4.56"	-	3.1	1

str. 212

str. 188

str. 180-183

str. 179



CAT50 CALOWY

ER - DIN 6499



Collet chuck holder Spannzangenfutter Wyjście pod tulejki ER Porte-pinces Portapinze

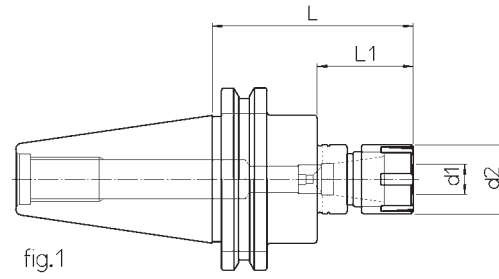


fig.1

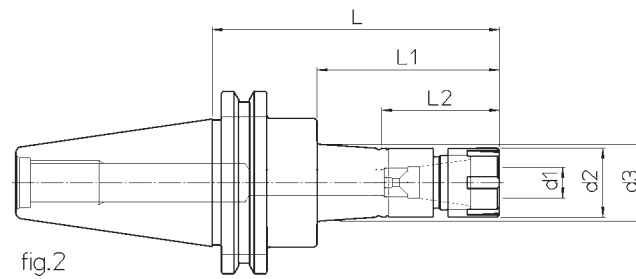


fig.2



31

Supplied without collets and clamping wrenches

Ohne Spannzangen und Spannschlüssel.

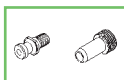
Nie zawiera tulejek rozprężnych i kluczy do nakrętek

Sans pincés et clés de serrage

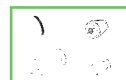
Pinze elastiche e chiavi di serraggio escluse

CAT	ARTYKUŁ	KOD	TYP	d ₁	d ₂	d ₃	L	L ₁	L ₂	kg	fig.
50	CAT50 UNC ER16 4.00	71CAT-50-ER1610	ER 16	.019-.40"	.94"	1.06"	4.00"	2.56"	1.61"	2.3	2
	CAT50 UNC ER16 6.00	71CAT-50-ER1616				1.34"	6.00"	4.56"	1.61"	3.1	2
	CAT50 UNC ER25 2.75	71CAT-50-ER2507	ER 25	.039-.63"	1.65"	-	2.75"	1.99"	-	2.3	1
	CAT50 UNC ER25 4.00	71CAT-50-ER2510				-	4.00"	2.56"	-	2.6	1
	CAT50 UNC ER25 6.00	71CAT-50-ER2516				-	6.00"	4.56"	-	3.4	1
	CAT50 UNC ER32 3.00	71CAT-50-ER3207	ER 32	.078-.79"	1.96"	-	3.00"	2.24"	-	2.7	1
	CAT50 UNC ER32 4.25	71CAT-50-ER3211				-	4.25"	2.81"	-	3.2	1
	CAT50 UNC ER32 6.00	71CAT-50-ER3216				-	6.00"	4.56"	-	3.8	1
	CAT50 UNC ER40 4.00	71CAT-50-ER4010	ER 40	.118-1.02"	2.48"	-	4.00"	2.56"	-	3.6	1
	CAT50 UNC ER40 6.00	71CAT-50-ER4016				-	6.00"	4.56"	-	4.1	1

str. 179



str. 180-183



str. 188



str. 212



UV
HSK-DIN
MAG-DT

Weldon
toolholder

Werkzeugaufnahme
für Weldon

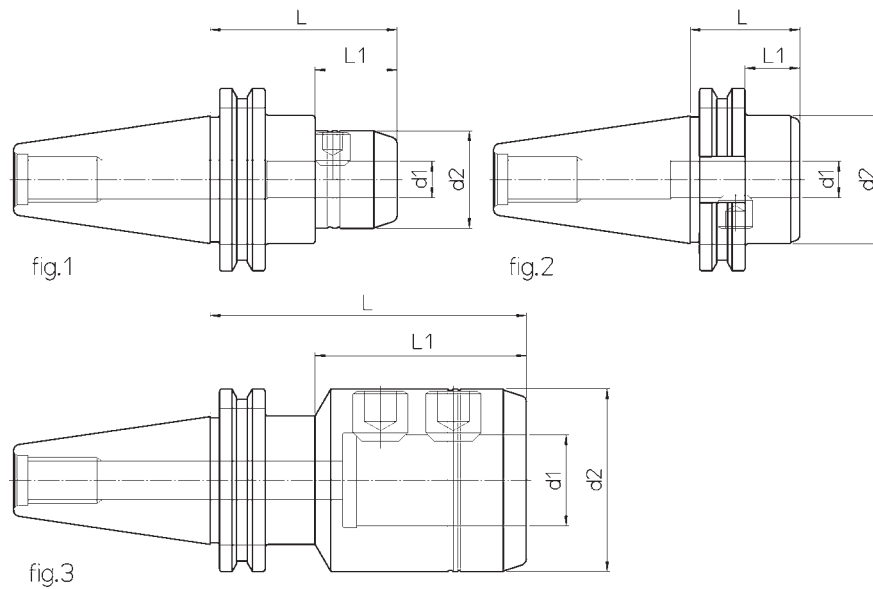
Wyjście
pod Weldon

Porte-outil
Weldon

Portautensile
Weldon



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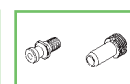
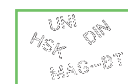


CAT	ARTYKUŁ	KOD	d _{1H5}	d ₂	L	L ₁	kg	fig.
40	CAT40 UNC WD1/4 2.50	71CAT-40-WD0606	1/4"	.79"	2.50"	1.06"	0.9	1
	CAT40 UNC WD1/4 4.00	71CAT-40-WD0610			4.00"	2.56"	1.1	1
	CAT40 UNC WD3/8 2.50	71CAT-40-WD0906	3/8"	1.06"	2.50"	1.06"	1	1
	CAT40 UNC WD3/8 4.00	71CAT-40-WD0910			4.00"	2.56"	1.2	1
	CAT40 UNC WD3/8 6.00	71CAT-40-WD0915			6.00"	4.56"	1.4	1
	CAT40 UNC WD1/2 1.50	71CAT-40-WD1304	1/2"	1.33"	1.50"	.74"	1.1	2
	CAT40 UNC WD1/2 2.50	71CAT-40-WD1306			2.50"	1.06"	1.2	1
	CAT40 UNC WD1/2 4.00	71CAT-40-WD1310			4.00"	2.56"	1.5	1
	CAT40 UNC WD1/2 6.00	71CAT-40-WD1315			6.00"	4.56"	1.8	1
	CAT40 UNC WD5/8 1.50	71CAT-40-WD1504	5/8"	1.65"	1.50"	.74"	1	2
	CAT40 UNC WD5/8 3.00	71CAT-40-WD1507			3.00"	1.56"	1.4	1
	CAT40 UNC WD5/8 4.50	71CAT-40-WD1511			4.50"	3.06"	1.6	1
	CAT40 UNC WD5/8 6.00	71CAT-40-WD1515			6.00"	4.56"	2.1	1
	CAT40 UNC WD3/4 1.75	71CAT-40-WD1904	3/4"	1.89"	1.75"	.99"	1.2	2
	CAT40 UNC WD3/4 3.00	71CAT-40-WD1907			3.00"	1.56"	1.5	1
	CAT40 UNC WD3/4 4.50	71CAT-40-WD1911			4.50"	3.06"	2	1
	CAT40 UNC WD3/4 6.00	71CAT-40-WD1915			6.00"	4.56"	2.5	1
	CAT40 UNC WD1 1.75	71CAT-40-WD2604	1"	2.20"	1.75"	.99"	1.5	2
	CAT40 UNC WD1 4.00	71CAT-40-WD2610			4.00"	2.56"	2.1	3
	CAT40 UNC WD1 6.00	71CAT-40-WD2615			6.00"	4.56"	3.3	3
CAT40 UNC WD1-1/4 2.00	71CAT-40-WD3105	1-1/4"	2.50"	2.00"	1.24"	1.3	2	
CAT40 UNC WD1-1/4 4.00	71CAT-40-WD3111			4.00"	2.56"	2.4	3	
CAT40 UNC WD1-1/4 6.00	71CAT-40-WD3115			6.00"	4.56"	3.8	3	

str. 212

str. 188

str. 179



CAT50 CALOWY

WD - DIN 1835-B



Weldon
toolholder

Werkzeugaufnahme
für Weldon

Wyjście
pod Weldon

Porte-outil
Weldon

Portautensile
Weldon

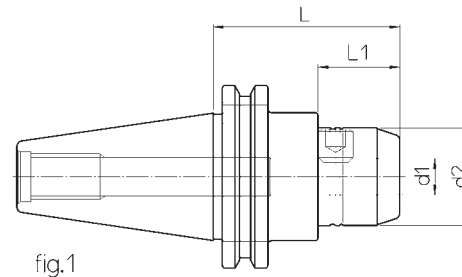


fig.1

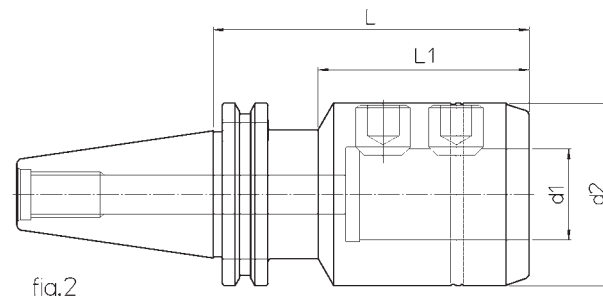


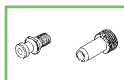
fig.2



33

CAT	ARTYKUŁ	KOD	d _{1H5}	d ₂	L	L ₁	kg	fig.
50	CAT50 UNC WD1/4 2.50	71CAT-50-WD0606	1/4"	.79"	2.50"	1.06"	2.1	1
	CAT50 UNC WD1/4 4.00	71CAT-50-WD0610			4.00"	2.56"	2.3	1
	CAT50 UNC WD1/4 6.00	71CAT-50-WD0615			6.00"	4.56"	2.4	1
	CAT50 UNC WD3/8 2.50	71CAT-50-WD0906	3/8"	1.06"	2.50"	1.06"	2.3	1
	CAT50 UNC WD3/8 4.00	71CAT-50-WD0910			4.00"	2.56"	2.4	1
	CAT50 UNC WD3/8 6.00	71CAT-50-WD0915			6.00"	4.56"	2.6	1
	CAT50 UNC WD1/2 2.50	71CAT-50-WD1306	1/2"	1.33"	2.50"	1.06"	2.4	1
	CAT50 UNC WD1/2 4.00	71CAT-50-WD1310			4.00"	2.56"	2.6	1
	CAT50 UNC WD1/2 6.00	71CAT-50-WD1315			6.00"	4.56"	3	1
	CAT50 UNC WD5/8 3.00	71CAT-50-WD1507	5/8"	1.65"	3.00"	1.56"	2.6	1
	CAT50 UNC WD5/8 4.50	71CAT-50-WD1511			4.50"	3.06"	3	1
	CAT50 UNC WD5/8 6.00	71CAT-50-WD1515			6.00"	4.56"	3.5	1
	CAT50 UNC WD3/4 3.00	71CAT-50-WD1907	3/4"	1.89"	3.00"	1.56"	2.7	1
	CAT50 UNC WD3/4 4.50	71CAT-50-WD1911			4.50"	3.06"	3.4	1
	CAT50 UNC WD3/4 6.00	71CAT-50-WD1915			6.00"	4.56"	4	1
	CAT50 UNC WD1 4.00	71CAT-50-WD2610	1"	2.20"	4.00"	2.56"	4.1	2
	CAT50 UNC WD1 6.00	71CAT-50-WD2615			6.00"	4.56"	5.1	2
	CAT50 UNC WD1-1/4 4.00	71CAT-50-WD3110	1-1/4"	2.50"	4.00"	2.56"	4.3	2
	CAT50 UNC WD1-1/4 6.00	71CAT-50-WD3115			6.00"	4.56"	5.8	2
	CAT50 UNC WD1-1/2 4.50	71CAT-50-WD3810	1-1/2"	2.95"	4.00"	3.06"	4.6	2
CAT50 UNC WD1-1/2 6.00	71CAT-50-WD3815	6.00"			4.56"	6.3	2	

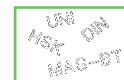
str. 179



str. 188



str. 212



MONOd'

PF

CAT CALOWY

Mill holder

Werkzeugaufnahme
für Aufsteckfräser

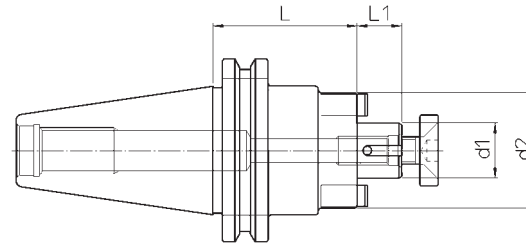
Wyjście pod głowice
frezarskie

Porte-fraises

Portafrese

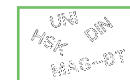


34

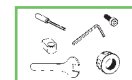


CAT	ARTYKUŁ	KOD	d ₁	d ₂	L	L ₁	kg
40	CAT40 UNC PF3/4 2.00	71CAT-40-PF1905	3/4"	1.57"	2.00"	.68"	0.7
	CAT40 UNC PF3/4 4.00	71CAT-40-PF1910			4.00"		0.9
	CAT40 UNC PF1 2.00	71CAT-40-PF2605	1/2"	1.96"	2.00"	.68"	0.9
	CAT40 UNC PF1 4.00	71CAT-40-PF2610			4.00"		1.2
	CAT40 UNC PF1-1/4 2.25	71CAT-40-PF3105	1-1/4"	2.36"	2.25"	.68"	1.5
	CAT40 UNC PF1-1/4 4.00	71CAT-40-PF3110			4.00"		1.8
	CAT40 UNC PF1-1/2 2.25	71CAT-40-PF3806	1-1/2"	2.75"	2.25"	.94"	2.6
	CAT40 UNC PF1-1/2 4.00	71CAT-40-PF3810			4.00"		2.9
50	CAT50 UNC PF3/4 2.00	71CAT-50-PF1905	3/4"	1.57"	2.00"	.68"	2.3
	CAT50 UNC PF3/4 4.00	71CAT-50-PF1910			4.00"		2.8
	CAT50 UNC PF3/4 6.00	71CAT-50-PF1915			6.00"		4.5
	CAT50 UNC PF1 2.00	71CAT-50-PF2605	1/2"	1.96"	2.00"	.68"	2.5
	CAT50 UNC PF1 4.00	71CAT-50-PF2610			4.00"		3.1
	CAT50 UNC PF1 6.00	71CAT-50-PF2615			6.00"		5.5
	CAT50 UNC PF1-1/4 2.25	71CAT-50-PF3105	1-1/4"	2.36"	2.25"	.68"	3.4
	CAT50 UNC PF1-1/4 4.00	71CAT-50-PF3110			4.00"		4
	CAT50 UNC PF1-1/4 6.00	71CAT-50-PF3115			6.00"		6.5
	CAT50 UNC PF1-1/2 2.25	71CAT-50-PF3806	1-1/2"	3.46"	2.25"	.94"	3.8
	CAT50 UNC PF1-1/2 4.00	71CAT-50-PF3810			4.00"		4.3
	CAT50 UNC PF1-1/2 6.00	71CAT-50-PF3815			6.00"		7.5

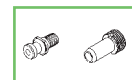
str. 212



str. 188



str. 179



CAT CALOWY

CM - DIN 228 AB



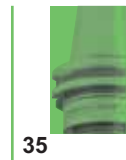
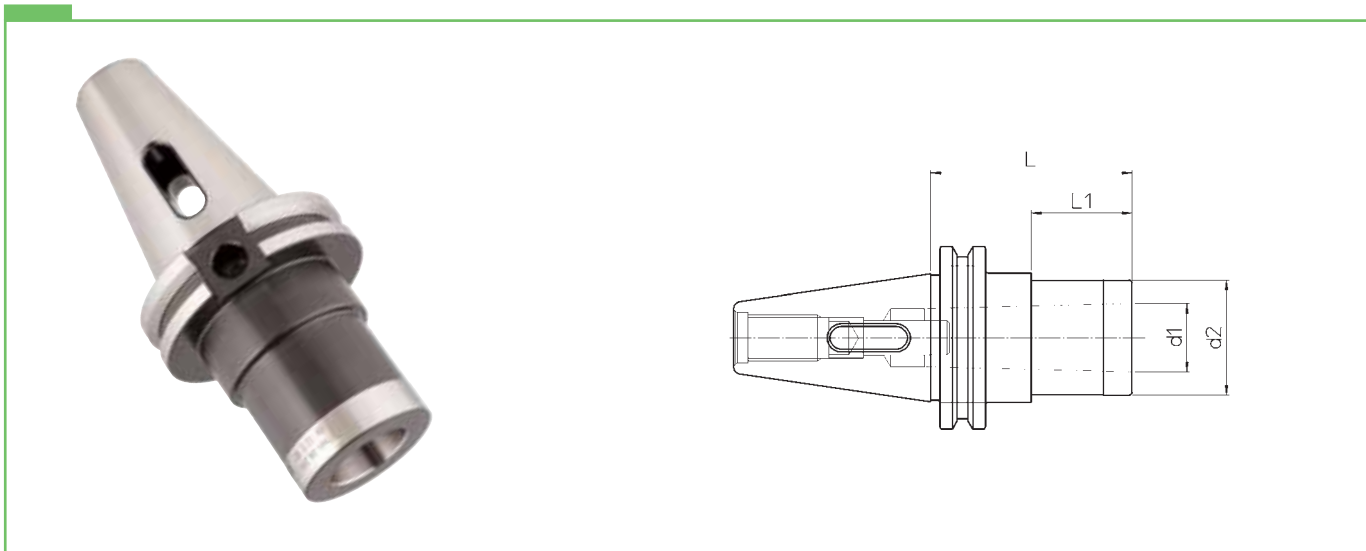
Morse taper
toolholder

Werkzeugaufnahme
für Morsekegel

Wyjście pod
stożki Morse'a

Porte-outil cone
morse

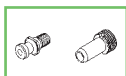
Portautensile cono
morse



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CAT	ARTYKUŁ	KOD	MORSE	d ₁	d ₂	L	L ₁	kg
40	CAT40 UNC CM2 2.00 A-B	71CAT-40-CMB205	2	.700"	1.26"	2.00"	.62"	1
	CAT40 UNC CM3 2.75 A-B	71CAT-40-CMB307	3	.938"	1.57"	2.75"	1.37"	1.1
50	CAT50 UNC CM2 2.50 A-B	71CAT-50-CMB206	2	.700"	1.26"	2.50"	1.12"	2.6
	CAT50 UNC CM3 2.50 A-B	71CAT-50-CMB306	3	.938"	1.26"	2.50"	1.12"	2.7
	CAT50 UNC CM4 3.00 A-B	71CAT-50-CMB408	4	1.23"	1.89"	3.00"	1.62"	2.9

str. 179



str. 212

