

KANTER





**SCHRUMPFUTTER  
SHRINK FIT CHUCKS  
MANDRINS DE FRETTAGE  
MANDRINI A CALETTAMENTO**

- DIN 69893                      PAG. 260-268
- DIN 69871                      PAG. 269-272
- MAS 403/BT                    PAG. 273-279





#### SCHRUMPFPROGRAMM - Die Vorteile der Schrumpftechnik

- Ideale zur HSC-Bearbeitung
- Sehr schnelle Montage und Demontage des Werkzeuges in der Aufnahme
- Sehr hohe Präzision: Rundlaufgenauigkeit bis 0,003 mm.
- Höchste radial- und axiale Halterkraft, auch bei sehr hohen Geschwindigkeit
- Übertragbares Drehmoment wesentlich höher als bei allen anderen Systemen
- Vielfältige Anwendungsmöglichkeiten: Für Hartmetall und HSS Werkzeuge
- Optimale Oberflächengüte
- Hohe Lebensdauer des Werkzeuges und der Aufnahme

#### UNSERE SCHRUMPFUTTER

- Aus hochlegiertem Sonderstahl, mit sehr hoher Dehnrate und Hitzebeständigkeit, spezifisch für Induktion
- Höchste Rundlaufgenauigkeit, max. Rundlauffehler 0.003 mm.
- Für HSC Bearbeitungen, feingewuchtet bis 15000 U/min in Klasse G6.3
- Für HSS und HM Werkzeuge (Schaft des Werkzeuges muß h6 sein)
- Sehr umfangreiches Programm: von MAS BT30/HSK32 bis SK50/HSK100



#### SHRINK TO FIT - Advantages of the Shrink-To.Fit Technology

- Particularly suitable for High Speed Machining
- Very quick assembling of the tools into the toolholders
- Extremely high precision, runout accuracy under the 0,003 mm.
- High radial and axial clamping force also by a very high speed
- The transferable torque is much higher than any other system
- Wide spread of applications: for HSS and carbide tools
- Excellent surface's quality
- Longer cutting edge's and holder's life

#### OUR SHRINK TO FIT CHUCKS

- High-alloy steel, very high temperature resistant, specific for Induction.
- High runout accuracy, max error 0.003 mm.
- For High Speed Machining, fine balanced up to 15000 rpm in class G6.3
- For HSS und carbide tools (with shank in h6 )
- Very wide range: from MAS BT30/HSK32 to SK50/HSK100



#### FRETTAGE - Les avantages du système

- Idéal pour travailler à haute vitesse.
- Montage et démontage d'outil rapide
- Grande précision, couplage d'outil et porte outil inférieur à 0,003 mm.
- Avec grande vitesse on a une grande force de serrage soit axial que radial
- Couple de serrage supérieur à tous les autres systèmes
- Vaste possibilité d'usage: pour outil en carbure et en HSS
- Excellent finissage superficiel
- Supérieure dureté d'outil et du mandrin

#### NOS PORTE-OUTILS DE FRETTAGE

- En acier spécial pour travailler à hautes températures, spécifique pour le frettage à induction.
- Maximum concentricité, erreur de coaxialité maximum: 0.003 mm.
- Pour haute vitesse, ils sont équilibrés à 15000 T/min en classe G6.3
- Pour outils en carbure et en HSS avec tolérance de la queue h6
- Large gamme: de Mas BT 30/HSK32 à ISO50/HSK100



#### CALETTAMENTO A CALDO - I vantaggi del sistema

- Ideale per le lavorazioni ad alta velocità
- Rapido inserimento ed estrazione dell'utensile
- Altissima precisione, accoppiamento utensile portautensile con coassialità inferiore a 0,003 mm.
- Elevata forza di bloccaggio assiale e radiale anche ad altissime velocità
- Momento torcente di molto superiore a qualsiasi altro sistema
- Vasta possibilità d'impiego: per utensili in metallo duro e in HSS
- Ottima finitura superficiale
- Maggiore durata dell'utensile e del mandrino

#### I NOSTRI PORTAUTENSILI A CALDO

- In acciaio speciale per lavorazione ad elevate temperature, specifico per il calettamento ad induzione
- Massima concentricità, errore di coassialità massimo: 0.003 mm.
- Per alta velocità, equilibrati a 15000 rpm in classe G6.3
- Per utensili in metallo duro e HSS con tolleranza del gambo h6
- Vastissima gamma: da Mas BT 30/HSK32 a ISO50/HSK100

SCHRUMPFUTTER HSK 32 DIN 69893 Form A • SHRINK FIT CHUCKS HSK 32 DIN69893 TYPE A  
MANDRINS DE FRETTAGE TYPE HSK 32 DIN 69893 A • MANDRINI A CALETTAMENTO HSK 32 DIN 69893 tipo A



PAG. 261

SCHRUMPFUTTER HSK 32 DIN 69893 Form E • SHRINK FIT CHUCKS HSK 32 DIN69893 TYPE E  
MANDRINS DE FRETTAGE TYPE HSK 32 DIN 69893 E • MANDRINI A CALETTAMENTO HSK 32 DIN 69893 tipo E



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SCHRUMPFUTTER HSK 40 DIN 69893 Form A • SHRINK FIT CHUCKS HSK 40 DIN69893 TYPE A  
MANDRINS DE FRETTAGE TYPE HSK 40 DIN 69893 A • MANDRINI A CALETTAMENTO HSK 40 DIN 69893 tipo A



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SCHRUMPFUTTER HSK 40 DIN 69893 Form E • SHRINK FIT CHUCKS HSK 40 DIN69893 TYPE E  
MANDRINS DE FRETTAGE TYPE HSK 40 DIN 69893 E • MANDRINI A CALETTAMENTO HSK 40 DIN 69893 tipo E



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SCHRUMPFUTTER HSK 50 DIN 69893 Form A • SHRINK FIT CHUCKS HSK 50 DIN69893 TYPE A  
MANDRINS DE FRETTAGE TYPE HSK 50 DIN 69893 A • MANDRINI A CALETTAMENTO HSK 50 DIN 69893 tipo A



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SCHRUMPFUTTER HSK 50 DIN 69893 Form E • SHRINK FIT CHUCKS HSK 50 DIN69893 TYPE E  
MANDRINS DE FRETTAGE TYPE HSK 50 DIN 69893 E • MANDRINI A CALETTAMENTO HSK 50 DIN 69893 tipo E



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SCHRUMPFUTTER HSK 63 DIN 69893 Form A • SHRINK FIT CHUCKS HSK 63 DIN69893 TYPE A  
MANDRINS DE FRETTAGE TYPE HSK 63 DIN 69893 A • MANDRINI A CALETTAMENTO HSK 63 DIN 69893 tipo A



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SCHRUMPFUTTER HSK 63 DIN 69893 Form A • SHRINK FIT CHUCKS HSK 63 DIN69893 TYPE A  
MANDRINS DE FRETTAGE TYPE HSK 63 DIN 69893 A • MANDRINI A CALETTAMENTO HSK 63 DIN 69893 tipo A



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SCHRUMPFUTTER HSK 63 DIN 69893 Form E • SHRINK FIT CHUCKS HSK 63 DIN69893 TYPE E  
MANDRINS DE FRETTAGE TYPE HSK 63 DIN 69893 E • MANDRINI A CALETTAMENTO HSK 63 DIN 69893 tipo E



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SCHRUMPFUTTER HSK 100 DIN 69893 Form A • SHRINK FIT CHUCKS HSK 100 DIN69893 TYPE A  
MANDRINS DE FRETTAGE TYPE HSK 100 DIN 69893 A • MANDRINI A CALETTAMENTO HSK 100 DIN 69893 tipo A



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SCHRUMPFUTTER ISO 40 DIN 69871 AD • SHRINK FIT CHUCKS ISO 40 DIN 69871 AD  
MANDRINS DE FRETTAGE TYPE ISO 40 DIN 69871 AD • MANDRINI A CALETTAMENTO ISO 40 DIN 69871 AD



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SCHRUMPFUTTER ISO 30 DIN 69871 AD • SHRINK FIT CHUCKS ISO 30 DIN 69871 AD  
MANDRINS DE FRETTAGE TYPE ISO 30 DIN 69871 AD • MANDRINI A CALETTAMENTO ISO 30 DIN 69871 AD



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SCHRUMPFUTTER ISO 40 DIN 69871 AD/B • SHRINK FIT CHUCKS ISO 40 DIN 69871 AD/B  
MANDRINS DE FRETTAGE TYPE ISO 40 DIN 69871 AD/B • MANDRINI A CALETTAMENTO ISO 40 DIN 69871 AD/B



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SCHRUMPFUTTER ISO 50 DIN 69871 AD/B • SHRINK FIT CHUCKS ISO 50 DIN 69871 AD/B  
MANDRINS DE FRETTAGE TYPE ISO 50 DIN 69871 AD/B • MANDRINI A CALETTAMENTO ISO 50 DIN 69871 AD/B



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SCHRUMPFUTTER MAS BT-30 Form AD • SHRINK FIT CHUCKS MAS BT-30 type AD  
MANDRINS DE FRETTAGE TYPE MAS BT-30 AD • MANDRINI A CALETTAMENTO MAS BT-30 tipo AD



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SCHRUMPFUTTER MAS BT-40 Form AD/B • SHRINK FIT CHUCKS MAS BT-40 type AD/B  
MANDRINS DE FRETTAGE TYPE MAS BT-40 tipe AD/B • MANDRINI A CALETTAMENTO MAS BT-40 tipo AD/B



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SCHRUMPFUTTER MAS BT-50 Form AD/B • SHRINK FIT CHUCKS MAS BT-50 type AD/B  
MANDRINS DE FRETTAGE TYPE MAS BT-50 AD/B • MANDRINI A CALETTAMENTO MAS BT-50 tipo AD/B



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SCHRUMPFVERLÄNGERUNGEN • SHRINKING EXTENSIONS  
RALLONGES DE FRETTAGE • PROLUNGHE PER CALETTAMENTO



PAG. 278

**KAMATEL**

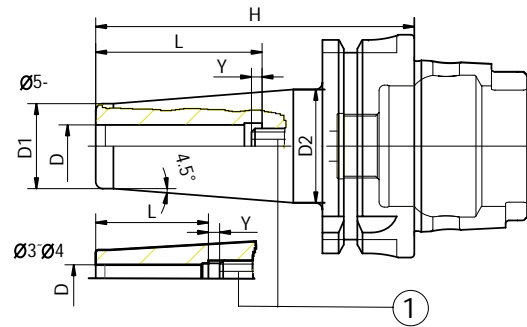
**DIN 69893**



SCHRUMPFUTTER HSK 32 DIN 69893 Form A  
SHRINK FIT CHUCKS HSK 32 DIN69893 TYPE A

MANDRINS DE FRETTAGE TYPE HSK 32 DIN 69893 A  
MANDRINI A CALETTAMENTO HSK 32 DIN 69893 tipo A

HSK 32A

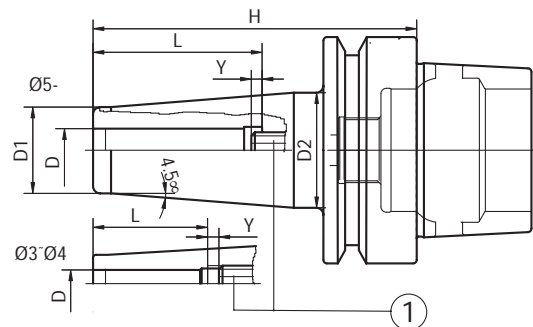


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	251-11793	HSK32AH60K04-HTT	4	60	26	10	10	16	•
	251-11794	HSK32AH60K05-HTT	5	60	30	10	10	16	•
	251-11795	HSK32AH70K06-HTT	6	70	36	10	21	25	•
	251-11796	HSK32AH70K08-HTT	8	70	36	10	21	25	•
	251-11797	HSK32AH75K10-HTT	10	75	41	10	24	29	•
	251-11798	HSK32AH80K12-HTT	12	80	47	10	24	29	•

SCHRUMPFUTTER HSK 32 DIN 69893 Form E  
SHRINK FIT CHUCKS HSK 32 DIN69893 TYPE E

MANDRINS DE FRETTAGE TYPE HSK 32 DIN 69893 E  
MANDRINI A CALETTAMENTO HSK 32 DIN 69893 tipo E

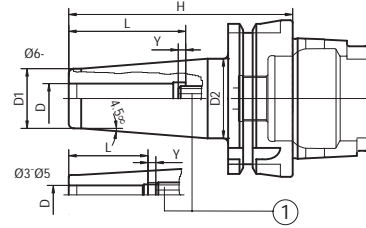
HSK 32E



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STANDARD	251-27315	HSK32EH60K03-HTT	3	60	22	10	10	16	•
	251-27316	HSK32EH60K04-HTT	4	60	26	10	10	16	•
	251-27317	HSK32EH60K05-HTT	5	60	30	10	10	16	•
	251-27307	HSK32EH70K06-HTT	6	70	36	10	21	25	•
	251-27308	HSK32EH70K08-HTT	8	70	36	10	21	25	•
	251-27309	HSK32EH75K10-HTT	10	75	41	10	24	29	•
	251-27318	HSK32EH80K12-HTT	12	80	47	10	24	29	•

SCHRUMPFUTTER HSK 40 DIN 69893 Form A  
SHRINK FIT CHUCKS HSK 40 DIN69893 TYPE A

MANDRINS DE FRETTAGE TYPE HSK 40 DIN 69893 A  
MANDRINI A CALETTAMENTO HSK 40 DIN 69893 tipo A

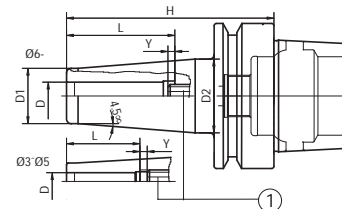


HSK 40A

	Code N.	Description	D	H	L	Ymax	D1	D2	G6,3 15000
STANDARD	251-11740	HSK40AH60K03-HTT	3	60	22	10	10	16	•
	251-11741	HSK40AH60K04-HTT	4	60	26	10	10	16	•
	251-11742	HSK40AH60K05-HTT	5	60	30	10	10	16	•
	251-11743	HSK40AH80K06-HTT	6	80	36	10	21	27	•
	251-11744	HSK40AH80K08-HTT	8	80	36	10	21	27	•
	251-11745	HSK40AH80K10-HTT	10	80	41	10	24	32	•
	251-21707	HSK40AH90K12-HTT	12	90	47	10	24	32	•
	251-11747	HSK40AH90K14-HTT	14	90	47	10	27	34	•
	251-21708	HSK40AH90K16-HTT	16	90	50	10	27	34	•
H120	251-21709	HSK40AH120K03-HTT	3	120	22	10	10	20	•
	251-21710	HSK40AH120K04-HTT	4	120	26	10	15	22	•
	251-21711	HSK40AH120K05-HTT	5	120	30	10	15	22	•
	251-21712	HSK40AH120K06-HTT	6	120	36	10	21	27	•
	251-21713	HSK40AH120K08-HTT	8	120	36	10	21	27	•
	251-21714	HSK40AH120K10-HTT	10	120	42	10	24	32	•
	251-21715	HSK40AH120K12-HTT	12	120	47	10	24	32	•
	251-21778	HSK40AH120K14-HTT	14	120	50	10	27	34	•
	251-21779	HSK40AH120K16-HTT	16	120	50	10	27	34	•

SCHRUMPFUTTER HSK 40 DIN 69893 Form E  
SHRINK FIT CHUCKS HSK 40 DIN69893 TYPE E

MANDRINS DE FRETTAGE TYPE HSK 40 DIN 69893 E  
MANDRINI A CALETTAMENTO HSK 40 DIN 69893 tipo E



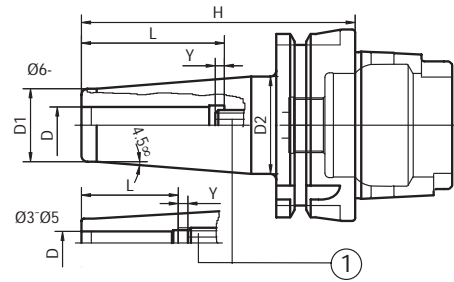
HSK 40E

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STANDARD	251-17374	HSK40EH60K03-HTT	3	60	22	10	10	16	•
	251-17375	HSK40EH60K04-HTT	4	60	26	10	10	16	•
	251-17376	HSK40EH60K05-HTT	5	60	30	10	10	16	•
	251-17333	HSK40EH80K06-HTT	6	80	36	10	21	27	•
	251-17334	HSK40EH80K08-HTT	8	80	36	10	21	27	•
	251-17335	HSK40EH80K10-HTT	10	80	41	10	24	32	•
	251-27322	HSK40EH90K12-HTT	12	90	47	10	24	32	•
	251-17378	HSK40EH90K14-HTT	14	90	47	10	27	34	•
	251-27323	HSK40EH90K16-HTT	16	90	50	10	27	34	•
H120	251-17380	HSK40EH120K03-HTT	3	120	22	10	10	20	•
	251-17381	HSK40EH120K04-HTT	4	120	26	10	15	22	•
	251-17382	HSK40EH120K05-HTT	5	120	30	10	15	22	•
	251-17383	HSK40EH120K06-HTT	6	120	36	10	21	27	•
	251-17384	HSK40EH120K08-HTT	8	120	36	10	21	27	•
	251-17385	HSK40EH120K10-HTT	10	120	42	10	24	32	•
	251-17386	HSK40EH120K12-HTT	12	120	47	10	24	32	•
	251-27348	HSK40EH120K14-HTT	14	120	50	10	27	34	•
	251-27349	HSK40EH120K16-HTT	16	120	50	10	27	34	•

SCHRUMPFUTTER HSK 50 DIN 69893 Form A  
SHRINK FIT CHUCKS HSK 50 DIN69893 TYPE A

MANDRINS DE FRETTAGE TYPE HSK 50 DIN 69893 A  
MANDRINI A CALETTAMENTO HSK 50 DIN 69893 tipo A

HSK 50A

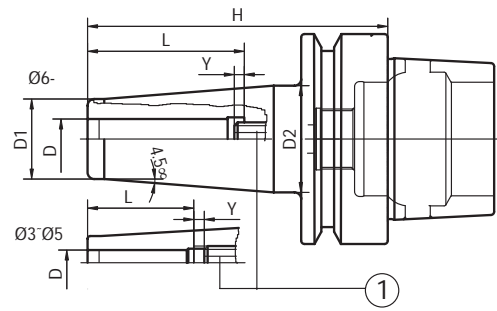


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STANDARD	251-21716	HSK50AH80K03-HTT	3	80	19	10	10	18	•
	251-21717	HSK50AH80K04-HTT	4	80	22	10	10	18	•
	251-21718	HSK50AH80K05-HTT	5	80	28	10	10	20	•
	251-21719	HSK50AH80K06-HTT	6	80	36	10	21	27	•
	251-21720	HSK50AH80K08-HTT	8	80	36	10	21	27	•
	251-21721	HSK50AH85K10-HTT	10	85	42	10	24	32	•
	251-11704	HSK50AH90K12-HTT	12	90	47	10	24	32	•
	251-11705	HSK50AH90K14-HTT	14	90	47	10	27	34	•
	251-11706	HSK50AH95K16-HTT	16	95	50	10	27	34	•
	251-11715	HSK50AH95K18-HTT	18	95	50	10	33	42	•
	251-11716	HSK50AH100K20-HTT	20	100	52	10	33	42	•
H120	251-21722	HSK50AH120K03-HTT	3	120	19	10	10	22	•
	251-21723	HSK50AH120K04-HTT	4	120	22	10	10	22	•
	251-21724	HSK50AH120K05-HTT	5	120	28	10	10	24	•
	251-11717	HSK50AH120K06-HTT	6	120	36	10	21	27	•
	251-11718	HSK50AH120K08-HTT	8	120	36	10	21	27	•
	251-11719	HSK50AH120K10-HTT	10	120	42	10	24	32	•
	251-11720	HSK50AH120K12-HTT	12	120	47	10	24	32	•
	251-11721	HSK50AH120K14-HTT	14	120	47	10	27	34	•
	251-11722	HSK50AH120K16-HTT	16	120	50	10	27	34	•
	251-21780	HSK50AH120K18-HTT	18	120	50	10	33	42	•
	251-21781	HSK50AH120K20-HTT	20	120	52	10	33	42	•



SCHRUMPFUTTER HSK 50 DIN 69893 Form E MANDRINS DE FRETTAGE TYPE HSK 50 DIN 69893 E  
 SHRINK FIT CHUCKS HSK 50 DIN69893 TYPE E MANDRINI A CALETTAMENTO HSK 50 DIN 69893 tipo E

HSK 50E

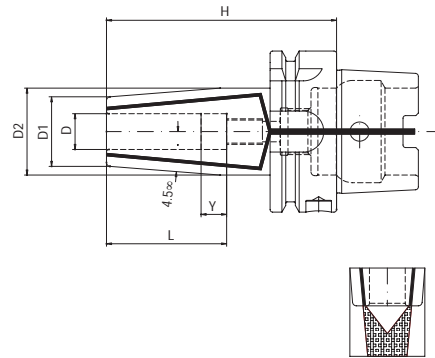


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STANDARD	251-27324	HSK50EH80K03-HTT	3	80	22	10	10	18	•
	251-27325	HSK50EH80K04-HTT	4	80	26	10	15	18	•
	251-27326	HSK50EH80K05-HTT	5	80	30	10	15	20	•
	251-27327	HSK50EH80K06-HTT	6	80	36	10	21	27	•
	251-27328	HSK50EH80K08-HTT	8	80	36	10	21	27	•
	251-27329	HSK50EH85K10-HTT	10	85	41	10	24	36	•
	251-17304	HSK50EH90K12-HTT	12	90	47	10	24	32	•
	251-17305	HSK50EH90K14-HTT	14	90	47	10	27	34	•
	251-17306	HSK50EH95K16-HTT	16	95	50	10	27	34	•
	251-17315	HSK50EH95K18-HTT	18	95	50	10	33	42	•
251-17316	HSK50EH100K20-HTT	20	100	52	10	33	42	•	
H120	251-27330	HSK50EH120K03-HTT	3	120	22	10	10	20	•
	251-27331	HSK50EH120K04-HTT	4	120	26	10	15	22	•
	251-27332	HSK50EH120K05-HTT	5	120	30	10	15	22	•
	251-17317	HSK50EH120K06-HTT	6	120	36	10	21	27	•
	251-17318	HSK50EH120K08-HTT	8	120	36	10	21	27	•
	251-17319	HSK50EH120K10-HTT	10	120	41	10	24	32	•
	251-17320	HSK50EH120K12-HTT	12	120	47	10	24	32	•
	251-17321	HSK50EH120K14-HTT	14	120	47	10	27	34	•
	251-17322	HSK50EH120K16-HTT	16	120	50	10	27	34	•
	251-27350	HSK50EH120K18-HTT	18	120	50	10	33	42	•
251-27351	HSK50EH120K20-HTT	20	120	52	10	33	42	•	

SCHRUMPFUTTER HSK 63 DIN 69893 Form A  
SHRINK FIT CHUCKS HSK 63 DIN69893 TYPE A

MANDRINS DE FRETTAGE TYPE HSK 63 DIN 69893 A  
MANDRINI A CALETTAMENTO HSK 63 DIN 69893 tipo A

HSK 63A



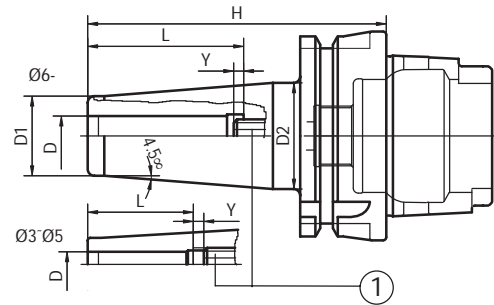
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	251-21767	HSK63AH80K05-HTT	5	80	10	10	15	22	•
	251-21768	HSK63AH80K06-HTT	6	80	36	10	21	27	•
	251-21769	HSK63AH80K08-HTT	8	80	36	10	21	27	•
	251-21770	HSK63AH85K10-HTT	10	85	41	10	24	32	•
	251-21771	HSK63AH90K12-HTT	12	90	47	10	24	32	•
	251-21772	HSK63AH90K14-HTT	14	90	47	10	27	34	•
	251-21773	HSK63AH95K16-HTT	16	95	50	10	27	34	•
	251-21774	HSK63AH95K18-HTT	18	95	50	10	33	42	•
	251-21775	HSK63AH100K20-HTT	20	100	52	10	33	42	•
	251-21776	HSK63AH115K25-HTT	25	115	58	10	44	53	•
	251-21777	HSK63AH120K32-HTT	32	120	62	10	44	53	•

**With cooling through collar**  
**Con passaggio refrigerante interno**

SCHRUMPFUTTER HSK 63 DIN 69893 Form A  
SHRINK FIT CHUCKS HSK 63 DIN69893 TYPE A

MANDRINS DE FRETTAGE TYPE HSK 63 DIN 69893 A  
MANDRINI A CALETTAMENTO HSK 63 DIN 69893 tipo A

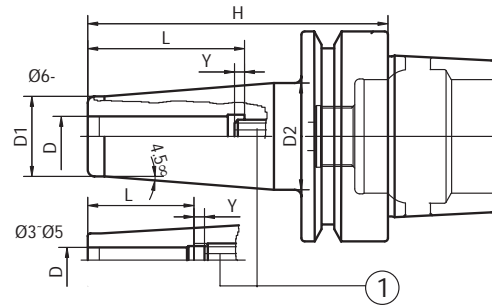
HSK 63A



	Code N.	Description	D	H	L	Ymax	D1	D2	G6,3 15000
STANDARD	251-21725	HSK63AH80K03-HTT	3	80	14	10	10	18	•
	251-21726	HSK63AH80K04-HTT	4	80	18	10	10	18	•
	251-21727	HSK63AH80K05-HTT	5	80	22	10	10	18	•
	251-21728	HSK63AH80K06-HTT	6	80	36	10	21	27	•
	251-21729	HSK63AH80K08-HTT	8	80	36	10	21	27	•
	251-21730	HSK63AH85K10-HTT	10	85	42	10	24	32	•
	251-11710	HSK63AH90K12-HTT	12	90	47	10	24	32	•
	251-11711	HSK63AH90K14-HTT	14	90	47	10	27	34	•
	251-11712	HSK63AH95K16-HTT	16	95	50	10	27	34	•
	251-11713	HSK63AH95K18-HTT	18	95	50	10	33	42	•
	251-11714	HSK63AH100K20-HTT	20	100	52	10	33	42	•
	251-21731	HSK63AH115K25-HTT	25	115	58	10	44	53	•
	251-21782	HSK63AH120K32-HTT	32	120	62	10	44	53	•
	H120	251-21732	HSK63AH120K03-HTT	3	120	22	10	10	20
251-21733		HSK63AH120K04-HTT	4	120	26	10	15	22	•
251-21734		HSK63AH120K05-HTT	5	120	30	10	15	22	•
251-11725		HSK63AH120K06-HTT	6	120	36	10	21	27	•
251-11726		HSK63AH120K08-HTT	8	120	36	10	21	27	•
251-11727		HSK63AH120K10-HTT	10	120	41	10	24	32	•
251-11728		HSK63AH120K12-HTT	12	120	47	10	24	32	•
251-11729		HSK63AH120K14-HTT	14	120	47	10	27	34	•
251-11730		HSK63AH120K16-HTT	16	120	50	10	27	34	•
251-21783		HSK63AH120K18-HTT	18	120	50	10	33	42	•
251-21784		HSK63AH120K20-HTT	20	120	52	10	33	42	•
251-21785	HSK63AH120K25-HTT	25	120	58	10	44	53	•	
H160	251-21786	HSK63AH160K03-HTT	3	160	22	10	10	20	•
	251-21787	HSK63AH160K04-HTT	4	160	26	10	15	22	•
	251-21788	HSK63AH160K05-HTT	5	160	30	10	15	22	•
	251-21789	HSK63AH160K06-HTT	6	160	36	10	21	27	•
	251-21790	HSK63AH160K08-HTT	8	160	36	10	21	27	•
	251-21791	HSK63AH160K10-HTT	10	160	41	10	24	32	•
	251-21792	HSK63AH160K12-HTT	12	160	47	10	24	32	•
	251-21793	HSK63AH160K14-HTT	14	160	47	10	27	34	•
	251-21794	HSK63AH160K16-HTT	16	160	50	10	27	34	•
	251-21795	HSK63AH160K18-HTT	18	160	50	10	33	42	•
	251-21796	HSK63AH160K20-HTT	20	160	52	10	33	42	•
	251-21797	HSK63AH160K25-HTT	25	160	62	10	44	53	•
	251-21798	HSK63AH160K32-HTT	32	160	62	10	44	53	•

SCHRUMPFUTTER HSK 63 DIN 69893 Form E MANDRINS DE FRETTAGE TYPE HSK 63 DIN 69893 E  
 SHRINK FIT CHUCKS HSK 63 DIN69893 TYPE E MANDRINI A CALETTAMENTO HSK 63 DIN 69893 tipo E

HSK 63E

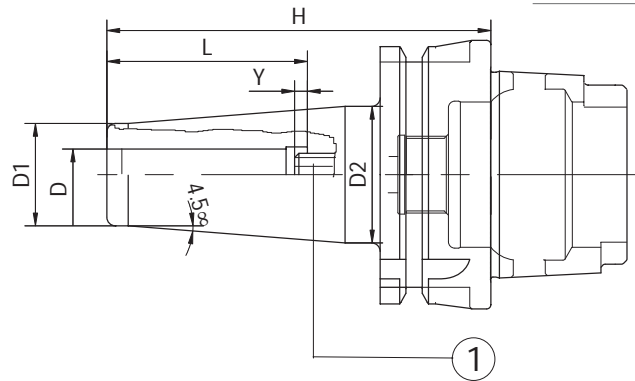


	Code N.	Description	D	H	L	Y <sub>max</sub>	D1	D2	G6,3 15000
STANDARD	251-27333	HSK63EH80K03-HTT	3	80	22	10	10	15	•
	251-27334	HSK63EH80K04-HTT	4	80	26	10	15	22	•
	251-27335	HSK63EH80K05-HTT	5	80	30	10	15	22	•
	251-27336	HSK63EH80K06-HTT	6	80	36	10	21	27	•
	251-27337	HSK63EH80K08-HTT	8	80	36	10	21	27	•
	251-27338	HSK63EH85K10-HTT	10	85	41	10	24	32	•
	251-17310	HSK63EH90K12-HTT	12	90	47	10	24	32	•
	251-17311	HSK63EH90K14-HTT	14	90	47	10	27	34	•
	251-17312	HSK63EH95K16-HTT	16	95	50	10	27	34	•
	251-17313	HSK63EH95K18-HTT	18	95	50	10	33	42	•
	251-17314	HSK63EH100K20-HTT	20	100	52	10	33	42	•
	251-27339	HSK63EH115K25-HTT	25	115	58	10	44	53	•
	251-27356	HSK63EH115K32-HTT	32	120	62	10	44	53	•
H120	251-27340	HSK63EH120K03-HTT	3	120	19	10	10	20	•
	251-27341	HSK63EH120K04-HTT	4	120	26	10	15	22	•
	251-27342	HSK63EH120K05-HTT	5	120	30	10	15	22	•
	251-17325	HSK63EH120K06-HTT	6	120	36	10	21	27	•
	251-17326	HSK63EH120K08-HTT	8	120	36	10	21	27	•
	251-17327	HSK63EH120K10-HTT	10	120	41	10	24	32	•
	251-17328	HSK63EH120K12-HTT	12	120	47	10	24	32	•
	251-17329	HSK63EH120K14-HTT	14	120	47	10	27	34	•
	251-17330	HSK63EH120K16-HTT	16	120	50	10	27	34	•
	251-27352	HSK63EH120K18-HTT	18	120	50	10	33	42	•
	251-27353	HSK63EH120K20-HTT	20	120	52	10	33	42	•
	251-27354	HSK63EH120K25-HTT	25	120	58	10	44	53	•
	251-27355	HSK63EH120K32-HTT	32	120	62	10	44	53	•

SCHRUMPFUTTER HSK 100 DIN 69893 Form A  
SHRINK FIT CHUCKS HSK 100 DIN69893 TYPE A

MANDRINS DE FRETTAGE TYPE HSK 100 DIN 69893 A  
MANDRINI A CALETTAMENTO HSK 100 DIN 69893 tipo A

HSK 100A



	Code N.	Description	D	H	L	Ymax	D1	D2	G6,3 15000
STANDARD	251-21735	HSK100AH85K06-HTT	6	85	36	10	21	27	•
	251-21736	HSK100AH85K08-HTT	8	85	36	10	21	27	•
	251-21737	HSK100AH90K10-HTT	10	90	41	10	24	32	•
	251-21738	HSK100AH95K12-HTT	12	95	47	10	24	32	•
	251-21739	HSK100AH95K14-HTT	14	95	47	10	27	34	•
	251-21740	HSK100AH100K16-HTT	16	100	50	10	27	34	•
	251-21741	HSK100AH100K18-HTT	18	100	50	10	33	42	•
	251-21742	HSK100AH105K20-HTT	20	105	52	10	33	42	•
	251-21743	HSK100AH115K25-HTT	25	115	58	10	44	53	•
	251-21799	HSK100AH120K32-HTT	32	120	62	10	44	53	•
EXTENDED	251-21744	HSK100AH120K06-HTT	6	120	36	10	21	27	•
	251-21745	HSK100AH120K08-HTT	8	120	36	10	21	27	•
	251-21746	HSK100AH120K10-HTT	10	120	41	10	24	32	•
	251-21747	HSK100AH120K12-HTT	12	120	47	10	24	32	•
	251-21748	HSK100AH120K14-HTT	14	120	47	10	27	34	•
	251-21749	HSK100AH120K16-HTT	16	120	50	10	27	34	•
	251-21750	HSK100AH120K18-HTT	18	120	50	10	33	42	•
	251-21751	HSK100AH120K20-HTT	20	120	52	10	33	42	•
	251-31701	HSK100AH160K25-HTT	25	160	58	10	44	53	•
	251-31702	HSK100AH160K32-HTT	32	160	62	10	44	53	•

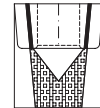
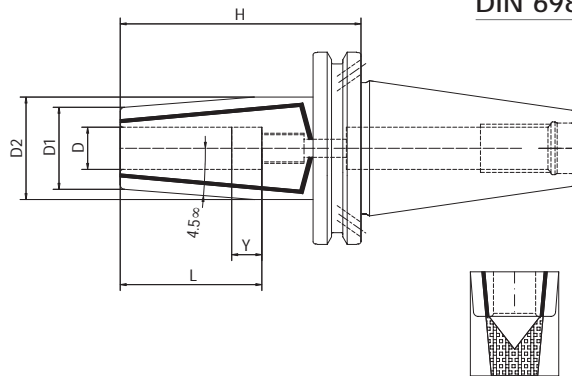
**KAMATEK**

**DIN 6987 I**



SCHRUMPFUTTER ISO 40 DIN 69871 AD    MANDRINS DE FRETTAGE TYPE ISO 40 DIN 69871 AD  
 SHRINK FIT CHUCKS ISO 40 DIN 69871 AD    MANDRINI A CALETTAMENTO ISO 40 DIN 69871 AD

DIN 69871 AD

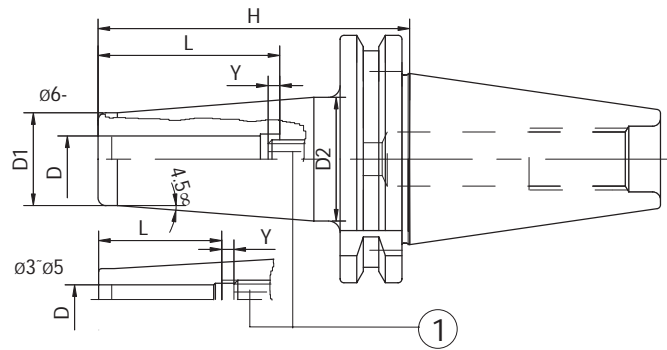


Code N.	Description	D	H	L	Ymax	D1	D2	G6,3 15000
251-21218	TC40H80K03-HTT	3	80	22	10	10	20	•
251-21219	TC40H80K04-HTT	4	80	26	10	15	25	•
251-21220	TC40H80K05-HTT	5	80	30	10	15	25	•
251-21221	TC40H80K06-HTT	6	80	36	10	21	27	•
251-21222	TC40H80K08-HTT	8	80	36	10	21	27	•
251-21223	TC40H80K10-HTT	10	80	41	10	24	32	•
251-21224	TC40H80K12-HTT	12	80	47	10	24	32	•
251-21225	TC40H80K14-HTT	14	80	47	10	27	34	•
251-21226	TC40H80K16-HTT	16	80	50	10	27	34	•
215-21227	TC40H80K18-HTT	18	80	50	10	33	42	•
251-21228	TC40H80K20-HTT	20	80	52	10	33	42	•
251-21229	TC40H100K25-HTT	25	100	58	10	44	53	•
251-21230	TC40H100K32-HTT	32	100	62	10	44	53	•

**With cooling through collar**  
**Con passaggio refrigerante interno**

SCHRUMPFUTTER ISO 30 DIN 69871 AD MANDRINS DE FRETTAGE TYPE ISO 30 DIN 69871 AD  
 SHRINK FIT CHUCKS ISO 30 DIN 69871 AD MANDRINI A CALETTAMENTO ISO 30 DIN 69871 AD

DIN 69871 AD



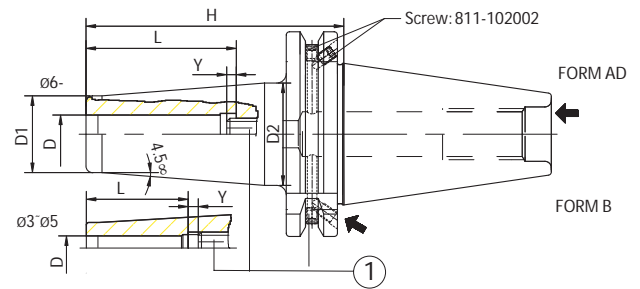
Code N.	Description	D	H	L	Y <sub>max</sub>	D1	D2	G6,3 15000	
STANDARD	251-11279	TC30H80K03-HTT	3	80	14	10	10	19	•
	251-11280	TC30H80K04-HTT	4	80	18	10	10	19	•
	251-11281	TC30H80K05-HTT	5	80	22	10	10	19	•
	251-11282	TC30H80K06-HTT	6	80	36	10	21	27	•
	251-11283	TC30H80K08-HTT	8	80	36	10	21	27	•
	251-11284	TC30H80K10-HTT	10	80	42	10	24	32	•
	251-11285	TC30H80K12-HTT	12	80	47	10	24	32	•
	251-11286	TC30H80K14-HTT	14	80	47	10	27	34	•
	251-11287	TC30H80K16-HTT	16	80	50	10	27	34	•
	251-21231	TC30H80K18-HTT	18	80	50	10	33	42	•
	251-21232	TC30H80K20-HTT	20	80	52	10	33	42	•



SCHRUMPFUTTER ISO 40 DIN 69871 AD/B  
SHRINK FIT CHUCKS ISO 40 DIN 69871 AD/B

MANDRINS DE FRETTAGE TYPE ISO 40 DIN 69871 AD/B  
MANDRINI A CALETTAMENTO ISO 40 DIN 69871 AD/B

DIN 69871 AD/B

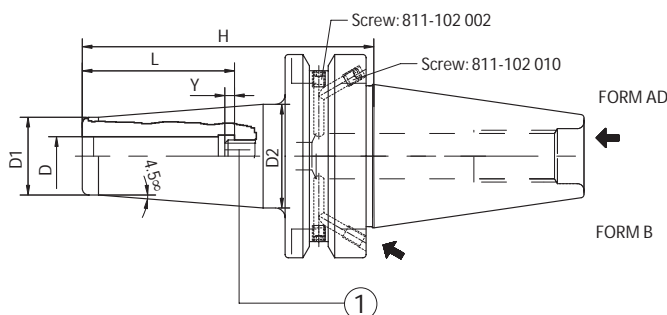


	Code N.	Description	D	H	L	Ymax	D1	D2	G6,3 15000
STANDARD	251-11232	TC40H80K03-HTT	3	80	22	10	10	17	•
	251-11225	TC40H80K04-HTT	4	80	26	10	15	22	•
	251-11233	TC40H80K05-HTT	5	80	30	10	15	22	•
	251-11201	TC40H80K06-HTT	6	80	36	10	21	27	•
	251-11202	TC40H80K08-HTT	8	80	36	10	21	27	•
	251-11203	TC40H80K10-HTT	10	80	41	10	24	32	•
	251-11204	TC40H80K12-HTT	12	80	47	10	24	32	•
	251-11206	TC40H80K14-HTT	14	80	47	10	27	34	•
	251-11205	TC40H80K16-HTT	16	80	50	10	27	34	•
	251-11207	TC40H80K18-HTT	18	80	50	10	33	42	•
	251-11208	TC40H80K20-HTT	20	80	52	10	33	42	•
	251-11218	TC40H100K25-HTT	25	100	58	10	44	53	•
251-21233	TC40H100K32-HTT	32	100	62	10	44	53	•	
H 120	251-11295	TC40H120K03-HTT	3	120	22	10	10	20	•
	251-11296	TC40H120K04-HTT	4	120	26	10	15	22	•
	251-11297	TC40H120K05-HTT	5	120	30	10	15	22	•
	251-11209	TC40H120K06-HTT	6	120	36	10	21	27	•
	251-11210	TC40H120K08-HTT	8	120	36	10	21	27	•
	251-11211	TC40H120K10-HTT	10	120	41	10	24	32	•
	251-11212	TC40H120K12-HTT	12	120	47	10	24	32	•
	251-21201	TC40H120K14-HTT	14	120	47	10	27	34	•
	251-11298	TC40H120K16-HTT	16	120	50	10	27	34	•
	251-21234	TC40H120K18-HTT	18	120	50	10	33	42	•
	251-21235	TC40H120K20-HTT	20	120	52	10	33	42	•
	251-21236	TC40H120K25-HTT	25	120	58	10	44	53	•
251-21237	TC40H120K32-HTT	32	120	62	10	44	53	•	
H 160	251-21238	TC40H160K03-HTT	3	160	22	10	10	20	•
	251-21239	TC40H160K04-HTT	4	160	26	10	15	22	•
	251-21240	TC40H160K05-HTT	5	160	30	10	15	22	•
	251-21241	TC40H160K06-HTT	6	160	36	10	21	27	•
	251-21242	TC40H160K08-HTT	8	160	36	10	21	27	•
	251-21243	TC40H160K10-HTT	10	160	41	10	24	32	•
	251-21244	TC40H160K12-HTT	12	160	47	10	24	32	•
	251-21245	TC40H160K14-HTT	14	160	47	10	27	34	•
	251-21246	TC40H160K16-HTT	16	160	50	10	27	34	•
	251-21247	TC40H160K18-HTT	18	160	50	10	33	42	•
	251-21248	TC40H160K20-HTT	20	160	52	10	33	42	•
	251-21249	TC40H160K25-HTT	25	160	62	10	44	53	•
251-21250	TC40H160K32-HTT	32	160	62	10	44	53	•	

SCHRUMPFUTTER ISO 50 DIN 69871 AD/B  
SHRINK FIT CHUCKS ISO 50 DIN 69871 AD/B

MANDRINS DE FRETTAGE TYPE ISO 50 DIN 69871 AD/B  
MANDRINI A CALETTAMENTO ISO 50 DIN 69871 AD/B

DIN 69871 AD/B



	Code N.	Description	D	H	L	Ymax	D1	D2	G6,3 15000
STANDARD	251-21251	TC50H80K03-HTT	3	80	-	-	10	20	•
	251-21252	TC50H80K04-HTT	4	80	-	-	15	25	•
	251-21253	TC50H80K05-HTT	5	80	-	-	15	25	•
	251-11234	TC50H80K06-HTT	6	80	36	10	21	27	•
	251-11235	TC50H80K08-HTT	8	80	36	10	21	27	•
	251-11236	TC50H80K10-HTT	10	80	41	10	24	32	•
	251-11237	TC50H80K12-HTT	12	80	47	10	24	32	•
	251-11238	TC50H80K14-HTT	14	80	47	10	27	34	•
	251-11224	TC50H80K16-HTT	16	80	50	10	27	34	•
	251-11239	TC50H80K18-HTT	18	80	50	10	33	42	•
	251-11240	TC50H80K20-HTT	20	80	52	10	33	42	•
	251-21241	TC50H100K25-HTT	25	100	58	10	44	53	•
	251-21254	TC50H100K32-HTT	32	100	62	10	44	53	•
H120	251-21255	TC50H120K03-HTT	3	120	-	10	10	20	•
	251-21256	TC50H120K04-HTT	4	120	-	10	15	22	•
	251-21257	TC50H120K05-HTT	5	120	-	10	15	22	•
	251-21242	TC50H120K06-HTT	6	120	36	10	21	27	•
	251-21243	TC50H120K08-HTT	8	120	36	10	21	27	•
	251-11244	TC50H120K10-HTT	10	120	41	10	24	32	•
	251-11245	TC50H120K12-HTT	12	120	47	10	24	32	•
	251-11246	TC50H120K14-HTT	14	120	47	10	27	34	•
	251-11247	TC50H120K16-HTT	16	120	50	10	27	34	•
	251-21248	TC50H120K18-HTT	18	120	50	10	33	42	•
	251-21247	TC50H120K20-HTT	20	120	52	10	33	42	•
	251-21258	TC50H120K25-HTT	25	120	58	10	44	53	•
251-21259	TC50H120K32-HTT	32	120	62	10	44	53	•	
H160	251-21260	TC50H160K03-HTT	3	160	-	10	10	20	•
	251-21261	TC50H160K04-HTT	4	160	-	10	15	22	•
	251-21262	TC50H160K05-HTT	5	160	-	10	15	22	•
	251-21263	TC50H160K06-HTT	6	160	36	10	21	27	•
	251-21264	TC50H160K08-HTT	8	160	36	10	21	27	•
	251-21265	TC50H160K10-HTT	10	160	41	10	24	32	•
	251-21266	TC50H160K12-HTT	12	160	47	10	24	32	•
	251-21267	TC50H160K14-HTT	14	160	47	10	27	34	•
	251-21268	TC50H160K16-HTT	16	160	50	10	27	34	•
	251-21269	TC50H160K18-HTT	18	160	50	10	33	42	•
	251-21270	TC50H160K20-HTT	20	160	52	10	33	42	•
	251-21271	TC50H160K25-HTT	25	160	58	10	44	53	•
	251-21272	TC50H160K32-HTT	32	160	62	10	44	53	•

**KAMATEL**

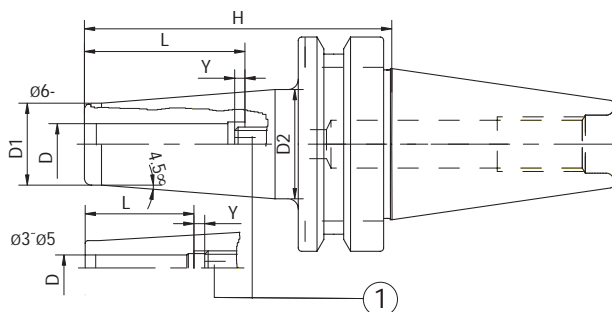
**MAS 403/BT**



SCHRUMPFUTTER MAS BT-30 Form AD  
SHRINK FIT CHUCKS MAS BT-30 Form AD

MANDRINS DE FRETTAGE TYPE MAS BT-30 Form AD  
MANDRINI A CALETTAMENTO MAS BT-30 Form AD

MAS BT-AD

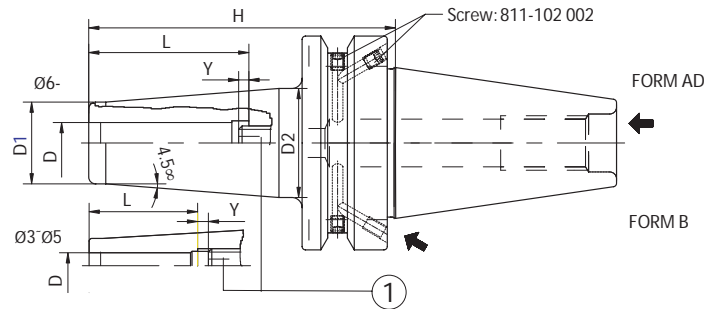


Code N.	Description	D	H	L	Ymax	D1	D2	G6,3 15000
251-11564	BT30H85K03-HTT	3	85	22	10	10	20	•
251-11565	BT30H85K04-HTT	4	85	26	10	15	25	•
251-11566	BT30H85K05-HTT	5	85	30	10	15	25	•
251-11567	BT30H85K06-HTT	6	85	36	10	21	27	•
251-11568	BT30H85K08-HTT	8	85	36	10	21	27	•
251-11569	BT30H85K10-HTT	10	85	41	10	24	32	•
251-11570	BT30H85K12-HTT	12	85	47	10	24	32	•
251-11571	BT30H85K14-HTT	14	85	47	10	27	34	•
251-11572	BT30H85K16-HTT	16	85	50	10	27	34	•

SCHRUMPFUTTER MAS BT40 FORM AD/B  
SHRINK FIT CHUCKS ISO 40 DIN 69871 AD/B

MANDRINS DE FRETTAGE MAS BT40 TYPE AD/B  
MANDRINI A CALETTAMENTO MAS BT40 TIPO AD/B

MAS BT AD/B

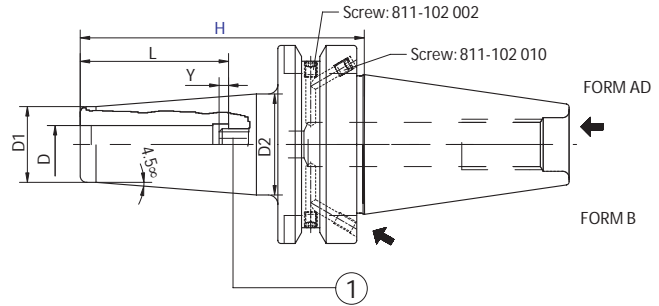


	Code N.	Description	D	H	L	Ymax	D1	D2	G6,3 15000
STANDARD	251-11580	BT40H90K03-HTT	3	90	22	10	10	17	•
	251-11581	BT40H90K04-HTT	4	90	26	10	15	22	•
	251-11582	BT40H90K05-HTT	5	90	30	10	15	22	•
	251-11501	BT40H90K06-HTT	6	90	36	10	21	27	•
	251-11502	BT40H90K08-HTT	8	90	36	10	21	27	•
	251-11503	BT40H90K10-HTT	10	90	41	10	24	32	•
	251-11504	BT40H90K12-HTT	12	90	47	10	24	32	•
	251-11505	BT40H90K14-HTT	14	90	47	10	27	34	•
	251-11506	BT40H90K16-HTT	16	90	50	10	27	34	•
	251-11507	BT40H90K18-HTT	18	90	50	10	33	42	•
	251-11508	BT40H90K20-HTT	20	90	52	10	33	42	•
	251-11547	BT40H100K25-HTT	25	100	58	10	44	53	•
	251-21504	BT40H100K32-HTT	32	100	62	10	44	53	•
H120	251-11583	BT40H120K03-HTT	3	120	22	10	10	20	•
	251-11584	BT40H120K04-HTT	4	120	26	10	15	22	•
	251-11585	BT40H120K05-HTT	5	120	30	10	15	22	•
	251-11509	BT40H120K06-HTT	6	120	36	10	21	27	•
	251-11510	BT40H120K08-HTT	8	120	36	10	21	27	•
	251-11511	BT40H120K10-HTT	10	120	41	10	24	32	•
	251-11512	BT40H120K12-HTT	12	120	47	10	24	32	•
	251-11587	BT40H120K14-HTT	14	120	47	10	27	34	•
	251-11586	BT40H120K16-HTT	16	120	50	10	27	34	•
	251-21505	BT40H120K18-HTT	18	120	50	10	33	42	•
	251-21506	BT40H120K20-HTT	20	120	52	10	33	42	•
	251-21507	BT40H120K25-HTT	25	120	58	10	44	53	•
	251-21508	BT40H120K32-HTT	32	120	62	10	44	53	•
H160	251-21509	BT40H160K03-HTT	3	160	22	10	10	20	•
	251-21510	BT40H160K04-HTT	4	160	26	10	15	22	•
	251-21511	BT40H160K05-HTT	5	160	30	10	15	22	•
	251-21512	BT40H160K06-HTT	6	160	36	10	21	27	•
	251-21513	BT40H160K08-HTT	8	160	36	10	21	27	•
	251-21514	BT40H160K10-HTT	10	160	41	10	24	32	•
	251-21515	BT40H160K12-HTT	12	160	47	10	24	32	•
	251-21516	BT40H160K14-HTT	14	160	47	10	27	34	•
	251-21517	BT40H160K16-HTT	16	160	50	10	27	34	•
	251-21518	BT40H160K18-HTT	18	160	50	10	33	42	•
	251-21519	BT40H160K20-HTT	20	160	52	10	33	42	•
	251-21520	BT40H160K25-HTT	25	160	58	10	44	53	•
	251-21521	BT40H160K32-HTT	32	160	62	10	44	53	•

SCHRUMPFUTTER MAS BT50 FORM AD/B  
SHRINK FIT CHUCKS ISO 50 DIN 69871 AD/B

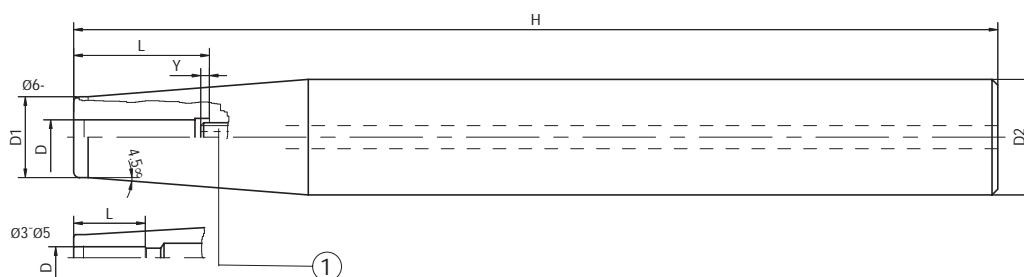
MANDRINS DE FRETTAGE MAS BT50 TYPE AD/B  
MANDRINI A CALETTAMENTO MAS BT50 TIPO AD/B

MAS BT AD/B



	Code N.	Description	D	H	L	Ymax	D1	D2	G6,3 15000
STANDARD	251-21522	BT50H100K03-HTT	3	100	-	-	10	20	•
	251-21523	BT50H100K04-HTT	4	100	-	-	15	25	•
	251-21524	BT50H100K05-HTT	5	100	-	-	15	25	•
	251-11548	BT50H100K06-HTT	6	100	36	10	21	27	•
	251-11549	BT50H100K08-HTT	8	100	36	10	21	27	•
	251-11550	BT50H100K10-HTT	10	100	41	10	24	32	•
	251-11517	BT50H100K12-HTT	12	100	47	10	24	32	•
	251-11551	BT50H100K14-HTT	14	100	47	10	27	34	•
	251-11552	BT50H100K16-HTT	16	100	50	10	27	42	•
	251-11553	BT50H100K18-HTT	18	100	50	10	33	42	•
	251-11554	BT50H110K20-HTT	20	100	52	10	33	42	•
	251-11555	BT50H110K25-HTT	25	110	58	10	44	53	•
251-21525	BT50H110K32-HTT	32	110	62	10	44	53	•	
H120	251-21526	BT50H120K03-HTT	3	120	-	-	10	20	•
	251-21527	BT50H120K04-HTT	4	120	-	-	15	25	•
	251-21528	BT50H120K05-HTT	5	120	-	-	15	25	•
	251-21556	BT50H120K06-HTT	6	120	36	10	21	27	•
	251-21557	BT50H120K08-HTT	8	120	36	10	21	27	•
	251-21558	BT50H120K10-HTT	10	120	41	10	24	32	•
	251-21559	BT50H120K12-HTT	12	120	47	10	24	32	•
	251-21560	BT50H120K14-HTT	14	120	47	10	27	34	•
	251-21561	BT50H120K16-HTT	16	120	50	10	27	34	•
	251-21562	BT50H120K18-HTT	18	120	50	10	33	42	•
	251-21563	BT50H120K20-HTT	20	120	52	10	33	42	•
	251-21529	BT50H120K25-HTT	25	120	58	10	44	53	•
251-21530	BT50H120K32-HTT	32	120	62	10	33	53	•	
H160	251-21531	BT50H160K03-HTT	3	160	-	-	10	20	•
	251-21532	BT50H160K04-HTT	4	160	-	-	15	25	•
	251-21533	BT50H160K05-HTT	5	160	-	-	15	25	•
	251-21534	BT50H160K06-HTT	6	160	36	10	21	27	•
	251-21535	BT50H160K08-HTT	8	160	36	10	21	27	•
	251-21536	BT50H160K10-HTT	10	160	41	10	24	32	•
	251-21537	BT50H160K12-HTT	12	160	47	10	24	32	•
	251-21538	BT50H160K14-HTT	14	160	47	10	27	34	•
	251-21539	BT50H160K16-HTT	16	160	50	10	27	34	•
	251-21540	BT50H160K18-HTT	18	160	50	10	33	42	•
	251-21541	BT50H160K20-HTT	20	160	52	10	33	42	•
	251-21542	BT50H160K25-HTT	25	160	58	10	44	53	•
	251-21543	BT50H160K32-HTT	32	160	62	10	33	53	•

SCHRUMPFVERLÄNGERUNGEN RALLONGES DE FRETAGE  
SHRINKING EXTENSIONS PROLUNGHE PER CALETTAMENTO



Code N.	Description	D	H	L	Ymax	D1	D2
251-15110	D12H150K03-HTT	3	150	-	-	8	12
251-15111	D12H150K04-HTT	4	150	-	-	8	12
251-15133	D12H150K05-HTT	5	150	-	-	10	12
251-15134	D12H150K06-HTT	6	150	36	10	10	12
251-15112	D16H150K03-HTT	3	150	-	-	10	16
251-15113	D16H150K04-HTT	4	150	-	-	10	16
251-15114	D16H150K05-HTT	5	150	-	-	10	16
251-15115	D16H150K06-HTT	6	150	36	10	10	16
251-15139	D16H150K08-HTT	8	150	36	10	12	16
251-15140	D20H150K03-HTT	3	150	-	-	10	20
251-15141	D20H150K04-HTT	4	150	-	-	10	20
251-15116	D20H150K05-HTT	5	150	-	-	10	20
251-15117	D20H150K06-HTT	6	150	36	10	10	20
251-15118	D20H150K08-HTT	8	150	36	10	12	20
251-15145	D20H150K10-HTT	10	150	42	10	14	20
251-15146	D20H150K12-HTT	12	150	47	10	16	20
251-15147	D25H150K03-HTT	3	150	-	-	10	25
251-15148	D25H150K04-HTT	4	150	-	-	10	25
251-15149	D25H150K05-HTT	5	150	-	-	15	25
251-15150	D25H150K06-HTT	6	150	36	10	20	25
251-15119	D25H150K08-HTT	8	150	36	10	20	25
251-15120	D25H150K10-HTT	10	150	42	10	20	25
251-15121	D25H150K12-HTT	12	150	47	10	20	25
251-15122	D25H150K14-HTT	14	150	47	10	20	25
251-15123	D25H150K16-HTT	16	150	50	10	22	25
251-15156	D32H150K06-HTT	6	150	36	10	20	32
251-15157	D32H150K08-HTT	8	150	36	10	20	32
251-15124	D32H150K10-HTT	10	150	42	10	24	32
251-15125	D32H150K12-HTT	12	150	47	10	24	32
251-15126	D32H150K14-HTT	14	150	47	10	27	32
251-15127	D32H150K16-HTT	16	150	50	10	27	32
251-15162	D32H150K18-HTT	18	150	50	10	27	32
251-15128	D32H150K20-HTT	20	150	52	10	27	32

