

WSW**TOOLS****3**
three**Werkzeugaufnahmen**

Toolholder

Porte Outils

portaherramientas

ISO12164-1 DIN69893-1 HSK**Wir sind für Sie da**

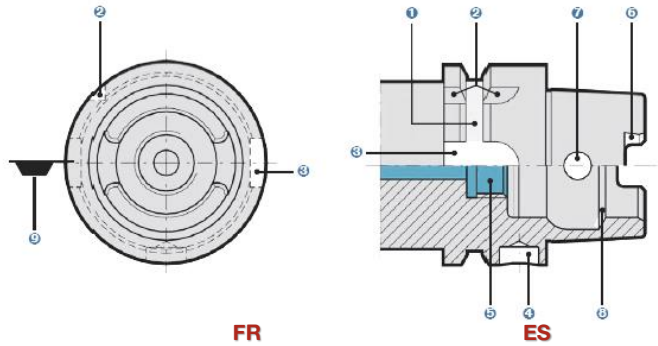
We are here for you

Nous sommes là pour vous

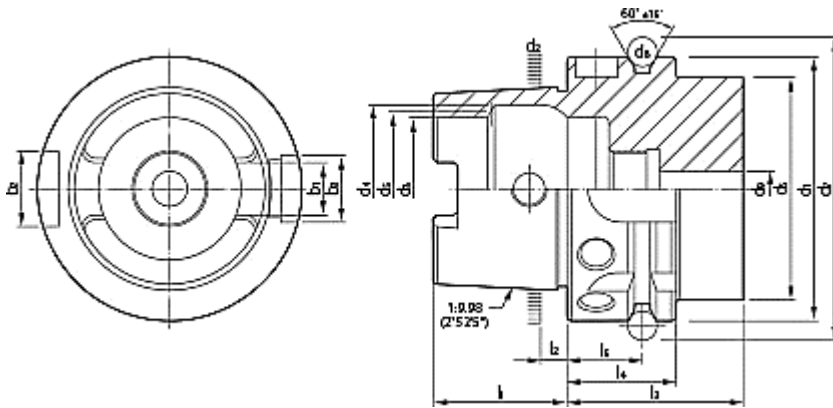
Estamos aquí para usted

Edition 2021

INFORMATION



	DE	EN	FR	ES
1	Greiferrille: umlaufende V-Nut	Gripper groove: circular groove	Rainure de préhension : rainure circulaire	Ranura de agarre: ranura circular
2	Positionskerbe quer zur Greiferrille (Indexierung)	Position notch across the gripper groove (indexing)	Positionner l'encoche en travers de la rainure de la pince (indexation)	Posicionar la muesca en la ranura de la pinza (indexación)
3	Mitnehmernut am Bund	Collar driver groove	rainure d'entraînement au niveau du col	ranura de conducción en el cuello
4	Codierbohrung	Coding bore	Trou de codage	Agujero de codificación
5	Anschlussgewinde für Kühlmittel-übergabeeinheit	Connection thread for coolant transfer unit	Filet de raccordement pour l'unité de transfert du liquide de refroidissement	Rosca de conexión para la unidad de transferencia de refrigerante
6	Mitnehmernut am Kegelschaft	Driving groove on the taper shank	Rainure d'entraînement sur la tige conique	Ranura de arrastre en el vástago cónico
7	Radiale Zugriffsbohrung	Radial access hole	Trou d'accès radial	Agujero de acceso radial
8	Spannschulter	Clamping shoulder	Epaule tendue	Tensión del hombro
9	Lage der Werkzeugschneide bei einschneidigen Werkzeugen	Position of the tool cutting edge for single-edged tools	Position du tranchant de l'outil pour les outils à simple tranchant	Posición del filo de la herramienta para herramientas de un solo filo



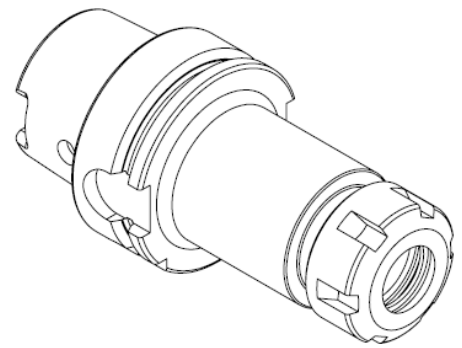
HSK	d1	d2	D3	d4	d5	d6	d7	d8	d9	l1	l2	l3	l4	l5	b1	b2	b3
	h10		H10	H11		max	0 -0.1		max	0 -0.2		min	0 -0.1	+0.1	+0.4	H10	H10
40	40	30.007	21	25.5	23	34	45	4	5	20	4	35	20	16	8.05	9	11
50	50	38.009	26	32	29	42	59.3	7	6.8	25	5	42	26	18	10.54	12	14
63	63	48.010	34	40	37	53	72.3	7	8.4	32	6.3	42	26	18	12.54	16	18
100	100	75.013	53	63	58	88	109.75	7	12	50	10	45	29	20	20.02	20	22

DE EN		FR ES
ER Spannzangenaufnahmen Collet Chucks for ER Collets	<u>3.01</u>	Mandrins à pinces pour pinces ER Portapinzas de sujeción ER
ER Spannzangenaufnahmen – Mini Spannmutter Collet Chucks ER – Mini Clamping Nut	<u>3.03</u>	Mandrins à pinces ER – mini écrou de serrage Portapinzas de sujeción ER – mini tuerca de sujeción
OZ Spannzangenaufnahmen DIN 6391 Collet Chucks for OZ Collets	<u>3.04</u>	Mandrins à pinces pour pinces OZ Portapinzas de sujeción OZ
Fräseraufnahmen Weldon End Mill Holder Weldon	<u>3.05</u>	Mandrin porte-fraise Weldon Portafresas Weldon
Fräseraufnahmen mit Kühlkanälen End Mill Holder with cooling channels	<u>3.10</u>	Mandrin porte-fraise avec canaux d'arrosage Portafresas con canales de refrigeración
Fräseraufnahmen mit Kühlkanalbohrungen End Mill Holder with separate cooling channels	<u>3.12</u>	Mandrin porte-fraise a. canaux d'arrosage séparés Portafresas con canales de refrigeración separados
Fräseraufnahmen Whistle Notch 2° End Mill Holder Whistle Notch 2°	<u>3.15</u>	Mandrin porte-fraise Whistle Notch 2° Portafresas Whistle Notch 2°
Bohrerhalter für Wendepaltenbohrer E1 Boring holder for drills with indexable inserts E1	<u>3.16</u>	Porte foret pour forets à plaquettes réversibles E1 Mandrinado con brocas de plaquita intercambiable E1
Adapter für MK mit Austreiblappen Morse Taper Adaptor with tang	<u>3.17</u>	Douille de réduction pour queue CM avec tenon Casquillo reductor para vástago CM con lengüeta de expulsión
Adapter für MK mit Anzugsgewinde Morse Taper Adaptor with drawbar thread	<u>3.18</u>	Douille de réduction pour CM avec filetage Casquillo reductor para vástago CM para rosca de apriete
HP Kraftspannfutter System HKS High Performance Milling Chuck (HKS)	<u>3.19</u>	Mandrin à serrage à haute performance (HKS) Mandrill de fresado de alto rendimiento (HKS)
CNC Präzisionsbohrfutter CNC Drill Chuck	<u>3.20</u>	Mandrin de perçage de précision Portabrocas de precisión
Gewindeschneidfutter mit Längenausgleich Tapping chuck with length compensation	<u>3.21</u>	Mandrin de taraudage avec compensation longitudinale Portabrocas con compensación de longitud
Gewindeschneidfutter ohne Längenausgleich Tapping chuck without length compensation	<u>3.21</u>	Mandrin de taraudage sans compensation longitudinale Portabrocas sin compensación de longitud
Gewindeschneidfutter Synchro Tapping Chuck for synchronisation of ER collets	<u>3.22</u>	Mandrin de taraudage pour la synchronisation des pinces ER Mandrill de rosca para la sincronización de pinzas ER
Fräseraufnahme Einschraubfräser mit Gewinde Arbor for screw-in milling cutters with thread	<u>3.23</u>	Mandrin pour fraises à queue fileté Portaherramientas para fresas de enroscar con rosca
Quernut Aufsteckfräsdorn Shell Mill Holder	<u>3.24</u>	Mandrin porte-fraises Portafresas de fresado
Kombi-Aufsteckfräsdorn Combi Shell Mill Holder	<u>3.26</u>	Porte-fraise combiné Portafresas combinado arrastre axial y longitudinal
Hydro-Dehnspannfutter Hydraulic Chuck	<u>3.28</u>	Mandrin expansibles hydrauliques Mandrill hidráulico expansivo
Bohrstangen Rohling Boring Bar Blanks	<u>3.30</u>	Barre d'alésage Para herramientas en bruto
Schrumpfaufnahme 4.5° Shrink Chuck 4.5 degrees	<u>3.31</u>	Mandrin de frettage 4.5 degrés Mandrill retráctil 4.5 grados
Schrumpfaufnahme 4.5° mit Kühlkanälen Shrink Chuck 4.5 degrees with coolant channels	<u>3.35</u>	Mandrin de frettage 4.5 degrés avec canaux d'arrosage Mandrill retráctil 4.5 grados con canales de refrigeración
Schrumpfaufnahme 3° - schlank Shrink Chuck 3 degrees - slim	<u>3.37</u>	Mandrin de frettage 3 degrés - mince Mandrill retráctil 3 grados - delgado

ISO12164 (DIN69893)

ER SPANNZANGENAUFNAHMEN

Collet Chucks for ER Collets
Mandrins à pinces pour pinces ER
Portapinzas de sujeción ER



powered by EWS Group	A	G2.5 25.000	DIN 6499
--------------------------------	----------	------------------------------	---------------------------

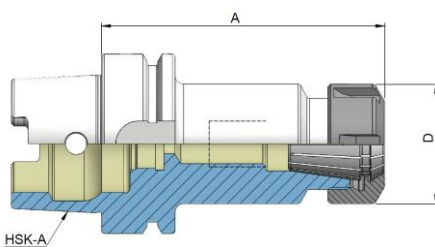
ISO	ID	Code	A	D	ER	Ø
HSK40A		31.HSK40AR16L50	50	32	160 426E (ER16)	1-10
HSK40A		31.HSK40AR16L80	80	32	160 426E (ER16)	1-10
HSK40A		31.HSK40AR20L55	55	35	200 428E (ER20)	1-13
HSK40A		31.HSK40AR25L60	60	42	250 430E (ER25)	2-16
HSK40A		31.HSK40AR25L80	80	42	250 430E (ER25)	2-16
HSK40A		31.HSK40AR32L63	63	50	320 470E (ER32)	2-20

powered by WSW	A	G2.5 25.000	DIN 6499
--------------------------	----------	------------------------------	---------------------------

ISO	ID	Code	A	D	ER	Ø
HSK50A	W139558	31.HSK50AR16L100	100	28	160 426E (ER16)	1-10
HSK50A	W139562	31.HSK50AR25L100	100	42	250 430E (ER25)	2-16
HSK50A	W139566	31.HSK50AR32L100	100	50	320 470E (ER32)	2-20

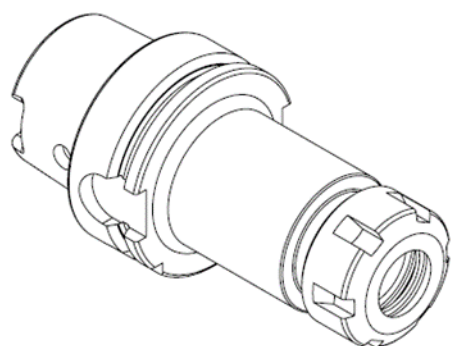
ISO	ID	Code	A	D	ER	Ø
HSK63A	W139630	31.HSK63AR16L100	100	28	160 426E (ER16)	1-10
HSK63A	W139636	31.HSK63AR16L130	130	28	160 426E (ER16)	1-10
HSK63A	W139640	31.HSK63AR16L160	160	28	160 426E (ER16)	1-10
HSK63A	W139644	31.HSK63AR16L200	200	28	160 426E (ER16)	1-10
HSK63A	W139646	31.HSK63AR25L100	100	42	250 430E (ER25)	2-16
HSK63A	W139652	31.HSK63AR25L130	130	42	250 430E (ER25)	2-16
HSK63A	W139656	31.HSK63AR25L160	160	42	250 430E (ER25)	2-16
HSK63A	W139660	31.HSK63AR25L200	200	42	250 430E (ER25)	2-16
HSK63A	W140500	31.HSK63AR32L100	100	50	320 470E (ER32)	2-20
HSK63A	W139761	31.HSK63AR32L130	130	50	320 470E (ER32)	2-20
HSK63A	W139762	31.HSK63AR32L160	160	50	320 470E (ER32)	2-20
HSK63A	W139763	31.HSK63AR32L200	200	50	320 470E (ER32)	2-20
HSK63A	W139765	31.HSK63AR40L120	120	63	400 472E (ER40)	3-26
HSK63A	W139764	31.HSK63AR40L160	160	63	400 472E (ER40)	3-26
HSK63A	W139766	31.HSK63AR40L200	200	63	400 472E (ER40)	3-26

● **DE** Spannmutter Sechskant | **EN** Clamping Nut Hexagon | **FR** Ecrou de serrage hexagonal | **ES** Tuerca de sujeción hexagonal



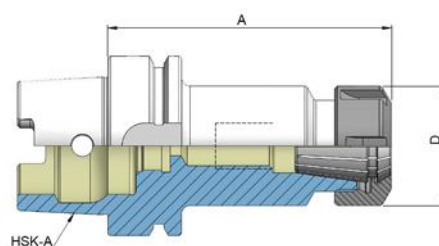
ER SPANNZANGENAUFNAHMEN

Collet Chucks for ER Collets
Mandrins à pinces pour pinces ER
Portapinzas de sujeción ER



ISO	ID	Code	A	D		ER	Ø
HSK100A	W139068	31.HSK100AR16L100	100	28	●	160 426E (ER16)	1-10
HSK100A	W139075	31.HSK100AR16L130	130	28	●	160 426E (ER16)	1-10
HSK100A	W139079	31.HSK100AR16L160	160	28	●	160 426E (ER16)	1-10
HSK100A	W139083	31.HSK100AR16L200	200	28	●	160 426E (ER16)	1-10
HSK100A	W139085	31.HSK100AR25L100	100	42		250 430E (ER25)	2-16
HSK100A	W139089	31.HSK100AR25L130	130	42		250 430E (ER25)	2-16
HSK100A	W139091	31.HSK100AR25L160	160	42		250 430E (ER25)	2-16
HSK100A	W139093	31.HSK100AR25L200	200	42		250 430E (ER25)	2-16
HSK100A	W139095	31.HSK100AR32L100	100	50		320 470E (ER32)	2-20
HSK100A	W139097	31.HSK100AR32L130	130	50		320 470E (ER32)	2-20
HSK100A	W139101	31.HSK100AR32L160	160	50		320 470E (ER32)	2-20
HSK100A	W139103	31.HSK100AR32L200	200	50		320 470E (ER32)	2-20
HSK100A	W139105	31.HSK100AR40L120	120	63		400 472E (ER40)	3-26
HSK100A	W139107	31.HSK100AR40L160	160	63		400 472E (ER40)	3-26
HSK100A	W139109	31.HSK100AR40L200	200	63		400 472E (ER40)	3-26
HSK100A	W139068	31.HSK100AR16L100	100	28		160 426E (ER16)	1-10
HSK100A	W139075	31.HSK100AR16L130	130	28		160 426E (ER16)	1-10
HSK100A	W139079	31.HSK100AR16L160	160	28		160 426E (ER16)	1-10

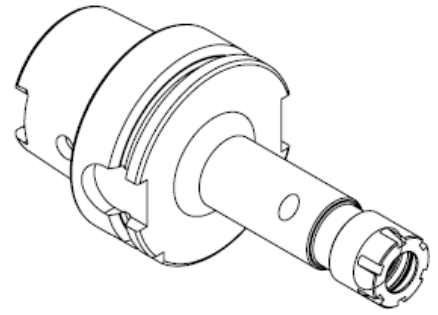
● DE Spannmutter Sechskant | EN Clamping Nut Hexagon | FR Ecrou de serrage hexagonal | ES Tuerca de sujeción hexagonal



ISO12164 (DIN69893)

ER SPANNZANGENAUFNAHMEN Mini Mutter

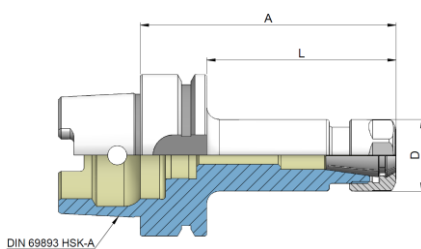
Collet Chucks ER - Mini Clamping Nut
Mandrins à pinces ER - mini écrou de serrage
Portapinzas de sujeción ER - mini tuerca de sujeción



powered by WSW	A	G2.5 25.000	DIN 6499
--------------------------	----------	------------------------------	---------------------------

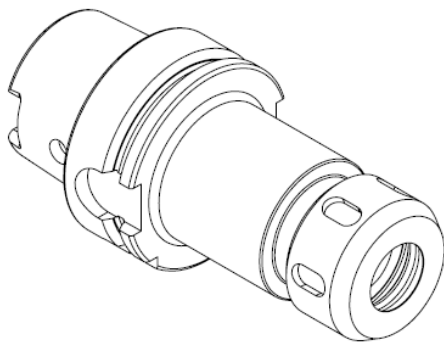
ISO	ID	Code	A	D	L	ER	Ø
HSK63A	W139624	31.HSK63AR11L100MN	100	16	74	110 4008E (ER11)	1-7
HSK63A	W139626	31.HSK63AR11L130MN	130	16	104	110 4008E (ER11)	1-7
HSK63A	W139628	31.HSK63AR11L160MN	160	16	134	110 4008E (ER11)	1-7
HSK63A	W139634	31.HSK63AR16L100MN	100	22	74	160 426E (ER16)	1-10
HSK63A	W139638	31.HSK63AR16L130MN	130	22	104	160 426E (ER16)	1-10
HSK63A	W139642	31.HSK63AR16L160MN	160	22	134	160 426E (ER16)	1-10
HSK63A	W139650	31.HSK63AR25L100MN	100	35	74	250 430E (ER25)	2-16
HSK63A	W139654	31.HSK63AR25L130MN	130	35	104	250 430E (ER25)	2-16
HSK63A	W139658	31.HSK63AR25L160MN	160	35	134	250 430E (ER25)	2-16

ISO	ID	Code	A	D	L	ER	Ø
HSK100A	W139071	31.HSK100AR16L100MN	100	22	71	160 426E (ER16)	1-10
HSK100A	W139077	31.HSK100AR16L130MN	130	22	101	160 426E (ER16)	1-10
HSK100A	W139081	31.HSK100AR16L160MN	160	22	131	160 426E (ER16)	1-10



OZ SPANZANGENAUFNAHMEN

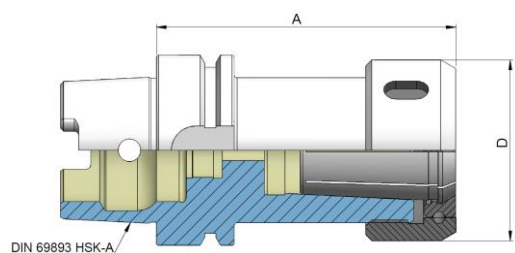
Collet Chucks for OZ Collets
Mandrins à pinces pour pinces OZ
Portapinzas de sujeción OZ



ISO	ID	Code	A	D	OZ	Ø
HSK50A	W139560	31.HSK50AZ16L100	100	43	025 415E (OZ16)	2-16
HSK50A	W139564	31.HSK50AZ25L100	100	60	035 462E (OZ25)	2-25

ISO	ID	Code	A	D	OZ	Ø
HSK63A	W139632	31.HSK63AZ16L100	100	43	025 415E (OZ16)	2-16
HSK63A	W139648	31.HSK63AZ25L100	100	60	035 462E (OZ25)	2-25
HSK63A	W139760	31.HSK63AZ32L120	120	72	044 467E (OZ32)	3-32

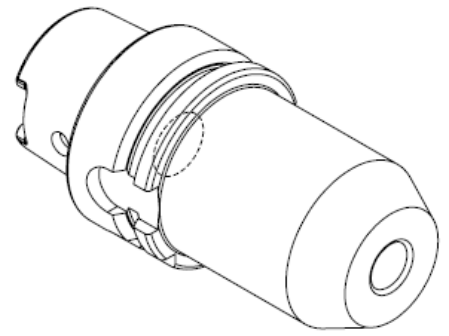
ISO	ID	Code	A	D	ISO 10897 B (DIN 6388 B)	Ø
HSK100A	W139073	31.HSK100AZ16L110	110	43	025 415E (OZ16)	2-16
HSK100A	W139087	31.HSK100AZ25L120	120	60	035 462E (OZ25)	2-25
HSK100A	W139099	31.HSK100AZ32L130	130	72	044 467E (OZ32)	3-32



ISO12164 (DIN69893)

FRÄSERAUFNAHMEN

End Mill Holder Weldon
Mandrin porte-fraise Weldon
Portafresas Weldon

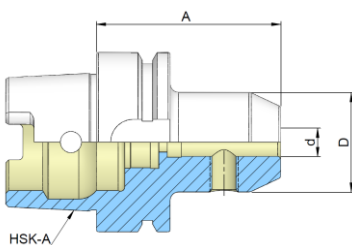


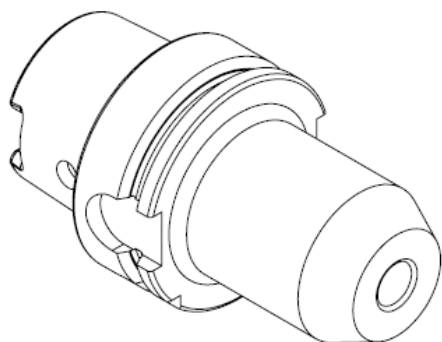
powered by EWS Group	A	G2.5 18.000	DIN 1835-B
--------------------------------	----------	------------------------------	-----------------------------

ISO	ID	Code	d	A	D
HSK40A		27.HSK40A05L45.5	05	45.5	25
HSK40A		27.HSK40A05L60	05	60	25
HSK40A		27.HSK40A06L45.5	06	45.5	25
HSK40A		27.HSK40A06L60	06	60	25
HSK40A		27.HSK40A08L45.5	08	45.5	25
HSK40A		27.HSK40A08L60	08	60	25
HSK40A		27.HSK40A10L45.5	10	45.5	33.3
HSK40A		27.HSK40A10L60	10	60	33.3
HSK40A		27.HSK40A12L45.5	12	45.5	33.3
HSK40A		27.HSK40A14L45.5	14	45.5	33.3
HSK40A		27.HSK40A14L65	14	65	33.3
HSK40A		27.HSK40A16L55.5	16	55.5	42
HSK40A		27.HSK40A18L55.5	18	55.5	42
HSK40A		27.HSK40A20L55.5	20	55.5	42
HSK40A		27.HSK40A25L65.5	25	55.5	48

powered by WSW	A	G2.5 25.000	DIN 1835-B	DIN 6359
--------------------------	----------	------------------------------	-----------------------------	---------------------------

ISO	ID	Code	d	A	D
HSK50A	W139568	27.HSK50A06WL65	06	65	25
HSK50A	W139572	27.HSK50A08WL65	08	65	28
HSK50A	W139576	27.HSK50A10WL65	10	65	35
HSK50A	W139580	27.HSK50A12WL80	12	80	42
HSK50A	W139584	27.HSK50A14WL80	14	80	44
HSK50A	W139588	27.HSK50A16WL80	16	80	48
HSK50A	W139592	27.HSK50A18WL80	18	80	50
HSK50A	W139596	27.HSK50A20WL80	20	80	52





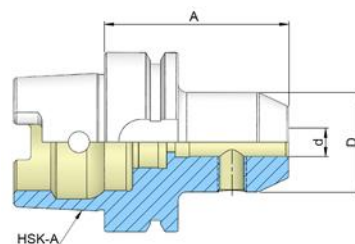
ISO12164 (DIN69893)

FRÄSERAUFNAHMEN

End Mill Holder Weldon
Mandrin porte-fraise Weldon
Portafresas Weldon

A	G2.5	DIN	DIN	powered by WSW
	25.000	1835-B	6359	

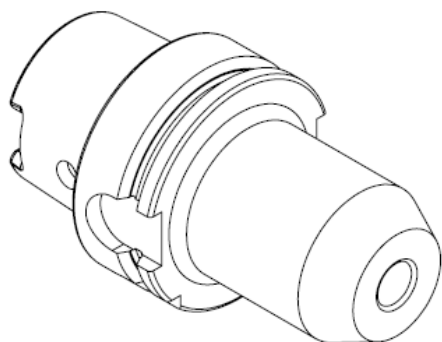
ISO	ID	Code	d	A	D
HSK63A	W139270	27.HSK63A06WL65	06	65	25
HSK63A	W140000	27.HSK63A06WL100	06	100	25
HSK63A	W140100	27.HSK63A06WL130	06	130	25
HSK63A	W139252	27.HSK63A06WL160	06	160	25
HSK63A	W139259	27.HSK63A06WL200	06	200	25
HSK63A	W139278	27.HSK63A08WL65	08	65	28
HSK63A	W140001	27.HSK63A08WL100	08	100	28
HSK63A	W140101	27.HSK63A08WL130	08	130	28
HSK63A	W139256	27.HSK63A08WL160	08	160	28
HSK63A	W139265	27.HSK63A08WL200	08	200	28
HSK63A	W139287	27.HSK63A10WL65	10	65	35
HSK63A	W140002	27.HSK63A10WL100	10	100	35
HSK63A	W140102	27.HSK63A10WL130	10	130	35
HSK63A	W139261	27.HSK63A10WL160	10	160	35
HSK63A	W139272	27.HSK63A10WL200	10	200	35
HSK63A	W139004	27.HSK63A12WL80	12	80	42
HSK63A	W140003	27.HSK63A12WL100	12	100	42
HSK63A	W140103	27.HSK63A12WL130	12	130	42
HSK63A	W139267	27.HSK63A12WL160	12	160	42
HSK63A	W139280	27.HSK63A12WL200	12	200	42
HSK63A	W139005	27.HSK63A14WL80	14	80	45
HSK63A	W140004	27.HSK63A14WL100	14	100	45
HSK63A	W140104	27.HSK63A14WL130	14	130	45
HSK63A	W139274	27.HSK63A14WL160	14	160	45
HSK63A	W139289	27.HSK63A14WL200	14	200	45
HSK63A	W139311	27.HSK63A16WL80	16	80	48
HSK63A	W140005	27.HSK63A16WL100	16	100	48
HSK63A	W140105	27.HSK63A16WL130	16	130	48
HSK63A	W139282	27.HSK63A16WL160	16	160	48
HSK63A	W139297	27.HSK63A16WL200	16	200	48
HSK63A	W139318	27.HSK63A18WL80	18	80	50
HSK63A	W140006	27.HSK63A18WL100	18	100	50
HSK63A	W140106	27.HSK63A18WL130	18	130	50
HSK63A	W139291	27.HSK63A18WL160	18	160	50
HSK63A	W139305	27.HSK63A18WL200	18	200	50



The marketplace for the machining industry



Especially for the cutting industry:
Procurement, easier than ever!



ISO12164 (DIN69893)

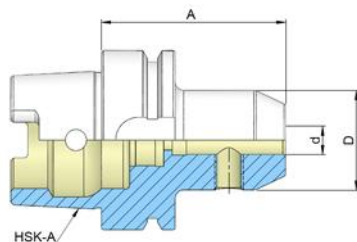
FRÄSERAUFNAHMEN

End Mill Holder Weldon
Mandrin porte-fraise Weldon
Portafresas Weldon

A	G2.5	DIN	DIN	powered by WSW
	25.000	1835-B	6359	

ISO	ID	Code	d	A	D
HSK63A	W139324	27.HSK63A20WL80	20	80	52
HSK63A	W140007	27.HSK63A20WL100	20	100	52
HSK63A	W140107	27.HSK63A20WL130	20	130	52
HSK63A	W139299	27.HSK63A20WL160	20	160	52
HSK63A	W139313	27.HSK63A20WL200	20	200	52
HSK63A	W140008	27.HSK63A25WL110	25	110	63
HSK63A	W140108	27.HSK63A25WL160	25	160	63
HSK63A	W140009	27.HSK63A32WL110	32	110	72
HSK63A	W140109	27.HSK63A32WL160	32	160	72
HSK63A	W140010	27.HSK63A40WL125	40	125	80
HSK63A	W139074	27.HSK63A40WL160	40	160	80

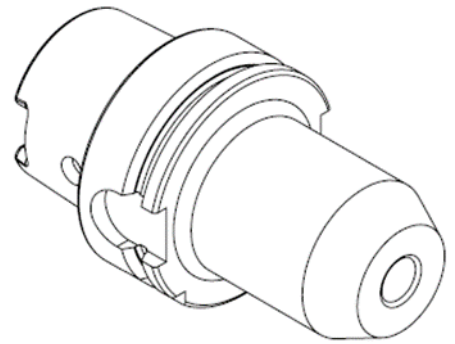
ISO	ID	Code	d	A	D
HSK100A	W139127	27.HSK100A06WL80	06	80	25
HSK100A	W139111	27.HSK100A06WL100	06	100	25
HSK100A	W139115	27.HSK100A06WL130	06	130	25
HSK100A	W139119	27.HSK100A06WL160	06	160	25
HSK100A	W139123	27.HSK100A06WL200	06	200	25
HSK100A	W139149	27.HSK100A08WL80	08	80	28
HSK100A	W139133	27.HSK100A08WL100	08	100	28
HSK100A	W139137	27.HSK100A08WL130	08	130	28
HSK100A	W139141	27.HSK100A08WL160	08	160	28
HSK100A	W139145	27.HSK100A08WL200	08	200	28
HSK100A	W139171	27.HSK100A10WL80	10	80	35
HSK100A	W139155	27.HSK100A10WL100	10	100	35
HSK100A	W139159	27.HSK100A10WL130	10	130	35
HSK100A	W139163	27.HSK100A10WL160	10	160	35
HSK100A	W139167	27.HSK100A10WL200	10	200	35
HSK100A	W139193	27.HSK100A12WL80	12	80	42
HSK100A	W139177	27.HSK100A12WL100	12	100	42
HSK100A	W139181	27.HSK100A12WL130	12	130	42
HSK100A	W139185	27.HSK100A12WL160	12	160	42
HSK100A	W139189	27.HSK100A12WL200	12	200	42



ISO12164 (DIN69893)

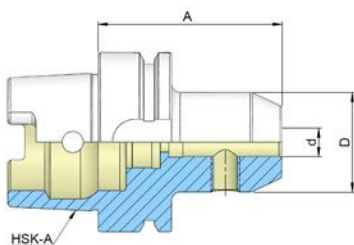
FRÄSERAUFNAHMEN

End Mill Holder Weldon
Mandrin porte-fraise Weldon
Portafresas Weldon



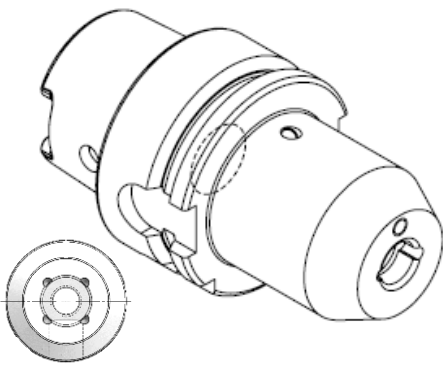
powered by WSW	A	G2.5 25.000	DIN 1835-B	DIN 6359
--------------------------	----------	------------------------------	-----------------------------	---------------------------

ISO	ID	Code	d	A	D
HSK100A	W139217	27.HSK100A14WL80	14	80	45
HSK100A	W139199	27.HSK100A14WL100	14	100	45
HSK100A	W139203	27.HSK100A14WL130	14	130	45
HSK100A	W139208	27.HSK100A14WL160	14	160	45
HSK100A	W139223	27.HSK100A16WL100	16	100	48
HSK100A	W139229	27.HSK100A16WL130	16	130	48
HSK100A	W139233	27.HSK100A16WL160	16	160	48
HSK100A	W139237	27.HSK100A16WL200	16	200	48
HSK100A	W139241	27.HSK100A18WL100	18	100	50
HSK100A	W139247	27.HSK100A18WL130	18	130	50
HSK100A	W139309	27.HSK100A18WL160	18	160	50
HSK100A	W139321	27.HSK100A18WL200	18	200	50
HSK100A	W139330	27.HSK100A20WL100	20	100	52
HSK100A	W139337	27.HSK100A20WL130	20	130	52
HSK100A	W139341	27.HSK100A20WL160	20	160	52
HSK100A	W139345	27.HSK100A20WL200	20	200	52
HSK100A	W139349	27.HSK100A25WL100	25	100	65
HSK100A	W139355	27.HSK100A25WL130	25	130	65
HSK100A	W139359	27.HSK100A25WL160	25	160	65
HSK100A	W139363	27.HSK100A25WL200	25	200	65
HSK100A	W139367	27.HSK100A32WL100	32	100	72
HSK100A	W139373	27.HSK100A32WL130	32	130	72
HSK100A	W139377	27.HSK100A32WL160	32	160	72
HSK100A	W139381	27.HSK100A32WL200	32	200	72
HSK100A	W139385	27.HSK100A40WL105	40	105	80
HSK100A	W139391	27.HSK100A40WL130	40	130	80
HSK100A	W139395	27.HSK100A40WL160	40	160	80
HSK100A	W139399	27.HSK100A40WL200	40	200	80



FRÄSERAUFNAHMEN mit Kühlkanälen

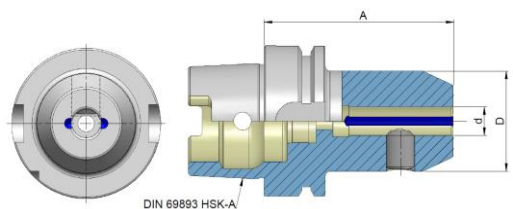
End Mill Holder with cooling channels
Mandrin porte-fraise avec canaux d'arrosage
Portafresas con canales de refrigeración



A	G2.5 25.000	DIN 1835-B	K	powered by WSW
----------	------------------------------	-----------------------------	----------	--------------------------

ISO	ID	Code	d	A	D
HSK50A	W139570	27.HSK50A06WL65.K	06	65	25
HSK50A	W139574	27.HSK50A08WL65.K	08	65	28
HSK50A	W139578	27.HSK50A10WL65.K	10	65	35
HSK50A	W139582	27.HSK50A12WL80.K	12	80	42
HSK50A	W139586	27.HSK50A14WL80.K	14	80	45
HSK50A	W139590	27.HSK50A16WL80.K	16	80	48
HSK50A	W139594	27.HSK50A18WL80.K	18	80	50
HSK50A	W139598	27.HSK50A20WL80.K	20	80	52

ISO	ID	Code	d	A	D
HSK63A	W139277	27.HSK63A06WL65.K	06	65	25
HSK63A	W139286	27.HSK63A08WL65.K	08	65	28
HSK63A	W139295	27.HSK63A10WL65.K	10	65	35
HSK63A	W139055	27.HSK63A12WL80.K	12	80	42
HSK63A	W139057	27.HSK63A14WL80.K	14	80	45
HSK63A	W139317	27.HSK63A16WL80.K	16	80	48
HSK63A	W139323	27.HSK63A18WL80.K	18	80	50
HSK63A	W139328	27.HSK63A20WL80.K	20	80	52
HSK63A	W139065	27.HSK63A25WL110.K	25	110	63
HSK63A	W139067	27.HSK63A32WL110.K	32	110	72
HSK63A	W139070	27.HSK63A40WL125.K	40	125	80

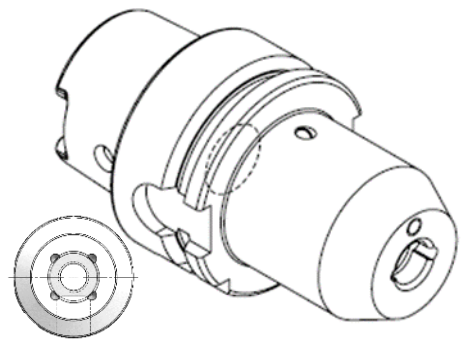


DIN 69893 HSK-A

ISO12164 (DIN69893)

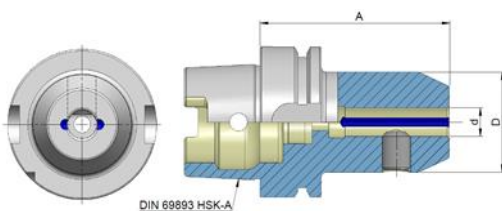
FRÄSERAUFNAHMEN mit Kühlkanälen

End Mill Holder with cooling channels
Mandrin porte-fraise avec canaux d'arrosage
Portafresas con canales de refrigeración



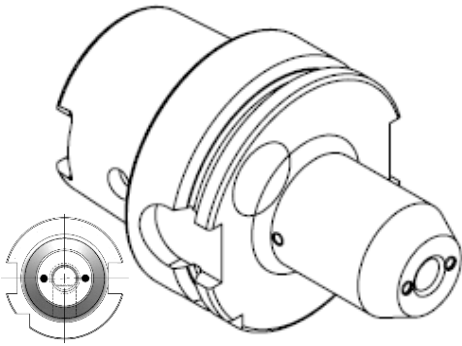
powered by WSW	A	G2.5 25.000	DIN 1835-B	K
--------------------------	----------	------------------------------	-----------------------------	----------

ISO	ID	Code	d	A	D
HSK100A	W139129	27.HSK100A06WL80.K	06	80	25
HSK100A	W139151	27.HSK100A08WL80.K	08	80	28
HSK100A	W139173	27.HSK100A10WL80.K	10	80	35
HSK100A	W139195	27.HSK100A12WL80.K	12	80	42
HSK100A	W139219	27.HSK100A14WL80.K	14	80	45
HSK100A	W139225	27.HSK100A16WL100.K	16	100	48
HSK100A	W139243	27.HSK100A18WL100.K	18	100	50
HSK100A	W139333	27.HSK100A20WL100.K	20	100	52
HSK100A	W139351	27.HSK100A25WL100.K	25	100	63
HSK100A	W139369	27.HSK100A32WL100.K	32	100	72
HSK100A	W139387	27.HSK100A40WL105.K	40	105	80



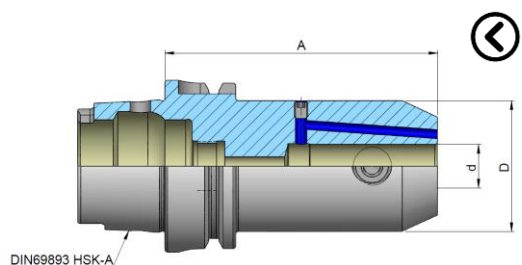
FRÄSERAUFNAHMEN mit Kühlkanalbohrungen

End Mill Holder with separate cooling channels
Mandrin porte-fraise avec canaux d'arrosage séparés
Portafresas con canales de refrigeración separados



A	G2.5 25.000	DIN 1835-B	KKB	powered by WSW
---	----------------	---------------	-----	--------------------------

ISO	ID	Code	d	A	D
HSK63A	W139285	27.HSK63A06WL65.KKB	06	65	25
HSK63A	W140201	27.HSK63A06WL100.KKB	06	100	25
HSK63A	W139250	27.HSK63A06WL130.KKB	06	130	25
HSK63A	W139255	27.HSK63A06WL160.KKB	06	160	25
HSK63A	W139264	27.HSK63A06WL200.KKB	06	200	25
HSK63A	W139294	27.HSK63A08WL65.KKB	08	65	28
HSK63A	W139059	27.HSK63A08WL100.KKB	08	100	28
HSK63A	W139253	27.HSK63A08WL130.KKB	08	130	28
HSK63A	W139260	27.HSK63A08WL160.KKB	08	160	28
HSK63A	W139271	27.HSK63A08WL200.KKB	08	200	28
HSK63A	W139303	27.HSK63A10WL65.KKB	10	65	35
HSK63A	W139060	27.HSK63A10WL100.KKB	10	100	35
HSK63A	W139257	27.HSK63A10WL130.KKB	10	130	35
HSK63A	W139266	27.HSK63A10WL160.KKB	10	160	35
HSK63A	W139279	27.HSK63A10WL200.KKB	10	200	35
HSK63A	W139056	27.HSK63A12WL80.KKB	12	80	42
HSK63A	W139316	27.HSK63A12WL100.KKB	12	100	42
HSK63A	W139262	27.HSK63A12WL130.KKB	12	130	42
HSK63A	W139273	27.HSK63A12WL160.KKB	12	160	42
HSK63A	W139288	27.HSK63A12WL200.KKB	12	200	42
HSK63A	W139058	27.HSK63A14WL80.KKB	14	80	45
HSK63A	W139061	27.HSK63A14WL100.KKB	14	100	45
HSK63A	W139268	27.HSK63A14WL130.KKB	14	130	45
HSK63A	W139281	27.HSK63A14WL160.KKB	14	160	45
HSK63A	W139296	27.HSK63A14WL200.KKB	14	200	45
HSK63A	W139322	27.HSK63A16WL80.KKB	16	80	48
HSK63A	W139062	27.HSK63A16WL100.KKB	16	100	48
HSK63A	W139275	27.HSK63A16WL130.KKB	16	130	48
HSK63A	W139290	27.HSK63A16WL160.KKB	16	160	48
HSK63A	W139304	27.HSK63A16WL200.KKB	16	200	48
HSK63A	W139327	27.HSK63A18WL80.KKB	18	80	50
HSK63A	W139063	27.HSK63A18WL100.KKB	18	100	50
HSK63A	W139283	27.HSK63A18WL130.KKB	18	130	50
HSK63A	W139298	27.HSK63A18WL160.KKB	18	160	50
HSK63A	W139312	27.HSK63A18WL200.KKB	18	200	50

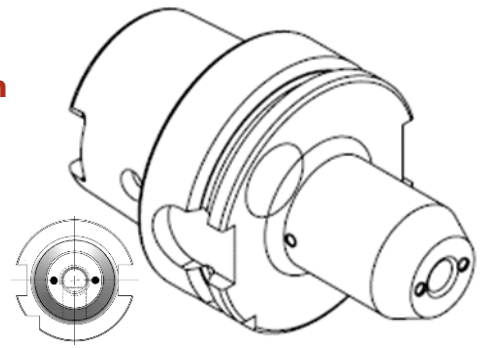


DIN69893 HSK-A

ISO12164 (DIN69893)

FRÄSERAUFNAHMEN mit Kühlkanalbohrungen

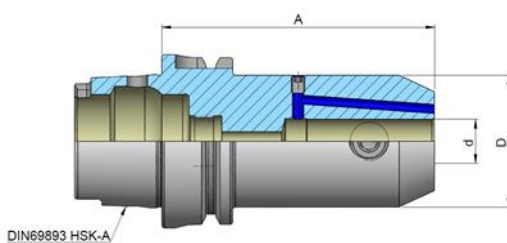
End Mill Holder with separate cooling channels
Mandrin porte-fraise avec canaux d'arrosage séparés
Portafresas con canales de refrigeración separados

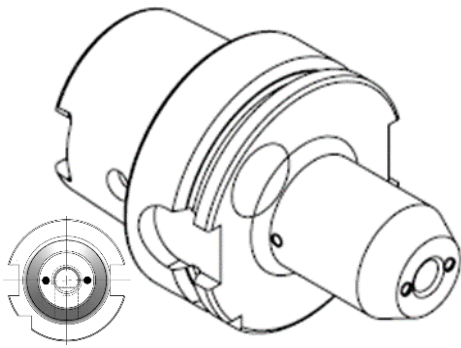


powered by WSW	A	G2.5 25.000	DIN 1835-B	KKB
--------------------------	----------	------------------------------	-----------------------------	------------

ISO	ID	Code	d	A	D
HSK63A	W139331	27.HSK63A20WL80.KKB	20	80	25
HSK63A	W139064	27.HSK63A20WL100.KKB	20	100	25
HSK63A	W139292	27.HSK63A20WL130.KKB	20	130	25
HSK63A	W139306	27.HSK63A20WL160.KKB	20	160	25
HSK63A	W139319	27.HSK63A20WL200.KKB	20	200	25
HSK63A	W139066	27.HSK63A25WL110.KKB	25	110	28
HSK63A	W139300	27.HSK63A25WL160.KKB	25	160	28
HSK63A	W139069	27.HSK63A32WL110.KKB	32	110	28
HSK63A	W139307	27.HSK63A32WL160.KKB	32	160	28
HSK63A	W139072	27.HSK63A40WL125.KKB	40	125	28
HSK63A	W139076	27.HSK63A40WL160.KKB	40	160	35

ISO	ID	Code	d	A	D
HSK100A	W139131	27.HSK100A06WL80.KKB	06	80	25
HSK100A	W139113	27.HSK100A06WL100.KKB	06	100	25
HSK100A	W139117	27.HSK100A06WL130.KKB	06	130	25
HSK100A	W139121	27.HSK100A06WL160.KKB	06	160	25
HSK100A	W139125	27.HSK100A06WL200.KKB	06	200	25
HSK100A	W139153	27.HSK100A08WL80.KKB	08	80	28
HSK100A	W139135	27.HSK100A08WL100.KKB	08	100	28
HSK100A	W139139	27.HSK100A08WL130.KKB	08	130	28
HSK100A	W139143	27.HSK100A08WL160.KKB	08	160	28
HSK100A	W139147	27.HSK100A08WL200.KKB	08	200	28
HSK100A	W139175	27.HSK100A10WL80.KKB	10	80	35
HSK100A	W139157	27.HSK100A10WL100.KKB	10	100	35
HSK100A	W139161	27.HSK100A10WL130.KKB	10	130	35
HSK100A	W139165	27.HSK100A10WL160.KKB	10	160	35
HSK100A	W139169	27.HSK100A10WL200.KKB	10	200	35

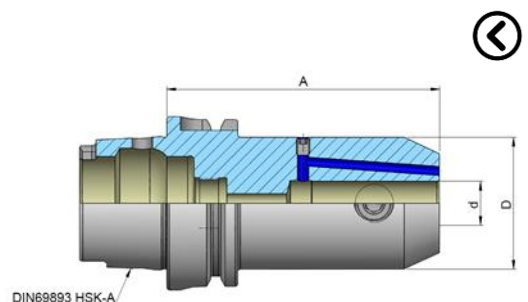


FRÄSERAUFNAHMEN mit Kühlkanalbohrungen

End Mill Holder with separate cooling channels
Mandrin porte-fraise a. canaux d'arrosage séparés
Portafresas con canales de refrigeración separados

A	G2.5 25.000	DIN 1835-B	KKB	powered by WSW
---	----------------	---------------	-----	--------------------------

ISO	ID	Code	d	A	D
HSK100A	W139197	27.HSK100A12WL80.KKB	12	80	42
HSK100A	W139179	27.HSK100A12WL100.KKB	12	100	42
HSK100A	W139183	27.HSK100A12WL130.KKB	12	130	42
HSK100A	W139187	27.HSK100A12WL160.KKB	12	160	42
HSK100A	W139191	27.HSK100A12WL200.KKB	12	200	42
HSK100A	W139221	27.HSK100A14WL80.KKB	14	80	45
HSK100A	W139201	27.HSK100A14WL100.KKB	14	100	45
HSK100A	W139205	27.HSK100A14WL130.KKB	14	130	45
HSK100A	W139211	27.HSK100A14WL160.KKB	14	160	45
HSK100A	W139215	27.HSK100A14WL200.KKB	14	200	45
HSK100A	W139227	27.HSK100A16WL100.KKB	16	100	48
HSK100A	W139231	27.HSK100A16WL130.KKB	16	130	48
HSK100A	W139235	27.HSK100A16WL160.KKB	16	160	48
HSK100A	W139239	27.HSK100A16WL200.KKB	16	200	48
HSK100A	W139245	27.HSK100A18WL100.KKB	18	100	50
HSK100A	W139302	27.HSK100A18WL130.KKB	18	130	50
HSK100A	W139315	27.HSK100A18WL160.KKB	18	160	50
HSK100A	W139326	27.HSK100A18WL200.KKB	18	200	50
HSK100A	W139335	27.HSK100A20WL100.KKB	20	100	52
HSK100A	W139339	27.HSK100A20WL130.KKB	20	130	52
HSK100A	W139343	27.HSK100A20WL160.KKB	20	160	52
HSK100A	W139347	27.HSK100A20WL200.KKB	20	200	52
HSK100A	W139353	27.HSK100A25WL100.KKB	25	100	63
HSK100A	W139357	27.HSK100A25WL130.KKB	25	130	63
HSK100A	W139361	27.HSK100A25WL160.KKB	25	160	63
HSK100A	W139365	27.HSK100A25WL200.KKB	25	200	63
HSK100A	W139371	27.HSK100A32WL100.KKB	32	100	72
HSK100A	W139375	27.HSK100A32WL130.KKB	32	130	72
HSK100A	W139379	27.HSK100A32WL160.KKB	32	160	72
HSK100A	W139383	27.HSK100A32WL200.KKB	32	200	72
HSK100A	W139389	27.HSK100A40WL105.KKB	40	105	80
HSK100A	W139393	27.HSK100A40WL130.KKB	40	130	80
HSK100A	W139397	27.HSK100A40WL160.KKB	40	160	80
HSK100A	W139401	27.HSK100A40WL200.KKB	40	200	80



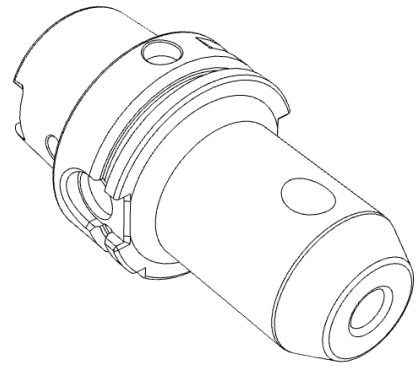
ISO12164 (DIN69893)

FRÄSERAUFNAHMEN Whistle Notch 2°

End Mill Holder Whistle Notch 2°

Mandrin porte-fraise Whistle Notch 2°

Portafresas Whistle Notch 2°

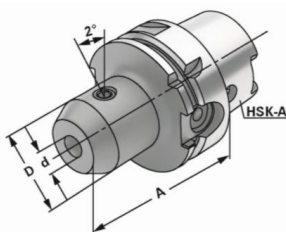


A	G6.3 15.000	DIN 1835-E	2°
---	----------------	---------------	----

ISO	ID	Code	d	A	D
HSK40A		27.HSK40A06WNL80	06	80	25
HSK40A		27.HSK40A08WNL80	08	80	28
HSK40A		27.HSK40A10WNL80	10	80	35
HSK40A		27.HSK40A12WNL90	12	90	42
HSK40A		27.HSK40A14WNL90	14	90	44
HSK40A		27.HSK40A16WNL90	16	90	48
HSK40A		27.HSK40A18WNL90	18	90	40
HSK40A		27.HSK40A20WNL90	20	90	40
HSK40A		27.HSK40A25WNL100	25	100	46
HSK40A		27.HSK40A32WNL110	32	110	54

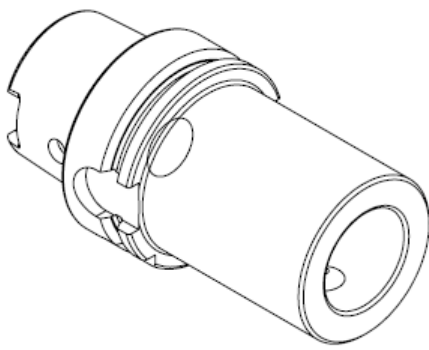
ISO	ID	Code	d	A	D
HSK63A	W112517	27.HSK63A06WNL80	06	80	25
HSK63A	W112518	27.HSK63A08WNL80	08	80	28
HSK63A	W112519	27.HSK63A10WNL80	10	80	35
HSK63A	W112520	27.HSK63A12WNL90	12	90	42
HSK63A	W112521	27.HSK63A14WNL90	14	90	44
HSK63A	W112522	27.HSK63A16WNL100	16	100	48
HSK63A	W112523	27.HSK63A18WNL100	18	100	50
HSK63A	W112524	27.HSK63A20WNL100	20	100	52
HSK63A	W112525	27.HSK63A25WNL110	25	110	65
HSK63A	W112526	27.HSK63A32WNL110	32	110	72

ISO	ID	Code	d	A	D
HSK100A	W112527	27.HSK100A06WNL90	06	90	25
HSK100A	W112528	27.HSK100A08WNL90	08	90	28
HSK100A	W112529	27.HSK100A10WNL90	10	90	35
HSK100A	W112530	27.HSK100A12WNL100	12	100	42
HSK100A	W117345	27.HSK100A14WNL100	14	100	44
HSK100A	W112532	27.HSK100A16WNL100	16	100	48
HSK100A	W112533	27.HSK100A18WNL100	18	100	50
HSK100A	W112534	27.HSK100A20WNL110	20	110	52
HSK100A	W112535	27.HSK100A25WNL120	25	120	65
HSK100A	W112536	27.HSK100A32WNL120	32	120	72
HSK100A	W112537	27.HSK100A40WNL120	40	120	80



BOHRERHALTER für Wendepplattenbohrer E1

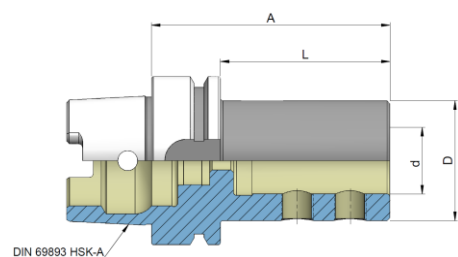
Boring holder for drills with indexable inserts E1
 Porte foret pour forets à plaquettes réversibles E1
 Mandrinado con brocas de plaquita intercambiable E1



A	G2.5 25.000	E1	powered by WSW
----------	------------------------	-----------	--------------------------

ISO	ID	Code	d	A	D
HSK63A	W140800	27.HSK63A20L80WP	20	80	40
HSK63A	W140801	27.HSK63A25L90WP	25	90	45
HSK63A	W139767	27.HSK63A32L90WP	32	90	52
HSK63A	W139771	27.HSK63A40L90WP	40	90	60
HSK63A	W139769	27.HSK63A40L105WP	40	105	60

ISO	ID	Code	d	A	D
HSK100A	W139550	27.HSK100A20L90WP	20	90	40
HSK100A	W139552	27.HSK100A25L95WP	25	95	45
HSK100A	W139554	27.HSK100A32L100WP	32	100	42
HSK100A	W139556	27.HSK100A40L110WP	40	110	60



DIN 69893 HSK-A

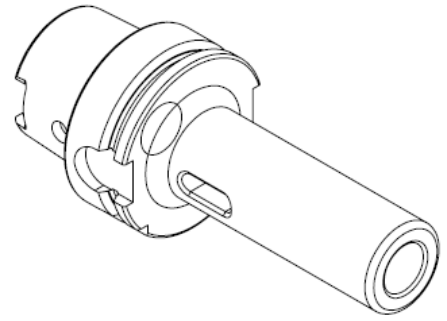
ISO12164 (DIN69893)

ADAPTER für MK mit Austreibblappen

Morse Taper Adaptor with tang

Douille de réduction pour queue CM avec tenon

Casquillo reductor para vástago CM con lengüeta de expulsión

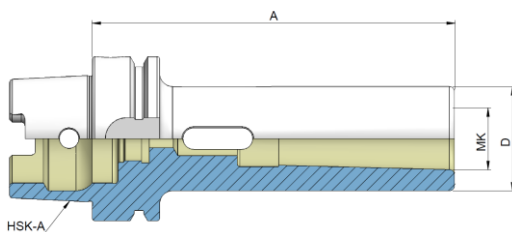


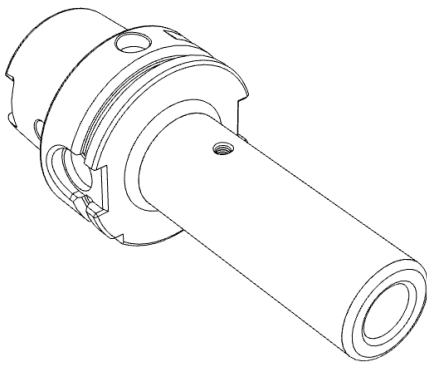
powered by WSW	A	G2.5 25.000	DIN 6363
--------------------------	----------	------------------------------	---------------------------

ISO	ID	Code	MK	A	D	L
HSK50A	W139616	25.HSK50AMK1L100AL	MK1	100	25	74
HSK50A	W139618	25.HSK50AMK2L120AL	MK2	120	32	94
HSK50A	W139620	25.HSK50AMK3L140AL	MK3	140	40	114

ISO	ID	Code	MK	A	D	L
HSK63A	W139156	25.HSK63AMK1L100AL	MK1	100	25	74
HSK63A	W139158	25.HSK63AMK2L120AL	MK2	120	32	94
HSK63A	W139160	25.HSK63AMK3L140AL	MK3	140	40	14
HSK63A	W139162	25.HSK63AMK4L160AL	MK4	160	48	134

ISO	ID	Code	MK	A	D	L
HSK100A	W139508	25.HSK100AMK1L110AL	MK1	110	25	81
HSK100A	W139510	25.HSK100AMK2L120AL	MK2	120	32	91
HSK100A	W139512	25.HSK100AMK3L150AL	MK3	150	40	121
HSK100A	W139514	25.HSK100AMK4L170AL	MK4	170	48	141
HSK100A	W139516	25.HSK100AMK5L200AL	MK5	200	63	171



ADAPTER für MK mit Anzugsgewinde

Morse Taper Adaptor with drawbar thread
 Douille de réduction pour CM avec filetage
 Casquillo reductor para vástago CM para rosca de apriete

A	G2.5 25.000	DIN 6364	powered by WSW
----------	------------------------	---------------------	--------------------------

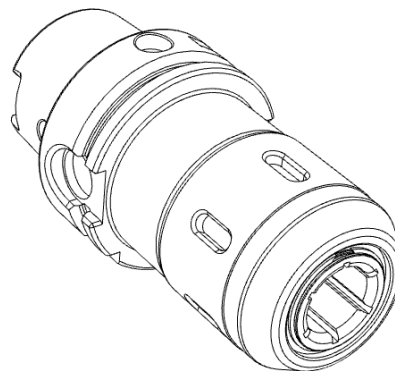
ISO	ID	Code	MK	A	D	L
HSK63A	W139164	25.HSK63AMK1L100AG	MK1	100	25	74
HSK63A	W139166	25.HSK63AMK2L120AG	MK2	120	32	94
HSK63A	W139168	25.HSK63AMK3L140AG	MK3	140	40	114
HSK63A	W139170	25.HSK63AMK4L160AG	MK4	160	48	134
HSK100A	W139518	25.HSK100AMK1L110AG	MK1	110	25	81
HSK100A	W139520	25.HSK100AMK2L120AG	MK2	120	32	91
HSK100A	W139522	25.HSK100AMK3L150AG	MK3	150	40	121
HSK100A	W139524	25.HSK100AMK4L170AG	MK4	170	48	141
HSK100A	W139526	25.HSK100AMK5L200AG	MK5	200	63	171



ISO12164 (DIN69893)

HP KRAFTSPANNFUTTER System HKS

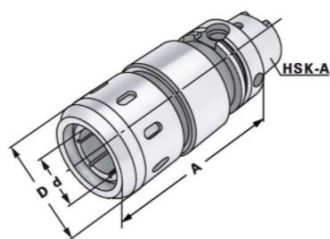
High Performance Milling Chuck (HKS)
Mandrin à serrage à haute performance (HKS)
Mandril de fresado de alto rendimiento (HKS)



A	G6.3 15.000	HSK
----------	------------------------	------------

ISO	ID	Code	d	A	D	optional (SET)
HSK63A	W112512	27.HSK63A20L95HKS	20	95	53	Ø 6-8-10-12-16
HSK63A		27.HSK63A25L100HKS	25	100	63	Ø 6-8-10-12-16-20
HSK63A	W112513	27.HSK63A32L110HKS	32	105	68	Ø 6-8-10-12-16-20-25

ISO	ID	Code	d	A	D	optional (SET)
HSK100A	W112514	27.HSK100A20L105HKS	20	105	53	Ø 6-8-10-12-16
HSK100A		27.HSK100A25L105HKS	25	105	63	Ø 6-8-10-12-16-20
HSK100A	W112515	27.HSK100A32L105HKS	32	105	68	Ø 6-8-10-12-16-20-25



inklusive Reduzierhülsen
including clamping sleeves
y compris douille de serrage
incluyendo casquillo de sujeción

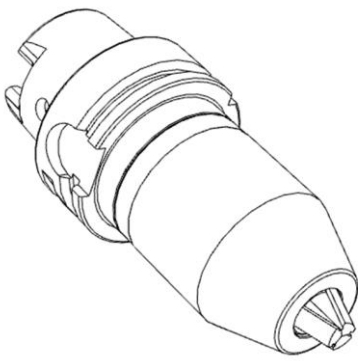
kühlmitteldicht
coolant proof
réfrigérant étanche
refrigerante apertado

SET

SET-IK

CNC PRÄZISIONSBOHRFUTTER

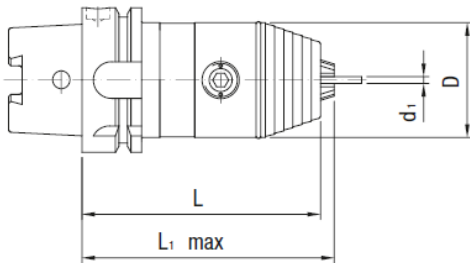
CNC Drill Chuck
Mandrin de perçage de précision
Portabrocas de precisión



A	G6.3 25.000	CNC
---	----------------	-----

ISO	ID	Code	d1	D	L	L ₁ max.
HSK40A	W113126	25.HSK40A08L91BF	0.3-8	36	91	94
HSK50A		25.HSK50A08L95BF	0.3-8	36	95	98
HSK50A		25.HSK50A13L116BF	0.5-13	50	116	122
HSK50A	W114492	25.HSK50A16L121BF	2.5-16	57	121	127
HSK63A	W112698	25.HSK63A08L96BF	0.3-8	36	96	99
HSK63A	W112395	25.HSK63A13L104BF	0.5-13	50	104	110
HSK63A	W112396	25.HSK63A16L109BF	2.5-16	57	109	115
HSK100A	W112700	25.HSK100A13L111BF	0.5-13	50	111	117
HSK100A	W112702	25.HSK100A16L116BF	2.5-16	57	116	122

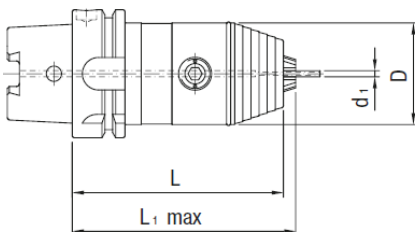
Form E / F: **DE** auf Anfrage | **EN** on request | **FR** à la demande | **ES** a petición



	A	G6.3 25.000	CNC
--	---	----------------	-----

ISO	ID	Code	d1	D	L	L ₁ max.
HSK40A	W113126	25.HSK40A08L91BF.IK	0.3-8	36	91	94
HSK50A		25.HSK50A08L95BF.IK	0.3-8	36	95	98
HSK50A		25.HSK50A13L116BF.IK	0.5-13	50	116	122
HSK50A	W114492	25.HSK50A16L121BF.IK	2.5-16	57	121	127
HSK63A	W112698	25.HSK63A08L96BF.IK	0.3-8	36	96	99
HSK63A	W112395	25.HSK63A13L104BF.IK	0.5-13	50	104	110
HSK63A	W112396	25.HSK63A16L109BF.IK	2.5-16	57	109	115
HSK100A	W112700	25.HSK100A13L111BF.IK	0.5-13	50	111	117
HSK100A	W112702	25.HSK100A16L116BF.IK	2.5-16	57	116	122

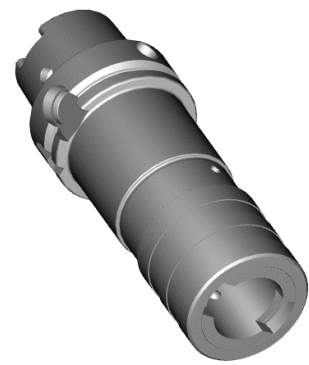
Form E / F: **DE** auf Anfrage | **EN** on request | **FR** à la demande | **ES** a petición



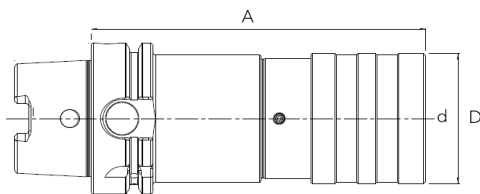
ISO12164 (DIN69893)

GEWINDESCHNEIDFUTTER mit Längenausgleich

Tapping chuck with length compensation
Mandrin de taraudage avec compensation longitudinale
Portabrocas con compensación de longitud



ISO	ID	Code	Size	d	A	D	T C
HSK40A		25.HSK40A19L80GC	1 M3-M14	19	80	41	7 - 7
HSK40A		25.HSK40A31L103GC	2 M5-M22	31	103	60	10 - 10
HSK50A		25.HSK50A19L72GC	1 M3-M14	19	72	38	7 - 7
HSK50A		25.HSK50A31L110GC	2 M5-M22	31	110	54	12 - 12
HSK63A	W112709	25.HSK63A19L102GC	1 M3-M14	19	102	50	7 - 7
HSK63A	W112710	25.HSK63A31L140GC	2 M5-M22	31	140	54	12 - 12
HSK63A	W116276	25.HSK63A48L210GC	3 M14-M36	48	210	86	17.5 - 17.5
HSK100A	W112711	25.HSK100A19L112GC	1 M3-M14	19	112	38	7 - 7
HSK100A	W112712	25.HSK100A31L148GC	2 M5-M22	31	148	54	12 - 12
HSK100A	W116939	25.HSK100A48L210GC	3 M14-M36	48	210	86	17.5 - 17.5



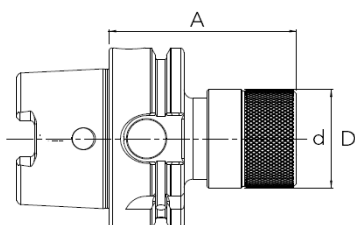
- **DE** Bearbeitungszentren ohne Synchronspindel
- **EN** Machining centers without synchronous spindle
- **FR** Centres d'usinage sans broche synchrone
- **ES** Centros de mecanizado sin husillo sincrónico

GEWINDESCHNEIDFUTTER ohne Längenausgleich

Tapping chuck without length compensation
Mandrin de taraudage sans compensation longitudinale
Portabrocas sin compensación de longitud

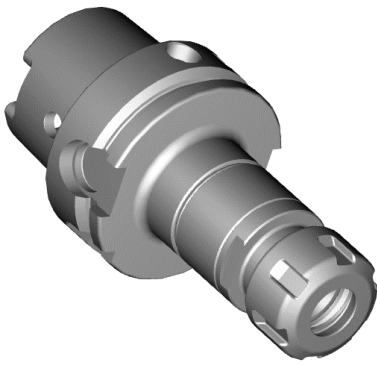


ISO	ID	Code	Size	d	A	D
HSK50A		25.HSK50A19L65G	1 M3-M14	19	65	38
HSK50A		25.HSK50A31L100G	2 M5-M22	31	100	54
HSK63A	W112329	25.HSK63A19L65G	1 M3-M14	19	65	38
HSK63A	W112714	25.HSK63A31L100G	2 M5-M22	31	100	54
HSK100A	W112715	25.HSK100A19L80G	1 M3-M14	19	80	38
HSK100A	W112716	25.HSK100A31L90G	2 M5-M22	31	90	54
HSK100A	W112716	25.HSK100A48L130G	3 M14-M36	48	130	86



- **DE** Bearbeitungszentren mit Synchronspindel
- **EN** Machining centers with synchronous spindle
- **FR** Centres d'usinage avec broche synchrone
- **ES** Centros de mecanizado con husillo sincrónico



GEWINDESCHNEIDFUTTER Synchro

Tapping Chuck for synchronisation of ER collets
Mandrin de taraudage pour la synchronisation des pinces ER
Mandril de rosca para la sincronización de pinzas ER

SYNC	A	G6.3 15.000	DIN 6499
-------------	----------	------------------------	---------------------

ISO	ID	Code	d	A	D	T C
HSK63A	W115779	25.HSK63A16L89GSY	M3 – M12 (ER16)	89	28	0.5 – 0.5
HSK63A	W112090	25.HSK63A20L90GSY	M3 – M16 (ER20)	90	34	0.5 – 0.5
HSK63A	W112091	25.HSK63A25L94GSY	M3 – M20 (ER25)	94	42	0.5 – 0.5
HSK63A	W112092	25.HSK63A32L105GSY	M3 – M27 (ER32)	105	50	0.5 – 0.5
HSK63A	W112727	25.HSK63A40L133.5GSY	M3 – M33 (ER40)	133.5	63	0.5 – 0.5

ISO	ID	Code	d	A	D	T C
HSK100A	W112728	25.HSK100A16L100GSY	M3 – M12 (ER16)	100	28	0.5 – 0.5
HSK100A	W112729	25.HSK100A20L101GSY	M3 – M16 (ER20)	101	34	0.5 – 0.5
HSK100A	W112730	25.HSK100A25L105GSY	M3 – M20 (ER 25)	105	42	0.5 – 0.5
HSK100A	W112731	25.HSK100A32L110GSY	M3 – M27 (ER 32)	110	50	0.5 – 0.5
HSK100A	W112734	25.HSK100A40L136GSY	M3 – M33 (ER 40)	136	63	0.5 – 0.5

DE Bearbeitungszentren mit Synchrospindel

- Synchro-Gewindeschneidfutter kompensieren Synchronisationsfehler
- Minimallängenausgleich in Druck- und Zugrichtung zwischen Synchrospindel und Gewindebohrer
- reduziert zu hohe Gewindeflankenreibungskräfte
- Reduziert eventuelle Axialkrafteerhöhung während des Schneidzyklus auf ein Minimum
- Geeignet für Innenkühlung | Kühlmitteldruck max. 100 bar

**EN Machining centers with synchronous spindle**

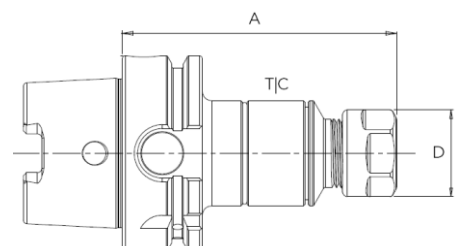
- Synchro tapping chucks compensate synchronisation errors.
- Minimal length compensation on compression and expansion balances very small pitch differences between synchro spindle and tap, which can cause high frictional forces on the thread flanks
- A possible increase of axial force during the tapping process is reduced to a minimum
- Suitable for internal coolant | Coolant pressure up to max. 100 bar

FR Centres d'usinage avec broche synchrone

- Mandrins de taraudage version „synchro“ compensent les erreurs éventuelles de synchronisation.
- Compensation longitudinale minimale à la compression et traction entre la broche synchronisée et le taraud réduit la friction au niveau des flancs de filets
- Réduit au minimum les efforts éventuelles axiaux lors du cycle de taraudage
- Approprié pour la lubrification centrale | Pression de lubrification max. 100 bar

ES Centros de mecanizado con husillo sincrónico

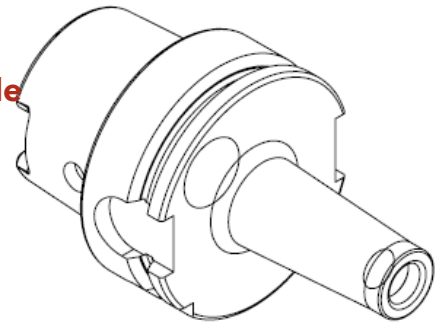
- Los mandriles de roscado sincronizado compensan los errores de sincronización
- La mínima compensación longitudinal de compresión y tensión entre el husillo sincronizado y el macho de roscar reduce la fricción en los flancos de la rosca
- Reduce las fuerzas de fricción excesivas del flanco de la rosca
- Adecuado para la lubricación centralizada | Presión máxima de lubricación 100 bar



ISO12164 (DIN69893)

FRÄSERAUFNAHME Einschraubfräser mit Gewinde

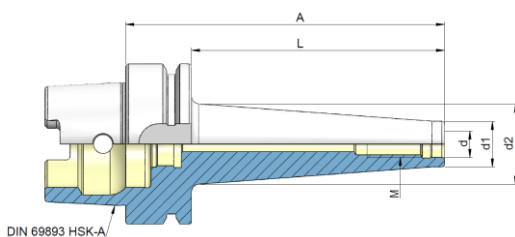
Arbor for screw-in milling cutters with thread
Mandrin pour fraises à queue filetée
Portaherramientas para fresas de enroscar con rosca



powered by WSW	A	G2.5 25.000	ES
--------------------------	----------	------------------------------	-----------

ISO	ID	Code	d	d1	d2	A	L
HSK63A	W139172	27.HSK63AM06L51ES	M06	10	13	51	25
HSK63A	W139176	27.HSK63AM08L51ES	M08	13	15	51	25
HSK63A	W139178	27.HSK63AM08L76ES	M08	13	23	76	50
HSK63A	W139174	27.HSK63AM08L101ES	M08	13	23	101	75
HSK63A	W139184	27.HSK63AM10L51ES	M10	18	20	51	25
HSK63A	W139186	27.HSK63AM10L76ES	M10	18	23	76	50
HSK63A	W139180	27.HSK63AM10L126ES	M10	18	32	126	100
HSK63A	W139182	27.HSK63AM10L176ES	M10	18	36	176	150
HSK63A	W139194	27.HSK63AM12L51ES	M12	21	24	51	25
HSK63A	W139196	27.HSK63AM12L76ES	M12	21	27	76	50
HSK63A	W139188	27.HSK63AM12L101ES	M12	21	30	101	75
HSK63A	W139190	27.HSK63AM12L126ES	M12	21	33	126	100
HSK63A	W139192	27.HSK63AM12L176ES	M12	21	40	176	150
HSK63A	W139204	27.HSK63AM16L51ES	M16	29	2	51	25
HSK63A	W139206	27.HSK63AM16L76ES	M16	29	32	76	50
HSK63A	W139198	27.HSK63AM16L101ES	M16	29	34	101	75
HSK63A	W139200	27.HSK63AM16L126ES	M16	29	36	126	100
HSK63A	W139202	27.HSK63AM16L176ES	M16	29	42	176	150

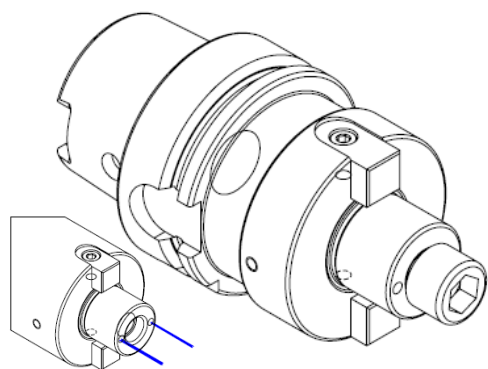
ISO	ID	Code	d	d1	d2	A	L
HSK100A	W139528	27.HSK100AM08L79ES	M08	13	23	79	50
HSK100A	W139534	27.HSK100AM10L79ES	M10	18	23	79	50
HSK100A	W139530	27.HSK100AM10L129ES	M10	18	32	129	100
HSK100A	W139532	27.HSK100AM10L179ES	M10	18	36	179	150
HSK100A	W139540	27.HSK100AM12L79ES	M12	21	24	79	50
HSK100A	W139536	27.HSK100AM12L129ES	M12	21	33	129	100
HSK100A	W139538	27.HSK100AM12L179ES	M12	21	40	179	150
HSK100A	W139546	27.HSK100AM16L79ES	M16	29	34	79	50
HSK100A	W139542	27.HSK100AM16L129ES	M16	29	36	129	100
HSK100A	W139544	27.HSK100AM16L179ES	M16	29	42	179	150



DIN 69893 HSK-A

QUERNUT AUFSTECKFRÄSDORN

Shell Mill Holder
Mandrin porte-fraises
Portafresas de fresado



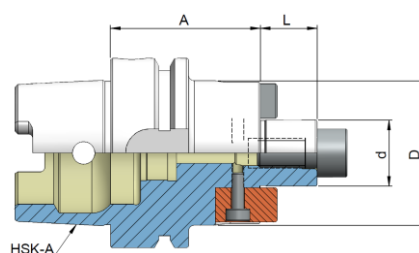
A	G2.5 18.000	DIN 6357	KKB	powered by EWS Group
----------	------------------------------	---------------------------	------------	--------------------------------

ISO	ID	Code	d	D	A	L
HSK40A	219046	42.HSK40A16L32	16	33.3	32	19
HSK40A	219048	42.HSK40A22L32	22	45	32	19
HSK40A	219049	42.HSK40A27L29	27	58	29	19

A	G2.5 25.000	DIN 6357	KKB	powered by WSW
----------	------------------------------	---------------------------	------------	--------------------------

ISO	ID	Code	d	D	A	L
HSK50A	W139600	42.HSK50A16L50MA.KKB	16	38	50	17
HSK50A	W139602	42.HSK50A22L60MA.KKB	22	48	60	19
HSK50A	W139604	42.HSK50A27L60MA.KKB	27	58	60	21
HSK50A	W139606	42.HSK50A32L60MA.KKB	32	78	60	24

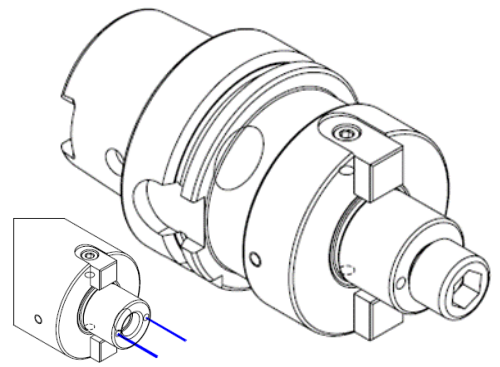
ISO	ID	Code	d	D	A	L
HSK63A	W139084	42.HSK63A16L50MA.KKB	16	38	50	17
HSK63A	W139078	42.HSK63A16L100MA.KKB	16	38	100	17
HSK63A	W139080	42.HSK63A16L130MA.KKB	16	38	130	17
HSK63A	W139082	42.HSK63A16L160MA.KKB	16	38	160	17
HSK63A	W139092	42.HSK63A22L50MA.KKB	22	48	50	19
HSK63A	W139086	42.HSK63A22L100MA.KKB	22	48	100	19
HSK63A	W139088	42.HSK63A22L130MA.KKB	22	48	130	19
HSK63A	W139090	42.HSK63A22L160MA.KKB	22	48	160	19
HSK63A	W139100	42.HSK63A27L60MA.KKB	27	58	60	21
HSK63A	W139094	42.HSK63A27L100MA.KKB	27	58	100	21
HSK63A	W139096	42.HSK63A27L130MA.KKB	27	58	130	21
HSK63A	W139098	42.HSK63A27L160MA.KKB	27	58	160	21
HSK63A	W139108	42.HSK63A32L60MA.KKB	32	78	60	24
HSK63A	W139102	42.HSK63A32L100MA.KKB	32	78	100	24
HSK63A	W139104	42.HSK63A32L130MA.KKB	32	78	130	24
HSK63A	W139106	42.HSK63A32L160MA.KKB	32	78	160	24
HSK63A	W139114	42.HSK63A40L60MA.KKB	40	88	60	27
HSK63A	W139110	42.HSK63A40L100MA.KKB	40	88	100	27
HSK63A	W139112	42.HSK63A40L160MA.KKB	40	88	160	27



ISO12164 (DIN69893)

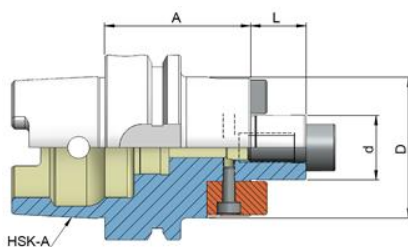
QUERNUT AUFSTECKFRÄSDORN

Shell Mill Holder
Mandrin porte-fraises
Portafresas de fresado



powered by WSW	A	G2.5 25.000	DIN 6357	KKB
--------------------------	----------	------------------------------	---------------------------	------------

ISO	ID	Code	d	D	A	L
HSK100A	W139411	42.HSK100A16L50MA.KKB	16	38	50	17
HSK100A	W139403	42.HSK100A16L100MA.KKB	16	38	100	17
HSK100A	W139405	42.HSK100A16L130MA.KKB	16	38	130	17
HSK100A	W139407	42.HSK100A16L160MA.KKB	16	38	160	17
HSK100A	W139409	42.HSK100A16L200MA.KKB	16	38	200	17
HSK100A	W139421	42.HSK100A22L50MA.KKB	22	48	50	19
HSK100A	W139413	42.HSK100A22L100MA.KKB	22	48	100	19
HSK100A	W139415	42.HSK100A22L130MA.KKB	22	48	130	19
HSK100A	W139417	42.HSK100A22L160MA.KKB	22	48	160	19
HSK100A	W139419	42.HSK100A22L200MA.KKB	22	48	200	19
HSK100A	W139431	42.HSK100A27L50MA.KKB	27	58	50	21
HSK100A	W139423	42.HSK100A27L100MA.KKB	27	58	100	21
HSK100A	W139425	42.HSK100A27L130MA.KKB	27	58	130	21
HSK100A	W139427	42.HSK100A27L160MA.KKB	27	58	160	21
HSK100A	W139429	42.HSK100A27L200MA.KKB	27	58	200	21
HSK100A	W139441	42.HSK100A32L50MA.KKB	32	78	50	24
HSK100A	W139433	42.HSK100A32L100MA.KKB	32	78	100	24
HSK100A	W139435	42.HSK100A32L130MA.KKB	32	78	130	24
HSK100A	W139437	42.HSK100A32L160MA.KKB	32	78	160	24
HSK100A	W139439	42.HSK100A32L200MA.KKB	32	78	200	24
HSK100A	W139449	42.HSK100A40L60MA.KKB	40	88	60	27
HSK100A	W139443	42.HSK100A40L100MA.KKB	40	88	100	27
HSK100A	W139445	42.HSK100A40L130MA.KKB	40	88	130	27
HSK100A	W139447	42.HSK100A40L160MA.KKB	40	88	160	27
HSK100A	W139453	42.HSK100A50L70MA.KKB	50	128	70	30
HSK100A	W139451	42.HSK100A50L100MA.KKB	50	128	100	30
HSK100A	W139455	42.HSK100A60L70MA.KKB	60	128	70	40



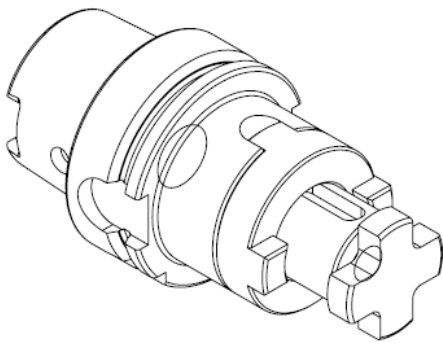
ISO12164 (DIN69893)

KOMBI-AUFSTECKFRÄSDORN

Combi Shell Mill Holder

Porte-fraise combiné

Portafresas combinado arrastre axial y longitudinal



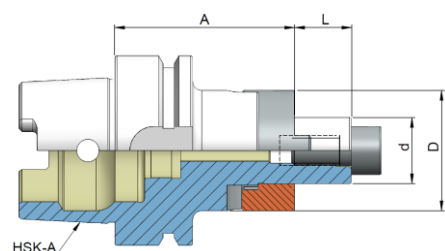
A	G2.5	DIN 6358	powered by
	18.000		EWS Group

ISO	ID	Code	d	D	A	L
HSK40A	219050	42.HSK40A16L50KA	16	32	50	17
HSK40A	219051	42.HSK40A22L69KA	22	40	69	19

A	G2.5	DIN 6358	powered by
	25.000		WSW

ISO	ID	Code	d	D	A	L
HSK50A	W139608	42.HSK50A16L50KA	16	32	50	24
HSK50A	W139610	42.HSK50A22L50KA	22	40	60	24
HSK50A	W139612	42.HSK50A27L65KA	27	48	60	39
HSK50A	W139614	42.HSK50A32L65KA	32	58	60	39

ISO	ID	Code	d	D	A	L
HSK63A	W139122	42.HSK63A16L60KA	16	32	60	34
HSK63A	W139116	42.HSK63A16L100KA	16	32	100	74
HSK63A	W139118	42.HSK63A16L130KA	16	32	130	104
HSK63A	W139120	42.HSK63A16L160KA	16	32	160	134
HSK63A	W139130	42.HSK63A22L60KA	22	40	60	34
HSK63A	W139124	42.HSK63A22L100KA	22	40	100	74
HSK63A	W139126	42.HSK63A22L130KA	22	40	130	104
HSK63A	W139128	42.HSK63A22L160KA	22	40	160	134
HSK63A	W139138	42.HSK63A27L60KA	27	48	60	34
HSK63A	W139132	42.HSK63A27L100KA	27	48	100	74
HSK63A	W139134	42.HSK63A27L130KA	27	48	130	104
HSK63A	W139136	42.HSK63A27L160KA	27	48	160	134
HSK63A	W139146	42.HSK63A32L60KA	32	58	60	34
HSK63A	W139140	42.HSK63A32L100KA	32	58	100	74
HSK63A	W139142	42.HSK63A32L130KA	32	58	130	104
HSK63A	W139144	42.HSK63A32L160KA	32	58	160	134
HSK63A	W139154	42.HSK63A40L70KA	40	70	70	44
HSK63A	W139148	42.HSK63A40L100KA	40	70	100	74
HSK63A	W139150	42.HSK63A40L130KA	40	70	130	104
HSK63A	W139152	42.HSK63A40L160KA	40	70	160	134



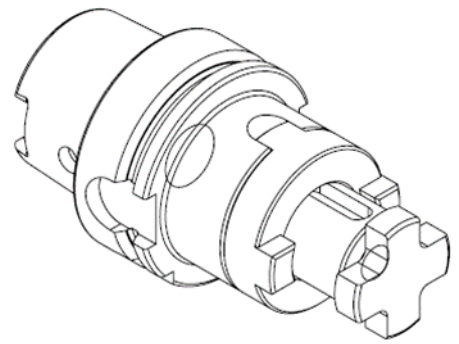
ISO12164 (DIN69893)

KOMBI-AUFSTECKFRÄSDORN

Combi Shell Mill Holder

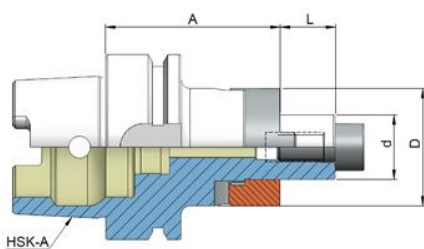
Porte-fraise combiné

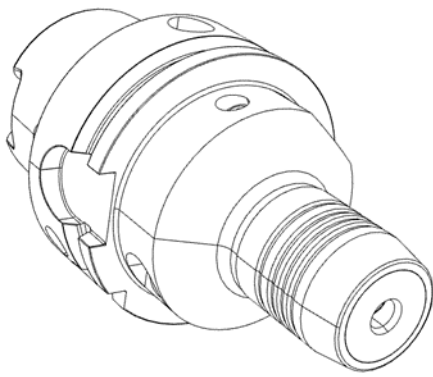
Portafresas combinado arrastre axial y longitudinal



powered by WSW	A	G2.5 25.000	DIN 6358
--------------------------	----------	------------------------------	---------------------------

ISO	ID	Code	d	D	A	L
HSK100A	W139465	42.HSK100A16L60KA	16	32	60	31
HSK100A	W139457	42.HSK100A16L100KA	16	32	100	71
HSK100A	W139459	42.HSK100A16L130KA	16	32	130	101
HSK100A	W139461	42.HSK100A16L160KA	16	32	160	131
HSK100A	W139463	42.HSK100A16L200KA	16	32	200	171
HSK100A	W139475	42.HSK100A22L60KA	22	40	60	31
HSK100A	W139467	42.HSK100A22L100KA	22	40	100	71
HSK100A	W139469	42.HSK100A22L130KA	22	40	130	101
HSK100A	W139471	42.HSK100A22L160KA	22	40	160	131
HSK100A	W139473	42.HSK100A22L200KA	22	40	200	171
HSK100A	W139485	42.HSK100A27L60KA	27	48	60	31
HSK100A	W139477	42.HSK100A27L100KA	27	48	100	71
HSK100A	W139479	42.HSK100A27L130KA	27	48	130	101
HSK100A	W139481	42.HSK100A27L160KA	27	48	160	131
HSK100A	W139483	42.HSK100A27L200KA	27	48	200	171
HSK100A	W139495	42.HSK100A32L60KA	32	58	60	31
HSK100A	W139487	42.HSK100A32L100KA	32	58	100	71
HSK100A	W139489	42.HSK100A32L130KA	32	58	130	101
HSK100A	W139491	42.HSK100A32L160KA	32	58	160	131
HSK100A	W139493	42.HSK100A32L200KA	32	58	200	171
HSK100A	W139506	42.HSK100A40L70KA	40	70	70	41
HSK100A	W139497	42.HSK100A40L100KA	40	70	100	71
HSK100A	W139499	42.HSK100A40L130KA	40	70	130	101
HSK100A	W139501	42.HSK100A40L160KA	40	70	160	131
HSK100A	W139504	42.HSK100A40L200KA	40	70	200	171





ISO12164 (DIN69893)

HYDRO-DEHNSPANNFUTTER

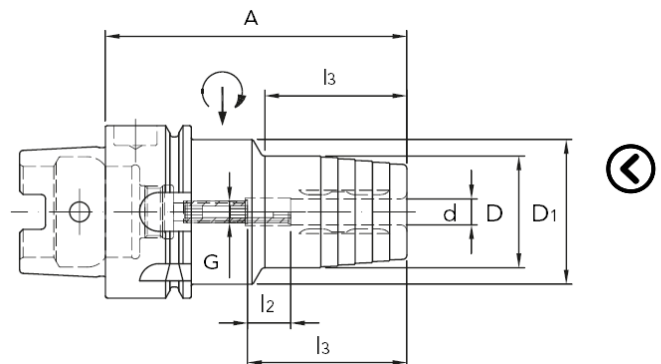
Hydraulic Chuck
Mandrin expansibles hydrauliques
Mandril hidráulico expansivo

A	G2.5 25.000	HYD
---	----------------	-----

ISO	ID	Code	d	A	D ₁	D	l ₁	l ₂	l ₃
HSK40A	W118482	19.HSK40A06L70HYD	06	70	33,5	26	37	10	36
HSK40A	W118483	19.HSK40A16L70HYD	08	70	33,5	28	37	10	36
HSK40A	W118484	19.HSK40A18L75HYD	10	75	33,5	30	41	10	42
HSK40A	W118485	19.HSK40A20L80HYD	12	80	33,5	32	46	10	48

ISO	ID	Code	d	A	D ₁	D	l ₁	l ₂	l ₃
HSK50A	W118477	19.HSK63A06L70HYD	06	70	40	26	37	10	28
HSK50A	W118478	19.HSK63A08L70HYD	08	70	40	28	37	10	28
HSK50A	W118479	19.HSK63A10L75HYD	10	75	40	30	41	10	34
HSK50A	W113626	19.HSK63A12L85HYD	12	85	40	32	46	10	44
HSK50A	W118480	19.HSK63A14L85HYD	14	85	40	34	46	10	44
HSK50A	W118481	19.HSK63A16L90HYD	16	90	53	38	49	10	30
HSK50A	W114639	19.HSK63A18L90HYD	18	90	53	40	49	10	30
HSK50A	W114640	19.HSK63A20L90HYD	20	90	57	42	51	10	29

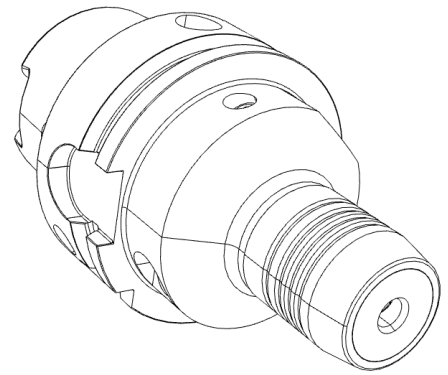
ISO	ID	Code	d	A	D ₁	D	l ₁	l ₂	l ₃
HSK63A	W118467	19.HSK63A06L70HYD	06	70	50	26	37	10	24
HSK63A	W118468	19.HSK63A08L70HYD	08	70	50	28	37	10	25
HSK63A	W118469	19.HSK63A10L80HYD	10	80	50	30	41	10	35
HSK63A	W118470	19.HSK63A12L85HYD	12	85	50	32	46	10	40
HSK63A	W118471	19.HSK63A14L85HYD	14	85	50	34	46	10	40
HSK63A	W118472	19.HSK63A16L90HYD	16	90	50	38	49	10	46
HSK63A	W118473	19.HSK63A18L90HYD	18	90	50	40	49	10	47
HSK63A	W118474	19.HSK63A20L90HYD	20	90	50	42	51	10	48
HSK63A	W118475	19.HSK63A25L120HYD	25	120	53	57	57	10	63
HSK63A	W118476	19.HSK63A32L125HYD	32	125	59	63	61	10	61



ISO12164 (DIN69893)

HYDRO-DEHNSPANNFUTTER

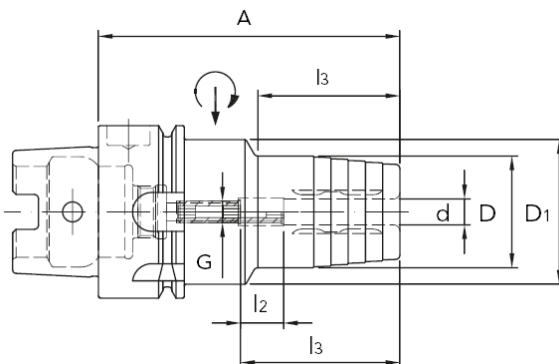
Hydraulic Chuck
Mandrin expansibles hydrauliques
Mandril hidráulico expansivo



A	G2.5 25.000	HYD
---	----------------	-----

ISO	ID	Code	d	A	D ₁	D	L ₁	l ₂	l ₃
HSK63A	W112736	19.HSK63A06L150HYD	06	150	50	26	37	10	103
HSK63A	W112737	19.HSK63A06L200HYD	06	200	50	26	37	10	153
HSK63A	W112739	19.HSK63A08L150HYD	08	150	50	28	37	10	104
HSK63A	W112740	19.HSK63A08L200HYD	08	200	50	28	37	10	154
HSK63A	W112393	19.HSK63A10L150HYD	10	150	50	30	41	10	104
HSK63A	W112742	19.HSK63A10L200HYD	10	200	50	30	41	10	154
HSK63A	W112388	19.HSK63A12L150HYD	12	150	50	32	46	10	105
HSK63A	W112745	19.HSK63A12L200HYD	12	200	50	32	46	10	155
HSK63A	W112747	19.HSK63A14L150HYD	14	150	50	34	46	10	105
HSK63A	W112748	19.HSK63A14L200HYD	14	200	50	34	46	10	155
HSK63A	W112750	19.HSK63A16L150HYD	16	150	50	38	49	10	106
HSK63A	W112751	19.HSK63A16L200HYD	16	200	50	38	49	10	156
HSK63A	W112753	19.HSK63A18L150HYD	18	150	50	40	49	10	107
HSK63A	W112754	19.HSK63A18L200HYD	18	200	50	40	49	10	157
HSK63A	W112756	19.HSK63A20L150HYD	20	150	50	42	51	10	108
HSK63A	W112757	19.HSK63A20L200HYD	20	200	50	42	51	10	158

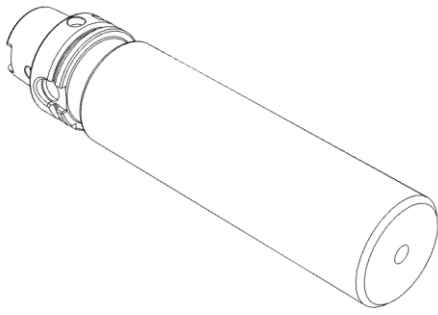
ISO	ID	Code	d	A	D ₁	D	l ₁	l ₂	l ₃
HSK100A	W112764	19.HSK100A06L75HYD	06	75	50	26	37	10	26
HSK100A	W112776	19.HSK100A08L75HYD	08	75	50	28	37	10	26
HSK100A	W112779	19.HSK100A10L90HYD	10	90	50	30	41	10	42
HSK100A	W112782	19.HSK100A12L95HYD	12	95	50	32	46	10	47
HSK100A	W112785	19.HSK100A14L95HYD	14	95	50	34	46	10	47
HSK100A	W112788	19.HSK100A16L100HYD	16	100	50	38	49	10	53
HSK100A	W112791	19.HSK100A18L100HYD	18	100	50	40	49	10	53
HSK100A	W112794	19.HSK100A20L105HYD	20	105	50	42	51	10	59
HSK100A	W112797	19.HSK100A25L110HYD	25	110	63	57	57	10	62
HSK100A	W112800	19.HSK100A32L110HYD	32	110	67	63	61	10	60



ISO12164 (DIN69893)

BOHRSTANGEN ROHLING

Boring Bar Blanks
Barre d alésage
Para herramientas en bruto



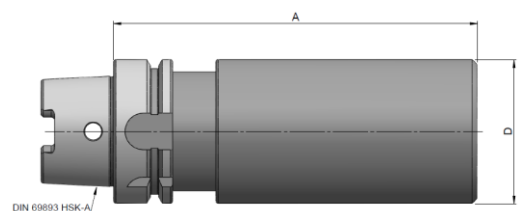
ISO	ID	Code	D	A
HSK40A	W115337	R.HSK40A.044.160	44	160
HSK50A	W139622	R.HSK50A50L150	50	150
HSK63A	W139209	R.HSK63A63L160	63	160
HSK63A	W112877	R.HSK63A63L250	63	250
HSK63A	W112891	R.HSK63A83L250	83	250
HSK100A	W139548	R.HSK100A97L250	97	250

DE Zur Herstellung von Sonderwerkzeugen.

EN For the production of special tools.

FR Pour la production d'outils spéciaux.

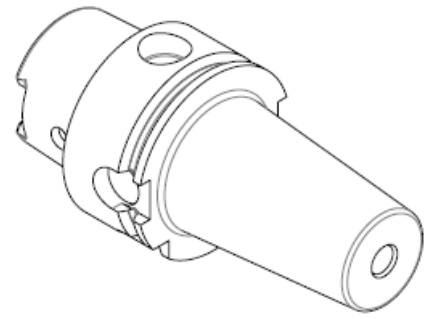
ES Para la producción de herramientas especiales.



ISO12164 (DIN69893)

SCHRUMPFNAHME 4.5°

Shrink Chuck 4.5 degrees
Mandrin de frettage 4.5 degrés
Mandril retráctil 4.5 grados



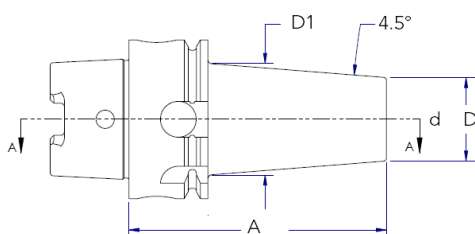
powered by EWS Group	A	G2.5 18.000	4.5°
--------------------------------	----------	------------------------------	-------------

ISO	ID	Code	d	A	D	D ₁
HSK40A	159616	27.HSK40A06L65SHR	06	65	21	28.1
HSK40A	159617	27.HSK40A08L65SHR	08	65	21	28.1
HSK40A	219035	27.HSK40A10L65SHR	10	65	24	31.1
HSK40A	219036	27.HSK40A12L65SHR	12	65	24	31.1
HSK40A	219037	27.HSK40A14L65SHR	14	65	27	33.3
HSK40A	219038	27.HSK40A16L70SHR	16	70	27	33.3
HSK40A	W113569	27.HSK40A16L90SHR	16	90	27	33.3
HSK40A	W113572	27.HSK40A20L100SHR	20	100	40	33

A	G2.5 25.000	4.5°
----------	------------------------------	-------------

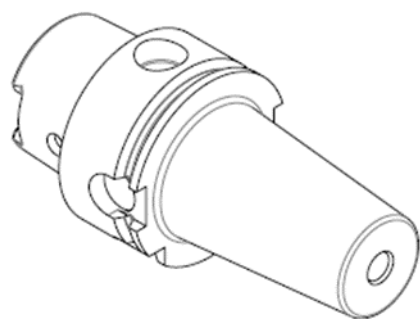
ISO	ID	Code	d	A	D	D ₁	l ₁	l ₂
HSK40A		27.HSK40A03L80SHR	03	80	11	15	10	-
HSK40A		27.HSK40A04L80SHR	04	80	14	22	20	5
HSK40A	W113987	27.HSK40A05L80SHR	05	80	16	22	20	5
HSK40A	W113564	27.HSK40A06L80SHR	06	80	21	27	36	10
HSK40A	W113565	27.HSK40A08L80SHR	08	80	21	27	36	10
HSK40A	W113566	27.HSK40A10L80SHR	10	80	24	32	42	10
HSK40A	W113567	27.HSK40A12L90SHR	12	90	24	32	47	10
HSK40A	W113568	27.HSK40A14L90SHR	14	90	27	34	47	10
HSK40A		27.HSK40A16L90SHR	16	90	27	34	50	10
HSK40A		27.HSK40A18L95SHR	18	95	33	42	50	10
HSK40A		27.HSK40A20L100SHR	20	100	33	42	52	10
HSK40A		27.HSK40A25L100SHR	25	100	44	51	58	10

l₁ = **DE** max. Einstecktiefe / **EN** max. clamping depth / **FR** max. profondeur d'insertion / **ES** profundidad máxima de inserción
l₂ = **DE** max. Verstellweg / **EN** max. length adjustment range / **FR** max. course de réglage / **ES** Rango de ajuste máximo



SCHRUMPFAUFNAHME 4.5°

Shrink Chuck 4.5 degrees
Mandrin de frettage 4.5 degrés
Mandril retráctil 4.5 grados

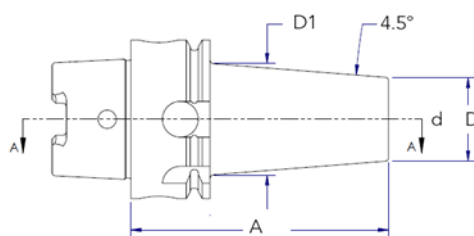


A	G2.5 25.000	4.5°
---	----------------	------

ISO	ID	Code	d	A	D	D ₁	l ₁	l ₂
HSK50A		27.HSK50A03L80SHR	03	80	11	15	10	-
HSK50A	W113979	27.HSK50A04L80SHR	04	80	14	22	20	5
HSK50A		27.HSK50A05L80SHR	05	80	46	22	20	5
HSK50A	W113980	27.HSK50A06L80SHR	06	80	21	27	36	10
HSK50A	W113981	27.HSK50A08L80SHR	08	80	21	27	36	10
HSK50A	W113982	27.HSK50A10L85SHR	10	85	24	32	42	10
HSK50A	W113983	27.HSK50A12L90SHR	12	90	24	32	47	10
HSK50A		27.HSK50A14L90SHR	14	90	27	34	47	10
HSK50A	W113984	27.HSK50A16L95SHR	16	95	27	34	50	10
HSK50A		27.HSK50A18L95SHR	18	95	33	42	50	10
HSK50A		27.HSK50A20L100SHR	20	100	33	42	52	10
HSK50A		27.HSK50A25L115SHR	25	115	44	53	58	10
HSK50A		27.HSK50A32L120SHR	32	120	44	53	62	10

ISO	ID	Code	d	A	D	D ₁	l ₁	l ₂
HSK63A	W112086	27.HSK63A03L80SHR	03	80	11	15	10	-
HSK63A	W112636	27.HSK63A03L120SHR	03	120	11	15	10	-
HSK63A	W112637	27.HSK63A03L160SHR	03	160	11	15	10	-
HSK63A	W112638	27.HSK63A04L80SHR	04	80	14	22	20	5
HSK63A	W112315	27.HSK63A04L120SHR	04	120	14	22	20	5
HSK63A	W112321	27.HSK63A04L160SHR	04	160	14	22	20	5
HSK63A	W112639	27.HSK63A05L80SHR	05	80	16	22	36	10
HSK63A	W112640	27.HSK63A05L120SHR	05	120	16	22	36	10
HSK63A	W112641	27.HSK63A05L160SHR	05	160	16	22	36	10
HSK63A	W114414	27.HSK63A06L80SHR	06	80	21	27	36	10
HSK63A	W112316	27.HSK63A06L120SHR	06	120	21	27	36	10
HSK63A	W112322	27.HSK63A06L160SHR	06	160	21	27	36	10
HSK63A	W112642	27.HSK63A08L80SHR	08	80	21	27	42	10
HSK63A	W112317	27.HSK63A08L120SHR	08	120	21	27	42	10
HSK63A	W112323	27.HSK63A08L160SHR	08	160	21	27	42	10
HSK63A	W112643	27.HSK63A10L85SHR	10	85	24	32	47	10
HSK63A	W112318	27.HSK63A10L120SHR	10	120	24	32	47	10
HSK63A	W112324	27.HSK63A10L160SHR	10	160	24	32	47	10

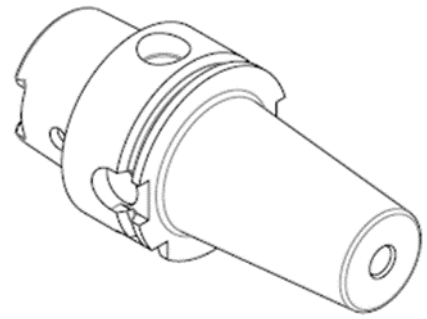
l₁ = **DE** max. Einstecktiefe / **EN** max. clamping depth / **FR** max. profondeur d'insertion / **ES** profundidad máxima de inserción
l₂ = **DE** max. Verstellweg / **EN** max. length adjustment range / **FR** max. course de réglage / **ES** Rango de ajuste máximo



ISO12164 (DIN69893)

SCHRUMPFNAHME 4.5°

Shrink Chuck 4.5 degrees
Mandrin de frettage 4.5 degrés
Mandril retráctil 4.5 grados



A	G2.5 25.000	4.5°
---	----------------	------

ISO	ID	Code	d	A	D	D ₁	l ₁	l ₂
HSK63A	W112644	27.HSK63A12L90SHR	12	90	24	32	47	10
HSK63A	W112319	27.HSK63A12L120SHR	12	120	24	32	47	10
HSK63A	W112325	27.HSK63A12L160SHR	12	160	24	32	47	10
HSK63A	W112645	27.HSK63A14L90SHR	14	90	27	34	47	10
HSK63A	W112646	27.HSK63A14L120SHR	14	120	27	34	47	10
HSK63A	W112647	27.HSK63A14L160SHR	14	160	27	34	47	10
HSK63A	W112648	27.HSK63A16L95SHR	16	95	27	34	50	10
HSK63A	W112320	27.HSK63A16L120SHR	16	120	27	34	50	10
HSK63A	W112649	27.HSK63A16L160SHR	16	160	27	34	50	10
HSK63A	W112650	27.HSK63A18L95SHR	18	95	33	42	50	10
HSK63A	W112651	27.HSK63A18L120SHR	18	120	33	42	50	10
HSK63A	W112652	27.HSK63A18L160SHR	18	160	33	42	50	10
HSK63A	W112653	27.HSK63A20L100SHR	20	100	33	42	52	10
HSK63A	W112654	27.HSK63A20L120SHR	20	120	33	42	52	10
HSK63A	W112655	27.HSK63A20L160SHR	20	160	33	42	52	10
HSK63A	W112656	27.HSK63A25L115SHR	25	115	44	53	58	10
HSK63A	W112657	27.HSK63A25L120SHR	25	120	44	53	58	10
HSK63A	W112658	27.HSK63A25L160SHR	25	160	44	53	58	10
HSK63A	W112659	27.HSK63A32L120SHR	32	120	44	53	61	10
HSK63A	W112660	27.HSK63A32L160SHR	32	160	44	53	61	10

l₁ = DE max. Einstecktiefe / EN max. clamping depth / FR max. profondeur d'insertion / ES profundidad máxima de inserción
l₂ = DE max. Verstellweg / EN max. length adjustment range / FR max. course de réglage / ES Rango de ajuste máximo

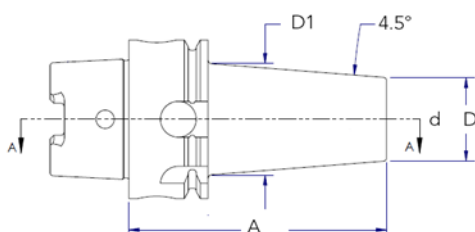


DE Hinweis: Aufnahmen für Induktiv-, Kontakt- und Heißluftschumpfgeräte geeignet. / Schafttoleranz bei Ø 3, 4 und 5 mm = h4, bei Ø 6 - Ø 12 mm = h6 / Für Ø 3, 4 und 5 mm nur Hartmetallschäfte verwenden

EN Note: Toolholders suitable for induction-, contact- and hot air shrink units. / Ø 3, 4, 5 with h4-tolerance and Ø 6 - Ø 12 with h6-tolerance / For Ø 3, 4 and 5 mm only solid carbide tool shanks must be used

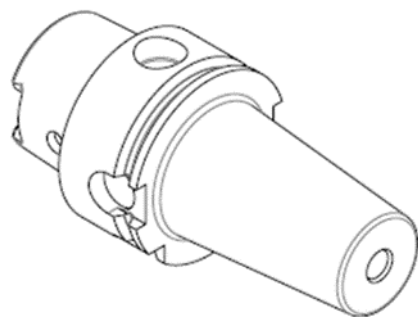
FR Remarque: Porte-outils convenables pour machines à fretter par induction, par contact, ou par air chaud. / Ø 3, 4, 5 avec h4-tolerance et Ø 6 - Ø 12 avec h6-tolerance / Pour Ø 3, 4 et 5 mm il faut seulement utiliser de queues d'outils carbures de type HM

ES Nota: Portaherramientas adecuado para unidades de inducción, contacto y retracción por aire caliente. / Ø 3, 4, 5 con tolerancia h4 y Ø 6 - Ø 12 con tolerancia h6 / Para Ø 3, 4 et 5 mm sólo deben utilizarse mangos de herramientas de metal duro del tipo HM



SCHRUMPFAUFNAHME 4.5°

Shrink Chuck 4.5 degrees
Mandrin de frettage 4.5 degrés
Mandril retráctil 4.5 grados

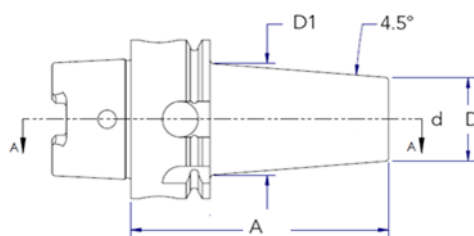


A	G2.5 25.000	4.5°
---	----------------	------

ISO	ID	Code	d	A	D	D ₁	l ₁	l ₂
HSK100A	W112664	27.HSK100A04L85SHR	04	85	14	22	20	5
HSK100A	W112665	27.HSK100A05L85SHR	05	85	16	22	20	5
HSK100A	W112666	27.HSK100A06L85SHR	06	85	21	27	36	10
HSK100A	W112667	27.HSK100A06L120SHR	06	120	21	27	36	10
HSK100A	W112668	27.HSK100A06L160SHR	06	160	21	27	36	10
HSK100A	W112669	27.HSK100A08L85SHR	08	85	21	27	36	10
HSK100A	W112670	27.HSK100A08L120SHR	08	120	21	27	36	10
HSK100A	W112671	27.HSK100A08L160SHR	08	160	21	27	36	10
HSK100A	W112672	27.HSK100A10L90SHR	10	90	24	32	42	10
HSK100A	W112673	27.HSK100A10L120SHR	10	120	24	32	42	10
HSK100A	W112674	27.HSK100A10L160SHR	10	160	24	32	42	10
HSK100A	W112675	27.HSK100A12L95SHR	12	95	24	32	47	10
HSK100A	W112676	27.HSK100A12L120SHR	12	120	24	32	47	10
HSK100A	W112677	27.HSK100A12L160SHR	12	160	24	32	47	10
HSK100A	W112678	27.HSK100A14L95SHR	14	95	27	34	47	10
HSK100A	W112679	27.HSK100A14L120SHR	14	120	27	34	47	10
HSK100A	W112680	27.HSK100A14L160SHR	14	160	27	34	47	10
HSK100A	W112681	27.HSK100A16L100SHR	16	100	27	34	50	10
HSK100A	W112682	27.HSK100A16L120SHR	16	120	27	34	50	10
HSK100A	W112683	27.HSK100A16L160SHR	16	160	27	34	50	10
HSK100A	W112684	27.HSK100A18L100SHR	18	100	33	42	50	10
HSK100A	W112685	27.HSK100A18L120SHR	18	120	33	42	50	10
HSK100A	W112686	27.HSK100A18L160SHR	18	160	33	42	50	10
HSK100A	W112687	27.HSK100A20L105SHR	20	105	33	42	52	10
HSK100A	W112688	27.HSK100A20L120SHR	20	120	33	42	52	10
HSK100A	W112689	27.HSK100A20L160SHR	20	160	33	42	52	10
HSK100A	W112690	27.HSK100A25L120SHR	25	120	44	53	56	10
HSK100A	W112691	27.HSK100A25L160SHR	25	160	44	53	58	10
HSK100A	W112692	27.HSK100A32L120SHR	32	120	44	53	62	10
HSK100A	W112693	27.HSK100A32L160SHR	32	160	44	53	62	10

l₁ = DE max. Einstecktiefe / EN max. clamping depth / FR max. profondeur d'insertion / ES profundidad máxima de inserción

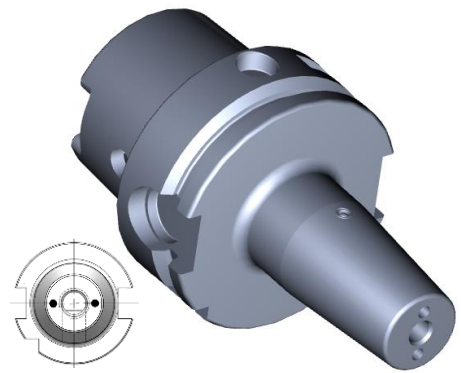
l₂ = DE max. Verstellweg / EN max. length adjustment range / FR max. course de réglage / ES Rango de ajuste máximo



ISO12164 (DIN69893)

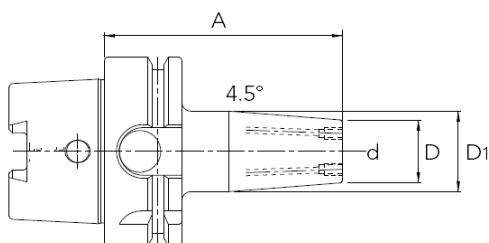
SCHRUMPFNAHME 4.5° mit Kühlkanälen

Shrink Chuck 4.5 degrees with coolant channels
Mandrin de frettage 4.5 degrés avec canaux d'arrosage
Mandril retráctil 4.5 grados con canales de refrigeración



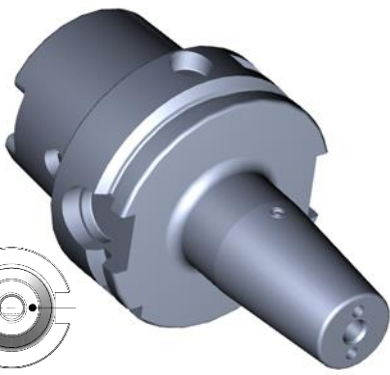
A	G2.5 25.000	4.5°	KKB
---	----------------	------	-----

ISO	ID	Code	d	A	D	D ₁	l ₁	l ₂
HSK63A		27.HSK63A03L80SHR.KKB	03	80	11	15	10	-
HSK63A		27.HSK63A03L120SHR.KKB	03	120	11	15	10	-
HSK63A		27.HSK63A04L80SHR.KKB	04	80	14	22	20	5
HSK63A		27.HSK63A04L120SHR.KKB	04	120	14	22	20	5
HSK63A		27.HSK63A05L80SHR.KKB	05	80	16	22	20	5
HSK63A		27.HSK63A05L120SHR.KKB	05	120	16	22	20	5
HSK63A	W118075	27.HSK63A06L80SHR.KKB	06	80	21	27	36	10
HSK63A		27.HSK63A06L120SHR.KKB	06	120	21	27	36	10
HSK63A	W118081	27.HSK63A06L160SHR.KKB	06	160	21	27	36	10
HSK63A	W118076	27.HSK63A08L80SHR.KKB	08	80	21	27	36	10
HSK63A		27.HSK63A08L120SHR.KKB	08	120	21	27	36	10
HSK63A	W118082	27.HSK63A08L160SHR.KKB	08	160	21	27	36	10
HSK63A	W118077	27.HSK63A10L85SHR.KKB	10	85	24	32	42	10
HSK63A		27.HSK63A10L120SHR.KKB	10	120	24	32	42	10
HSK63A	W118083	27.HSK63A10L160SHR.KKB	10	160	24	32	42	10
HSK63A	W118078	27.HSK63A12L90SHR.KKB	12	90	24	32	47	10
HSK63A		27.HSK63A12L120SHR.KKB	12	120	24	32	47	10
HSK63A	W118084	27.HSK63A12L160SHR.KKB	12	160	24	32	47	10
HSK63A		27.HSK63A14L90SHR.KKB	14	90	27	34	47	10
HSK63A		27.HSK63A14L120SHR.KKB	14	120	27	34	47	10
HSK63A		27.HSK63A14L160SHR.KKB	14	160	27	34	47	10
HSK63A	W118079	27.HSK63A16L95SHR.KKB	16	95	27	34	50	10
HSK63A		27.HSK63A16L120SHR.KKB	16	120	27	34	50	10
HSK63A	W118085	27.HSK63A16L160SHR.KKB	16	160	27	34	50	10
HSK63A		27.HSK63A18L95SHR.KKB	18	95	33	42	50	10
HSK63A		27.HSK63A18L120SHR.KKB	18	120	33	42	50	10
HSK63A		27.HSK63A18L160SHR.KKB	18	160	33	42	50	10
HSK63A	W118080	27.HSK63A20L100SHR.KKB	20	100	33	42	52	10
HSK63A		27.HSK63A20L120SHR.KKB	20	120	33	42	52	10
HSK63A	W118086	27.HSK63A20L160SHR.KKB	20	160	33	42	52	10
HSK63A		27.HSK63A25L115SHR.KKB	25	115	44	53	58	10
HSK63A		27.HSK63A25L120SHR.KKB	25	120	44	53	58	10
HSK63A		27.HSK63A25L160SHR.KKB	25	160	44	53	58	10
HSK63A		27.HSK63A32L120SHR.KKB	32	120	44	53	61	10
HSK63A		27.HSK63A32L160SHR.KKB	32	160	44	53	61	10



SCHRUMPFAUFNAHME 4.5° mit Kühlkanälen

Shrink Chuck 4.5 degrees with coolant channels
Mandrin de frettage 4.5 degrés avec canaux d'arrosage
Mandril retráctil 4.5 grados con canales de refrigeración



A	G2.5 25.000	4.5°	KKB
---	----------------	------	-----

ISO	ID	Code	d	A	D	D ₁	l ₁	l ₂
HSK100A		27.HSK100A05L80SHR.KKB	05	80	16	22	20	5
HSK100A		27.HSK100A05L120SHR.KKB	05	120	16	22	20	5
HSK100A		27.HSK100A06L80SHR.KKB	06	80	21	27	36	10
HSK100A		27.HSK100A06L120SHR.KKB	06	120	21	27	36	10
HSK100A		27.HSK100A08L80SHR.KKB	08	80	21	27	36	10
HSK100A		27.HSK100A08L120SHR.KKB	08	120	21	27	36	10
HSK100A		27.HSK100A10L85SHR.KKB	10	85	24	32	42	10
HSK100A		27.HSK100A10L120SHR.KKB	10	120	24	32	42	10
HSK100A		27.HSK100A12L90SHR.KKB	12	90	24	32	47	10
HSK100A		27.HSK100A12L120SHR.KKB	12	120	24	32	47	10
HSK100A		27.HSK100A14L90SHR.KKB	14	90	27	34	47	10
HSK100A		27.HSK100A14L120SHR.KKB	14	120	27	34	47	10
HSK100A		27.HSK100A16L95SHR.KKB	16	95	27	34	50	10
HSK100A		27.HSK100A16L120SHR.KKB	16	120	27	34	50	10
HSK100A		27.HSK100A18L95SHR.KKB	18	95	33	42	50	10
HSK100A		27.HSK100A18L120SHR.KKB	18	120	33	42	50	10
HSK100A		27.HSK100A20L100SHR.KKB	20	100	33	42	52	10
HSK100A		27.HSK100A20L120SHR.KKB	20	120	33	42	52	10
HSK100A		27.HSK100A25L120SHR.KKB	25	120	44	53	58	10
HSK100A		27.HSK100A32L120SHR.KKB	32	160	44	53	61	10

l₁ = **DE** max. Einstecktiefe / **EN** max. clamping depth / **FR** max. profondeur d'insertion / **ES** profundidad máxima de inserción

l₂ = **DE** max. Verstellweg / **EN** max. length adjustment range / **FR** max. course de réglage / **ES** Rango de ajuste máximo

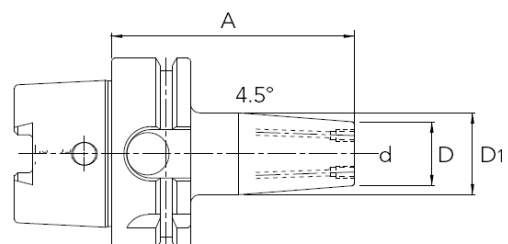


DE Hinweis: Aufnahmen für Induktiv-, Kontakt- und Heißluftschumpfgeräte geeignet. / Schafttoleranz bei Ø 3, 4 und 5 mm = h4, bei Ø 6 - Ø 12 mm = h6 / Für Ø 3, 4 und 5 mm nur Hartmetallschäfte verwenden

EN Note: Toolholders suitable for induction-, contact- and hot air shrink units. / Ø 3, 4, 5 with h4-tolerance and Ø 6 - Ø 12 with h6-tolerance / For Ø 3, 4 and 5 mm only solid carbide tool shanks must be used

FR Remarque: Porte-outils convenables pour machines à fretter par induction, par contact, ou par air chaud. / Ø 3, 4, 5 avec h4-tolerance et Ø 6 - Ø 12 avec h6-tolerance / Pour Ø 3, 4 et 5 mm il faut seulement utiliser de queues d'outils carbures de type HM

ES Nota: Portaherramientas adecuado para unidades de inducción, contacto y retracción por aire caliente. / Ø 3, 4, 5 con tolerancia h4 y Ø 6 - Ø 12 con tolerancia h6 / Para Ø 3, 4 et 5 mm sólo deben utilizarse mangos de herramientas de metal duro del tipo HM



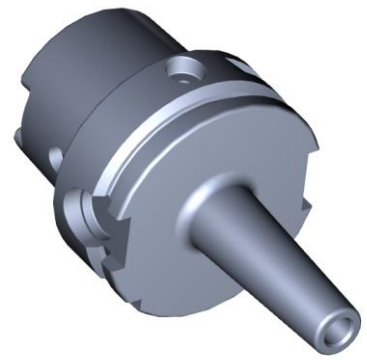
ISO12164 (DIN69893)

SCHRUMPFNAHME 3° - schlank

Shrink Chuck 3 degrees - slim

Mandrin de frettage 3 degrés - mince

Mandril retráctil 3 grados - delgado

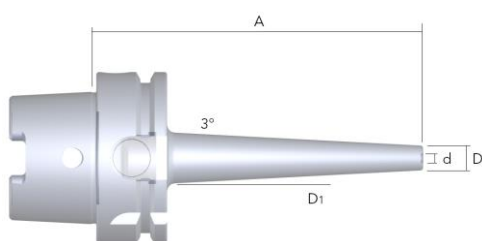


A	G2.5 18.000	3°
----------	------------------------------	-----------
















ISO	ID	Code	d	A	D	D ₁	l ₁	l ₂
HSK63A		27.SK4003L80SHRB-SLIM	03	80	9	15.5	6	-
HSK63A		27.SK4003L120SHRB-SLIM	03	120	9	19.5	6	-
HSK63A		27.SK4004L80SHRB-SLIM	04	80	10	16.5	8	-
HSK63A		27.SK4004L120SHRB-SLIM	04	120	10	20.5	8	-
HSK63A		27.SK4005L80SHRB-SLIM	05	80	11	17.5	10	-
HSK63A		27.SK4005L120SHRB-SLIM	05	120	11	21.5	10	-
HSK63A		27.SK4006L80SHRB-SLIM	06	80	12	18.5	36	10
HSK63A		27.SK4006L120SHRB-SLIM	06	120	12	22.5	36	10
HSK63A		27.SK4006L160SHRB-SLIM	06	160	12	26.5	36	10
HSK63A		27.SK4008L80SHRB-SLIM	08	80	14	20.5	36	10
HSK63A		27.SK4008L120SHRB-SLIM	08	120	14	24.5	36	10
HSK63A		27.SK4008L160SHRB-SLIM	08	160	14	28.5	36	10
HSK63A		27.SK4010L80SHRB-SLIM	10	80	16	22.5	42	10
HSK63A		27.SK4010L120SHRB-SLIM	10	120	16	26.5	42	10
HSK63A		27.SK4010L160SHRB-SLIM	10	160	16	30.5	42	10
HSK63A		27.SK4012L80SHRB-SLIM	12	80	18	24.5	47	10
HSK63A		27.SK4012L120SHRB-SLIM	12	120	18	28.5	47	10
HSK63A		27.SK4012L160SHRB-SLIM	12	160	18	32.5	47	10

l₁ = **DE** max. Einstecktiefe / **EN** max. clamping depth / **FR** max. profondeur d'insertion / **ES** profundidad máxima de inserción

l₂ = **DE** max. Verstellweg / **EN** max. length adjustment range / **FR** max. course de réglage / **ES** Rango de ajuste máximo



Pro-dukt-port-folio

<p>WSW TOOLS 1</p> <p>We stand for the de We are here for you Please contact us for more information about your order</p> <p>ISO1388-1 (CONVERT)</p>  <p>Werkzeugsysteme Toolholder Punch Guide Punch/reamers</p> <p>Edition 2021 PDF DE EN</p>	<p>WSW TOOLS 2</p> <p>We stand for the de We are here for you Please contact us for more information about your order</p> <p>ISO1388-21 (E 8 A337 (DIN 61814))</p>  <p>Werkzeugsysteme Toolholder Punch Guide Punch/reamers</p> <p>Edition 2021 PDF DE EN</p>	<p>WSW TOOLS 3</p> <p>We stand for the de We are here for you Please contact us for more information about your order</p> <p>ISO12144-1 (DIN 61813-1 HM)</p>  <p>Werkzeugsysteme Toolholder Punch Guide Punch/reamers</p> <p>Edition 2021 PDF DE EN</p>	<p>WSW TOOLS 4</p> <p>We stand for the de We are here for you Please contact us for more information about your order</p> <p>ISO12144-2 (DIN 61813-2 HSK-E)</p>  <p>Werkzeuge Turning Tools Coff de tournage Herramientas de torneado</p> <p>Edition 2021 PDF DE EN</p>	<p>WSW TOOLS 5</p> <p>We stand for the de We are here for you Please contact us for more information about your order</p> <p>ISO2023 PSC</p>  <p>Werkzeugsysteme Toolholder Punch Guide Punch/reamers</p> <p>Edition 2021 PDF DE EN</p>	<p>WSW TOOLS 6</p> <p>We stand for the de We are here for you Please contact us for more information about your order</p> <p>Zylinderbohrer Straight Drill / Cylindrique / Cilindrico CHRONOS/CHRONO/Chronos</p>  <p>Werkzeugsysteme Toolholder Punch Guide Punch/reamers</p> <p>Edition 2021 PDF DE EN</p>
<p>WSW COLLETS 7</p> <p>We stand for the de We are here for you Please contact us for more information about your order</p> <p>DR1888 ISO1887 DR1887 ISO1148</p>  <p>Spannungen Collets Pince de serrage Punch Guide and more...</p> <p>Edition 2021 PDF DE EN</p>	<p>WSW BORING BARS 8</p> <p>We stand for the de We are here for you Please contact us for more information about your order</p> <p>ISO12144</p>  <p>Bohrmaschinen Boring Bars Pince de serrage Punch Guide and more...</p> <p>Edition 2021 PDF DE EN</p>	<p>WSW CONTROL 9</p> <p>We stand for the de We are here for you Please contact us for more information about your order</p> <p>ISO1889 ISO12144 ISO2023 ISO1888 ISO1148 ISO</p>  <p>Bohrmaschinen Boring Bars Pince de serrage Punch Guide and more...</p> <p>Edition 2021 PDF DE EN</p>	<p>WSW SETTING 10</p> <p>We stand for the de We are here for you Please contact us for more information about your order</p> <p>ISO1889 ISO12144 ISO2023 ISO1</p>  <p>Werkzeugmaschinen Setting Tools Coff de réglage Herramientas de ajuste</p> <p>Edition 2021 PDF DE EN</p>	<p>WSW ACCESSORIES 11</p> <p>We stand for the de We are here for you Please contact us for more information about your order</p> <p>Spanner / Clamping Unit / Serrador / Tornafix / Tornafix Tornafix / T8 (M4) / Tornafix / Tornafix Tornafix / Tornafix / Tornafix / Tornafix / Tornafix</p>  <p>Zubehör Accessories Accessories</p> <p>Edition 2021 PDF DE EN</p>	<p>WSW COOLTURNING 12</p> <p>We stand for the de We are here for you Please contact us for more information about your order</p> <p>Bohrmaschinen Turning Tool Holder Punch Guide Punch/reamers and more...</p>  <p>Edition 2021 PDF DE EN</p>
<p>COMMAND</p>  <p>CLASS</p> <p>Performance measured by you</p>	<p>WSW PRODIGY</p> <p>We stand for the de We are here for you Please contact us for more information about your order</p> <p>PRODIGY</p>  <p>Bohrmaschinen Cleaning Pen Habit de nettoyage Habit de limpieza</p> <p>Edition 2021 PDF DE EN</p>	<p>WSW SOLUTION</p> <p>We stand for the de We are here for you Please contact us for more information about your order</p> <p>Sonderbohrungen nach Kundenwunsch Special tools according to customer design Coff de réglage selon le concepteur de l'outil Herramientas especiales según diseño del cliente</p>  <p>Edition 2021 PDF DE EN</p>			

WSW **SINCE 1987**
Solutions from a single source



WSW Spannwerkzeuge GmbH
WSW tooling systems
Maybachstraße 1 - 73066 UHINGEN
Deutschland
+49 7161 93040-100
contact@wsw-tools.de
www.wsw-tools.de



EWS
Tool Technologies

EWS Weigele GmbH & Co. KG
Maybachstraße 1 · D-73066 Uhingen
Telefon +49(0)7161-93040-100
Telefax +49(0)7161-93040-30
E-Mail: info@ews-tools.de
www.ews-tools.de

EWS Group
WSW
Tooling Systems

WSW Spannwerkzeuge-Vertriebs GmbH
Maybachstr. 1 · D-73066 Uhingen
Telefon +49(0)7161-93040-100
Telefax +49(0)7161-93040-30
E-Mail: info@wsw-collets.de
www.wsw-collets.de

EWS Group
COMMAND
TOOLING SYSTEMS

Command Tooling Systems
13931 Sunfish Lake Blvd NW
Ramsey · MN 55303 USA
Telefon +1-763-576-6910
Telefax +1-763-576-6911
support@commandtool.com
www.commandtool.com

EWS Korea

EWS Korea Co. Ltd.
60-11 · Woongnam-Dong
Changwon
Kyoung-Nam Korea
Telefon +82 55-267-8085
Telefax +82 55-262-3118
E-Mail: info@ewskorea.co.kr
www.ewskorea.co.kr

EWS Russia

EWS Ltd.
Krassnaja str., 38
600015 Vladimir
Russland
Telefon +7-4922-541160
Telefax +7-4922-541160
E-Mail: info@ews-rusland.ru
www.ews-rusland.ru

EWS 易德斯
Turrets & Tool holders

JIANGSU EWS MACHINE CO.,LTD
37 hao xizhangzhenbeilu
fenghuangzhen zhangjiangang
China
Tel: +86-512-5842-9991
Fax: +86-512-5842-9990
yujo@ewskorea.co.kr

EWS
Tool Technologies

埃维斯刀座技术(太仓)

**EWS Tool Holder Technologies
(Taicang Co. Ltd)**
Beijing East Road No. 88
215400 Taicang · Jiangsu
P. R. China
Telefon +86 512 3306 2600
Telefax +86 512 3306 2601
E-Mail: sales.cnews-tools.de
www.ews-tools.cn

TOOL ARENA
GD CONNECTING COMPANIES

Tool-Arena GmbH
Maybachstraße 1 · D-73066 Uhingen
Telefon +49(0)7161-93040-100
E-Mail: info@tool-arena.com
www.tool-arena.com