



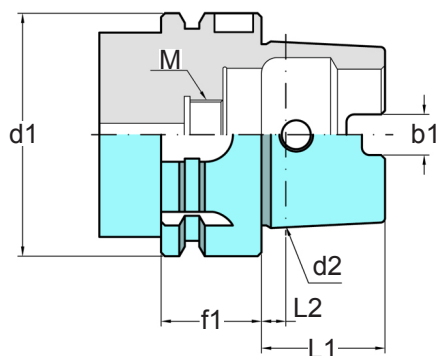
DIN/69893 HSK A / E / F

PROGRAMA

						
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FORMA = A

A

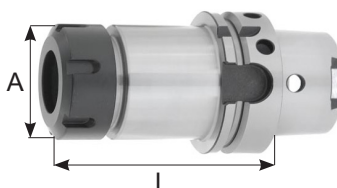


FORMA FORM	d1	d2	L1	L2	M	f1	b1
HSK-A	32	24.007	16	-	M10 x 1	20	7.05
	40	30.007	20	4.0	M12 x 1	20	8.05
	50	38.009	25	5.0	M16 x 1	26	10.54
	63	48.010	32	6.3	M18 x 1	26	12.54
	80	60.012	40	8.0	M20 x 1.5	26	16.04
	100	75.013	50	10.0	M24 x 1.5	29	20.02



DIN/69893

Porta pinzas ER tuerca STANDARD
Collet chucks ER STANDARD nut

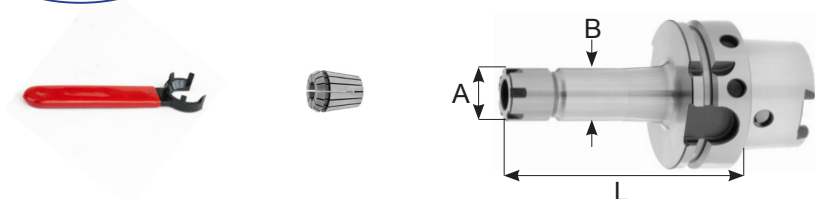


HSK-A / 32 / 40 / 50 / 63 / 80 / 100

REFERENCIA	CAP	RPM	L	A
HSK32AL80ER16	1 ÷ 10	18.000	80	32
HSK32AL80ER25	2 ÷ 22		80	42
HSK40AL80ER16	1 ÷ 10	18.000	80	32
HSK40AL80ER25	1 ÷ 20		80	42
HSK40AL100ER32	2 ÷ 22		100	50
HSK50AL100ER16	1 ÷ 10	18.000	100	32
HSK50AL100ER25	1 ÷ 20		100	42
HSK50AL100ER32	2 ÷ 22		100	50
HSK63AL100ER16	1 ÷ 10	18.000	100	32
HSK63AL160ER16			160	
HSK63AL200ER16			200	
HSK63AL100ER20	1 ÷ 14		100	35
HSK63AL100ER25	1 ÷ 20		100	42
HSK63AL160ER25			160	
HSK63AL200ER25			200	
HSK63AL70ER32	2 ÷ 22		70	50
HSK63AL80ER32			80	
HSK63AL100ER32			100	
HSK63AL120ER32			120	
HSK63AL130ER32			130	
HSK63AL160ER32			160	
HSK63AL200ER32			200	
HSK63AL65ER40	3 ÷ 30		65	63
HSK63AL120ER40			120	
HSK63AL160ER40			160	
HSK80AL100ER32	2 ÷ 22	18.000	100	50
HSK80AL120ER40	3 ÷ 30		120	63
HSK100AL100ER16	1 ÷ 10	18.000	100	32
HSK100AL160ER16	1 ÷ 14		160	35
HSK100AL100ER20			100	
HSK100AL100ER25			100	42
HSK100AL160ER25	1 ÷ 20		160	
HSK100AL200ER25			200	
HSK100AL80ER32	2 ÷ 22		80	50
HSK100AL100ER32			100	
HSK100AL160ER32			160	
HSK100AL200ER32			200	
HSK100AL100ER40	3 ÷ 30		100	63
HSK100AL160ER40			160	
HSK100AL200ER40			200	

DIN/69893

Porta pinzas ER tuerca MINI
Collet chucks ER MINI nut

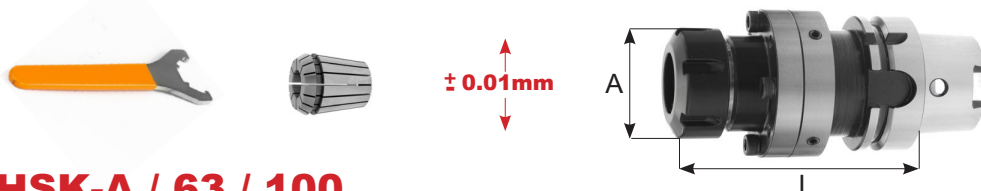


HSK-A / 32 / 40 / 50 / 63 / 100

REFERENCIA	CAP	RPM	L	B	A
HSK32AL80ER11M	1 ÷ 7	18.000	80	16	16
HSK32AL80ER16M	1 ÷ 10		80	22	22
HSK40AL80ER11M	1 ÷ 7	18.000	80	16	16
HSK40AL80ER16M	1 ÷ 10		80	22	22
HSK40AL80ER25M	1 ÷ 20		80	35	35
HSK50AL100ER11M	1 ÷ 7	18.000	100	16	16
HSK50AL100ER16M	1 ÷ 10		100	22	22
HSK63AL100ER11M	1 ÷ 7	18.000	100	16	16
HSK63AL160ER11M			160		
HSK63AL100ER16M	1 ÷ 10		100	22	22
HSK63AL160ER16M			160		
HSK63AL110ER20M	1 ÷ 14		110	28	28
HSK63AL100ER25M	1 ÷ 20		100	35	35
HSK63AL160ER25M			160		
HSK100AL160ER16M	1 ÷ 10	18.000	160	22	22

DIN/69893

Porta pinzas ER regulación radial
Radial adjustable collet chucks

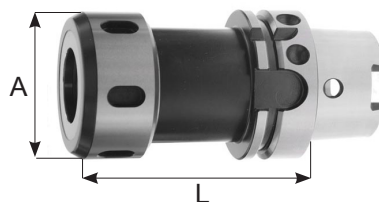


HSK-A / 63 / 100

REFERENCIA	CAP	FORMA	L	A
HSK63AL100ER16RG	1 ÷ 10	HSK63-A	100	28
HSK63AL102ER20RG	1 ÷ 14		102	34
HSK63AL103ER25RG	1 ÷ 20		103	42
HSK63AL104ER32RG	2 ÷ 22		104	50
HSK63AL138ER40RG	3 ÷ 30		138	63
HSK100AL103ER16RG	1 ÷ 10	HSK100-A	103	28
HSK100AL105ER20RG	1 ÷ 14		105	34
HSK100AL106ER25RG	1 ÷ 20		106	42
HSK100AL107ER32RG	2 ÷ 22		107	50
HSK100AL141ER40RG	3 ÷ 30		141	63

DIN/69893

Porta pinzas EOC DIN/6388 B
Collet chucks EOC DIN/6388 B

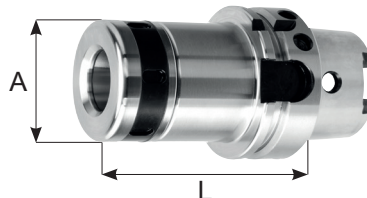


HSK-A / 50 / 63 / 100

REFERENCIA	CAP	RPM	L	A
HSK50AL100EOC16	2 ÷ 16	15.000	100	43
HSK50AL100EOC25	2 ÷ 25		100	60
HSK63AL100EOC16	2 ÷ 16		100	43
HSK63AL100EOC25	2 ÷ 25	15.000	100	60
HSK63AL120EOC32	3 ÷ 32		120	72
HSK100AL100EOC16	2 ÷ 16		100	43
HSK100AL100EOC25	2 ÷ 25	15.000	100	60
HSK100AL120EOC32	3 ÷ 32		120	72

DIN/69893

Porta pinzas SKS
SKS - Collet chucks

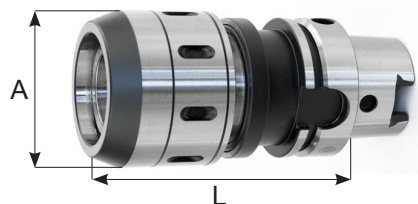


HSK-A / 63

REFERENCIA	CAP	RPM	L	A
HSK63AL90SKS10	2 ÷ 10	25.000	90	30
HSK63AL120SKS10	2 ÷ 10		120	30
HSK63AL90SKS20	3 ÷ 16		90	40
HSK63AL135SKS20	3 ÷ 20		90	48.5

DIN/69893

Porta pinzas gran apriete
Power milling chucks

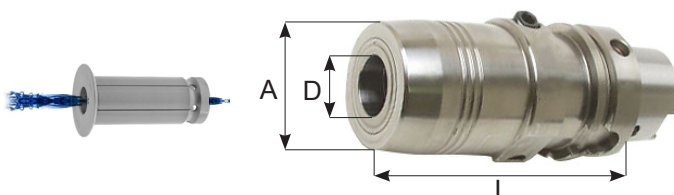


HSK-A / 63 / 100

REFERENCIA	CAP	RPM	L	A
HSK63AL85FP20	3 ÷ 16	15.000	120	56.5
HSK63AL110FP32	3 ÷ 25		130	71
HSK100L120FP20	3 ÷ 16	15.000	120	55
HSK100L120FP32	3 ÷ 25		120	69

DIN/69893

Porta pinzas hidráulico paso refrigerante
Sealed collets Hydraulic Collet chucks



Refrigeración
Interna
Coolant flow

HSK-A / 32 / 40 / 50 / 63

REFERENCIA	D	RPM	L	A
HSK32AL80HD6	6	15.000	80	26
HSK32AL80HD8	8		80	28
HSK32AL85HD10	10		85	30
HSK32AL90HD12	12		90	32
HSK32AL95HD14	14		95	34
HSK32AL100HD16	16		100	38
HSK32AL100HD20	20		100	42
HSK40AL80HD6	6	15.000	80	26
HSK40AL80HD8	8		80	28
HSK40AL85HD10	10		85	30
HSK40AL90HD12	12		90	32
HSK40AL90HD14	14		90	34
HSK40AL90HD16	16		90	38
HSK40AL90HD18	18		90	40
HSK40AL90HD20	20		90	42
HSK50AL80HD6	6	15.000	80	26
HSK50AL80HD8	8		80	28
HSK50AL85HD10	10		85	30
HSK50AL90HD12	12		90	32
HSK50AL90HD14	14		90	34
HSK50AL95HD16	16		95	38
HSK50AL95HD18	18		95	40
HSK50AL100HD20	20		100	42
HSK50AL120HD25	25		125	50
HSK63AL80HD6	6	15.000	80	26
HSK63AL150HD6			150	
HSK63AL200HD6			200	
HSK63AL80HD8	8	15.000	80	28
HSK63AL150HD8			150	
HSK63AL200HD8			200	
HSK63AL85HD10	10	15.000	85	30
HSK63AL150HD10			150	
HSK63AL200HD10			200	
HSK63AL90HD12	12	15.000	90	32
HSK63AL150HD12			150	
HSK63AL200HD12			200	

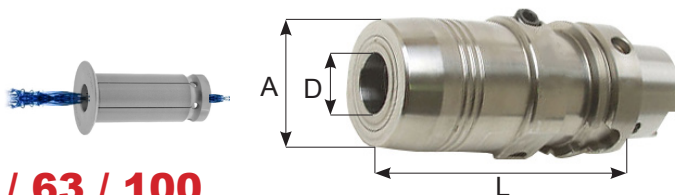
HSK-A / 63 / 100 →

DIN/69893

Porta pinzas hidráulico paso refrigerante
Sealed collets Hydraulic Collet chucks



Coolant



**Refrigeración
Interna
Coolant flow**

HSK-A / 63 / 100

REFERENCIA	D	RPM	L	A
HSK63AL90HD14	14	15.000	90	34
HSK63AL150HD14			150	
HSK63AL200HD14			200	
HSK63AL95HD16	16	15.000	95	38
HSK63AL150HD16			150	
HSK63AL200HD16			200	
HSK63AL95HD18	18	15.000	95	40
HSK63AL150HD18			150	
HSK63AL200HD18			200	
HSK63AL100HD20	20	15.000	100	42
HSK63AL150HD20			150	
HSK63AL200HD20			200	
HSK63AL120HD25	25	15.000	120	50
HSK63AL150HD25			150	
HSK63AL200HD25			200	
HSK100AL85HD6	6	10.000	85	26
HSK100AL150HD6			150	
HSK100AL200HD6			200	
HSK100AL85HD8	8	10.000	85	28
HSK100AL150HD8			150	
HSK100AL200HD8			200	
HSK100AL90HD10	10	10.000	90	30
HSK100AL150HD10			150	
HSK100AL200HD10			200	
HSK100AL95HD12	12	10.000	95	32
HSK100AL150HD12			150	
HSK100AL200HD12			200	
HSK100AL95HD14	14	10.000	95	34
HSK100AL150HD14			150	
HSK100AL200HD14			200	
HSK100AL100HD16	16	10.000	100	38
HSK100AL150HD16			150	
HSK100AL200HD16			200	

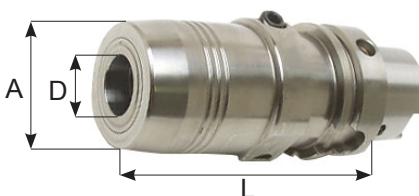
HSK-A / 100 →

DIN/69893

Porta pinzas hidráulico paso refrigerante
Sealed collets Hydraulic Collet chucks



Coolant



Refrigeración
Interna
Coolant flow

HSK-A / 100

REFERENCIA	D	RPM	L	A
HSK100AL100HD18	18	10.000	100	40
HSK100AL150HD18			150	
HSK100AL200HD18			200	
HSK100AL105HD20	20	10.000	105	42
HSK100AL150HD20			150	
HSK100AL200HD20			200	
HSK100AL115HD25	25	10.000	115	50
HSK100AL150HD25			150	
HSK100AL200HD25			200	
HSK100AL120HD32	32	10.000	120	60
HSK100AL150HD32			150	
HSK100AL200HD32			200	
HSK100AL150HD40	40	10.000	150	70

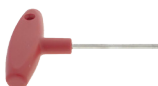
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DIN/69893

Porta brocas integral gran apriete paso refrigerante
Drill chucks with coolant feed



Coolant

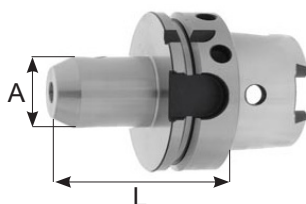
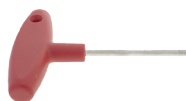


HSK-A / 50 / 63 / 100

REFERENCIA	CAP	RPM	L	A
HSK50AL105HD13	1 ÷ 13	12.000	105	50
HSK63AL130HD13	1 ÷ 13		130	50
HSK63AL140HD16	3 ÷ 16		140	57
HSK100AL108HD13	1 ÷ 13		108	50
HSK100AL113HD16	3 ÷ 16		113	57

DIN/69893

Porta fresas weldon DIN 1835-B
End mill holders for DIN 1835-B



HSK-A / 32 / 40 / 50 / 63

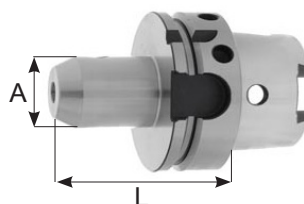
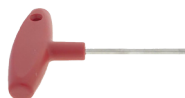
REFERENCIA	D	RPM	FORMA	L	A
HSK32AL60WE6	6	15.000	HSK32-A	60	25
HSK32AL60WE8	8			60	28
HSK32AL65WE10	10			65	35
HSK32AL65WE12	12			65	42
HSK40AL60WE6	6	15.000	HSK40-A	60	25
HSK40AL60WE8	8			60	28
HSK40AL60WE10	10			60	35
HSK40AL70WE12	12			70	42
HSK40AL75WE16	16			75	48
HSK50AL65WE6	6	15.000	HSK50-A	65	25
HSK50AL65WE8	8			65	28
HSK50AL65WE10	10			65	35
HSK50AL80WE12	12			80	42
HSK50AL80WE14	14			80	44
HSK50AL80WE16	16			80	48
HSK50AL80WE18	18			80	50
HSK50AL80WE20	20			80	52
HSK63AL65WE6	6	15.000	HSK63-A	65	25
HSK63AL100WE6				100	
HSK63AL160WE6				160	
HSK63AL65WE8	8	15.000	HSK63-A	65	28
HSK63AL100WE8				100	
HSK63AL160WE8				160	
HSK63AL65WE10	10	15.000	HSK63-A	65	35
HSK63AL100WE10				100	
HSK63AL160WE10				160	
HSK63AL80WE12	12	15.000	HSK63-A	80	42
HSK63AL100WE12				100	
HSK63AL160WE12				160	
HSK63AL80WE14	14	15.000	HSK63-A	80	44
HSK63AL100WE14				100	
HSK63AL160WE14				160	

Whistle-Notch sobre pedido / Whistle-Notch on request.

HSK-A / 63 / 80 / 100 →



Porta fresas weldon DIN 1835-B
End mill holders for DIN 1835-B



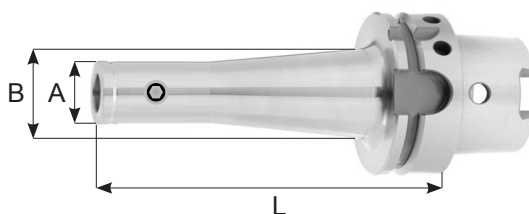
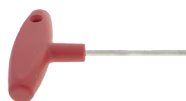
HSK-A / 63 / 80 / 100

REFERENCIA	D	RPM	FORMA	L	A
HSK63AL80WE16	16	15.000	HSK63-A	80	48
HSK63AL100WE16				100	
HSK63AL160WE16				160	
HSK63AL80WE18	18	15.000	HSK63-A	80	48
HSK63AL100WE18				100	
HSK63AL160WE18				160	
HSK63AL80WE20	20	15.000	HSK63-A	80	52
HSK63AL100WE20				100	
HSK63AL160WE20				160	
HSK63AL110WE25	25	15.000	HSK63-A	110	65
HSK63AL160WE25				160	
HSK63AL110WE32	32	15.000	HSK63-A	110	72
HSK63AL160WE32				160	
HSK80AL80WE6	6	15.000	HSK80-A	80	25
HSK80AL80WE8	8			80	28
HSK80AL80WE10	10			80	35
HSK80AL80WE12	12			80	42
HSK80AL80WE14	14			80	44
HSK80AL100WE16	16			100	48
HSK80AL100WE18	18			100	50
HSK80AL100WE20	20			100	52
HSK80AL100WE25	25			100	65
HSK80AL110WE32	32			100	72
HSK100AL80WE6	6	15.000	HSK100-A	80	25
HSK100AL80WE8	8			80	28
HSK100AL80WE10	10			80	35
HSK100AL100WE12	12			80	42
HSK100AL100WE14	14			80	44
HSK100AL100WE16	16			100	48
HSK100AL100WE18	18			100	50
HSK100AL100WE20	20			100	52
HSK100AL100WE25	25			100	65
HSK100AL100WE32	32			100	72
HSK100AL105WE40	40			105	80

Whistle-Notch sobre pedido / Whistle-Notch on request.

DIN/69893

Porta fresas weldon DIN 1835-B
End mill holders for DIN 1835-B



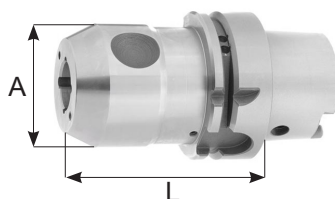
HSK-A / 100

REFERENCIA	D	RPM	FORMA	B	L	A
HSK100AL160WE5	5	15.000	HSK100-A	33	160	22
HSK100AL160WE6	6			33	160	22
HSK100AL160WE8	8			35	160	24
HSK100AL160WE10	10			39	160	25
HSK100AL160WE12	12			43	160	26
HSK100AL160WE14	14			44	160	28
HSK100AL160WE16	16			44	160	30
HSK100AL160WE18	18			46	160	32
HSK100AL160WE20	20			51	160	34
HSK100AL160WE25	25			65	160	56
HSK100AL160WE32	32	15.0000	HSK100-A	72	160	54
HSK100AL160WE40	40			80	160	80
HSK100AL200WE6	6			33	200	22
HSK100AL200WE8	8			35	200	24
HSK100AL200WE10	10			39	200	25
HSK100AL200WE12	12			43	200	26
HSK100AL200WE14	14			44	200	28
HSK100AL200WE16	16			44	200	30
HSK100AL200WE18	18			46	200	32
HSK100AL200WE20	20			51	200	34
HSK100AL200WE25	25	15.0000	HSK100-A	56	200	46
HSK100AL200WE32	32			72	200	54
HSK100AL200WE40	40			80	200	62
HSK100AL250WE8	8			38	250	24
HSK100AL250WE9	9			38	250	24
HSK100AL250WE10	10			43	250	25
HSK100AL250WE12	12			46	250	26
HSK100AL250WE14	14			48	250	28
HSK100AL250WE16	16			50	250	30
HSK100AL250WE18	18			52	250	32
HSK100AL250WE20	20	15.0000	HSK100-A	55	250	34
HSK100AL250WE25	25			65	250	65

Whistle-Notch sobre pedido / Whistle-Notch on request.

DIN/69893

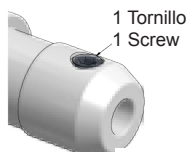
Porta fresas weldon con canal de refrigeración
End mill holders with coolant channels



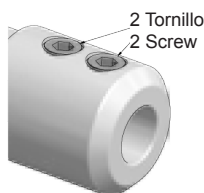
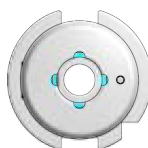
HSK-A / 63 / 100

REFERENCIA	D	RPM	FORMA	L	A
HSK63AL75WE6C	6	15.000	HSK63-A	75	27
HSK63AL75WE8C	8			75	28
HSK63AL75WE10C	10			75	35
HSK63AL80WE12C	12			80	42
HSK63AL80WE14C	14			80	44
HSK63AL80WE16C	16			80	48
HSK63AL80WE18C	18			80	50
HSK63AL80WE20C	20			80	52
HSK63AL110WE25C	25			110	65
HSK63AL110WE32C	32			110	72
HSK63AL120WE40C	40			120	90
HSK100AL75WE6C	6	15.000	HSK100-A	75	27
HSK100AL75WE8C	8			75	28
HSK100AL80WE10C	10			80	35
HSK100AL90WE12C	12			90	42
HSK100AL90WE14C	14			90	44
HSK100AL100WE16C	16			100	48
HSK100AL100WE18C	18			100	50
HSK100AL100WE20C	20			100	52
HSK100AL100WE25C	25			100	65
HSK100AL100WE32C	32			100	72
HSK100AL120WE40C	40			120	90

WE6 ÷ WE14



WE16 ÷ WE40



DIN/69871

Porta fresas weldon regulación radial
Radial adjustable end mill holders

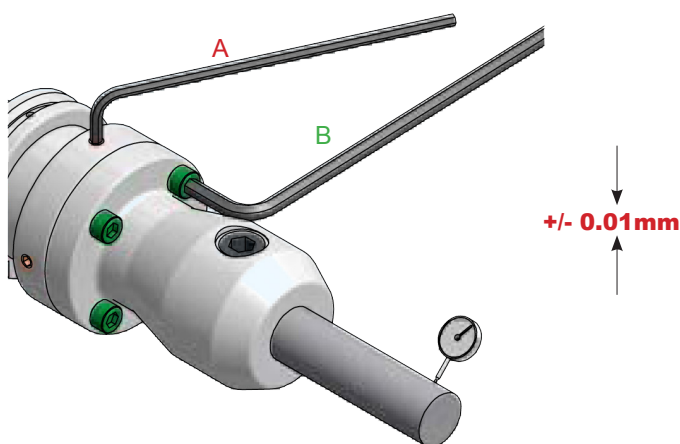


$\pm 0.01\text{mm}$



HSK-A / 63 / 100

REFERENCIA	D	FORMA	L	A
HSK63AL107WE6RG	6	HSK63-A	107	25
HSK63AL107WE8RG	8		107	28
HSK63AL107WE10RG	10		107	35
HSK63AL117WE12RG	12		117	42
HSK63AL117WE14RG	14		117	44
HSK63AL137WE16RG	16		137	48
HSK63AL137WE18RG	18		137	50
HSK63AL142WE20RG	20		137	52
HSK100AL110WE6RG	6	HSK100-A	110	25
HSK100AL110WE8RG	8		110	28
HSK100AL110WE10RG	10		110	35
HSK100AL120WE12RG	12		120	42
HSK100AL120WE14RG	14		120	44
HSK100AL140WE16RG	16		140	48
HSK100AL140WE18RG	18		140	50
HSK100AL145WE20RG	20		145	52

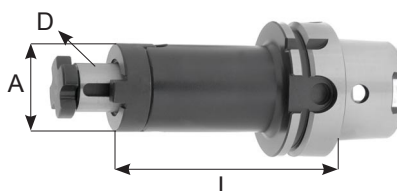


$\pm 0.01\text{mm}$

"Afloje los tornillos B y ajuste el centrado con los tornillos A"
"Loosen screws B and use screws A for radial adjustment"

DIN/69893

Porta fresas combinado
Combi shell end mill holders



HSK-A / 32 / 40 / 50 / 63 / 80 / 100

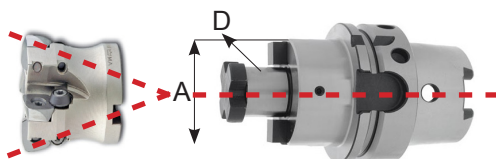
REFERENCIA	D	RPM	FORMA	L	A
HSK32AL55D16C	16	18.000	HSK32-A	55	32
HSK32AL55D22C	22			55	40
HSK32AL65D27C	27			65	48
HSK40AL50D16C	16	18.000	HSK40-A	50	32
HSK40AL50D22C	22			50	40
HSK40AL65D27C	27			65	48
HSK50AL50D16C	16	18.000	HSK50-A	50	32
HSK50AL50D22C	22			50	40
HSK50AL65D27C	27			65	48
HSK50AL65D32C	32			65	58
HSK63AL60D16C	16	18.000	HSK63-A	60	32
HSK63AL100D16C				100	
HSK63AL160D16C				160	
HSK63AL60D22C	22			60	40
HSK63AL100D22C				100	
HSK63AL160D22C				160	
HSK63AL60D27C	27			60	48
HSK63AL100D27C				100	
HSK63AL160D27C				160	
HSK63AL60D32C	32			60	58
HSK63AL100D32C				100	
HSK63AL160D32C				160	
HSK63AL70D40C	40			70	70
HSK63AL100D40C				100	
HSK63AL160D40C				160	
HSK80AL60D16C	16	18.000	HSK100-A	60	32
HSK80AL60D22C	22			60	40
HSK80AL60D27C	27			60	48
HSK80AL60D32C	32			60	58
HSK80AL70D40C	40			70	70
HSK100AL60D16C	16	18.000	HSK100-A	60	32
HSK100AL60D22C	22			60	40
HSK100AL60D27C	27			60	48
HSK100AL60D32C	32			60	58
HSK100AL70D40C	40			70	70

DIN/69893

Porta fresas fijo
Shell end mill holders



Coolant



HSK-A / 40 / 50 / 63 / 80

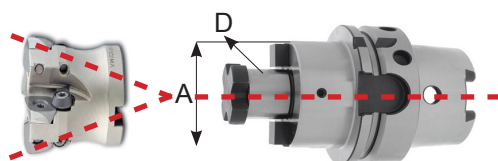
REFERENCIA	D	RPM	FORMA	L	A
HSK40AL50D22S *	22	18.000	HSK40-A	50	48
HSK40AL55D27S *	27			55	60
HSK40AL60D32S *	32			60	78
HSK50AL50D16S	16	18.000	HSK50-A	50	38
HSK50AL60D22S	22			60	48
HSK50AL60D27S	27			60	58
HSK50AL60D32S	32			60	78
HSK63AL50D16S	16	18.000	HSK63-A	50	38
HSK63AL50D22S	22			50	48
HSK63AL60D27S	27			60	58
HSK63AL60D32S	32			60	78
HSK63AL60D40S	40			60	88
HSK63AL100D16S	16	18.000	HSK63-A	100	38
HSK63AL100D22S	22			100	48
HSK63AL100D27S	27			100	60
HSK63AL100D32S	32			100	78
HSK63AL100D40S	40			100	88
HSK63AL160D16S	16	18.000	HSK63-A	160	38
HSK63AL160D22S	22			160	48
HSK63AL160D27S	27			160	58
HSK63AL160D32S	32			160	78
HSK63AL160D40S	40			160	88
HSK80AL50D22S	22	18.000	HSK80-A	50	48
HSK80AL50D27S	27			60	58
HSK80AL60D32S	32			60	78
HSK80AL60D40S	40			60	88
HSK80AL60D50S *	50			60	120
HSK80AL100D22S *	22	18.000	HSK80-A	100	48
HSK80AL100D27S *	27			100	60
HSK80AL100D32S *	32			100	78
HSK80AL100D40S *	40			100	89
HSK80AL160D22S *	22	18.0000	HSK80-A	160	48
HSK80AL160D27S *	27			160	60
HSK80AL160D32S *	32			160	89

DIN/69893

Porta fresas fijo
Shell end mill holders



Coolant



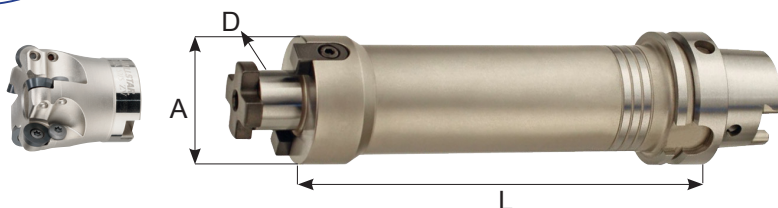
HSK-A / 100

REFERENCIA	D	RPM	FORMA	L	A
HSK100AL50D16S	16	18.000	HSK100-A	50	38
HSK100AL50D22S	22			50	48
HSK100AL50D27S	27			50	58
HSK100AL50D32S	32			50	66
HSK100AL60D40S	40			60	80
HSK100AL70D50S *	50			70	120
HSK100AL70D60S *	60			70	128
HSK100AL100D22S	22	18.000	HSK100-A	100	48
HSK100AL100D27S	27			100	58
HSK100AL100D32S	32			100	66
HSK100AL100D40S	40			100	80
HSK100AL160D16S	16	18.000	HSK100-A	160	40
HSK100AL160D22S	22			160	48
HSK100AL160D27S	27			160	60
HSK100AL160D32S	32			160	78
HSK100AL160D40S *	40			160	89
HSK100AL200D16S *	16	18.000	HSK100-A	200	38
HSK100AL200D22S *	22			200	48
HSK100AL200D27S *	27			200	60
HSK100AL200D32S *	32			200	78
HSK100AL200D40S *	40			200	89
HSK100AL250D22S *	22	18.000	HSK100-A	250	48
HSK100AL250D27S *	27			250	60
HSK100AL250D32S *	32			250	78
HSK100AL250D40S *	40			250	89
HSK100AL250D50S *	50	18.000	HSK100-A	250	120
HSK100AL250D60S *	60			250	128
HSK100AL300D22S *	22	18.000	HSK100-A	300	48
HSK100AL300D27S *	27			300	60
HSK100AL300D32S *	32			300	78
HSK100AL300D40S *	40			300	89

* FORMA (AD) - (Refrigeración central)

DIN/69893

Porta fresas fijo antivibratorio DIN/138
Antivibratory shell mill adaptors DIN/138



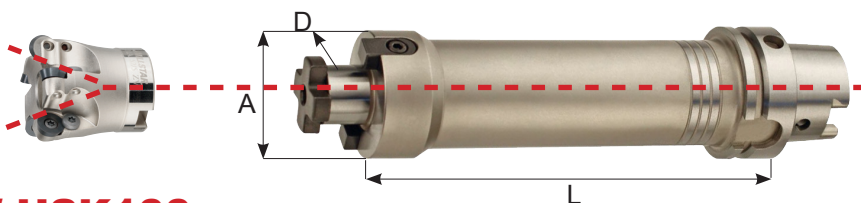
HSK63 / HSK100

ANTIVIBRATORIO

REFERENCIA	D	L	A
HSK63AL200D16AV-38	16	200	38
HSK63AL300D16AV-38	16	300	38
HSK63AL200D22AV-48	22	200	48
HSK63AL300D22AV-48	22	300	48
HSK63AL200D27AV-58	27	200	58
HSK100AL200D16AV-38	16	200	38
HSK100AL300D16AV-38	16	300	38
HSK100AL200D22AV-48	22	200	48
HSK100AL300D22AV-48	22	300	48
HSK100AL200D27AV-58	27	200	58
HSK100AL300D27AV-58	27	300	58
HSK100AL300D32AV-78	32	300	78

DIN/69893

Porta fresas fijo antivibratorio DIN/138 con refrigeración
Antivibratory shell mill adaptors DIN/138 coolant

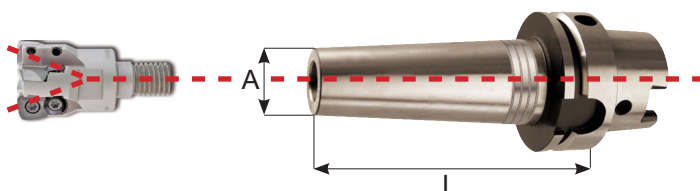


HSK63 / HSK100

ANTIVIBRATORIO

REFERENCIA	D	L	A
HSK63AL200D16AV-38R	16	200	38
HSK63AL300D16AV-38R	16	300	38
HSK63AL200D22AV-48R	22	200	48
HSK63AL300D22AV-48R	22	300	48
HSK63AL200D27AV-58R	27	200	58
HSK100AL200D16AV-38R	16	200	38
HSK100AL300D16AV-38R	16	300	38
HSK100AL200D22AV-48R	22	200	48
HSK100AL300D22AV-48R	22	300	48
HSK100AL200D27AV-58R	27	200	58
HSK100AL300D27AV-58R	27	300	58
HSK100AL300D32AV-78R	32	300	78

Porta herramientas para fresa roscada antivibratorio refrigerante
Antivibratory for frontal end mills support screwed shanks coolant



HSK63 / HSK100

ANTIVIBRATORIO

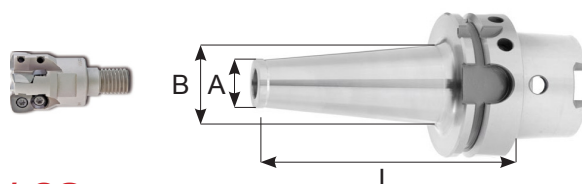
REFERENCIA	M	FORMA	L	A
HSK63AL200M10AVR	M10	AD	200	18
HSK63AL250M10AVR	M10		250	18
HSK63AL200M12AVR	M12		200	21
HSK63AL250M12AVR	M12		250	21
HSK63AL250M16AVR	M16		250	29
HSK100AL300M12AVR	M12	AD	300	21
HSK100AL300M16AVR	M16		300	29

Especial para moldistas y troquelistas, reduce las vibraciones en un 60% comparandolo con un porta standard.
Special for mould and die makers, vibration reduced up to 60% compared to any other conventional shell mill adaptor.



DIN/69893

Porta herramientas para fresa roscada
Tool holder for screwed milling cutters



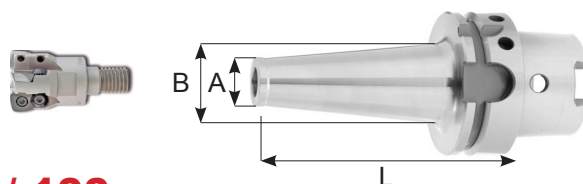
HSK-A / 50 / 63

REFERENCIA	M	RPM	FORMA	L	A	B
HSK50AL59M6CPY	M6	25.000	HSK50-A	59	9.7	13
HSK50AL84M6CPY				84		20
HSK50AL109M6CPY				109		23
HSK50AL59M8CPY	M8	25.000		59	13	15
HSK50AL84M8CPY				84		23
HSK50AL109M8CPY				109		23
HSK50AL134M8CPY	M10	25.000		134	18	25
HSK50AL59M10CPY				59		20
HSK50AL84M10CPY				84		25
HSK50AL109M10CPY				109		28
HSK50AL134M10CPY	M12	25.000		134	21	30
HSK50AL59M12CPY				59		24
HSK50AL84M12CPY				84		24
HSK50AL109M12CPY				109		31
HSK50AL134M12CPY				134		31
HSK63AL59M8CPY	M8	25.000	HSK63-A	59	13	15
HSK63AL84M8CPY				84		23
HSK63AL109M8CPY				109		23
HSK63AL134M8CPY	M10	25.000		134	18	25
HSK63AL59M10CPY			59	19.5		
HSK63AL84M10CPY			84	25		
HSK63AL109M10CPY			109	28		
HSK63AL134M10CPY			134	28		
HSK63AL159M10CPY	M12	25.000	HSK63-A	159	21	34
HSK63AL176M10CPY				176		36.5
HSK63AL59M12CPY				59		24
HSK63AL84M12CPY				84		24
HSK63AL109M12CPY				109		31
HSK63AL134M12CPY	134	31				
HSK63AL159M12CPY	M16	25.000	HSK63-A	159	29	31
HSK63AL176M12CPY				176		40
HSK63AL59M16CPY				59		34
HSK63AL84M16CPY				84		34
HSK63AL109M16CPY				109		34
HSK63AL134M16CPY	134	39				
HSK63AL159M16CPY	159	39				
HSK63AL176M16CPY			176		42.5	

HSK-A / 80 / 100 →

DIN/69893

Porta herramientas para fresa rosca
Tool holder for screwed milling cutters

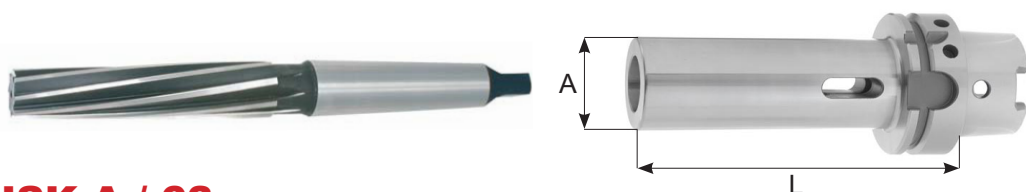


HSK-A / 80 / 100

REFERENCIA	M	RPM	FORMA	L	A	B
HSK80AL84M6CPY	M6	25.000	HSK80-A	84	9.7	20
HSK80AL109M6CPY				109		23
HSK80AL84M8CPY	M8	25.00		84	13	23
HSK80AL109M8CPY				109		23
HSK80AL134M8CPY				134		25
HSK80AL84M10CPY	M10	25.000		84	18	25
HSK80AL109M10CPY				109		28
HSK80AL134M10CPY				134		30
HSK80AL84M12CPY	M12	25.000		84	21	24
HSK80AL109M12CPY				109		31
HSK80AL134M12CPY				134		31
HSK80AL84M16CPY	M16	25.000		84	29	15
HSK80AL109M16CPY				109		23
HSK80AL134M16CPY				134		23
HSK80AL159M16CPY				159		25
HSK80AL184M16CPY				184		
HSK100AL79M8CPY	M8	25.000	HSK100-A	59	13	23
HSK100AL79M10CPY	M10			84	18	23
HSK100AL129M10CPY				109		32
HSK100AL179M10CPY				134		36.5
HSK100AL79M12CPY	M12	25.000	HSK100-A	59	21	24
HSK100AL87M12CPY				84		24
HSK100AL129M12CPY				109		33
HSK100AL137M12CPY				134		47
HSK100AL179M12CPY				159		40
HSK100AL187M12CPY			176		55	
HSK100AL79M16CPY	M16	25.000	HSK100-A	59	29	34
HSK100AL87M16CPY				84		31.5
HSK100AL129M16CPY				109		36
HSK100AL137M16CPY				134		47
HSK100AL179M16CPY				159		42.5
HSK100AL187M16CPY				176		55
HSK100AL208M16CPY			79		55	

DIN/69893

Reductor cono morse DIN/228-B
Morse taper adapters DIN/228-B



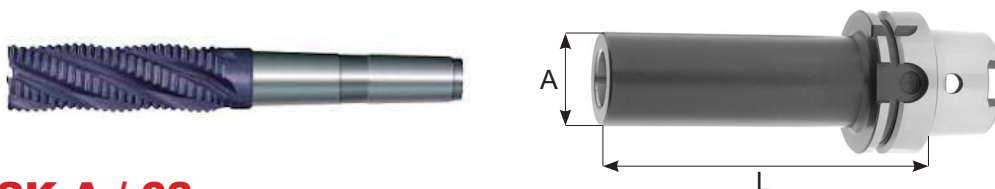
HSK-A / 63

REFERENCIA	D	FORMA	L	A
HSK63AL100CM1P	CM1	HSK63-A	100	25
HSK63AL120CM2P	CM2		120	32
HSK63AL140CM3P	CM3		140	40
HSK63AL160CM4P	CM4		160	48

HSK-A / 100

REFERENCIA	D	FORMA	L	A
HSK100AL110CM1P	CM1	HSK100-A	110	25
HSK100AL120CM2P	CM2		120	32
HSK100AL150CM3P	CM3		150	40
HSK100AL170CM4P	CM4		170	48
HSK100AL200CM5P	CM5		200	63

Reductor cono morse DIN/228-A con tornillo tirante
Reducing adaptors morse taper shank and drawbar thread DIN/228-A



HSK-A / 63

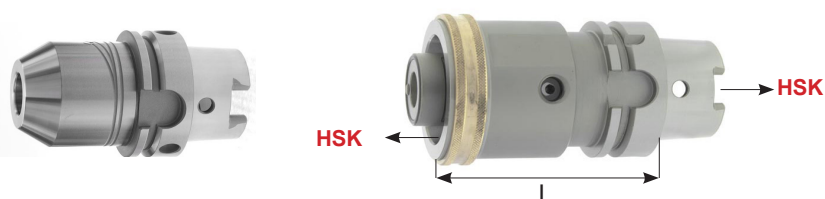
REFERENCIA	D	FORMA	L	A
HSK63AL100CM1F	CM1	HSK63-A	100	32
HSK63AL120CM2F	CM2		120	40
HSK63AL140CM3F	CM3		140	48
HSK63AL160CM4F	CM4		160	63

HSK-A / 100

REFERENCIA	D	FORMA	L	A
HSK100AL120CM2F	CM2	HSK100-A	120	32
HSK100AL150CM3F	CM3		150	40
HSK100AL170CM4F	CM4		170	48
HSK100AL200CM5F	CM5		200	63

DIN/69893

Cono reductor HSK - HSK con pistón tensor y junta
Reducers HSK-HSK with draw-in collet and covering ring

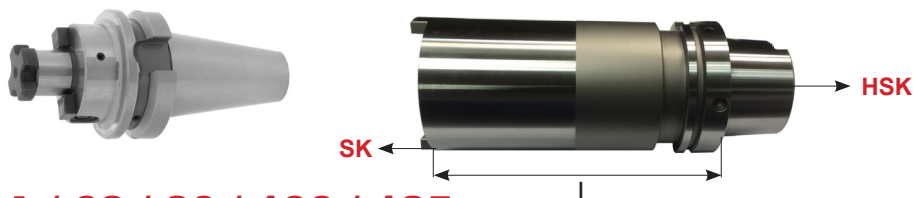


HSK-A / 40 / 50 / 63 / 80 / 100

REFERENCIA	CONO	REDUCTOR	L
HSK40AL60HSK32AP	HSK40-A	HSK32-A	60
HSK50AL50HSK32AP	HSK50-A	HSK32-A	50
HSK50AL60HSK40AP		HSK40-A	60
HSK50AL70HSK40AP		HSK40-A	70
HSK63AL55HSK25AP	HSK63-A	HSK25-A	55
HSK63AL70HSK32AP		HSK32-A	70
HSK63AL80HSK40AP		HSK40-A	80
HSK63AL80HSK50AP		HSK50-A	80
HSK80AL75HSK32AP	HSK80-A	HSK32-A	75
HSK80AL80HSK40AP		HSK40-A	80
HSK80AL80HSK50AP		HSK50-A	80
HSK80AL90HSK63AP		HSK63-A	90
HSK100AL70HSK40AP	HSK100-A	HSK40-A	70
HSK100AL80HSK50AP		HSK50-A	80
HSK100AL100HSK63AP		HSK63-A	100
HSK100AL100HSK80AP		HSK80-A	100
HSK100AL70HSK63AP		HSK63-A	70
HSK100AL200HSK50AP		HSK50-A	200
HSK100AL775HSK63AP		HSK63-A	775

DIN/69893

Cono reductor HSK - SK / BT / DIN
Reducers HSK - SK / BT / DIN



HSK-A / 63 / 80 / 100 / 125

REFERENCIA	CONO	CONO	L
HSK63AL115SK30	HSK63A	SK30/BT	115
HSK63AL117SK40		SK40/BT	117
HSK80AL155SK40	HSK80A	SK40/BT	155
HSK100AL120SK30	HSK100A	SK30/BT	120
HSK100AL150SK40		SK40/BT	150
HSK100AL205SK50		SK50/BT	205
HSK125AL125SK50	HSK125A	SK50/BT	125

DIN/69893

Prolongador HSK - HSK con Pistón tensor y junta
Tool extension HSK - HSK with draw-in collet and covering ring

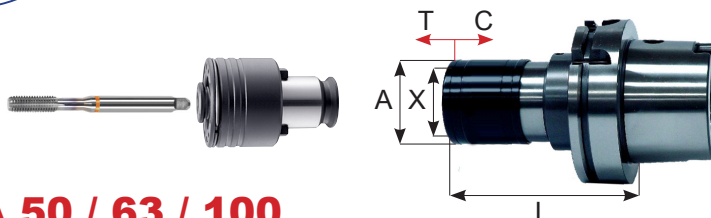


HSK-A / 32 / 40 / 50 / 63 / 80 / 100

REFERENCIA	CONO	CONO	L
HSK32AL55HSK32AC	HSK32-A	HSK32-A	55
HSK32AL70HSK32AC			70
HSK40AL60HSK40AC			60
HSK40AL80HSK40AC	HSK40-A	HSK40-A	80
HSK50AL80HSK50AC			80
HSK50AL100HSK50AC			100
HSK63AL80HSK63AC	HSK63-A	HSK63-A	80
HSK63AL90HSK63AC			90
HSK63AL100HSK63AC			100
HSK63AL120HSK63AC			120
HSK63AL160HSK63AC			160
HSK63AL200HSK63AC	HSK80-A	HSK80-A	200
HSK80AL100HSK80AC			100
HSK80AL120HSK80AC			120
HSK80AL160HSK80AC	HSK100-A	HSK100-A	160
HSK100AL115HSK100AC			115
HSK100AL140HSK100AC			140
HSK100AL160HSK100AC			160
HSK100AL200HSK100AC			200

DIN/69893

Roscador con compresión y tracción
Tension and compression tap holders



HSK-A 50 / 63 / 100

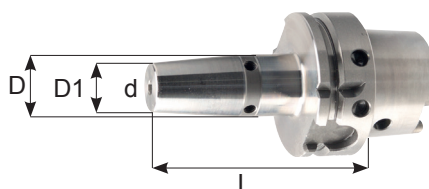
REFERENCE	CAP	X	A	L	C	T
HSK50A-THTC1-L76	M3 ÷ M18	19	36	76	7.5	7.5
HSK63A-THTC1-L81				81		
HSK100A-THTC1-L90				90		
HSK50A-THTC2-L123	M8 ÷ M30	31	53	123	12.5	12.5
HSK63A-THTC2-L119				119		
HSK100A-THTC2-L138				138		
HSK63A-THTC3-L176	M14 ÷ M48	48	78	176	20.0	20.0
HSK100A-THTC3-L190				190		
HSK100A-THTC4-L225	M22 ÷ M60	60	96	225	22.5	22.5



Porta herramientas inducción térmica
Shrink Fit holders



on request



HSK-A / 32 / 40

REFERENCIA	d	D1	D	L
HSK32AL60CL3	3	10	16	60
HSK32AL60CL4	4	10	21	60
HSK32AL60CL5	5	10	21	60
HSK32AL70CL6	6	20	25	70
HSK32AL70CL8	8	20	25	70
HSK32AL70CL10	10	24	29	70
HSK32AL80CL12	12	24	29	80
HSK32AL90CL14	14	27	34	90
HSK32AL90CL16	16	27	34	90
HSK32AL100CL20	20	33	40	100
HSK40AL60CL3	3	10	16	60
HSK40AL120CL3	3	10	20	120
HSK40AL160CL3	3	10	20	160
HSK40AL60CL4	4	10	16	60
HSK40AL120CL4	4	15	22	120
HSK40AL160CL4	4	15	22	160
HSK40AL60CL5	5	10	16	60
HSK40AL120CL5	5	15	22	120
HSK40AL160CL5	5	15	22	160
HSK40AL80CL6	6	20	27	80
HSK40AL120CL6	6	20	27	120
HSK40AL160CL6	6	20	27	160
HSK40AL80CL8	8	20	27	80
HSK40AL120CL8	8	20	27	120
HSK40AL160CL8	8	20	27	160
HSK40AL80CL10	10	24	31	80
HSK40AL120CL10	10	24	31	120
HSK40AL160CL10	10	24	31	160
HSK40AL90CL12	12	24	31	90
HSK40AL120CL12	12	24	31	120
HSK40AL160CL12	12	24	31	160
HSK40AL90CL14	14	27	34	90
HSK40AL120CL14	14	27	34	120
HSK40AL160CL14	14	27	34	160
HSK40AL90CL16	16	27	34	90
HSK40AL120CL16	16	27	34	120
HSK40AL160CL16	16	27	34	160

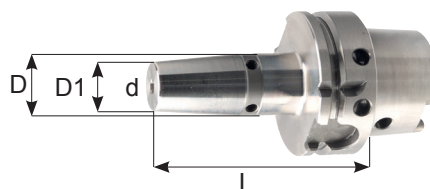
HSK-A / 50 →

DIN/69893

Porta herramientas inducción térmica
Shrink Fit holders



on request



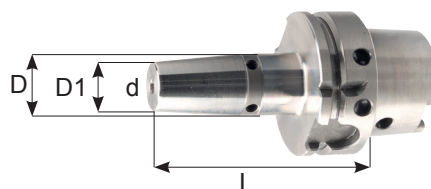
HSK-A / 50

REFERENCIA	d	D1	D	L
HSK50AL80CL3	3	10	15	80
HSK50AL120CL3	3	10	20	120
HSK50AL160CL3	3	10	20	160
HSK50AL80CL4	4	15	22	80
HSK50AL120CL4	4	15	22	120
HSK50AL160CL4	4	15	22	160
HSK50AL80CL5	5	15	22	80
HSK50AL120CL5	5	15	22	120
HSK50AL160CL5	5	15	22	160
HSK50AL80CL6	6	20	27	80
HSK50AL120CL6	6	20	27	120
HSK50AL160CL6	6	20	27	160
HSK50AL80CL8	8	20	27	80
HSK50AL120CL8	8	20	27	120
HSK50AL160CL8	8	20	27	160
HSK50AL85CL10	10	24	31	85
HSK50AL120CL10	10	24	31	120
HSK50AL160CL10	10	24	31	160
HSK50AL90CL12	12	24	31	90
HSK50AL120CL12	12	24	31	120
HSK50AL160CL12	12	24	31	160
HSK50AL90CL14	14	27	34	90
HSK50AL120CL14	14	27	34	120
HSK50AL160CL14	14	27	34	160
HSK50AL95CL16	16	27	34	95
HSK50AL120CL16	16	27	34	120
HSK50AL160CL16	16	27	34	160
HSK50AL95CL18	18	33	40	95
HSK50AL120CL18	18	33	40	120
HSK50AL160CL18	18	33	40	160
HSK50AL100CL20	20	33	40	100
HSK50AL120CL20	20	33	40	120
HSK50AL160CL20	20	33	40	160

HSK-A / 63 →

DIN/69893

Porta herramientas inducción térmica
Shrink Fit holders



HSK-A / 63

REFERENCIA	d	D1	D	L
HSK63AL80CL3	3	10	15	80
HSK63AL120CL3	3	10	20	120
HSK63AL160CL3	3	10	20	160
HSK63AL80CL4	4	15	22	80
HSK63AL120CL4	4	15	22	120
HSK63AL160CL4	4	15	22	160
HSK63AL80CL5	5	15	22	80
HSK63AL120CL5	5	15	22	120
HSK63AL160CL5	5	15	22	160
HSK63AL90CL6	6	20	27	90
HSK63AL130CL6	6	20	27	130
HSK63AL160CL6	6	20	27	160
HSK63AL90CL8	8	20	27	90
HSK63AL130CL8	8	20	27	130
HSK63AL160CL8	8	20	27	160
HSK63AL90CL10	10	24	32	90
HSK63AL130CL10	10	24	32	130
HSK63AL160CL10	10	24	32	160
HSK63AL90CL12	12	24	32	90
HSK63AL130CL12	12	24	32	130
HSK63AL160CL12	12	24	32	160
HSK63AL90CL14	14	27	34	90
HSK63AL130CL14	14	27	34	130
HSK63AL160CL14	14	27	34	160
HSK63AL90CL16	16	27	34	90
HSK63AL130CL16	16	27	34	130
HSK63AL160CL16	16	27	34	160
HSK63AL95CL18	18	33	42	95
HSK63AL130CL18	18	33	42	130
HSK63AL160CL18	18	33	42	160
HSK63AL100CL20	20	32	42	100
HSK63AL130CL20	20	32	42	130
HSK63AL160CL20	20	32	42	160
HSK63AL115CL25	25	44	53	115
HSK63AL130CL25	25	44	53	130
HSK63AL160CL25	25	44	53	160
HSK63AL120CL32	32	44	53	120
HSK63AL160CL32	32	44	53	160

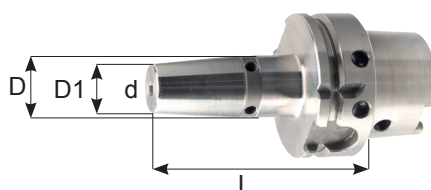
HSK-A / 80 →

DIN/69893

Porta herramientas inducción térmica
Shrink Fit holders



on request



HSK-A / 80

REFERENCIA	d	D1	D	L
HSK80AL85CL6	6	20	27	85
HSK80AL120CL6	6	20	27	120
HSK80AL160CL6	6	20	27	160
HSK80AL85CL8	8	20	27	85
HSK80AL120CL8	8	20	27	120
HSK80AL160CL8	8	20	27	160
HSK80AL90CL10	10	24	31	90
HSK80AL120CL10	10	24	31	120
HSK80AL160CL10	10	24	31	160
HSK80AL95CL12	12	24	31	95
HSK80AL120CL12	12	24	31	120
HSK80AL160CL12	12	24	31	160
HSK80AL95CL14	14	27	34	95
HSK80AL120CL14	14	27	34	120
HSK80AL160CL14	14	27	34	160
HSK80AL100CL16	16	27	34	100
HSK80AL120CL16	16	27	34	120
HSK80AL160CL16	16	27	34	160
HSK80AL100CL18	18	33	40	100
HSK80AL120CL18	18	33	40	120
HSK80AL160CL18	18	33	40	160
HSK80AL105CL20	20	33	40	105
HSK80AL120CL20	20	33	40	120
HSK80AL160CL20	20	33	40	160
HSK80AL115CL25	25	44	53	115
HSK80AL120CL25	25	44	53	120
HSK80AL160CL25	25	44	53	160
HSK80AL120CL32	32	44	53	120
HSK80AL160CL32	32	44	53	160



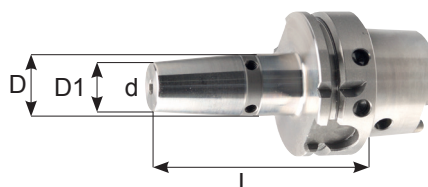
HSK-A / 100 →

DIN/69893

Porta herramientas inducción térmica
Shrink Fit holders



on request



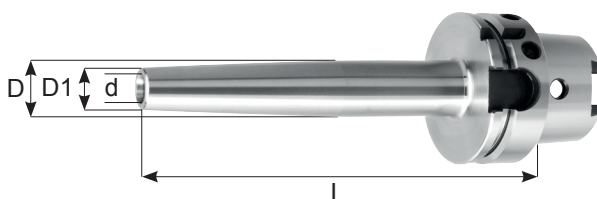
HSK-A / 100

REFERENCIA	d	D1	D	L
HSK100AL85CL6	6	20	27	85
HSK100AL120CL6	6	20	27	120
HSK100AL160CL6	6	20	27	160
HSK100AL85CL8	8	20	27	85
HSK100AL120CL8	8	20	27	120
HSK100AL160CL8	8	20	27	160
HSK100AL90CL10	10	24	31	90
HSK100AL120CL10	10	24	31	120
HSK100AL160CL10	10	24	31	160
HSK100AL95CL12	12	24	31	95
HSK100AL120CL12	12	24	31	120
HSK100AL160CL12	12	24	31	160
HSK100AL95CL14	14	27	34	95
HSK100AL120CL14	14	27	34	120
HSK100AL160CL14	14	27	34	160
HSK100AL100CL16	16	27	34	100
HSK100AL120CL16	16	27	34	120
HSK100AL160CL16	16	27	34	160
HSK100AL100CL18	18	33	40	100
HSK100AL120CL18	18	33	40	120
HSK100AL160CL18	18	33	40	160
HSK100AL105CL20	20	33	40	105
HSK100AL120CL20	20	33	40	120
HSK100AL160CL20	20	33	40	160
HSK100AL115CL25	25	44	53	115
HSK100AL120CL25	25	44	53	120
HSK100AL160CL25	25	44	53	160
HSK100AL120CL32	32	44	53	120
HSK100AL160CL32	32	44	53	160



DIN/69893

Porta herramientas inducción térmica
Shrink Fit holders



SLIM

HSK-A / 63

REFERENCIA	d	D1	D	L
HSK63AL80CL3SL	3	9	13	80
HSK63AL120CL3SL	3	9	16	120
HSK63AL80CL4SL	4	10	15	80
HSK63AL120CL4SL	4	10	20	120
HSK63AL80CL5SL	5	11	16	80
HSK63AL120CL5SL	5	11	16	120
HSK63AL90CL6SL	6	12	17	90
HSK63AL130CL6SL	6	12	19	130
HSK63AL160CL6SL	6	12	19	160
HSK63AL90CL8SL	8	14	19	90
HSK63AL130CL8SL	8	14	21	130
HSK63AL160CL8SL	8	14	21	160
HSK63AL90CL10SL	10	16	21	90
HSK63AL130CL10SL	10	16	23	130
HSK63AL160CL10SL	10	16	23	160
HSK63AL90CL12SL	12	18	23	90
HSK63AL130CL12SL	12	18	25	130
HSK63AL160CL12SL	12	18	25	160
HSK63AL90CL14SL	14	18	23	90
HSK63AL130CL14SL	14	18	25	130
HSK63AL160CL14SL	14	18	25	160
HSK63AL90CL16SL	16	24	29	90
HSK63AL130CL16SL	16	24	31	130
HSK63AL160CL16SL	16	24	31	160
HSK63AL95CL18SL	18	24	29	95
HSK63AL130CL18SL	18	24	31	130
HSK63AL160CL18SL	18	24	31	160
HSK63AL100CL20SL	20	32	39	100
HSK63AL130CL20SL	20	32	39	130
HSK63AL160CL20SL	20	32	39	160



DIN/69893

Barra mecanizable
Machinable blank Arbors



HSK-A / 25 / 32 / 40 / 50 / 63 / 80 / 100

REFERENCIA	D	FORMA	L
HSK25AL100D25BL	25	HSK25A	100
HSK32AL150D25BL	25	HSK32A	150
HSK32AL100D32BL	32		100
HSK32AL120D40BL	40		120
HSK40AL100D40BL	40	HSK40A	100
HSK40AL150D40BL	40		150
HSK40AL160D40BL	40		160
HSK50AL100D50BL	50	HSK50A	100
HSK50AL150D50BL	50		150
HSK50AL200D50BL	50		200
HSK50AL200D52BL	52		200
HSK50AL160D63BL	63		160
HSK50AL200D63BL	63	HSK63A	200
HSK63AL100D63BL	63		100
HSK63AL140D63BL	63		140
HSK63AL160D63BL	63		160
HSK63AL200D63BL	63		200
HSK63AL250D63BL	63		250
HSK63AL350D63BL	63		350
HSK63AL160D80BL	80		160
HSK63AL250D80BL	80	HSK80A	250
HSK63AL140D108BL	108		140
HSK80AL160D80BL	80	HSK100A	160
HSK80AL250D80BL	80		250
HSK100AL200D63BL	63		200
HSK100AL250D80BL	80		250
HSK100AL300D90BL	90		300
HSK100AL330D92BL	92		330
HSK100AL250D93BL	93		250
HSK100AL250D97BL	97		250
HSK100AL160D100BL	100		160
HSK100AL250D100BL	100		250
HSK100AL160D103BL	103	HSK100A	160
HSK100AL200D103BL	103		200
HSK100AL315D103BL	103		315
HSK100AL160D182BL	182		160

PROGRAMA



Coolant

Coolant



Coolant

Coolant



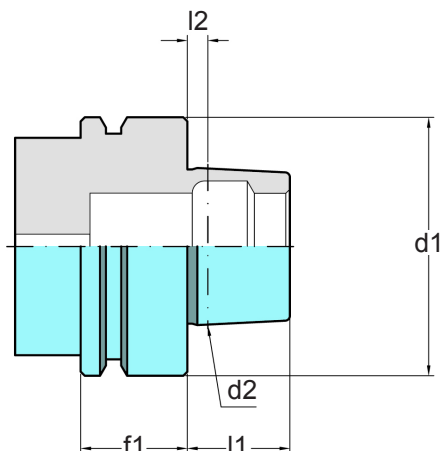
PAG. 33



PAG. 37

FORMA = E

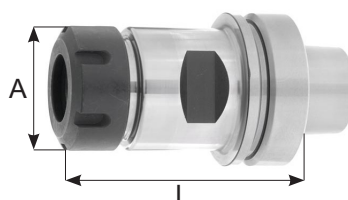
E



FORMA FORM	d1	d2	l1	l2	M	f1
HSK-E	25	19	13	2.5	M8 x 1	10
	32	24	16	3.2	M10 x 1	20
	40	30	20	4	M12 x 1	20
	50	38	25	5	M16 x 1	26
	63	40	32	6.3	M18 x 1	26



Porta pinzas ER tuerca STANDARD
Collet chucks ER STANDARD nut

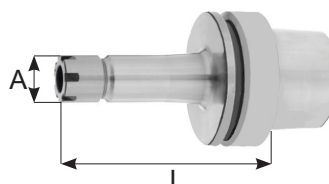


HSK-E / 32 / 40 / 50 / 63

REFERENCIA	CAP	RPM	L	A
HSK32EL60ER16	1 ÷ 10	24.000	60	32
HSK32EL80ER25	1 ÷ 20		80	42
HSK40EL60ER16	1 ÷ 10	24.000	60	32
HSK40EL70ER25	1 ÷ 20		70	42
HSK50EL100ER16	1 ÷ 10	24.000	100	32
HSK50EL70ER25	1 ÷ 20		70	42
HSK50EL73ER32DX	2 ÷ 22		73	50
HSK50EL73ER32SX	2 ÷ 22		73	50
HSK50EL75ER40DX	3 ÷ 30		75	63
HSK50EL75ER40SX	3 ÷ 30		75	63
HSK63EL73ER32DX	2 ÷ 22	24.000	73	50
HSK63EL73ER32SX	2 ÷ 22		73	50
HSK63EL78ER40DX	3 ÷ 30		78	63
HSK63EL78ER40SX	3 ÷ 30		78	63

DIN/69893

Porta pinzas ER tuerca MINI
Collet chucks ER MINI nut



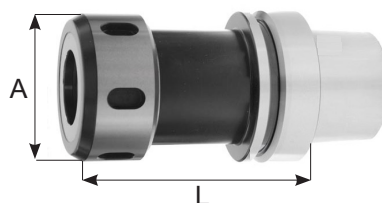
HSK-E / 25 / 32 / 40 / 50

REFERENCIA	CAP	RPM	L	A
HSK25EL55ER11M	1 ÷ 7	24.000	55	16
HSK25EL55ER16M	1 ÷ 10		55	22
HSK32EL80ER11M	1 ÷ 7		80	16
HSK32EL80ER16M	1 ÷ 10		80	22
HSK40EL80ER11M	1 ÷ 7		80	16
HSK40EL80ER16M	1 ÷ 10		80	22
HSK50EL100ER11M	1 ÷ 7		100	16

HSK20E (On request)

DIN/69893

Porta pinzas EOC DIN/6388 B
Collet chucks EOC DIN/6388 B

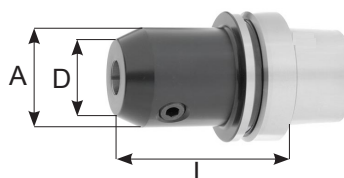
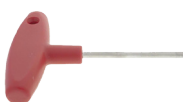


HSK-E / 63

REFERENCIA	CAP	RPM	L	A
HSK63EL80EOC25DX	2 ÷ 25	24.000	80	60
HSK63EL80EOC25SX	2 ÷ 25		80	60

DIN/69893

Porta fresas weldon DIN 1835-B
End mill holders for DIN 1835-B

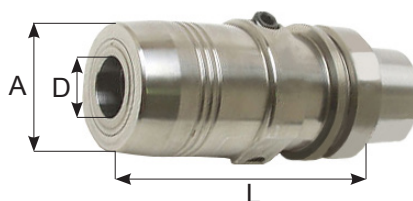


HSK-E / 32 / 40 / 50 / 63

REFERENCIA	D	RPM	FORMA	L	A
HSK32EL55WE6	6	24.000	HSK32-A	55	25
HSK32EL55WE8	8			55	28
HSK32EL60WE10	10			60	35
HSK32EL65WE12	12			65	42
HSK40EL60WE6	6	24.000	HSK40-A	60	25
HSK40EL60WE8	8			60	28
HSK40EL60WE10	10			60	35
HSK40EL70WE12	12			70	42
HSK40EL70WE14	14	24.000	HSK50-A	70	44
HSK40EL75WE16	16			75	48
HSK50EL65WE6	6			65	25
HSK50EL65WE8	8			65	28
HSK50EL65WE10	10			65	35
HSK50EL80WE12	12	24.000	HSK63-A	80	42
HSK50EL80WE14	14			80	44
HSK50EL80WE16	16			80	48
HSK63EL65WE6	6			65	25
HSK63EL65WE8	8	24.000	HSK63-A	65	28
HSK63EL65WE10	10			65	35
HSK63EL80WE12	12			80	42
HSK63EL80WE14	14			80	44
HSK63EL80WE16	16			80	48
HSK63EL80WE18	18			80	50
HSK63EL80WE20	20			80	52

DIN/69893

Porta pinzas hidraulico paso refrigerante
Sealed collets Hydraulic Collet chucks



Refrigeración
Interna
Coolant flow

HSK-E / 25 / 32

REFERENCIA	D	RPM	L	A
HSK25EL70HD6	6	30.000	70	26
HSK25EL80HD8	8		80	28
HSK25EL85HD10	10		85	30
HSK25EL90HD12	12		90	32
HSK32EL80HD6	6	30.000	80	26
HSK32EL80HD8	8		80	28
HSK32EL85HD10	10		85	30
HSK32EL90HD12	12		90	32

HSK-E / 40 / 50

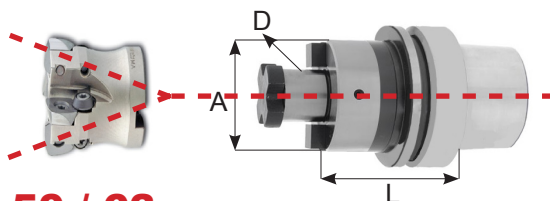
REFERENCIA	D	RPM	L	A
HSK40EL80HD6	6	30.000	80	26
HSK40EL80HD8	8		80	28
HSK40EL85HD10	10		85	30
HSK40EL90HD12	12		90	32
HSK40EL90HD14	14		90	34
HSK40EL100HD16	16		100	38
HSK40EL100HD20	20		100	42
HSK50EL80HD6	6	30.000	80	26
HSK50EL80HD8	8		80	28
HSK50EL85HD10	10		85	30
HSK50EL90HD12	12		90	32
HSK50EL90HD14	14		90	34
HSK50EL95HD16	16		95	38
HSK50EL95HD18	18		95	40
HSK50EL100HD20	20		100	42

HSK-E / 63

REFERENCIA	D	RPM	L	A
HSK63EL80HD6	6	30.000	80	26
HSK63EL80HD8	8		80	28
HSK63EL85HD10	10		85	30
HSK63EL90HD12	12		90	32
HSK63EL90HD14	14		90	34
HSK63EL95HD16	16		95	38
HSK63EL95HD18	18		95	40
HSK63EL100HD20	20		100	42
HSK63EL120HD25	25		120	50
HSK63EL125HD32	32		125	60

DIN/69893

Porta fresas fijo con canal de refrigeración
Shell end mill holders with coolant channels



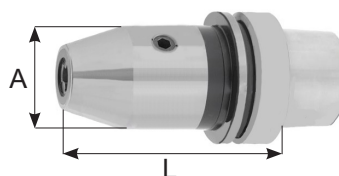
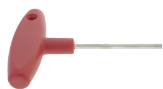
Refrigeración
Interna
Coolant flow

HSK-E / 40 / 50 / 63

REFERENCIA	D	FORMA	L	A
HSK40EL50D16S	16	HSK40-E	50	38
HSK50EL50D16S	16	HSK50-E	50	38
HSK50EL60D22S	22		60	48
HSK63EL50D16S	16	HSK63-E	50	38
HSK63EL50D22S	22		60	48

DIN/69893

Mandrino porta brocas
Drill chucks

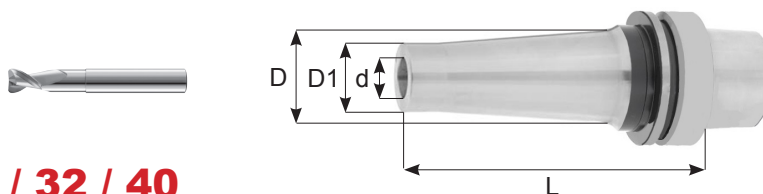


HSK-E / 25 / 32 / 40 / 50 / 63

REFERENCIA	CAP	FORMA	L	A
HSK25EL70DCK8	0.5 ÷ 8	HSK25-E	70	36
HSK32EL75DCK8	0.5 ÷ 8	HSK32-E	75	36
HSK40EL80DCK8	0.5 ÷ 8	HSK40-E	80	36
HSK40EL119DCK13	1 ÷ 13		119	50
HSK40EL124DCK16	2.5 ÷ 16		124	50
HSK50EL80DCK8	0.5 ÷ 8	HSK50-E	80	36
HSK50EL121DCK13	1 ÷ 13		121	50
HSK50EL126DCK16	2.5 ÷ 16		126	50
HSK63EL123DCK13	1 ÷ 13	HSK63-E	123	50
HSK63EL129DCK16	2.5 ÷ 16		129	50

DIN/69893

Porta herramientas inducción térmica
Shrink Fit holders



HSK-E / 32 / 40

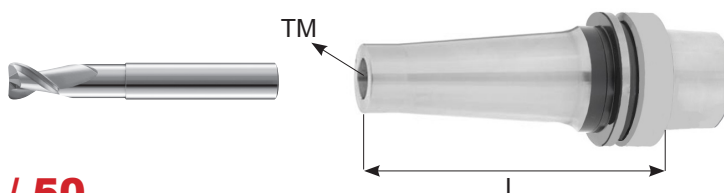
REFERENCIA	d	D1	D	L
HSK32EL60CL3	3	10	16	60
HSK32EL60CL4	4	10	16	60
HSK32EL60CL5	5	10	16	60
HSK32EL70CL6	6	20	25	70
HSK32EL70CL8	8	20	25	70
HSK32EL70CL10	10	24	29	70
HSK32EL80CL12	12	24	29	80
HSK32EL90CL14	14	27	34	90
HSK32EL90CL16	16	27	34	90
HSK32EL100CL20	20	33	40	100
HSK40EL60CL3	3	10	16	60
HSK40EL120CL3	3	10	20	120
HSK40EL160CL3	3	10	20	160
HSK40EL60CL4	4	10	16	60
HSK40EL120CL4	4	15	22	120
HSK40EL160CL4	4	15	22	160
HSK40EL60CL5	5	10	16	60
HSK40EL120CL5	5	15	22	120
HSK40EL160CL5	5	15	22	160
HSK32EL80CL6	6	20	27	80
HSK40EL120CL6	6	20	27	120
HSK40EL160CL6	6	20	27	160
HSK40EL80CL8	8	20	27	80
HSK40EL120CL8	8	20	27	120
HSK40EL160CL8	8	20	27	160
HSK40EL80CL10	10	24	31	80
HSK40EL120CL10	10	24	31	120
HSK40EL160CL10	10	24	31	160
HSK40EL90CL12	12	24	31	90
HSK40EL120CL12	12	24	31	120
HSK40EL160CL12	12	24	31	160
HSK40EL90CL14	14	27	34	90
HSK40EL120CL14	14	27	34	120
HSK40EL160CL14	14	27	34	160
HSK40EL90CL16	16	27	34	90
HSK40EL120CL16	16	27	34	120
HSK40EL160CL16	16	27	34	160

HSK20E (On request)

HSK-A / 50 →

DIN/69893

Porta herramientas inducción térmica
Shrink Fit holders

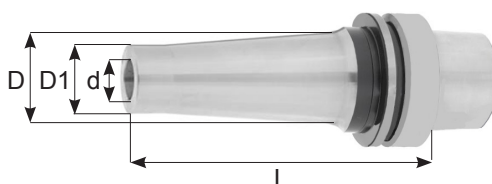


HSK-E / 50

REFERENCIA	d	D1	D	L
HSK50EL80CL3	3	10	15	80
HSK50EL120CL3	3	10	20	120
HSK50EL160CL3	3	10	20	160
HSK50EL80CL4	4	15	22	80
HSK50EL120CL4	4	15	22	120
HSK50EL160CL4	4	15	22	160
HSK50EL80CL5	5	15	22	80
HSK50EL120CL5	5	15	22	120
HSK50EL160CL5	5	15	22	160
HSK32EL80CL6	6	20	27	80
HSK50EL120CL6	6	20	27	120
HSK50EL160CL6	6	20	27	160
HSK50EL80CL8	8	20	27	80
HSK50EL120CL8	8	20	27	120
HSK50EL160CL8	8	20	27	160
HSK50EL85CL10	10	24	31	85
HSK50EL120CL10	10	24	31	120
HSK50EL160CL10	10	24	31	160
HSK50EL90CL12	12	24	31	90
HSK50EL120CL12	12	24	31	120
HSK50EL160CL12	12	24	31	160
HSK50EL90CL14	14	27	34	90
HSK50EL120CL14	14	27	34	120
HSK50EL160CL14	14	27	34	160
HSK50EL95CL16	16	27	34	95
HSK50EL120CL16	16	27	34	120
HSK50EL160CL16	16	27	34	160
HSK50EL95CL18	18	33	40	95
HSK50EL120CL18	18	33	40	120
HSK50EL160CL18	18	33	40	160
HSK50EL100CL20	20	33	40	100
HSK50EL120CL20	20	33	40	120
HSK50EL160CL20	20	33	40	160

DIN/69893

Porta herramientas inducción térmica
Shrink Fit holders



HSK-E / 63

REFERENCIA	d	D1	D	L
HSK63EL80CL3	3	10	15	80
HSK63EL120CL3	3	10	20	120
HSK63EL160CL3	3	10	20	160
HSK63EL80CL4	4	15	22	80
HSK63EL120CL4	4	15	22	120
HSK63EL160CL4	4	15	22	160
HSK63EL80CL5	5	15	22	80
HSK63EL120CL5	5	15	22	120
HSK63EL160CL5	5	15	22	160
HSK32EL80CL6	6	20	27	80
HSK63EL120CL6	6	20	27	120
HSK63EL160CL6	6	20	27	160
HSK63EL80CL8	8	20	27	80
HSK63EL120CL8	8	20	27	120
HSK63EL160CL8	8	20	27	160
HSK63EL85CL10	10	24	31	85
HSK63EL120CL10	10	24	31	120
HSK63EL160CL10	10	24	31	160
HSK63EL90CL12	12	24	31	90
HSK63EL120CL12	12	24	31	120
HSK63EL160CL12	12	24	31	160
HSK63EL90CL14	14	27	34	90
HSK63EL120CL14	14	27	34	120
HSK63EL160CL14	14	27	34	160
HSK63EL95CL16	16	27	34	95
HSK63EL120CL16	16	27	34	120
HSK63EL160CL16	16	27	34	160
HSK63EL95CL18	18	33	40	95
HSK63EL120CL18	18	33	40	120
HSK63EL160CL18	18	33	40	160
HSK63EL100CL20	20	33	40	100
HSK63EL120CL20	20	33	40	120
HSK63EL160CL20	20	33	40	160
HSK63EL115CL25	25	44	53	115
HSK63EL120CL25	25	44	53	120
HSK63EL160CL25	25	44	53	160
HSK63EL120CL32	32	44	53	120
HSK63EL160CL32	32	44	53	160

DIN/69893

Barra mecanizable
Machinable blank Arbors



HSK-E / 25 / 32 / 40 / 50 / 63

REFERENCIA	D	FORMA	L
HSK25EL105D16BL	16	HSK25-E	105
HSK25EL100D25BL	25		100
HSK25EL40D30BL	30		40
HSK25EL50D30BL	30		50
HSK25EL70D30BL	30		70
HSK25EL50D40BL	40		50
HSK25EL50D50BL	50		50
HSK25EL100D50BL	50		100
HSK25EL100D60BL	60		100
HSK32EL35D24BL	24	HSK32-E	35
HSK32EL100D32.5BL	32.5		100
HSK32EL45D60BL	60		45
HSK32EL70D65BL	65		70
HSK32EL94D65BL	65		94
HSK40EL125D40.5BL	40.5	HSK40-E	125
HSK40EL125D50BL	50		125
HSK40EL50D40BL	40		50
HSK50EL176D40BL	40	HSK50-E	176
HSK50EL125D50.5BL	50.5		125
HSK50EL100D50BL	50		100
HSK50EL160D50BL	50		160
HSK50EL160D60BL	60		160
HSK50EL135D63BL	63		135
HSK50EL72D70BL	70		72
HSK63EL125D63BL	63	HSK63-E	125
HSK63EL250D63.5BL	63.5		250

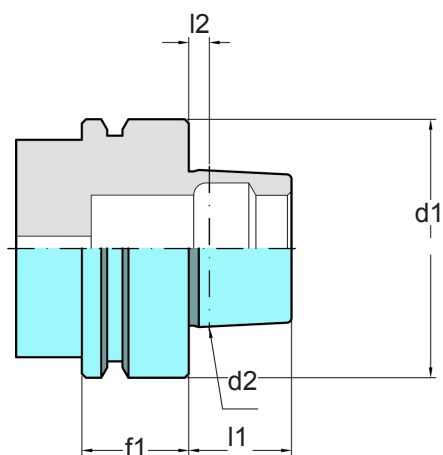


PROGRAMA

[illegible]

FORMA = F

F

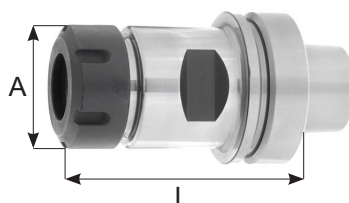


FORMA FORM	$d1$	$d2$	$l1$	$l2$	$f1$
HSK-F	40	24	16	3.2	20
	50	30	20	4	26
	63	38	25	5	26



DIN/69893

Porta pinzas ER tuerca STANDARD
Collet chucks ER STANDARD nut

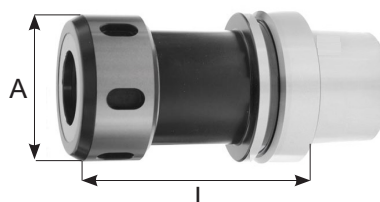


HSK-F / 50 / 63

REFERENCIA	CAP	RPM	L	A
HSK50FL73ER32DX	2 ÷ 22	15.000	73	50
HSK50FL73ER32SX			73	
HSK50FL75ER40DX	3 ÷ 30	15.000	75	63
HSK50FL75ER40SX			75	
HSK63FL73ER32DX	2 ÷ 22	15.000	73	50
HSK63FL73ER32SX			73	
HSK63FL78ER40DX	3 ÷ 30	15.000	78	63
HSK63FL78ER40SX			78	

DIN/69893

Porta pinzas EOC DIN/6388 B
Collet chucks EOC DIN/6388 B

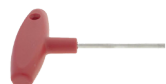


HSK-F / 50 / 63

REFERENCIA	CAP	RPM	L	A
HSK50FL80EOC25DX	2 ÷ 22	15.000	80	60
HSK50FL80EOC25SX			80	
HSK63FL78EOC25DX	2 ÷ 22	15.000	80	60
HSK63FL78EOC25SX			80	

DIN/69893

Mandrino porta brocas
Drill chuck Arbors

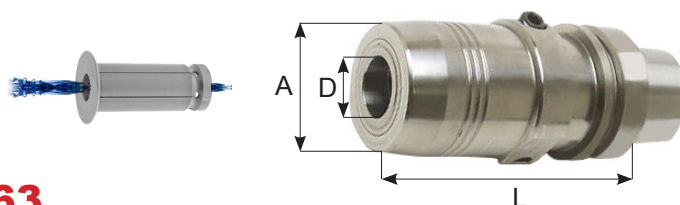


HSK-F / 63

REFERENCIA	CAP	FORMA	L	A
HSK63FL42DCK16	1 ÷ 16	HSK63-F	42	50
HSK63FL123DCK13	1 ÷ 13		123	50
HSK63FL129DCK16	2.5 ÷ 16		129	50

DIN/69893

Porta pinzas hidráulico paso refrigerante
Sealed collets Hydraulic Collet chucks



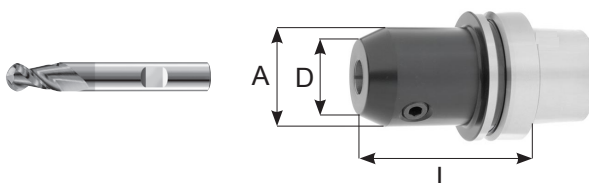
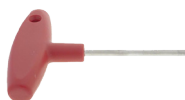
**Refrigeración
Interna
Coolant flow**

HSK-F / 63

REFERENCIA	D	FORMA	L	A
HSK63FL100HD6	6	HSK63-F	100	26
HSK63FL100HD8	8		100	28
HSK63FL100HD10	10		100	30
HSK63FL100HD12	12		100	32
HSK63FL100HD14	14		100	34
HSK63FL100HD16	16		100	38
HSK63FL100HD18	18		100	40
HSK63FL100HD20	20		100	42
HSK63FL120HD25	25		120	50
HSK63FL125HD32	32		125	60

DIN/69893

Porta fresas weldon DIN 1835-B
End mill holders for DIN 1835-B

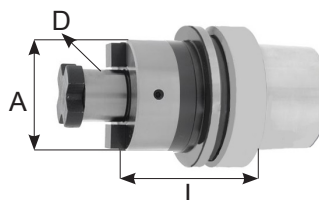


HSK-F / 63

REFERENCIA	D	FORMA	L	A
HSK63FL65WE6	6	HSK63-F	65	25
HSK63FL65WE8	8		65	28
HSK63FL65WE10	10		65	35
HSK63FL80WE12	12		80	42
HSK63FL80WE14	14		80	44
HSK63FL80WE16	16		80	48
HSK63FL80WE18	18		80	50
HSK63FL80WE20	20		80	52
HSK63FL110WE25	25		110	65
HSK63FL110WE32	32		110	72

DIN/69893

Porta fresas fijo
Shell end mill holders

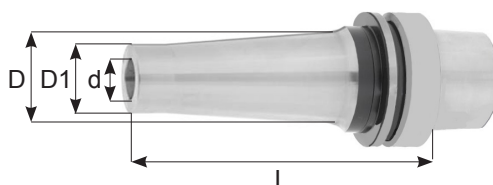


HSK-F / 63

REFERENCIA	D	FORMA	L	A
HSK63FL50D16S	16	HSK63-F	50	50
HSK63FL50D22S	22		50	50
HSK63FL60D27S	22		100	50
HSK63FL60D32S	22		160	50
HSK63FL60D40S	27		60	60

DIN/69893

Porta herramientas inducción térmica
Shrink Fit holders



HSK-F / 63

REFERENCIA	d	D1	D	L
HSK63FL76CL6	6	21	29	76
HSK63FL76CL8	8	21	29	76
HSK63FL76CL10	10	24	32	76
HSK63FL76CL12	12	24	32	76
HSK63FL76CL16	16	27	34	76
HSK63FL76CL20	20	33	42	76
HSK63FL76CL25	25	44	53	76
HSK63FL76CL32	32	44	53	76

DIN/69893

Barra mecanizable
Machinable blank Arbors



HSK-F / 63

REFERENCIA	D	FORMA	L
HSK63FL250D40BL	40	HSK63-F	250