

COOLCAP® - COOLING ARBORS

For an efficient cooling and an increased process reliability



COOLCAP® - MILLING AND MEDIA OPTIMISED COOLING ARBORS

oolcap®-arbors from POKOLM are the new optimal system for effective cooling of end mills. The fact is, with COOLCAP®-arbors, the volume flow and discharge velocity are perfectly matched to the various mill diameters and the different cooling media. Effective, direct cooling facilitates higher speeds and chips are safely removed from the cutting zone.

Additionally, the best possible lubrication action in the cutting zone also guarantees a high surface quality. That makes your milling process faster, more efficient and safer - indispensable prerequisites for optimised machining performance.



COOLCAP® EXCELLENT ATTRIBUTES AT A GLANCE

- Volume flow and discharge velocity are perfectly matched to the different mill diameters
- Various COOLCAP®, structurally designed for the various cooling media of air/MLQ or emulsion
- Ring-shaped cooling jet for ideal cooling performance and chip flushing
- The selective supply reduces the compressed air consumption while increasing effectiveness
- Longer lifetime of the milling tool
- The low mass of the cap of less than 30 g does not influence the balance quality of the arbor (G 6.3 at 18,000 / 12,000 rpm)
- When necessary, caps can be simply, quickly and cost-effectively replaced without influencing the usability of the arbors
- Through the subsequent installation of the caps, it cannot impair the shrinking process
- Sealing without sensitive gaskets or other sealing materials
- The annular gap reduces the danger of blockage due to particles
- Simple installation with the application tool
- Increased process reliability when using milling cutter bodies with indexable inserts in connection with extensions by removing the chips from the cutting area



COOLCAP® in action: uniform, ring-shaped cooling jet

COOLCAP® operating principle

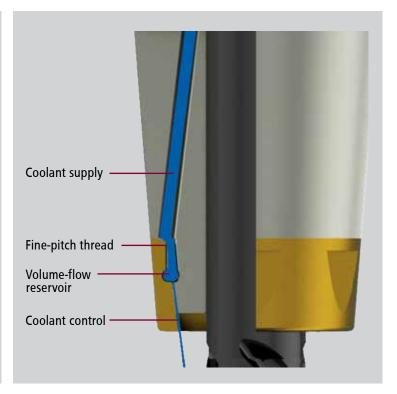
Replaceable **COOLCAP®**-caps, perfectly matched to the various cooling media, are a decisive factor for achieving excellent milling performance.



coolcap® for emulsions guarantee the highest possible plus a targeted volume flow, which effectively removes chips from the cutting zone even with large tools.



On top of that, with its extremely small discharge aperture, COOLCAP® for air-cooling reduces the use of expensive compressed air.







HSK 63 FORM A

for shrinking | CoolCap®

- Hollow taper shank arbors according to DIN69893 form A, maximum precision
- fine balanced to G 6.3 gmm at 18,000 rpm
- with internal coolant supply and bore hole for the coolant supply tube
- effective direct cooling for solid carbide end mills because of a ring-shaped
- increased process reliability when using milling cutter bodies with indexable inserts in connection with extensions by removing the chips from the cutting area





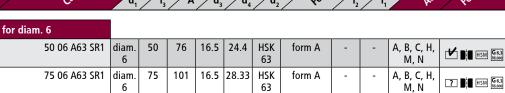
100 06 A63 SR1

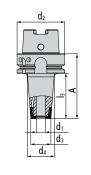
diam.

100

126

16.5 32.3





for diam. 8											
50 08 A63 SR1	diam. 8	50	76	20.5	27.4	HSK 63	form A	-	-	A, B, D, I, M, N	HSM G6.3
75 08 A63 SR1	diam. 8	75	101	20.5	32.33	HSK 63	form A	-	-	A, B, D, I, M, N	7 HSM G6.3
100 08 A63 SR1	diam. 8	100	126	20.5	36.3	HSK 63	form A	-	-	A, B, D, I, M N	HSM G6,3

HSK

63

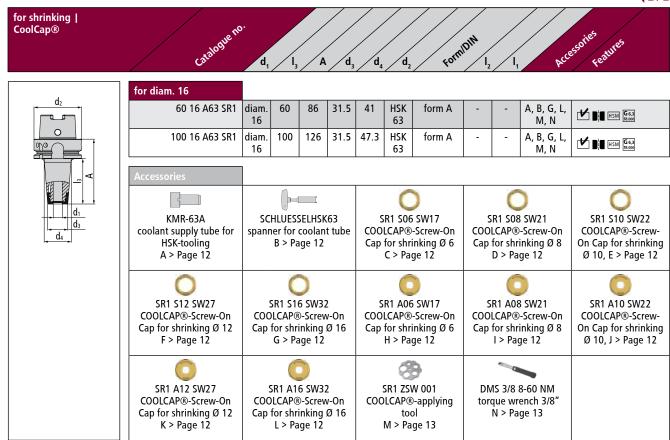
form A

A, B, C, H,

HSM G 6,3

for diam. 10											
50 10 A63 SR1	diam. 10	50	76	22.5	30.4	HSK 63	form A	-	-	A, B, E, J, M, N	■ H5M G6,3
75 10 A63 SR1	diam. 10	75	101	22.5	34.3	HSK 63	form A	-	-	A, B, E, J, M, N	7 I HSM G6,3
100 10 A63 SR1	diam. 10	100	126	22.5	38.3	HSK 63	form A	-	-	A, B, E, J, M, N	1 ■ HSM G 6,3 18,000

for diam. 12											
60 12 A63 SR1	diam. 12	60	86	26.5	36	HSK 63	form A	-	1	A, B, F, K, M, N	H5M G6,3
75 12 A63 SR1	diam. 12	75	101	26.5	38.33	HSK 63	form A	-	-	A, B, F, K, M, N	7 I HSM G6,3
100 12 A63 SR1	diam. 12	100	126	26.5	42.3	HSK 63	form A	-	-	A, B, F, K, M, N	H5M G6,3

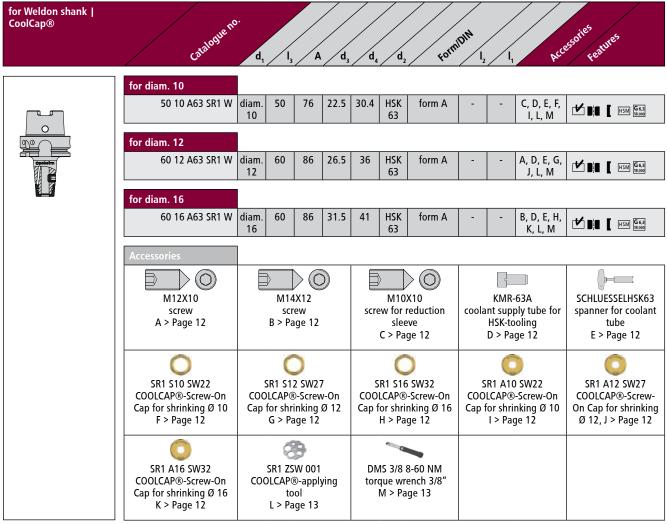




HSK 63 FORM A

for Weldon shank | CoolCap®

- Hollow taper shank arbors according to DIN69893 form A, maximum precision
- fine balanced to G 6.3 gmm at 18,000 rpm
- · with internal coolant supply and bore hole for the coolant supply tube
- effective direct cooling for solid carbide end mills because of a ring-shaped cooling jet
- increased process reliability when using milling cutter bodies with indexable inserts in connection with extensions by removing the chips from the cutting area

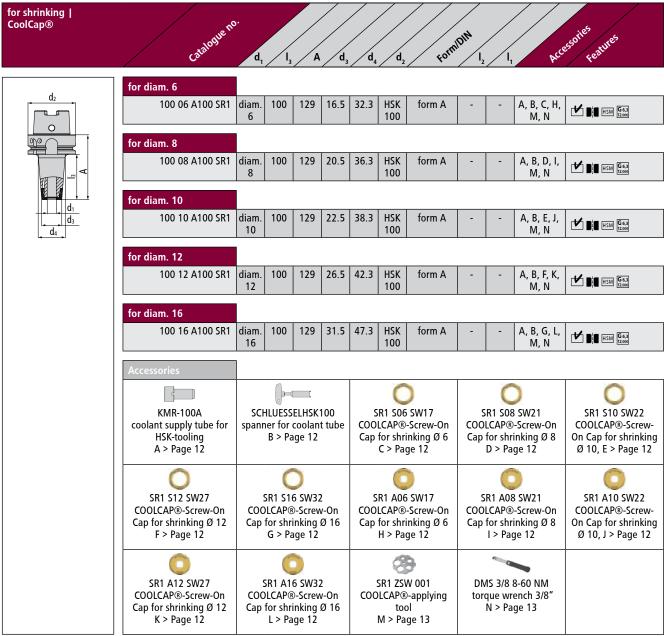


HSK 100 FORM A

for shrinking | CoolCap®

- Hollow taper shank arbors according to DIN69893 form A, maximum precision
- fine balanced to G 6.3 gmm at 12,000 rpm
- · with internal coolant supply and bore hole for the coolant supply tube
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- increased process reliability when using milling cutter bodies with indexable inserts in connection with extensions by removing the chips from the cutting area





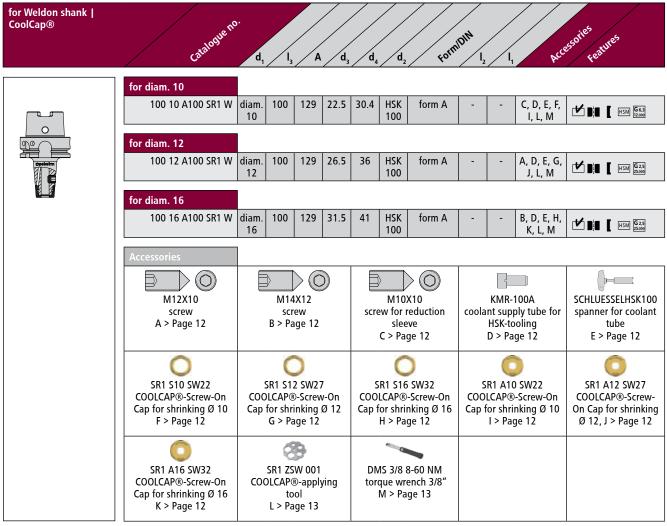




HSK 100 FORM A

for Weldon shank | CoolCap®

- Hollow taper shank arbors according to DIN69893 form A, maximum precision
- fine balanced to G 6.3 gmm at 12,000 rpm
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Important: the scope of delivery of each COOLCAP® cooling arbor includes one cap each. When ordering, please always state whether you want a cap for air/MMS or a cap for emulsion/cooling water. Additional caps can be ordered separately. Always tighten and loosen caps only with an application tool or a box wrench!

latest items!

SK 40 DIN 69871AD

for shrinking | CoolCap®

- Steep taper shanks according to DIN 69 871 AD, maximum precision
- fine balanced to G 6.3 gmm at 18,000 rpm
- with internal coolant supply and bore hole for the coolant supply tube
- effective direct cooling for solid carbide end mills because of a ring-shaped cooling jet
- increased process reliability when using milling cutter bodies with indexable inserts in connection with extensions by removing the chips from the cutting area



for shrinking CoolCap® Catalogue no. Catalogue no.	sorte illes
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	ssories features
for diam. 6	
50 06 750 SR1 diam. 50 69.1 16.5 24.4 SK 40 DIN 69871 A, B, G, L, M	HSM G6.3
100 06 750 SR1 diam. 100 119.1 16.5 32.3 SK 40 DIN 69871 A, B, G, L, M	HSM G6.3
for diam. 8	
50 08 750 SR1 diam. 50 69.1 20.5 27.4 SK 40 DIN 69871 A, C, H, AD L. M	H5M G6.3
100 08 750 SR1 diam. 100 119.1 20.5 36.3 SK 40 DIN 69871 A, C, H, AD L, M	H5M G6.3
for diam. 10	
50 10 750 SR1 diam. 50 69.1 22.5 30.4 SK 40 DIN 69871 A, D, I, 10 L, M	HSM G6.3
100 10 750 SR1 diam. 100 119.1 22.5 38.3 SK 40 DIN 69871 A, D, I, AD L, M	₩ G 6.3
for diam. 12	
60 12 750 SR1 diam. 60 79.1 26.5 36 SK 40 DIN 69871 A, E, J, L, M	HSM 6.3
100 12 750 SR1 diam. 100 119.1 26.5 42.3 SK 40 DIN 69871 A, E, J, L, M	1
Accessories	
	0
KBSK40-69872A SR1 S06 SW17 SR1 S08 SW21 SR1 S10 SW22 retention knob with COOLCAP®-Screw-On COOLCAP®-Screw-On	SR1 S12 SW27 COOLCAP®-Screw-
through hole A > Page 12 Cap for shrinking Ø 6 Cap for shrinking Ø 8 Cap for shrinking Ø 10 C > Page 12 D > Page 12	On Cap for shrinking Ø 12, E > Page 12
SR1 S16 SW32 SR1 A06 SW17 SR1 A08 SW21 SR1 A10 SW22	SR1 A12 SW27
COOLCAP®-Screw-On CoolcAP®-Screw-On Cap for shrinking Ø 16 F > Page 12 G > Page 12 G > Page 12 COOLCAP®-Screw-On CoolcAP®-Screw-On CoolcAP®-Screw-On Cap for shrinking Ø 10 H > Page 12 I > Page 12	COOLCAP®-Screw- On Cap for shrinking Ø 12, J > Page 12
SR1 A16 SW32 COOLCAP®-Screw-On Cap for shrinking Ø 16 K > Page 12 SR1 ZSW 001 COOLCAP®-applying torque wrench 3/8" M > Page 13 M > Page 13	



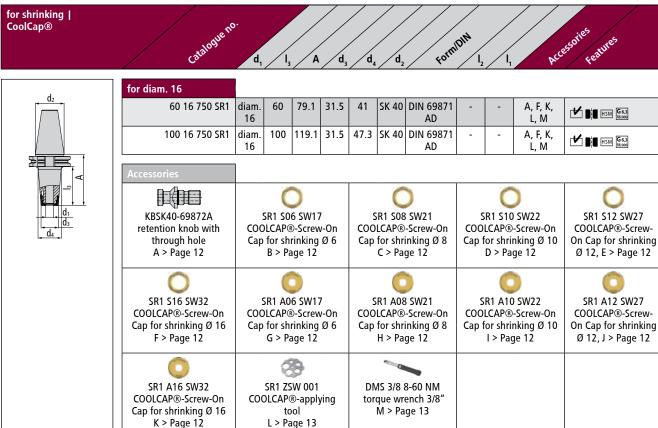


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for shrinking | CoolCap®

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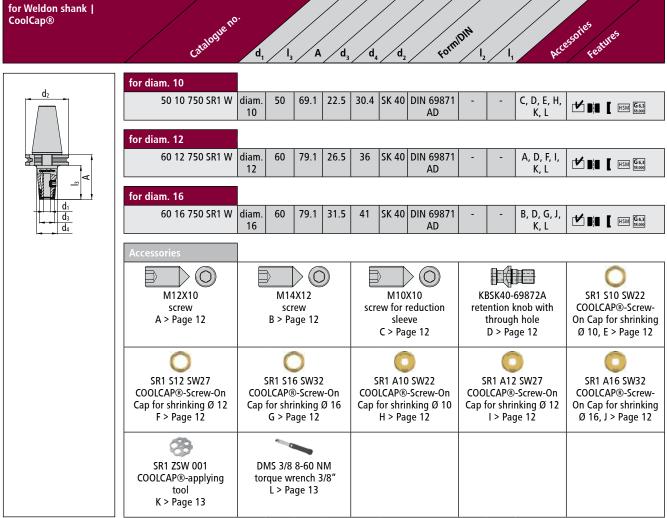


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Accessories		vo.				
	Catalogue	Description				
Additional screws and wa						
	M12X10	screw M 12 L 20	M 12	L 20		
	M14X12	screw M 12 L 20	M 12	L 20		
	M10X10	screw for reduction sleeve M 10 I 140	M 10	l 140		
accessories for HSK toolin	ıq Coolant supply tu	be for HSK tooling				
	KMR-63A	coolant supply tube for HSK-tooling for HSK 63 form A + E	for HSK 63	form A + E		
	KMR-100A	coolant supply tube for HSK-tooling for HSK 100 form A	for HSK 100	form A		
accessories for HSK toolin	g Spanners for c <u>ool</u>	ant supply tube				
	SCHLUESSELHSK63	spanner for coolant tube HSK 63	HSK 63			
	SCHLUESSELHSK100	spanner for coolant tube HSK 100	HSK 100			
Retention knobs without	seal ring groove					
	KBSK40-69872A	retention knob with through hole SK 40 DIN 69 872 A without sealing ring groove	SK 40	DIN 69 872 A	without sealing ring groove	
					groots	
CoolCap® CoolCap® fo	r water / emulsion co	pling				
	SR1 S06 SW17	COOLCAP®-Screw-On Cap for shrinking Ø 6 for water / emulsion cooling	for water / emulsion cooling			
	SR1 S08 SW21	COOLCAP®-Screw-On Cap for shrinking Ø 8 for water / emulsion cooling	for water / emulsion cooling			
\$\$15102M23	SR1 S10 SW22	COOLCAP®-Screw-On Cap for shrinking Ø 10 for water / emulsion cooling	for water / emulsion cooling			
	SR1 S12 SW27	COOLCAP®-Screw-On Cap for shrinking Ø 12 for water / emulsion cooling	for water / emulsion cooling			
бокојш	SR1 S16 SW32	COOLCAP®-Screw-On Cap for shrinking Ø 16 for water / emulsion cooling	for water / emulsion cooling			
CoolCap® CoolCap® fo	r air cooling and MQL					
	SR1 A06 SW17	COOLCAP®-Screw-On Cap for shrinking Ø 6 for air cooling and MQL	for air cooling and MQL			
OI AIO SU	SR1 A08 SW21	COOLCAP®-Screw-On Cap for shrinking Ø 8 for air cooling and MQL	for air cooling and MQL			
P. 153	SR1 A10 SW22	COOLCAP®-Screw-On Cap for shrinking Ø 10 for air cooling and MQL	for air cooling and MQL			
	SR1 A12 SW27	COOLCAP®-Screw-On Cap for shrinking Ø 12 for air cooling and MQL	for air cooling and MQL			
вокојш	SR1 A16 SW32	COOLCAP®-Screw-On Cap for shrinking Ø 16 for air cooling and MQL	for air cooling and MQL			

Accessories	Catalogue no	Description		
CoolCap® CoolCap® Ap	oplying tool			
	SR1 ZSW 001	COOLCAP®-applying tool SR1 universal key	SR1 universal key	
20				
1 200 001 1 200 001				
Case Miles				
CoolCap® CoolCap® To	rque wrench			
	DMS 3/8 8-60 NM	torque wrench 3/8" for SR1 ZSW 001	for SR1 ZSW 001	

THE COOLCAP® APPLICATION TOOL



The **COOLCAP®**- Application tool is for universal use.

One single tool is sufficient for process-reliable attaching and removing all **COOLCAP®**-caps.

That means you profit from minimum stock and the bothersome search for the right box wrench or other suitable tools is eliminated.

The various wrench widths are clearly marked - each appropriate tightening torque is indicated. That makes operating mistakes virtually impossible with the **COOLCAP®** system and guarantees long service lives for the caps.



TECHNICAL ADVICES

Important operating instructions - please comply!

- When shrink gripping and shrink releasing tools, always remove the COOLCAP® system caps
- Never seal COOLCAP® with additional sealants such as PTFE thread seal tape or anything similar
- Never use an open-end wrench, pipe wrench or adjustable screw-wrench to tighten and loosen the caps. The use of unsuitable tools voids the guaranty
- Recommended tightening torques:

Tool diameter (mm)	Wrench size (mm)	Tightening torque (Nm)
6	17	17
8	21	21
10	22	22
12	27	27
16	32	32

For long service life and process-reliable tightening and loosening of the caps, compliance with the specified tightening torques is mandatory.

NOTE ON BALANCE QUALITY:

For all arbors, the balance quality is

G 6.3 at 18,000 rpm

This value is reliably achieved, even if the **COOLCAP®** caps are repeatedly loosened and replaced.

Furthermore, exchanging the caps between caps for air cooling and caps for emulsion cooling also does not negatively influence the balance quality. That means risk of damage to the machine spindle due to changed balance qualities is generally excluded.





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