COOLCAP® - COOLING ARBORS

For an efficient cooling of solid carbide end mills

pokolm

PREMIUMTOOLS. WE KNOW HOW.

COOLCAP® - MILLING AND MEDIA OPTIMISED COOLING ARBORS FOR SOLID CARBIDE END MILLS

COOLCAP®-arbors from POKOLM are the new optimal system for effective cooling of solid carbide 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.

Machine connection

COOLCAP®-arbors are available in the configurations **HSK 63, Form A** and **SK 40, DIN 69 871 AD**

Cooling media

COOLCAP®-arbors are equipped with different caps for **air/MLQ** or for **emulsion.**

Solid carbide end mills

COOLCAP®-arbors are designed for solid carbide end mills diam. **6, 8, 10, 12** and **16 mm**

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 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

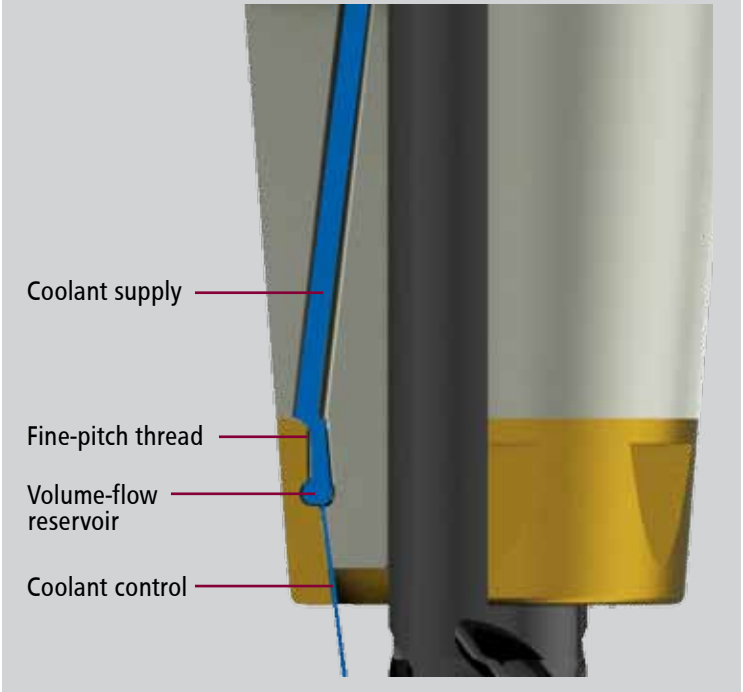
COOLCAP® in action: uniform, ring-shaped cooling jet

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.



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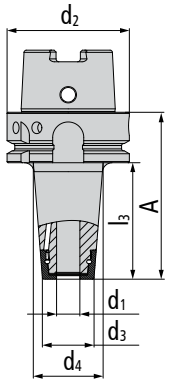
COOLCAP® COOLING ARBORS

for shrinking, HSK 63, Form A

- Hollow taper shank arbors according to DIN 69 893 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



HSK 63 diam. 6 - 16 mm	Catalogue no.	d_1	l_3	A	d_3	d_4	d_2	DIN/Form	l_2	l_1	Accessories	Features
diam. 6 mm	50 06 A63 SR1	6	50	76	16.5	24.4	HSK 63	Form A	-	-	see below	☑ ◧◨
diam. 8 mm	50 08 A63 SR1	8	50	76	20.5	28.4	HSK 63	Form A	-	-	see below	☑ ◧◨
diam. 10 mm	50 10 A63 SR1	10	50	76	22.5	30.4	HSK 63	Form A	-	-	see below	☑ ◧◨
diam. 12 mm	60 12 A63 SR1	12	60	86	26.5	36	HSK 63	Form A	-	-	see below	☑ ◧◨
diam. 16 mm	60 16 A63 SR1	16	60	86	31.5	41	HSK 63	Form A	-	-	see below	☑ ◧◨

Cap for Coolant Air / MLQ	Catalogue no.	diam. (mm)	Wrench size (mm)
	SR1 A06 SW17	06	17
	SR1 A08 SW21	08	21
	SR1 A10 SW22	10	22
	SR1 A12 SW27	12	27
	SR1 A16 SW32	16	32

Cap for Emulsion	Catalogue no.	diam. (mm)	Wrench size (mm)
	SR1 S06 SW17	06	17
	SR1 S08 SW21	08	21
	SR1 S10 SW22	10	22
	SR1 S12 SW27	12	27
	SR1 S16 SW32	16	32

Catalogue no.	Designation	Description
SR1 ZSW 001	Application tool	universal use on every cap
DMS 3/8 8-60Nm	Torque wrench	3/8", 8-60 Nm

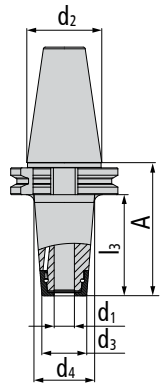
Important: the scope of delivery of each COOLCAP® cooling arbor includes one cap each. When ordering, please always state whether you want a cap for air/MMS or a cap for emulsion/cooling water. Additional caps can be ordered separately. Always tighten and loosen caps only with an application tool or a box wrench!

☑ stock item, subject to confirmation ◧◨ internal coolant supply

COOLCAP® COOLING ARBORS

for shrinking, SK 40, DIN 69 871 AD

- 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



SK 40 diam. 6 - 16 mm	Catalogue no.	d_1	l_3	A	d_3	d_4	d_2	DIN/Form	l_2	l_1	Accessories	Features
diam. 6 mm												
	50 06 750 SR1	6	50	69.1	16.5	24.4	SK40	69871AD	-	-	see below	☑ ▮▮
diam. 8 mm												
	50 08 750 SR1	8	50	69.1	20.5	28.4	SK40	69871AD	-	-	see below	☑ ▮▮
diam. 10 mm												
	50 10 750 SR1	10	50	69.1	22.5	30.4	SK40	69871AD	-	-	see below	☑ ▮▮
diam. 12 mm												
	60 12 750 SR1	12	60	79.1	26.5	36	SK40	69871AD	-	-	see below	☑ ▮▮
diam. 16 mm												
	60 16 750 SR1	16	60	79.1	31.5	41	SK40	69871AD	-	-	see below	☑ ▮▮

Cap for Coolant Air / MLQ	Catalogue no.	diam. (mm)	Wrench size (mm)
	SR1 A06 SW17	06	17
	SR1 A08 SW21	08	21
	SR1 A10 SW22	10	22
	SR1 A12 SW27	12	27
	SR1 A16 SW32	16	32

Cap for Emulsion	Catalogue no.	diam. (mm)	Wrench size (mm)
	SR1 S06 SW17	06	17
	SR1 S08 SW21	08	21
	SR1 S10 SW22	10	22
	SR1 S12 SW27	12	27
	SR1 S16 SW32	16	32

Catalogue no.	Designation	Description
SR1 ZSW 001	Application tool	universal use on every cap
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☑ stock item, subject to confirmation ▮▮ internal coolant supply

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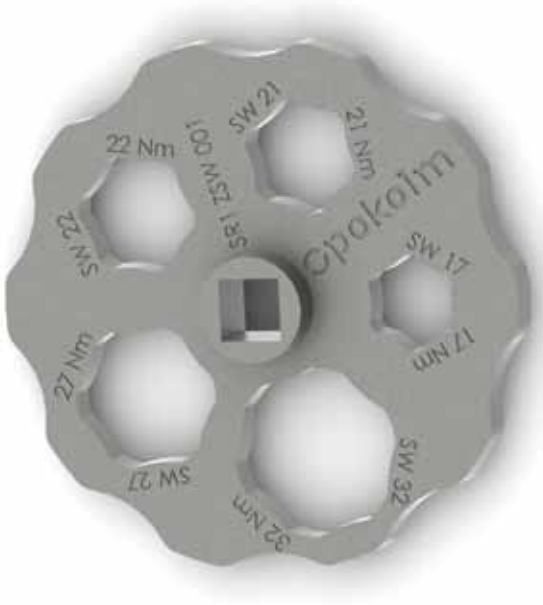
THE COOLCAP® APPLICATION TOOL



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.

The operating principle of the COOLCAP® application tool

Place the application tool (Catalogue no. SR1 ZSW 001) with the opening that fits the cap as far as possible over the cap hex. Always use the appropriate wrench width.

To fasten the cap, insert the torque wrench (3/8", Catalogue no. DMS 3/8 8-60Nm) into the centre shank of the tool and tighten the cap with the specified torque (direction of rotation: right). The tightening torque always matches the wrench opening width. That simplifies handling.

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 negatively influence the balance quality. That means risk of damage to the machine spindle due to changed balance qualities is generally excluded.

FL-267 EN 1113

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