MADE IN GERMANY

PRODUCT CATALOGUE

YOUR SPECIALIST IN FLOW DRILLING

CENTERDRILL®

NOTES

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Illustrations and Texts are Subject to Alterations and Errors.
From Page1 onwards.

Centerdrill REPLACES

The flow drilling process can replace riveting, welding, insert nuts and thread cutting in thin materials.

Welding nut
Loosening

-

Thread cutting
Not enough threads

-

Rivet nut
Turning

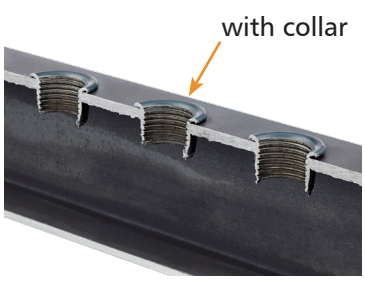
Centerdrill types and sizes

The Centerdrill flow punch formers are available in diameters from 2.7 to 25.4 mm. Under optimal conditions and depending on a material, a lifetime of up to 10.000 holes can be achieved. The standard flow punch formers are suitable for material thicknesses from 0.8 to 11.0 mm, depending on the thread size. The following materials can be processed: stainless steel, steel, aluminum, brass, and copper. After applying flow drilling, DIN threads such as e.g. metric or inch threads can be formed in the second operation. Of course, other thread types such as MF, UNC, UNF, etc. are also possible.

The Centerdrill standard versions come in four types - SHORT, LONG, SHORT-FLAT AND LONG-FLAT. They are used depending on the material thickness and desired surface. The Centerdrill short and long flow punch formers differ only in the length of the cylindrical part. When using these types, the material is displaced against the direction of feed, remaining on the surface of the workpiece and forming a collar. Both types are also available in the flat version. Thanks to these „flat" types, Centerdrill may offer you the cutters that remove the collar appearing on the surface in a just single processing step, producing a flat surface.

Centerdrill type „with collar"

Short Long



Surface with collar

Centerdrill type „flat-finishing"

Short-flat Long-flat

Plan surface

Find the right Centerdrill „Flow Drilling Tool" for your application online in our Explorer!

CENTERDRILL EXPLORER
MADE IN GERMANY

Centerdrill RESULT

With Centerdrill's flow-forming process, you can obtain a strong thread out of the processed material, with a sufficient number of threads, in just two steps.
No wobbling, loosening or turning!

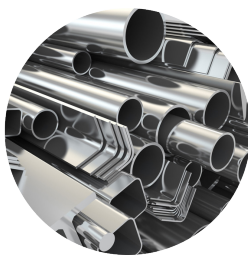
Centerdrill + Centertap = DIN-Thread in only 2 working steps

Centerdrill - processable materials

Flow drilling can be used in all thin-walled metals with a thickness of 0,8 - 11,0 mm, depending on the thread size. For example:

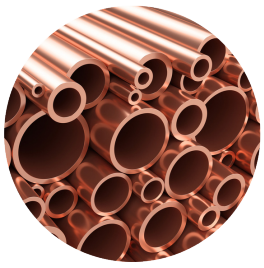
- ✓ Welding steels
- ✓ Stainless steel
- ✓ Aluminum
- ✓ Copper
- ✓ Brass
- ✓ Bronze
- ✓ Magnetic materials
- ✓ Special alloys

Varnished and organically coated materials such as tin and zinc are suited for flow punch forming /flow drilling to a limited extent. In this case, it is particularly important how thick the coating is. Please notice that thicker coats must be always removed before applying flow drilling.

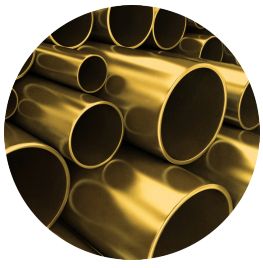


Stainless steel

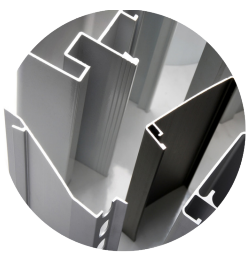
Steel



Copper



Brass

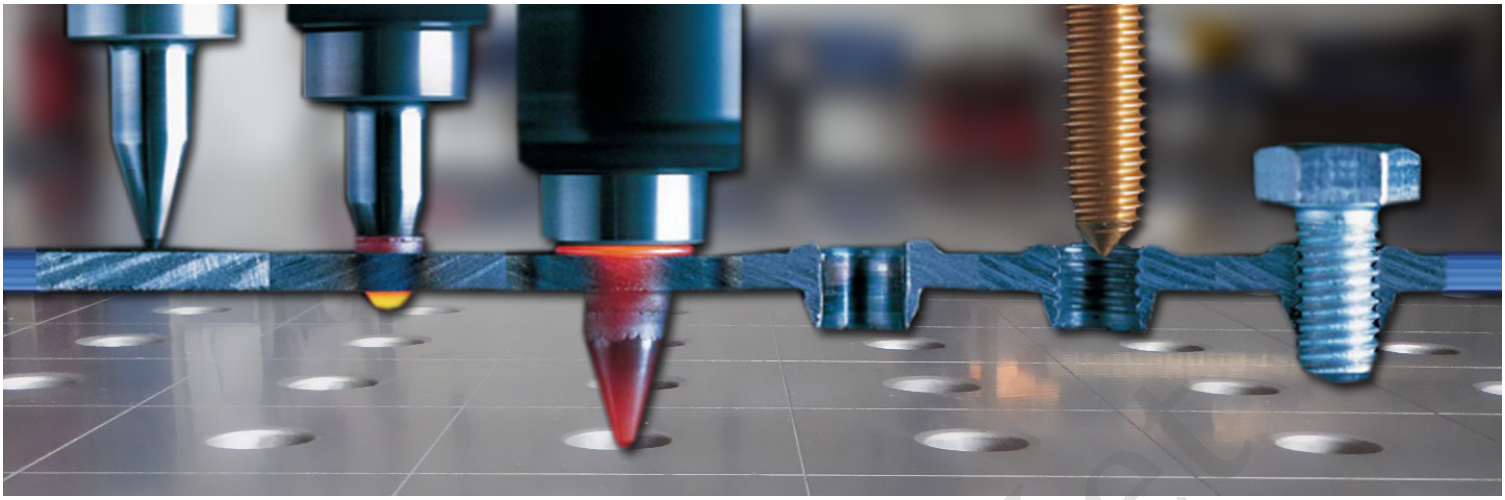


Aluminum

Check out our videos demonstrating the „Flow Drilling Process"!

CENTERDRILL VIDEOS MADE IN GERMANY

Centerdrill - Process



Centerdrill - Application examples

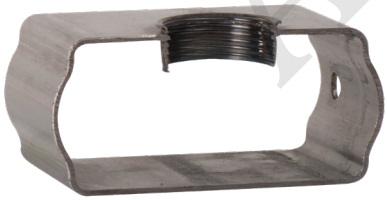
All weldable materials, whether round tubes, square profiles or sheets, can be processed.

Steel exhaust systems

Stainless steel glas holders

Steel holding clamps

Aluminum window profils



Steel radiators

Brass distributor pipes

Copper plug-in connections

And many more applications

Such as, furniture industry, loading equipment, trade fair constructions, hospital equipment, wheel chairs, shopping carts, cleaning systems, lighting systems, agriculture, seatbelt constructions and many more.

Centerdrill - Your advantages

Producing a bush with a thread in just two operations

1. Flow drilling + 2. Thread forming

Cost-effective and time-saving comparing to other technologies

- ✓ Possibility of replacing riveting, welding, insert nuts and thread cutting in thin materials
- ✓ Higher drawing forces through more threads of the same material
- ✓ Stable and wobble-free threads, no more turning or loosening
- ✓ Absolutely centric positioning possible
- ✓ High precision and reproducibility
- ✓ Automation capability
- ✓ Minimal set-up times
- ✓ Can be used on CNC machines, NC machines and column drilling machines
- ✓ Considerable time and cost reduction per hole and thread
- ✓ Low entry costs connected with introducing a new technology
- ✓ Can be used in Stainless steel, Steel, Copper, Brass and Aluminum
- ✓ Flate surface or surface with collar
- ✓ In sheet metal, square profiles, round tube profiles and many more
- ✓ Possible from 0,8 mm to 11,0 mm material thickness, depending on the thread size
- ✓ Possible from M3 to G3/4”
- ✓ Also available for UNF, UNC and fine threads
- ✓ Material and weight saving for thin profiles
- ✓ Applying the flow drilling process diagonally is possible
- ✓ The tightness of the bushes
- ✓ Increasing the hardness of the thread –

  it means less wear and tear in multiple screwed connections
- ✓ Only one base material is needed, thereby avoiding electrochemical corrosion
- ✓ High load capacity of bearing bushes

Centerdrill - Maximum wall thickness

Information in mm								
Thread / Pitch	Centerdrill core hole Ø	Max. wall thickness				Length of working part		Shank-diameter
		short	long	short-flat	long-flat	L1 short	L1 long	
Metric thread - DIN ISO 13								
M3 x 0,5	2,7	1,3	2,2	1,7	2,7	6,7	8,0	6,0
M4 x 0,7	3,7	1,3	2,3	1,7	2,7	7,0	9,0	6,0
M5 x 0,8	4,5	1,3	2,4	1,7	2,8	9,0	11,4	6,0
M6 x 1	5,4	1,3	2,7	1,7	3,0	10,5	13,8	8,0
M8 x 1,25	7,3*	1,5	3,5	2,0	4,5	14,0	18,2	8,0
M10 x 1,5	9,2*	2,0	4,3	2,5	5,2	16,9	22,5	10,0
M12 x 1,75	10,9*	2,4	4,9	2,8	5,9	20,0	26,6	12,0
M14 x 2	13,0	2,4	5,3	3,0	7,0	23,5	31,3	14,0
M16 x 2	14,8	3,0	6,4	3,5	7,5	27,0	35,4	16,0
Withworth pipe thread - DIN EN ISO 228								
G1/8" x 28	9,2*	2,0	4,3	2,5	5,2	16,9	22,5	10,0
G1/4" x 19	12,4	2,3	5,5	3,0	6,5	22,8	30,0	14,0
G3/8" x 19	15,9	3,3	6,9	3,5	8,0	30,3	37,5	16,0
G1/2" x 14	19,9	4,0	8,5	4,5	9,0	36,6	47,0	18,0
G3/4" x 14	25,4	4,5	10,6	5,0	11,0	46,6	59,6	20,0

Please note:
*Processing of stainless steel: Centerdrill core hole diameter +0.1 mm from M8 to M12, as well as G1/8". Example for M8: instead of 7.3mm we recommend a core hole of 7.4mm for the Centerdrill tool.

Customized Centerdrills:
Longer Centerdrills for thicker materials or shorter Centerdrills for low profiles are available on request. Also, Centerdrills for other thread types (such as MF, UNC, UNF, etc.) can be customized for your specific application.

Short introduction

Machines and tools
The precondition for a professional flow drilling process is working with a suitable machine that provides the required RPM and kW-power. This can be either a column drilling machine, a CNC machining center, or a milling machine. The required spindle RPM and kW powers can be found online and as well as in the catalogue. If the RPM is too low, the tool may overheat and decrease the quality of the flow-forming hole. However, if the kW power is too low, your machine may stop working and there is a possibility that the Centerdrill tool may crack.

Basic equipment
The Centerdrill should be first fixed in a collet, and then, in a collet chuck with an aluminum cooling ring, as this is the only way to ensure the concentricity, a proper hold of the Centerdrill flow punch former, and to prevent it from overheating of the machine spindle. It should be noted that the Centerdrill tool is always fully clamped with the entire shaft in the collet and the union nut is tightened with a hook wrench. However, it is recommended to retighten it regularly. To reduce the build-up of the metal on the outside of the Centerdrill, our white Centerdrill parting paste should be applied thinly on the Centerdrill flow punch former. During the thread forming process, it is essential to apply a good lubricant to the thread former. We also offer all the required products, combined in our Centerdrill Beginner Set. You can find them in the catalogue on pages 56-59.

Machine settings
It must be ensured that at the very beginning of the flow drilling process, the Centerdrill tool is smoothly placed on the workpiece surface and penetrates the metal at a feed rate of approx. 50-150 mm/min, provided that the RPM is set correctly. With this feed rate, the Centerdrill tool will move down with approx. 2.5 mm per second. The depth-stop of the machine regarding the workpiece surface depends on the fact whether the collar should be preserved or removed. If you require the collar on the surface, the flow drilling process ends at about 0.5 - 3.0 mm above the workpiece surface. It depends on the thickness of the material and the size of the core hole diameter. When the collar on the surface is to be removed, the cutting edges of the Centerdrill tool must be flush with the workpiece surface. In this case, the feed rate should be also min. 900 mm/min. In this way, the cutters of the Centerdrill are spared. The workpiece to be machined must be firmly clamped so that it does not move horizontally or vertically. Otherwise, the Centerdrill tool may crack. The workpiece should never be held by hand.

Flow drilling process
Once the Centerdrill tool and your workpiece are firmly clamped, the machine starts working at the appropriate rotational speed and thus, the machine achieves the required kW power. Then, the tip of the Centerdrill tool can be placed smoothly on the workpiece surface and the corresponding axial pressure must be applied, whereby the material is heated and melted until it becomes red-hot. The Centerdrill tool can now quickly penetrate the material and form the bush downwards and the collar upwards. The Centerdrill tool should be moved out quickly once reaching the corresponding depth-stop. If the Centerdrill tool turns too long on the spot, the material overheats. On average, the flow-forming process takes only a few seconds. If the collar is to be removed to obtain a flat surface, the feed rate must be increased significantly at the end of the process. The removed chips may fly off randomly. Therefore, suitable protective clothing should be worn or a protective shield must be installed at the machine. The hot workpiece should be allowed to cool down at the end of the flow drilling process, or it may only be handled with appropriate tools or gloves. Afterwards, we recommend to form the thread and not to cut it. Our Centerdrill standard core hole diameters are also intended for thread forming only. As a result, you can obtain a stable, turning-free and wobble-free connection from your own material in just two operations.

Parting paste
It is recommended to apply our white parting paste to the Centerdrill flow punch former in order to avoid the build-up of metals on the Centerdrill tool (depending on a material and material thickness, every 1-5 holes). The application of the parting paste can be done manually, for example with a brush. It is important that the parting paste is applied from the beginning and from the top to the bottom of the band of the Centerdrill. A thin film is sufficient. However, too much white paste reduces the required heat of the process and has a negative effect on the quality of the formed bush and collar. The release agent is water-soluble and oil-free, so it is also optimally suitable for components to be coated subsequently where no residues may remain on the surface. Read more on page 60.

Lubricants
During thread forming, our lubricants should always be applied, i.e. in every threading process, otherwise the lifetime of the thread former may be significantly reduced because of the high friction and the high torque. Likewise, we also offer easily washable oils, and oils for spraying in the catalogue, page 61.

Centerdrill 2.7 short

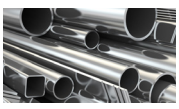
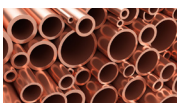
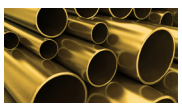
Order no.:	**3600270**
Product discription:	2.7 short
Thread type:	DIN ISO 13 / DIN 371
Thread size:	M3x0,5
Centerdrill core hole:	2,7mm
Working part L1:	6,7mm
Shank-ø:	6,0mm h6
Surface workpiece:	with collar
Max. Material thickness:	**1,3mm**
Suitable for materials:	Steel, Stainless steel, Brass, Aluminum, Copper

Centerdrill 2.7 long

Order no.:	**3500270**
Product discription:	2.7 long
Thread type:	DIN ISO 13 / DIN 371
Thread size:	M3x0,5
Centerdrill core hole:	2,7mm
Working part L1:	8,0mm
Shank-ø:	6,0mm h6
Surface workpiece:	with collar
Max. Material thickness:	**2,2mm**
Suitable for materials:	Steel, Stainless steel, Brass, Aluminum, Copper

www.centerdrill.de

Reference values for M3 in 1-2mm material thickness

Material / Process data	 Stainless steel	 Steel	 Copper	 Brass	 Aluminum
RPM Centerdrill	2600	3000	4500	4500	4500
RPM Centertap	370-430	1300-1500	1900-2100	1900-2100	1900-2100
kW-Power +	0,9	0,7	0,7	0,7	0,7
Feed rate (mm/min) +	50-150	50-150	50-150	50-150	50-150

- These are recommended values and they may vary significantly, depending on the type of material, material thickness, lubrication, etc. For thread forming, we recommend our cutting oil. If you use an emulsion, it should contain at least 8-10% grease.
- CNC-data can be provided on request.

Centerdrill 2.7 short-flat

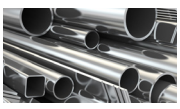
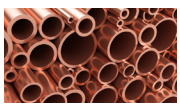
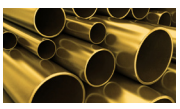
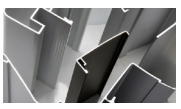
Order no.:	**3650270**
Product discription:	2.7 short-flat
Thread type:	DIN ISO 13 / DIN 371
Thread size:	M3x0,5
Centerdrill core hole:	2,7mm
Working part L1:	6,7mm
Shank-ø:	6,0mm h6
Surface workpiece:	flat / plan, without collar
Max. Material thickness:	**1,7mm**
Suitable for materials:	Steel, Stainless steel, Brass, Aluminum, Copper

Centerdrill 2.7 long-flat

Order no.:	**3550270**
Product discription:	2.7 long-flat
Thread type:	DIN ISO 13 / DIN 371
Thread size:	M3x0,5
Centerdrill core hole:	2,7mm
Working part L1:	8,0mm
Shank-ø:	6,0mm h6
Surface workpiece:	flat / plan, without collar
Max. Material thickness:	**2,7mm**
Suitable for materials:	Steel, Stainless steel, Brass, Aluminum, Copper

www.centerdrill-shop.de

Reference values for M3 in 1-2mm material thickness

Material / Process data	 Stainless steel	 Steel	 Copper	 Brass	 Aluminum
RPM Centerdrill	2600	3000	4500	4500	4500
RPM Centertap	370-430	1300-1500	1900-2100	1900-2100	1900-2100
kW-Power +	0,9	0,7	0,7	0,7	0,7
Feed rate (mm/min)* +	50-150	50-150	50-150	50-150	50-150

- *While removing the collar, the feed rate should be increased at the end of the process, approx. 900 mm/min.
- These are recommended values and they may vary significantly, depending on the type of material, material thickness, lubrication, etc. For thread forming, we recommend our cutting oil. If you use an emulsion, it should contain at least 8-10% grease.
- CNC-data can be provided on request.

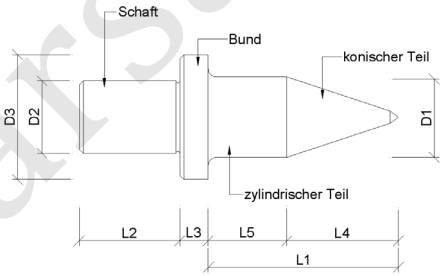
M4 - 3.7 Surface with collar

Centerdrill 3.7 short

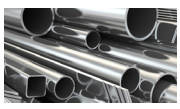
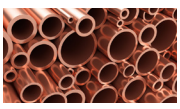
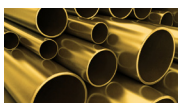
Order no.:	**3600370**
Product discription:	3.7 short
Thread type:	DIN ISO 13 / DIN 371
Thread size:	M4x0,7
Centerdrill core hole:	3,7mm
Working part L1:	7,0mm
Shank-ø:	6,0mm h6
Surface workpiece:	with collar
Max. Material thickness:	**1,3mm**
Suitable for materials:	Steel, Stainless steel, Brass, Aluminum, Copper

Centerdrill 3.7 long

Order no.:	**3500370**
Product discription:	3.7 long
Thread type:	DIN ISO 13 / DIN 371
Thread size:	M4x0,7
Centerdrill core hole:	3,7mm
Working part L1:	9,0mm
Shank-ø:	6,0mm h6
Surface workpiece:	with collar
Max. Material thickness:	**2,3mm**
Suitable for materials:	Steel, Stainless steel, Brass, Aluminum, Copper



Reference values for M4 in 1-2mm Material thickness

Material / Process data	 Stainless steel	 Steel	 Copper	 Brass	 Aluminum
RPM Centerdrill	2200	2600	3900	3900	3900
RPM Centertap	260-320	950-1100	1400-1600	1400-1600	1400-1600
kW-Power +	1,0	0,8	0,8	0,8	0,8
Feed rate (mm/min) +	50-150	50-150	50-150	50-150	50-150

- These are recommended values and they may vary significantly, depending on the type of material, material thickness, lubrication, etc. For thread forming, we recommend our cutting oil. If you use an emulsion, it should contain at least 8-10% grease.
- CNC-data can be provided on request.

Centerdrill 3.7 short-flat

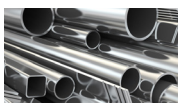
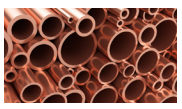
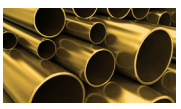
Order no.:	**3650370**
Product discription:	3.7 short-flat
Thread type:	DIN ISO 13 / DIN 371
Thread size:	M4x0,7
Centerdrill core hole:	3,7mm
Working part L1:	7,0mm
Shank-ø:	6,0mm h6
Surface workpiece:	flat / plan, without collar
Max. Material thickness:	**1,7mm**
Suitable for materials:	Steel, Stainless steel, Brass, Aluminum, Copper

Centerdrill 3.7 long-flat

Order no.:	**3550370**
Product discription:	3.7 long-flat
Thread type:	DIN ISO 13 / DIN 371
Thread size:	M4x0,7
Centerdrill core hole:	3,7mm
Working part L1:	9,0mm
Shank-ø:	6,0mm h6
Surface workpiece:	flat / plan, without collar
Max. Material thickness:	**2,7mm**
Suitable for materials:	Steel, Stainless steel, Brass, Aluminum, Copper

Order hotline
+49 (0) 6198 / 58 58 97

Reference values for M4 in 1-2mm Material thickness

Material / Process data	 Stainless steel	 Steel	 Copper	 Brass	 Aluminum
RPM Centerdrill 	2200	2600	3900	3900	3900
RPM Centertap 	260-320	950-1100	1400-1600	1400-1600	1400-1600
kW-Power  + 	1,0	0,8	0,8	0,8	0,8
Feed rate (mm/min)*  + 	50-150	50-150	50-150	50-150	50-150

- *While removing the collar, the feed rate should be increased at the end of the process, approx. 900 mm/min.
- These are recommended values and they may vary significantly, depending on the type of material, material thickness, lubrication, etc. For thread forming, we recommend our cutting oil. If you use an emulsion, it should contain at least 8-10% grease.
- CNC-data can be provided on request.

Centerdrill 4.5 short

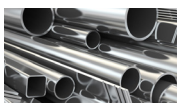
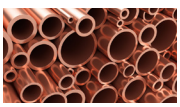
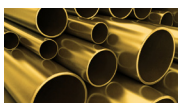
Order no.:	**3600450**
Product discription:	4.5 short
Thread type:	DIN ISO 13 / DIN 371
Thread size:	M5x0,8
Centerdrill core hole:	4.5mm
Working part L1:	9,0mm
Shank-ø:	6,0mm h6
Surface workpiece:	with collar
Max. Material thickness:	**1,3mm**
Suitable for materials:	Steel, Stainless steel, Brass, Aluminum, Copper

Centerdrill 4.5 long

Order no.:	**3500450**
Product discription:	4.5 long
Thread type:	DIN ISO 13 / DIN 371
Thread size:	M5x0,8
Centerdrill core hole:	4.5mm
Working part L1:	11,4mm
Shank-ø:	6,0mm h6
Surface workpiece:	with collar
Max. Material thickness:	**2,4mm**
Suitable for materials:	Steel, Stainless steel, Brass, Aluminum, Copper

Made in Germany

Reference values for M5 in 1-2mm Material thickness

Material / Process data	 Stainless steel	 Steel	 Copper	 Brass	 Aluminum
RPM Centerdrill	2100	2500	3800	3800	3800
RPM Centertap	200-250	750-900	1100-1300	1100-1300	1100-1300
kW-Power +	1,2	0,9	0,9	0,9	0,9
Feed rate (mm/min) +	50-150	50-150	50-150	50-150	50-150

- These are recommended values and they may vary significantly, depending on the type of material, material thickness, lubrication, etc. For thread forming, we recommend our cutting oil. If you use an emulsion, it should contain at least 8-10% grease.
- CNC-data can be provided on request.

M5 - 4.5 Surface without collar

Centerdrill 4.5 short-flat

Order no.:	**3650450**
Product discription:	4.5 short-flat
Thread type:	DIN ISO 13 / DIN 371
Thread size:	M5x0,8
Centerdrill core hole:	4.5mm
Working part L1:	9,0mm
Shank-ø:	6,0mm h6
Surface workpiece:	flat / plan, without collar
Max. Material thickness:	**1,7mm**
Suitable for materials:	Steel, Stainless steel, Brass, Aluminum, Copper

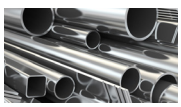
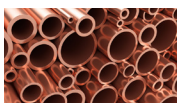
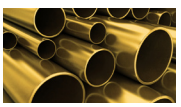
Centerdrill 4.5 long-flat

Order no.:	**3550450**
Product discription:	4.5 long-flat
Thread type:	DIN ISO 13 / DIN 371
Thread size:	M5x0,8
Centerdrill core hole:	4.5mm
Working part L1:	11,4mm
Shank-ø:	6,0mm h6
Surface workpiece:	flat / plan, without collar
Max. Material thickness:	**2,8mm**
Suitable for materials:	Steel, Stainless steel, Brass, Aluminum, Copper

M5 Centertap on page 48

Parting paste on page 60

Reference values for M5 in 1-2mm Material thickness

Material / Process data	 Stainless steel	 Steel	 Copper	 Brass	 Aluminum
RPM Centerdrill	2100	2500	3800	3800	3800
RPM Centertap	200-250	750-900	1100-1300	1100-1300	1100-1300
kW-Power +	1,2	0,9	0,9	0,9	0,9
Feed rate (mm/min)* +	50-150	50-150	50-150	50-150	50-150

- *While removing the collar, the feed rate should be increased at the end of the process, approx. 900 mm/min.
- These are recommended values and they may vary significantly, depending on the type of material, material thickness, lubrication, etc. For thread forming, we recommend our cutting oil. If you use an emulsion, it should contain at least 8-10% grease.
- CNC-data can be provided on request.

Centerdrill 5.4 short

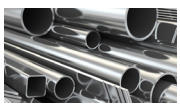
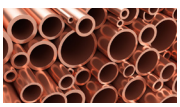
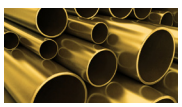
Order no.:	**3600540**
Product discription:	5.4 short
Thread type:	DIN ISO 13 / DIN 371
Thread size:	M6x1,0
Centerdrill core hole:	5,4mm
Working part L1:	10,5mm
Shank-ø:	8,0mm h6
Surface workpiece:	with collar
Max. Material thickness:	**1,3mm**
Suitable for materials:	Steel, Stainless steel, Brass, Aluminum, Copper

Centerdrill 5.4 long

Order no.:	**3500540**
Product discription:	5.4 long
Thread type:	DIN ISO 13 / DIN 371
Thread size:	M6x1,0
Centerdrill core hole:	5,4mm
Working part L1:	13,8mm
Shank-ø:	8,0mm h6
Surface workpiece:	with collar
Max. Material thickness:	**2,7mm**
Suitable for materials:	Steel, Stainless steel, Brass, Aluminum, Copper

Direct from the manufacturer

Reference values for M6 in 1-2mm Material thickness

Process data \ Material	 Stainless steel	 Steel	 Copper	 Brass	 Aluminum
RPM Centerdrill	2000	2400	3600	3600	3600
RPM Centertap	180-220	650-800	900-1100	900-1100	900-1100
kW-Power +	1,4	1,1	1,1	1,1	1,1
Feed rate (mm/min) +	50-150	50-150	50-150	50-150	50-150

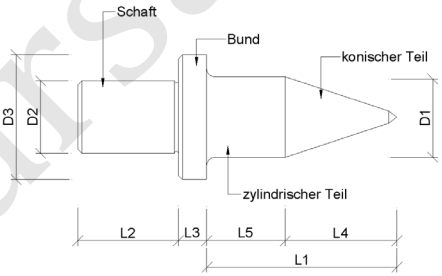
- These are recommended values and they may vary significantly, depending on the type of material, material thickness, lubrication, etc. For thread forming, we recommend our cutting oil. If you use an emulsion, it should contain at least 8-10% grease.
- CNC-data can be provided on request.

Centerdrill 5.4 short-flat

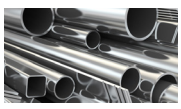
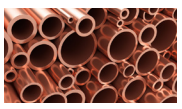
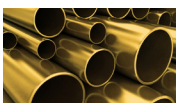
Order no.:	**3650540**
Product discription:	5.4 short-flat
Thread type:	DIN ISO 13 / DIN 371
Thread size:	M6x1,0
Centerdrill core hole:	5,4mm
Working part L1:	10,5mm
Shank-ø:	8,0mm h6
Surface workpiece:	flat / plan, without collar
Max. Material thickness:	**1,7mm**
Suitable for materials:	Steel, Stainless steel, Brass, Aluminum, Copper

Centerdrill 5.4 long-flat

Order no.:	**3550540**
Product discription:	5.4 long-flat
Thread type:	DIN ISO 13 / DIN 371
Thread size:	M6x1,0
Centerdrill core hole:	5,4mm
Working part L1:	13,8mm
Shank-ø:	8,0mm h6
Surface workpiece:	flat / plan, without collar
Max. Material thickness:	**3,0mm**
Suitable for materials:	Steel, Stainless steel, Brass, Aluminum, Copper



Reference values for M6 in 1-2mm Material thickness

Material / Process data	 Stainless steel	 Steel	 Copper	 Brass	 Aluminum
RPM Centerdrill	2000	2400	3600	3600	3600
RPM Centertap	180-220	650-800	900-1100	900-1100	900-1100
kW-Power +	1,4	1,1	1,1	1,1	1,1
Feed rate (mm/min)* +	50-150	50-150	50-150	50-150	50-150

- *While removing the collar, the feed rate should be increased at the end of the process, approx. 900 mm/min.
- These are recommended values and they may vary significantly, depending on the type of material, material thickness, lubrication, etc. For thread forming, we recommend our cutting oil. If you use an emulsion, it should contain at least 8-10% grease.
- CNC-data can be provided on request.

Centerdrill 7.3 short

Order no.:	**3600730**
Product discription:	7.3 short
Thread type:	DIN ISO 13 / DIN 371
Thread size:	M8x1,25
Centerdrill core hole:	7,3mm
Working part L1:	14,0mm
Shank-ø:	8,0mm h6
Surface workpiece:	with collar
Max. Material thickness:	**1,5mm**
Suitable for materials:	Steel, Brass, Aluminum, Copper

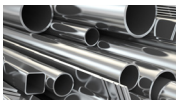
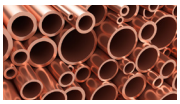
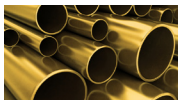
Centerdrill 7.3 long

Order no.:	**3500730**
Product discription:	7.3 long
Thread type:	DIN ISO 13 / DIN 371
Thread size:	M8x1,25
Centerdrill core hole:	7,3mm
Working part L1:	18,20mm
Shank-ø:	8,0mm h6
Surface workpiece:	with collar
Max. Material thickness:	**3,5mm**
Suitable for materials:	Steel, Brass, Aluminum, Copper

M8 Centertap on page 49

Parting paste on page 60

Reference values for M8 in 1-2mm Material thickness

Material / Process data	 Stainless steel	 Steel	 Copper	 Brass	 Aluminum
RPM Centerdrill	1800	2100	3200	3200	3200
RPM Centertap	190-240	600-650	650-800	650-800	650-800
kW-Power +	2,0	1,5	1,5	1,5	1,5
Feed rate (mm/min) +	50-150	50-150	50-150	50-150	50-150

- These are recommended values and they may vary significantly, depending on the type of material, material thickness, lubrication, etc. For thread forming, we recommend our cutting oil. If you use an emulsion, it should contain at least 8-10% grease.
- CNC-data can be provided on request.

Centerdrill 7.3 short-flat

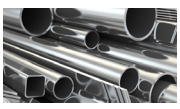
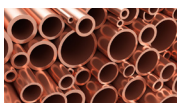
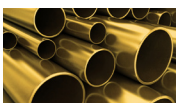
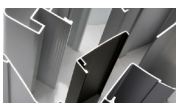
Order no.:	**3650730**
Product discription:	7.3 short-flat
Thread type:	DIN ISO 13 / DIN 371
Thread size:	M8x1,25
Centerdrill core hole:	7,3mm
Working part L1:	14,0mm
Shank-ø:	8,0mm h6
Surface workpiece:	flat / plan, without collar
Max. Material thickness:	**2,0mm**
Suitable for materials:	Steel, Brass, Aluminum, Copper

Centerdrill 7.3 long-flat

Order no.:	**3550730**
Product discription:	7.3 long-flat
Thread type:	DIN ISO 13 / DIN 371
Thread size:	M8x1,25
Centerdrill core hole:	7,3mm
Working part L1:	18,20mm
Shank-ø:	8,0mmh6
Surface workpiece:	flat / plan, without collar
Max. Material thickness:	**4,5mm**
Suitable for materials:	Steel, Brass, Aluminum, Copper

Also available in the Beginner Set on page 56-59

Reference values for M8 in 1-2mm Material thickness

Material / Process data	 Stainless steel	 Steel	 Copper	 Brass	 Aluminum
RPM Centerdrill 	1800	2100	3200	3200	3200
RPM Centertap 	190-240	600-650	650-800	650-800	650-800
kW-Power  + 	2,0	1,5	1,5	1,5	1,5
Feed rate (mm/min)*  + 	50-150	50-150	50-150	50-150	50-150

- *While removing the collar, the feed rate should be increased at the end of the process, approx. 900 mm/min.
- These are recommended values and they may vary significantly, depending on the type of material, material thickness, lubrication, etc. For thread forming, we recommend our cutting oil. If you use an emulsion, it should contain at least 8-10% grease.
- CNC-data can be provided on request.

Centerdrill 7.4 short

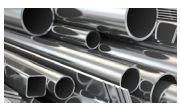
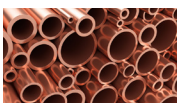
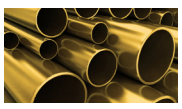
Order no.:	**3600740**
Product discription:	7.4 short
Thread type:	DIN ISO 13 / DIN 371
Thread size:	M8x1,25
Centerdrill core hole:	7,4mm
Working part L1:	14,0mm
Shank-ø:	8,0mm h6
Surface workpiece:	with collar
Max. Material thickness:	**1,5mm**
Suitable for materials:	Stainless steel

Centerdrill 7.4 long

Order no.:	**3500740**
Product discription:	7.4 long
Thread type:	DIN ISO 13 / DIN 371
Thread size:	M8x1,25
Centerdrill core hole:	7,4mm
Working part L1:	18,20mm
Shank-ø:	8,0mm h6
Surface workpiece:	with collar
Max. Material thickness:	**3,5mm**
Suitable for materials:	Stainless steel

www.centerdrill.de

Reference values for M8 in 1-2mm Material thickness

Material / Process data	 Stainless steel	 Steel	 Copper	 Brass	 Aluminum
RPM Centerdrill	1800	2100	3200	3200	3200
RPM Centertap	190-240	600-650	650-800	650-800	650-800
kW-Power +	2,0	1,5	1,5	1,5	1,5
Feed rate (mm/min) +	50-150	50-150	50-150	50-150	50-150

- These are recommended values and they may vary significantly, depending on the type of material, material thickness, lubrication, etc. For thread forming, we recommend our cutting oil. If you use an emulsion, it should contain at least 8-10% grease.
- CNC-data can be provided on request.

Centerdrill 7.4 short-flat

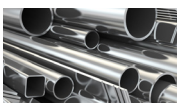
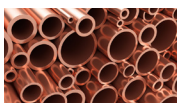
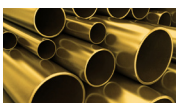
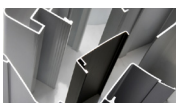
Order no.:	**3650740**
Product discription:	7.4 short-flat
Thread type:	DIN ISO 13 / DIN 371
Thread size:	M8x1,25
Centerdrill core hole:	7,4mm
Working part L1:	14,0mm
Shank-ø:	8,0mm h6
Surface workpiece:	flat / plan, without collar
Max. Material thickness:	**2,0mm**
Suitable for materials:	Stainless steel

Centerdrill 7.4 long-flat

Order no.:	**3550740**
Product discription:	7.4 long-flat
Thread type:	DIN ISO 13 / DIN 371
Thread size:	M8x1,25
Centerdrill core hole:	7,4mm
Working part L1:	18,20mm
Shank-ø:	8,0mm h6
Surface workpiece:	flat / plan, without collar
Max. Material thickness:	**4,5mm**
Suitable for materials:	Stainless steel

www.centerdrill-shop.de

Reference values for M8 in 1-2mm Material thickness

Material / Process data	 Stainless steel	 Steel	 Copper	 Brass	 Aluminum
RPM Centerdrill	1800	2100	3200	3200	3200
RPM Centertap	190-240	600-650	650-800	650-800	650-800
kW-Power +	2,0	1,5	1,5	1,5	1,5
Feed rate (mm/min)* +	50-150	50-150	50-150	50-150	50-150

- *While removing the collar, the feed rate should be increased at the end of the process, approx. 900 mm/min.
- These are recommended values and they may vary significantly, depending on the type of material, material thickness, lubrication, etc. For thread forming, we recommend our cutting oil. If you use an emulsion, it should contain at least 8-10% grease.
- CNC-data can be provided on request.

Centerdrill 9.2 short

Order no.:	**3600920**
Product discription:	9.2 short
Thread type:	DIN ISO 13 / DIN 376
Thread size:	M10x1,5
Centerdrill core hole:	9,2mm
Working part L1:	16,9mm
Shank-ø:	10,0mm h6
Surface workpiece:	with collar
Max. Material thickness:	**2,0mm**
Suitable for materials:	Steel, Brass, Aluminium, Copper

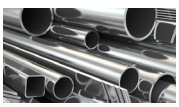
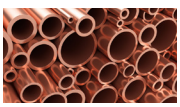
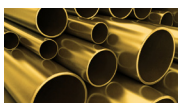
Centerdrill 9.2 long

Order no.:	**3500920**
Product discription:	9.2 long
Thread type:	DIN ISO 13 / DIN 376
Thread size:	M10x1,5
Centerdrill core hole:	9,2mm
Working part L1:	22,5mm
Shank-ø:	10,0mm h6
Surface workpiece:	with collar
Max. Material thickness:	**4,3mm**
Suitable for materials:	Steel, Brass, Aluminum, Copper

More process data can be found online

CENTERDRILL EXPLORER
MADE IN GERMANY

Reference values for M10 in 2mm Material thickness

Material / Process data	 Stainless steel	 Steel	 Copper	 Brass	 Aluminum
RPM Centerdrill	1500	1800	2700	2700	2700
RPM Centertap	160-190	380-480	530-650	530-650	530-650
kW-Power +	2,2	1,7	1,7	1,7	1,7
Feed rate (mm/min) +	50-150	50-150	50-150	50-150	50-150

- These are recommended values and they may vary significantly, depending on the type of material, material thickness, lubrication, etc. For thread forming, we recommend our cutting oil. If you use an emulsion, it should contain at least 8-10% grease.
- CNC-data can be provided on request.

Centerdrill 9.2 short-flat

Order no.:	**3650920**
Product discription:	9.2 short-flat
Thread type:	DIN ISO 13 / DIN 376
Thread size:	M10x1,5
Centerdrill core hole:	9,2mm
Working part L1:	16,9mm
Shank-ø:	10,0mm h6
Surface workpiece:	flat / plan, without collar
Max. Material thickness:	**2,5mm**
Suitable for materials:	Steel, Brass, Aluminum, Copper

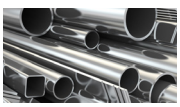
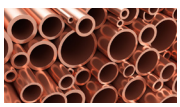
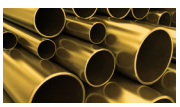
Centerdrill 9.2 long-flat

Order no.:	**3550920**
Product discription:	9.2 long-flat
Thread type:	DIN ISO 13 / DIN 376
Thread size:	M10x1,5
Centerdrill core hole:	9,2mm
Working part L1:	22,5mm
Shank-ø:	10,0mm h6
Surface workpiece:	flat / plan, without collar
Max. Material thickness:	**5,2mm**
Suitable for materials:	Steel, Brass, Aluminum, Copper

Check out flow drilling videos

CENTERDRILL VIDEOS
MADE IN GERMANY

Reference values for M10 in 2mm Material thickness

Material / Process data	 Stainless steel	 Steel	 Copper	 Brass	 Aluminum
RPM Centerdrill	1500	1800	2700	2700	2700
RPM Centertap	160-190	380-480	530-650	530-650	530-650
kW-Power +	2,2	1,7	1,7	1,7	1,7
Feed rate (mm/min)* +	50-150	50-150	50-150	50-150	50-150

- *While removing the collar, the feed rate should be increased at the end of the process, approx. 900 mm/min.
- These are recommended values and they may vary significantly, depending on the type of material, material thickness, lubrication, etc. For thread forming, we recommend our cutting oil. If you use an emulsion, it should contain at least 8-10% grease.
- CNC-data can be provided on request.

Centerdrill 9.3 short

Order no.:	**3600930**
Product discription:	9.3 short
Thread type:	DIN ISO 13 / DIN 376
Thread size:	M10x1,5
Centerdrill core hole:	9,3mm
Working part L1:	16,9mm
Shank-ø:	10,0mm h6
Surface workpiece:	with collar
Max. Material thickness:	**2,0mm**
Suitable for materials:	Stainless steel

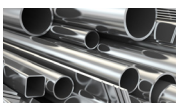
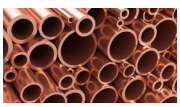
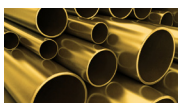
Centerdrill 9.3 long

Order no.:	**3500930**
Product discription:	9.3 long
Thread type:	DIN ISO 13 / DIN 376
Thread size:	M10x1,5
Centerdrill core hole:	9,3mm
Working part L1:	22,5mm
Shank-ø:	10,0mm h6
Surface workpiece:	with collar
Max. Material thickness:	**4,3mm**
Suitable for materials:	Stainless steel

M10 Centertap on page 49

Parting paste on page 60

Reference values for M10 in 2mm Material thickness

Material / Process data	 Stainless steel	 Steel	 Copper	 Brass	 Aluminum
RPM Centerdrill	1500	1800	2700	2700	2700
RPM Centertap	160-190	380-480	530-650	530-650	530-650
kW-Power +	2,2	1,7	1,7	1,7	1,7
Feed rate (mm/min) +	50-150	50-150	50-150	50-150	50-150

- These are recommended values and they may vary significantly, depending on the type of material, material thickness, lubrication, etc. For thread forming, we recommend our cutting oil. If you use an emulsion, it should contain at least 8-10% grease.
- CNC-data can be provided on request.

Centerdrill 9.3 short-flat

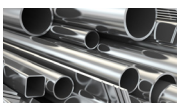
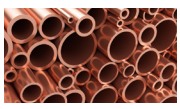
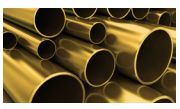
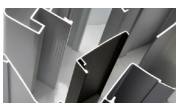
Order no.:	**3650930**
Product discription:	9.3 short-flat
Thread type:	DIN ISO 13 / DIN 376
Thread size:	M10x1,5
Centerdrill core hole:	9,3mm
Working part L1:	16,9mm
Shank-ø:	10,0mm h6
Surface workpiece:	flat / plan, without collar
Max. Material thickness:	**2,5mm**
Suitable for materials:	Stainless steel

Centerdrill 9.3 long-flat

Order no.:	**3550930**
Product discription:	9.3 long-flat
Thread type:	DIN ISO 13 / DIN 376
Thread size:	M10x1,5
Centerdrill core hole:	9,3mm
Working part L1:	22,5mm
Shank-ø:	10,0mm h6
Surface workpiece:	flat / plan, without collar
Max. Material thickness:	**5,2mm**
Suitable for materials:	Stainless steel

Also available in the Beginner Set on page 56-59

Reference values for M10 in 2mm Material thickness

Material / Process data	 Stainless steel	 Steel	 Copper	 Brass	 Aluminum
RPM Centerdrill	1500	1800	2700	2700	2700
RPM Centertap	160-190	380-480	530-650	530-650	530-650
kW-Power +	2,2	1,7	1,7	1,7	1,7
Feed rate (mm/min)* +	50-150	50-150	50-150	50-150	50-150

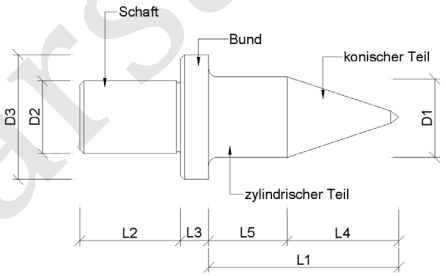
- *While removing the collar, the feed rate should be increased at the end of the process, approx. 900 mm/min.
- These are recommended values and they may vary significantly, depending on the type of material, material thickness, lubrication, etc. For thread forming, we recommend our cutting oil. If you use an emulsion, it should contain at least 8-10% grease.
- CNC-data can be provided on request.

Centerdrill 10.9 short

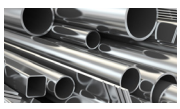
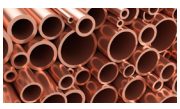
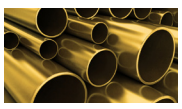
Order no.:	**3601090**
Product discription:	10.9 short
Thread type:	DIN ISO 13 / DIN 376
Thread size:	M12x1,75
Centerdrill core hole:	10,9mm
Working part L1:	20,0mm
Shank-ø:	12,0mm h6
Surface workpiece:	with collar
Max. Material thickness:	**2,4mm**
Suitable for materials:	Steel, Brass, Aluminum, Copper

Centerdrill 10.9 long

Order no.:	**3501090**
Product discription:	10.9 long
Thread type:	DIN ISO 13 / DIN 376
Thread size:	M12x1,75
Centerdrill core hole:	10,9mm
Working part L1:	26,6mm
Shank-ø:	12,0mm h6
Surface workpiece:	with collar
Max. Material thickness:	**4,9mm**
Suitable for materials:	Steel, Brass, Aluminum, Copper



Reference values for M12 in 2mm Material thickness

Material / Process data	 Stainless steel	 Steel	 Copper	 Brass	 Aluminum
RPM Centerdrill	1300	1500	2300	2300	2300
RPM Centertap	140-160	300-400	460-530	460-530	460-530
kW-Power +	2,5	1,9	1,9	1,9	1,9
Feed rate (mm/min) +	50-150	50-150	50-150	50-150	50-150

- These are recommended values and they may vary significantly, depending on the type of material, material thickness, lubrication, etc. For thread forming, we recommend our cutting oil. If you use an emulsion, it should contain at least 8-10% grease.
- CNC-data can be provided on request.

Centerdrill 10.9 short-flat

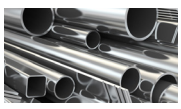
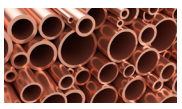
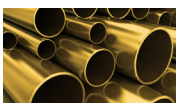
Order no.:	**3651090**
Product discription:	10.9 short-flat
Thread type:	DIN ISO 13 / DIN 376
Thread size:	M12x1,75
Centerdrill core hole:	10,9mm
Working part L1:	20,0mm
Shank-ø:	12,0mm h6
Surface workpiece:	flat / plan, without collar
Max. Material thickness:	**2,8mm**
Suitable for materials:	Steel, Brass, Aluminum, Copper

Centerdrill 10.9 long-flat

Order no.:	**3551090**
Product discription:	10.9 long-flat
Thread type:	DIN ISO 13 / DIN 376
Thread size:	M12x1,75
Centerdrill core hole:	10,9mm
Working part L1:	26,6mm
Shank-ø:	12,0mm h6
Surface workpiece:	flat / plan, without collar
Max. Material thickness:	**5,9mm**
Suitable for materials:	Steel, Brass, Aluminum, Copper

Order hotline
+49 (0) 6198 / 58 58 97

Reference values for M12 in 2mm Material thickness

Material / Process data	 Stainless steel	 Steel	 Copper	 Brass	 Aluminum
RPM Centerdrill	1300	1500	2300	2300	2300
RPM Centertap	140-160	300-400	460-530	460-530	460-530
kW-Power +	2,5	1,9	1,9	1,9	1,9
Feed rate (mm/min)* +	50-150	50-150	50-150	50-150	50-150

- *While removing the collar, the feed rate should be increased at the end of the process, approx. 900 mm/min.
- These are recommended values and they may vary significantly, depending on the type of material, material thickness, lubrication, etc. For thread forming, we recommend our cutting oil. If you use an emulsion, it should contain at least 8-10% grease.
- CNC-data can be provided on request.

Centerdrill 11.0 short

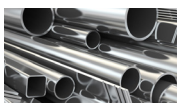
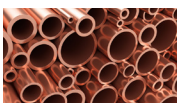
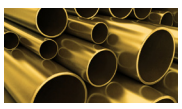
Order no.:	**3601100**
Product discription:	11.0 short
Thread type:	DIN ISO 13 / DIN 376
Thread size:	M12x1,75
Centerdrill core hole:	11,0mm
Working part L1:	20,0mm
Shank-ø:	12,0mm h6
Surface workpiece:	with collar
Max. Material thickness:	**2,4mm**
Suitable for materials:	Stainless steel

Centerdrill 11.0 long

Order no.:	**3501100**
Product discription:	11.0 long
Thread type:	DIN ISO 13 / DIN 376
Thread size:	M12x1,75
Centerdrill core hole:	11,0mm
Working part L1:	26,6mm
Shank-ø:	12,0mm h6
Surface workpiece:	with collar
Max. Material thickness:	**4,9mm**
Suitable for materials:	Stainless steel

www.centerdrill.de

Reference values for M12 in 2mm Material thickness

Material / Process data	 Stainless steel	 Steel	 Copper	 Brass	 Aluminum
RPM Centerdrill	1300	1500	2300	2300	2300
RPM Centertap	140-160	300-400	460-530	460-530	460-530
kW-Power +	2,5	1,9	1,9	1,9	1,9
Feed rate (mm/min) +	50-150	50-150	50-150	50-150	50-150

- These are recommended values and they may vary significantly, depending on the type of material, material thickness, lubrication, etc. For thread forming, we recommend our cutting oil. If you use an emulsion, it should contain at least 8-10% grease.
- CNC-data can be provided on request.

Centerdrill 11.0 short-flat

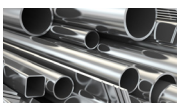
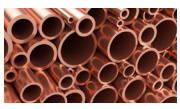
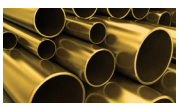
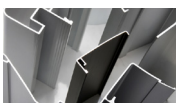
Order no.:	**3651100**
Product discription:	11.0 short-flat
Thread type:	DIN ISO 13 / DIN 376
Thread size:	M12x1,75
Centerdrill core hole:	11,0mm
Working part L1:	20,0mm
Shank-ø:	12,0mm h6
Surface workpiece:	flat / plan, without collar
Max. Material thickness:	**2,8mm**
Suitable for materials:	Stainless steel

Centerdrill 11.0 long-flat

Order no.:	**3551100**
Product discription:	11.0 long-flat
Thread type:	DIN ISO 13 / DIN 376
Thread size:	M12x1,75
Centerdrill core hole:	11,0mm
Working part L1:	26,6mm
Shank-ø:	12,0mm h6
Surface workpiece:	flat / plan, without collar
Max. Material thickness:	**5,9mm**
Suitable for materials:	Stainless steel

www.centerdrill-shop.de

Reference values for M12 in 2mm Material thickness

Material / Process data	 Stainless steel	 Steel	 Copper	 Brass	 Aluminum
RPM Centerdrill	1300	1500	2300	2300	2300
RPM Centertap	140-160	300-400	460-530	460-530	460-530
kW-Power +	2,5	1,9	1,9	1,9	1,9
Feed rate (mm/min)* +	50-150	50-150	50-150	50-150	50-150

- *While removing the collar, the feed rate should be increased at the end of the process, approx. 900 mm/min.
- These are recommended values and they may vary significantly, depending on the type of material, material thickness, lubrication, etc. For thread forming, we recommend our cutting oil. If you use an emulsion, it should contain at least 8-10% grease.
- CNC-data can be provided on request.

Centerdrill 13.0 short

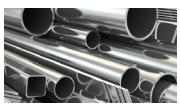
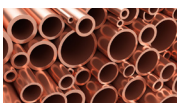
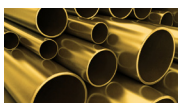
Order no.:	**3601300**
Product discription:	13.0 short
Thread type:	DIN ISO 13 / DIN 376
Thread size:	M14x2,0
Centerdrill core hole:	13,0mm
Working part L1:	23,5mm
Shank-ø:	14,0mm h6
Surface workpiece:	with collar
Max. Material thickness:	**2,4mm**
Suitable for materials:	Steel, Stainless steel, Brass, Aluminum, Copper

Centerdrill 13.0 long

Order no.:	**3501300**
Product discription:	13.0 long
Thread type:	DIN ISO 13 / DIN 376
Thread size:	M14x2,0
Centerdrill core hole:	13,0mm
Working part L1:	31,3mm
Shank-ø:	14,0mm h6
Surface workpiece:	with collar
Max. Material thickness:	**5,3mm**
Suitable for materials:	Steel, Stainless steel, Brass, Aluminum, Copper

Direct from the manufacturer

Reference values for M14 in 2mm Material thickness

Material / Process data	 Stainless steel	 Steel	 Copper	 Brass	 Aluminum
RPM Centerdrill	1300	1500	2300	2300	2300
RPM Centertap	120-140	300-350	400-460	400-460	400-460
kW-Power +	2,9	2,2	2,2	2,2	2,2
Feed rate (mm/min) +	50-150	50-150	50-150	50-150	50-150

- These are recommended values and they may vary significantly, depending on the type of material, material thickness, lubrication, etc. For thread forming, we recommend our cutting oil. If you use an emulsion, it should contain at least 8-10% grease.
- CNC-data can be provided on request.

Centerdrill 13.0 short-flat

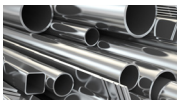
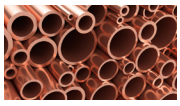
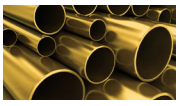
Order no.:	**3651300**
Product discription:	13.0 short-flat
Thread type:	DIN ISO 13 / DIN 376
Thread size:	M14x2,0
Centerdrill core hole:	13,0mm
Working part L1:	23,5mm
Shank-ø:	14,0mm h6
Surface workpiece:	flat / plan, without collar
Max. Material thickness:	**3,0mm**
Suitable for materials:	Steel, Stainless steel, Brass, Aluminum, Copper

Centerdrill 13.0 long-flat

Order no.:	**3551300**
Product discription:	13.0 long-flat
Thread type:	DIN ISO 13 / DIN 376
Thread size:	M14x2,0
Centerdrill core hole:	13,0mm
Working part L1:	31,3mm
Shank-ø:	14,0mm h6
Surface workpiece:	flat / plan, without collar
Max. Material thickness:	**7,0mm**
Suitable for materials:	Steel, Stainless steel, Brass, Aluminum, Copper

Please send your orders to: order@centerdrill.de

Reference values for M14 in 2mm Material thickness

Material / Process data	 Stainless steel	 Steel	 Copper	 Brass	 Aluminum
RPM Centerdrill	1300	1500	2300	2300	2300
RPM Centertap	120-140	300-350	400-460	400-460	400-460
kW-Power +	2,9	2,2	2,2	2,2	2,2
Feed rate (mm/min)* +	50-150	50-150	50-150	50-150	50-150

- *While removing the collar, the feed rate should be increased at the end of the process, approx. 900 mm/min.
- These are recommended values and they may vary significantly, depending on the type of material, material thickness, lubrication, etc. For thread forming, we recommend our cutting oil. If you use an emulsion, it should contain at least 8-10% grease.
- CNC-data can be provided on request.

Centerdrill 14.8 short

Order no.:	**3601480**
Product discription:	14.8 short
Thread type:	DIN ISO 13 / DIN 376
Thread size:	M16x2,0
Centerdrill core hole:	14,8mm
Working part L1:	27,0mm
Shank-ø:	16,0mm h6
Surface workpiece:	with collar
Max. Material thickness:	**3,0mm**
Suitable for materials:	Steel, Stainless steel, Brass, Aluminum, Copper

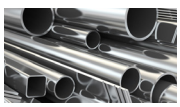
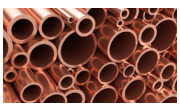
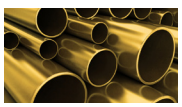
Centerdrill 14.8 long

Order no.:	**3501480**
Product discription:	14.8 long
Thread type:	DIN ISO 13 / DIN 376
Thread size:	M16x2,0
Centerdrill core hole:	14,8mm
Working part L1:	35,4mm
Shank-ø:	16,0mm h6
Surface workpiece:	with collar
Max. Material thickness:	**6,4mm**
Suitable for materials:	Steel, Stainless steel, Brass, Aluminum, Copper

More process data can be found online

CENTERDRILL EXPLORER
MADE IN GERMANY

Reference values for M16 in 2mm Material thickness

Material / Process data	 Stainless steel	 Steel	 Copper	 Brass	 Aluminum
RPM Centerdrill	1300	1500	2300	2300	2300
RPM Centertap	110-120	200-300	360-400	360-400	360-400
kW-Power +	3,1	2,4	2,4	2,4	2,4
Feed rate (mm/min) +	50-150	50-150	50-150	50-150	50-150

- These are recommended values and they may vary significantly, depending on the type of material, material thickness, lubrication, etc. For thread forming, we recommend our cutting oil. If you use an emulsion, it should contain at least 8-10% grease.
- CNC-data can be provided on request.

Centerdrill 14.8 short-flat

Order no.:	**3651480**
Product discription:	14.8 short-flat
Thread type:	DIN ISO 13 / DIN 376
Thread size:	M16x2,0
Centerdrill core hole:	14,8mm
Working part L1:	27,0mm
Shank-ø:	16,0mm h6
Surface workpiece:	flat / plan, without collar
Max. Material thickness:	**3,5mm**
Suitable for materials:	Steel, Stainless steel, Brass, Aluminum, Copper

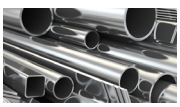
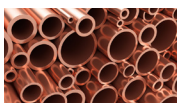
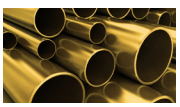
Centerdrill 14.8 long-flat

Order no.:	**3551480**
Product discription:	14.8 long-flat
Thread type:	DIN ISO 13 / DIN 376
Thread size:	M16x2,0
Centerdrill core hole:	14,8mm
Working part L1:	35,4mm
Shank-ø:	16,0mm h6
Surface workpiece:	flat / plan, without collar
Max. Material thickness:	**7,5mm**
Suitable for materials:	Steel, Stainless steel, Brass, Aluminum, Copper

Check out flow drilling videos

CENTERDRILL VIDEOS
MADE IN GERMANY

Reference values for M16 in 2mm Material thickness

Material / Process data	 Stainless steel	 Steel	 Copper	 Brass	 Aluminum
RPM Centerdrill	1300	1500	2300	2300	2300
RPM Centertap	110-120	200-300	360-400	360-400	360-400
kW-Power +	3,1	2,4	2,4	2,4	2,4
Feed rate (mm/min)* +	50-150	50-150	50-150	50-150	50-150

- *While removing the collar, the feed rate should be increased at the end of the process, approx. 900 mm/min.
- These are recommended values and they may vary significantly, depending on the type of material, material thickness, lubrication, etc. For thread forming, we recommend our cutting oil. If you use an emulsion, it should contain at least 8-10% grease.
- CNC-data can be provided on request.

Centerdrill 9.2 short

Order no.:	**3600920**
Product discription:	9.2 short
Thread type:	DIN EN ISO 228/ DIN 2189
Thread size:	G 1/8“ x 28
Centerdrill core hole:	9,2mm
Working part L1:	16,9mm
Shank-ø:	10,0mm h6
Surface workpiece:	with collar
Max. Material thickness:	**2,0mm**
Suitable for materials:	Steel, Brass, Aluminum, Copper

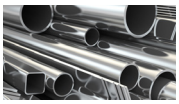
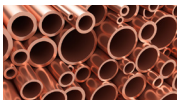
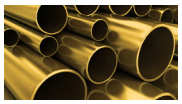
Centerdrill 9.2 long

Order no.:	**3500920**
Product discription:	9.2 long
Thread type:	DIN EN ISO 228/ DIN 2189
Thread size:	G 1/8“ x 28
Centerdrill core hole:	9,2mm
Working part L1:	22,5mm
Shank-ø:	10,0mm h6
Surface workpiece:	with collar
Max. Material thickness:	**4,3mm**
Suitable for materials:	Steel, Brass, Aluminum, Copper

G1/8“ Centertap on page 52

Parting paste on page 60

Reference values for G 1/8“ in 2mm Material thickness

Material / Process data	 Stainless steel	 Steel	 Copper	 Brass	 Aluminum
RPM Centerdrill	1500	1800	2700	2700	2700
RPM Centertap	140-190	480-650	480-650	480-650	480-650
kW-Power +	2,2	1,7	1,7	1,7	1,7
Feed rate (mm/min) +	50-150	50-150	50-150	50-150	50-150

- These are recommended values and they may vary significantly, depending on the type of material, material thickness, lubrication, etc. For thread forming, we recommend our cutting oil. If you use an emulsion, it should contain at least 8-10% grease.
- CNC-data can be provided on request.

Centerdrill 9.2 short-flat

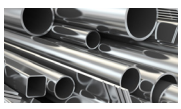
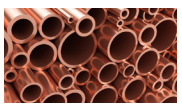
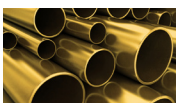
Order no.:	**3650920**
Product discription:	9.2 short-flat
Thread type:	DIN EN ISO 228/ DIN 2189
Thread size:	G 1/8“ x 28
Centerdrill core hole:	9,2mm
Working part L1:	16,9mm
Shank-ø:	10,0mm h6
Surface workpiece:	flat / plan, without collar
Max. Material thickness:	**2,5mm**
Suitable for materials:	Steel, Brass, Aluminum, Copper

Centerdrill 9.2 long-flat

Order no.:	**3550920**
Product discription:	9.2 long-flat
Thread type:	DIN EN ISO 228/ DIN 2189
Thread size:	G 1/8“ x 28
Centerdrill core hole:	9,2mm
Working part L1:	22,5mm
Shank-ø:	10,0mm h6
Surface workpiece:	flat / plan, without collar
Max. Material thickness:	**5,2mm**
Suitable for materials:	Steel, Brass, Aluminum, Copper

Also available in the Beginner Set on page 56-59

Reference values for G 1/8“ in 2mm Material thickness

Material / Process data	 Stainless steel	 Steel	 Copper	 Brass	 Aluminum
RPM Centerdrill	1500	1800	2700	2700	2700
RPM Centertap	140-190	480-650	480-650	480-650	480-650
kW-Power +	2,2	1,7	1,7	1,7	1,7
Feed rate (mm/min)* +	50-150	50-150	50-150	50-150	50-150

- *While removing the collar, the feed rate should be increased at the end of the process, approx. 900 mm/min.
- These are recommended values and they may vary significantly, depending on the type of material, material thickness, lubrication, etc. For thread forming, we recommend our cutting oil. If you use an emulsion, it should contain at least 8-10% grease.
- CNC-data can be provided on request.

Centerdrill 9.3 short

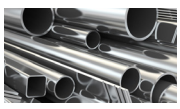
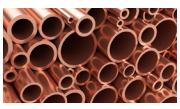
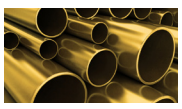
Order no.:	**3600930**
Product discription:	9.3 short
Thread type:	DIN EN ISO 228/ DIN 2189
Thread size:	G 1/8“ x 28
Centerdrill core hole:	9,3mm
Working part L1:	16,9mm
Shank-ø:	10,0mm h6
Surface workpiece:	with collar
Max. Material thickness:	**2,0mm**
Suitable for materials:	Stainless steel

Centerdrill 9.3 long

Order no.:	**3500930**
Product discription:	9.3 long
Thread type:	DIN EN ISO 228/ DIN 2189
Thread size:	G 1/8“ x 28
Centerdrill core hole:	9,3mm
Working part L1:	22,5mm
Shank-ø:	10,0mm h6
Surface workpiece:	with collar
Max. Material thickness:	**4,3mm**
Suitable for materials:	Stainless steel

www.centerdrill.de

Reference values for G 1/8“ in 2mm Material thickness

Material / Process data	 Stainless steel	 Steel	 Copper	 Brass	 Aluminum
RPM Centerdrill	1500	1800	2700	2700	2700
RPM Centertap	140-190	480-650	480-650	480-650	480-650
kW-Power +	2,2	1,7	1,7	1,7	1,7
Feed rate (mm/min) +	50-150	50-150	50-150	50-150	50-150

- These are recommended values and they may vary significantly, depending on the type of material, material thickness, lubrication, etc. For thread forming, we recommend our cutting oil. If you use an emulsion, it should contain at least 8-10% grease.
- CNC-data can be provided on request.

Centerdrill 9.3 short-flat

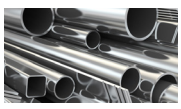
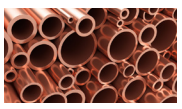
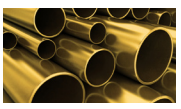
Order no.:	**3650930**
Product discription:	9.3 short-flat
Thread type:	DIN EN ISO 228/ DIN 2189
Thread size:	G 1/8“ x 28
Centerdrill core hole:	9,3mm
Working part L1:	16,9mm
Shank-ø:	10,0mm h6
Surface workpiece:	flat / plan, without collar
Max. Material thickness:	**2,5mm**
Suitable for materials:	Stainless steel

Centerdrill 9.3 long-flat

Order no.:	**3550930**
Product discription:	9.3 long-flat
Thread type:	DIN EN ISO 228/ DIN 2189
Thread size:	G 1/8“ x 28
Centerdrill core hole:	9,3mm
Working part L1:	22,5mm
Shank-ø:	10,0mm h6
Surface workpiece:	flat / plan, without collar
Max. Material thickness:	**5,2mm**
Suitable for materials:	Stainless steel

www.centerdrill-shop.de

Reference values for G 1/8“ in 2mm Material thickness

Material / Process data	 Stainless steel	 Steel	 Copper	 Brass	 Aluminum
RPM Centerdrill	1500	1800	2700	2700	2700
RPM Centertap	140-190	480-650	480-650	480-650	480-650
kW-Power +	2,2	1,7	1,7	1,7	1,7
Feed rate (mm/min)* +	50-150	50-150	50-150	50-150	50-150

- *While removing the collar, the feed rate should be increased at the end of the process, approx. 900 mm/min.
- These are recommended values and they may vary significantly, depending on the type of material, material thickness, lubrication, etc. For thread forming, we recommend our cutting oil. If you use an emulsion, it should contain at least 8-10% grease.
- CNC-data can be provided on request.

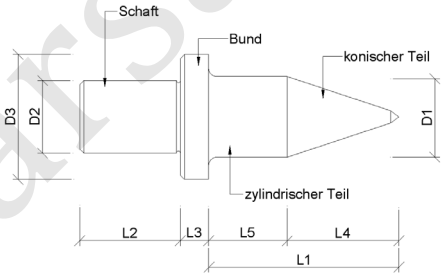
G1/4“ - 12.4 Surface with collar

Centerdrill 12.4 short

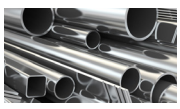
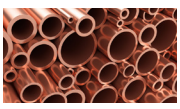
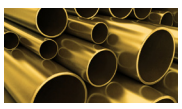
Order no.:	**3601240**
Product discription:	12.4 short
Thread type:	DIN EN ISO 228/ DIN 2189
Thread size:	G 1/4“ x 19
Centerdrill core hole:	12,4mm
Working part L1:	22,8mm
Shank-ø:	14,0mm h6
Surface workpiece:	with collar
Max. Material thickness:	**2,3mm**
Suitable for materials:	Steel, Stainless steel, Brass, Aluminum, Copper

Centerdrill 12.4 long

Order no.:	**3501240**
Product discription:	12.4 long
Thread type:	DIN EN ISO 228/ DIN 2189
Thread size:	G 1/4“ x 19
Centerdrill core hole:	12,4mm
Working part L1:	30,0mm
Shank-ø:	14,0mm h6
Surface workpiece:	with collar
Max. Material thickness:	**5,5mm**
Suitable for materials:	Steel, Stainless steel, Brass, Aluminum, Copper



Reference values for G 1/4“ in 2mm Material thickness

Material / Process data	 Stainless steel	 Steel	 Copper	 Brass	 Aluminum
RPM Centerdrill	1400	1600	2400	2400	2400
RPM Centertap	110-140	280-360	380-480	380-480	380-480
kW-Power +	2,7	2,1	2,1	2,1	2,1
Feed rate (mm/min) +	50-150	50-150	50-150	50-150	50-150

- These are recommended values and they may vary significantly, depending on the type of material, material thickness, lubrication, etc. For thread forming, we recommend our cutting oil. If you use an emulsion, it should contain at least 8-10% grease.
- CNC-data can be provided on request.

Centerdrill 12.4 short-flat

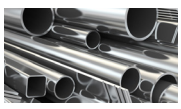
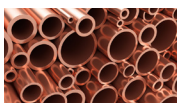
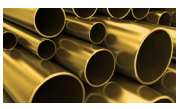
Order no.:	**3651240**
Product discription:	12.4 short-flat
Thread type:	DIN EN ISO 228/ DIN 2189
Thread size:	G 1/4“ x 19
Centerdrill core hole:	12,4mm
Working part L1:	22,8mm
Shank-ø:	14,0mm h6
Surface workpiece:	flat / plan, without collar
Max. Material thickness:	**3,0mm**
Suitable for materials:	Steel, Stainless steel, Brass, Aluminum, Copper

Centerdrill 12.4 long-flat

Order no.:	**3551240**
Product discription:	12.4 long-flat
Thread type:	DIN EN ISO 228/ DIN 2189
Thread size:	G 1/4“ x 19
Centerdrill core hole:	12,4mm
Working part L1:	30,0mm
Shank-ø:	14,0mm h6
Surface workpiece:	flat / plan, without collar
Max. Material thickness:	**6,5mm**
Suitable for materials:	Steel, Stainless steel, Brass, Aluminum, Copper

Order hotline
+49 (0) 6198 / 58 58 97

Reference values for G 1/4“ in 2mm Material thickness

Material / Process data	 Stainless steel	 Steel	 Copper	 Brass	 Aluminum
RPM Centerdrill	1400	1600	2400	2400	2400
RPM Centertap	110-140	280-360	380-480	380-480	380-480
kW-Power +	2,7	2,1	2,1	2,1	2,1
Feed rate (mm/min)* +	50-150	50-150	50-150	50-150	50-150

- *While removing the collar, the feed rate should be increased at the end of the process, approx. 900 mm/min.
- These are recommended values and they may vary significantly, depending on the type of material, material thickness, lubrication, etc. For thread forming, we recommend our cutting oil. If you use an emulsion, it should contain at least 8-10% grease.
- CNC-data can be provided on request.

G3/8“ - 15.9 Surface with collar

Centerdrill 15.9 short

Order no.:	**3601590**
Product discription:	15.9 short
Thread type:	DIN EN ISO 228/ DIN 2189
Thread size:	G 3/8“ x 19
Centerdrill core hole:	15,9mm
Working part L1:	30,3mm
Shank-ø:	16,0mm h6
Surface workpiece:	with collar
Max. Material thickness:	**3,3mm**
Suitable for materials:	Steel, Stainless steel, Brass, Aluminum, Copper

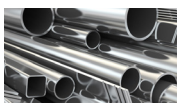
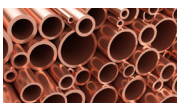
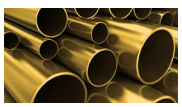
Centerdrill 15.9 long

Order no.:	**3501590**
Product discription:	15.9 long
Thread type:	DIN EN ISO 228/ DIN 2189
Thread size:	G 3/8“ x 19
Centerdrill core hole:	15,9mm
Working part L1:	37,5mm
Shank-ø:	16,0mm h6
Surface workpiece:	with collar
Max. Material thickness:	**6,9mm**
Suitable for materials:	Steel, Stainless steel, Brass, Aluminum, Copper

More process data can be found online

CENTERDRILL EXPLORER
MADE IN GERMANY

Reference values for G 3/8“ in 2mm Material thickness

Material / Process data	 Stainless steel	 Steel	 Copper	 Brass	 Aluminum
RPM Centerdrill	1200	1400	2100	2100	2100
RPM Centertap	90-110	200-280	300-380	300-380	300-380
kW-Power +	3,4	2,6	2,6	2,6	2,6
Feed rate (mm/min) +	50-150	50-150	50-150	50-150	50-150

- These are recommended values and they may vary significantly, depending on the type of material, material thickness, lubrication, etc. For thread forming, we recommend our cutting oil. If you use an emulsion, it should contain at least 8-10% grease.
- CNC-data can be provided on request.

Centerdrill 15.9 short-flat

Order no.:	**3651590**
Product discription:	15.9 short-flat
Thread type:	DIN EN ISO 228/ DIN 2189
Thread size:	G 3/8“ x 19
Centerdrill core hole:	15,9mm
Working part L1:	30,3mm
Shank-ø:	16,0mm h6
Surface workpiece:	flat / plan, without collar
Max. Material thickness:	**3,5mm**
Suitable for materials:	Steel, Stainless steel, Brass, Aluminum, Copper

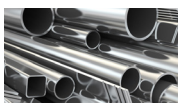
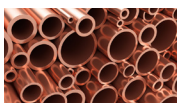
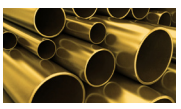
Centerdrill 15.9 long-flat

Order no.:	**3551590**
Product discription:	15.9 long-flat
Thread type:	DIN EN ISO 228/ DIN 2189
Thread size:	G 3/8“ x 19
Centerdrill core hole:	15,9mm
Working part L1:	37,5mm
Shank-ø:	16,0mm h6
Surface workpiece:	flat / plan, without collar
Max. Material thickness:	**8,0mm**
Suitable for materials:	Steel, Stainless steel, Brass, Aluminum, Copper

Check out flow drilling videos

CENTERDRILL VIDEOS
MADE IN GERMANY

Reference values for G 3/8“ in 2mm Material thickness

Material / Process data	 Stainless steel	 Steel	 Copper	 Brass	 Aluminum
RPM Centerdrill	1200	1400	2100	2100	2100
RPM Centertap	90-110	200-280	300-380	300-380	300-380
kW-Power +	3,4	2,6	2,6	2,6	2,6
Feed rate (mm/min)* +	50-150	50-150	50-150	50-150	50-150

- *While removing the collar, the feed rate should be increased at the end of the process, approx. 900 mm/min.
- These are recommended values and they may vary significantly, depending on the type of material, material thickness, lubrication, etc. For thread forming, we recommend our cutting oil. If you use an emulsion, it should contain at least 8-10% grease.
- CNC-data can be provided on request.

Centerdrill 19.9 short

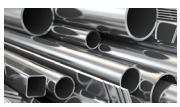
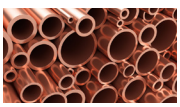
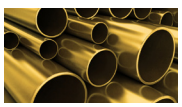
Order no.:	**3601990**
Product discription:	19.9 short
Thread type:	DIN EN ISO 228/ DIN 2189
Thread size:	G 1/2“ x 14
Centerdrill core hole:	19,9mm
Working part L1:	36,6mm
Shank-ø:	18,0mm h6
Surface workpiece:	with collar
Max. Material thickness:	**4,0mm**
Suitable for materials:	Steel, Stainless steel, Brass, Aluminum, Copper

Centerdrill 19.9 long

Order no.:	**3501990**
Product discription:	19.9 long
Thread type:	DIN EN ISO 228/ DIN 2189
Thread size:	G 1/2“ x 14
Centerdrill core hole:	19,9mm
Working part L1:	47,0mm
Shank-ø:	18,0mm h6
Surface workpiece:	with collar
Max. Material thickness:	**8,5mm**
Suitable for materials:	Steel, Stainless steel, Brass, Aluminum, Copper

Direct from the manufacturer

Reference values for G 1/2“ in 2mm Material thickness

Material / Process data	 Stainless steel	 Steel	 Copper	 Brass	 Aluminum
RPM Centerdrill	1000	1200	1800	1800	1800
RPM Centertap	70-90	140-230	240-300	240-300	240-300
kW-Power +	4,2	3,2	3,2	3,2	3,2
Feed rate (mm/min) +	50-150	50-150	50-150	50-150	50-150

- These are recommended values and they may vary significantly, depending on the type of material, material thickness, lubrication, etc. For thread forming, we recommend our cutting oil. If you use an emulsion, it should contain at least 8-10% grease.
- CNC-data can be provided on request.

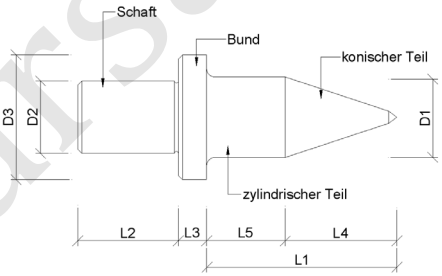
G1/2“ - 19.9 Surface without collar

Centerdrill 19.9 short-flat

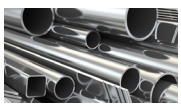
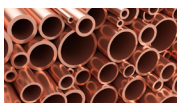
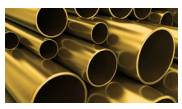
Order no.:	**3651990**
Product discription:	19.9 short-flat
Thread type:	DIN EN ISO 228/ DIN 2189
Thread size:	G 1/2“ x 14
Centerdrill core hole:	19,9mm
Working part L1:	36,6mm
Shank-ø:	18,0mm h6
Surface workpiece:	flat / plan, without collar
Max. Material thickness:	**4,5mm**
Suitable for materials:	Steel, Stainless steel, Brass, Aluminum, Copper

Centerdrill 19.9 long-flat

Order no.:	**3551990**
Product discription:	19.9 long-flat
Thread type:	DIN EN ISO 228/ DIN 2189
Thread size:	G 1/2“ x 14
Centerdrill core hole:	19,9mm
Working part L1:	47,0mm
Shank-ø:	18,0mm h6
Surface workpiece:	flat / plan, without collar
Max. Material thickness:	**9,0mm**
Suitable for materials:	Steel, Stainless steel, Brass, Aluminum, Copper



Reference values for G 1/2“ in 2mm Material thickness

Material / Process data	 Stainless steel	 Steel	 Copper	 Brass	 Aluminum
RPM Centerdrill	1000	1200	1800	1800	1800
RPM Centertap	70-90	140-230	240-300	240-300	240-300
kW-Power +	4,2	3,2	3,2	3,2	3,2
Feed rate (mm/min)* +	50-150	50-150	50-150	50-150	50-150

- *While removing the collar, the feed rate should be increased at the end of the process, approx. 900 mm/min.
- These are recommended values and they may vary significantly, depending on the type of material, material thickness, lubrication, etc. For thread forming, we recommend our cutting oil. If you use an emulsion, it should contain at least 8-10% grease.
- CNC-data can be provided on request.

G3/4“ - 25.4 Surface with collar

Centerdrill 25.4 short

Order no.:	**3602540**
Product discription:	25.4 short
Thread type:	DIN EN ISO 228/ DIN 2189
Thread size:	G 3/4“ x 14
Centerdrill core hole:	25,4mm
Working part L1:	46,6mm
Shank-ø:	20,0mm h6
Surface workpiece:	with collar
Max. Material thickness:	**4,5mm**
Suitable for materials:	Steel, Stainless steel, Brass, Aluminum, Copper

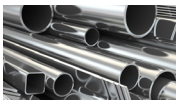
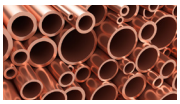
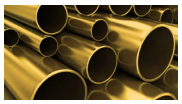
Centerdrill 25.4 long

Order no.:	**3502540**
Product discription:	25.4 long
Thread type:	DIN EN ISO 228/ DIN 2189
Thread size:	G 3/4“ x 14
Centerdrill core hole:	25,4mm
Working part L1:	59,6mm
Shank-ø:	20,0mm h6
Surface workpiece:	with collar
Max. Material thickness:	**10,6mm**
Suitable for materials:	Steel, Stainless steel, Brass, Aluminum, Copper

G3/4“ Centertap on page 54

Parting paste on page 60

Reference values for G 3/4“ in 2mm Material thickness

Material / Process data	 Stainless steel	 Steel	 Copper	 Brass	 Aluminum
RPM Centerdrill	850	1000	1500	1500	1500
RPM Centertap	50-70	100-180	160-240	160-240	160-240
kW-Power +	4,9	3,8	3,8	3,8	3,8
Feed rate (mm/min) +	50-150	50-150	50-150	50-150	50-150

- These are recommended values and they may vary significantly, depending on the type of material, material thickness, lubrication, etc. For thread forming, we recommend our cutting oil. If you use an emulsion, it should contain at least 8-10% grease.
- CNC-data can be provided on request.

Centerdrill 25.4 short-flat

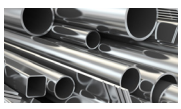
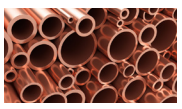
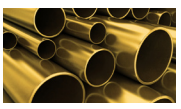
Order no.:	**3652540**
Product discription:	25.4 short-flat
Thread type:	DIN EN ISO 228/ DIN 2189
Thread size:	G 3/4“ x 14
Centerdrill core hole:	25,4mm
Working part L1:	46,6mm
Shank-ø:	20,0mm h6
Surface workpiece:	flat / plan, without collar
Max. Material thickness:	**5,0mm**
Suitable for materials:	Steel, Stainless steel, Brass, Aluminum, Copper

Centerdrill 25.4 long-flat

Order no.:	**3552540**
Product discription:	25.4 long-flat
Thread type:	DIN EN ISO 228/ DIN 2189
Thread size:	G 3/4“ x 14
Centerdrill core hole:	25,4mm
Working part L1:	59,6mm
Shank-ø:	20,0mm h6
Surface workpiece:	flat / plan, without collar
Max. Material thickness:	**11,0mm**
Suitable for materials:	Steel, Stainless steel, Brass, Aluminum, Copper

Also available in the Beginner Set on page 56-59

Reference values for G 3/4“ in 2mm Material thickness

Material / Process data	 Stainless steel	 Steel	 Copper	 Brass	 Aluminum
RPM Centerdrill	850	1000	1500	1500	1500
RPM Centertap	50-70	100-180	160-240	160-240	160-240
kW-Power +	4,9	3,8	3,8	3,8	3,8
Feed rate (mm/min)* +	50-150	50-150	50-150	50-150	50-150

- *While removing the collar, the feed rate should be increased at the end of the process, approx. 900 mm/min.
- These are recommended values and they may vary significantly, depending on the type of material, material thickness, lubrication, etc. For thread forming, we recommend our cutting oil. If you use an emulsion, it should contain at least 8-10% grease.
- CNC-data can be provided on request.

Centertap threadformer

While thread-forming with Centertap, the advantages of the flow-forming process are consistently pursued. After flow forming in the first step, the DIN thread is cold-formed in the second step - NO CUTTING, JUST FORMING! It is a non-cutting and chipless process, in which the material becomes flowable and is displaced from the thread root to the thread crests.

Centertap thread formers are HSS-E tools and they are available in all common thread sizes. Our standard offer includes metric and inch thread formers, with and without lubrication flutes, as well as with a TIN coating. Metric fine, UNC, UNF, etc. thread formers are available on request.

A TiCn coating is also available on request.

Your advantages:

- ✓ Non-cutting manufacturing process
- ✓ It replaces the rivet nut, welding nut and thread cutting in thin materials
- ✓ No more wobbeling, loosening or twisting
- ✓ DIN thread by forming, no cutting needed!
- ✓ The reinforced orientation of the material fibers results in high tensile strength threads, even in thin materials
- ✓ Creating 2 - 4 times more thread length than the original material
- ✓ Highly accurates threads, therefore miscutting is not possible
- ✓ Low wear after multiple connections due to increased hardness
- ✓ 3 to 10 times faster than thread cutting
- ✓ Longer lifetime with special TIN- and TiCn coatings
- ✓ Reduced friction, less burr formation and scoring
- ✓ Can be automated

During the thread forming process, we recommend using our Centertap lubricants. Page 61.

Centertap holder - thread tapping chuck

In order to insert the thread former in machines with the switchable direction of rotation, we recommend a tapping chuck with length compensation in tensile, compressive direction and pressure point mechanism. Thus, an axial force neutral working of the thread former is possible and it compensates a possible overrun of the machine spindle at the reversal point. In combination with an appropriate quick-change unit with overload coupling, the protection function is thus guaranteed for both - the tool and the machine spindle.

Centertap M3 TIN without lubrication flutes

Order no.:	**390M03TIN**
Product discription:	Centertap M3
Thread type:	Metric DIN 371
Thread size:	M3
Pitch:	0,5
Toleranz:	6HX
Lubrication flutes:	no
Coating:	TIN
Material:	HSS-E
Shank-ø:	3,5mm
Square wrench size:	2,7mm
For Centerdrill core hole:	2,7mm

Centertap M4 TIN without lubrication flutes

Order no.:	**390M04TIN**
Product discription:	Centertap M4
Thread type:	Metric DIN 371
Thread size:	M4
Pitch:	0,7
Toleranz:	6HX
Lubrication flutes:	no
Coating:	TIN
Material:	HSS-E
Shank-ø:	4,5mm
Square wrench size:	3,4mm
For Centerdrill core hole:	3,7mm

Our oils on page 61

Reference values for M3 in 2mm

Material	Centertap RPM
Stainless steel	370-430
Steel	1300-1500
Copper	1900-2100
Brass	1900-2100
Aluminum	1900-2100

These are recommended values and they may vary significantly, depending on the type of material, material thickness, lubrication, etc. Emulsions must contain at least 8-10% grease.

Reference values for M4 in 2mm

Material	Centertap RPM
Stainless steel	260-320
Steel	950-1100
Copper	1400-1600
Brass	1400-1600
Aluminum	1400-1600

These are recommended values and they may vary significantly, depending on the type of material, material thickness, lubrication, etc. Emulsions must contain at least 8-10% grease.

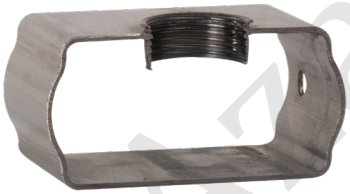
Centertap M5 TIN without lubrication flutes

Order no.:	**390M05TIN**
Product discription:	Centertap M5
Thread type:	Metric DIN 371
Thread size:	M5
Pitch:	0,8
Toleranz:	6HX
Lubrication flutes:	no
Coating:	TIN
Material:	HSS-E
Shank-ø:	6,0mm
Square wrench size:	4,9mm
For Centerdrill core hole:	4,5mm

Centertap M6 TIN without lubrication flutes

Order no.:	**390M06TIN**
Product discription:	Centertap M6
Thread type:	Metric DIN 371
Thread size:	M6
Pitch:	1,0
Toleranz:	6HX
Lubrication flutes:	no
Coating:	TIN
Material:	HSS-E
Shank-ø:	6,0mm
Square wrench size:	4,9mm
For Centerdrill core hole:	5,4mm

Centerdrill + Centertap



DIN-threads in only two working steps

Order hotline
+49 (0) 6198 / 58 58 97

Reference values for M5 in 2mm

Material	Centertap RPM
Stainless steel	200-250
Steel	750-900
Copper	1100-1300
Brass	1100-1300
Aluminum	1100-1300

These are recommended values and they may vary significantly, depending on the type of material, material thickness, lubrication, etc. Emulsions must contain at least 8-10% grease.

Reference values for M6 in 2mm

Material	Centertap RPM
Stainless steel	180-220
Steel	650-800
Copper	900-1100
Brass	900-1100
Aluminum	900-1100

These are recommended values and they may vary significantly, depending on the type of material, material thickness, lubrication, etc. Emulsions must contain at least 8-10% grease.

Centertap M8 TIN with lubrication flutes

Order no.:	**390M08MS**
Product discription:	Centertap M8
Thread type:	Metric DIN 371
Thread size:	M8
Pitch:	1,25
Toleranz:	6HX
Lubrication flutes:	yes
Coating:	TIN
Material:	HSS-E
Shank-ø:	8,0mm
Square wrench size:	6,2mm
For Centerdrill core hole:	7,3 and 7,4mm

Centertap M10 TIN with lubrication flutes

Order no.:	**390M10MS**
Product discription:	Centertap M10
Thread type:	Metric DIN 371
Thread size:	M10
Pitch:	1,5
Toleranz:	6HX
Lubrication flutes:	yes
Coating:	TIN
Material:	HSS-E
Shank-ø:	10,0mm
Square wrench size:	8,0mm
For Centerdrill core hole:	9,2 and 9,3mm

Our oils on page 61

Reference values for M8 in 2mm

Material	Centertap RPM
Stainless steel	190-240
Steel	600-650
Copper	650-800
Brass	650-800
Aluminum	650-800

These are recommended values and they may vary significantly, depending on the type of material, material thickness, lubrication, etc. Emulsions must contain at least 8-10% grease.

Reference values for M10 in 2mm

Material	Centertap RPM
Stainless steel	160-190
Steel	380-480
Copper	530-650
Brass	530-650
Aluminum	530-650

These are recommended values and they may vary significantly, depending on the type of material, material thickness, lubrication, etc. Emulsions must contain at least 8-10% grease.

Centertap M12 TIN with lubrication flutes

Order no.:	**390M12MS**
Product discription:	Centertap M12
Thread type:	Metric DIN 376
Thread size:	M12
Pitch:	1,75
Toleranz:	6HX
Lubrication flutes:	yes
Coating:	TIN
Material:	HSS-E
Shank-ø:	9,0mm
Square wrench size:	7,0mm
For Centerdrill core hole:	10,9 and 11,0mm

Centertap M14 TIN with lubrication flutes

Order no.:	**390M14MS**
Product discription:	Centertap M14
Thread type:	Metric DIN 376
Thread size:	M14
Pitch:	2,0
Toleranz:	6HX
Lubrication flutes:	yes
Coating:	TIN
Material:	HSS-E
Shank-ø:	11,0mm
Square wrench size:	9,0mm
For Centerdrill core hole:	13,0mm

Order hotline
+49 (0) 6198 / 58 58 97

Reference values for M12 in 2mm

Material	Centertap RPM
Stainless steel	140-160
Steel	300-400
Copper	460-530
Brass	460-530
Aluminum	460-530

These are recommended values and they may vary significantly, depending on the type of material, material thickness, lubrication, etc. Emulsions must contain at least 8-10% grease.

Reference values for M14 in 2mm

Material	Centertap RPM
Stainless steel	120-140
Steel	300-350
Copper	400-460
Brass	400-460
Aluminum	400-460

These are recommended values and they may vary significantly, depending on the type of material, material thickness, lubrication, etc. Emulsions must contain at least 8-10% grease.

Centertap M16 TIN with lubrication flutes

Order no.:	**390M16MS**
Product discription:	Centertap M16
Thread type:	Metric DIN 376
Thread size:	M16
Pitch:	2,0
Toleranz:	6HX
Lubrication flutes:	yes
Coating:	TIN
Material:	HSS-E
Shank-ø:	12,0mm
Square wrench size:	9,0mm
For Centerdrill core hole:	14,8mm

Further Centertap-sizes / types available on request

Our oils on page 61

Reference values for M16 in 2mm

Material	Centertap RPM
Stainless steel	110-120
Steel	200-300
Copper	360-400
Brass	360-400
Aluminum	360-400

These are recommended values and they may vary significantly, depending on the type of material, material thickness, lubrication, etc. Emulsions must contain at least 8-10% grease.

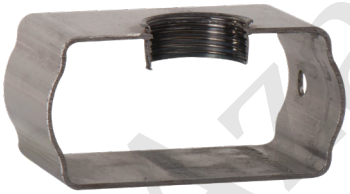
Centertap G 1/8“ TIN with lubrication flutes

Order no.:	**390G1/8MS**
Product discription:	Centertap G 1/8“
Thread type:	DIN EN ISO 228/ DIN 2189
Thread size:	G 1/8“
Pitch:	28,00 G/inch
Lubrication flutes:	yes
Coating:	TIN
Material:	HSS-E
Shank-ø:	7,0mm
Square wrench size:	5,5mm
For Centerdrill core hole:	9,2 and 9,3mm

Centertap G 1/4“ TIN with lubrication flutes

Order no.:	**390G1/4MS**
Product discription:	Centertap G 1/4“
Thread type:	DIN EN ISO 228/ DIN 2189
Thread size:	G 1/4“
Pitch:	19,00 G/inch
Lubrication flutes:	yes
Coating:	TIN
Material:	HSS-E
Shank-ø:	11,0mm
Square wrench size:	9,0mm
For Centerdrill core hole:	12,4mm

Centerdrill + Centertap



DIN-threads in only two working steps

Order hotline
+49 (0) 6198 / 58 58 97

Reference values for G 1/8“ in 2mm

Material	Centertap RPM
Stainless steel	140-190
Steel	380-500
Copper	480-650
Brass	480-650
Aluminum	480-650

These are recommended values and they may vary significantly, depending on the type of material, material thickness, lubrication, etc. Emulsions must contain at least 8-10% grease.

Reference values for G 1/4“ in 2mm

Material	Centertap RPM
Stainless steel	110-140
Steel	280-360
Copper	380-480
Brass	380-480
Aluminum	380-480

These are recommended values and they may vary significantly, depending on the type of material, material thickness, lubrication, etc. Emulsions must contain at least 8-10% grease.

Centertap G 3/8“ TIN with lubrication flutes

Order no.:	**390G3/8MS**
Product discription:	Centertap G 3/8“
Thread type:	DIN EN ISO 228/ DIN 2189
Thread size:	G 3/8“
Pitch:	19,00 G/inch
Lubrication flutes:	yes
Coating:	TIN
Material:	HSS-E
Shank-ø:	12,0mm
Square wrench size:	9,0mm
For Centerdrill core hole:	15,9mm

Centertap G 1/2“ with Lubrication flutes

Order no.:	**390G1/2MS**
Product discription:	Centertap G 1/2“
Thread type:	DIN EN ISO 228/ DIN 2189
Thread size:	G 1/2“
Pitch:	14,00 G/inch
Lubrication flutes:	yes
Coating:	TIN
Material:	HSS-E
Shank-ø:	16,0mm
Square wrench size:	12,0mm
For Centerdrill core hole:	19,9mm

Our oils on page 61

Reference values for G 3/8“ in 2mm

Material	Centertap RPM
Stainless steel	90-110
Steel	200-280
Copper	300-380
Brass	300-380
Aluminum	300-380

These are recommended values and they may vary significantly, depending on the type of material, material thickness, lubrication, etc. Emulsions must contain at least 8-10% grease.

Reference values for G 1/2“ in 2mm

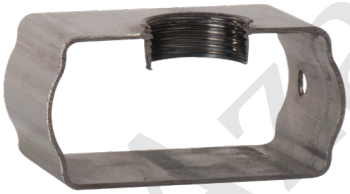
Material	Centertap RPM
Stainless steel	70-90
Steel	140-230
Copper	240-300
Brass	240-300
Aluminum	240-300

These are recommended values and they may vary significantly, depending on the type of material, material thickness, lubrication, etc. Emulsions must contain at least 8-10% grease.

Centertap G 3/4“ TIN with lubrication flutes

Order no.:	**390G3/4MS**
Product discription:	Centertap G 3/4“
Thread type:	DIN EN ISO 228/ DIN 2189
Thread size:	G 3/4“
Pitch:	14,00 G/inch
Lubrication flutes	yes
Coating:	TIN
Material:	HSS-E
Shank-ø:	20,0mm
Square wrench size	16,0mm
For Centerdrill core hole:	25,4mm

Centerdrill + Centertap



DIN-threads in only two working steps

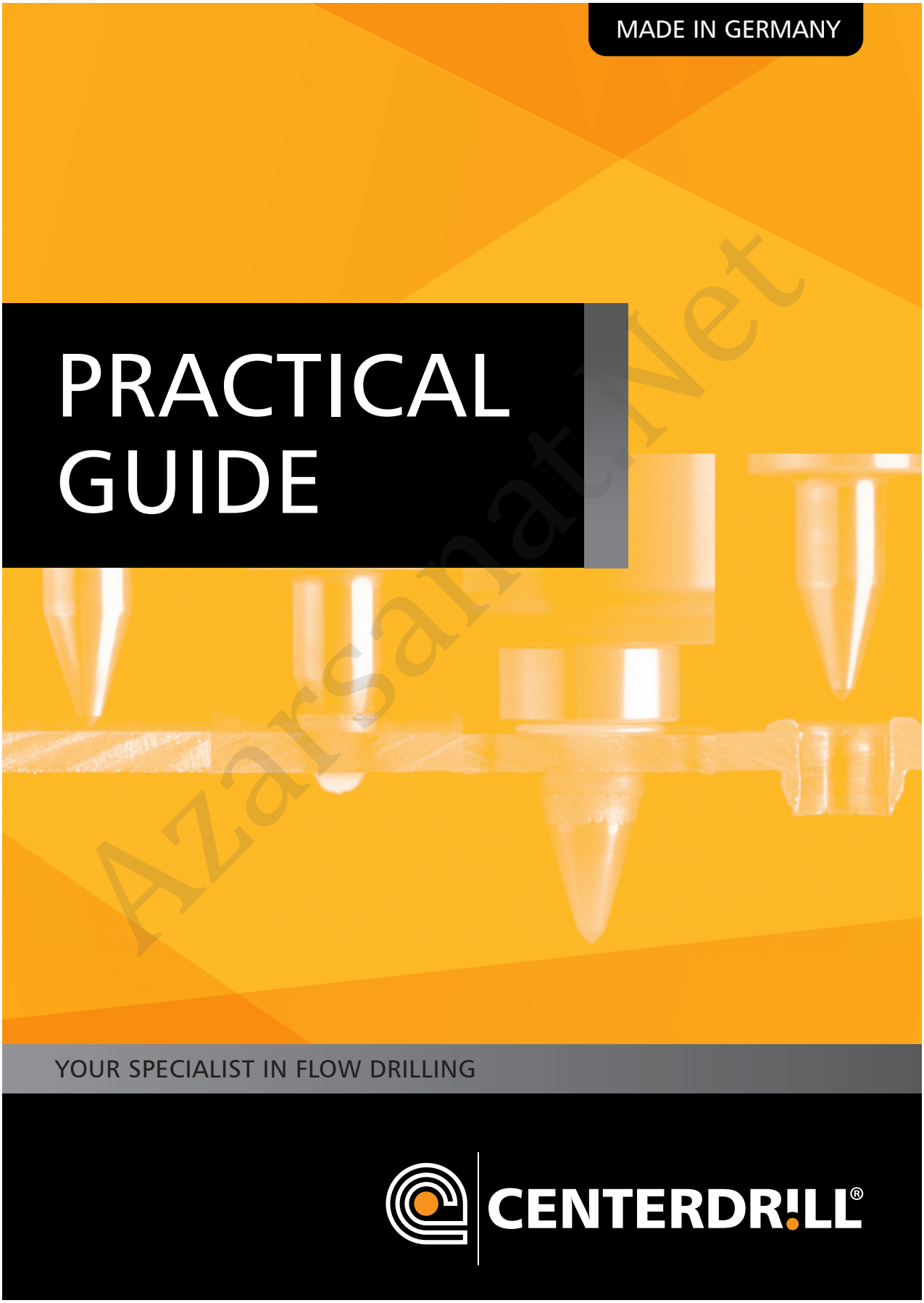
Reference values for G 3/4“ in 2mm

Material	Centertap RPM
Stainless steel	50-70
Steel	100-180
Copper	160-240
Brass	160-240
Aluminum	160-240

These are recommended values and they may vary significantly, depending on the type of material, material thickness, lubrication, etc. Emulsions must contain at least 8-10% grease.

Further Centertap-sizes / types available on request

Centerdrill practical guide
Request now: support@centerdrill.de



Centerdrill Beginner Set

To achieve an optimal result and a secure connection of the Centerdrill tools, we recommend our Beginner Set, as the ideal basic equipment. Due to high axial forces and temperatures during the flow forming process, the use of our special collet chuck is indispensable. With the integrated cooling ring/ ventilation spokes, the heat will be optimally conducted away from your machine spindle, and with the Centerdrill collet, the concentricity during the flow drilling is provided. All of these and even more, you obtain with our Beginner Set, which ensures significant cost advantages in relation to the single purchase.

The Centerdrill Beginner Set consists of:

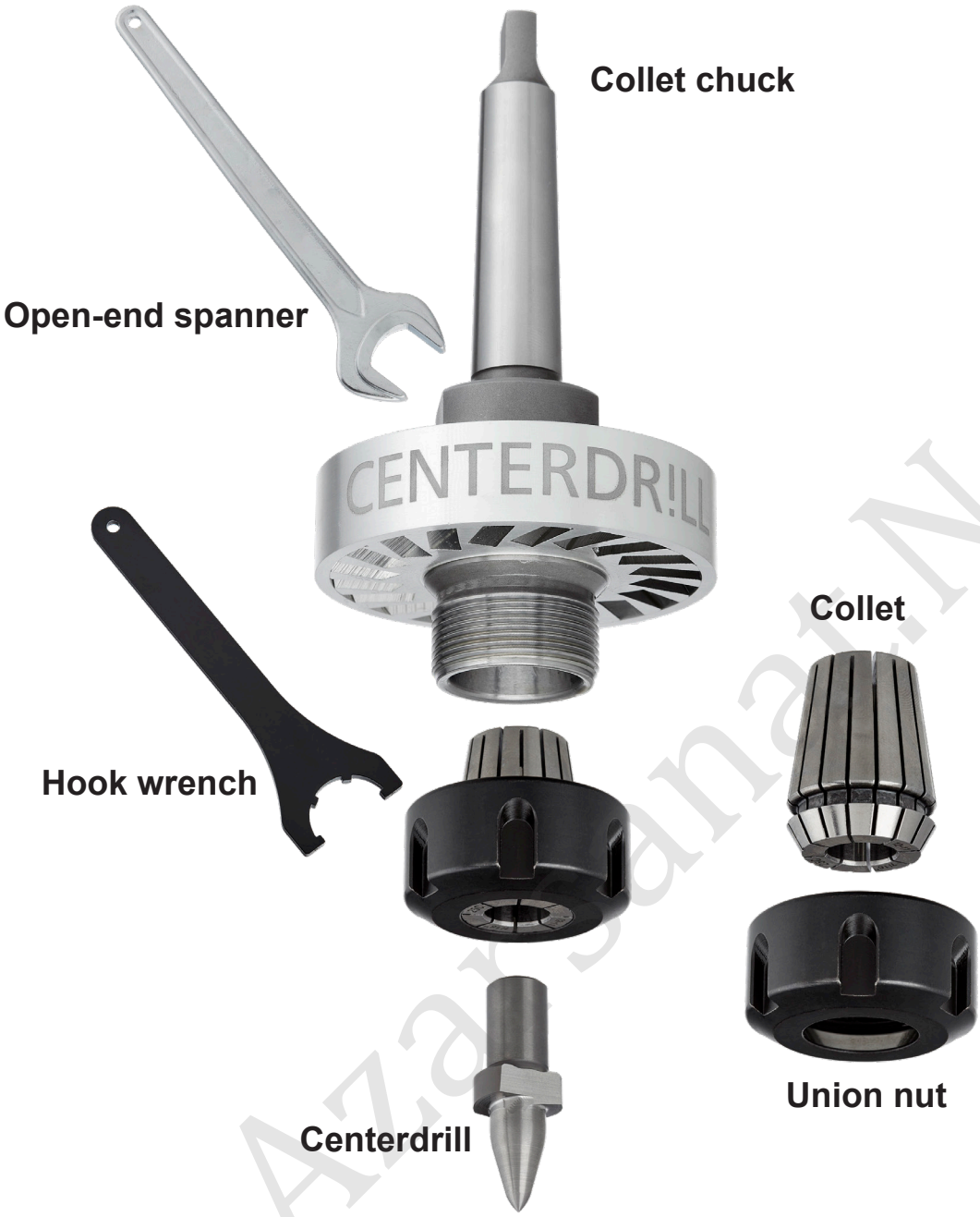
- 1 x Centerdrill tool of your choice*
- 1 x Centertap thread former of your choice*
- 1 x Collet chuck with cooling ring of your choice* => MT - SK - HSK - BT
- 1 x Parting paste for flow drilling 250 gr. + 1 x brush
- 1 x Lubricant for thread forming 250 ml + 1 x spray cap
- 1 x Centerdrill collet, suitable to your previously selected tools
- 1 x Tool case (available only with collet chuck MT2)

* Prices vary depending on your selection

There are different collet chucks to choose from.
The following are available: MT2, MT3, MT4, SK40, HSKF63, etc.
Also, remember that the use of a reducing cone can be useful!

With this basic equipment, you are optimally equipped for the flow drilling process!

Assembly / Instructions



1. Push the collet in the union nut until it clicks.
2. Then put the collet-to-nut assembly into the collet chuck and screw it onto the union nut by hand.
3. Put the centerdrill tool through the union nut hole into the collet.
4. Fix the union nut by hand again.
5. Insert the collet chuck in the machine spindle.
6. Tighten the nut using both spanners so that the centerdrill tool is well fixed.

   Use the open-end spanner for the collet chuck and the hook wrench for the union nut.

   Check at regular intervals that the centerdrill tool is always firmly clamped.

Centerdrill Beginner Set for metric threads

Collet chuck / Centerdrill tool	MT2 Order no.:	MT3* Order no.:	MT4* Order no.:	SK40* Order no.:	HSKF63* Order no.:
Centerdrill 2.7 short for M3	410K0270	420K0270	470K0270	440K0270	450K0270
Centerdrill 2.7 long for M3	410L0270	420L0270	470L0270	440L0270	450L0270
Centerdrill 2.7 short-flat for M3	410KF0270	420KF0270	470KF0270	440KF0270	450KF0270
Centerdrill 2.7 long-flat for M3	410LF0270	420LF0270	470LF0270	440LF0270	450LF0270
Centerdrill 3.7 short for M4	410K0370	420K0370	470K0370	440K0370	450K0370
Centerdrill 3.7 long for M4	410L0370	420L0370	470L0370	440L0370	450L0370
Centerdrill 3.7 short-flat for M4	410KF0370	420KF0370	470KF0370	440KF0370	450KF0370
Centerdrill 3.7 long-flat for M4	410LF0370	420LF0370	470LF0370	440LF0370	450LF0370
Centerdrill 4.5 short for M5	410K0450	420K0450	470K0450	440K0450	450K0450
Centerdrill 4.5 long for M5	410L0450	420L0450	470L0450	440L0450	450L0450
Centerdrill 4.5 short-flat for M5	410KF0450	420KF0450	470KF0450	440KF0450	450KF0450
Centerdrill 4.5 long-flat for M5	410LF0450	420LF0450	470LF0450	440LF0450	450LF0450
Centerdrill 5.4 short for M6	410K0540	420K0540	470K0540	440K0540	450K0540
Centerdrill 5.4 long for M6	410L0540	420L0540	470L0540	440L0540	450L0540
Centerdrill 5.4 short-flat for M6	410KF0540	420KF0540	470KF0540	440KF0540	450KF0540
Centerdrill 5.4 long-flat for M6	410LF0540	420LF0540	470LF0540	440LF0540	450LF0540
Centerdrill 7.3 short for M8	410K0730	420K0730	470K0730	440K0730	450K0730
Centerdrill 7.3 long for M8	410L0730	420L0730	470L0730	440L0730	450L0730
Centerdrill 7.3 short-flat for M8	410KF0730	420KF0730	470KF0730	440KF0730	450KF0730
Centerdrill 7.3 long-flat for M8	410LF0730	420LF0730	470LF0730	440LF0730	450LF0730
Centerdrill 7.4 short for M8	410K0740	420K0740	470K0740	440K0740	450K0740
Centerdrill 7.4 long for M8	410L0740	420L0740	470L0740	440L0740	450L0740
Centerdrill 7.4 short-flat for M8	410KF0740	420KF0740	470KF0740	440KF0740	450KF0740
Centerdrill 7.4 long-flat for M8	410LF0740	420LF0740	470LF0740	440LF0740	450LF0740
Centerdrill 9.2 short for M10	410K0920	420K0920	470K0920	440K0920	450K0920
Centerdrill 9.2 long for M10	410L0920	420L0920	470L0920	440L0920	450L0920
Centerdrill 9.2 short-flat for M10	410KF0920	420KF0920	470KF0920	440KF0920	450KF0920
Centerdrill 9.2 long-flat for M10	410LF0920	420LF0920	470LF0920	440LF0920	450LF0920
Centerdrill 9.3 short for M10	410K0930	420K0930	470K0930	440K0930	450K0930
Centerdrill 9.3 long for M10	410L0930	420L0930	470L0930	440L0930	450L0930
Centerdrill 9.3 short-flat for M10	410KF0930	420KF0930	470KF0930	440KF0930	450KF0930
Centerdrill 9.3 long-flat for M10	410LF0930	420LF0930	470LF0930	440LF0930	450LF0930
Centerdrill 10.9 short for M12	410K1090	420K1090	470K1090	440K1090	450K1090
Centerdrill 10.9 long for M12	410L1090	420L1090	470L1090	440L1090	450L1090
Centerdrill 10.9 short-flat for M12	410KF1090	420KF1090	470KF1090	440KF1090	450KF1090
Centerdrill 10.9 long-flat for M12	410LF1090	420LF1090	470LF1090	440LF1090	450LF1090
Centerdrill 11.0 short for M12	410K1100	420K1100	470K1100	440K1100	450K1100
Centerdrill 11.0 long for M12	410L1100	420L1100	470L1100	440L1100	450L1100
Centerdrill 11.0 short-flat for M12	410KF1100	420KF1100	470KF1100	440KF1100	450KF1100
Centerdrill 11.0 long-flat for M12	410LF1100	420LF1100	470LF1100	440LF1100	450LF1100
Centerdrill 13.0 short for M14	410K1300	420K1300	470K1300	440K1300	450K1300
Centerdrill 13.0 long for M14	410L1300	420L1300	470L1300	440L1300	450L1300
Centerdrill 13.0 short-flat for M14	410KF1300	420KF1300	470KF1300	440KF1300	450KF1300
Centerdrill 13.0 long-flat for M14	410LF1300	420LF1300	470LF1300	440LF1300	450LF1300

* Toolcase (available only with collet chuck MT2).

Centerdrill Beginner Set for metric threads

Collet chuck / Centerdrill tool	MT2 Order no.:	MT3* Order no.:	MT4* Order no.:	SK40* Order no.:	HSKF63* Order no.:
Centerdrill 14.8 short for M16	X	420K1480	470K1480	X	X
Centerdrill 14.8 long for M16	X	420L1480	470L1480	X	X
Centerdrill 14.8 short-flat for M16	X	420KF1480	470KF1480	X	X
Centerdrill 14.8 long-flat for M16	X	420LF1480	470LF1480	X	X

* Toolcase (available only with collet chuck MT2).

Centerdrill Beginner Set for withworth pipe threads / BSP

Collet chuck / Centerdrill tool	MT2 Order no.:	MT3* Order no.:	MT4* Order no.:	SK40* Order no.:	HSKF63* Order no.:
Centerdrill 9.2 short for G 1/8"	410K0920G	420K0920G	470K0920G	440K0920G	450K0920G
Centerdrill 9.2 long for G 1/8"	410L0920G	420L0920G	470L0920G	440L0920G	450L0920G
Centerdrill 9.2 short-flat for G 1/8"	410KF0920G	420KF0920G	470KF0920G	440KF0920G	450KF0920G
Centerdrill 9.2 long-flat for G 1/8"	410LF0920G	420LF0920G	470LF0920G	440LF0920G	450LF0920G
Centerdrill 9.3 short for G 1/8"	410K0930G	420K0930G	470K0930G	440K0930G	450K0930G
Centerdrill 9.3 long for G 1/8"	410L0930G	420L0930G	470L0930G	440L0930G	450L0930G
Centerdrill 9.3 short-flat for G 1/8"	410KF0930G	420KF0930G	470KF0930G	440KF0930G	450KF0930G
Centerdrill 9.3 long-flat for G 1/8"	410LF0930G	420LF0930G	470LF0930G	440LF0930G	450LF0930G
Centerdrill 12.4 short for G 1/4"	410K1240	420K1240	470K1240	440K1240	450K1240
Centerdrill 12.4 long for G 1/4"	410L1240	420L1240	470L1240	440L1240	450L1240
Centerdrill 12.4 short-flat for G 1/4"	410KF1240	420KF1240	470KF1240	440KF1240	450KF1240
Centerdrill 12.4 long-flat for G 1/4"	410LF1240	420LF1240	470LF1240	440LF1240	450LF1240
Centerdrill 15.9 short for G 3/8"	X	420K1590	470K1590	X	X
Centerdrill 15.9 long for G 3/8"	X	420L1590	470L1590	X	X
Centerdrill 15.9 short-flat for G 3/8"	X	420KF1590	470KF1590	X	X
Centerdrill 15.9 long-flat for G 3/8"	X	420LF1590	470LF1590	X	X
Centerdrill 19.9 short for G 1/2"	X	420K1990	470K1990	X	X
Centerdrill 19.9 long for G 1/2"	X	420L1990	470L1990	X	X
Centerdrill 19.9 short-flat for G 1/2"	X	420KF1990	470KF1990	X	X
Centerdrill 19.9 long-flat for G 1/2"	X	420LF1990	470LF1990	X	X
Centerdrill 25.4 short for G 3/4"	X	420K2540	470K2540	X	X
Centerdrill 25.4 long for G 3/4"	X	420L2540	470L2540	X	X
Centerdrill 25.4 short-flat for G 3/4"	X	420KF2540	470KF2540	X	X
Centerdrill 25.4 long-flat for G 3/4"	X	420LF2540	470LF2540	X	X

* Toolcase (available only with collet chuck MT2).

Further collet chucks such as e.g. SK30, BT40, etc. are available on request.

Centerdrill parting paste

It is recommended that you apply our white parting paste to the Centerdrill flow punch former in order to avoid caking metals on the Centerdrill (depending on the material and material thickness, every 1-5 holes). The application of the parting paste can be done manually, for example by using a brush. It is important that the parting paste is applied from the beginning and from the top to the beginning of the band of the Centerdrill. A thin film is sufficient. This paste also increases the useful life of the Centerdrill. Too much white paste reduces the required heat of the process and has a negative effect on the quality of the formed bush and collar. The parting paste is water-soluble and contains no oils, so it is also optimally suitable for components that will be coated subsequently, where no residues may remain on the surface. While processing the parting paste, especially at very high temperatures, there are no harmful substances and vapors.

Your advantages:

- ✓ Longer lifetime of the Centerdrill tool
- ✓ Watersoluble, especially suitable for profiles that are subsequently painted.
- ✓ Material adhesion will be reduced on the Centerdrill tool
- ✓ Oil-free
- ✓ For manual application (with a brush). For spraying systems only on request.

Application notes:

- ✓ It should be applied on the Centerdrill every 5 holes in steel and every single operation in stainless steel. The frequency will depend on the material to be processed.
- ✓ In general there should be no screeching noise during the flow drilling process. If it nevertheless happens, you should apply the paste once again.

Discription	250gr. box Order no.:	1Kg. box Order no.:
Parting paste for flow drilling	370ST4802	370ST4810
Brass brush qty.	1x	2x
Brass brush item no.	370ST4800	370ST4800

Centertap Lubricants

When forming the threads, the use of our lubricants is essential. It should be applied to the centertap before each operation, either manually with a brush or by a machine with a spraying system. Our oils contain no volatile chlorinated hydrocarbons and the base oils are combined according to the latest developments and environmentally friendly criterias.

Wherever residual oils interfere, such as when painting and galvanizing, then our washable lubricant can be used. This oil is mineral oil-free, easy to dilute with water and therefore easy to wash off. The restants can be removed very well with conventional degreasing agents.

Your advantages:

- ✓ Reduces the required torque
- ✓ Longer lifetime of Centertap threadformer
- ✓ Supports to form the thread correctly
- ✓ Chlorine free
- ✓ Also available as „washable“. Well suited for subsequently coated metals
- ✓ For a manual application or for spraying systems

Application notes:

- ✓ It should be applied to the Centertap thread former before each operation

Discription	250ml bottle Order no.:	1 Liter bottle Order no.:	5 Liter can Order no.:
Standard oil „clorine free“	370ST6705	370ST6710	370ST6750
Liquid oil „for spraying systems“	-	370ST6610	370ST6650
Washable oil „mineral oil-free“	-	370ST6510	370ST6550

Centerdrill collet chuck

Due to the extreme thermal fluctuation and radial load, it is absolutely essential to use our special collet chuck. The heat generated during the flow drilling process must not be allowed to enter the machine spindle but it must be cooled instead. Commonly available three-part chucks may cause the breakage of the Centerdrill if it is not clamped centrally! For this reason, a collet chuck with a cooling ring was developed, especially for the flow drilling process with Centerdrill, so that the heat can be dissipated ideally and a secure connection can be ensured. The collet chuck MT2 is standard for the Centerdrills with a shank up to Ø 14mm. For bigger sizes, we recommend a MT3 or MT4 collet chuck with a cooling ring.

Your advantages:

- ✓ Heat dissipation through a special cooling ring and thus, ensuring the protection of your machine spindle
- ✓ A secure clamping and concentricity of the Centerdrill tools ...
- ✓ ... and thereby, a lower risk of breakage of the Centerdrill tools

If you are interested in a collet chuck, we also recommend having a look at our Beginner Set. This will provide you complete basic equipment, with a cost advantage compared to the single purchasing. Page 56.

Discription	suitable for collet Ø	incl. spanners	Order no.:
MT 2	ER25 with Ø von 6 - 16	hook wrench+ open end spanner	385SZFMT02
MT 3	ER32 with Ø von 6 - 20	hook wrench+ open end spanner	385SZFMT03
MT 4	ER32 with Ø von 6 - 20	hook wrench+ open end spanner	385SZFMT04
SK 40	ER25 with Ø von 6 - 16	hook wrench	385SZFSK40
HSK F63	ER25 with Ø von 6 - 16	hook wrench	385SZFSHSKF63

Further collet chucks, such as BT40 etc. are available on request.
Also the technical details and dimensions.

Centerdrill reducing sleeve

For example: The use of reducing sleeves can make sense if you want to work with smaller thread sizes (M3, M4, etc.), but your machine has a MT4 holder. The smaller diameter of the aluminum cooling ring on the MT2 collet chuck enables a better view of the smaller Centerdrills. Incidentally, you also save costs when purchasing the „smaller" collet chuck.

Discription	Order no.:
MT3 to MT2	383R0302
MT4 to MT3	383R0403
MT4 to MT2	383R0402

Centerdrill collets

For an optimum concentricity and a secure clamping of the Centerdrill, it is essential to use a collet. Together with the special collet chuck with a cooling ring, you have an ideal prerequisite for a safe process.

Your advantages:

- ✓ A secure clamping and concentricity of centerdrill tools...
- ✓ ...and thereby a lower risk of breakage of the Centerdrill tools

Centerdrill metric thread	Shank Ø	ER25 for MT2, SK40, HSK63F Order no.:	ER32 for MT3, MT4 Order no.:
M3 - M5	6	380430E06	380470E06
M6 - M8	8	380430E08	380470E08
M10	10	380430E10	380470E10
M12	12	380430E12	380470E12
M14	14	380430E14	380470E14
M16	16	380430E16	380470E16

Centerdrill withworth thread	Shank Ø	ER25 for MT2, SK40, HSK63F Order no.:	ER32 for MT3, MT4 Order no.:
G 1/8"	10	380430E10	380470E10
G 1/4"	14	380430E14	380470E14
G 3/8"	16	380430E16	380470E16
G 1/2"	18	-	380470E18
G 3/4"	20	-	380470E20

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