

DEEP HOLE DRILLING TOOLS

REDEFINING LIMITS
INNOVATION IN DEPTH



Hole Machining Tool List



I 600 Series

- Various diameter ranges (Ø10.00~33.30mm)
- Economic efficiency from replaceable inserts
- Versatile for various materials and machining environments
- Excellent hole straightness and surface finish
- Fast delivery (standard heads in stock)



I 705 Series

- Robust design and insert use provide high rigidity, ensuring excellent machining stability
- Excellent hole quality due to smooth chip evacuation
- Easy replacement of inserts and pads
- Minimizes downtime with quick on-site insert and pad replacement



I 805 Series

- Allows for stable high-speed machining due to low cutting load
- Enhanced rigidity to prevent vibration during deep hole drilling
- Suitable for machining various materials, including difficult-to-cut materials
- High productivity with stable hole quality



I Brazed Type Gundrill

- Capable of producing custom diameters (Ø2.50~33.30mm)
- Stable hole straightness and surface roughness
- High economic efficiency due to long tool life
- Capable of producing both single and multiple-flute types



I Special Brazed Gundrill

- Can be manufactured to match special shapes and specifications
- Capable of producing custom sizes for various machining environments
- Applicable to various special hole shapes

Deep Hole Drilling Gundrill

Diameter : **10.00-33.30 mm**

Maximum Length : **3500 mm**

Excellent Safety & Durability

Compatible with Various Applications
&
Wide Range of Materials





600.20 Series (Standart Type)

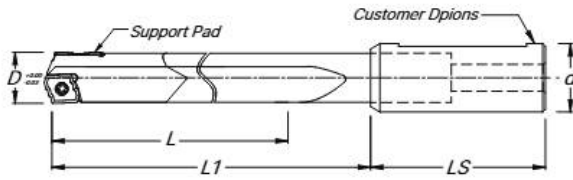


Fig 1

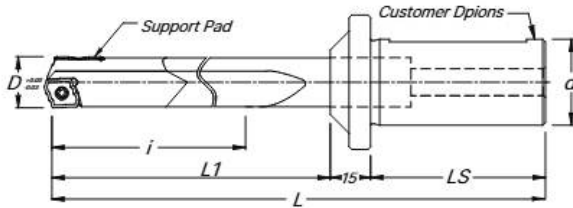


Fig 2

600.40 Series (Cross Hole Type)

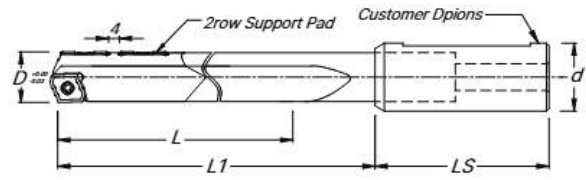


Fig 1

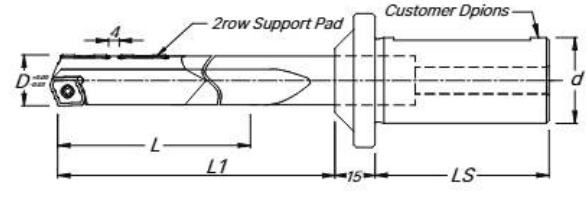


Fig 2

Diameter range mm	Insert	Insert Screw	Screw driver	Support Pad	Support Pad Screw	Screw driver
DC						
10.00~11.79	LXET050104-DR	FTNA02235-M2.2	Torx-T6	LNXT0418-R045	FTNA02235-M2.2	Torx-T6
11.80~11.99	LXET06T104-DR	FTNA02240-M2.2	Torx-T6	LNXT0418-R055	FTNA02205-M2.2	Torx-T6
12.00~13.99	LXET06T104-DR	FTNA02205-M2.2	Torx-T6	LNXT0418-R055	FTNA02205-M2.2	Torx-T6
14.00~14.99	LXET080204-DR	FTKA02543S-M2.5	Torx-T8	LNXT0418-R065	FTNA02205-M2.2	Torx-T6
15.00~15.49	LXET080204-DR	FTKA02543S-M2.5	Torx-T8	LNXT0618-R070	FTKA02555-M2.5	Torx-T7
15.50~15.99	LXET080204-DR	FTKA02545S-M2.5	Torx-T8	LNXT0618-R070	FTKA02555-M2.5	Torx-T7
16.00~16.50	LXET09T204-DR	FTKA02545S-M2.5	Torx-T8	LNXT0618-R075	FTKA02555-M2.5	Torx-T7
16.51~17.99	LXET09T204-DR	FTKA02550S-M2.5	Torx-T8	LNXT0618-R075	FTKA02555-M2.5	Torx-T7
18.00~19.50	LXET100305-DR	FTNA0305-M3.0	Torx-T9	LNXT0618-R085	FTKA02555-M2.5	Torx-T7
19.51~19.99	LXET100305-DR	FTNA0306-M3.0	Torx-T9	LNXT0618-R085	FTKA02555-M2.5	Torx-T7
20.00~21.99	LXET110305-DR	FTNA0306-M3.0	Torx-T9	LNXT0618-R095	FTKA02555-M2.5	Torx-T7
22.00~22.50	LXET13T305-DR	FTGA03575-M3.5	Torx-T15	LNXT0618-R105	FTKA02555-M2.5	Torx-T7
22.51~24.99	LXET13T305-DR	FTGA03508-M3.5	Torx-T15	LNXT0618-R105	FTKA02555-M2.5	Torx-T7
25.00~28.69	LXET140405-DR	FTGA03508-M3.5	Torx-T15	LNXT0618-R120	FTKA02555-M2.5	Torx-T7
28.70~30.99	LXET150505-DR	FTKA0410-M4.0	Torx-T15	LNXT0618-R130	FTKA02555-M2.5	Torx-T7
31.00~33.30	LXET160605-DR	FTKA0410-M4.0	Torx-T15	LNXT0720-R140	FTKA03083-M3.0	Torx-T9

600.20 Seires



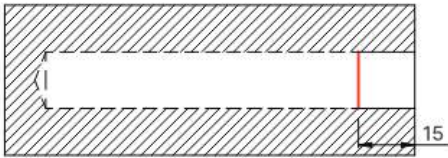
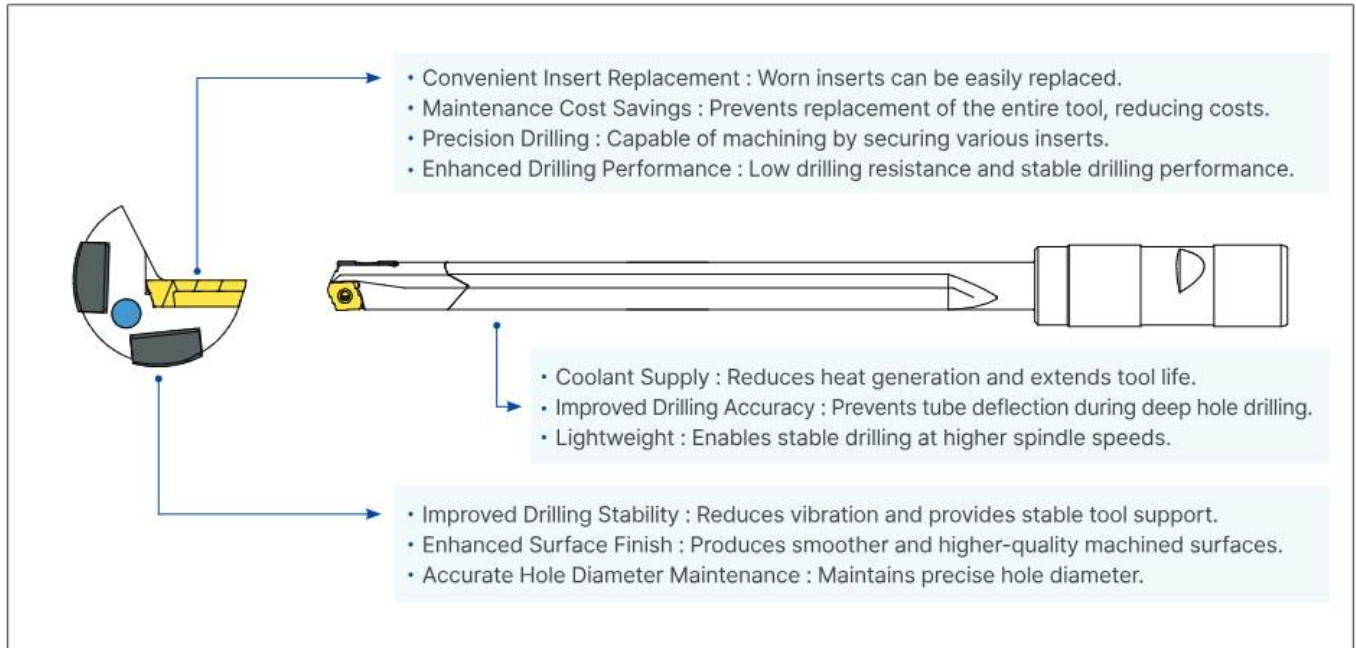
Diameter range mm	Ordering Code	Insert	Insert Grade	Support Pad	Support Pad Grade
DC					
10.00~11.79	EHD-600.20*D***	LXET050104-DR	HM3/SM3/IM3	LNXT0418-R045	PM3/IM3
11.80~13.99	EHD-600.20*D***	LXET06T104-DR	HM3/SM3/IM3	LNXT0418-R055	PM3/IM3
14.00~14.99	EHD-600.20*D***	LXET080204-DR	HM3/SM3/IM3	LNXT0418-R065	PM3/IM3
15.00~15.99	EHD-600.20*D***	LXET080204-DR	HM3/SM3/IM3	LNXT0618-R070	PM3/IM3
16.00~17.99	EHD-600.20*D***	LXET09T204-DR	HM3/SM3/IM3	LNXT0618-R075	PM3/IM3
18.00~19.99	EHD-600.20*D***	LXET100305-DR	HM3/SM3/IM3	LNXT0618-R085	PM3/IM3
20.00~21.99	EHD-600.20*D***	LXET110305-DR	HM3/SM3/IM3	LNXT0618-R095	PM3/IM3
22.00~24.99	EHD-600.20*D***	LXET13T305-DR	HM3/SM3/IM3	LNXT0618-R105	PM3/IM3
25.00~28.69	EHD-600.20*D***	LXET140405-DR	HM3/SM3/IM3	LNXT0618-R120	PM3/IM3
28.70~30.99	EHD-600.20*D***	LXET150505-DR	HM3/SM3/IM3	LNXT0618-R130	PM3/IM3
31.00~33.30	EHD-600.20*D***	LXET160605-DR	HM3/SM3/IM3	LNXT0720-R140	PM3/IM3

600.40 Series



Diameter range mm	Ordering Code	Insert	Insert Grade	Support Pad	Support Pad Grade
DC					
10.00~11.79	EHD-600.40*D***	LXET050104-DR	HM3/SM3/IM3	LNXT0418-R045	PM3/IM3
11.80~13.99	EHD-600.40*D***	LXET06T104-DR	HM3/SM3/IM3	LNXT0418-R055	PM3/IM3
14.00~14.99	EHD-600.40*D***	LXET080204-DR	HM3/SM3/IM3	LNXT0418-R065	PM3/IM3
15.00~15.99	EHD-600.40*D***	LXET080204-DR	HM3/SM3/IM3	LNXT0618-R070	PM3/IM3
16.00~17.99	EHD-600.40*D***	LXET09T204-DR	HM3/SM3/IM3	LNXT0618-R075	PM3/IM3
18.00~19.99	EHD-600.40*D***	LXET100305-DR	HM3/SM3/IM3	LNXT0618-R085	PM3/IM3
20.00~21.99	EHD-600.40*D***	LXET110305-DR	HM3/SM3/IM3	LNXT0618-R095	PM3/IM3
22.00~24.99	EHD-600.40*D***	LXET13T305-DR	HM3/SM3/IM3	LNXT0618-R105	PM3/IM3
25.00~28.69	EHD-600.40*D***	LXET140405-DR	HM3/SM3/IM3	LNXT0618-R120	PM3/IM3
28.70~30.99	EHD-600.40*D***	LXET150505-DR	HM3/SM3/IM3	LNXT0618-R130	PM3/IM3
31.00~33.30	EHD-600.40*D***	LXET160605-DR	HM3/SM3/IM3	LNXT0720-R140	PM3/IM3

600.20 Series Operating Guide



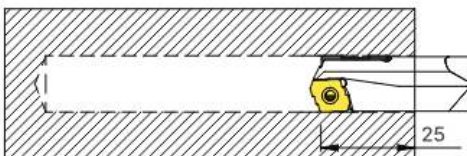
Pilot Hole Drilling

The pilot hole drilling depth should be to the point where one side of the guide pad is fully engaged in the hole.



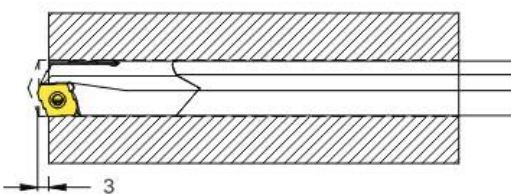
Initial Entry (First 10 mm after the pilot hole)

- RPM :** Reduce drilling RPM to 60–70% to minimize run-out and vibration of the tool and to ensure smooth and controlled entry.
- Feed rate :** Set drilling feed rate to 30–40% of the normal value. Using a low feed rate at the start reduces the risk of tool damage and helps ensure smooth drilling.
- Coolant supply :** Start supplying coolant before the drill makes contact with the workpiece to maintain stable flow throughout the process.



Middle Drilling (10–25 mm depth)

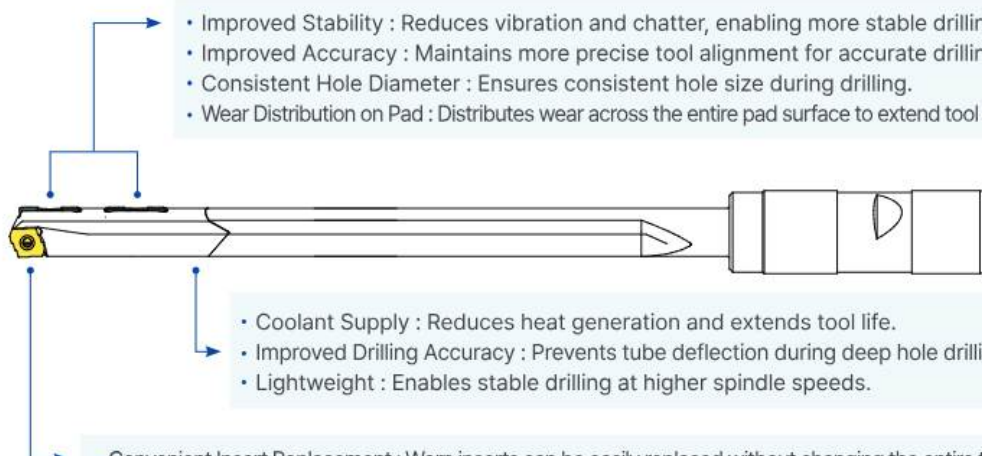
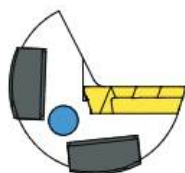
- RPM :** After the guide pad is fully engaged, gradually increase drilling RPM from 80% to 100% of the normal value.
- Feed rate :** Gradually increase drilling feed rate from 80% to 100% of the normal value. This ensures stable drilling without tool run-out or loss of efficiency.



Final 3 mm Before Breakthrough

- RPM :** Reduce drilling RPM to 50–60% of the normal value to maintain stability.
- Feed rate :** Reduce drilling feed rate by 10–20% compared to normal. This prevents sudden breakthrough and ensures the drill exits smoothly from the hole.

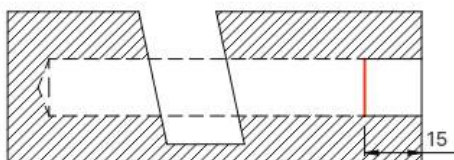
600.40 Series Operating Guide



- Improved Stability : Reduces vibration and chatter, enabling more stable drilling.
- Improved Accuracy : Maintains more precise tool alignment for accurate drilling.
- Consistent Hole Diameter : Ensures consistent hole size during drilling.
- Wear Distribution on Pad : Distributes wear across the entire pad surface to extend tool life.

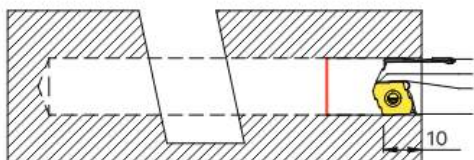
- Coolant Supply : Reduces heat generation and extends tool life.
- Improved Drilling Accuracy : Prevents tube deflection during deep hole drilling.
- Lightweight : Enables stable drilling at higher spindle speeds.

- Convenient Insert Replacement : Worn inserts can be easily replaced without changing the entire tool.
- Maintenance Cost Savings : Prevents replacement of the entire tool, reducing costs.
- Versatile Drilling Capability : Capable of drilling with various types of inserts.
- Enhanced Drilling Performance : Low drilling resistance and stable drilling performance.



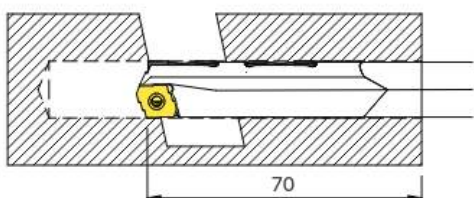
Pilot Hole Drilling

The pilot hole drilling depth should be to the point where one side of the guide pad is fully engaged in the hole.



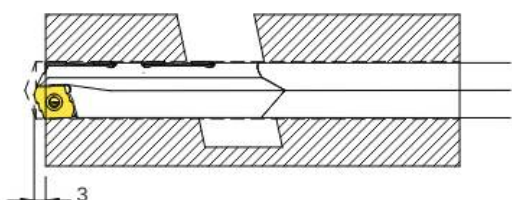
Initial Entry (First 10 mm after the pilot hole)

- RPM : Reduce drilling RPM to 60–70% to minimize run-out and vibration of the tool and to ensure smooth and controlled entry.
- Feed rate : Set drilling feed rate to 30–40% of the normal value. Using a low feed rate at the start reduces the risk of tool damage and helps ensure smooth drilling.
- Coolant supply : Start supplying coolant before the drill makes contact with the workpiece to maintain stable flow throughout the process.



Second Hole Entry

- RPM : Maintain drilling RPM at 60–70% of the normal speed for smooth and stable entry.
- Feed rate : Set drilling feed rate to 30–40% of the normal value to prevent tool damage during initial contact.
- Guide pad support : The second guide pad firmly supports the tool, reducing vibration and improving hole roundness and surface finish.
- Coolant supply : Start coolant flow before contact with the workpiece and maintain a steady supply throughout drilling.



Final 3 mm Before Breakthrough

- RPM : Reduce drilling RPM to 50–60% of the normal value to maintain stability.
- Feed rate : Reduce drilling feed rate by 10–20% compared to normal. This prevents sudden breakthrough and ensures the drill exits smoothly from the hole.

INSERT (600.20 & 600.40)

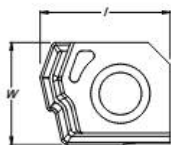


Fig 1

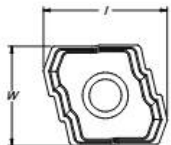


Fig 2



★ : first recommend grade ☆ : second recommend grade

Insert size	P			M			K			N			S			I	W	S	Fig
	HM3	SM3	IM3	HM3	SM3	IM3	HM3	SM3	IM3	HM3	SM3	IM3	HM3	SM3	IM3				
LXET050104-DR	★	☆			★	☆	★	☆			★	☆		☆	★	7.7	6.05	1.5	1
LXET06T104-DR	★	☆			★	☆	★	☆			★	☆		☆	★	9.5	7.3	2.0	2
LXET080204-DR	★	☆			★	☆	★	☆			★	☆		☆	★	11.0	8.6	2.3	
LXET09T204-DR	★	☆			★	☆	★	☆			★	☆		☆	★	12.0	8.6	2.8	
LXET100305-DR	★	☆			★	☆	★	☆			★	☆		☆	★	13.5	10.6	3.0	
LXET110305-DR	★	☆			★	☆	★	☆			★	☆		☆	★	15.0	11.7	3.3	
LXET13T305-DR	★	☆			★	☆	★	☆			★	☆		☆	★	15.5	13.2	3.75	
LXET140405-DR	★	☆			★	☆	★	☆			★	☆		☆	★	15.5	14.7	4.0	
LXET150405-DR	★	☆			★	☆	★	☆			★	☆		☆	★	16.5	16.2	4.5	
LXET160505-DR	★	☆			★	☆	★	☆			★	☆		☆	★	16.5	17.4	5.0	

SUPPORT PAD (600.20 & 600.40)



★ : first recommend grade ☆ : second recommend grade

Insert size	P		M		K		N		S		I	W	S
	PM3	IM3	PM3	IM3	PM3	IM3	PM3	IM3	PM3	IM3			
LNXT0418-R045	★	☆	☆	★	★	☆	☆	★	☆	★	18.0	4.0	2.2
LNXT0418-R055	★	☆	☆	★	★	☆	☆	★	☆	★	18.0	4.0	2.2
LNXT0418-R065	★	☆	☆	★	★	☆	☆	★	☆	★	18.0	4.0	2.2
LNXT0618-R070	★	☆	☆	★	★	☆	☆	★	☆	★	18.0	6.0	3.0
LNXT0618-R075	★	☆	☆	★	★	☆	☆	★	☆	★	18.0	6.0	3.0
LNXT0618-R085	★	☆	☆	★	★	☆	☆	★	☆	★	18.0	6.0	3.0
LNXT0618-R095	★	☆	☆	★	★	☆	☆	★	☆	★	18.0	6.0	3.0
LNXT0618-R105	★	☆	☆	★	★	☆	☆	★	☆	★	18.0	6.0	3.0
LNXT0618-R120	★	☆	☆	★	★	☆	☆	★	☆	★	18.0	6.0	3.0

INSERT GRADE OVERVIEW

We provide high-performance inserts optimized for various workpiece materials. Each grade can be selected according to the workpiece material, machining conditions, and required tool life.

HM3 – General Purpose Grade

The HM3 grade is a general-purpose insert designed with a balanced combination of high hardness and toughness. It can be used stably on various workpiece materials such as carbon steel, alloy steel, and cast iron, covering a wide range from general drilling to high-speed drilling.

Color Code : Yellow

SM3 – Stainless Steel & Inconel Grade

The SM3 grade is a specialized insert for high-nickel and high-hardness aerospace materials such as stainless steel and Inconel. It ensures stable heat resistance and chip evacuation even at high temperatures, delivering excellent performance in precision drilling of materials like SUS304 and Inconel 718.

Color Code : Black

IM3 – Difficult-to-Machine Material Grade

The IM3 grade is a double-coated insert that applies a final special coating on top of a high-performance composite coating. A thin special surface layer enhances oxidation resistance at high temperatures and improves durability. It offers outstanding wear resistance in drilling difficult-to-machine materials such as titanium alloys and nickel alloys.

Color Code : Black

Grade	Applicable Workpiece Materials	Features	Color
HM3	Carbon Steel, Alloy Steel, Cast Iron	General-purpose / High hardness / Suitable for high-speed drilling	Yellow
SM3	Stainless Steel, Inconel, Superalloy	Aerospace materials / Heat resistance / Excellent chip evacuation	Black
IM3	Titanium, Nickel Alloys, Heat-Resistant Steels	Double coating / Excellent wear resistance for difficult-to-machine materials	Black

SUPPORT PAD GRADE OVERVIEW

Guide to Support Pad Grades with Advanced Coating Technology for Stable Precision Deep Hole Drilling

PM3 – General Purpose Grade

Manufactured with a CVD coating process, the PM3 grade has enhanced wear resistance. It's designed for operations where the support pad repeatedly makes direct contact with the workpiece, providing stable tool life and machining accuracy, especially for carbon steel and cast iron (P/K materials)

Color Code : Black / Yellow

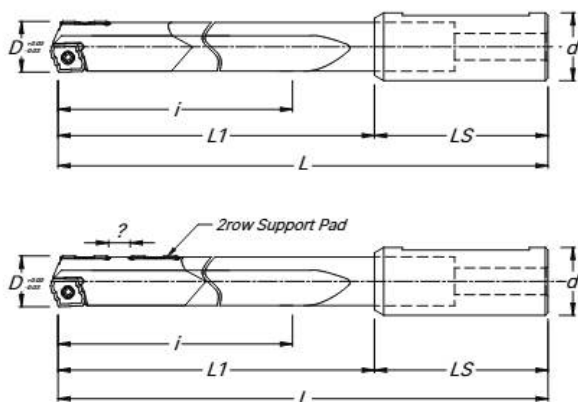
IM3 – Difficult-to-Machine Material Grade

The IM3 grade is a high-durability support pad with an advanced double-coating structure. The special surface layer provides excellent resistance to high-temperature oxidation and wear. It delivers exceptional durability when machining difficult-to-machine materials such as titanium, Inconel, and super heat-resistant alloys.

Color Code : Black

Grade	Applicable Workpiece Materials	Features	Color
PM3	Carbon Steel, Alloy Steel, Cast Iron	General-purpose / High hardness / Suitable for high-speed drilling	Yellow & Black
IM3	Titanium, Nickel Alloys, Heat-Resistant Steels	Double coating / Excellent wear resistance for difficult-to-machine materials	Black

Order Specification Format



EHD-600.00 x 00.00 x 0000 x 0000- 0000

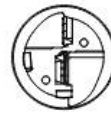
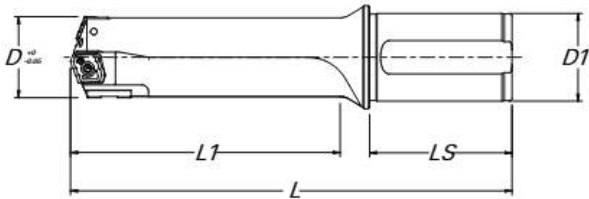
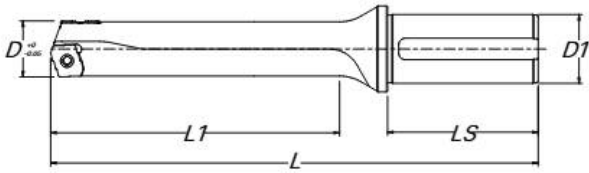


Driver	Driver Code	d(mm)	L ² (mm)	L(mm)	M	Shank Type
	120	20.00		50.00		Cylindrical
	125	25.00		56.00		
	132	32.00		60.00		
	140	40.00		70.00		
	216	16.00	31.00	45.00		
	220	20.00	34.00	70.00		
	232	32.00	34.00	70.00		
	219	19.05	34.00	70.00		
	225	25.40	34.00	70.00		
	2251	25.00	33.30	70.00		
	312	12.70		38.10		
	316	16.00		70.00		
	319	19.05		70.00		
	320	20.00		70.00		
	420	20.00		50.00		Weldon
	525	25.00		56.00		
	632	32.00		60.00		
	640	40.00		70.00		
	620	20.00		50.00		Whistle Notch
	625	25.00		56.00		
	632	32.00		60.00		
	640	40.00		70.00		
	710	10.0		60.00	M6.0 X 0.5P	
	716	16.0		70.00	M10.0 X 1.0P	
	725	25.0		70.00	M16.0 X 1.5P	
	726	25.40		70.00	M16.0 X 1.5P	
	825	25.00		56.00		
	826	25.40		56.00		
	831	31.75		60.00		
	831	32.00		70.00		

Cutting Conditions by Workpiece Material

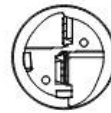
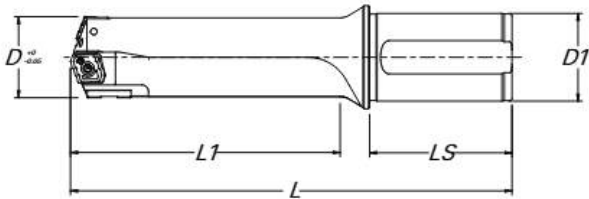
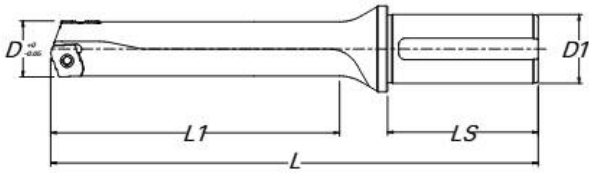
ISO	Material	Cutting Speed	Drill diameter (mm)				
			10.00-11.79	11.80-15.99	16.00-21.99	22.00-28.69	28.70-33.30
		Vc m/min	Feed fn (mm/rev)				
P Steel	Unalloyed	80-120	0.04-0.07	0.05-0.20			
	Low alloy						
	High alloy		0.05-0.15	0.05-0.18			
	Castings	60-100	0.05-0.08	0.04-0.15			
S Stainless	Stainless & Cast steel	50-100	0.05-0.10	0.03-0.10			
K Cast iron	Malleable	80-150	0.05-0.22	0.05-0.25	0.05-0.30		
	Grey						
	Nodular						
N Heat resists super alloys	Nickel base	20-45	0.03-0.05	0.05-0.15			
	Cobalt base						
	Titanium	30-55	0.05-0.10	0.06-0.17			

705 Series (ISD5-10D)



Ordering Code	Dimensions mm						Insert	Support Pad
	D	D1	L1	L	Ls	NOF		
ISD-118S20*5D~10D	11.80~13.99	20	63.0~123.0	128.0~188.0	50	1	LXET06T104-DR	LNXT0418-R055
ISD-140S20*5D~10D	14.00~14.99		73.0~143.0	138.0~208.0			LXET080204-DR	LNXT0418-R065
ISD-150S20*5D~10D	15.00~15.99		78.0~153.0	143.0~218.0			LXET080204-DR	LNXT0618-R070
ISD-160S25*5D~10D	16.00~17.99	25	83.0~163.0	153.0~233.0	LXET09T204-DR		LNXT0618-R075	
ISD-180S25*5D~10D	18.00~19.99		93.0~183.0	163.0~253.0	LXET100305-DR		LNXT0618-R085	
ISD-200S25*5D~10D	20.00~21.99		103.0~203.0	173.0~273.0	LXET110305-DR		LNXT0618-R095	
ISD-220S32*5D~10D	22.00~24.99	32	115.0~225.0	195.0~305.0	60		LXET13T305-DR	LNXT0618-R105
ISD-250S32*5D~10D	25.00~28.69		130.0~255.0	210.0~335.0			LXET140405-DR	LNXT0618-R120
ISD-28.7S32*5D~10D	28.70~30.99		148.0~292.0	228.0~372.0			LXET150505-DR	LNXT0618-R130
ISD-310S32*5D~10D	31.00~33.29		160.0~315.0	240.0~380.0			LXET160605-DR	LNXT0720-R140
ISD-330S40*5D~10D	33.00~37.99	40	170.0~335.0	265.0~430.0	70	2	LXET13T305-DR	LNXT0720-R140
ISD-380S40*5D~10D	38.00~42.99		195.0~385.0	290.0~480.0			LXET140405-DR	LNXT0825-SUP
ISD-430S40*5D~10D	43.00~47.14		220.0~435.0	315.0~530.0			LXET150505-DR	LNXT0825-SUP
ISD-47.15S40*5D~10D	47.15~52.49		240.0~476.0	335.0~571.0			LXET160605-DR	LNXT1030-SUP
ISD-52.50S40*5D~10D	52.50~59.99		267.0~530.0	362.0~625.0	3	LXET13T305-DR	LNXT1030-SUP	
ISD-600S40*5D~10D	60.00~70.00		305.0~605.0	400.0~700.0		LXET140405-DR	LNXT1235-SUP	

705 Series (ISD10-15D)



Ordering Code	Dimensions mm						Insert	Support Pad
	D	D1	L1	L	Ls	NOF		
ISD-150S20*10D~15D	15.00~15.99	20	153.0~228.0	218.0~293.0	50	1	LXET080204-DR	LNXT0618-R070
ISD-160S25*10D~15D	16.00~17.99	25	163.0~243.0	233.0~313.0	55		LXET09T204-DR	LNXT0618-R075
ISD-180S25*10D~15D	18.00~19.99		183.0~273.0	253.0~343.0			LXET100305-DR	LNXT0618-R085
ISD-200S25*10D~15D	20.00~21.99		203.0~303.0	273.0~373.0			LXET110305-DR	LNXT0618-R095
ISD-220S32*10D~15D	22.00~24.99	32	225.0~335.0	305.0~415.0	60		LXET13T305-DR	LNXT0618-R105
ISD-250S32*10D~15D	25.00~28.69		255.0~380.0	335.0~460.0			LXET140405-DR	LNXT0618-R120
ISD-28.7S32*10D~15D	28.70~30.99		292.0~435.0	372.0~515.0			LXET150505-DR	LNXT0618-R130
ISD-310S32*10D~15D	31.00~33.29		315.0~470.0	380.0~550.0			LXET160605-DR	LNXT0720-R140
ISD-330S40*10D~15D	33.00~37.99	40	335.0~500.0	430.0~530.0	70	2	LXET13T305-DR	LNXT0720-R140
ISD-380S40*10D~15D	38.00~42.99		385.0~575.0	480.0~670.0			LXET140405-DR	LNXT0825-SUP
ISD-430S40*10D~15D	43.00~47.14		435.0~650.0	530.0~745.0			LXET150505-DR	LNXT0825-SUP
ISD-47.15S40*10D~15D	47.15~52.49		476.0~712.0	571.0~807.0			LXET160605-DR	LNXT1030-SUP
ISD-52.50S40*10D~15D	52.50~59.99		530.0~792.0	625.0~887.0		3	LXET13T305-DR	LNXT1030-SUP
ISD-600S40*10D~15D	60.00~70.00		605.0~905.0	700.0~1000	LXET140405-DR		LNXT1235-SUP	

805.20 & 805.40 Series

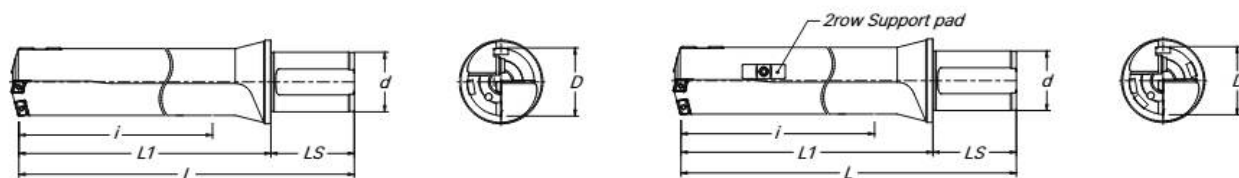


Diameter (mm)	Center Insert	Diameter (mm)	Intermediate Insert	Diameter (mm)	Peripheral Insert	Diameter (mm)	Support Pad
25.00~28.70	LPMT050308C-G-L	25.00~31.00	LPMT050308I-G-L	25.00~31.00	LPET060308P-G-L	25.00~31.00	LNXT0618-SUP
28.71~33.99	LPMT06T308C-G-L	31.01~34.99	LPMT06T308I-G-L	31.01~38.99	LPET08T308P-G-L	31.01~39.60	LNXT0720-SUP
34.00~43.00	LPMT08T308C-G-L	35.00~54.99	LPMT08T308I-G-L	39.00~49.99	LPET09T308P-G-L	39.61~47.00	LNXT0825-SUP
43.01~47.00	LPMT10T308C-G-L	55.00~65.00	LPMT12T308I-G-L	50.00~65.00	LPET11T308P-G-L	47.01~54.99	LNXT1030-SUP
47.01~49.99	LPMT12T308C-G-L					55.00~65.00	LNXT1235-SUP
50.00~57.99	LPMT10T308C-G-L						
58.00~65.00	LPMT12T308C-G-L						

805 Series - Main Features

- **Extended Tool Life** : The 805 series provides a long tool life due to wear-resistant materials and optimized coatings, offering consistent performance across various materials.
- **Precision** : The 805 series ensures an excellent and precise drill diameter range during machining, making it ideal for high-precision deep hole drilling.
- **Chip Evacuation** : This drill is designed with an optimized chip pocket to ensure efficient chip evacuation, providing high process stability.
- **Surface Roughness** : The 805 series has guide pads that minimize vibration and tilting during drilling, resulting in an excellent workpiece surface.

805.20 & 805.40 Series Ordering Method & Instructions



805.20	D30.00	L600.00	i400.00	d32.00	SH70.00
Type	Diameter	Total Length	Drill Depth	Driver Diameter	Driver Length

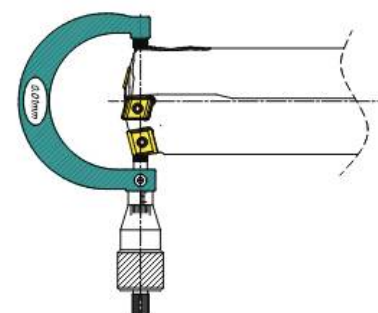
805 Series – Operating Instructions

1. Pilot Hole Drilling (Pilot hole tolerance H8) It is recommended to drill the pilot hole to a depth where the guide pad is fully engaged.
2. When the 805 drill enters the pilot hole, insert it slowly while rotating and start the coolant supply.
3. Begin drilling under the specified cutting conditions.

Cutting Conditions

Workpiece Material	Diameter Range (mm)	Grade	Vc (m/min)	fn (mm/rev)
P (Carbon Steel)	25.00-43.00	HM3	70-130	0.10-0.30
	43.01-65.00			0.15-0.35
K (Cast Iron)	25.00-43.00		60-120	0.10-0.25
	43.01-65.00			0.25-0.30
M (Stainless)	25.00-43.00	SM3	40-70	0.08-0.22
	43.01-65.00			0.10-0.26
S (Superalloy)	25.00-43.00		20-40	0.06-0.18
	43.01-65.00			0.08-0.20
S (Nickel Base)	25.00-43.00	IM3	18-35	0.06-0.16
	43.01-65.00			0.08-0.18
S (Titanium Alloys)	25.00-43.00		30-60	0.08-0.20
	43.01-65.00			0.10-0.24

Diameter Range (mm)		Insert	
		H10 ISO Tolerance (mm)	
25.00	30.00	+0.000	-0.084
30.00	50.00	+0.000	-0.100
50.00	65.00	+0.000	-0.120



Brazed Type Gundrill

Diameter Range : 3.00-33.02mm

Maximum Length : 3000mm

Special Gundrill Manufacturing Available

Solid Carbide Type

- Diameter range xx-xx mm
- Drill depth xx mm
- Hole Tolerance : IT9
- Surface Roughness : 0.1-3.0 μm

Single Lip Type

Standard

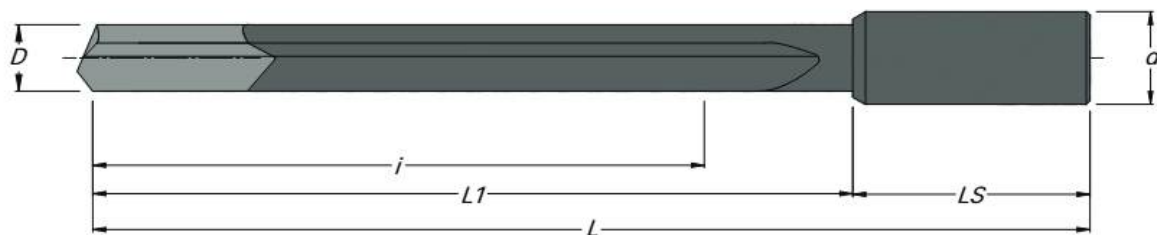
- Diameter Range 3.00-33.02 mm
- Applicable for both roughing and finishing
- Hole Tolerance : IT9
- Surface Roughness : 0.1-3.0 μm

Single Lip SF Type

- Diameter Range 3.00-33.02 mm
- Excellent chip evacuation performance
- Hole Tolerance : IT9
- Surface Roughness : 0.1-3.0 μm

Major Industrial Fields		Advantages	
- Automotive Industry	- Mold and Tool Manufacturing	- Excellent Cutting Performance	- High Precision
- Aerospace Industry	- Oil and Gas Industry	- Cost-Effectiveness	- Long Tool Life
- Medical Device Manufacturing			- Versatility in Material Processing

Manufacturing Request



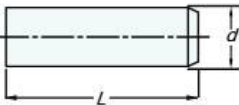
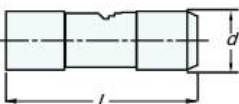
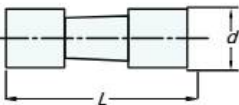
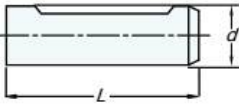
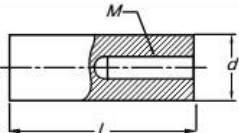
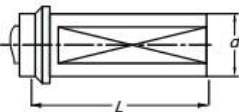
5.00	L1000.00	i950.00	19.05	Tin	-SF
Diamter	Total Length	Drill Depth	Dirver	Coating	Chip breaker

Available Overall Lengths for Gundrill Production

Diameter range (mm)	OAL-280mm	OAL-500mm	OAL-1250mm	OAL-1650mm	OAL-2150mm
3.00-5.59	○	○	○		
6.00-33.02	○	○	○	○	○

➤ When ordering, please specify the coating, workpiece material, and chip breaker type.

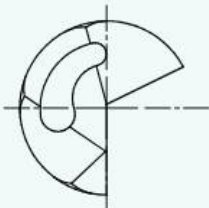
Deriver Type

Driver	Driver Code	d(mm)	L ² (mm)	L(mm)	M	Shank Type
	104	4.00		30.00		Cylindrical
	106	6.00		36.00		
	110	10.00		40.00		
	116	16.00		48.00		
	120	20.00		50.00		
	125	25.00		56.00		
	132	32.00		60.00		
	140	40.00		70.00		
	216	16.00	31.00	45.00		
	220	20.00	34.00	70.00		
	232	32.00	34.00	70.00		
	219	19.05	34.00	70.00		
	225	25.40	34.00	70.00		
	2251	25.00	33.30	70.00		
	312	12.70		38.10		
	316	16.00		70.00		
	319	19.05		70.00		
	320	20.00		70.00		
	410	10.00		40.00		Weldon
	412	12.00		45.00		
	416	16.00		48.00		
	420	20.00		50.00		
	525	25.00		56.00		
	632	32.00		60.00		
	640	40.00		70.00		
	610	10.00		40.00		Whistle Notch
	612	12.00		45.00		
	616	16.00		48.00		
	620	20.00		50.00		
	625	25.00		56.00		
	632	32.00		60.00		
	640	40.00		70.00		
	710	10.0		60.00	M6.0 X 0.5P	
	716	16.0		70.00	M10.0 X 1.0P	
	725	25.0		70.00	M16.0 X 1.5P	
	726	25.40		70.00	M16.0 X 1.5P	
	825	25.00		56.00		
	826	25.40		56.00		
	831	31.75		60.00		
	831	32.00		70.00		

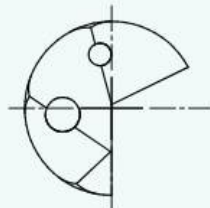
Cutting conditions

ISO	Material	Cutting Speed	Drill diameter (mm)			
		Vc m/min	2.00-3.00	3.01-5.59	6.00-12.50	12.51-33.00
			Feed fn (mm/rev)			
P Steel	Unalloyed	50-120	0.003-0.01	0.004-0.03	0.01-0.05	0.02-0.10
	Low alloy	40-120				
	High alloy	40-100				
	Castings	50-120				
S Stainless	Stainless & Cast steel	40-90	0.003-0.008	0.004-0.025	0.10-0.04	0.02-0.10
K Cast iron	Malleable	60-90	0.004-0.01	0.005-0.03	0.01-0.07	0.03-0.19
	Grey					
	Nodular					
N Heat resists super alloys	Nickel base	10-40	0.003-0.008	0.004-0.025	0.01-0.04	0.02-0.1
	Cobalt base					
	Titanium	20-50				

Brazed Gundrill General Type



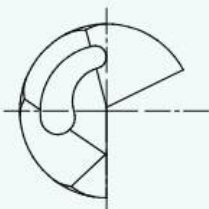
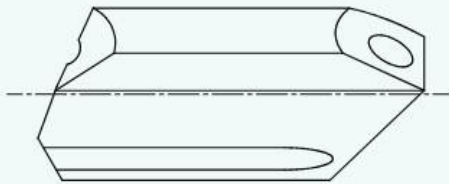
Kidney
D3.00-12.00mm



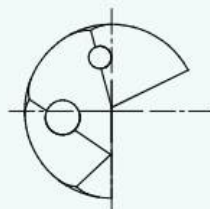
2-hole
D12.00-30.00mm

- **Versatility** : Suitable for use in various working environments due to its general-purpose design.
- **High Strength** : Provides high strength with a relatively simple structure, making it suitable for machining various materials.
- **Cost-Effectiveness** : Manufacturing and replacement costs are relatively low.
- **Stability** : Offers stable performance under various conditions.
- **Versatility** : Can be used with a wide range of materials and is suitable for those with low machining difficulty.
- **Commonly Used Materials**:
 - Carbon steel
 - Alloy Steel
 - Cast Iron
 - Non-ferrous metals such as copper and aluminum
- **Suitable Applications** : Used in a wider variety of tasks than general-purpose drills.

Brazed Gundrill SF Type



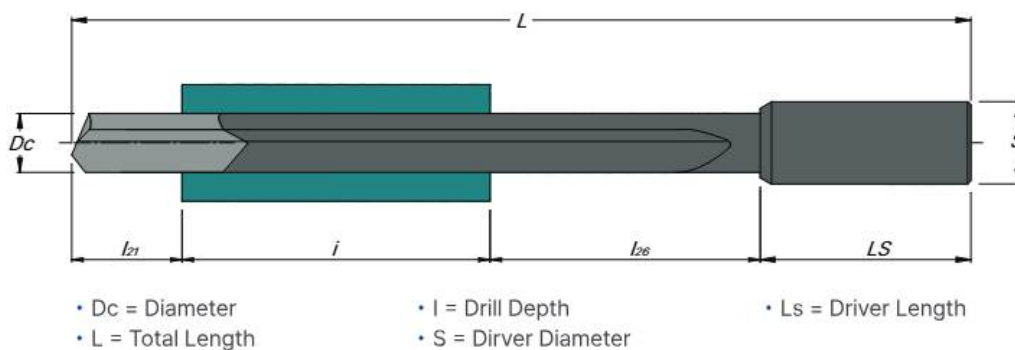
Kidney
D3.00-12.00mm



2-hole
D12.00-30.00mm

- **Enhanced Cutting Performance** : The SF type is designed for superior chip evacuation, making it highly efficient for high-speed drilling.
- **Reduced Wear** : Less wear leads to reduced friction, extending tool life.
- **Precision** : Ideal for precision drilling in both roughing and finishing operations.
- **Material Optimization** : Can be optimized for specific materials and easily adapted for use with harder materials.
- **High-Difficulty Machining** : The SF type is optimized for challenging cutting conditions, high-speed drilling, and excellent chip evacuation.
- **Commonly Used Materials**:
 - Carbon steel
 - Stainless steel
 - Titanium and nickel alloys
 - Heat-resistant steels
- **Suitable Applications** : Best suited for applications requiring difficult chip evacuation, high-precision drilling, or high-speed machining of tough materials.

Brazed Gundrill Ordering Method



- This type is used for various materials, offering excellent durability and demonstrating superior straightness.



- Commonly used for aluminum and cast iron. Designed to allow smooth coolant flow and suitable for cross-hole applications.



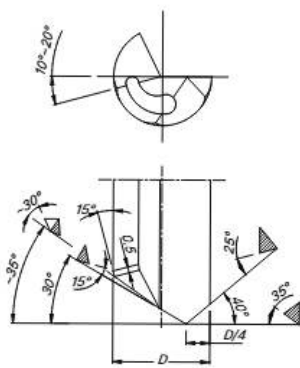
- Frequently used for cast iron. Excels in drilling blind holes with high accuracy.



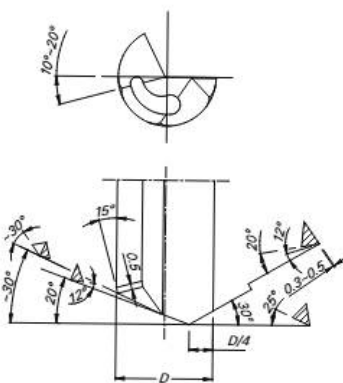
- Used for machining steel and aluminum. Suitable for cross-hole drilling and provides excellent straightness.

Brazed Gundrill Regrinding

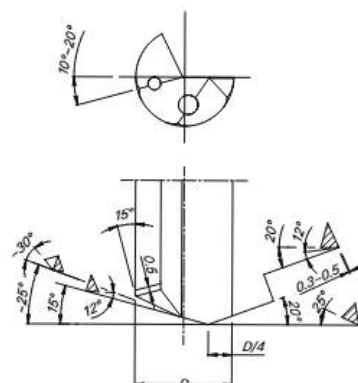
Regrinding of Single Lip Gundrill



Dia 1.00-5.00mm

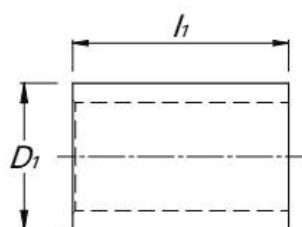
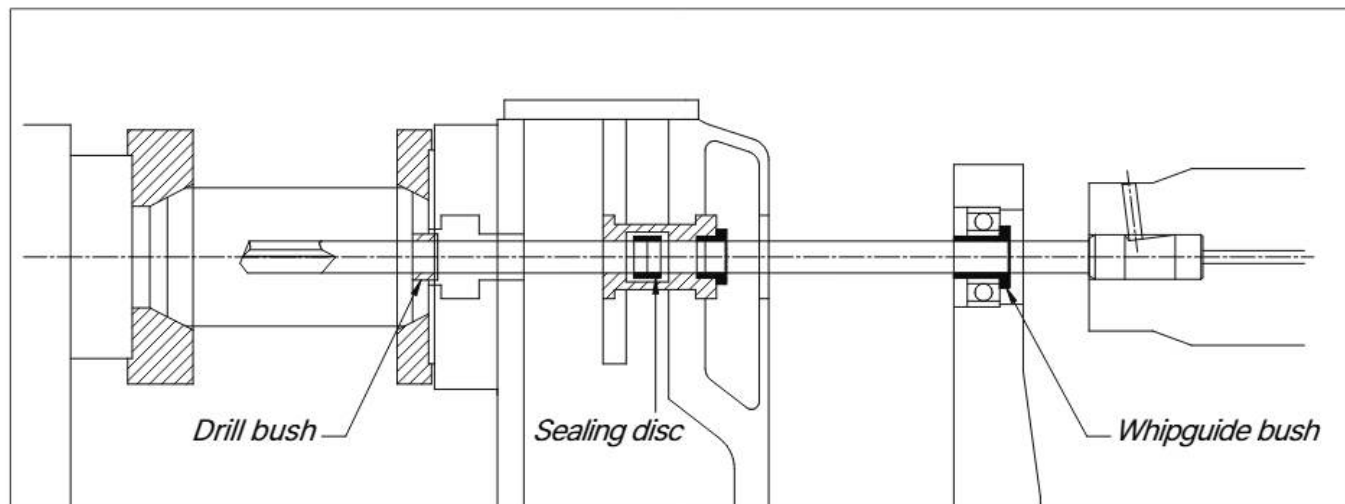


Dia 5.01-20.00mm



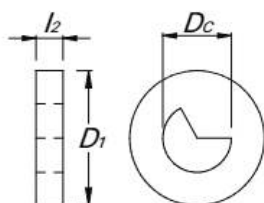
Dia 20.01-mm

Gundrill Components

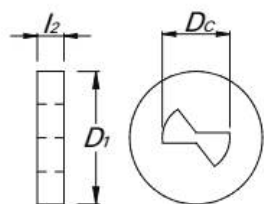


Drill Bush

- Made of tool steel according to the extended DIN 179 model. Fully hardened, with D_1 measured when ordering.



Single Lip

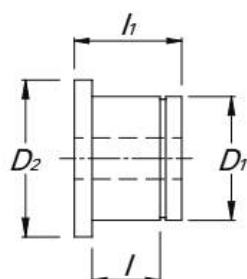


Twin Lip

Sealing Disc

- Made of special plastic
Please provide the drill diameter (D_c) when ordering.

D_c (mm)	D_1	l_2
2.00-6.20	20	3
6.30-18.50	32	4
18.60-24.60	40	4
27.70-42.00	90	4



Whip Guide Bushing

- Made of special plastic
Please provide the drill diameter (D_c) when ordering.

D_c (mm)	D_1	D_2	l	l_1
2.00-12.00	20	26	12	22
2.00-25.00	30	38	16	26
2.00-37.00	45	52	14	26

