Series 5000
for high production

Features & Benefits

- Series: 5400-5401-5600-5700
- Diameter range from 9,61 to 32,60 mm
- Oversized diameter range from 32,61 to 40,60 mm only on request
- Available in carbide or cermet, coated or uncoated
- Easy to assembly
- Easy to use
- Expanding heads only
- Straight, left or right hand helical flutes making through or blind holes achievable
- Cylindrical or composit shanks for improved concentricity
- Throw-away heads

5400 - KL G x - 020000 H8

A B C D E

A A= Series

5400 Straight flutes with radial coolant
5401 Straight flutes with central coolant
5600 Right hand helical flutes with central coolant
5700 Left hand helical flutes with radial coolant

B B= Cutting material and coating

Code	Description
KL	Hard Metal cutting edges
KN	Hard Metal cutting edges N coated
KC	Hard Metal cutting edges C coated
KA	Hard Metal cutting edges A coated
KK	Hard Metal cutting edges K coated
KH	Hard Metal cutting edges H coated
SV	Cermet cutting edges
SN	Cermet cutting edges N coated
SC	Cermet cutting edges C coated
SA	Cermet cutting edges A coated
SK	Cermet cutting edges K coated
SH	Cermet cutting edges H coated

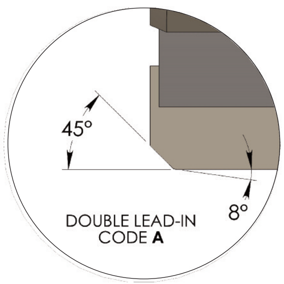
C C= Lead in

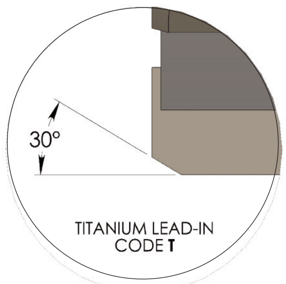
D D= Specific requirement:
H= half circular face
Z= oversized tapering

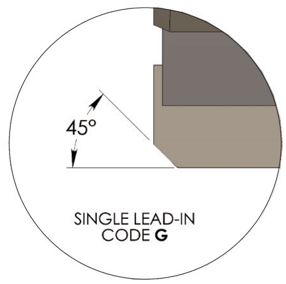
E E= Diameter and tolerance

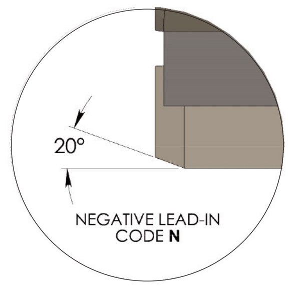
STRAIGHT FLUTES

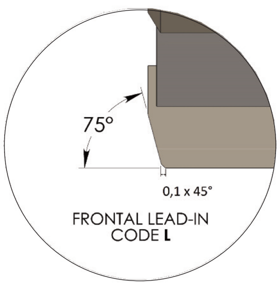
For reaming through and blind holes

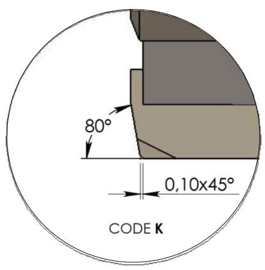




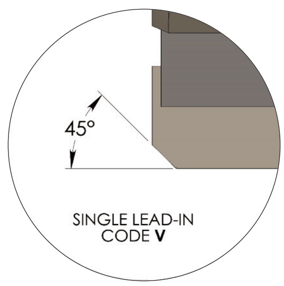




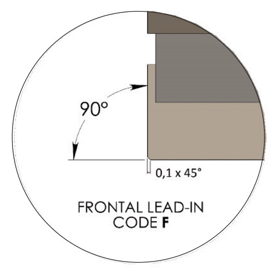




Chipbreaker



"V" **Lead-in** is recommended for high cutting speed

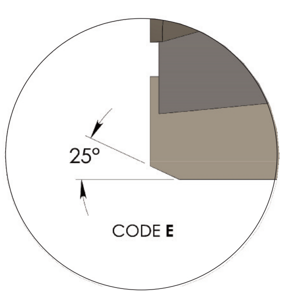


"F" **Lead-in** to reduce the feed of 40% compared with the values on pages 8-9

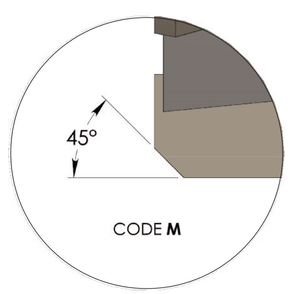
HELICAL FLUTES

Helical left flutes: *For reaming through holes only*

Helical right flutes: *For reaming blind holes only*



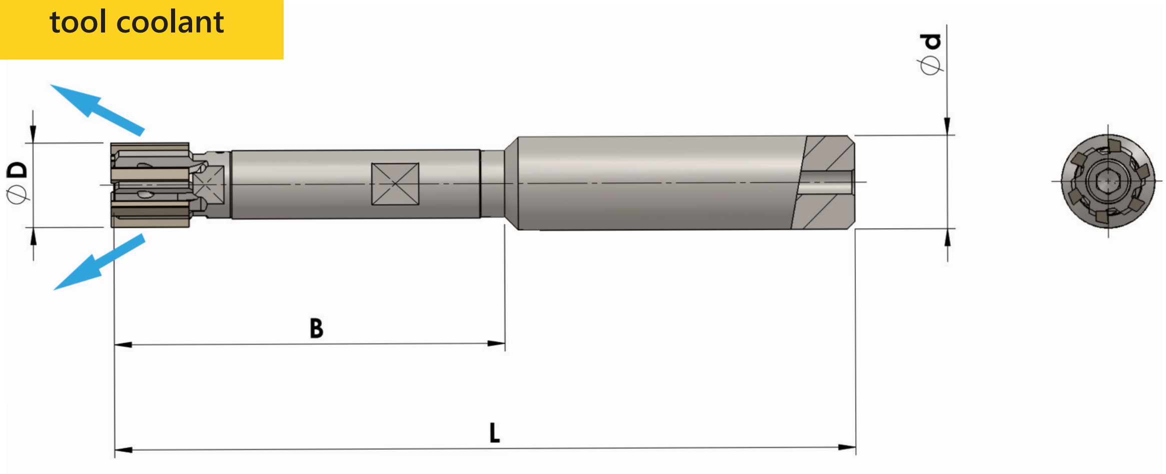
"E" **Lead-in** is suitable to working most materials such as cast iron, steel and aluminium



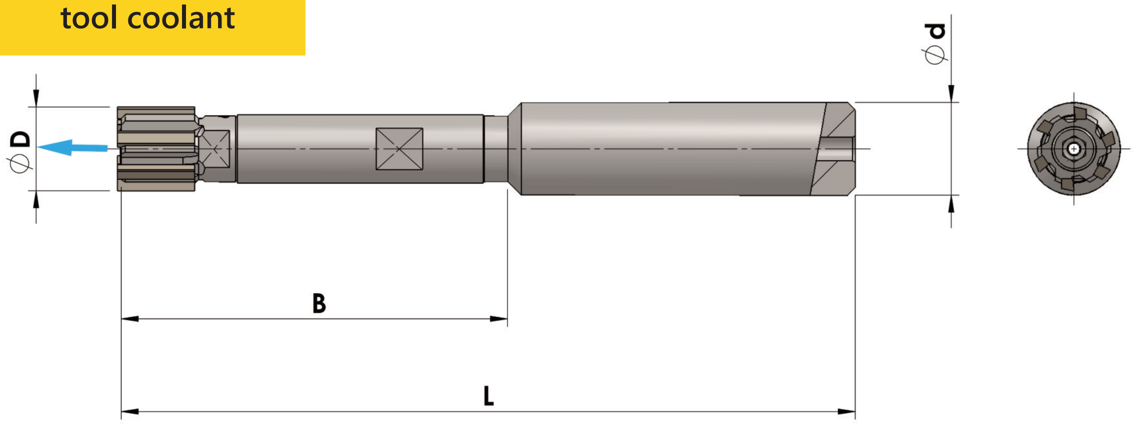
"M" **Lead-in** allows an easier depth penetration in steels with a surface hardness greater than 200 HB

			HARD METAL UNCOATED	HARD METAL COATED					CERMET UNCOATED	CERMET COATED					STRAIGHT FLUTES	HELICAL FLUTES
				N	C	A	K	H		N	C	A	K	H		
MATERIAL TO WORK	HEAD Ø mm	STOCK ALLOWANCE Ø mm	SURFACE SPEED m/min	SURFACE SPEED m/min					SURFACE SPEED m/min	SURFACE SPEED m/min					FEED mm/rev	FEED mm/rev
Non-alloy steel	9,61- 17,60 17,61- 26,60 26,61- 32,60	0,15 - 0,25 0,20 - 0,40 0,30 - 0,40	15÷20	60÷80					120÷200					120÷200	0,30 - 0,60 0,40 - 0,80 0,50 - 0,90	0,40 - 0,80 0,50 - 1,00 0,60 - 1,20
Automatic steel	9,61- 17,60 17,61- 26,60 26,61- 32,60	0,15 - 0,25 0,20 - 0,40 0,30 - 0,40	20÷40	80÷100					120÷200					120÷200	0,30 - 0,60 0,40 - 0,80 0,50 - 0,90	0,40 - 0,80 0,50 - 1,00 0,60 - 1,20
Medium-alloy steel	9,61- 17,60 17,61- 26,60 26,61- 32,60	0,15 - 0,25 0,20 - 0,40 0,30 - 0,40	10÷15	50÷80					100÷150						0,30 - 0,60 0,40 - 0,80 0,50 - 0,90	0,40 - 0,80 0,50 - 1,00 0,60 - 1,20
Strongly alloy steel	9,61- 17,60 17,61- 26,60 26,61- 32,60	0,15 - 0,25 0,20 - 0,40 0,30 - 0,40	8÷10	30÷40											0,25 - 0,50 0,30 - 0,60 0,40 - 0,70	0,30 - 0,60 0,40 - 0,80 0,50 - 1,00
Austenitic steel	9,61- 17,60 17,61- 26,60 26,61- 32,60	0,15 - 0,25 0,20 - 0,40 0,30 - 0,40	8÷10				30÷40								0,25 - 0,50 0,30 - 0,60 0,40 - 0,70	0,30 - 0,60 0,40 - 0,80 0,50 - 1,00
Martensitic stainless steel	9,61- 17,60 17,61- 26,60 26,61- 32,60	0,15 - 0,25 0,20 - 0,40 0,30 - 0,40	8÷10						50÷60						0,25 - 0,50 0,30 - 0,60 0,40 - 0,70	0,30 - 0,60 0,40 - 0,80 0,50 - 1,00
Spheroidal cast iron GS400-500	9,61- 17,60 17,61- 26,60 26,61- 32,60	0,15 - 0,25 0,20 - 0,40 0,30 - 0,40	15÷20										100÷120		0,30 - 0,60 0,30 - 0,60 0,40 - 0,80	0,50 - 1,00 0,60 - 1,20 0,60 - 1,20
Spheroidal cast iron GS600-700	9,61- 17,60 17,61- 26,60 26,61- 32,60	0,15 - 0,25 0,20 - 0,40 0,30 - 0,40	15÷20										100÷120		0,30 - 0,60 0,30 - 0,60 0,40 - 0,80	0,50 - 1,00 0,60 - 1,20 0,60 - 1,20
Grey cast iron	9,61- 17,60 17,61- 26,60 26,61- 32,60	0,15 - 0,25 0,20 - 0,40 0,30 - 0,40	20÷30			150÷200									0,30 - 0,60 0,30 - 0,60 0,40 - 0,80	0,50 - 1,00 0,60 - 1,20 0,60 - 1,20
Copper	9,61- 17,60 17,61- 26,60 26,61- 32,60	0,15 - 0,25 0,20 - 0,40 0,30 - 0,40	80÷100	100÷200											0,30 - 0,60 0,40 - 0,80 0,50 - 0,90	0,40 - 0,80 0,50 - 1,00 0,60 - 1,20
Bronze	9,61- 17,60 17,61- 26,60 26,61- 32,60	0,15 - 0,25 0,20 - 0,40 0,30 - 0,40	40÷80	80÷160					150÷200						0,30 - 0,60 0,40 - 0,80 0,50 - 0,90	0,40 - 0,80 0,50 - 1,00 0,60 - 1,20
Titanium	9,61- 17,60 17,61- 26,60 26,61- 32,60	0,15 - 0,25 0,20 - 0,40 0,30 - 0,40	10÷15												0,25 - 0,50 0,30 - 0,60 0,40 - 0,70	0,30 - 0,60 0,40 - 0,80 0,50 - 1,00
Special alloys: Inconel, etc...	9,61- 17,60 17,61- 26,60 26,61- 32,60	0,15 - 0,25 0,20 - 0,40 0,30 - 0,40	5÷7				20÷30								0,25 - 0,50 0,30 - 0,60 0,40 - 0,70	0,30 - 0,60 0,40 - 0,80 0,50 - 1,00
Aluminium <1% Si	9,61- 17,60 17,61- 26,60 26,61- 32,60	0,15 - 0,25 0,20 - 0,40 0,30 - 0,40	30÷60												0,30 - 0,60 0,30 - 0,60 0,40 - 0,80	0,50 - 1,00 0,60 - 1,20 0,60 - 1,20
Aluminium >7% Si	9,61- 17,60 17,61- 26,60 26,61- 32,60	0,15 - 0,25 0,20 - 0,40 0,30 - 0,40	PCD or DLC coated 100÷300												0,30 - 0,60 0,30 - 0,60 0,40 - 0,80	0,50 - 1,00 0,60 - 1,20 0,60 - 1,20

Through holes with radial tool coolant



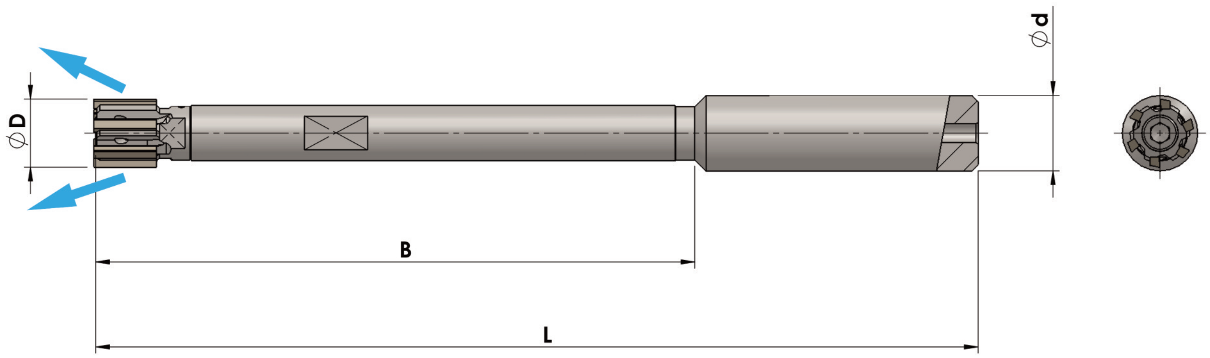
Blind holes with central tool coolant



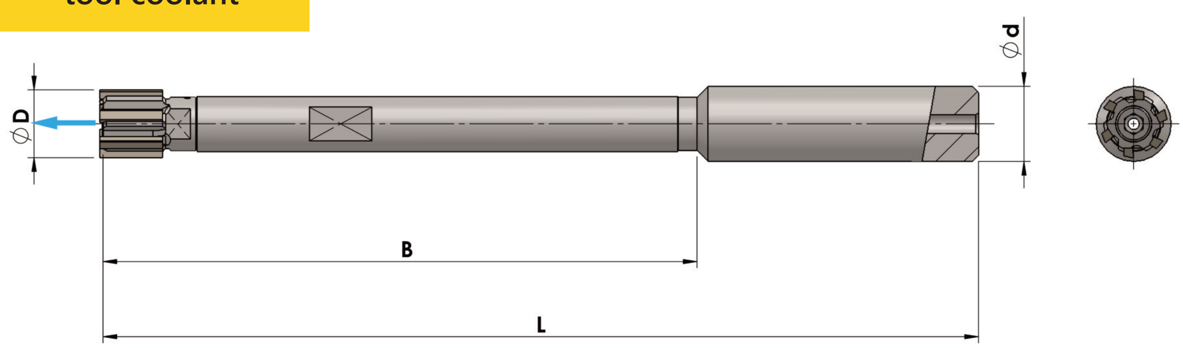
Head Mandrel - Short Series 5000-MC

Mandrel Code	Ø D (mm)	B (mm)	L (mm)	Ød h6 (mm)
5000-MC-001	9,60÷11,60	50	95	12
5000-MC-002	11,61÷14,60	50	95	12
5000-MC-003	14,61÷17,60	65	113	16
5000-MC-004	17,61÷21,60	75	125	20
5000-MC-005	21,61÷26,60	85	135	20
5000-MC-006	26,61÷32,60	105	161	25

Through holes with radial tool coolant



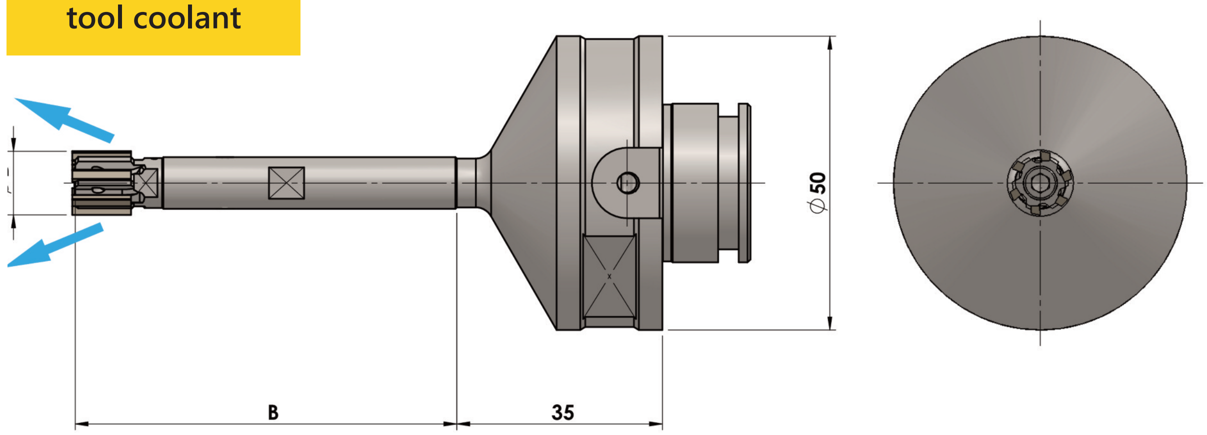
Blind holes with central tool coolant



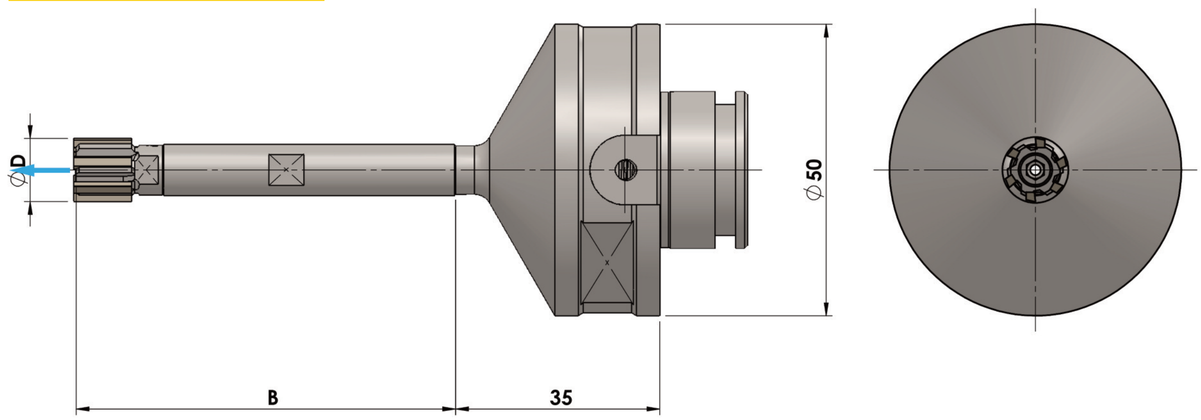
Head Mandrel - Long Series 5000-ML

Mandrel Code	Ø D (mm)	B (mm)	L (mm)	Ød h6 (mm)
5000-ML-001	9,60÷11,60	95	140	12
5000-ML-002	11,61÷14,60	95	140	12
5000-ML-003	14,61÷17,60	105	153	16
5000-ML-004	17,61÷21,60	125	175	20
5000-ML-005	21,61÷26,60	145	195	20
5000-ML-006	26,61÷32,60	165	221	25

Through holes
with radial
tool coolant



Blind holes
with central
tool coolant



Series 5000-MM

Mandrel Code	Ø D (mm)	B (mm)	B (mm)
5000-MM-001	9,60÷11,60	65	
5000-MM-002	11,61÷14,60	65	
5000-MM-003	14,61÷17,60	80	
5000-MM-004	17,61÷21,60	100	
5000-MM-005	21,61÷26,60	110	
5000-MM-006	26,61÷32,60	120	

Modular system is courtesy of cerit more information are available on our reaming catalogue