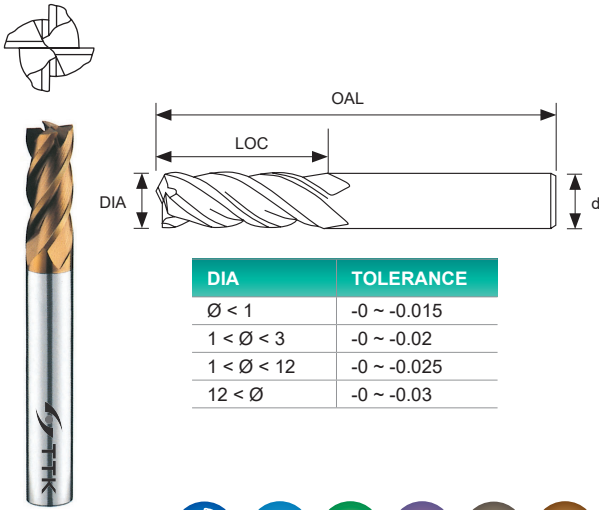


# CEH-4C

Super Micro Grain Carbide 4-Flute End Mill



DIA	TOLERANCE
$\varnothing < 1$	-0 ~ -0.015
$1 < \varnothing < 3$	-0 ~ -0.02
$1 < \varnothing < 12$	-0 ~ -0.025
$12 < \varnothing$	-0 ~ -0.03



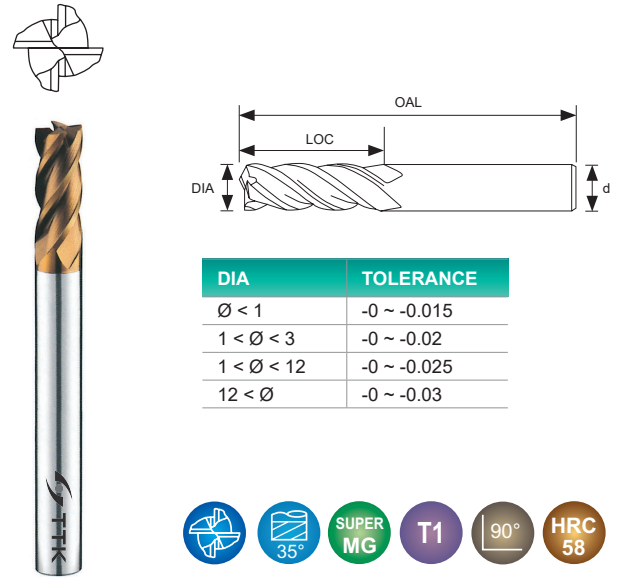
Work Material (● Most Suitable / ○ Suitable)								
Carbon steel, Alloy steel	Pre- harden steel	High-hardened				Stainless steel	Copper alloy	Aluminum alloy
		-45HRC	-50HRC	-55HRC	-60HRC			
●	●	●	●	○	○			

Unit : mm

Model No.	DIA	LOC	d	OAL
CEH-4010AC	1	3	4	50
CEH-4010C	1	3	6	50
CEH-4015AC	1.5	4	4	50
CEH-4015C	1.5	4	6	50
CEH-4020AC	2	6	4	50
CEH-4020C	2	6	6	50
CEH-4025AC	2.5	8	4	50
CEH-4025C	2.5	8	6	50
CEH-4030BC	3	8	3	50
CEH-4030AC	3	8	4	50
CEH-4030C	3	8	6	50
CEH-4035AC	3.5	10	4	50
CEH-4040AC	4	11	4	50
CEH-4040C	4	11	6	50
CEH-4050C	5	13	6	50
CEH-4060C	6	16	6	50
CEH-4080C	8	20	8	60
CEH-4100C	10	30	10	75
CEH-4120C	12	32	12	75

# CEPH-4C

Super Micro Grain Solid Carbide 4-Flute End Mill Long Shank



DIA	TOLERANCE
$\varnothing < 1$	-0 ~ -0.015
$1 < \varnothing < 3$	-0 ~ -0.02
$1 < \varnothing < 12$	-0 ~ -0.025
$12 < \varnothing$	-0 ~ -0.03



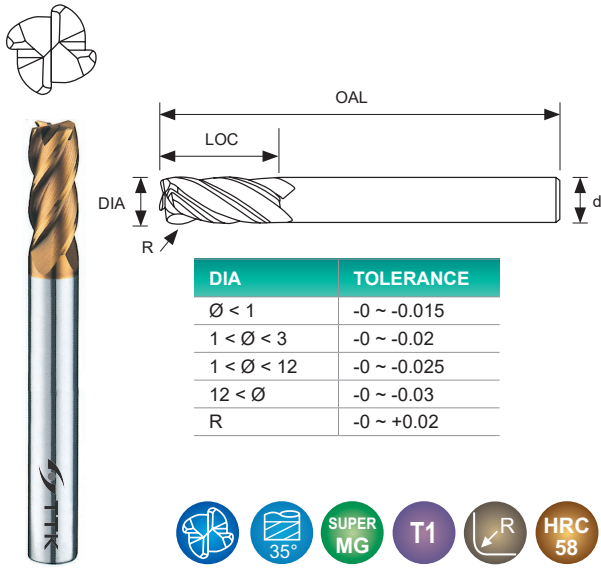
Work Material (● Most Suitable / ○ Suitable)								
Carbon steel, Alloy steel	Pre- harden steel	High-hardened				Stainless steel	Copper alloy	Aluminum alloy
		-45HRC	-50HRC	-55HRC	-60HRC			
●	●	●	●	○	○			

Unit : mm

Model No.	DIA	LOC	d	OAL
CEPH-4040AC	4	11	4	75
CEPH-4040AC-100	4	11	4	100
CEPH-4060C-75	6	16	6	75
CEPH-4060C	6	16	6	100
CEPH-4080C-75	8	20	8	75
CEPH-4080C	8	20	8	100
CEPH-4100C	10	30	10	100
CEPH-4100C-150	10	30	10	150
CEPH-4120C	12	32	12	100
CEPH-4120C-150	12	32	12	150

# CERPH-4C

Super Micro Grain Carbide 4-Flute Corner Radius End Mill Long Shank



DIA	TOLERANCE
$\varnothing < 1$	-0 ~ -0.015
$1 < \varnothing < 3$	-0 ~ -0.02
$1 < \varnothing < 12$	-0 ~ -0.025
$12 < \varnothing$	-0 ~ -0.03
R	-0 ~ +0.02



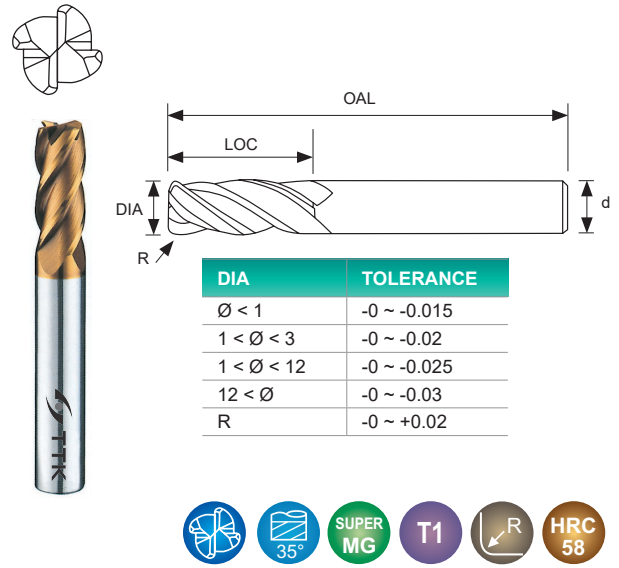
Work Material (● Most Suitable / ○ Suitable)								
Carbon steel, Alloy steel	Pre-harden steel	High-hardened				Stainless steel	Copper alloy	Aluminum alloy
		-45HRC	-50HRC	-55HRC	-60HRC			
●	●	●	●	○	○			

Unit : mm

Model No.	DIA	Corner	LOC	d	OAL
CERPH4030-02BC	3	0.2R	8	3	75
CERPH4030-05BC	3	0.5R	8	3	75
CERPH4040-02AC	4	0.2R	10	4	75
CERPH4040-05AC	4	0.5R	10	4	75
CERPH4040-02AC-100	4	0.2R	10	4	100
CERPH4040-05AC-100	4	0.5R	10	4	100
CERPH4060-02C-75	6	0.2R	15	6	75
CERPH4060-05C-75	6	0.5R	15	6	75
CERPH4060-02C	6	0.2R	15	6	100
CERPH4060-05C	6	0.5R	15	6	100
CERPH4080-02C-75	8	0.2R	20	8	75
CERPH4080-05C-75	8	0.5R	20	8	75
CERPH4080-10C-75	8	1R	20	8	75
CERPH4080-02C	8	0.2R	20	8	100
CERPH4080-05C	8	0.5R	20	8	100
CERPH4080-10C	8	1R	20	8	100
CERPH4100-02C	10	0.2R	25	10	100
CERPH4100-05C	10	0.5R	25	10	100
CERPH4100-10C	10	1R	25	10	100
CERPH4100-05C-150	10	0.5R	25	10	150
CERPH4120-05C	12	0.5R	30	12	100
CERPH4120-05C-150	12	0.5R	30	12	150

# CERH-4C

Super Micro Grain Carbide 4-Flute Corner Radius End Mill



DIA	TOLERANCE
$\varnothing < 1$	-0 ~ -0.015
$1 < \varnothing < 3$	-0 ~ -0.02
$1 < \varnothing < 12$	-0 ~ -0.025
$12 < \varnothing$	-0 ~ -0.03
R	-0 ~ +0.02



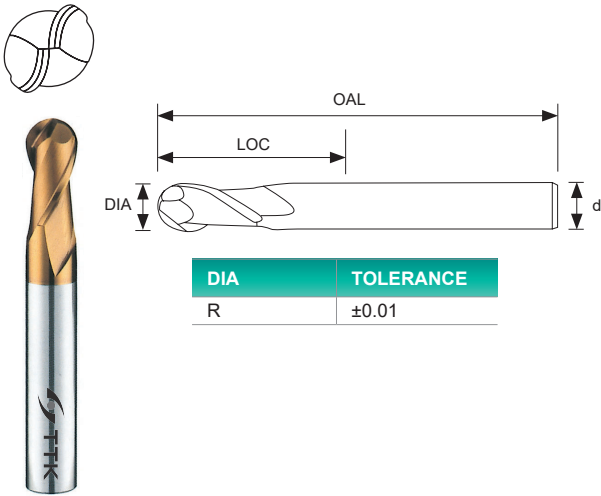
Work Material (● Most Suitable / ○ Suitable)								
Carbon steel, Alloy steel	Pre-harden steel	High-hardened				Stainless steel	Copper alloy	Aluminum alloy
		-45HRC	-50HRC	-55HRC	-60HRC			
●	●	●	●	○	○			

Unit : mm

Model No.	DIA	Corner	LOC	d	OAL
CERH4010-02AC	1	0.2R	3	4	50
CERH4015-02AC	1.5	0.2R	4	4	50
CERH4020-02AC	2	0.2R	6	4	50
CERH4020-05AC	2	0.5R	6	4	50
CERH4030-02BC	3	0.2R	8	3	50
CERH4030-05BC	3	0.5R	8	3	50
CERH4030-02AC	3	0.2R	8	4	50
CERH4030-05AC	3	0.5R	8	4	50
CERH4040-02AC	4	0.2R	10	4	50
CERH4040-05AC	4	0.5R	10	4	50
CERH4040-10AC	4	1R	10	4	50
CERH4060-02C	6	0.2R	15	6	50
CERH4060-05C	6	0.5R	15	6	50
CERH4060-10C	6	1R	15	6	50
CERH4080-02C	8	0.2R	20	8	60
CERH4080-05C	8	0.5R	20	8	60
CERH4080-10C	8	1R	20	8	60
CERH4100-02C	10	0.2R	25	10	75
CERH4100-05C	10	0.5R	25	10	75
CERH4100-10C	10	1R	25	10	75
CERH4120-05C	12	0.5R	30	12	75
CERH4120-10C	12	1R	30	12	75

# CEBH-2C

Super Micro Grain Carbide 2-Flute Ball End Mill



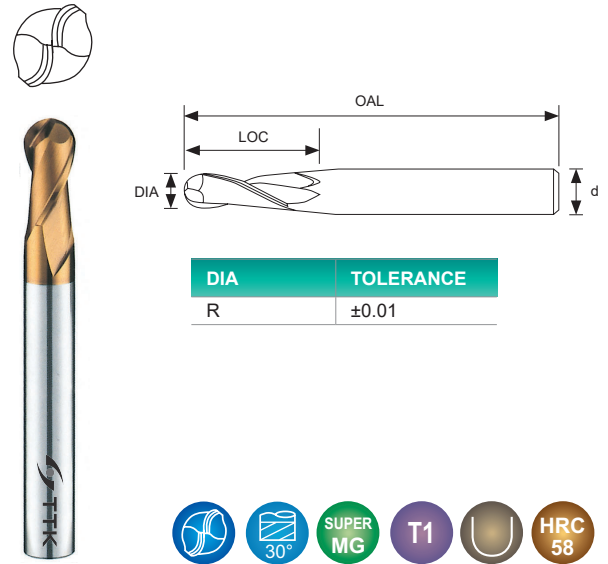
Work Material (● Most Suitable / ○ Suitable)								
Carbon steel, Alloy steel	Pre- harden steel	High-hardened				Stainless steel	Copper alloy	Aluminum alloy
		-45HRC	-50HRC	-55HRC	-60HRC			
●	●	●	●	○	○			

Unit : mm

Model No.	DIA	LOC	d	OAL
CEBH-2003AC	0.3 (0.15R)	0.6	4	50
CEBH-2004AC	0.4 (0.2R)	0.8	4	50
CEBH-2005AC	0.5 (0.25R)	1	4	50
CEBH-2006AC	0.6 (0.3R)	1.2	4	50
CEBH-2007AC	0.7 (0.35R)	1.4	4	50
CEBH-2008AC	0.8 (0.4R)	1.6	4	50
CEBH-2009AC	0.9 (0.45R)	1.8	4	50
CEBH-2010AC	1 (0.5R)	2	4	50
CEBH-2010C	1 (0.5R)	2	6	50
CEBH-2015AC	1.5 (0.75R)	3	4	50
CEBH-2015C	1.5 (0.75R)	3	6	50
CEBH-2020AC	2 (1R)	4	4	50
CEBH-2020C	2 (1R)	4	6	50
CEBH-2030AC	3 (1.5R)	6	4	50
CEBH-2030BC	3 (1.5R)	6	3	50
CEBH-2030C	3 (1.5R)	6	6	50
CEBH-2040AC	4 (2R)	8	4	50
CEBH-2040C	4 (2R)	8	6	50
CEBH-2050C	5 (2.5R)	10	6	50
CEBH-2060C	6 (3R)	12	6	50
CEBH-2080C	8 (4R)	16	8	60
CEBH-2100C	10 (5R)	20	10	75
CEBH-2120C	12 (6R)	24	12	75

# CEBPH-2C

Super Micro Grain Carbide 2-Flute Ball End Mill Long Shank



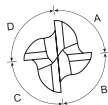
Work Material (● Most Suitable / ○ Suitable)								
Carbon steel, Alloy steel	Pre- harden steel	High-hardened				Stainless steel	Copper alloy	Aluminum alloy
		-45HRC	-50HRC	-55HRC	-60HRC			
●	●	●	●	○	○			

Unit : mm

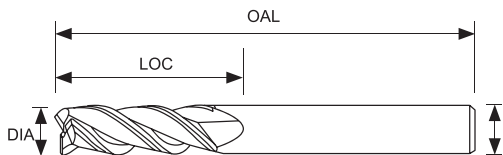
Model No.	DIA	LOC	d	OAL
CEBPH-2030BC	3 (1.5R)	6	3	75
CEBPH-2040AC	4 (2R)	8	4	75
CEBPH-2060C-75	6 (3R)	12	6	75
CEBPH-2060C	6 (3R)	12	6	100
CEBPH-2080C-75	8 (4R)	16	8	75
CEBPH-2080C	8 (4R)	16	8	100
CEBPH-2100C	10 (5R)	20	10	100
CEBPH-2100C-150	10 (5R)	20	10	150
CEBPH-2120C	12 (6R)	24	12	100
CEBPH-2120C-150	12 (6R)	24	12	150

# SSCE-4C SUS Special For Stainless Steel

Application 4-Flute Variable Unequal Super Micro Grain Carbide End Mill



A=C  
D=B



DIA	TOLERANCE
$\varnothing < 1$	-0 ~ -0.02
$1 < \varnothing < 12$	-0 ~ -0.02
$12 < \varnothing$	-0 ~ -0.03



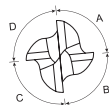
Work Material (● Most Suitable / ○ Suitable)							
Carbon steel, Alloy steel	Pre-harden steel	High-hardened			Stainless steel	Copper alloy	Aluminum alloy
	-45HRC	-50HRC	-55HRC	-60HRC			
	●				●		

Unit : mm

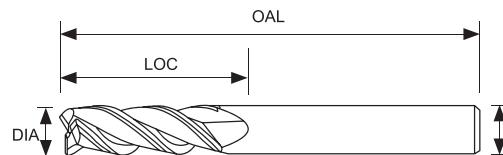
Model No.	DIA	LOC	d	OAL
SSCE-4010AC	1	3	4	50
SSCE-4015AC	1.5	4	4	50
SSCE-4020AC	2	6	4	50
SSCE-4025AC	2.5	8	4	50
SSCE-4030AC	3	8	4	50
SSCE-4030C	3	8	6	50
SSCE-4040AC	4	11	4	50
SSCE-4040C	4	11	6	50
SSCE-4050C	5	13	6	50
SSCE-4060C	6	16	6	50
SSCE-4080C	8	20	8	60
SSCE-4100C	10	30	10	75
SSCE-4120C	12	32	12	75
SSCE-4160C	16	40	16	100
SSCE-4200C	20	45	20	100

# SSCER-4C SUS Special For Stainless Steel

Application 4-Flue Corner Radius Variable Unequal Super Micro Grain Carbide End Mill



A=C  
D=B



DIA	TOLERANCE
$\varnothing < 1$	-0 ~ -0.02
$1 < \varnothing < 12$	-0 ~ -0.02
$12 < \varnothing$	-0 ~ -0.03
R	±0.01



Work Material (● Most Suitable / ○ Suitable)							
Carbon steel, Alloy steel	Pre-harden steel	High-hardened			Stainless steel	Copper alloy	Aluminum alloy
	-45HRC	-50HRC	-55HRC	-60HRC			
	●				●		

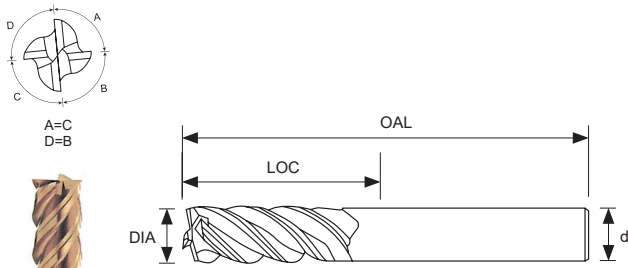
Unit : mm

Model No.	DIA	Corner	LOC	d	OAL
SSCER4010-02AC	1	0.2R	3	4	50
SSCER4015-02AC	1.5	0.2R	4	4	50
SSCER4020-02AC	2	0.2R	6	4	50
SSCER4030-02AC	3	0.2R	8	4	50
SSCER4030-05AC	3	0.5R	8	4	50
SSCER4030-10AC	3	1R	8	4	50
SSCER4040-02AC	4	0.2R	10	4	50
SSCER4040-05AC	4	0.5R	10	4	50
SSCER4040-10AC	4	1R	10	4	50
SSCER4060-02C	6	0.2R	15	6	50
SSCER4060-05C	6	0.5R	15	6	50
SSCER4060-10C	6	1R	15	6	50
SSCER4080-02C	8	0.2R	20	8	60
SSCER4080-05C	8	0.5R	20	8	60
SSCER4080-10C	8	1R	20	8	60
SSCER4100-02C	10	0.2R	25	10	75
SSCER4100-05C	10	0.5R	25	10	75
SSCER4100-10C	10	1R	25	10	75
SSCER4120-05C	12	0.5R	30	12	75
SSCER4120-10C	12	1R	30	12	75



# UCEMX-4C

Variable Unequal 4-Flute-General Economical End Mill



DIA	TOLERANCE
$\varnothing < 1$	-0 ~ -0.02
$1 < \varnothing < 12$	-0 ~ -0.02
$12 < \varnothing$	-0 ~ -0.03

U Shape gush design to performace heavy-duty & high feed operation.  
 Better chip control to flow smoothly & obtain higher rigidity.  
 Apply in all conventional & CNC machines.  
 Wide application of working material : carbon steel, preharden steel, stainless, nickel base alloy.



Work Material (● Most Suitable / ○ Suitable)							
Carbon steel, Alloy steel	Pre- harden steel	High-hardened			Stainless steel	Copper alloy	Aluminum alloy
	-45HRC	-50HRC	-55HRC	-60HRC			
●	●	●	●	○	○		

Unit : mm

Model No.	DIA	LOC	d	OAL
UCEMX-4030AC	3	9	4	50
UCEMX-4030C	3	9	6	50
UCEMX-4040AC	4	12	4	50
UCEMX-4040C	4	12	6	50
UCEMX-4050C	5	15	6	50
UCEMX-4060C	6	18	6	50
UCEMX-4070C	7	21	8	60
UCEMX-4080C	8	24	8	60
UCEMX-4090C	9	27	10	75
UCEMX-4100C	10	30	10	75
UCEMX-4110C	11	33	12	75
UCEMX-4120C	12	36	12	75

**Remark:**

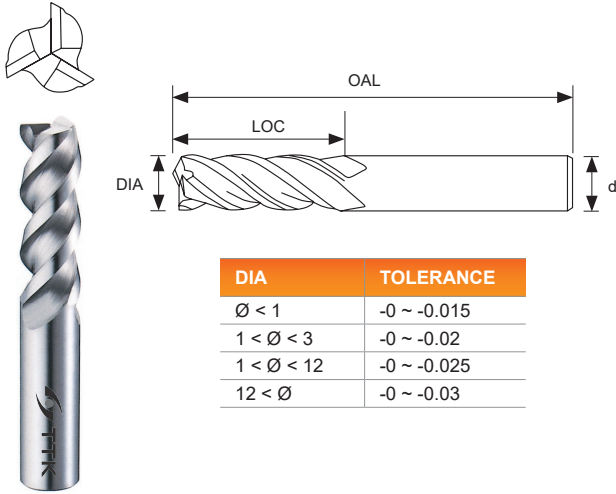
- \* Good For Super Finishing Surface With Side Allowance < 0.1mm Depth of Cut
- \* Uncoated Is Recommendable & Effective For Non-Ferrous Material  
By Comparing To General 4-Flute Standard Type.
- \* High Feed With Interpolation Programming Matter For Full Cutting Length Depth  
With Min Side Allowance.



U Series  
Variable Unequal Flute, Heavy Duty, Vibration-Suppression End Mill

# ACEGM-3 & ACEGMP-3

Fine Micro Grain Solid Carbide 3-Flute Heavy Duty Polished Mirror Aluminum, End Mill & Long Shank



DIA	TOLERANCE
$\varnothing < 1$	-0 ~ -0.015
$1 < \varnothing < 3$	-0 ~ -0.02
$1 < \varnothing < 12$	-0 ~ -0.025
$12 < \varnothing$	-0 ~ -0.03



Work Material (● Most Suitable / ○ Suitable)							
Carbon steel, Alloy steel	Pre-harden steel	High-hardened			Stainless steel	Copper alloy	Aluminum alloy
	-45HRC	-50HRC	-55HRC	-60HRC -65HRC			
							●

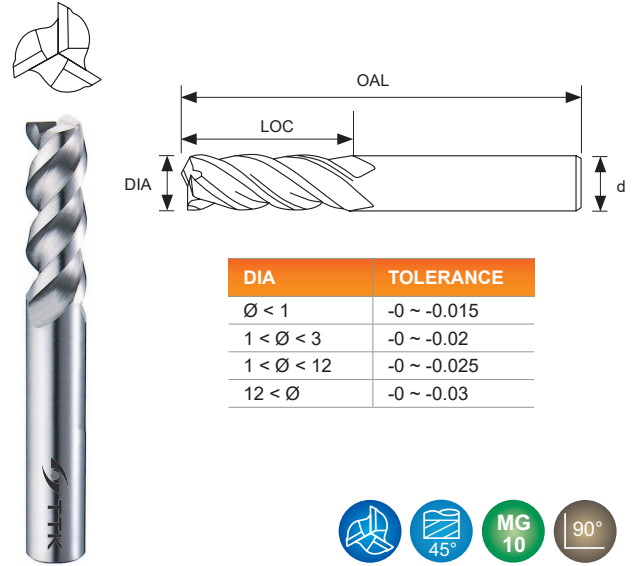
Unit : mm

Model No.	DIA	LOC	d	OAL
ACEGM-3030B	3	9	3	50
ACEGM-3030A	3	9	4	50
ACEGM-3030	3	9	6	50
ACEGM-3040A	4	12	4	50
ACEGM-3040	4	12	6	50
ACEGM-3060	6	18	6	50
ACEGM-3080	8	24	8	60
ACEGM-3100	10	30	10	75
ACEGM-3120	12	36	12	75

Model No.	DIA	LOC	d	OAL
ACEGMP-3030B	3	9	3	75
ACEGMP-3030B-100	3	9	3	100
ACEGMP-3040A	4	12	4	75
ACEGMP-4040A-100	4	12	4	100
ACEGMP-3060-75	6	18	6	75
ACEGMP-3060	6	18	6	100
ACEGMP-3060-150	6	18	6	150
ACEGMP-3080	8	24	8	100
ACEGMP-3080-150	8	24	8	150
ACEGMP-3100	10	30	10	100
ACEGMP-3100-150	10	30	10	150
ACEGMP-3120	12	36	12	100
ACEGMP-3120-150	12	36	12	150

# ACEGML-3

Fine Micro Grain Solid Carbide 3-Flute Heavy Duty Polished Mirror Aluminum, End Mill Long Flute



DIA	TOLERANCE
$\varnothing < 1$	-0 ~ -0.015
$1 < \varnothing < 3$	-0 ~ -0.02
$1 < \varnothing < 12$	-0 ~ -0.025
$12 < \varnothing$	-0 ~ -0.03



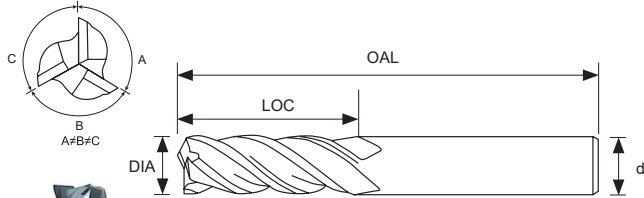
Work Material (● Most Suitable / ○ Suitable)							
Carbon steel, Alloy steel	Pre-harden steel	High-hardened			Stainless steel	Copper alloy	Aluminum alloy
	-45HRC	-50HRC	-55HRC	-60HRC -65HRC			
							●

Unit : mm

Model No.	DIA	LOC	d	OAL
ACEGML-3030B	3	15	3	75
ACEGML-3040A	4	20	4	75
ACEGML-3060	6	30	6	75
ACEGML-3080	8	40	8	100
ACEGML-3100	10	50	10	100
ACEGML-3120	12	60	12	100

# UACEM-3 & UACEMP-3

Variable Unequal 3-Flute-Heavy Duty Corner End Mill For Aluminum  
Inheritance of power Vibration-Suppression from Chattering  
to realise stable milling progression



DIA	TOLERANCE
$\varnothing < 1$	-0 ~ -0.02
$1 < \varnothing < 12$	-0 ~ -0.02
$12 < \varnothing$	-0 ~ -0.03
R	$\pm 0.01$



Work Material (● Most Suitable / ○ Suitable)							
Carbon steel, Alloy steel	Pre- harden steel	High-hardened			Stainless steel	Copper alloy	Aluminum alloy
	-45HRC	-50HRC	-55HRC	-60HRC			
							●

Unit : mm

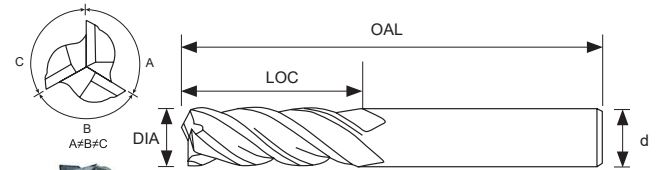
Model No.	DIA	LOC	d	OAL
UACEM-3010A	1	3	4	50
UACEM-3015A	1.5	4.5	4	50
UACEM-3020A	2	6	4	50
UACEM-3025A	2.5	7.5	4	50
UACEM-3030A	3	9	4	50
UACEM-3030	3	9	6	50
UACEM-3040A	4	12	4	50
UACEM-3040	4	12	6	50
UACEM-3050	5	15	6	50
UACEM-3060	6	18	6	50
UACEM-3070	7	21	8	60
UACEM-3080	8	20	8	60
UACEM-3080-CL24	8	24	8	60
UACEM-3090	9	27	10	75
UACEM-3100	10	30	10	75
UACEM-3120	12	32	12	75
UACEM-3120-CL36	12	36	12	75
UACEM-3160	16	48	16	100

Unit : mm

Model No.	DIA	LOC	d	OAL
UACEMP-3030B	3	9	3	75
UACEMP-3040A	4	12	4	75
UACEMP-3040A-100	4	12	4	100
UACEMP-3060-75	6	18	6	75
UACEMP-3060	6	18	6	100
UACEMP-3060-150	6	18	6	150
UACEMP-3080	8	24	8	100
UACEMP-3080-150	8	24	8	150
UACEMP-3100	10	30	10	100
UACEMP-3100-150	10	30	10	150
UACEMP-3120	12	36	12	100
UACEMP-3120-150	12	36	12	150

# UACEML-3

Variable Unequal 3-Flute-Heavy Duty Corner End Mill For Aluminum  
Long Flute  
Inheritance of power Vibration-Suppression from Chattering  
to realise stable milling progression



DIA	TOLERANCE
$\varnothing < 1$	-0 ~ -0.02
$1 < \varnothing < 12$	-0 ~ -0.02
$12 < \varnothing$	-0 ~ -0.03



Work Material (● Most Suitable / ○ Suitable)							
Carbon steel, Alloy steel	Pre- harden steel	High-hardened			Stainless steel	Copper alloy	Aluminum alloy
	-45HRC	-50HRC	-55HRC	-60HRC			
							●

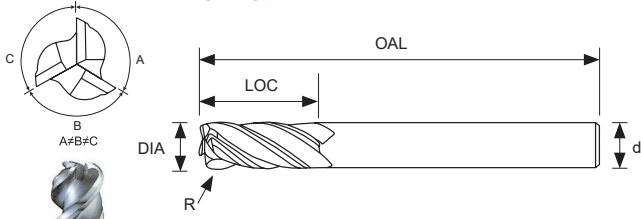
Unit : mm

Model No.	DIA	LOC	d	OAL
UACEML-3010A	1	7	4	50
UACEML-3015A	1.5	9	4	50
UACEML-3020A	2	12	4	50
UACEML-3030B	3	15	3	75
UACEML-3040A	4	20	4	75
UACEML-3060	6	30	6	75
UACEML-3080	8	40	8	100
UACEML-3100	10	50	10	100
UACEML-3120	12	60	12	100

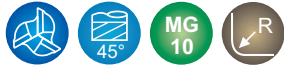
# UACERM-3

Variable Unequal 3-Flute-Heavy Duty Corner Radius End Mill For Aluminum

Inheritance of power Vibration-Suppression from Chattering to realise stable milling progression



DIA	TOLERANCE
$\varnothing < 1$	-0 ~ -0.02
$1 < \varnothing < 12$	-0 ~ -0.02
$12 < \varnothing$	-0 ~ -0.03
R	$\pm 0.01$



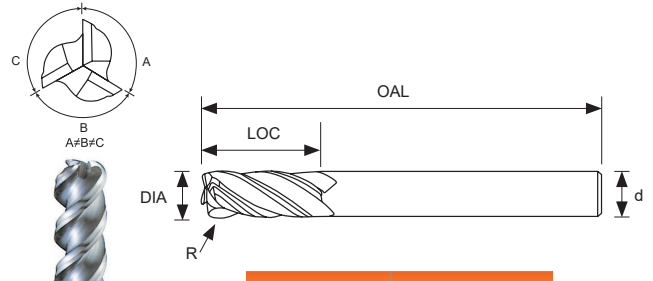
Work Material (● Most Suitable / ○ Suitable)							
Carbon steel, Alloy steel	Pre- harden steel	High-hardened			Stainless steel	Copper alloy	Aluminum alloy
	-45HRC	-50HRC	-55HRC	-60HRC			
							●

Unit : mm

Model No.	DIA	Corner	LOC	d	OAL
UACERM3010-02A	1	0.2R	3	4	50
UACERM3015-02A	1.5	0.2R	4.5	4	50
UACERM3020-02A	2	0.2R	6	4	50
UACERM3020-05A	2	0.5R	6	4	50
UACERM3030-02B	3	0.2R	9	3	50
UACERM3030-05B	3	0.5R	9	3	50
UACERM3030-10B	3	1R	9	3	50
UACERM3030-02A	3	0.2R	9	4	50
UACERM3030-05A	3	0.5R	9	4	50
UACERM3030-10A	3	1R	9	4	50
UACERM3040-02A	4	0.2R	12	4	50
UACERM3040-05A	4	0.5R	12	4	50
UACERM3040-10A	4	1R	12	4	50
UACERM3060-05	6	0.5R	18	6	50
UACERM3060-10	6	1R	18	6	50
UACERM3080-05	8	0.5R	24	8	60
UACERM3080-10	8	1R	24	8	60
UACERM3100-05	10	0.5R	30	10	75
UACERM3100-10	10	1R	30	10	75
UACERM3120-05	12	0.5R	36	12	75
UACERM3120-10	12	1R	36	12	75

# UACERMP-3

Variable Unequal 3-Flute-Heavy Duty Corner Radius End Mill For Aluminum Long Shank



DIA	TOLERANCE
$\varnothing < 1$	-0 ~ -0.02
$1 < \varnothing < 12$	-0 ~ -0.02
$12 < \varnothing$	-0 ~ -0.03
R	$\pm 0.01$



Work Material (● Most Suitable / ○ Suitable)							
Carbon steel, Alloy steel	Pre- harden steel	High-hardened			Stainless steel	Copper alloy	Aluminum alloy
	-45HRC	-50HRC	-55HRC	-60HRC			
							●

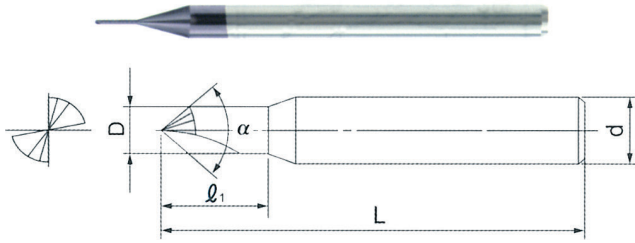
Unit : mm

Model No.	DIA	Corner	LOC	d	OAL
UACERMP3030-02B	3	0.2R	9	3	75
UACERMP3030-05B	3	0.5R	9	3	75
UACERMP3030-10B	3	1R	9	3	75
UACERMP3040-02A	4	0.2R	12	4	75
UACERMP3040-05A	4	0.5R	12	4	75
UACERMP3040-10A	4	1R	12	4	75
UACERMP3040-02A-100	4	0.2R	12	4	100
UACERMP3040-05A-100	4	0.5R	12	4	100
UACERMP3040-10A-100	4	1R	12	4	100
UACERMP3060-05-75	6	0.5R	18	6	75
UACERMP3060-10-75	6	1R	18	6	75
UACERMP3060-05	6	0.5R	18	6	100
UACERMP3060-10	6	1R	18	6	100
UACERMP3060-05-150	6	0.5R	18	6	150
UACERMP3060-10-150	6	1R	18	6	150
UACERMP3080-05	8	0.5R	24	8	100
UACERMP3080-10	8	1R	24	8	100
UACERMP3080-05-150	8	0.5R	24	8	150
UACERMP3080-10-150	8	1R	24	8	150
UACERMP3100-05	10	0.5R	30	10	100
UACERMP3100-10	10	1R	30	10	100
UACERMP3100-05-150	10	0.5R	30	10	150
UACERMP3100-10-150	10	1R	30	10	150
UACERMP3120-05	12	0.5R	36	12	100
UACERMP3120-10	12	1R	36	12	100
UACERMP3120-05-150	12	0.5R	36	12	150
UACERMP3120-10-150	12	1R	36	12	150

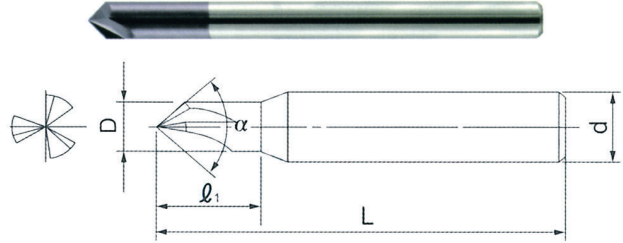
# CEC-2TL & CEC-3TL

Solid Carbide Countersinks 90°

Type I (2 刃) (3 刃)



Type II (2 刃) (3 刃)



Model No.	DIA(D)	a°	Effective Legth (l <sub>1</sub> )	(d)	OAL	Flutes	Type
CEC-2003ATL	0.3	90°	1	4	50	2	I
CEC-2005ATL	0.5	90°	1.5	4	50	2	I
CEC-2010ATL	1	90°	3	4	50	2	I
CEC-2015ATL	1.5	90°	4	4	50	2	I
CEC-2020ATL	2	90°	6	4	50	2	I
CEC-2025ATL	2.5	90°	7	4	50	2	I
CEC-2030ATL	3	90°	9	4	50	2	I
CEC-2040ATL	4	90°	-	4	50	2	I
CEC-3010ATL	1	90°	3	4	50	3	II
CEC-3015ATL	1.5	90°	4	4	50	3	II
CEC-3020ATL	2	90°	6	4	50	3	II
CEC-3025ATL	2.5	90°	7	4	50	3	II
CEC-3030ATL	3	90°	9	4	50	3	II
CEC-3030BTL	3	90°	-	3	50	3	II
CEC-3040ATL	4	90°	-	4	50	3	II
CEC-3060TL	6	90°	-	6	50	3	II

# CEV-4 & 6

Carbide W-Angular Chamfer Cutters 60° / 90°

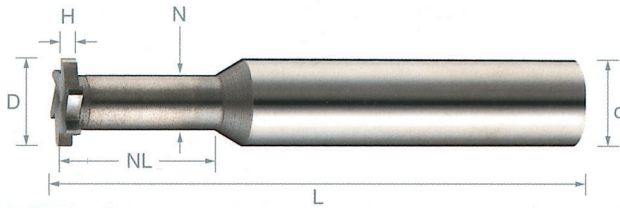


Model No.	θ°	D	H	N	NL	T	d	L
CEV4040-60	60°	4	1.2	1.8	4.2	4	4	50
CEV4060-60	60°	6	1.8	2.7	5.8	4	6	60
CEV4080-60	60°	8	2.4	3.6	7.4	6	8	60
CEV4100-60	60°	10	3.1	4.5	9.1	6	10	75
CEV4120-60	60°	12	3.7	5.4	10.7	6	12	75

Model No.	θ°	D	H	ND	NL	T	d	L
CEV4040-90	90°	4	1.8	2	5.8	4	4	50
CEV4060-90	90°	6	2.8	3	6.8	4	6	60
CEV4080-90	90°	8	3.8	4	8.8	6	8	60
CEV4100-90	90°	10	4.8	5	10.8	6	10	75
CEV4120-90	90°	12	5.8	6	12.8	6	12	75

# CET-4 & 6

Carbide T-Shape Cutters



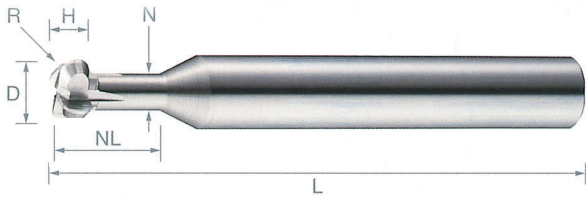
Carbide Special Cutters Series



Model No.	D	H	N	NL	T	d	L
CET4040-05	4	0.5	2.5	4	4	4	50
CET4040-06	4	0.6	2.5	4.1	4	4	50
CET4040-07	4	0.7	2.5	4.2	4	4	50
CET4040-08	4	0.8	2.5	4.3	4	4	50
CET4040-09	4	0.9	2.5	4.4	4	4	50
CET4040-10	4	1	2.5	4.5	4	4	50
CET4040-15	4	1.5	2.5	5	4	4	50
CET4040-20	4	2	2.5	5.5	4	4	50
CET4050-05	5	0.5	2.5	4.5	4	6	50
CET4050-06	5	0.6	2.5	4.6	4	6	50
CET4050-07	5	0.7	2.5	4.7	4	6	50
CET4050-08	5	0.8	2.5	4.8	4	6	50
CET4050-09	5	0.9	2.5	4.9	4	6	50
CET4050-10	5	1	2.5	5	4	6	50
CET4050-15	5	1.5	2.5	5.5	4	6	50
CET4050-20	5	2	2.5	6	4	6	50
CET6060-05	6	0.5	3	4.5	6	6	50
CET6060-06	6	0.6	3	4.6	6	6	50
CET6060-07	6	0.7	3	4.7	6	6	50
CET6060-08	6	0.8	3	4.8	6	6	50
CET6060-09	6	0.9	3	4.9	6	6	50
CET6060-10	6	1	3	5	6	6	50
CET6060-15	6	1.5	3	5.5	6	6	50
CET6060-20	6	2	3	6	6	6	50
CET6080-10	8	1	4	5	6	8	60
CET6080-15	8	1.5	4	5.5	6	8	60
CET6080-20	8	2	4	6	6	8	60
CET6100-10	10	1	5	7	6	10	75
CET6100-15	10	1.5	5	7.5	6	10	75
CET6100-20	10	2	5	8	6	10	75
CET6100-30	10	3	5	9	6	10	75
CET6120-10	12	1	6	8	6	12	75
CET6120-15	12	1.5	6	8.5	6	12	75
CET6120-20	12	2	6	9	6	12	75
CET6120-30	12	3	6	10	6	12	75

# CETR-4 & 6

Carbide Convex Cutters

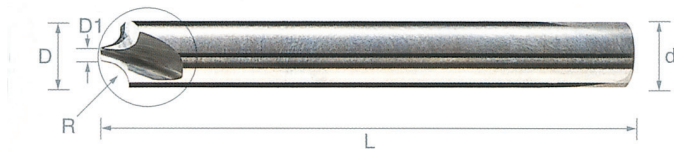


Model No.	R	D	H	N	NL	T	d	L
CETR4040-03	0.3R	4	0.6	2	4.1	4	6	50
CETR4040-05	0.5R	4	1	2	4.5	4	6	50
CETR4040-10	1R	4	2	2	5.5	4	6	50
CETR4050-03	0.3R	5	0.6	2.2	4.1	4	6	50
CETR4050-05	0.5R	5	1	2.2	4.5	4	6	50
CETR4050-10	1R	5	2	2.2	5.5	4	6	50
CETR4060-03	0.3R	6	0.6	2.7	4.6	4	6	50
CETR4060-05	0.5R	6	1	2.7	5	4	6	50
CETR4060-10	1R	6	2	2.7	6	4	6	50
CETR6080-03	0.3R	8	0.6	3.6	5.6	6	8	60
CETR6080-05	0.5R	8	1	3.6	6	6	8	60
CETR6080-10	1R	8	2	3.6	7	6	8	60
CETR6100-03	0.3R	10	0.6	4.5	6.6	6	10	75
CETR6100-05	0.5R	10	1	4.5	7	6	10	75
CETR6100-10	1R	10	2	4.5	8	6	10	75
CETR6100-15	1.5R	10	3	4.5	9	6	10	75
CETR6100-20	2R	10	4	4.5	10	6	10	75
CETR6120-03	0.3R	12	0.6	5.5	6.6	6	12	75
CETR6120-05	0.5R	12	1	5.5	7	6	12	75
CETR6120-10	1R	12	2	5.5	8	6	12	75
CETR6120-15	1.5R	12	3	5.5	9	6	12	75
CETR6120-20	2R	12	4	5.5	10	6	12	75



# CEW-2

Carbide Outer Radius Cutters



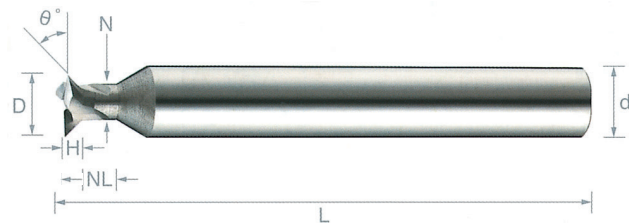
Model No.	R	D1	D	T	d	L
CEW-2025R	0.25R	3.1	4	2	4	50
CEW-2050R	0.5R	2.6	4	2	4	50
CEW-2075R	0.75R	2.1	4	2	4	50
CEW-2100R	1R	1.6	4	2	4	50

Model No.	R	D1	D	T	d	L
CEW-2125R	1.25R	3.1	6	2	6	50
CEW-2150R	1.5R	2.6	6	2	6	50
CEW-2175R	1.75R	2.1	6	2	6	50
CEW-2200R	2R	1.6	6	2	6	50

Model No.	R	D1	D	T	d	L
CEW-2250R	2.5R	2.6	8	2	8	60
CEW-2300R	3R	1.6	8	2	8	60
CEW-2400R	4R	3.6	12	2	12	60
CEW-2500R	5R	5.6	16	2	16	75
CEW-2600R	6R	3.6	16	2	16	75

# CEVJ-4 & 6

Carbide Dove-Tail Slot Cutters



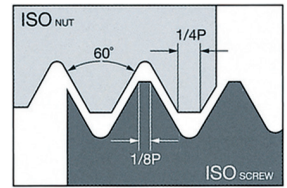
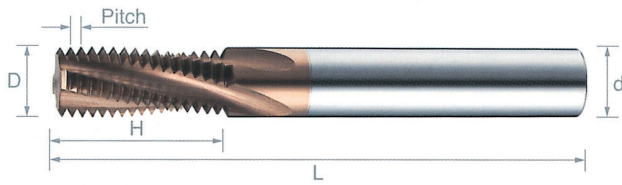
Model No.	a	D	H	N	NL	T	d	L
CEVJ4030-45	45°	3	0.8	1.4	3.8	4	6	60
CEVJ4040-45	45°	4	1	2	4	4	6	60
CEVJ4050-45	45°	5	1.2	2.5	5.2	4	6	60
CEVJ4060-45	45°	6	1.4	3	5.4	4	6	60
CEVJ6080-45	45°	8	1.9	4	6.9	6	8	60
CEVJ6100-45	45°	10	2.4	5	8.4	6	10	75
CEVJ6120-45	45°	12	2.9	6	9.9	6	12	75

Model No.	a	D	H	N	NL	T	d	L
CEVJ4030-60	60°	3	1.2	1.5	4.2	4	6	60
CEVJ4040-60	60°	4	1.6	2	5.1	4	6	60
CEVJ4050-60	60°	5	2.2	2.3	6.2	4	6	60
CEVJ4060-60	60°	6	2.7	2.7	6.7	4	6	60
CEVJ6080-60	60°	8	3.7	3.6	8.7	6	8	60
CEVJ6100-60	60°	10	4.6	4.5	10.6	6	10	75
CEVJ6120-60	60°	12	5.6	5.4	12.6	6	12	75

Carbide Special Cutters Series

# CF3 & CF4

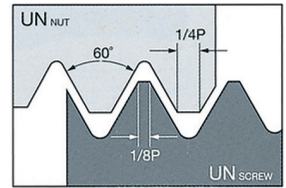
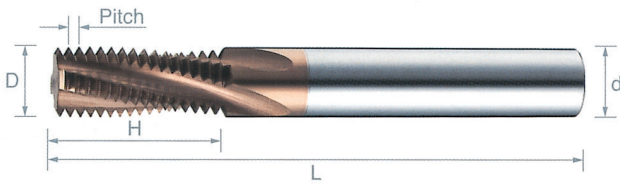
Carbide Thread Milling Tools-Helical Flutes-ISO Metric (Internal / External)



Model No.	Thread Size		Pitch	D	H	T	d	L
	COARSE	FINE						
CF30240-050	M3x0.5		0.5	2.4	6	3	4	50
CF30315-070	M4x0.7		0.7	3.15	8	3	4	50
CF30590-050		M7.0x0.5	0.5	5.9	15	3	6	60
CF30360-075	M4.5x0.75	M5.0x0.75	0.75	3.6	10.1	3	6	60
CF30590-075		M8.0x0.75	0.75	5.9	15	3	6	60
CF30790-075		M10.0x0.75	0.75	7.9	20	3	8	60
CF30390-080	M5.0x0.8		0.8	3.9	10	3	6	60
CF30480-100	M6.0x1.0	M7.0x1.0	1	4.8	11.5	3	6	60
CF30790-100		M10.0x1.0	1	7.9	20	3	8	60
CF40990-100		M12.0x1.0	1	9.9	25	4	10	75
CF30590-125	M8.0x1.25	M9.0x1.25	1.25	5.9	15	3	6	60
CF30790-150	M10.0x1.5	M11.0x1.5	1.5	7.9	20	3	8	60
CF40990-150		M13.0x1.5	1.5	9.9	25	4	10	75
CF41190-150		M15.0x1.5	1.5	11.9	25	4	12	75
CF41590-150		M20.0x1.5	1.5	15.9	40	4	16	100
CF40990-175	M12.0x1.75		1.75	9.9	25	4	10	75
CF40990-200	M14.0x2.0		2	9.9	25	4	10	75
CF41190-200	M16.0x2.0		2	11.9	25	4	12	75
CF41590-200		M20.0x2.0	2	15.9	40	4	16	100
CF41590-250	M20.0x2.5		2.5	15.9	40	4	16	100
CF41590-300	M24.0x3.0	M27.0x3.0	3	15.9	40	4	16	100
CF41990-300	M27.0x3.0		3	19.9	50	4	20	100

# CF3-N & CF4-N

Carbide Thread Milling Tools-Helical Flutes-American-UN (Internal / External)

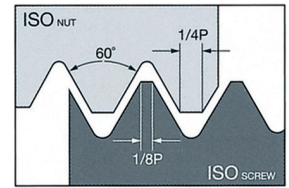
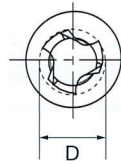
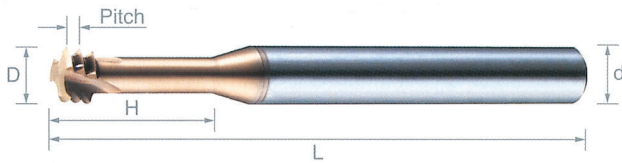


Carbide Special Cutters Series

Model No.	Thread Size			Pitch	D	H	T	d	L
	COARSE UNC	FINE UNF	EXTRA FINE UNEF						
CF30590-32N			5/16	32	5.9	15	3	6	60
CF40790-32N			3/8	32	7.9	20	4	8	60
CF30510-28N		1/4		28	5.1	15	3	6	60
CF40790-28N			7/16-1/2	28	7.9	20	4	8	60
CF30590-24N		5/16		24	5.9	15	3	6	60
CF40790-24N		3/8		24	7.9	20	4	8	60
CF41190-24N		9/16-5/8		24	11.9	25	4	12	75
CF30480-20N	1/4			20	4.8	12	3	6	60
CF30790-20N		7/16		20	7.9	20	3	8	60
CF40990-20N		1/2		20	9.9	25	4	10	75
CF41190-20N			3/4-1	20	11.9	30	4	12	80
CF30590-18N	5/16			18	5.9	15	3	6	60
CF40990-18N		9/16-5/8		18	9.9	25	4	10	75
CF30750-16N	3/8			16	7.5	18.2	3	8	60
CF41190-16N		3/4		16	11.9	30	4	12	80
CF30790-14N	7/16			14	7.9	20	3	8	60
CF41190-14N		7/8		14	11.9	25	4	12	75
CF30990-13N	1/2			13	9.9	25	3	10	75
CF41150-12N	9/16			12	11.5	27	4	12	75
CF41590-12N		1		12	15.9	40	4	16	100
CF31190-11N	5/8			11	11.9	32	3	12	80
CF41590-10N	3/4			10	15.9	40	4	16	100
CF41590-9N	7/8			9	15.9	40	4	16	100
CF41990-8N	1			8	19.9	50	4	20	100

# CFS3 & CFS4

Carbide Thread Milling Tools-Miniature Tools-ISO Metric (Internal / External)



Thread Length-Up To 2D (D=Nominal Thread Size)

Model No.	Thread Size	Pitch	D	H	T	d	L
CFS30072-025	M1.0x0.25	0.25	0.72	2.5	3	4	50
CFS30092-025	M1.2x0.25	0.25	0.92	2.8	3	4	50
CFS30120-035	M1.6x0.35	0.35	1.2	3.3	3	3	50
CFS30154-040	M2.0x0.4	0.4	1.54	4.4	3	3	50
CFS30163-045	M2.2x0.45	0.45	1.63	4.8	3	3	50
CFS30196-045	M2.5x0.45	0.45	1.96	5.3	3	4	50
CFS30240-050	M3.0x0.5	0.5	2.4	6.4	3	4	50
CFS30275-060	M3.5x0.6	0.6	2.75	7.4	3	4	50
CFS30315-070	M4.0x0.7	0.7	3.15	8.6	3	6	60
CFS30400-080	M5.0x0.8	0.8	4	12	3	6	60
CFS30475-100	M6.0x1.0	1	4.75	13	3	6	60
CFS30595-125	M8.0x1.25	1.25	5.95	17.3	3	6	60
CFS30650-125	M8.0x1.25	1.25	6.5	17.3	3	8	60
CFS30790-150	M10.0x1.5	1.5	7.9	22	3	8	60
CFS30950-175	M12.0x1.75	1.75	9.5	25.5	3	10	80
CFS30990-200	M14x2.0	2	9.9	29	3	10	80
CFS41190-200	M16x2.0	2	11.9	33	4	12	80
CFS41590-250	M20x2.5	2.5	15.9	42	4	16	100

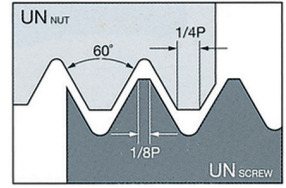
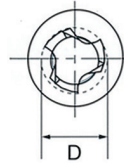
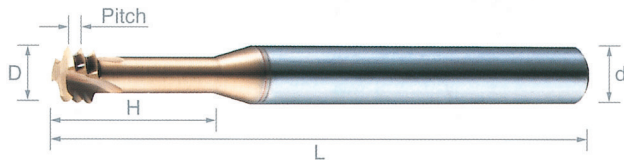
# CFSL-3

Thread Length-Up To 3D (D=Nominal Thread Size)

Model No.	Thread Size	Pitch	D	H	T	d	L
CFSL30106-030	M1.4x0.3	0.3	1.06	3.9	3	3	50
CFSL30120-035	M1.6x0.35	0.35	1.2	5.1	3	3	50
CFSL30154-040	M2.0x0.4	0.4	1.54	6.1	3	3	50
CFSL30196-045	M2.5x0.45	0.45	1.96	7.6	3	4	50
CFSL30240-050	M3.0x0.5	0.5	2.4	9.3	3	4	50
CFSL30315-070	M4.0x0.7	0.7	3.15	12.4	3	6	60
CFSL30400-080	M5.0x0.8	0.8	4	15.6	3	6	60
CFSL30475-100	M6.0x1.0	1	4.75	19	3	6	60
CFSL30595-125	M8.0x1.25	1.25	5.95	24.3	3	6	60
CFSL30650-125	M8.0x1.25	1.25	6.5	24.3	3	8	60
CFSL30790-150	M10x1.5	1.5	7.9	31	3	8	60
CFSL30950-175	M12x1.75	1.75	9.5	36.5	3	10	80

# CFS3-N & CFS4-N

Carbide Thread Milling Tools-Miniature Tools-UN (Internal / External)



Thread Length-Up To 2D (D=Nominal Thread Size)

Model No.	Thread Size		Pitch	D	H	T	d	L
	COARSE UNC	FINE UNF						
CFS30144-72N		1-72UNF	72	1.44	3.8	3	3	50
CFS30140-64N	1-64UNC	2-64UNF	64	1.4	3.9	3	3	50
CFS30166-56N	2-56UNC	3-56UNF	56	1.66	4.6	3	3	50
CFS30188-48N	3-48UNC	4-48UNF	48	1.88	5.4	3	4	50
CFS30212-40N	4-40UNC		40	2.12	6.2	3	4	50
CFS30246-40N	5-40UNC	6-40UNF	40	2.46	7.1	3	4	50
CFS30331-36N		8-36UNF	36	3.31	8.8	3	4	50
CFS30257-32N	6-32UNC		32	2.57	7.3	3	4	50
CFS30322-32N	8-32UNC	10-32UNF	32	3.22	10.1	3	6	60
CFS30520-28N		1/4-28UNF	28	5.2	14	3	6	60
CFS30355-24N	10-24UNC		24	3.55	10.4	3	6	60
CFS30665-24N		5/16-24UNF	24	6.65	16.7	3	8	60
CFS30485-20N	1/4-20UNC	7/16-20UNF	20	4.85	13.7	3	6	60
CFS30795-20N		7/16-20UNF	20	7.95	24	3	8	60
CFS30595-18N	5/16-18UNC		18	5.95	16.5	3	6	60
CFS30690-16N	3/8-16UNC		16	6.9	21	3	8	60
CFS30795-14N	7/16-14UNC		14	7.95	23.5	3	8	60
CFS30930-13N	1/2-13UNC		13	9.3	27	3	10	80
CFS30995-12N	9/16-12UNC		12	9.95	29	3	10	80
CFS31150-11N	5/8-11UNC		11	11.5	33	3	12	80
CFS41440-10N	3/4-10UNC		10	14.4	42	4	16	110

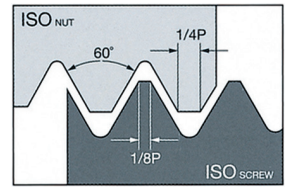
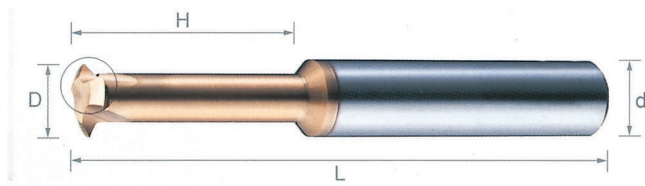
# CFSL3-N

Thread Length-Up To 3D (D=Nominal Thread Size)

Model No.	Thread Size		Pitch	D	H	T	d	L
	COARSE UNC	FINE UNF						
CFSL30118-80N		0-80UNF	80	1.18	3.9	3	3	50
CFSL30144-72N		1-72UNF	72	1.44	5.8	3	3	50
CFSL30166-56N	2-56UNC	3-56UNF	56	1.66	6.8	3	3	50
CFSL30212-40N	4-40UNC		40	2.12	8.1	3	4	50
CFSL30246-40N	5-40UNC	6-40UNF	40	2.46	9.8	3	4	50
CFSL30257-32N	6-32UNC		32	2.57	10.7	3	4	50
CFSL30322-32N	8-32UNC	10-32UNF	32	3.22	12.7	3	6	60
CFSL30520-28N		1/4-28UNF	28	5.2	19.3	3	6	60
CFSL30665-24N		5/16-24UNF	24	6.65	24.2	3	8	60
CFSL30485-20N	1/4-20UNC	7/16-20UNF	20	4.85	19.4	3	6	60

# CFQ3

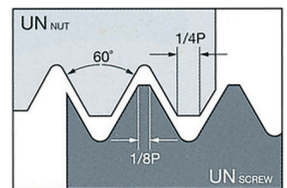
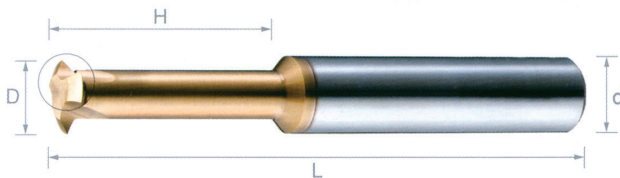
Carbide Thread Milling Tools-Partial Profile 60°-ISO Metric (Internal / External)



Model No.	Thread Size		Pitch	D	H	T	d	L	mm
	COARSE UNC	FINE UNF							
CFQ30070-025	M1.0x0.25	M1.4x0.25	0.25	0.7	3.1	3	3	50	0.75
CFQ30090-025	M1.2x0.25	M1.4x0.25	0.25	0.9	3.8	3	3	50	0.95
CFQ30105-030	M1.4x0.3	-	0.3	1.05	4.4	3	3	50	1.15
CFQ30120-035	M1.6x0.35	-	0.35	1.2	5	3	3	50	1.30
CFQ30140-035	M1.8x0.35	M2.0x0.35	0.35	1.4	5.6	3	3	50	1.50
CFQ30150-040	M2.0x0.4	-	0.4	1.5	6.2	3	3	50	1.65
CFQ30195-045	M2.5x0.45	-	0.45	1.95	7.7	3	3	50	2.10

# CFQ3-N

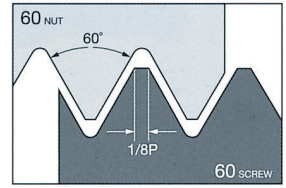
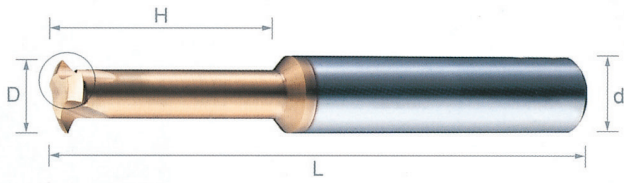
Carbide Thread Milling Tools-Partial Profile 60°-UN (Internal / External)



Model No.	Thread Size UNF	Pitch	D	H	T	d	L	mm
CFQ30115-80N	0-80	80	1.15	4.6	3	3	50	1.30
CFQ30145-72N	1-72	72	1.45	6.5	3	3	50	1.60

# CFQ3-60 & CFQ4-60

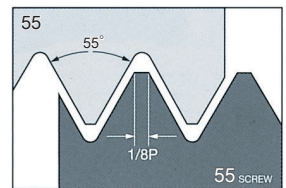
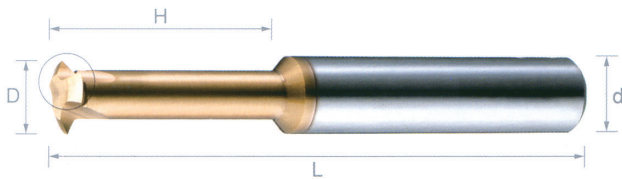
Carbide Thread Milling Tools-Partial Profile 60° (Internal / External)



Model No.	Pitch Range		D	H	T	N	d	L	Pitch
	MM	TPI							
CFQ30195-60	0.35-0.6	72-40	1.95	6	3	0.75	3	50	
CFQ30245-60	0.5-0.8	48-32	2.45	7.7	3	0.95	3	50	
CFQ30315-60	0.5-0.8	48-32	3.15	10	3	1.65	4	50	
CFQ30400-60	0.5-1.0	48-24	4	12	3	2.07	4	50	
CFQ30470-60	0.5-1.25	48-20	4.7	15	3	2.33	6	60	
CFQ30600-60	0.5-1.25	48-20	6	18	3	3.63	6	60	
CFQ30800-60	0.75-1.5	32-16	8	24	3	5.15	8	60	
CFQ41000-60	1.0-2.5	24-10	10	30	4	5.28	10	80	
CFQ41200-60	1.0-2.5	24-10	12	36	4	7.28	12	80	
CFQ41600-60	1.0-2.5	24-10	16	49	4	11.28	16	100	

# CFQ3-55 & CFQ4-55

Carbide Thread Milling Tools-Partial Profile 55° (Internal / External)



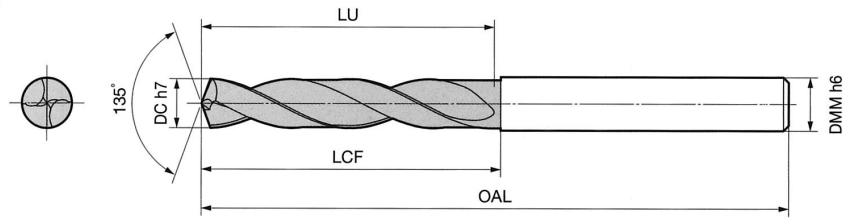
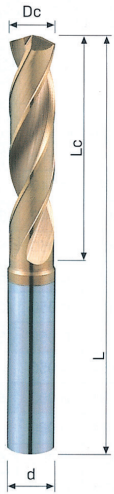
Model No.	Pitch Range		D	H	T	N	d	L	Pitch
	MM	TPI							
CFQ30400-55	0.5-1.0	48-24	4	12	3	2.1	4	50	
CFQ30600-55	0.5-1.25	48-20	6	18	3	3.95	6	60	
CFQ30800-55	0.75-1.5	32-16	8	24	3	3.85	8	60	
CFQ41000-55	1.0-2.5	24-10	10	30	4	4.5	10	80	
CFQ41200-55	1.0-2.5	24-10	12	36	4	5.4	12	80	

Carbide Special Cutters Series



# 3D-2 5D-2 7D-2

Carbide High Speed Drill-2 Flutes

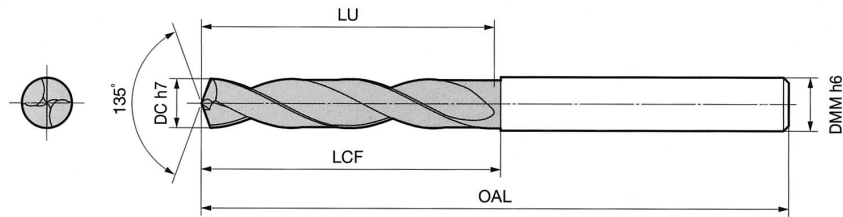
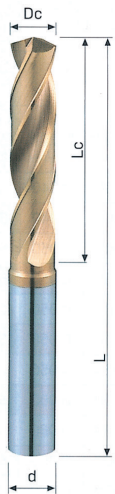


Model No.	DC	L/D	LU	LCF	OAL	D
3D-2020	2.0	3D	12	14	50	3
5D-2020		5D	16	18	50	3
7D-2020		7D	25	27	57	3
3D-2021	2.1	3D	14	16	50	3
5D-2021		5D	18	20	50	3
7D-2021		7D	25	27	57	3
3D-2022	2.2	3D	14	16	50	3
5D-2022		5D	18	20	50	3
7D-2022		7D	27	29	57	3
3D-2023	2.3	3D	14	16	50	3
5D-2023		5D	18	20	50	3
7D-2023		7D	27	29	57	3
3D-2024	2.4	3D	14	16	50	3
5D-2024		5D	18	20	50	3
7D-2024		7D	32	34	62	3
3D-2025	2.5	3D	14	16	50	3
5D-2025		5D	18	20	50	3
7D-2025		7D	32	34	62	3
3D-2026	2.6	3D	16	18	50	3
5D-2026		5D	20	22	50	3
7D-2026		7D	32	34	62	3
3D-2027	2.7	3D	16	18	50	3
5D-2027		5D	20	22	50	3
7D-2027		7D	35	37	65	3
3D-2028	2.8	3D	16	18	50	3
5D-2028		5D	20	22	50	3
7D-2028		7D	35	37	65	3
3D-2029	2.9	3D	16	18	50	3
5D-2029		5D	20	22	50	3
7D-2029		7D	35	37	65	3
3D-2030	3.0	3D	16	18	50	3
5D-2030		5D	20	22	50	3
7D-2030		7D	35	37	65	3
3D-2031	3.1	3D	20	22	55	4
5D-2031		5D	25	27	60	4
7D-2031		7D	38	40	69	4
3D-2032	3.2	3D	20	22	55	4
5D-2032		5D	25	27	60	4
7D-2032		7D	38	40	69	4
3D-2033	3.3	3D	20	22	55	4
5D-2033		5D	25	27	60	4
7D-2033		7D	38	40	69	4
3D-2034	3.4	3D	20	22	55	4
5D-2034		5D	25	27	60	4
7D-2034		7D	41	43	72	4
3D-2035	3.5	3D	20	22	55	4
5D-2035		5D	25	27	60	4
7D-2035		7D	41	43	72	4
3D-2036	3.6	3D	22	24	55	4
5D-2036		5D	28	30	60	4
7D-2036		7D	41	43	72	4
3D-2037	3.7	3D	22	24	55	4
5D-2037		5D	28	30	60	4
7D-2037		7D	41	43	72	4

Model No.	DC	L/D	LU	LCF	OAL	D
3D-2038	3.8	3D	22	24	55	4
5D-2038		5D	28	30	60	4
7D-2038		7D	45	47	76	4
3D-2039	3.9	3D	22	24	55	4
5D-2039		5D	28	30	60	4
7D-2039		7D	45	47	76	4
3D-2040	4.0	3D	22	24	55	4
5D-2040		5D	28	30	60	4
7D-2040		7D	45	47	76	4
3D-2041	4.1	3D	24	26	62	6
5D-2041		5D	32	34	77	6
7D-2041		7D	45	47	87	6
3D-2042	4.2	3D	24	26	62	6
5D-2042		5D	32	34	77	6
7D-2042		7D	45	47	87	6
3D-2043	4.3	3D	24	26	62	6
5D-2043		5D	32	34	77	6
7D-2043		7D	49	51	91	6
3D-2044	4.4	3D	24	26	62	6
5D-2044		5D	32	34	77	6
7D-2044		7D	49	51	91	6
3D-2045	4.5	3D	24	26	62	6
5D-2045		5D	32	34	77	6
7D-2045		7D	49	51	91	6
3D-2046	4.6	3D	26	28	62	6
5D-2046		5D	40	42	77	6
7D-2046		7D	49	51	91	6
3D-2047	4.7	3D	26	28	62	6
5D-2047		5D	40	42	77	6
7D-2047		7D	49	51	91	6
3D-2048	4.8	3D	26	28	62	6
5D-2048		5D	40	42	77	6
7D-2048		7D	55	57	97	6
3D-2049	4.9	3D	26	28	62	6
5D-2049		5D	40	42	77	6
7D-2049		7D	55	57	97	6
3D-2050	5.0	3D	26	28	62	6
5D-2050		5D	40	42	77	6
7D-2050		7D	55	57	97	6
3D-2051	5.1	3D	28	30	66	6
5D-2051		5D	44	46	82	6
7D-2051		7D	55	57	97	6
3D-2052	5.2	3D	28	30	66	3
5D-2052		5D	44	46	82	6
7D-2052		7D	55	57	97	6
3D-2053	5.3	3D	28	30	66	6
5D-2053		5D	44	46	82	6
7D-2053		7D	55	57	97	6
3D-2054	5.4	3D	28	30	66	6
5D-2054		5D	44	46	82	6
7D-2054		7D	60	62	102	6
3D-2055	5.5	3D	28	30	66	6
5D-2055		5D	44	46	82	6
7D-2055		7D	60	62	102	6

# 3D-2 5D-2 7D-2

A Drill for Everyone - STC Carbide Drill



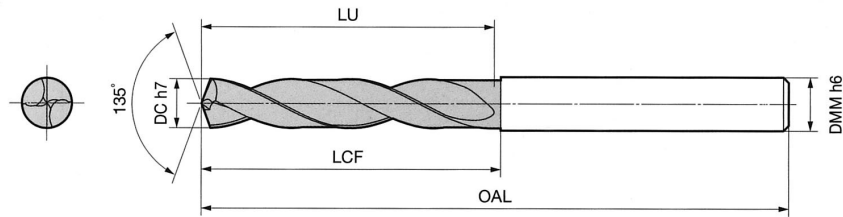
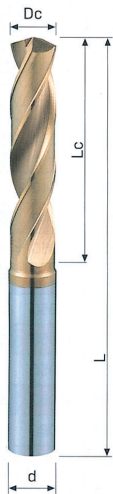
Carbide Special Cutters Series

Model No.	DC	L/D	LU	LCF	OAL	D
3D-2056		3D	28	30	66	6
5D-2056	5.6	5D	44	46	82	6
7D-2056		7D	60	62	102	6
3D-2057		3D	28	30	66	6
5D-2057	5.7	5D	44	46	82	6
7D-2057		7D	60	62	102	6
3D-2058		3D	28	30	66	6
5D-2058	5.8	5D	44	46	82	6
7D-2058		7D	60	62	102	6
3D-2059		3D	28	30	66	6
5D-2059	5.9	5D	44	46	82	6
7D-2059		7D	60	62	102	6
3D-2060		3D	28	30	66	6
5D-2060	6.0	5D	44	46	82	6
7D-2060		7D	60	62	102	6
3D-2061		3D	34	36	79	8
5D-2061	6.1	5D	53	55	91	8
7D-2061		7D	66	68	110	8
3D-2062		3D	34	36	79	8
5D-2062	6.2	5D	53	55	91	8
7D-2062		7D	66	68	110	8
3D-2063		3D	34	36	79	8
5D-2063	6.3	5D	53	55	91	8
7D-2063		7D	66	68	110	8
3D-2064		3D	34	36	79	8
5D-2064	6.4	5D	53	55	91	8
7D-2064		7D	66	68	110	8
3D-2065		3D	34	36	79	8
5D-2065	6.5	5D	53	55	91	8
7D-2065		7D	66	68	110	8
3D-2066		3D	34	36	79	8
5D-2066	6.6	5D	53	55	91	8
7D-2066		7D	66	68	110	8
3D-2067		3D	34	36	79	8
5D-2067	6.7	5D	53	55	91	8
7D-2067		7D	66	68	110	8
3D-2068		3D	34	36	79	8
5D-2068	6.8	5D	53	55	91	8
7D-2068		7D	72	74	116	8
3D-2069		3D	34	36	79	8
5D-2069	6.9	5D	53	55	91	8
7D-2069		7D	72	74	116	8
3D-2070		3D	34	36	79	8
5D-2070	7.0	5D	53	55	91	8
7D-2070		7D	72	74	116	8
3D-2071		3D	41	43	79	8
5D-2071	7.1	5D	53	55	91	8
7D-2071		7D	72	74	116	8
3D-2072		3D	41	43	79	8
5D-2072	7.2	5D	53	55	91	8
7D-2072		7D	72	74	116	8
3D-2073		3D	41	43	79	8
5D-2073	7.3	5D	53	55	91	8
7D-2073		7D	72	74	116	8

Model No.	DC	L/D	LU	LCF	OAL	D
3D-2074		3D	41	43	79	8
5D-2074	7.4	5D	53	55	91	8
7D-2074		7D	72	74	116	8
3D-2075		3D	41	43	79	8
5D-2075	7.5	5D	53	55	91	8
7D-2075		7D	72	74	116	8
3D-2076		3D	41	43	79	8
5D-2076	7.6	5D	53	55	91	8
7D-2076		7D	78	80	122	8
3D-2077		3D	41	43	79	8
5D-2077	7.7	5D	53	55	91	8
7D-2077		7D	78	80	122	8
3D-2078		3D	41	43	79	8
5D-2078	7.8	5D	53	55	91	8
7D-2078		7D	78	80	122	8
3D-2079		3D	41	43	79	8
5D-2079	7.9	5D	53	55	91	8
7D-2079		7D	78	80	122	8
3D-2080		3D	41	43	79	8
5D-2080	8.0	5D	53	55	91	8
7D-2080		7D	78	80	122	8
3D-2081		3D	47	49	89	10
5D-2081	8.1	5D	61	63	103	10
7D-2081		7D	79	81	128	10
3D-2082		3D	47	49	89	10
5D-2082	8.2	5D	61	63	103	10
7D-2082		7D	79	81	128	10
3D-2083		3D	47	49	89	10
5D-2083	8.3	5D	61	63	103	10
7D-2083		7D	79	81	128	10
3D-2084		3D	47	49	89	10
5D-2084	8.4	5D	61	63	103	10
7D-2084		7D	79	81	128	10
3D-2085		3D	47	49	89	10
5D-2085	8.5	5D	61	63	103	10
7D-2085		7D	79	81	128	10
3D-2086		3D	47	49	89	10
5D-2086	8.6	5D	61	63	103	10
7D-2086		7D	85	87	134	10
3D-2087		3D	47	49	89	10
5D-2087	8.7	5D	61	63	103	10
7D-2087		7D	85	87	134	10
3D-2088		3D	47	49	89	10
5D-2088	8.8	5D	61	63	103	10
7D-2088		7D	85	87	134	10
3D-2089		3D	47	49	89	10
5D-2089	8.9	5D	61	63	103	10
7D-2089		7D	85	87	134	10
3D-2090		3D	47	49	89	10
5D-2090	9.0	5D	61	63	103	10
7D-2090		7D	85	87	134	10
3D-2091		3D	47	49	89	10
5D-2091	9.1	5D	61	63	103	10
7D-2091		7D	85	87	134	10

# 3D-2 5D-2 7D-2

Everyone - STC Carbide Drill

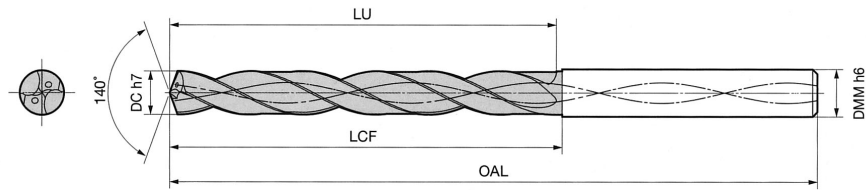
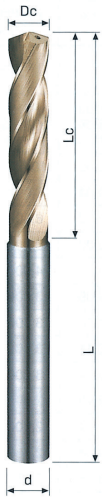


Model No.	DC	L/D	LU	LCF	OAL	D
3D-2092	9.2	3D	47	49	89	10
5D-2092		5D	61	63	103	10
7D-2092		7D	85	87	134	10
3D-2093	9.3	3D	47	49	89	10
5D-2093		5D	61	63	103	10
7D-2093		7D	85	87	134	10
3D-2094	9.4	3D	47	49	89	10
5D-2094		5D	61	63	103	10
7D-2094		7D	85	87	134	10
3D-2095	9.5	3D	47	49	89	10
5D-2095		5D	61	63	103	10
7D-2095		7D	85	87	134	10
3D-2096	9.6	3D	47	49	89	10
5D-2096		5D	61	63	103	10
7D-2096		7D	92	94	142	10
3D-2097	9.7	3D	47	49	89	10
5D-2097		5D	61	63	103	10
7D-2097		7D	92	94	142	10
3D-2098	9.8	3D	47	49	89	10
5D-2098		5D	61	63	103	10
7D-2098		7D	92	94	142	10
3D-2099	9.9	3D	47	49	89	10
5D-2099		5D	61	63	103	10
7D-2099		7D	92	94	142	10
3D-2100	10.0	3D	47	49	89	10
5D-2100		5D	61	63	103	10
7D-2100		7D	92	94	142	10
3D-2101	10.1	3D	55	57	102	12
5D-2101		5D	71	73	118	12
7D-2101		7D	92	94	149	12
3D-2102	10.2	3D	55	57	102	12
5D-2102		5D	71	73	118	12
7D-2102		7D	92	94	149	12
3D-2103	10.3	3D	55	57	102	12
5D-2103		5D	71	73	118	12
7D-2103		7D	92	94	149	12
3D-2104	10.4	3D	55	57	102	12
5D-2104		5D	71	73	118	12
7D-2104		7D	92	94	149	12
3D-2105	10.5	3D	55	57	102	12
5D-2105		5D	71	73	118	12
7D-2105		7D	92	94	149	12
3D-2106	10.6	3D	55	57	102	12
5D-2106		5D	71	73	118	12
7D-2106		7D	92	94	149	12
3D-2107	10.7	3D	55	57	102	12
5D-2107		5D	71	73	118	12
7D-2107		7D	99	101	156	12
3D-2108	10.8	3D	55	57	102	12
5D-2108		5D	71	73	118	12
7D-2108		7D	99	101	156	12
3D-2109	10.9	3D	55	57	102	12
5D-2109		5D	71	73	118	12
7D-2109		7D	99	101	156	12

Model No.	DC	L/D	LU	LCF	OAL	D
3D-2110	11.0	3D	55	57	102	12
5D-2110		5D	71	73	118	12
7D-2110		7D	99	101	156	12
3D-2111	11.1	3D	55	57	102	12
5D-2111		5D	71	73	118	12
7D-2111		7D	99	101	156	12
3D-2112	11.2	3D	55	57	102	12
5D-2112		5D	71	73	118	12
7D-2112		7D	99	101	156	12
3D-2113	11.3	3D	55	57	102	12
5D-2113		5D	71	73	118	12
7D-2113		7D	99	101	156	12
3D-2114	11.4	3D	55	57	102	12
5D-2114		5D	71	73	118	12
7D-2114		7D	99	101	156	12
3D-2115	11.5	3D	55	57	102	12
5D-2115		5D	71	73	118	12
7D-2115		7D	99	101	156	12
3D-2116	11.6	3D	55	57	102	12
5D-2116		5D	71	73	118	12
7D-2116		7D	99	101	156	12
3D-2117	11.7	3D	55	57	102	12
5D-2117		5D	71	73	118	12
7D-2117		7D	99	101	156	12
3D-2118	11.8	3D	55	57	102	12
5D-2118		5D	71	73	118	12
7D-2118		7D	99	101	156	12
3D-2119	11.9	3D	55	57	102	12
5D-2119		5D	71	73	118	12
7D-2119		7D	107	109	163	12
3D-2120	12.0	3D	55	57	102	12
5D-2120		5D	71	73	118	12
7D-2120		7D	107	109	163	12

# 3DOH-2 5DOH-2

Carbide High Speed Drill With Coolant Hole - 2 Flutes



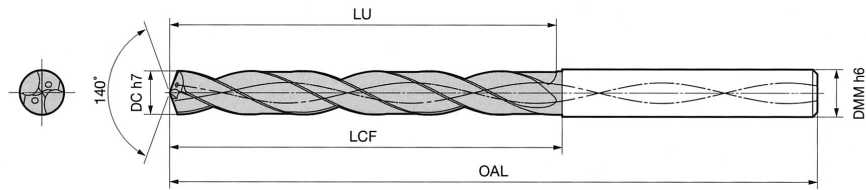
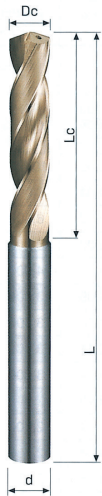
Carbide Special Cutters Series

Model No.	DC	L/D	LU	LCF	OAL	D
3DOH-2030	3.0	3D	20	22	62	3
5DOH-2030		5D	28	30	66	3
3DOH-2031	3.1	3D	20	22	62	4
5DOH-2031		5D	28	30	66	4
3DOH-2032	3.2	3D	20	22	62	4
5DOH-2032		5D	28	30	66	4
3DOH-2033	3.3	3D	20	22	62	4
5DOH-2033		5D	28	30	66	4
3DOH-2034	3.4	3D	20	22	62	4
5DOH-2034		5D	28	30	66	4
3DOH-2035	3.5	3D	20	22	62	4
5DOH-2035		5D	28	30	66	4
3DOH-2036	3.6	3D	20	22	62	4
5DOH-2036		5D	28	30	66	4
3DOH-2037	3.7	3D	20	22	62	4
5DOH-2037		5D	28	30	66	4
3DOH-2038	3.8	3D	24	26	66	4
5DOH-2038		5D	36	38	74	4
3DOH-2039	3.9	3D	24	26	66	4
5DOH-2039		5D	36	38	74	4
3DOH-2040	4.0	3D	24	26	66	4
5DOH-2040		5D	36	38	74	4
3DOH-2041	4.1	3D	24	26	66	6
5DOH-2041		5D	36	38	74	6
3DOH-2042	4.2	3D	24	26	66	6
5DOH-2042		5D	36	38	74	6
3DOH-2043	4.3	3D	24	26	66	6
5DOH-2043		5D	36	38	74	6
3DOH-2044	4.4	3D	24	26	66	6
5DOH-2044		5D	36	38	74	6
3DOH-2045	4.5	3D	24	26	66	6
5DOH-2045		5D	36	38	74	6
3DOH-2046	4.6	3D	24	26	66	6
5DOH-2046		5D	36	38	74	6
3DOH-2047	4.7	3D	24	26	66	6
5DOH-2047		5D	36	38	74	6
3DOH-2048	4.8	3D	28	30	66	6
5DOH-2048		5D	44	46	82	6
3DOH-2049	4.9	3D	28	30	66	6
5DOH-2049		5D	44	46	82	6
3DOH-2050	5.0	3D	28	30	66	6
5DOH-2050		5D	44	46	82	6
3DOH-2051	5.1	3D	28	30	66	6
5DOH-2051		5D	44	46	82	6
3DOH-2052	5.2	3D	28	30	66	6
5DOH-2052		5D	44	46	82	6
3DOH-2053	5.3	3D	28	30	66	6
5DOH-2053		5D	44	46	82	6
3DOH-2054	5.4	3D	28	30	66	6
5DOH-2054		5D	44	46	82	6
3DOH-2055	5.5	3D	28	30	66	6
5DOH-2055		5D	44	46	82	6
3DOH-2056	5.6	3D	28	30	66	6
5DOH-2056		5D	44	46	82	6

Model No.	DC	L/D	LU	LCF	OAL	D
3DOH-2057	5.7	3D	28	30	66	6
5DOH-2057		5D	44	46	82	6
3DOH-2058	5.8	3D	28	30	66	6
5DOH-2058		5D	44	46	82	6
3DOH-2059	5.9	3D	28	30	66	6
5DOH-2059		5D	44	46	82	6
3DOH-2060	6.0	3D	28	30	66	6
5DOH-2060		5D	44	46	82	6
3DOH-2061	6.1	3D	36	38	81	8
5DOH-2061		5D	55	57	93	8
3DOH-2062	6.2	3D	36	38	81	8
5DOH-2062		5D	55	57	93	8
3DOH-2063	6.3	3D	36	38	81	8
5DOH-2063		5D	55	57	93	8
3DOH-2064	6.4	3D	36	38	81	8
5DOH-2064		5D	55	57	93	8
3DOH-2065	6.5	3D	36	38	81	8
5DOH-2065		5D	55	57	93	8
3DOH-2066	6.6	3D	36	38	81	8
5DOH-2066		5D	55	57	93	8
3DOH-2067	6.7	3D	36	38	81	8
5DOH-2067		5D	55	57	93	8
3DOH-2068	6.8	3D	36	38	81	8
5DOH-2068		5D	55	57	93	8
3DOH-2069	6.9	3D	36	38	81	8
5DOH-2069		5D	55	57	93	8
3DOH-2070	7.0	3D	36	38	81	8
5DOH-2070		5D	55	57	93	8
3DOH-2071	7.1	3D	43	45	81	8
5DOH-2071		5D	55	57	93	8
3DOH-2072	7.2	3D	43	45	81	8
5DOH-2072		5D	55	57	93	8
3DOH-2073	7.3	3D	43	45	81	8
5DOH-2073		5D	55	57	93	8
3DOH-2074	7.4	3D	43	45	81	8
5DOH-2074		5D	55	57	93	8
3DOH-2075	7.5	3D	43	45	81	8
5DOH-2075		5D	55	57	93	8
3DOH-2076	7.6	3D	43	45	81	8
5DOH-2076		5D	55	57	93	8
3DOH-2077	7.7	3D	43	45	81	8
5DOH-2077		5D	55	57	93	8
3DOH-2078	7.8	3D	43	45	81	8
5DOH-2078		5D	55	57	93	8
3DOH-2079	7.9	3D	43	45	81	8
5DOH-2079		5D	55	57	93	8
3DOH-2080	8.0	3D	43	45	81	8
5DOH-2080		5D	55	57	93	8
3DOH-2081	8.1	3D	47	49	89	10
5DOH-2081		5D	61	63	103	10
3DOH-2082	8.2	3D	47	49	89	10
5DOH-2082		5D	61	63	103	10
3DOH-2083	8.3	3D	47	49	89	10
5DOH-2083		5D	61	63	103	10

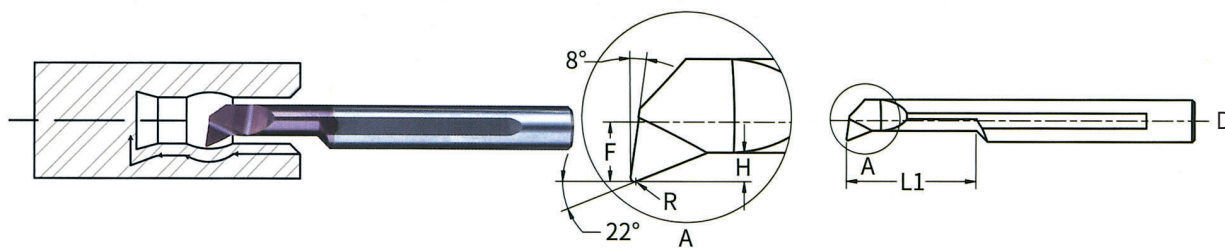
# 3DOH-2 5DOH-2

Carbide High Speed Drill With Coolant Hole - 2 Flutes



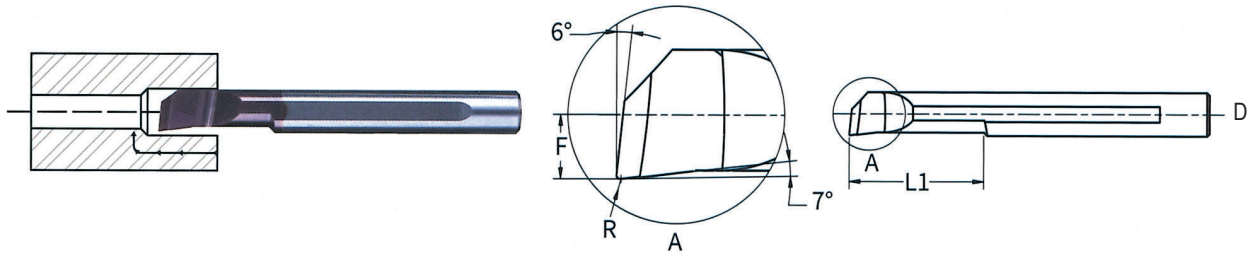
Model No.	DC	L/D	LU	LCF	OAL	D
3DOH-2084	8.4	3D	47	49	89	10
5DOH-2084		5D	61	63	103	10
3DOH-2085	8.5	3D	47	49	89	10
5DOH-2085		5D	61	63	103	10
3DOH-2086	8.6	3D	47	49	89	10
5DOH-2086		5D	61	63	103	10
3DOH-2087	8.7	3D	47	49	89	10
5DOH-2087		5D	61	63	103	10
3DOH-2088	8.8	3D	47	49	89	10
5DOH-2088		5D	61	63	103	10
3DOH-2089	8.9	3D	47	49	89	10
5DOH-2089		5D	61	63	103	10
3DOH-2090	9.0	3D	47	49	89	10
5DOH-2090		5D	61	63	103	10
3DOH-2091	9.1	3D	47	49	89	10
5DOH-2091		5D	61	63	103	10
3DOH-2092	9.2	3D	47	49	89	10
5DOH-2092		5D	61	63	103	10
3DOH-2093	9.3	3D	47	49	89	10
5DOH-2093		5D	61	63	103	10
3DOH-2094	9.4	3D	47	49	89	10
5DOH-2094		5D	61	63	103	10
3DOH-2095	9.5	3D	47	49	89	10
5DOH-2095		5D	61	63	103	10
3DOH-2096	9.6	3D	47	49	89	10
5DOH-2096		5D	61	63	103	10
3DOH-2097	9.7	3D	47	49	89	10
5DOH-2097		5D	61	63	103	10
3DOH-2098	9.8	3D	47	49	89	10
5DOH-2098		5D	61	63	103	10
3DOH-2099	9.9	3D	47	49	89	10
5DOH-2099		5D	61	63	103	10
3DOH-2100	10.0	3D	47	49	89	10
5DOH-2100		5D	61	63	103	10
3DOH-2101	10.1	3D	55	57	102	12
5DOH-2101		5D	71	73	118	12
3DOH-2102	10.2	3D	55	57	102	12
5DOH-2102		5D	71	73	118	12
3DOH-2103	10.3	3D	55	57	102	12
5DOH-2103		5D	71	73	118	12
3DOH-2104	10.4	3D	55	57	102	12
5DOH-2104		5D	71	73	118	12
3DOH-2105	10.5	3D	55	57	102	12
5DOH-2105		5D	71	73	118	12
3DOH-2106	10.6	3D	55	57	102	12
5DOH-2106		5D	71	73	118	12
3DOH-2107	10.7	3D	55	57	102	12
5DOH-2107		5D	71	73	118	12
3DOH-2108	10.8	3D	55	57	102	12
5DOH-2108		5D	71	73	118	12
3DOH-2109	10.9	3D	55	57	102	12
5DOH-2109		5D	71	73	118	12
3DOH-2110	11.0	3D	55	57	102	12
5DOH-2110		5D	71	73	118	12

Model No.	DC	L/D	LU	LCF	OAL	D
3DOH-2111	11.1	3D	55	57	102	12
5DOH-2111		5D	71	73	118	12
3DOH-2112	11.2	3D	55	57	102	12
5DOH-2112		5D	71	73	118	12
3DOH-2113	11.3	3D	55	57	102	12
5DOH-2113		5D	71	73	118	12
3DOH-2114	11.4	3D	55	57	102	12
5DOH-2114		5D	71	73	118	12
3DOH-2115	11.5	3D	55	57	102	12
5DOH-2115		5D	71	73	118	12
3DOH-2116	11.6	3D	55	57	102	12
5DOH-2116		5D	71	73	118	12
3DOH-2117	11.7	3D	55	57	102	12
5DOH-2117		5D	71	73	118	12
3DOH-2118	11.8	3D	55	57	102	12
5DOH-2118		5D	71	73	118	12
3DOH-2119	11.9	3D	55	57	102	12
5DOH-2119		5D	71	73	118	12
3DOH-2120	12.0	3D	55	57	102	12
5DOH-2120		5D	71	73	118	12



Model No.	DIA	L1	R	F	H	D	OAL
KGRL010-04005	1	4	0.05	0.5	0.2	3	39
KGRL015-0601	1.5	6	0.1	0.7	0.3	3	39
KGRL021-10005	2.1	10	0.05	0.8	0.5	3	39
KGRL021-1001	2.1	10	0.1	0.8	0.5	3	39
KGRL021-05015	2.1	5	0.15	0.8	0.5	3	39
KGRL021-10015	2.1	10	0.15	0.8	0.5	3	39
KGRL031-10005	3.1	10	0.05	1.3	0.7	3	39
KGRL031-15005	3.1	15	0.05	1.3	0.7	3	39
KGRL031-1501	3.1	15	0.1	1.3	0.7	3	39
KGRL031-2201	3.1	22	0.1	1.3	0.7	3	50
KGRL031-1002	3.1	10	0.2	1.3	0.7	3	39
KGRL031-1502	3.1	15	0.2	1.3	0.7	3	39
KGRL031-2202	3.1	22	0.2	1.3	0.7	3	50
KGRL041-1501	4.1	15	0.1	1.7	0.8	4	50
KGRL041-2201	4.1	22	0.1	1.7	0.8	4	50
KGRL041-1002	4.1	10	0.2	1.7	0.8	4	50
KGRL041-1502	4.1	15	0.2	1.7	0.8	4	50
KGRL041-2202	4.1	22	0.2	2.1	0.8	4	50
KGRL051-2201	5.1	22	0.1	2.1	1.2	5	50
KGRL051-3001	5.1	30	0.1	2.1	1.2	5	75
KGRL051-1502	5.1	15	0.2	2.1	1.2	5	50
KGRL051-2202	5.1	22	0.2	2.1	1.2	5	50
KGRL051-3002	5.1	30	0.2	2.1	1.2	5	75
KGRL061-1502	6.1	15	0.2	2.8	1.4	6	50
KGRL061-2202	6.1	22	0.2	2.8	1.4	6	50
KGRL061-3002	6.1	30	0.2	2.8	1.4	6	75
KGRL081-1502	8.1	15	0.2	3.8	1.6	8	60
KGRL081-2202	8.1	22	0.2	3.8	1.6	8	60
KGRL081-3502	8.1	35	0.2	4.8	1.6	8	75
KGRL101-3502	10.1	35	0.2	4.8	2	10	75





MG  
10

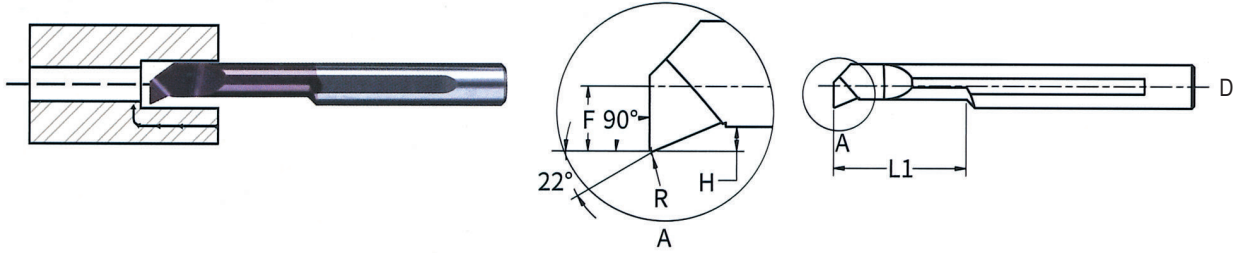
C1

Model No.	DIA	L1	R	F	D	OAL
KNRL010-04005	1	4	0.05	0.5	3	39
KNRL015-0601	1.5	6	0.10	0.7	3	39
KNRL021-10005	2.1	10	0.05	0.8	3	39
KNRL021-05015	2.1	5	0.15	0.8	3	39
KNRL021-10015	2.1	10	0.15	0.8	3	39
KNRL031-10005	3.1	10	0.05	1.3	3	39
KNRL031-1502	3.1	15	0.20	1.3	3	39
KNRL031-1501	3.1	15	0.10	1.3	3	39
KNRL031-1002	3.1	10	0.20	1.3	3	39
KNRL031-1502	3.1	15	0.20	1.3	3	39
KNRL041-15005	4.1	15	0.05	1.7	4	50
KNRL041-1001	4.1	10	0.1	1.7	4	50
KNRL041-1501	4.1	15	0.1	1.7	4	50
KNRL041-2201	4.1	22	0.1	1.7	4	50
KNRL041-1002	4.1	10	0.2	1.7	4	50
KNRL041-1502	4.1	15	0.2	1.7	4	50
KNRL041-2202	4.1	22	0.2	1.7	4	50
KNRL051-15005	5.1	15	0.05	2.1	5	50
KNRL051-1501	5.1	15	0.1	2.1	5	50
KNRL051-2201	5.1	22	0.1	2.1	5	50
KNRL051-3001	5.1	30	0.1	2.1	5	75
KNRL051-1502	5.1	15	0.2	2.1	5	50
KNRL051-2202	5.1	22	0.2	2.1	5	50
KNRL051-3002	5.1	30	0.2	2.1	5	75
KNRL061-15005	6.1	15	0.05	2.8	6	50
KNRL061-1501	6.1	15	0.1	2.8	6	50
KNRL061-1502	6.1	15	0.2	2.8	6	50
KNRL061-2202	6.1	22	0.2	2.8	6	50
KNRL061-3002	6.1	30	0.2	2.8	6	60
KNRL061-3502	6.1	35	0.2	2.8	6	75
KNRL081-1502	8.1	15	0.2	3.8	8	60
KNRL081-2202	8.1	22	0.2	3.8	8	60
KNRL081-3502	8.1	35	0.2	3.8	8	75
KNRL101-3502	10.1	35	0.2	4.8	10	75



# KXRL

## 90° PROFILING BORING BAR

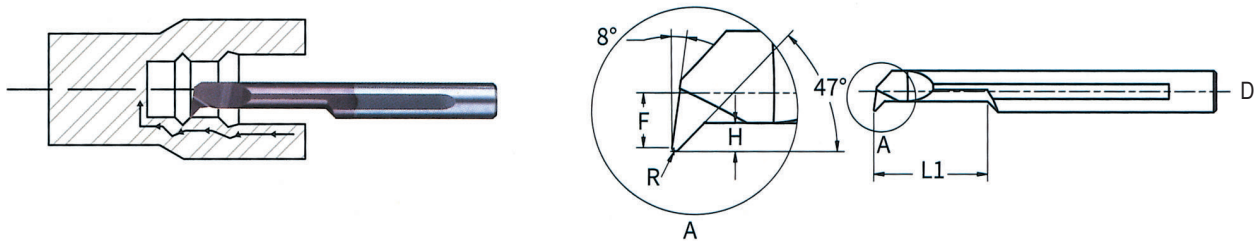


MG 10 C1

Model No.	DIA	L1	R	F	H	D	OAL
KXRL031-10005	3.1	10	0.05	1.3	0.4	3	39
KXRL031-15005	3.1	15	0.05	1.3	0.4	3	39
KXRL041-1001	4.1	10	0.1	1.7	0.5	4	50
KXRL041-1501	4.1	15	0.1	1.7	0.5	4	50
KXRL051-15015	5.1	15	0.15	2.1	0.7	5	50
KXRL051-22015	5.1	22	0.15	2.1	0.7	5	50
KXRL061-15015	6.1	15	0.15	2.8	0.9	6	50
KXRL061-22015	6.1	22	0.15	2.8	0.9	6	50
KXRL081-2202	8.1	22	0.2	3.8	1	8	60

# K2RL

## BORING & PROFILING BORING BAR

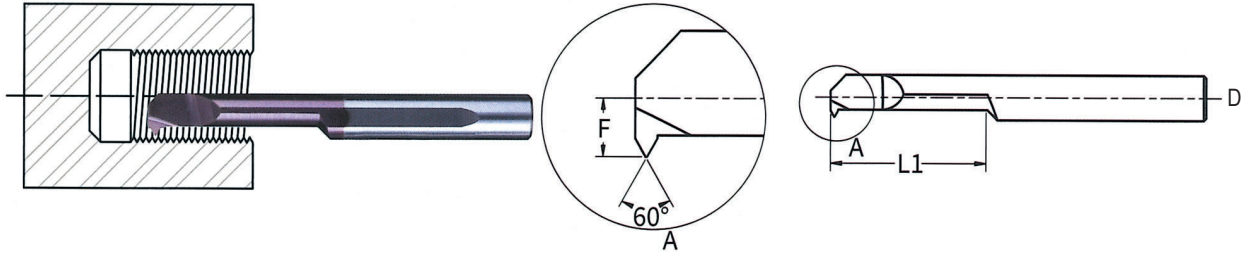


MG 10 C1

Model No.	DIA	L1	R	F	H	D	OAL
K2RL041-1002	4.1	10	0.2	1.8	0.8	4	50
K2RL041-1502	4.1	15	0.2	1.8	0.8	4	50
K2RL041-2202	4.1	22	0.2	1.8	0.8	4	50
K2RL051-1502	5.1	15	0.2	2.3	1	5	50
K2RL051-2202	5.1	22	0.2	2.3	1	5	50
K2RL061-1502	6.1	15	0.2	2.8	1.4	6	50
K2RL061-2202	6.1	22	0.2	2.8	1.4	6	50
K2RL061-3002	6.1	30	0.2	2.8	1.4	6	60
K2RL081-2202	8.1	22	0.2	3.8	1.6	8	60
K2RL081-2702	8.1	27	0.2	3.8	2	8	60

# K3RL

## THREADING BORING BAR

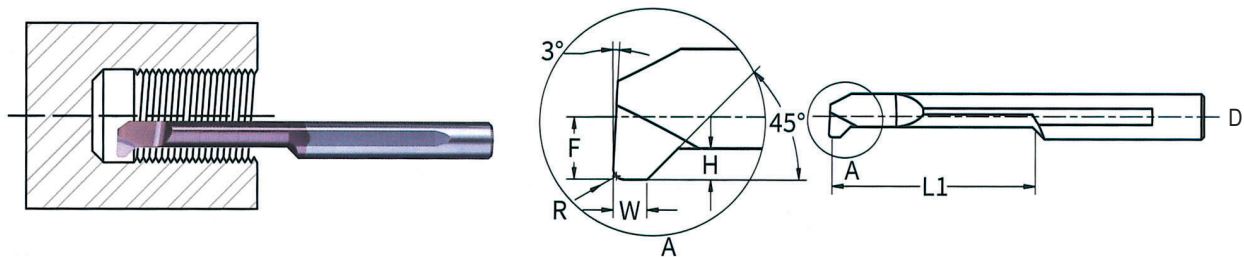


MG 10 C1

Model No.	DIA	L1	Pitch mm	Pitch TPI	F	$\alpha$	D	OAL
K3RL021-0860	2.1	8	0.45-0.7	56-32	1	60	3	39
K3RL032-1560	3.2	15	0.7-1	32-24	1.4	60	3	39
K3RL041-1560	4.1	15	0.8-1	32-24	1.8	60	4	50
K3RL051-1560	5.1	15	1-1.25	24-20	2.3	60	5	50
K3RL051-2260	5.1	22	1-1.25	24-20	2.3	60	5	50
K3RL060-1560	6	15	1-1.5	24-16	2.6	60	6	50
K3RL060-2260	6	22	1-1.5	24-16	2.6	60	6	50
K3RL080-2260	8	22	1-2	24-13	3.6	60	8	60

# K4RL

## THREAD RELIEF BORING BAR

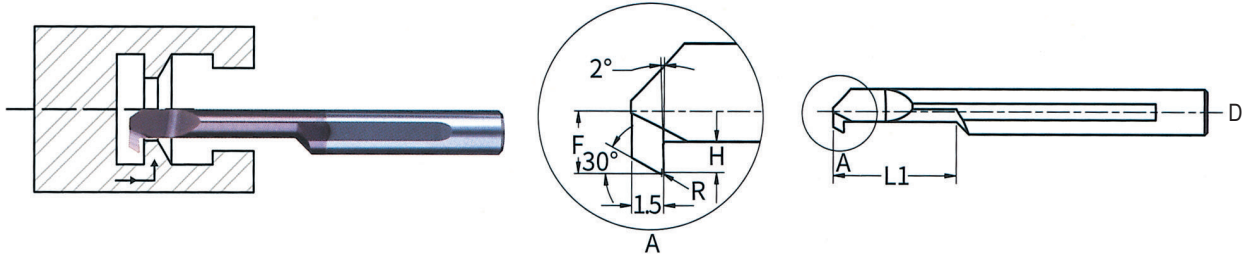


MG 10 C1

Model No.	DIA	L1	R	W	F	H	D	OAL
K4RL041-1805	4.1	18	0.5	1.5	1.8	0.8	4	50
K4RL051-2405	5.1	24	0.5	1.5	2.3	1.2	5	50
K4RL061-2705	6.1	27	0.5	1.5	2.8	1.4	6	60

# K5RL

## BACK TURNING BORING BAR

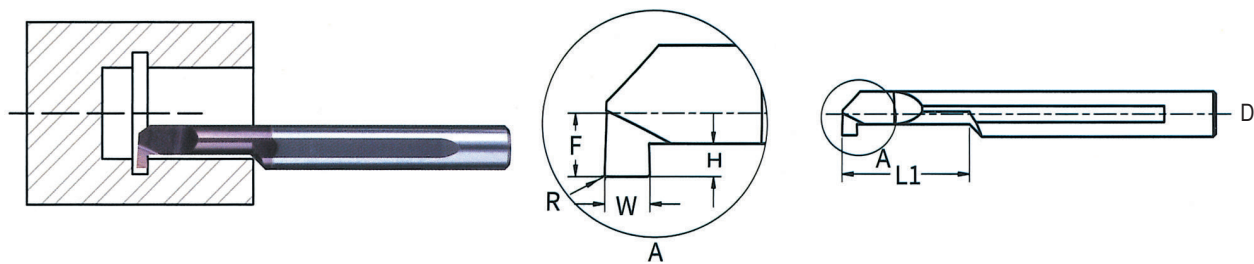


MG 10 C1

Model No.	DIA	L1	R	F	H	D	OAL
K5RL031-1001	3.1	10	0.1	1.3	0.5	4	50
K5RL041-10015	4.1	10	0.15	1.6	0.8	4	50
K5RL041-15015	4.1	15	0.15	1.6	0.8	4	50
K5RL051-1502	5.1	15	0.2	2.2	1	5	50
K5RL051-2202	5.1	22	0.2	2.2	1	5	50
K5RL061-1502	6.1	15	0.2	2.8	1.8	6	50
K5RL061-2202	6.1	22	0.2	2.8	1.8	6	50

# K6RL

## GROOVING BORING BAR

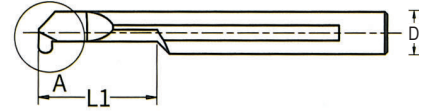
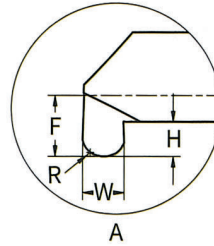
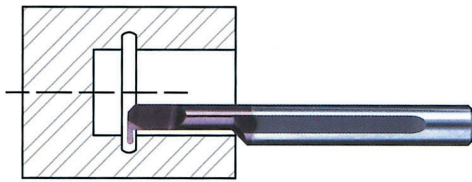


MG 10 C1

Model No.	DIA	L1	R	W	F	H	D	OAL
K6RL031-1007	3.1	10	0.1	0.7	1.3	0.6	3	39
K6RL041-1010	4.1	10	0.1	1	1.7	1	4	50
K6RL041-1015	4.1	10	0.1	1.5	1.7	1	4	50
K6RL051-1510	5.1	15	0.1	1	2.3	1.2	5	50
K6RL051-1515	5.1	15	0.1	1.5	2.3	1.2	5	50
K6RL051-1520	5.1	15	0.1	2	2.3	1.2	5	50
K6RL061-1510	6.1	15	0.1	1	2.8	1.4	6	50
K6RL061-1515	6.1	15	0.1	1.5	2.8	1.4	6	50
K6RL061-1520	6.1	15	0.1	2	2.8	1.4	6	50
K6RL081-2210	8.1	22	0.1	1	3.8	1.7	8	60
K6RL081-2215	8.1	22	0.1	1.5	3.8	1.7	8	60
K6RL081-2220	8.1	22	0.1	2	3.8	2.6	8	60

# K7RL

## FULL RADIUS GROOVING BORING BAR

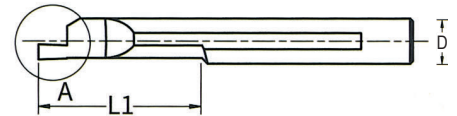
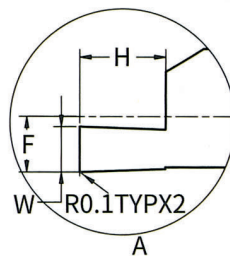
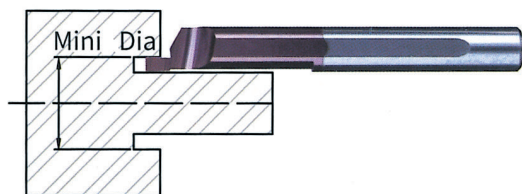


MG 10 C1

Model No.	DIA	L1	R	W	F	H	D	OAL
K7RL041-1010	4.1	10	0.5	1	1.7	1	4	50
K7RL041-1015	4.1	10	0.75	1.5	1.7	1	4	50
K7RL051-1510	5.1	15	0.5	1	2.3	1.2	5	50
K7RL051-1515	5.1	15	0.75	1.5	2.3	1.2	5	50
K7RL051-1520	5.1	15	1	2	2.3	1.2	5	50
K7RL061-1510	6.1	15	0.5	1	2.8	1.6	6	50
K7RL061-1515	6.1	15	0.75	1.5	2.8	1.6	6	50
K7RL061-1520	6.1	15	1	2	2.8	1.6	6	50

# K8RL

## FACING GROOVING BORING BAR

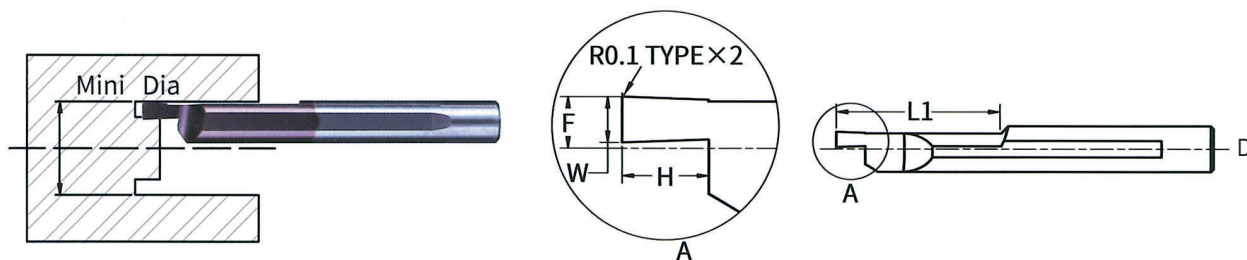


MG 10 C1

Model No.	DIA	L1	W	F	H	D	OAL
K8RL050-15075	5	15	0.75	1.95	1.2	4	50
K8RL050-15100	5	15	1	1.95	1.5	4	50
K8RL050-15150	5	15	1.5	1.95	2.8	4	50
K8RL060-22075	6	22	0.75	2.45	1.2	5	50
K8RL060-22100	6	22	1	2.45	1.5	5	50
K8RL060-22150	6	22	1.5	2.45	2.5	5	50
K8RL060-22200	6	22	2	2.45	3.8	5	50
K8RL080-22100	8	22	1	2.95	1.5	6	50
K8RL080-22150	8	22	1.5	2.95	2.5	6	50
K8RL080-22200	8	22	2	2.95	3	6	50
K8RL080-22250	8	22	2.5	2.95	4.8	6	50
K8RL080-30300	8	30	3	2.95	6	6	60
K8RL100-22250	10	22	2.5	3.95	3.5	8	60

# K9LL

## FACING GROOVING BORING BAR

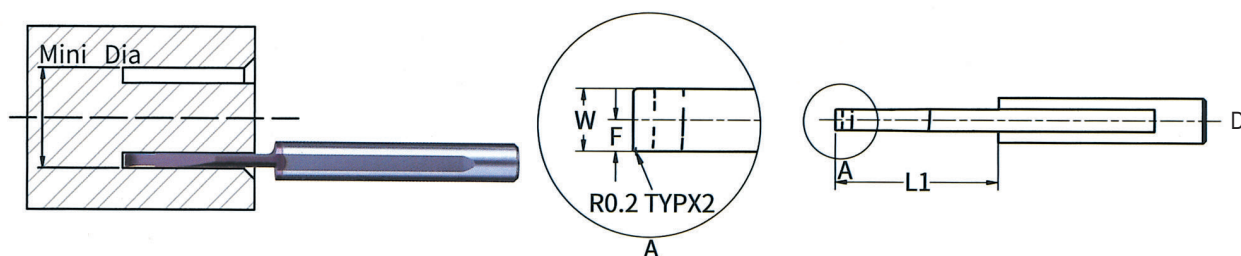


MG 10 C1

Model No.	DIA	L1	W	F	H	D	OAL
K9LL050-15075	5	15	0.75	1.75	1.2	4	50
K9LL050-15100	5	15	1	1.75	1.5	4	50
K9LL050-15150	5	15	1.5	1.75	2.8	4	50
K9LL060-22075	6	22	0.75	2.25	1.2	5	50
K9LL060-22100	6	22	1	2.25	1.5	5	50
K9LL060-22150	6	22	1.5	2.25	2.5	5	50
K9LL060-22200	6	22	2	2.25	3.8	5	50
K9LL080-22100	8	22	1	2.75	1.5	6	50
K9LL080-22150	8	22	1.5	2.75	2.5	6	50
K9LL080-22200	8	22	2	2.75	3	6	50
K9LL080-22250	8	22	2.5	2.75	4.8	6	50
K9LL080-30300	8	30	3	2.75	6	6	60
K9LL100-22250	10	22	2.5	3.75	3.5	8	60

# K10RL

## DEEP FACE GROOVING BORING BAR

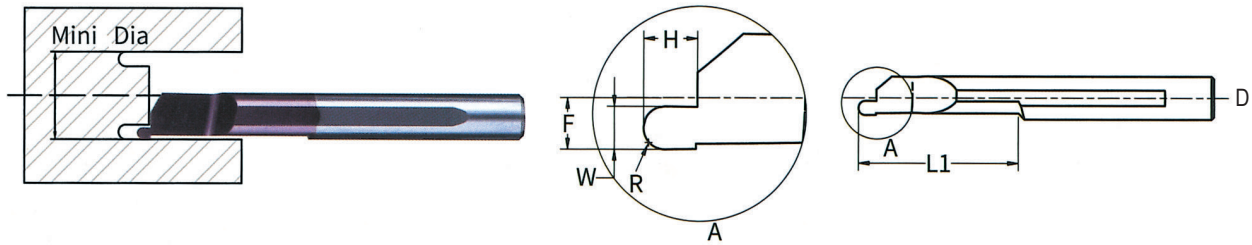


MG 10 C1

Model No.	DIA	L1	W	F	D	OAL
K10RL120-1520	12	15	2	1.1	6	60
K10RL120-2220	12	22	2	1.1	6	60
K10RL120-2225	12	22	2.5	1.4	6	60
K10RL150-2730	15	27	3	1.6	8	60
K10RL150-4330	15	43	3	1.6	8	75
K10RL200-4340	20	43	4	2.1	8	75

# K11RL

## FULL RADIUS FACING BORING BAR

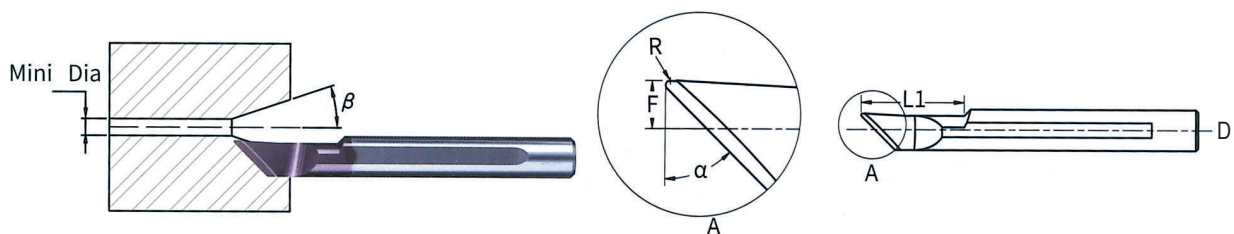


MG 10 C1

Model No.	DIA	L1	R	W	F	H	D	OAL
K11RL050-1510	5	15	0.5	1	1.95	1.2	4	50
K11RL050-1515	5	15	0.75	1.5	1.95	1.5	4	50
K11RL060-2210	6	22	0.5	1	2.45	1.2	5	50
K11RL060-2215	6	22	0.75	1.5	2.45	1.5	5	50
K11RL060-2220	6	22	1	2	2.45	2.5	5	50
K11RL080-2210	8	22	0.5	1	2.95	1.2	6	50
K11RL080-2215	8	22	0.75	1.5	2.95	1.5	6	50
K11RL080-2220	8	22	1	2	2.95	2.5	6	50

# K12RL

## CHAMFERING & PROFILING BORING BAR

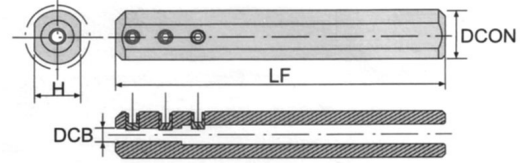


MG 10 C1

Model No.	DIA	L1	R	F	α	β	D	OAL
K12RL010-1545	1	15	0.2	2.3	45°	45°	6	50
K12RL010-1560	1	15	0.2	2.3	60°	30°	6	50

**SHB**

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**SHBI****SLEEVES FOR B ORING BARS****METRIC  
SPECIFICATION**

Model No.	d	D	L	H	Screw
SHB-1603	3	16	100	15	M4
SHB-1604	4	16	100	15	M4
SHB-1605	5	16	100	15	M4
SHB-1606	6	16	100	15	M5
SHB-1607	7	16	100	15	M5
SHB-1608	8	16	100	15	M5
SHB-1610	10	16	100	15	M4
SHB-2005	5	20	100	18	M5
SHB-2006	6	20	100	18	M5
SHB-2007	7	20	100	18	M5
SHB-2008	8	20	100	18	M5
SHB-2010	10	20	100	18	M5
SHB-2205	5	22	100	20	M5
SHB-2206	6	22	100	20	M5
SHB-2207	7	22	100	20	M5
SHB-2208	8	22	100	20	M5
SHB-2210	10	22	100	20	M5
SHB-2503	3	25	100	23	M4
SHB-2504	4	25	100	23	M4
SHB-2505	5	25	100	23	M5
SHB-2506	6	25	100	23	M5
SHB-2507	7	25	100	23	M5
SHB-2508	8	25	100	23	M5
SHB-2509	9	25	100	23	M5
SHB-2510	10	25	100	23	M5
SHB-2512	12	25	100	23	M5

**INCH  
SPECIFICATION**

Model No.	d	D	L	H	Screw
SHBI-19.05-03	3	19.05	100	17	M4
SHBI-19.05-04	4	19.05	100	17	M4
SHBI-19.05-05	5	19.05	100	17	M4
SHBI-19.05-06	6	19.05	100	18	M5
SHBI-19.05-08	8	19.05	100	18	M5
SHBI-19.05-10	10	19.05	100	18	M5
SHBI-25.4-04	4	25.4	100	23	M4
SHBI-25.4-05	5	25.4	100	23	M5
SHBI-25.4-06	6	25.4	100	23	M5
SHBI-25.4-08	8	25.4	100	23	M5
SHBI-25.4-10	10	25.4	100	23	M5