

The background of the page is a solid red color. Overlaid on this is a faint, light red graphic. It consists of several concentric circles on the left side, which intersect with a grid of horizontal and vertical lines that extends across the right side of the page. The text is white and positioned in the upper right quadrant.

SECTION

B10-L

Lay Down Cartridges

Wohlhaupter™ Lay Down Cartridges

Holders for Pre-Machining | Holders for Compact Boring Bars | Short Clamp Holders | Fine Boring Holders



Robust. Powerful. Versatile. Engineered Solutions.

From pre-machining holes with heavy stock removal to finish machining with tight tolerances and excellent surface finish, Wohlhaupter's extensive range of lay down cartridges can help you achieve specific boring solutions. Wohlhaupter's lay down cartridges bring innovative concepts designed to improve productivity, reduce scrap, and reduce the cost per part.

Your safety and the safety of others is very important. This catalog contains important safety messages. Always read and follow all safety precautions.



This triangle is a safety hazard symbol. It alerts you to potential safety hazards that can cause tool failure and serious injury.

When you see this symbol in the catalog, look for a related safety message that may be near this triangle or referred to in the nearby text.

There are safety signal words also used in the catalog. Safety messages follow these words.

WARNING

WARNING (shown above) means that failure to follow the precautions in this message could result in tool failure and serious injury.

NOTICE means that failure to follow the precautions in this message could result in damage to the tool or machine but not result in personal injury.

NOTE and **IMPORTANT** are also used. These are important that you read and follow but are not safety-related.

Visit www.alliedmachine.com for the most up-to-date information and procedures.

Applicable Industries



Aerospace



Agriculture



Automotive



Firearms



General
Machining



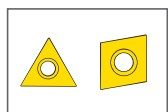
Oil & Gas



Renewable
Energy

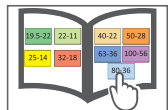
Reference Icons

The following icons will appear throughout the catalog to help you navigate between products.



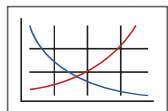
Inserts

For use with insert holder boring heads and boring bars using indexable inserts



MVS Connection Color Guide

Detailed instructions and information regarding the MVS connection(s)



Recommended Cutting Data

Speed and feed recommendations for optimum and safe boring

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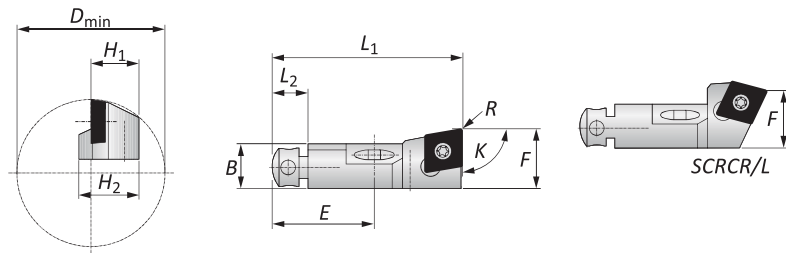
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Pre-Machining Lay Down Cartridges | Insert Forms 101, 103, 112, 113

Diameter Range: $\geq 0.948''$ (25.00mm)

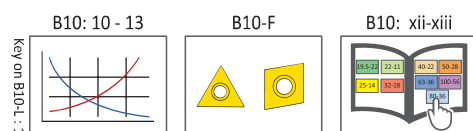


Insert Form 101, 103 Insert Holders

Holder Type	K	ISO	D_{min} Boring Range	Designation	Insert Holder								Insert Form	Part No.
					L_1	L_2	B	H_1	H_2	F	R	E		
	95°	CC..0602..	0.984	SCLCR08CA-06	1.259	0.236	0.295	0.314	0.433	0.393	0.015	0.669	101	343051
	95°	CC..0602..	0.984	SCLCL08CA-06	1.259	0.236	0.295	0.314	0.433	0.393	0.015	0.669	101	343052
	90°	CC..0602..	0.984	SCFCR08CA-06	1.259	0.236	0.295	0.314	0.433	0.393	0.015	0.669	101	343053
	90°	CC..0602..	0.984	SCFCL08CA-06	1.259	0.236	0.295	0.314	0.433	0.393	0.015	0.669	101	343054
	90°	CC..09T3..	1.574	SCFCR10CA-09	1.968	0.314	0.433	0.393	0.590	0.551	0.031	0.787	103	343055
	90°	CC..09T3..	1.574	SCFCL10CA-09	1.968	0.314	0.433	0.393	0.590	0.551	0.031	0.787	103	343056
	75°	CC..0602..	0.984	SCRCR08CA-06	1.259	0.236	0.295	0.314	0.433	0.393	0.015	0.669	101	343059
	75°	CC..0602..	0.984	SCRCL08CA-06	1.259	0.236	0.295	0.314	0.433	0.393	0.015	0.669	101	343060
	75°	CC..0602..	0.984	SCKCR08CA-06	1.259	0.236	0.295	0.314	0.433	0.393	0.015	0.669	101	343057
	75°	CC..0602..	0.984	SCKCL08CA-06	1.259	0.236	0.295	0.314	0.433	0.393	0.015	0.669	101	343058
	95°	CC..0602..	25.00	SCLCR08CA-06	32.00	6.00	7.50	8.00	11.00	10.00	0.40	17.00	101	343051
	95°	CC..0602..	25.00	SCLCL08CA-06	32.00	6.00	7.50	8.00	11.00	10.00	0.40	17.00	101	343052
	90°	CC..0602..	25.00	SCFCR08CA-06	32.00	6.00	7.50	8.00	11.00	10.00	0.40	17.00	101	343053
	90°	CC..0602..	25.00	SCFCL08CA-06	32.00	6.00	7.50	8.00	11.00	10.00	0.40	17.00	101	343054
	90°	CC..09T3..	40.00	SCFCR10CA-09	50.00	8.00	11.00	10.0	15.00	14.00	0.80	20.00	103	343055
	90°	CC..09T3..	40.00	SCFCL10CA-09	50.00	8.00	11.00	10.0	15.00	14.00	0.80	20.00	103	343056
	75°	CC..0602..	25.00	SCRCR08CA-06	32.00	6.00	7.50	8.00	11.00	10.00	0.40	17.00	101	343059
	75°	CC..0602..	25.00	SCRCL08CA-06	32.00	6.00	7.50	8.00	11.00	10.00	0.40	17.00	101	343060
	75°	CC..0602..	25.00	SCKCR08CA-06	32.00	6.00	7.50	8.00	11.00	10.00	0.40	17.00	101	343057
	75°	CC..0602..	25.00	SCKCL08CA-06	32.00	6.00	7.50	8.00	11.00	10.00	0.40	17.00	101	343058

Insert Form 112, 113 Insert Holders

Holder Type	K	ISO	D_{min} Boring Range	Designation	Insert Holder								Insert Form	Part No.
					L_1	L_2	B	H_1	H_2	F	R	E		
	75°	SC..09T3..	0.984	SSKCR08CA-06	1.968	0.314	0.433	0.393	0.590	0.551	0.031	0.787	112	343061
	75°	SC..09T3..	0.984	SSKCL08CA-06	1.968	0.314	0.433	0.393	0.590	0.551	0.031	0.787	112	343062
	75°	SC..1204..	1.968	SSKCR12CA-12	2.165	0.314	0.590	0.472	0.787	0.787	0.031	0.787	113	343063
	75°	SC..1204..	1.968	SSKCL12CA-12	2.165	0.314	0.590	0.472	0.787	0.787	0.031	0.787	113	343064
	75°	SC..09T3..	25.00	SSKCR08CA-06	50.00	8.00	11.00	10.00	15.00	14.00	0.80	20.00	112	343061
	75°	SC..09T3..	25.00	SSKCL08CA-06	50.00	8.00	11.00	10.00	15.00	14.00	0.80	20.00	112	343062
	75°	SC..1204..	50.00	SSKCR12CA-12	55.00	8.00	15.00	12.00	20.00	20.00	0.80	20.00	113	343063
	75°	SC..1204..	50.00	SSKCL12CA-12	55.00	8.00	15.00	12.00	20.00	20.00	0.80	20.00	113	343064

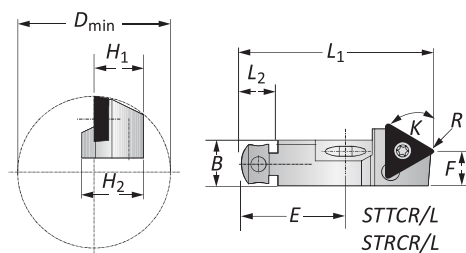


i = Imperial (in)
m = Metric (mm)

Inserts sold separately

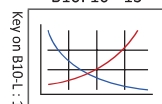


Pre-Machining Lay Down Cartridges | Insert Forms 73, 160, 161, 163

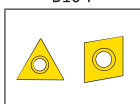
Diameter Range: $\geq 0.614"$ (15.60mm)


Holder Type		K	ISO	D _{min} Boring Range	Designation	Insert Holder								Insert Form	Part No.
						L ₁	L ₂	B	H ₁	H ₂	F	R	E		
		95°	TC.06T1..	0.614	STLCR06CA-06X7	0.964	0.177	0.177	0.236	0.236	0.275	0.007	0.472	73	343043
		95°	TC.06T1..	0.614	STCLR06CA-06X7	0.964	0.177	0.177	0.236	0.236	0.275	0.007	0.472	73	343044
		93°	TC..0902..	0.984	STUCR08CA-09	1.259	0.236	0.295	0.314	0.433	0.393	0.015	0.669	160	343035
		93°	TC..0902..	0.984	STUCLR08CA-09	1.259	0.236	0.295	0.314	0.433	0.393	0.015	0.669	160	343036
		90°	TC..06T1..	0.614	STFCR06CA-06X7	0.964	0.177	0.177	0.236	0.236	0.275	0.007	0.472	73	343001
		90°	TC..06T1..	0.614	STFCLR06CA-06X7	0.964	0.177	0.177	0.236	0.236	0.275	0.007	0.472	73	343002
		90°	TC..06T1..	0.787	STFCR06CA-06	0.984	0.177	0.196	0.236	0.314	0.314	0.015	0.472	73	343003
		90°	TC..06T1..	0.787	STFCLR06CA-06	0.984	0.177	0.196	0.236	0.314	0.314	0.015	0.472	73	343004
		90°	TC..0902..	0.984	STFCR08CA-09	1.259	0.236	0.295	0.314	0.433	0.393	0.015	0.669	160	343005
		90°	TC..0902..	0.984	STFCLR08CA-09	1.259	0.236	0.295	0.314	0.433	0.393	0.015	0.669	160	343006
		90°	TC..1102..	1.574	STFCR10CA-11	1.968	0.314	0.433	0.393	0.590	0.551	0.015	0.787	161	343007
		90°	TC..1102..	1.574	STFCLR10CA-11	1.968	0.314	0.433	0.393	0.590	0.551	0.015	0.787	161	343008
		90°	TC..16T3..	1.968	STFCR12CA-16	2.165	0.314	0.590	0.472	0.787	0.787	0.031	0.787	163	343009
		90°	TC..16T3..	1.968	STFCLR12CA-16	2.165	0.314	0.590	0.472	0.787	0.787	0.031	0.787	163	343010
		90°	TC..16T3..	2.165	STFCR16CA-16	2.480	0.314	0.787	0.629	0.787	0.984	0.031	0.984	163	343011
		90°	TC..16T3..	2.165	STFCLR16CA-16	2.480	0.314	0.787	0.629	0.787	0.984	0.031	0.984	163	343012
		95°	TC.06T1..	15.60	STLCR06CA-06X7	24.50	4.50	4.50	6.00	6.00	7.00	0.20	12.00	73	343043
		95°	TC.06T1..	15.60	STCLR06CA-06X7	24.50	4.50	4.50	6.00	6.00	7.00	0.20	12.00	73	343044
		93°	TC..0902..	25.00	STUCR08CA-09	32.00	6.00	7.50	8.00	11.00	10.00	0.40	17.00	160	343035
		93°	TC..0902..	25.00	STUCLR08CA-09	32.00	6.00	7.50	8.00	11.00	10.00	0.40	17.00	160	343036
		90°	TC..06T1..	15.60	STFCR06CA-06X7	24.50	4.50	4.50	6.00	6.00	7.00	0.20	12.00	73	343001
		90°	TC..06T1..	15.60	STFCLR06CA-06X7	24.50	4.50	4.50	6.00	6.00	7.00	0.20	12.00	73	343002
		90°	TC..06T1..	20.00	STFCR06CA-06	25.00	4.50	5.00	6.00	8.00	8.00	0.40	12.00	73	343003
		90°	TC..06T1..	20.00	STFCLR06CA-06	25.00	4.50	5.00	6.00	8.00	8.00	0.40	12.00	73	343004
		90°	TC..0902..	25.00	STFCR08CA-09	32.00	6.00	7.50	8.00	11.00	10.00	0.40	17.00	160	343005
		90°	TC..0902..	25.00	STFCLR08CA-09	32.00	6.00	7.50	8.00	11.00	10.00	0.40	17.00	160	343006
		90°	TC..1102..	40.00	STFCR10CA-11	50.00	8.00	11.00	10.00	15.00	14.00	0.40	20.00	161	343007
		90°	TC..1102..	40.00	STFCLR10CA-11	50.00	8.00	11.00	10.00	15.00	14.00	0.40	20.00	161	343008
		90°	TC..16T3..	50.00	STFCR12CA-16	55.00	8.00	15.00	12.00	20.00	20.00	0.80	20.00	163	343009
		90°	TC..16T3..	50.00	STFCLR12CA-16	55.00	8.00	15.00	12.00	20.00	20.00	0.80	20.00	163	343010
		90°	TC..16T3..	55.00	STFCR16CA-16	63.00	8.00	20.00	16.00	20.00	25.00	0.80	25.00	163	343011
		90°	TC..16T3..	55.00	STFCLR16CA-16	63.00	8.00	20.00	16.00	20.00	25.00	0.80	25.00	163	343012

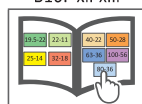
B10: 10 - 13



B10-F



B10: xii-xiii



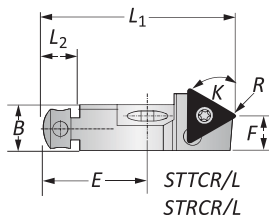
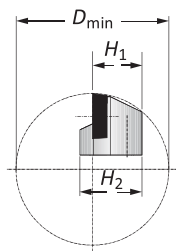
i = Imperial (in)

m = Metric (mm)

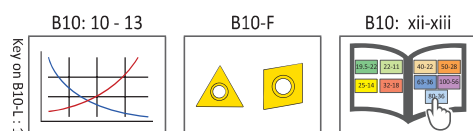
Inserts sold separately

Pre-Machining Lay Down Cartridges | Insert Forms 73, 160, 159, 161, 163

Diameter Range: $\geq 0.614"$ (15.60mm)



Holder Type	K	ISO	D _{min} Boring Range	Designation	L ₁	L ₂	B	H ₁	H ₂	F	R	E	Insert Form	Part No.
	75°	TC..06T1..	0.614	STKCR06CA-06X7	0.964	0.177	0.177	0.236	0.236	0.275	0.007	0.472	73	343037
	75°	TC..06T1..	0.614	STKCL06CA-06X7	0.964	0.177	0.177	0.236	0.236	0.275	0.007	0.472	73	343038
	75°	TC..06T1..	0.787	STKCR06CA-06	0.984	0.177	0.196	0.236	0.314	0.314	0.015	0.472	73	343039
	75°	TC..06T1..	0.787	STKCL06CA-06	0.984	0.177	0.196	0.236	0.314	0.314	0.015	0.472	73	343040
	75°	TC..0902..	0.984	STKCR08CA-09	1.259	0.236	0.295	0.314	0.433	0.393	0.015	0.669	160	343041
	75°	TC..0902..	0.984	STKCL08CA-09	1.259	0.236	0.295	0.314	0.433	0.393	0.015	0.669	160	343042
	75°	TC..0902..	0.984	STKCR08CA-09	1.259	0.236	0.295	0.314	0.433	0.307	0.015	0.669	160	343033
	75°	TC..0902..	0.984	STKCL08CA-09	1.259	0.236	0.295	0.314	0.433	0.307	0.015	0.669	160	343034
	60°	TC..06T1..	0.614	STTCR06CA-06X7	0.964	0.177	0.177	0.236	0.236	0.145	0.007	0.472	159	343013
	60°	TC..06T1..	0.614	STTCL06CA-06X7	0.964	0.177	0.177	0.236	0.236	0.145	0.007	0.472	159	343014
	60°	TC..06T1..	0.787	STTCR06CA-06	0.984	0.177	0.196	0.236	0.314	0.216	0.015	0.472	159	343015
	60°	TC..06T1..	0.787	STTCL06CA-06	0.984	0.177	0.196	0.236	0.314	0.216	0.015	0.472	159	343016
	60°	TC..0902..	0.984	STTCR08CA-09	1.259	0.236	0.295	0.314	0.433	0.236	0.015	0.669	160	343017
	60°	TC..0902..	0.984	STTCL08CA-09	1.259	0.236	0.295	0.314	0.433	0.236	0.015	0.669	160	343018
	60°	TC..1102..	1.575	STTCR10CA-11	1.968	0.314	0.433	0.393	0.590	0.354	0.015	0.787	161	343019
	60°	TC..1102..	1.575	STTCL10CA-11	1.968	0.314	0.433	0.393	0.590	0.354	0.015	0.787	161	343020
	60°	TC..16T3..	1.968	STTCR12CA-16	2.165	0.314	0.590	0.472	0.787	0.511	0.031	0.787	163	343021
	60°	TC..16T3..	1.968	STTCL12CA-16	2.165	0.314	0.590	0.472	0.787	0.511	0.031	0.787	163	343022
	75°	TC..06T1..	15.60	STKCR06CA-06X7	24.50	4.50	4.50	6.00	6.00	7.00	0.20	12.00	73	343037
	75°	TC..06T1..	15.60	STKCL06CA-06X7	24.50	4.50	4.50	6.00	6.00	7.00	0.20	12.00	73	343038
	75°	TC..06T1..	20.00	STKCR06CA-06	25.00	4.50	5.00	6.00	8.00	8.00	0.40	12.00	73	343039
	75°	TC..06T1..	20.00	STKCL06CA-06	25.00	4.50	5.00	6.00	8.00	8.00	0.40	12.00	73	343040
	75°	TC..0902..	25.00	STKCR08CA-09	32.00	6.00	7.50	8.00	11.00	10.00	0.40	17.00	160	343041
	75°	TC..0902..	25.00	STKCL08CA-09	32.00	6.00	7.50	8.00	11.00	10.00	0.40	17.00	160	343042
	75°	TC..0902..	25.00	STKCR08CA-09	32.00	6.00	7.50	8.00	11.00	7.80	0.40	17.00	160	343033
	75°	TC..0902..	25.00	STKCL08CA-09	32.00	6.00	7.50	8.00	11.00	7.80	0.40	17.00	160	343034
	60°	TC..06T1..	15.60	STTCR06CA-06X7	24.50	4.50	4.50	6.00	6.00	3.70	0.20	12.00	159	343013
	60°	TC..06T1..	15.60	STTCL06CA-06X7	24.50	4.50	4.50	6.00	6.00	3.70	0.20	12.00	159	343014
	60°	TC..06T1..	20.00	STTCR06CA-06	25.00	4.50	5.00	6.00	8.00	5.50	0.40	12.00	159	343015
	60°	TC..06T1..	20.00	STTCL06CA-06	25.00	4.50	5.00	6.00	8.00	5.50	0.40	12.00	159	343016
	60°	TC..0902..	25.00	STTCR08CA-09	32.00	6.00	7.50	8.00	11.00	6.00	0.40	17.00	160	343017
	60°	TC..0902..	25.00	STTCL08CA-09	32.00	6.00	7.50	8.00	11.00	6.00	0.40	17.00	160	343018
	60°	TC..1102..	40.00	STTCR10CA-11	50.00	8.00	11.00	10.00	15.00	9.00	0.40	20.00	161	343019
	60°	TC..1102..	40.00	STTCL10CA-11	50.00	8.00	11.00	10.00	15.00	9.00	0.40	20.00	161	343020
	60°	TC..16T3..	50.00	STTCR12CA-16	55.00	8.00	15.00	12.00	20.00	13.00	0.80	20.00	163	343021
	60°	TC..16T3..	50.00	STTCL12CA-16	55.00	8.00	15.00	12.00	20.00	13.00	0.80	20.00	163	343022

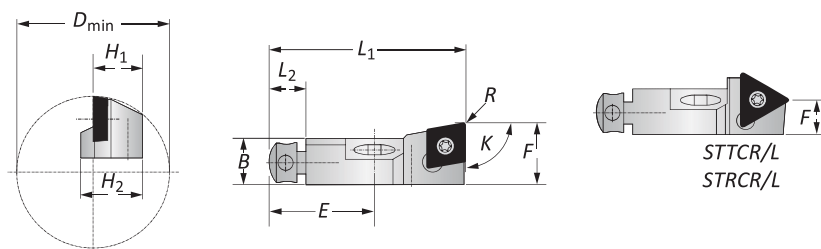


i = Imperial (in)
m = Metric (mm)

Inserts sold separately



Pre-Machining Lay Down Cartridges | Insert Forms 73, 160, 159, 161, 163

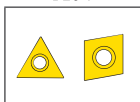
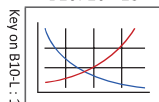
Diameter Range: $\geq 0.614"$ (15.60mm)


Holder Type	K	ISO	D _{min} Boring Range	Designation	Insert Holder								Insert Form	Part No.
					L ₁	L ₂	B	H ₁	H ₂	F	R	E		
i	60°	TC..06T1..	0.614	STWCR06CA-06X7	0.826	0.177	0.177	0.236	0.236	0.275	0.007	0.472	73	343045
	60°	TC..06T1..	0.614	STWCL06CA-06X7	0.826	0.177	0.177	0.236	0.236	0.275	0.007	0.472	73	343046
	60°	TC..06T1..	0.787	STWCR06CA-06	0.826	0.177	0.196	0.236	0.314	0.314	0.015	0.472	73	343047
	60°	TC..06T1..	0.787	STWCL06CA-06	0.826	0.177	0.196	0.236	0.314	0.314	0.015	0.472	73	343048
	60°	TC..0902..	0.787	STWCR08CA-09	1.102	0.236	0.295	0.314	0.433	0.393	0.015	0.669	160	343049
	60°	TC..0902..	0.787	STWCL08CA-09	1.102	0.236	0.295	0.314	0.433	0.393	0.015	0.669	160	343050
	45°	TC..06T1..	0.614	STSCR06CA-06X7	0.964	0.177	0.177	0.236	0.236	0.275	0.007	0.472	73	343023
	45°	TC..06T1..	0.614	STSCL06CA-06X7	0.964	0.177	0.177	0.236	0.236	0.275	0.007	0.472	73	343024
	45°	TC..06T1..	0.787	STSCR06CA-06	0.826	0.177	0.196	0.236	0.314	0.314	0.015	0.472	73	343025
	45°	TC..06T1..	0.787	STSCL06CA-06	0.826	0.177	0.196	0.236	0.314	0.314	0.015	0.472	73	343026
m	45°	TC..0902..	0.984	STSCR08CA-09	1.102	0.236	0.295	0.314	0.433	0.393	0.015	0.669	160	343027
	45°	TC..0902..	0.984	STSCL08CA-09	1.102	0.236	0.295	0.314	0.433	0.393	0.015	0.669	160	343028
	45°	TC..1102..	1.574	STSCR10CA-11	1.732	0.314	0.433	0.393	0.590	0.551	0.015	0.787	161	343029
	45°	TC..1102..	1.574	STSCL10CA-11	1.732	0.314	0.433	0.393	0.590	0.551	0.015	0.787	161	343030
	45°	TC..16T3..	1.968	STSCR12CA-16	1.850	0.314	0.590	0.472	0.787	0.787	0.031	0.984	163	343031
	45°	TC..16T3..	1.968	STSCL12CA-16	1.850	0.314	0.590	0.472	0.787	0.787	0.031	0.984	163	343032
m	60°	TC..06T1..	15.60	STWCR06CA-06X7	21.00	4.50	4.50	6.00	6.00	7.00	0.20	12.00	73	343045
	60°	TC..06T1..	15.60	STWCL06CA-06X7	21.00	4.50	4.50	6.00	6.00	7.00	0.20	12.00	73	343046
	60°	TC..06T1..	20.00	STWCR06CA-06	21.00	4.50	5.00	6.00	8.00	8.00	0.40	12.00	73	343047
	60°	TC..06T1..	20.00	STWCL06CA-06	21.00	4.50	5.00	6.00	8.00	8.00	0.40	12.00	73	343048
	60°	TC..0902..	20.00	STWCR08CA-09	28.00	6.00	7.50	8.00	11.00	10.00	0.40	17.00	160	343049
	60°	TC..0902..	20.00	STWCL08CA-09	28.00	6.00	7.50	8.00	11.00	10.00	0.40	17.00	160	343050
	45°	TC..06T1..	15.60	STSCR06CA-06X7	24.50	4.50	4.50	6.00	6.00	7.00	0.20	12.00	73	343023
	45°	TC..06T1..	15.60	STSCL06CA-06X7	24.50	4.50	4.50	6.00	6.00	7.00	0.20	12.00	73	343024
	45°	TC..06T1..	20.00	STSCR06CA-06	21.00	4.50	5.00	6.00	8.00	8.00	0.40	12.00	73	343025
	45°	TC..06T1..	20.00	STSCL06CA-06	21.00	4.50	5.00	6.00	8.00	8.00	0.40	12.00	73	343026
	45°	TC..0902..	25.00	STSCR08CA-09	28.00	6.00	7.50	8.00	11.00	10.00	0.40	17.00	160	343027
	45°	TC..0902..	25.00	STSCL08CA-09	28.00	6.00	7.50	8.00	11.00	10.00	0.40	17.00	160	343028
	45°	TC..1102..	40.00	STSCR10CA-11	44.00	8.00	11.00	10.00	15.00	14.00	0.40	20.00	161	343029
	45°	TC..1102..	40.00	STSCL10CA-11	44.00	8.00	11.00	10.00	15.00	14.00	0.40	20.00	161	343030
	45°	TC..16T3..	50.00	STSCR12CA-16	47.00	8.00	15.00	12.00	20.00	20.00	0.80	25.00	163	343031
	45°	TC..16T3..	50.00	STSCL12CA-16	47.00	8.00	15.00	12.00	20.00	20.00	0.80	25.00	163	343032

B10: 10 - 13

B10-F

B10: xii-xiii

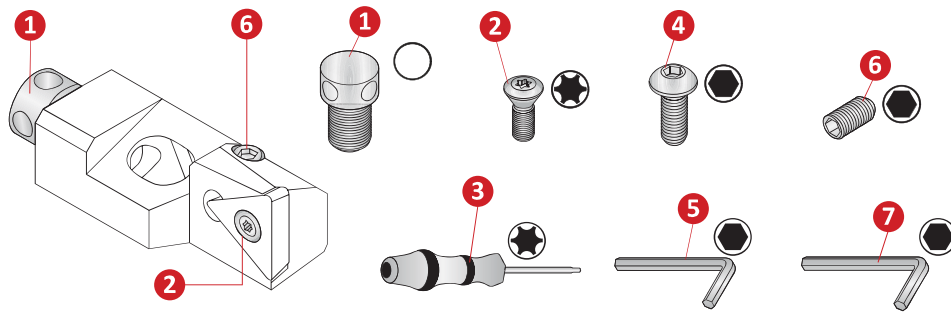


i = Imperial (in)

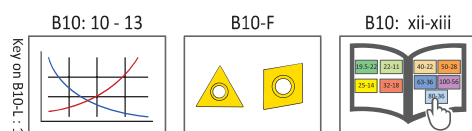
m = Metric (mm)

Inserts sold separately

Accessories for Pre-Machining Lay Down Cartridges



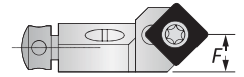
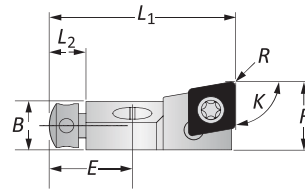
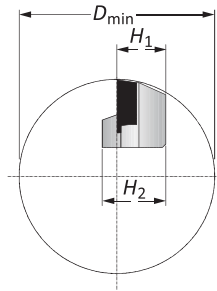
		1	2	3	4	5	6	7
Clamping Holder Part No.		Barrel Screw	Insert Screw	Torx Driver	Holder Fixing Screw	Hex Driver	Radial Set Screw	Hex Driver
343001	343002	413994	415970	115537	415108	027149	215346	027148
343003	343004	419994	415970	115537	215481	027149	215346	027148
343005	343006	419995	415971	115591	215343	031148	115455	027148
343007	343008	419996	415967	115591	215643	003195	115151	027149
343009	343010	419996	415972	115664	215431	003195	126157	031148
343011	343012	419996	415972	115664	215300	005195	415993	031148
343013	343014	419994	415970	115537	415108	027149	215346	027148
343015	343016	419994	415970	115537	215481	027149	215346	027148
343017	343018	419995	415971	115591	215343	031148	115455	027148
343019	343020	419996	415967	115591	215643	003195	115151	027149
343021	343022	419996	415972	115664	215431	003195	126157	031148
343023	343024	419994	415970	115537	415108	027149	215346	027148
343025	343026	419994	415970	115537	215481	027149	215346	027148
343027	343028	419995	415971	115591	215343	031148	115455	027148
343029	343030	419996	415967	115591	215643	003195	115151	027149
343031	343032	419996	415972	115664	215431	003195	126157	031148
343033	434034	419995	415971	115591	215343	031148	115455	027148
343035	343036	419995	415971	115591	215343	031148	115455	027148
343037	343038	419994	415970	115537	415108	027149	215346	027148
343039	343040	419994	415970	115537	215481	027149	215346	027148
343041	343042	419995	415971	115591	215343	031148	115455	027148
343043	343044	419994	415970	115537	415108	027149	215346	027148
343045	343046	419994	415970	115537	415108	027149	215346	027148
343047	343048	419994	415970	115537	215481	027149	215346	027148
343049	343050	415970	415971	415108	215343	031148	215346	027148
343051	343052	419995	415967	115591	215343	031148	115455	027148
343053	343054	419995	415967	115591	215343	031148	115455	027148
343055	343056	419996	415968	115664	215643	003195	115151	027149
343057	343058	419995	415967	115591	215343	031148	115455	027148
343059	343060	419995	415967	115591	215343	031148	115455	027148
343061	343062	419995	415967	115591	215343	031148	115455	027148
343063	343064	419996	415969	215150	215431	003195	126157	031148



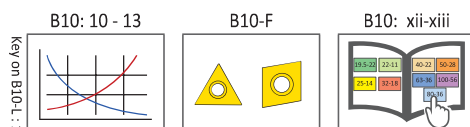
i = Imperial (in)
m = Metric (mm)
Inserts sold separately



Compact Lay Down Cartridges | Insert Forms 101, 103, 104, 105

Diameter Range: $\geq 0.984''$ (25.00mm)


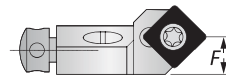
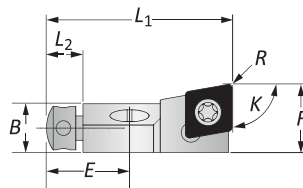
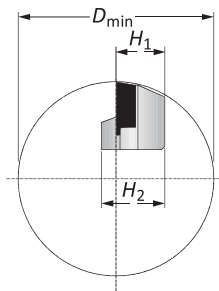
Holder Type	K	ISO	D _{min} Boring Range	Designation	Insert Holder								Insert Form	Part No.
					L ₁	L ₂	B	H ₁	H ₂	F	R Radius	E		
i	90°	CC..0602..	0.984	SCFCR08CK-06	1.102	0.236	0.255	0.314	0.393	0.393	0.015	0.511	101	345001
	90°	CC..09T3..	1.574	SCFCR10CK-09	1.496	0.295	0.393	0.393	0.511	0.551	0.031	0.669	103	345002
	90°	CC..1204..	1.968	SCFCR12CK-12	1.771	0.314	0.551	0.472	0.629	0.787	0.031	0.787	104	345003
	90°	CC..1605..	2.165	SCFCE14CK-16	2.125	0.314	0.629	0.551	0.708	0.905	0.031	0.925	105	345004
	80°	CC..0602..	0.984	SCOCR08CK-06	1.102	0.236	0.255	0.314	0.393	0.354	0.015	0.511	101	345014
	80°	CC..09T3..	1.574	SCOCR10CK-09	1.496	0.295	0.393	0.393	0.511	0.492	0.031	0.669	103	345009
	75°	CC..0602..	0.984	SCRCR08CK-06	1.102	0.236	0.255	0.314	0.393	0.334	0.015	0.511	101	345013
	75°	CC..09T3..	1.574	SCRCR10CK-09	1.496	0.295	0.393	0.393	0.511	0.460	0.031	0.669	103	345008
	70°	CC..0602..	0.984	SCPCR08CK-06	1.102	0.236	0.255	0.314	0.393	0.314	0.015	0.511	101	345012
	70°	CC..09T3..	1.574	SCPCR10CK-09	1.496	0.295	0.393	0.393	0.511	0.433	0.031	0.669	103	345007
	60°	CC..0602..	0.984	SCTCR08CK-06	1.102	0.236	0.255	0.314	0.393	0.275	0.015	0.511	101	345011
	60°	CC..09T3..	1.574	SCTCR10CK-09	1.496	0.295	0.393	0.393	0.511	0.381	0.031	0.669	103	345006
	45°	CC..0602..	0.984	SCSCR08CK-06	0.944	0.236	0.255	0.314	0.393	0.393	0.015	0.511	101	345010
	45°	CC..09T3..	1.574	SCSCR10CK-09	1.259	0.295	0.393	0.393	0.511	0.570	0.031	0.669	103	345005
m	90°	CC..0602..	25.00	SCFCR08CK-06	28.00	6.00	6.50	8.00	10.00	10.00	0.40	13.00	101	345001
	90°	CC..09T3..	40.00	SCFCR10CK-09	38.00	7.50	10.00	10.00	13.00	14.00	0.80	17.00	103	345002
	90°	CC..1204..	50.00	SCFCR12CK-12	45.00	8.00	14.00	12.00	16.00	20.00	0.80	20.00	104	345003
	90°	CC..1605..	55.00	SCFCE14CK-16	54.00	8.00	16.00	14.00	18.00	23.00	0.80	23.50	105	345004
	80°	CC..0602..	25.00	SCOCR08CK-06	28.00	6.00	6.50	8.00	10.00	9.00	0.40	13.00	101	345014
	80°	CC..09T3..	40.00	SCOCR10CK-09	38.00	7.50	10.00	10.00	13.00	12.50	0.80	17.00	103	345008
	75°	CC..0602..	25.00	SCRCR08CK-06	28.00	6.00	6.50	8.00	10.00	8.50	0.40	13.00	101	345013
	75°	CC..09T3..	40.00	SCRCR10CK-09	38.00	7.50	10.00	10.00	13.00	11.70	0.80	17.00	103	345009
	70°	CC..0602..	25.00	SCPCR08CK-06	28.00	6.00	6.50	8.00	10.00	8.00	0.40	13.00	101	345012
	70°	CC..09T3..	40.00	SCPCR10CK-09	38.00	7.50	10.00	10.00	13.00	11.00	0.80	17.00	103	345007
	60°	CC..0602..	25.00	SCTCR08CK-06	28.00	6.00	6.50	8.00	10.00	7.00	0.40	13.00	101	345011
	60°	CC..09T3..	40.00	SCTCR10CK-09	38.00	7.50	10.00	10.00	13.00	9.70	0.80	17.00	103	345006
	45°	CC..0602..	25.00	SCSCR08CK-06	24.00	6.00	6.50	8.00	10.00	10.00	0.40	13.00	101	345010
	45°	CC..09T3..	40.00	SCSCR10CK-09	32.00	7.50	10.00	10.00	13.00	14.50	0.80	17.00	103	345005



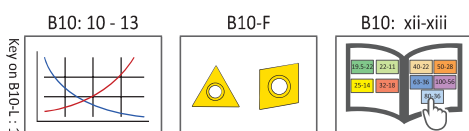
i = Imperial (in)
m = Metric (mm)
Inserts sold separately

Compact Lay Down Cartridges | Insert Form 112

Diameter Range: $\geq 1.574"$ (40.00mm)



Holder Type	K	ISO	D _{min} Boring Range	Designation	Insert Holder								Insert Form	Part No.
					L ₁	L ₂	B	H ₁	H ₂	F	R Radius	E		
	80°	SC..09T3..	1.574	SSOCR10CK-09	1.496	0.295	0.393	0.393	0.511	0.472	0.031	0.669	112	345019
	75°	SC..09T3..	1.574	SSRCR10CK-09	1.496	0.295	0.393	0.393	0.511	0.460	0.031	0.669	112	345018
	70°	SC..09T3..	1.574	SSPCR10CK-09	1.496	0.295	0.393	0.393	0.511	0.433	0.031	0.669	112	345017
	60°	SC..09T3..	1.574	SSTCR10CK-09	1.496	0.295	0.393	0.393	0.511	0.381	0.031	0.669	112	345016
	45°	SC..09T3..	1.574	SSSCR10CK-09	1.260	0.295	0.393	0.393	0.511	0.551	0.031	0.669	112	345015
	80°	SC..09T3..	40.00	SSOCR10CK-09	38.00	7.50	10.00	10.00	13.00	12.50	0.80	17.00	112	345019
	75°	SC..09T3..	40.00	SSRCR10CK-09	38.00	7.50	10.00	10.00	13.00	11.70	0.80	17.00	112	345018
	70°	SC..09T3..	40.00	SSPCR10CK-09	38.00	7.50	10.00	10.00	13.00	11.00	0.80	17.00	112	345017
	60°	SC..09T3..	40.00	SSTCR10CK-09	38.00	7.50	10.00	10.00	13.00	9.70	0.80	17.00	112	345016
	45°	SC..09T3..	40.00	SSSCR10CK-09	32.00	7.50	10.00	10.00	13.00	14.00	0.80	17.00	112	345015

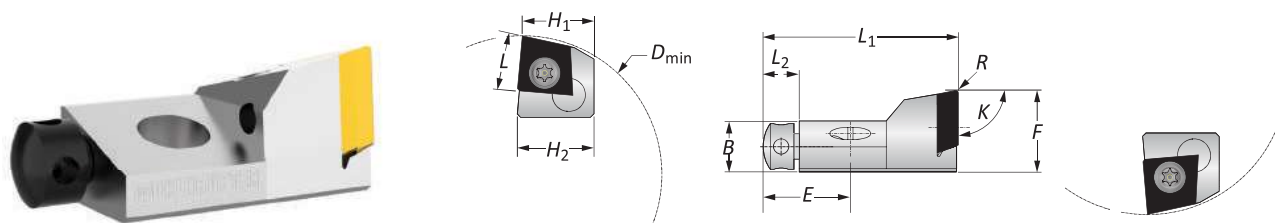


i = Imperial (in)
m = Metric (mm)
Inserts sold separately



Tangential Compact Lay Down Cartridges | Insert Forms 04, 05

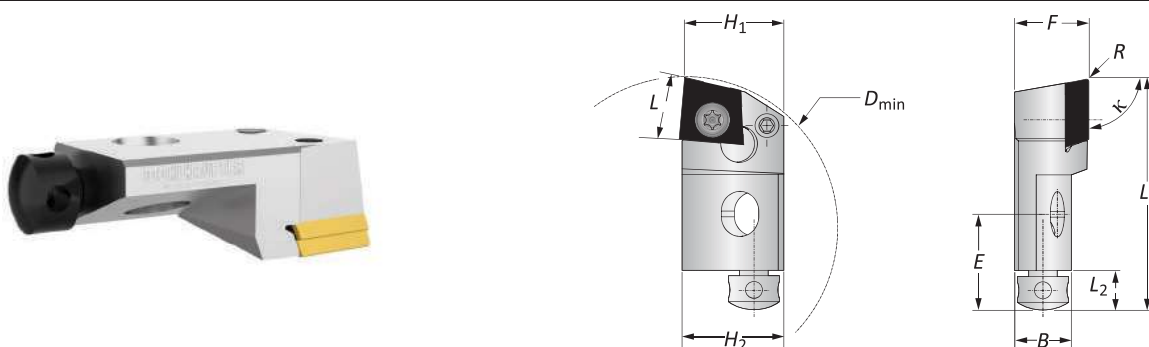
Diameter Range: $\geq 2.125''$ (54.00mm)



Insert Form 04, 05 Insert Holders

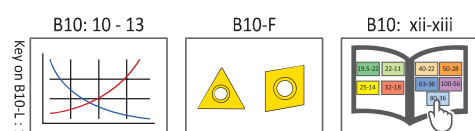
Insert Form 04, 05 Insert Holders

			D_{min} Boring Range	Insert Holder								Holder Cutting Form		Insert Form	Part No.
Holder Type		K		L_1	L_2	B	H_1	H_2	F	R Radius	E		L		
i		90°	2.125	1.496	0.295	0.393	0.551	0.590	0.629	0.019	0.669	Right	0.413	04	345023
		90°	2.125	1.496	0.295	0.393	0.551	0.590	0.629	0.019	0.669	Left	0.413	04	345025
		90°	2.755	2.755	0.314	0.551	0.748	0.787	0.866	0.019	0.787	Right	0.570	05	345020
		90°	2.755	2.755	0.314	0.551	0.748	0.787	0.866	0.019	0.787	Left	0.570	05	345022
m		90°	54.00	38.00	7.50	10.00	14.00	15.00	16.00	0.50	17.00	Right	10.50	04	345023
		90°	54.00	38.00	7.50	10.00	14.00	15.00	16.00	0.50	17.00	Left	10.50	04	345025
		90°	70.00	45.00	8.00	14.00	19.00	20.00	22.00	0.50	20.00	Right	14.50	05	345020
		90°	70.00	45.00	8.00	14.00	19.00	20.00	22.00	0.50	20.00	Left	14.50	05	345022



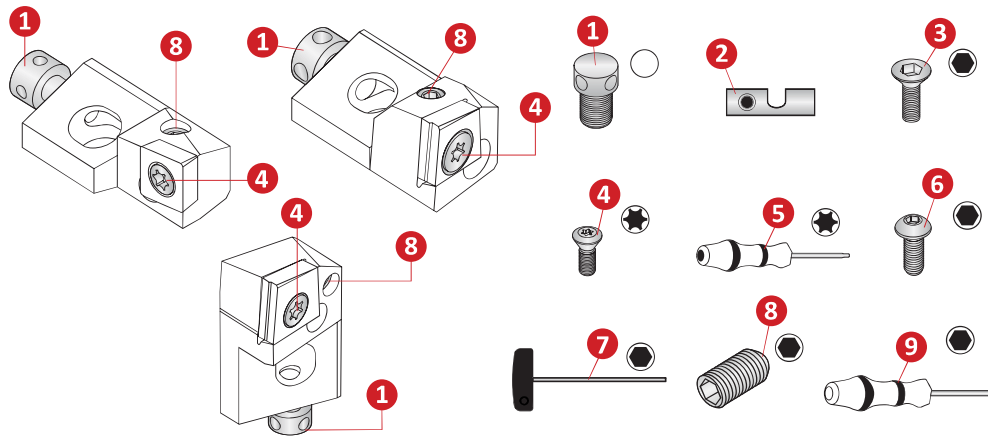
Insert Form 04, 05 Radial Cutting Insert Holders

Insert Form 04, 05 Radial Cutting Insert Holders															
	Holder Type	K	D _{min} Boring Range	Insert Holder							Holder Cutting Form	L	Insert Form	Part No.	
				L ₁	L ₂	B	H ₁	H ₂	F	R Radius					E
i		90°	2.125	1.614	0.295	0.393	0.669	0.708	0.511	0.019	0.669	Right	0.413	04	345024
		90°	2.755	1.968	0.314	0.551	0.826	0.866	0.669	0.019	0.787	Right	0.570	05	345021
m		90°	54.00	41.00	7.50	10.00	17.00	18.00	13.00	0.50	17.00	Right	10.50	04	345024
		90°	70.00	50.00	8.00	14.00	21.00	22.00	17.00	0.50	20.00	Right	14.50	05	345021

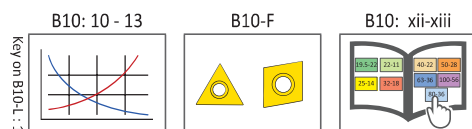


i = Imperial (in)
m = Metric (mm)
Inserts sold separately

Compact Lay Down Cartridges Accessories



Insert Holder Part No.	1 Axial Barrel Screw	2 Shim	3 Insert Screw	4 Insert Screw	5 Torx Driver	6 Holder Fixing Screw	7 Hex Driver	8 Radial Set Screw	9 Hex Driver
345001	215742	345201	215461	115676	115590	215343	415577	114224	215472
345002	415299	345202	116433	115673	115664	215634	415164	070161	215473
345003	215250	345203	116433	415298	215150	215431	415164	215467	115575
345004	215265	345204	116433	215149	215150	315476	415165	215467	115575
345005	415299	345216	116433	115673	115664	215634	415164	070161	215473
345006	415299	345218	116433	115673	115664	215634	415164	070161	215473
345007	415299	345208	116433	115673	115664	215634	415164	070161	215473
345008	415299	345208	116433	115673	115664	215634	415164	070161	215473
345009	415299	345202	116433	115673	115664	215634	415164	070161	215473
345010	215742	345211	215461	115676	115590	215343	415577	114224	215472
345011	215742	345211	215461	115676	115590	215343	415577	114224	215472
345012	215742	345213	215461	115676	115590	215343	415577	114224	215472
345013	215742	345213	215461	115676	115590	215343	415577	114224	215472
345014	215742	345201	215461	115676	115590	215343	415577	114224	215472
345015	415299	345215	116433	115673	115664	215634	415164	070161	215473
345016	415299	345216	116433	115673	115664	215634	415164	070161	215473
345017	415299	345218	116433	115673	115664	215634	415164	070161	215473
345018	415299	345218	116433	115673	115664	215634	415164	070161	215473
345019	415299	345208	116433	115673	115664	215634	415164	070161	215473
345020	215250	345220	116433	415949	215150	315476	415165	215467	115575
345021	215250	345221	116433	415949	215150	315476	415165	215104	115575
345022	215250	345222	116433	415949	215150	315476	415165	215467	115575
345023	415299	345223	116433	415977	115664	215634	415164	415280	215473
345024	415299	345224	116433	415977	115664	215634	415164	070161	215473
345025	415299	345225	116433	415977	115664	215634	415164	415280	215473

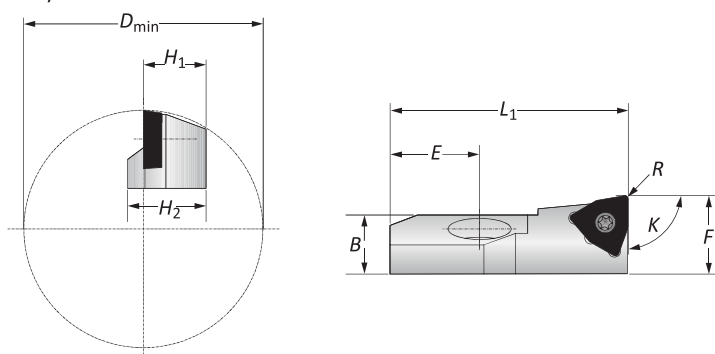


i = Imperial (in)
m = Metric (mm)

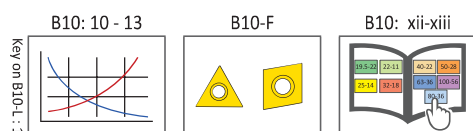
Inserts sold separately



Lay Down Cartridges for Heavy Cutting | Insert Forms 112, 113, 453, 455, 456, 457, 458, 459, 460, 461

Diameter Range: $\geq 1.181''$ (30.00mm)


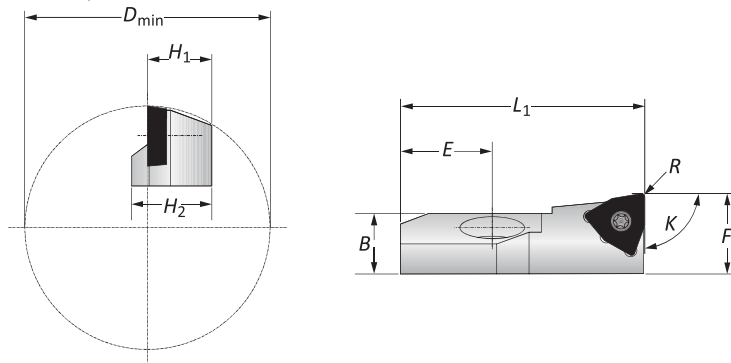
Holder Type	K	ISO	D _{min} Boring Range	Designation	Insert Holder							Insert Form	Part No.
					L ₁	B	H ₁	H ₂	F	R Radius	E		
i		85° SC..09T3..	1.574	SSYCR10CX-09	1.574	0.393	0.393	0.590	0.511	0.015	0.590	112	344021
		85° SC..1204..	1.957	SSYCR12CX-12	1.732	0.511	0.472	0.787	0.708	0.031	0.551	113	344022
		90° WCGX0302..	1.181	SWFCR08CX-03	0.984	0.255	0.314	0.433	0.354	0.015	0.393	453	344001
		90° WCGX0302..	1.574	SWFCR10CX-05	1.574	0.393	0.393	0.590	0.511	0.015	0.590	453	344002
		90° WCGX05T3..	1.574	SWFCR10CX-05HD	1.574	0.393	0.393	0.590	0.511	0.015	0.590	455	344003
		90° WCGX0603..	1.968	SWFCR12CX-06	1.732	0.511	0.472	0.787	0.708	0.015	0.551	456	344004
		90° WCGX06T3..	1.968	SWFCR12CX-06HD	1.732	0.511	0.472	0.787	0.708	0.015	0.551	457	344005
		90° WCGX0703..	1.968	SWFCR12CX-07	1.732	0.511	0.472	0.787	0.708	0.015	0.551	458	344006
		90° WCGX0704..	1.968	SWFCR12CX-07HD	1.732	0.511	0.472	0.787	0.708	0.015	0.551	459	344007
		90° WCGX0904..	2.362	SWFCR16CX-09	1.732	0.708	0.629	0.826	0.905	0.015	0.669	460	344008
		90° WCGX0905..	2.362	SWFCR16CX-09HD	1.732	0.708	0.629	0.826	0.905	0.015	0.669	461	344009
		78° WCGX0302..	1.181	SWXCR08CX-03	0.984	0.255	0.314	0.433	0.354	0.015	0.393	453	344010
		78° WCGX0503..	1.574	SWXCR10CX-05	1.574	0.393	0.393	0.590	0.511	0.015	0.590	454	344011
		78° WCGX05T3..	1.574	SWXCR10CX-05HD	1.574	0.393	0.393	0.590	0.511	0.015	0.590	455	344012
		78° WCGX0603..	1.968	SWXCR12CX-06	1.732	0.511	0.472	0.787	0.708	0.015	0.551	456	344013
		78° WCGX06T3..	1.968	SWXCR12CX-06HD	1.732	0.511	0.472	0.787	0.708	0.015	0.551	457	344014
		78° WCGX0703..	1.968	SWXCR12CX-07	1.732	0.511	0.472	0.787	0.708	0.015	0.551	458	344015
		78° WCGX0704..	1.968	SWXCR12CX-07HD	1.732	0.511	0.472	0.787	0.708	0.015	0.551	459	344016
		78° WCGX0904..	2.362	SWXCR16CX-09	1.968	0.708	0.629	0.826	0.905	0.015	0.669	460	344017
		78° WCGX0905..	2.362	SWXCR16CX-09HD	1.968	0.708	0.629	0.826	0.905	0.015	0.669	461	344018
m		85° SC..09T3..	40.00	SSYCR10CX-09	40.00	10.00	10.00	15.00	13.00	0.40	15.00	112	344021
		85° SC..1204..	50.00	SSYCR12CX-12	44.00	13.00	12.00	20.00	18.00	0.80	14.00	113	344022
		90° WCGX0302..	30.00	SWFCR08CX-03	25.00	6.50	8.00	11.00	9.00	0.40	10.00	453	344001
		90° WCGX0302..	40.00	SWFCR10CX-05	40.00	10.00	10.00	15.00	13.00	0.40	15.00	453	344002
		90° WCGX05T3..	40.00	SWFCR10CX-05HD	40.00	10.00	10.00	15.00	13.00	0.40	15.00	455	344003
		90° WCGX0603..	50.00	SWFCR12CX-06	44.00	13.00	12.00	20.00	18.00	0.40	14.00	456	344004
		90° WCGX06T3..	50.00	SWFCR12CX-06HD	44.00	13.00	12.00	20.00	18.00	0.40	14.00	457	344005
		90° WCGX0703..	50.00	SWFCR12CX-07	44.00	13.00	12.00	20.00	18.00	0.40	14.00	458	344006
		90° WCGX0704..	50.00	SWFCR12CX-07HD	44.00	13.00	12.00	20.00	18.00	0.40	14.00	459	344007
		90° WCGX0904..	60.00	SWFCR16CX-09	44.00	18.00	16.00	21.00	23.00	0.40	17.00	460	344008
		90° WCGX0905..	60.00	SWFCR16CX-09HD	44.00	18.00	16.00	21.00	23.00	0.40	17.00	461	344009
		78° WCGX0302..	30.00	SWXCR08CX-03	25.00	6.50	8.00	11.00	9.00	0.40	10.00	453	344010
		78° WCGX0503..	40.00	SWXCR10CX-05	40.00	10.00	10.00	15.00	13.00	0.40	15.00	454	344011
		78° WCGX05T3..	40.00	SWXCR10CX-05HD	40.00	10.00	10.00	15.00	13.00	0.40	15.00	455	344012
		78° WCGX0603..	50.00	SWXCR12CX-06	44.00	13.00	12.00	20.00	18.00	0.40	14.00	456	344013
		78° WCGX06T3..	50.00	SWXCR12CX-06HD	44.00	13.00	12.00	20.00	18.00	0.40	14.00	457	344014
		78° WCGX0703..	50.00	SWXCR12CX-07	44.00	13.00	12.00	20.00	18.00	0.40	14.00	458	344015
		78° WCGX0704..	50.00	SWXCR12CX-07HD	44.00	13.00	12.00	20.00	18.00	0.40	14.00	459	344016
		78° WCGX0904..	60.00	SWXCR16CX-09	50.00	18.00	16.00	21.00	23.00	0.40	17.00	460	344017
		78° WCGX0905..	60.00	SWXCR16CX-09HD	50.00	18.00	16.00	21.00	23.00	0.40	17.00	461	344018

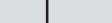


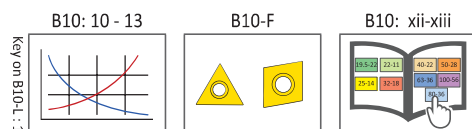
= Imperial (in)
 = Metric (mm)
 Inserts sold separately

Lay Down Cartridges for Heavy Cutting | Insert Forms 161, 163

Diameter Range: $\geq 1.574"$ (40.00mm)



		Holder Type	K	ISO	D _{min} Boring Range	Designation	Insert Holder						Insert Form	Part No.
							L ₁	B	H ₁	H ₂	F	R Radius		
i		90°	TC..1102..	1.574	STFCR10CX-11	1.574	0.393	0.393	0.590	0.511	0.015	0.590	161	344019
		90°	TC..16T3..	1.968	STFCR12CX-16	1.732	0.511	0.472	0.787	0.708	0.031	0.551	163	344020
		90°	TC..16T3..	1.968	STGCR12CX-16	1.732	0.511	0.472	0.787	0.708	0.031	0.551	163	344023
m		90°	TC..1102..	40.00	STFCR10CX-11	40.00	10.00	10.00	15.00	13.00	0.40	15.00	161	344019
		90°	TC..16T3..	50.00	STFCR12CX-16	44.00	13.00	12.00	20.00	18.00	0.80	14.00	163	344020
		90°	TC..16T3..	50.00	STGCR12CX-16	44.00	13.00	12.00	20.00	18.00	0.80	14.00	163	344023

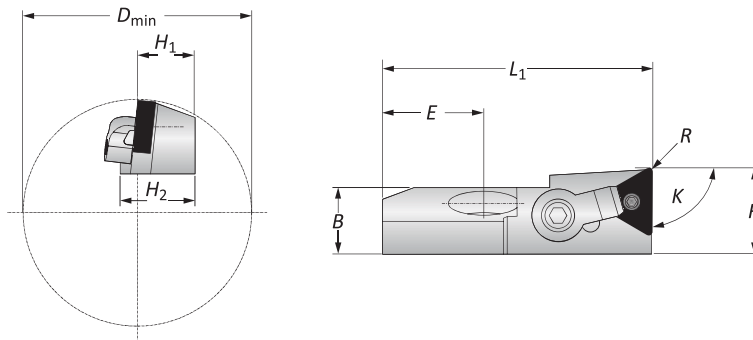


i = Imperial (in)
m = Metric (mm)

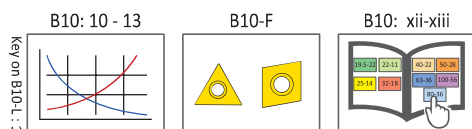
Inserts sold separately



Lay Down Cartridges for Heavy Cutting | Insert Forms 437, 123, 170, 171, 131, 132

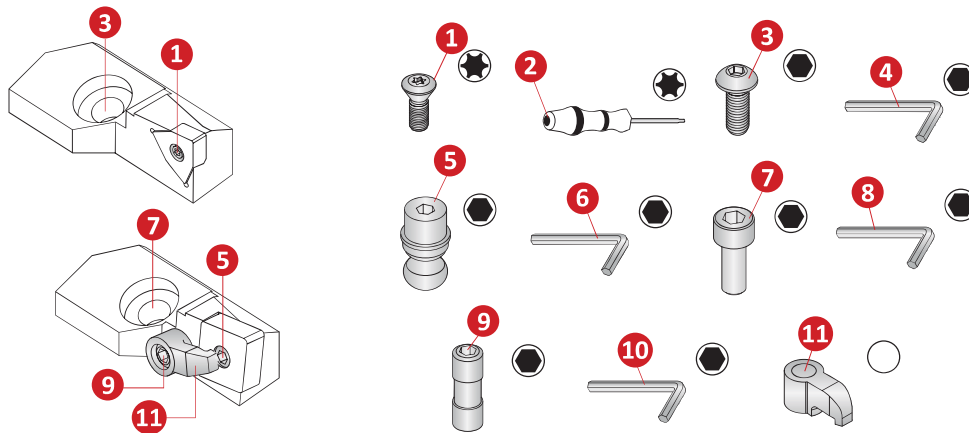
Diameter Range: $\geq 1.574''$ (40.00mm)


Holder Type		K	ISO	D _{min} Boring Range	Designation	Insert Holder							Insert Form	Part No.
						L ₁	B	H ₁	H ₂	F	R Radius	E		
i		90°	CN..09T3..	1.574	MCFNR10CX-09	1.574	0.393	0.393	0.744	0.511	0.031	0.590	437	344028
		90°	CN..1204..	1.968	MCFNR12CX-12	1.732	0.511	0.472	0.929	0.708	0.031	0.551	123	344029
		90°	TN..1103..	1.574	MTFNR10CX-11	1.574	0.393	0.393	0.740	0.511	0.015	0.590	170	344024
		90°	TN..1604..	1.968	MTFNR12CX-16	1.732	0.511	0.472	0.925	0.708	0.031	0.551	171	344025
		85°	SN..0903..	1.574	MSYNR10CX-09	1.574	0.393	0.393	0.803	0.511	0.031	0.590	131	344026
		85°	SN..1204..	1.968	MSYNR12CX-12	1.732	0.511	0.472	0.929	0.708	0.031	0.551	132	344027
m		90°	CN..09T3..	40.00	MCFNR10CX-09	40.00	10.00	10.00	18.90	13.00	0.80	15.00	437	344028
		90°	CN..1204..	50.00	MCFNR12CX-12	44.00	13.00	12.00	23.60	18.00	0.80	14.00	123	344029
		90°	TN..1103..	40.00	MTFNR10CX-11	40.00	10.00	10.00	18.80	13.00	0.40	15.00	170	344024
		90°	TN..1604..	50.00	MTFNR12CX-16	44.00	13.00	12.00	23.50	18.00	0.80	14.00	171	344025
		85°	SN..0903..	40.00	MSYNR10CX-09	40.00	10.00	10.00	20.40	13.00	0.80	15.00	131	344026
		85°	SN..1204..	50.00	MSYNR12CX-12	44.00	13.00	12.00	23.60	18.00	0.80	14.00	132	344027



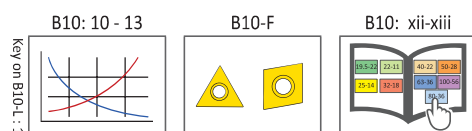
i = Imperial (in)
m = Metric (mm)
Inserts sold separately

Lay Down Cartridge for Heavy Cutting Accessories



	1	2	3	4
Insert Holder Part No.	Insert Screw	Torx Driver	Fixing Holder Screw	Hex Wrench
344001	415966	115537	415997	051110
344002	415967	115591	415998	005195
344003	415967	115591	415998	005195
344004	415974	115664	415999	005195
344005	415974	115664	415999	005195
344006	415975	115664	415999	005195
344007	415975	115664	415999	005195
344008	415975	115664	515100	100102
344009	415975	115664	515100	100102
344010	415966	115537	415997	051110
344011	415967	115591	415998	005195
344012	415967	115591	415998	005195
344013	415974	115664	415999	005195
344014	415974	115664	415999	005195
344015	415975	115664	415999	005195
344016	415975	115664	415999	005195
344017	415975	115664	515100	100102
344018	415975	115664	515100	100102
344019	415967	115591	415998	005195
344020	415973	115664	415999	005195
344021	415973	115664	415998	005195
344022	415969	215150	415999	005195
344023	415973	115664	415999	005195

	5	6	7	8	9	10	11
Insert Holder Part No.	Insert Lock	Hex Wrench	Fixing Holder Set Screw	Hex Wrench	Top Clamp Lock	Hex Wrench	Top Clamp
344024	515100	027148	415998	005195	515104	031148	415976
344025	515101	027149	415999	005195	515104	031148	515105
344026	515101	027149	415999	005195	515104	031148	515105
344027	515103	027149	415999	005195	515104	031148	515105
344028	515101	027149	415999	005195	515104	031148	415976
344029	515103	027149	415999	005195	515104	031148	515105

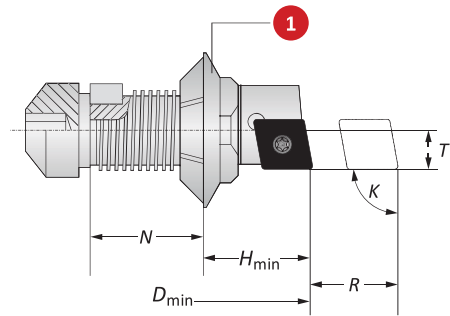
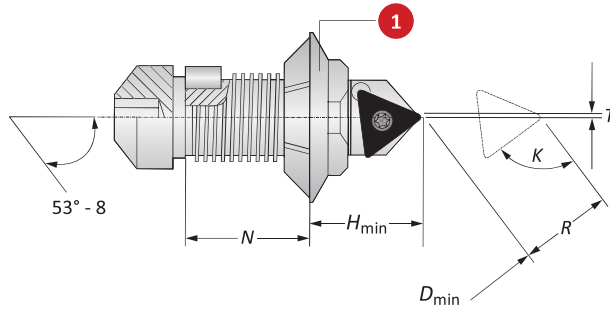


i = Imperial (in)
m = Metric (mm)
Inserts sold separately



Fine Boring Cartridges for Pre-Processing | Insert Forms 101, 159, 160, 161, 163

Diameter Range: $\geq 0.625"$ (15.87mm)



1 Mark on scale corresponds to a diameter adjustment of 0.0007" (0.02mm)

Insert Form 101 Insert Holders

Holder Type		K	ISO	D _{min} Boring Range	Designation	Insert Holder			Insert Form	Part No.	
						R Insert Radius	N	H _{min}			T*
i		90°	CC.0602..	0.933	R3B2C	0.157	0.468	0.437	0.007	101	340011
m		90°	CC.0602..	23.70	R3B2C	4.00	11.90	11.10	0.20	101	340011

*Maximum radial adjustment

Insert Form 101 Insert Holders

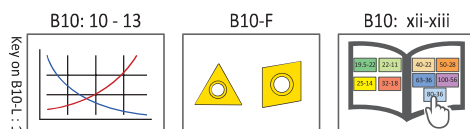
				$D_{\min}$ Boring Range		Insert Holder					
Holder Type		K	ISO		Designation	R Insert Radius	N	$H_{\min}$	T^*	Insert Form	Part No.
i		90°	CC.0602..	1.236	R3A5C	0.015	0.625	0.437	-0.015	101	340024
m		90°	CC.0602..	31.40	R3A5C	0.40	15.90	11.10	-0.40	101	340024

*Maximum radial adjustment

Insert Form 159, 160, 161, 163 Insert Holders

Holder Type		K	ISO	D _{min} Boring Range	Designation	Insert Holder				Insert Form	Part No.
						R Insert Radius	N	H _{min}	T*		
		90°	TC..06T1..	0.625	R2B2S	0.029	0.250	0.370	0.053	159	340004
		90°	TC..06T1..	0.716	R2B2	0.078	0.374	0.370	0.053	159	340002
		90°	TC..06T1..	0.822	R2A2	0.177	0.500	0.370	0.053	159	340001
		90°	TC..06T1..	0.905	R3B1	0.157	0.468	0.444	0.051	159	340010
		90°	TC..0902..	0.984	R3B2	0.157	0.468	0.531	0.031	160	340008
		90°	TC..0902..	1.102	R3A2	0.287	0.625	0.531	0.031	160	340006
		90°	TC..1102..	1.417	R5B2	0.220	0.748	0.669	0.090	161	340014
		90°	TC..1102..	1.614	R5A2	0.421	1.000	0.669	0.090	161	340012
		90°	TC..16T3..	2.283	R7A2	0.503	1.251	1.007	-0.015	163	340017
		90°	TC..06T1..	15.87	R2B2S	0.75	6.35	9.40	1.35	159	340004
		90°	TC..06T1..	18.20	R2B2	2.00	9.50	9.40	1.35	159	340002
		90°	TC..06T1..	20.90	R2A2	4.50	12.70	9.40	1.35	159	340001
		90°	TC..06T1..	23.00	R3B1	4.00	11.90	11.30	1.32	159	340010
		90°	TC..0902..	25.00	R3B2	4.00	11.90	13.50	0.80	160	340008
		90°	TC..0902..	28.00	R3A2	7.30	15.90	13.50	0.80	160	340006
		90°	TC..1102..	36.00	R5B2	5.60	19.00	17.00	2.30	161	340014
		90°	TC..1102..	41.00	R5A2	10.70	25.40	17.00	2.30	161	340012
		90°	TC..16T3..	58.00	R7A2	12.80	31.80	25.60	-0.40	163	340017

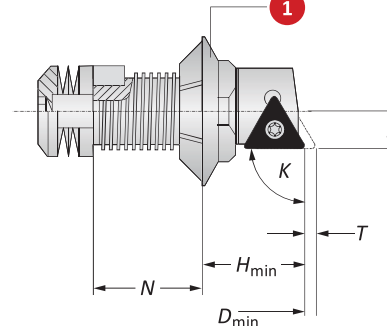
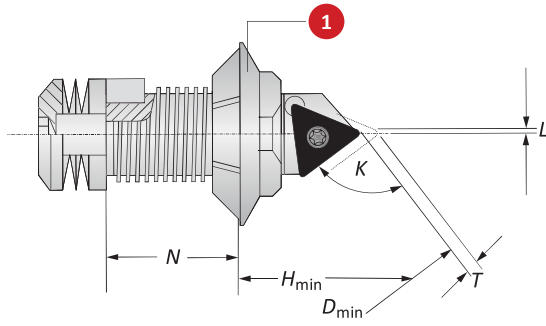
*Maximum radial adjustment



i = Imperial (in)
m = Metric (mm)
Inserts sold separately

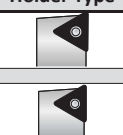
Fine Boring Cartridges for Pre-Processing | Insert Forms 159, 73, 161, 163, 160

Diameter Range: $\geq 0.731"$ (18.57mm)



1 Mark on scale corresponds to a diameter adjustment of 0.0007" (0.02mm)

Insert Form 159, 161, 163 Insert Holders

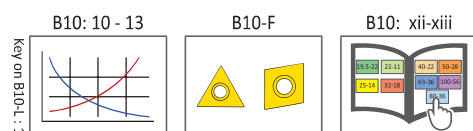
Holder Type	K	ISO	D _{min} Boring Range	Designation	T	R	N	H _{min}	L*	Insert Form	Part No.
	90°	TC..06T1..	0.731	TR2B2S	0.007	0.029	0.250	0.370	0.053	159	340005
	90°	TC..06T1..	0.822	TR2B2	0.007	0.078	0.374	0.370	0.053	159	340003
	90°	TC..0902..	1.086	TR3B2	0.011	0.157	0.468	0.531	0.031	73	340009
	90°	TC..0902..	1.212	TR3A2	0.011	0.287	0.625	0.531	0.031	73	340007
	90°	TC..1102..	1.437	TR5B2	0.015	0.220	0.748	0.669	0.090	161	340015
	90°	TC..1102..	1.102	TR5B2-LH	0.015	0.220	0.748	0.669	0.090	161	340016
	90°	TC..1102..	1.102	TR5A2	0.015	0.421	1.000	0.669	0.090	161	340013
	90°	TC..16T3..	2.244	TR7B2	0.023	0.314	1.000	1.007	-0.015	163	340019
	90°	TC..16T3..	2.421	TR7A2	0.023	0.503	1.251	1.007	-0.015	163	340018
	90°	TC..06T1..	18.57	TR2B2S	0.20	0.75	6.35	9.40	1.35	159	340005
	90°	TC..06T1..	20.90	TR2B2	0.20	2.00	9.50	9.40	1.35	159	340003
	90°	TC..0902..	27.60	TR3B2	0.28	4.00	11.90	13.50	0.80	73	340009
	90°	TC..0902..	30.80	TR3A2	0.28	7.30	15.90	13.50	0.80	73	340007
	90°	TC..1102..	36.50	TR5B2	0.40	5.60	19.00	17.00	2.30	161	340015
	90°	TC..1102..	28.00	TR5B2-LH	0.40	5.60	19.00	17.00	2.30	161	340016
	90°	TC..1102..	28.00	TR5A2	0.40	10.70	25.40	17.00	2.30	161	340013
	90°	TC..16T3..	57.00	TR7B2	0.60	8.00	25.40	25.60	-0.40	163	340019
	90°	TC..16T3..	61.50	TR7A2	0.60	12.80	31.80	25.60	-0.40	163	340018
	90°	TC..16T3..	81.50	TR10A2	0.70	23.00	47.60	31.70	-0.40	163	340020

*Maximum radial adjustment

Insert Form 160 Insert Holders

Holder Type	K	ISO	D _{min} Boring Range	Designation	T	R	N	H _{min}	L*	Insert Form	Part No.
	90°	TC..0909..	1.224	TR3B5L	0.015	0.196	0.468	0.484	0.078	160	340025
	90°	TC..0909..	1.381	TR3A5	0.015	0.358	0.625	0.484	0.118	160	340022
	90°	TC..0909..	31.10	TR3B5L	0.40	5.00	11.90	12.30	2.00	160	340025
	90°	TC..0909..	35.10	TR3A5	0.40	9.10	15.90	12.30	3.00	160	340022

*Maximum radial adjustment

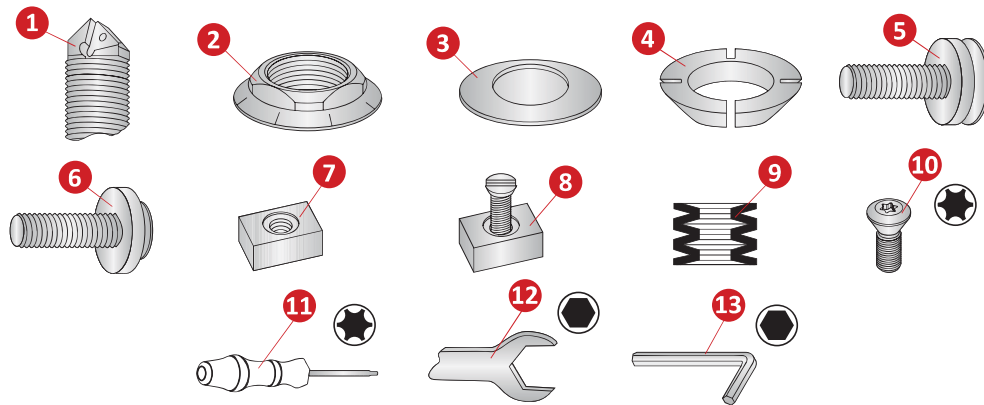


i = Imperial (in)
m = Metric (mm)

Inserts sold separately

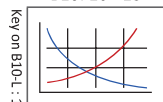


Fine Boring Cartridge Accessories

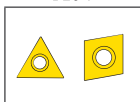


	1	2	3	4	5	6	7	8	9	10	11	12	13
Insert Holder Part No.	Insert Holder	Adjust Dial	Disk Spring	Collet	Screw + Washer	Tightening Bolt	Adjusting Spring	Adjusting Spring + Screw	Spring Package	Insert Screw	Torx Driver	Adjust Wrench	Hex Wrench
340001	340101	—	—	—	340155	—	—	—	—	415970	115537	515271	027149
340002	340102	—	—	—	340155	—	—	—	—	415970	115537	515271	027149
340003	340148	—	—	—	340118	—	—	—	340132	415970	115537	515271	027149
340004	340103	—	—	—	340150	—	—	—	—	415970	115537	515271	027149
340006	340105	340107	340126	340110	—	340138	340143	—	—	415971	115591	515272	031148
340007	340105	340107	340126	340110	340119	—	340143	—	340133	419971	115591	515272	031148
340008	340106	340107	340126	340110	—	340139	340143	—	—	415971	115591	515272	031148
340009	340106	340107	340126	340110	340120	—	340143	—	340133	415971	115591	515272	031148
340010	340104	340107	340126	340110	—	340137	340143	—	—	415971	115591	515272	031148
340012	340115	340109	340127	340111	—	340140	—	340144	—	415967	115591	515272	003195
340013	340115	340109	340129	340111	340121	—	—	340144	340134	415967	115591	515272	003195
340014	340108	340109	340127	340111	—	340141	—	340144	—	415967	115591	515272	003195
340015	340108	340109	340129	340111	340122	—	—	340144	340134	415967	115591	515272	003195
340017	340147	340150	340128	340153	—	340142	—	340145	—	415968	115664	515273	100102
340018	340147	340150	340130	340153	340123	—	—	340145	340135	415968	115664	515273	100102
340019	340149	340150	340130	340153	340124	—	—	340145	340135	415968	115664	515273	100102
340020	340116	340152	340131	340154	340125	—	—	340146	340136	515276	115664	515273	019195
340022	340113	340151	340126	340110	340119	—	340143	—	340133	415971	115591	515272	031148
340025	340114	340151	340126	340110	340120	—	340143	—	340133	415971	115591	515272	031148

B10: 10 - 13



B10-F



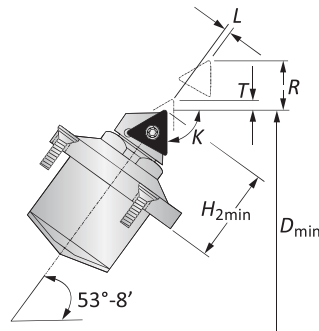
B10: xii-xiii



= Imperial (in)
 = Metric (mm)
 Inserts sold separately

Fine Boring Lay Down Cartridges | Insert Forms 101, 103, 73, 160, 161, 163

Diameter Range: $\geq 0.945"$ (24.00mm)



Insert Form 101, 103 Insert Holders

Holder Type	K	ISO	D_{min} Boring Range	Designation	T	R*	H_{2min}	L**	Insert Form	Part No.
	90°	CC..0602..	1.181	MBTR/SAB2-3B2C	0.011	0.157	0.644	0.007	101	339015
	90°	CC..0602..	1.181	MBTR/SAB2-3B2CLH	0.011	0.157	0.644	0.007	101	339016
	90°	CC..0602..	1.574	MBTR/SAB3-5B2CM	0.015	0.220	0.856	0.047	101	339019
	90°	CC..0602..	1.574	MBTR/SAB3-7B2CLHM	0.015	0.220	0.856	0.047	101	339020
	90°	CC..09T3..	2.283	MBTR/SAB4-7B2C	0.023	0.314	1.282	0.062	103	339023
	90°	CC..09T3..	2.283	MBTR/SAB4-7B2CLH	0.023	0.314	1.282	0.062	103	339024
	90°	CC..0602..	30.00	MBTR/SAB2-3B2C	0.28	4.00	16.35	0.20	101	339015
	90°	CC..0602..	30.00	MBTR/SAB2-3B2CLH	0.28	4.00	16.35	0.20	101	339016
	90°	CC..0602..	40.00	MBTR/SAB3-5B2CM	0.40	5.60	21.75	1.20	101	339019
	90°	CC..0602..	40.00	MBTR/SAB3-7B2CLHM	0.40	5.60	21.75	1.20	101	339020
	90°	CC..09T3..	58.00	MBTR/SAB4-7B2C	0.60	8.00	32.75	1.60	103	339023
	90°	CC..09T3..	58.00	MBTR/SAB4-7B2CLH	0.60	8.00	32.75	1.60	103	339024

*Maximum radial adjustment

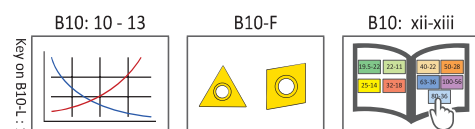
**Measuring point to the tip of the insert

Insert Form 73, 160, 161, 163 Insert Holders

Holder Type	K	ISO	D_{min} Boring Range	Designation	T	R*	H_{2min}	L**	Insert Form	Part No.
	75°	TC..06T1..	0.945	MBTR/SAB-2B2L	0.007	0.078	0.539	-0.059	73	339014
	75°	TC..06T1..	0.945	MBTR/SAB1-2B2LLH	0.007	0.078	0.539	-0.059	73	339027
	75°	TC..0902..	1.181	MBTR/SAB2-3B2C	0.011	0.157	0.740	0.043	160	339017
	75°	TC..0902..	1.181	MBTR/SAB2-3B2LLH	0.011	0.157	0.740	0.043	160	339018
	75°	TC..1102..	1.575	MBTR/SAB3-5B2LM	0.015	0.220	0.881	0.051	161	339021
	75°	TC..1102..	1.575	MBTR/SAB3-5B2LLHM	0.015	0.220	0.881	0.051	161	339022
	75°	TC..16T3..	2.283	MBTR/SAB4-7B2L	0.023	0.314	1.157	-0.125	163	339025
	75°	TC..16T3..	2.283	MBTR/SAB4-7B2LLH	0.023	0.314	1.157	-0.125	163	339026
	75°	TC..06T1..	24.00	MBTR/SAB-2B2L	0.20	2.00	13.70	-1.50	73	339014
	75°	TC..06T1..	24.00	MBTR/SAB1-2B2LLH	0.20	2.00	13.70	-1.50	73	339027
	75°	TC..0902..	30.00	MBTR/SAB2-3B2C	0.28	4.00	18.80	1.10	160	339017
	75°	TC..0902..	30.00	MBTR/SAB2-3B2LLH	0.28	4.00	18.80	1.10	160	339018
	75°	TC..1102..	40.00	MBTR/SAB3-5B2LM	0.40	5.60	22.40	1.30	161	339021
	75°	TC..1102..	40.00	MBTR/SAB3-5B2LLHM	0.40	5.60	22.40	1.30	161	339022
	75°	TC..16T3..	58.00	MBTR/SAB4-7B2L	0.60	8.00	29.40	-3.20	163	339025
	75°	TC..16T3..	58.00	MBTR/SAB4-7B2LLH	0.60	8.00	29.40	-3.20	163	339026

*Maximum radial adjustment

**Measuring point to the tip of the insert



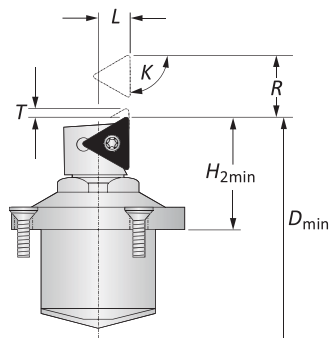
i = Imperial (in)
m = Metric (mm)

Inserts sold separately



Fine Boring Lay Down Cartridges | Insert Forms 101, 103, 73, 160, 161, 163

Diameter Range: $\geq 0.984"$ (25.00mm)



Insert Form 101, 103 Insert Holders

Holder Type	K	ISO	D _{min} Boring Range	Designation	Insert Holder				Insert Form	Part No.
					T	R*	H _{2min}	L**		
	90°	CC..0602..	1.299	MBTR/SAB2-3B5C	0.013	0.196	0.644	0.157	101	339003
	90°	CC..0602..	1.299	MBTR/SAB2-3B5CLH	0.013	0.196	0.644	0.157	101	339004
	90°	CC..0602..	1.771	MBTR/SAB3-5B5CM	0.019	0.275	0.856	0.212	101	339007
	90°	CC..0602..	1.771	MBTR/SAB3-5B5CLHM	0.019	0.275	0.856	0.212	101	339008
	90°	CC..09T3..	2.480	MBTR/SAB4-7B5C	0.029	0.393	1.236	0.250	103	339011
	90°	CC..0602..	33.00	MBTR/SAB2-3B5C	0.35	5.00	16.35	4.00	101	339003
	90°	CC..0602..	33.00	MBTR/SAB2-3B5CLH	0.35	5.00	16.35	4.00	101	339004
	90°	CC..0602..	45.00	MBTR/SAB3-5B5CM	0.50	7.00	21.75	5.40	101	339007
	90°	CC..0602..	45.00	MBTR/SAB3-5B5CLHM	0.50	7.00	21.75	5.40	101	339008
	90°	CC..09T3..	63.00	MBTR/SAB4-7B5C	0.75	10.00	31.40	6.35	103	339011

*Maximum radial adjustment

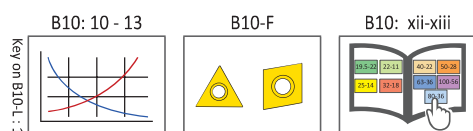
**Measuring point to the tip of the insert

Insert Form 73, 160, 161, 163 Insert Holders

Holder Type	K	ISO	D _{min} Boring Range	Designation	Insert Holder				Insert Form	Part No.
					T	R*	H _{2min}	L**		
	75°	TC..06T1..	0.984	MBTR/SAB-2B5L	0.009	0.098	0.515	0.078	73	339001
	75°	TC..06T1..	0.984	MBTR/SAB1-2B5LLH	0.009	0.098	0.515	0.078	73	339002
	75°	TC..0902..	1.299	MBTR/SAB2-3B5L	0.013	0.196	0.691	0.078	160	339005
	75°	TC..0902..	1.299	MBTR/SAB2-3B5LLH	0.013	0.196	0.691	0.078	160	339006
	75°	TC..1102..	1.771	MBTR/SAB3-5B5LM	0.019	0.275	0.864	0.125	161	339009
	75°	TC..1102..	1.771	MBTR/SAB3-5B5LLHM	0.019	0.275	0.864	0.125	161	339010
	75°	TC..16T3..	2.480	MBTR/SAB4-7B5L	0.029	0.393	1.240	0.244	163	339012
	75°	TC..16T3..	2.480	MBTR/SAB4-7B5LLH	0.029	0.393	1.240	0.244	163	339013
	75°	TC..06T1..	25.00	MBTR/SAB-2B5L	0.25	2.50	13.10	2.00	73	339001
	75°	TC..06T1..	25.00	MBTR/SAB1-2B5LLH	0.25	2.50	13.10	2.00	73	339002
	75°	TC..0902..	33.00	MBTR/SAB2-3B5L	0.35	5.00	17.55	2.00	160	339005
	75°	TC..0902..	33.00	MBTR/SAB2-3B5LLH	0.35	5.00	17.55	2.00	160	339006
	75°	TC..1102..	45.00	MBTR/SAB3-5B5LM	0.50	7.00	21.95	3.20	161	339009
	75°	TC..1102..	45.00	MBTR/SAB3-5B5LLHM	0.50	7.00	21.95	3.20	161	339010
	75°	TC..16T3..	63.00	MBTR/SAB4-7B5L	0.75	10.00	31.50	6.20	163	339012
	75°	TC..16T3..	63.00	MBTR/SAB4-7B5LLH	0.75	10.00	31.50	6.20	163	339013

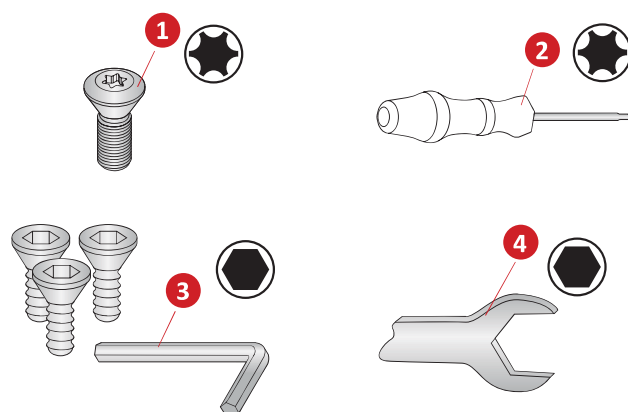
*Maximum radial adjustment

**Measuring point to the tip of the insert

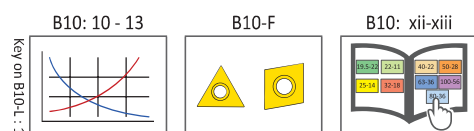


= Imperial (in)
 = Metric (mm)
 Inserts sold separately

Fine Boring Lay Down Cartridge Accessories



	1	2	3	4
Insert Holder Part No.	Insert Screw	Torx Driver	Hex Wrench	Wrench
339001	415970	115537	339101	515271
339002	415970	115537	339101	515271
339003	415967	115591	339101	515272
339004	415967	115591	339101	515272
339005	415971	115591	339101	515272
339006	415971	115591	339101	515272
339007	415967	115591	339102	515272
339008	415967	115591	339102	515272
339009	415967	115591	339102	515272
339010	415967	115591	339102	515272
339011	415968	115664	339103	515273
339012	415968	115664	339103	515273
339013	415968	115664	339103	515273
339014	415970	115537	339101	515271
339015	415967	115591	339101	515272
339016	415967	115591	339101	515272
339017	415971	115591	339101	515272
339018	415971	115591	339102	515272
339019	415967	115591	339102	515272
339020	415967	115591	339102	515272
339021	415967	115591	339102	515272
339022	415967	115591	339102	515272
339023	415968	115664	339103	515273
339024	415968	115664	339103	515273
339025	415968	115664	339103	515273
339026	415968	115664	339103	515273
339027	415970	115537	339101	515271



i = Imperial (in)
m = Metric (mm)
Inserts sold separately

