

Turning & Boring Tools



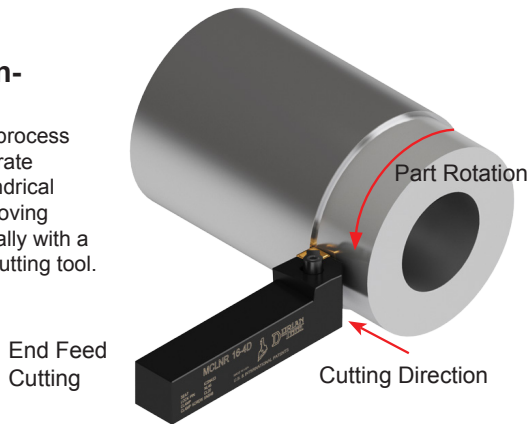
Turning and Boring System

Turning and Boring System

Turning and Boring Operations	Page C-3
Turning Toolholder Identification System	Page C-6 - C-7
Multi-Lock Toolholders	Page C-8 - C-26
Cam-Lock Toolholders	Page C-27
Wedge-Lock Toolholders	Page C-28
Profile Toolholders	Page C-28
Clamp-Lock Toolholders	Page C-29 - C-33
Screw-Lock Toolholders	Page C-34 - C-55
Dor-Lock Toolholders	Page C-56 - C-60
Boring Bar Identification System	Page C-62 - C-63
Multi-Lock Negative Insert Boring Bars	Page C-65 - C-70
Clamp-Lock	Page C-70
Screw-Lock 7° Positive Insert Boring Bars	Page C-71 - C-77
Screw-Lock 11° Positive Insert Boring Bars	Page C-78 - C-81
High Performance, Utility Boring Bars	Page C-82
Miniature - Screw-Lock 7° Positive Insert Boring Bars	Page C-83 - C-85
Double Insert Boring Bars & Toolholders	Page C-86 - C-88
Miniature - Double Insert Boring Bars & Toolholders	Page C-89
Miniature & Medium Boring Bar Sets	Page C-90
Turning and Boring Spare Parts	Page C-91 - C-92

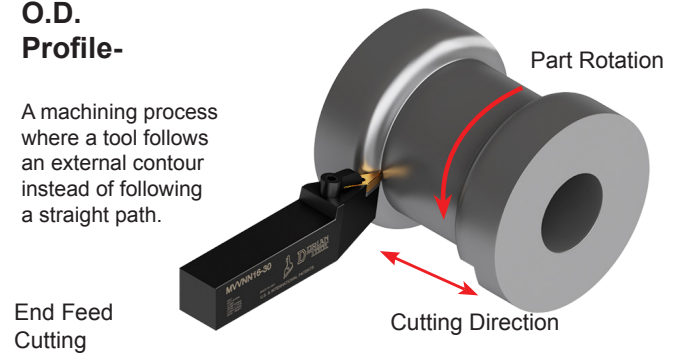
Turning Operation-

A machining process used to generate external, cylindrical forms by removing material, usually with a single-point cutting tool.



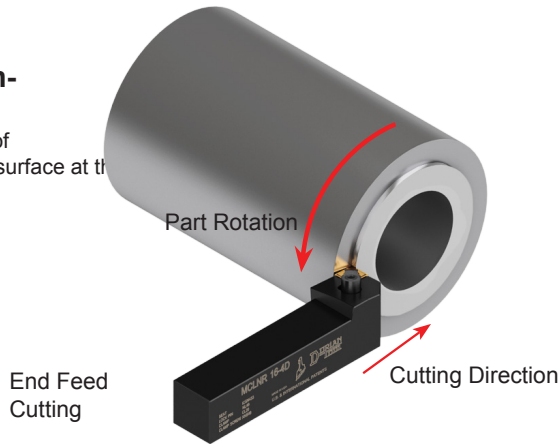
O.D. Profile-

A machining process where a tool follows an external contour instead of following a straight path.



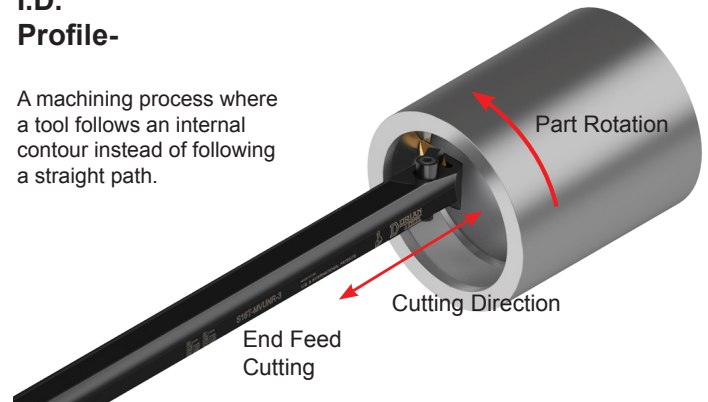
Facing Operation-

The process of making a flat surface at the end of a part.



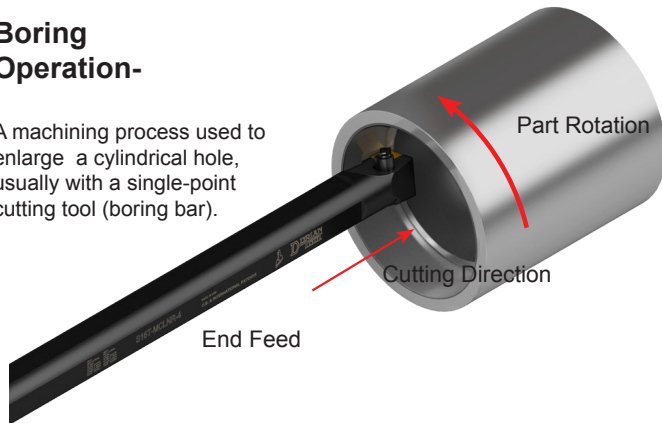
I.D. Profile-

A machining process where a tool follows an internal contour instead of following a straight path.



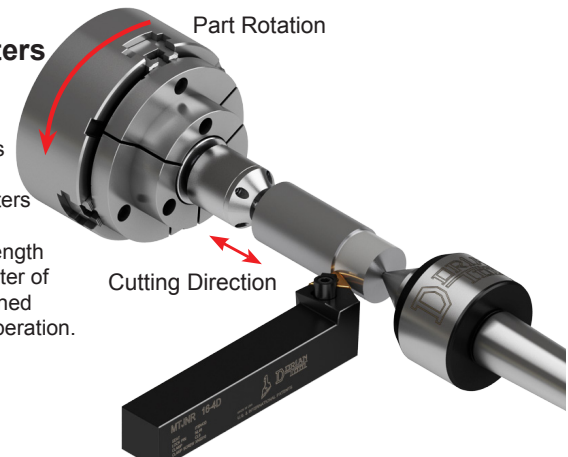
Boring Operation-

A machining process used to enlarge a cylindrical hole, usually with a single-point cutting tool (boring bar).



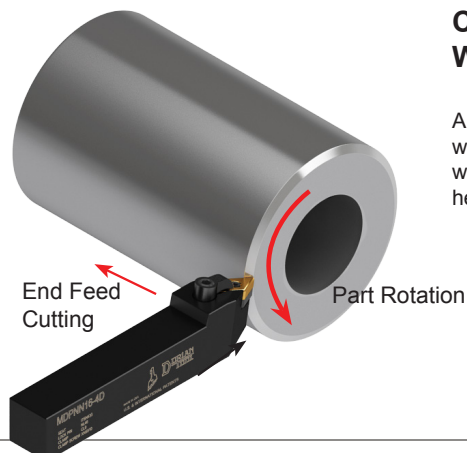
Between Centers Work-

A machining process where a work piece is held by using centers on each end. It allows the entire length of the outside diameter of the part to be machined in one continuous operation.



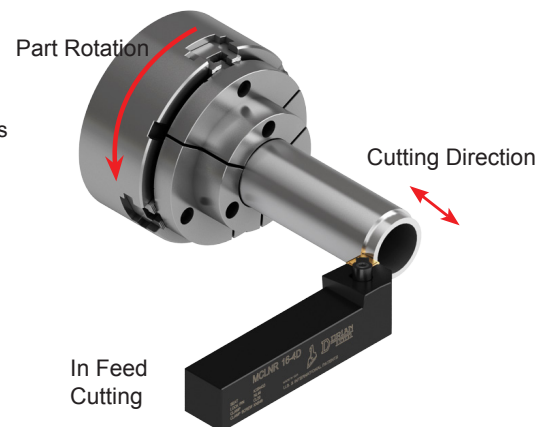
Chamfering Operation-

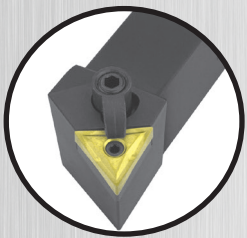
Metal turning operation used to remove sharp edges from workpiece diameter.



Chuck Work-

A machining process where any type of workpiece has to be held by a chuck.

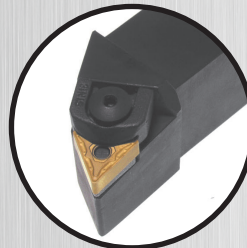




"M" - Multi-Lock Toolholder System

- Maximum rigidity
- Utilizes lock pin and clamp
- Holds insert and seat secure for less vibration

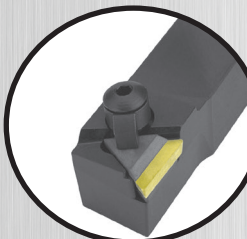
Page C-8 - C-26



"W" - Wedge Lock Toolholder System

- Excellent locking ability
- Easier to index or change insert without the lock pin
- Allows for an optional chip breaker to be placed on the insert

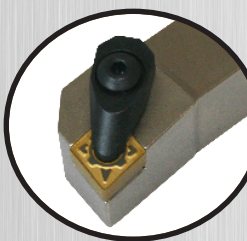
Page C-28



"C" - Clamp-Lock Toolholder System

- Excellent locking ability
- Easier to index or change insert without the lock pin
- Allows for an optional chip breaker to be placed on the insert

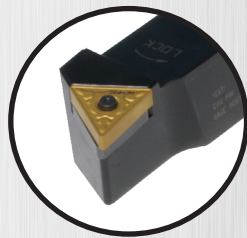
Page C-29 - C-33



"D" - Dor Lock Toolholder System

- Excellent locking ability

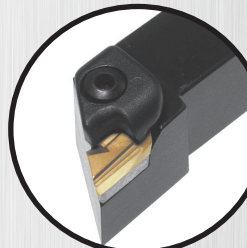
Page C-56 - C-60



"T" Cam-Lock Toolholder

- One locking action to secure the insert
- Two second change over
- Triangular negative turning insert

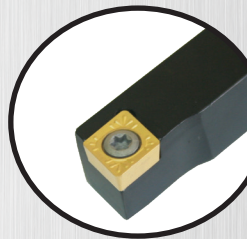
Page C-27



"P" - Profile Toolholder System

- Easy to index insert
- Uses special clamp for a secure positive lock with more force

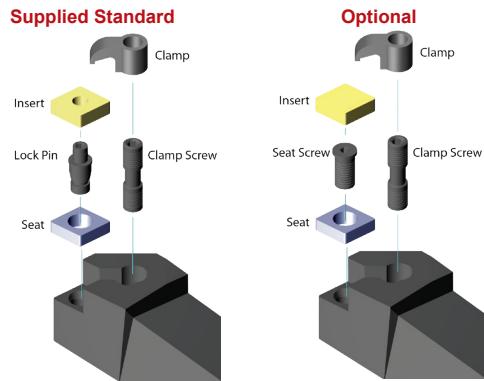
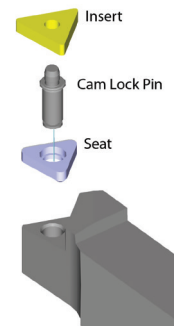
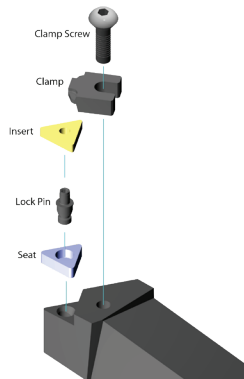
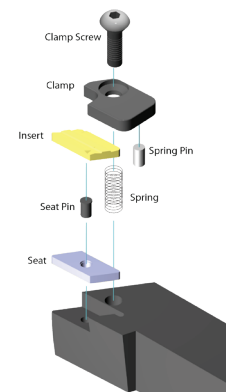
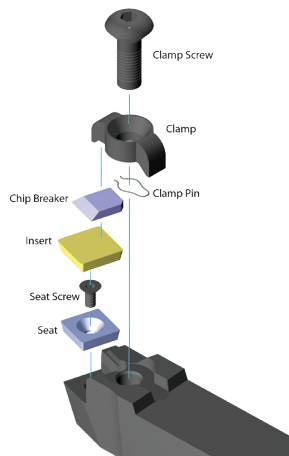
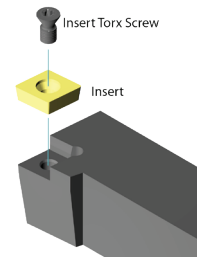
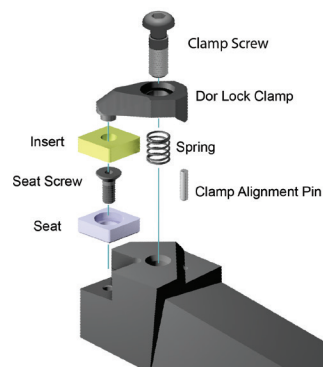
Page C-28

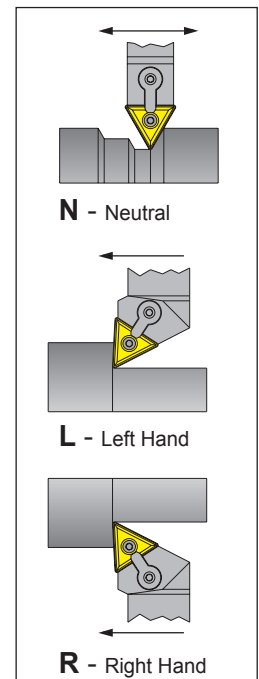
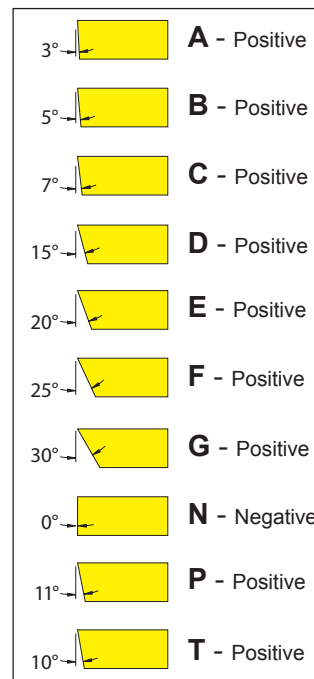
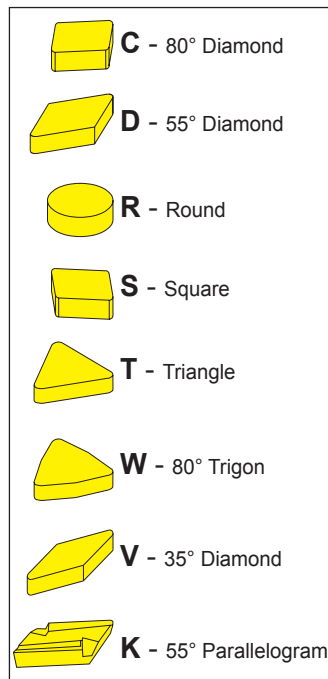
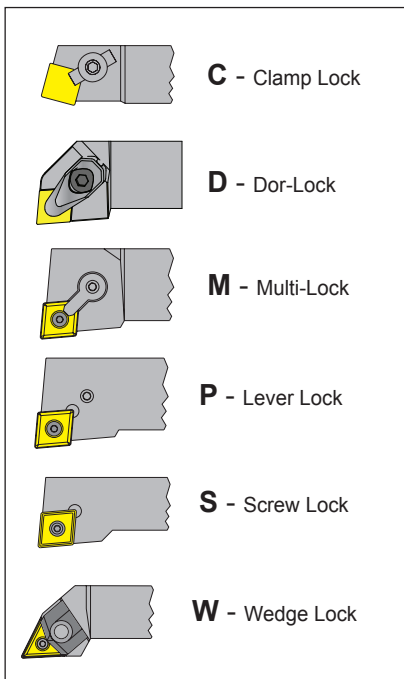


"S" - Screw-Lock Toolholder System

- Easy to index insert
- Uses Torx screw for a secure lock with more force

Page C-34 - C-55

"M" - Multi-Lock Toolholder System Spare Parts**"T" Cam-Lock Toolholder System Spare Parts****"W" - Wedge Lock Toolholder System Spare Parts****"P" - Profile Toolholder System Spare Parts****"C" - Clamp-Lock Toolholder System Spare Parts****"S" - ISO Screw-Lock Toolholder System Spare Parts****"D" - Dor Lock Toolholder System Spare Parts**

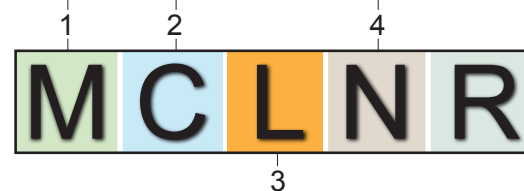


1. Holding Method

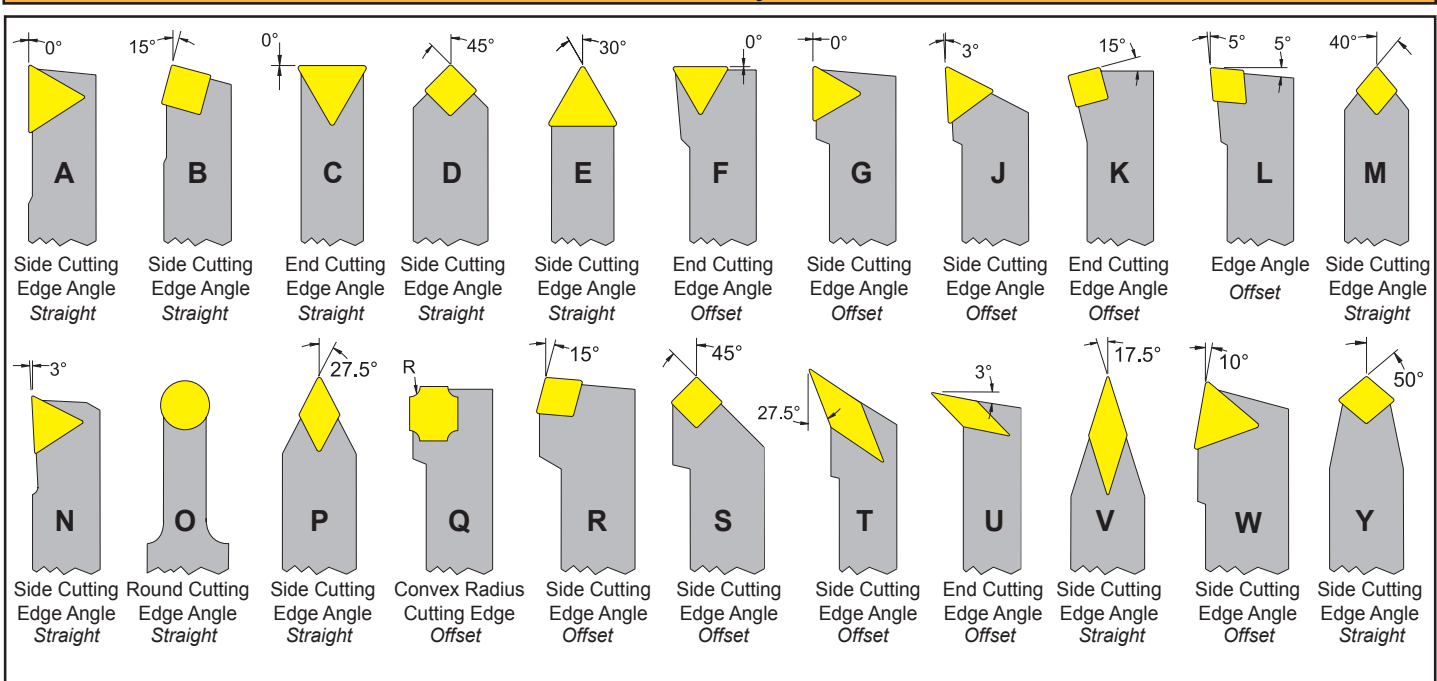
2. Insert Geometry

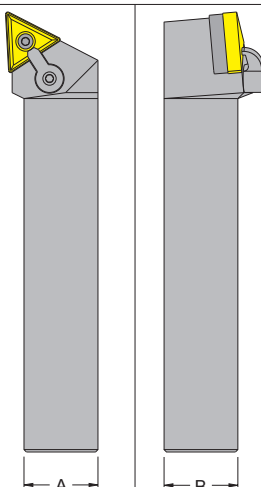
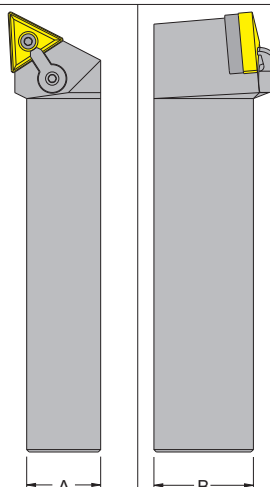
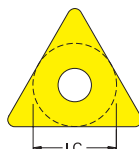
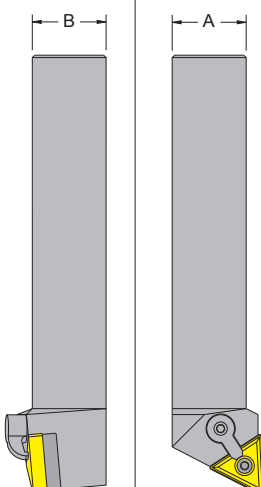
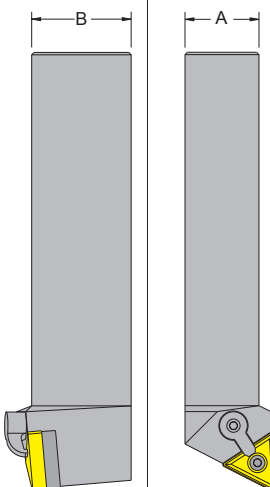
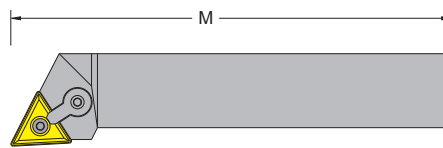
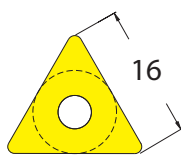
4. Insert Clearance Angle

5. Hand of Tool

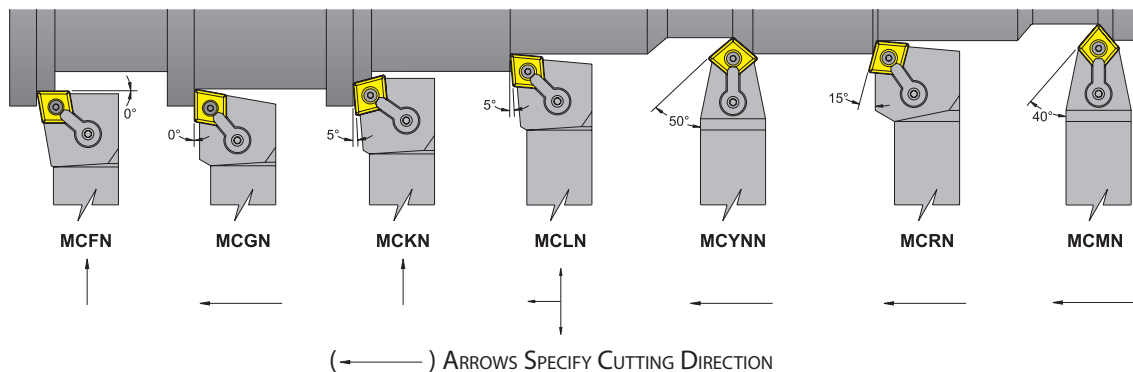


3. Tool Style

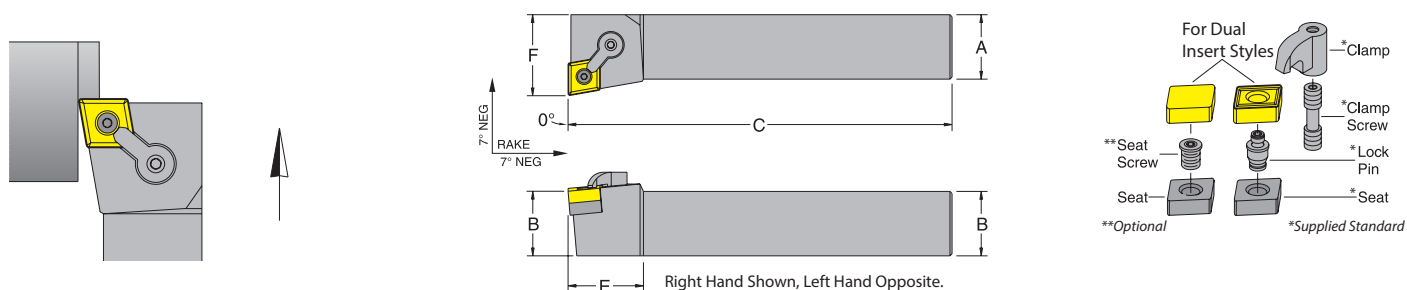


Expressed in 1/16" Increments EX: 16 units (16 x 1/16") = 1" square <i>1/2" square and below will start with a 0. EX: 1/2" = 08</i> 	"A" expressed in 1/8" Increments "B" expressed in 1/4" Increments EX: 64 (6 x 1/8") & (4 x 1/4") = 3/4" x 1" 	Insert I.C. (Inscribed Circle): Measures surface in 1/8" or 1/32" increments, 1 unit = 1/8" EX: 4 units (4 x 1/8") = 1/2"  Note: Old A.N.S.I. standards may apply for I.C.s under 1/4" (if > 1/4" I.C., 1 unit = 1/32")	J - 3 - 1/2" A - 4.0" B - 4 - 1/2" C - 5.0" D - 6.0" E - 7.0" F - 8.0" 
6. Square Size	7. Rectangle Size	8. Insert Size I.C.	9. Length
7 7 6 1 6 6 25 25 7 7		8 9 4 D Inch M 16 Metric 8 9	
6. Square Size	7. Rectangle Size	9. Length	9. Insert Size
		 D - 60mm E - 70mm F - 80mm H - 100mm K - 125mm M - 150mm P - 170mm	Cutting Edge Length shown in 1mm increments 
Expressed in 1mm Increments EX: 2525 = 25mm square	Expressed in 1mm Increments EX: 3225 = 32mm height x 25mm width		

MC - Style Toolholders Turning Application



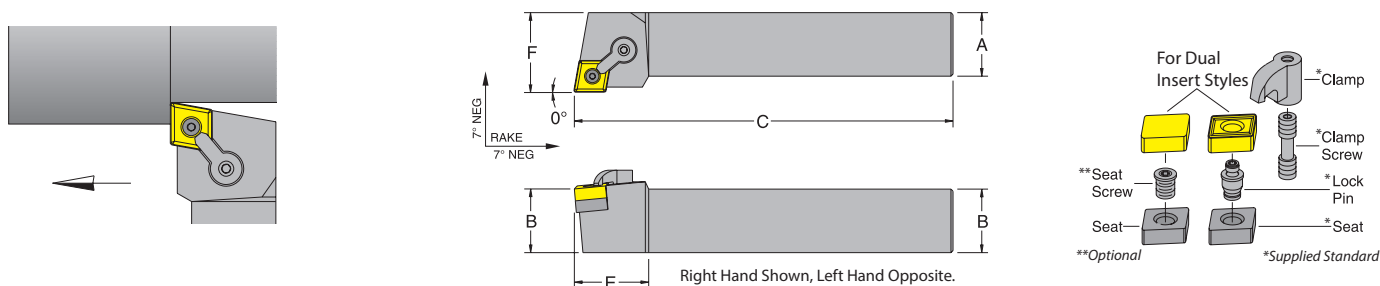
MCFN R/L Toolholder Style F - 0° End Cutting Edge Angle for negative 80° diamond CNM_ inserts



Inch Description	UPC No. 733101-		A	B	C	E	F	CNM_ Gage Insert	Seat	Lock Pin	Clamp	Clamp Screw	Optional Seat Screw
	R.H.	L.H.											
MCFNR/L12-4B	-	50011	0.75	0.75	4.50	1.250	1.000	432	ICSN-433	NL-46	CL-20	XNS-48	S-46
MCFNR/L16-4C	50014	50015	1.00	1.00	5.00	1.250	1.250						
MCFNR/L16-4D	50018	50019	1.00	1.00	6.00	1.250	1.250						
MCFNR/L16-5D	50022	50023	1.00	1.00	6.00	1.375	1.250	543	ICSN-533	NL-58	CL-12	XNS-510	S-58
MCFNR/L16-6D	50026	50027	1.00	1.00	6.00	1.500	1.250	643	ICSN-633	NL68	CL-9	XNS-510	S-68

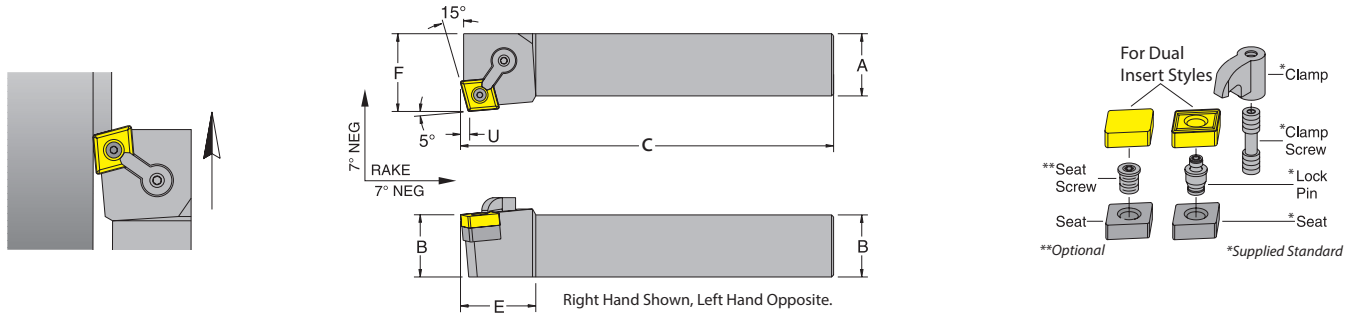
For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

MCGN R/L Toolholder Style G- 0° Side Cutting Edge Angle for negative 80° diamond CNM_ inserts



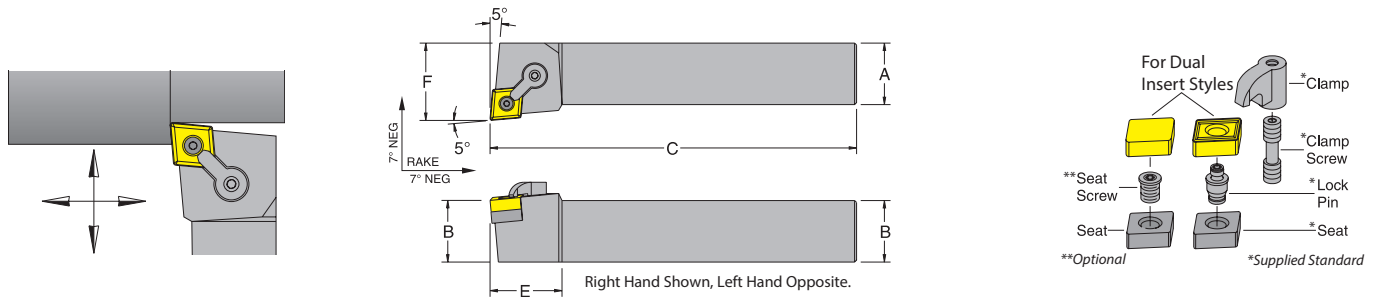
Inch Description	UPC No. 733101-		A	B	C	E	F	CNM_ Gage Insert	Seat	Lock Pin	Clamp	Clamp Screw	Optional Seat Screw
	R.H.	L.H.											
MCGNR/L12-4B	50036	50037	0.75	0.75	4.50	1.250	1.000	432	ICSN-433	NL-46	CL-20	XNS-48	S-46
MCGNR/L16-4C	-	50041	1.00	1.00	5.00	1.250	1.250						
MCGNR/L16-4D	50044	50045	1.00	1.00	6.00	1.250	1.250						
MCGNR/L16-5D	50048	50049	1.00	1.00	6.00	1.375	1.250	543	ICSN-533	NL-58	CL-12	XNS-510	S-58
MCGNR/L16-6D	-	50053	1.00	1.00	6.00	1.625	1.250	643	ICSN-633	NL-68	CL-12	XNS-510	S-68
MCGNR/L85-6D	50056	50057	1.00	1.25	6.00	1.625	1.250						

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

MCKN R/L Toolholder Style K- 15° End Cutting Edge Angle for negative 80° diamond CNM_ inserts

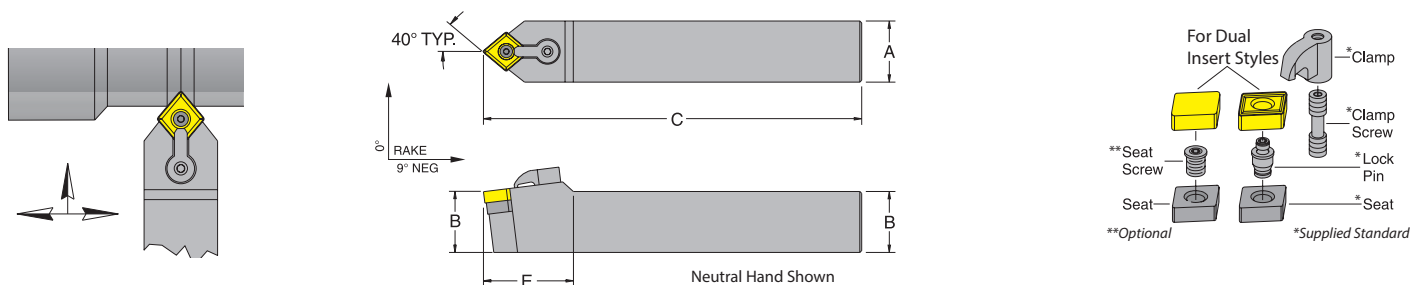
Inch Description	UPC No. 733101-		A	B	C	E	F	U	CNM_ Gage Insert	Seat	Lock Pin	Clamp	Clamp Screw	Optional Seat Screw
	R.H.	L.H.												
MCKNR/L12-4B	50066	50067	0.75	0.75	4.50	1.250	1.000	.123	432	ICSN-433	NL-46	CL-20	XNS-48	S-46
MCKNR/L16-4C	50070	50071	1.00	1.00	5.00	1.250	1.250	.123						
MCKNR/L16-4D	50074	50075	1.00	1.00	6.00	1.250	1.250	.123						
MCKNR/L20-4D	50078	50079	1.25	1.25	6.00	1.250	1.500	.123						
MCKNR/L16-5D	50082	50083	1.00	1.00	6.00	1.375	1.250	.151	543	ICSN-533	NL-58	CL-9	XNS-59	S-58
MCKNR/L20-5D	50086	50087	1.25	1.25	6.00	1.375	1.500	.151						
MCKNR/L85-5D	50090	50091	1.00	1.25	6.00	1.375	1.250	.151						
MCKNR/L16-6D	-	50095	1.00	1.00	6.00	1.500	1.250	.184	643	ICSN-633	NL-68	CL-12	XNS-510	S-68
MCKNR/L20-6D	50098	50099	1.25	1.25	6.00	1.500	1.500	.184						
MCKNR/L24-6E	50102	50103	1.50	1.50	7.00	1.500	2.000	.184						
MCKNR/L86-6E	50106	50107	1.00	1.50	7.00	1.500	1.250	.184						

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

MCLN R/L Toolholder Style L - Negative 5° End or Side Cutting Edge Angle for negative 80° diamond CNM_ inserts

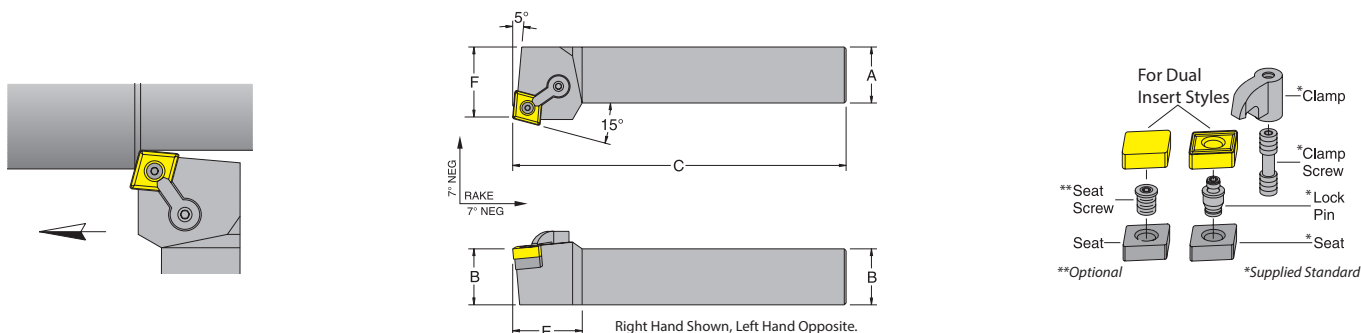
Inch Description	UPC No. 733101-		A	B	C	E	F	CNM_ Gage Insert	Seat	Lock Pin	Clamp	Clamp Screw	Optional Seat Screw
	R.H.	L.H.											
MCLNR/L08-3A	50108	50109	0.500	0.500	4.00	1.000	0.750	322	-	NL-33	CL-6	XNS-37	-
MCLNR/L10-3A	50118	50119	0.625	0.625	4.00	1.000	0.875						
MCLNR/L12-3B	50110	50111	0.750	0.750	4.50	1.000	1.000	322	ICSN-332	NL-34L	CL-6	XNS-37	S-34
MCLNR/L16-3C	50112	50113	1.000	1.000	5.00	1.000	1.250						
MCLNR/L10-4B	50116	50117	0.625	0.625	4.50	1.250	1.000						
MCLNR/L12-4B	50120	50121	0.750	0.750	4.50	1.250	1.000						
MCLNR/L16-4C	50124	50125	1.000	1.000	5.00	1.250	1.250	432	ICSN-433	NL-46	CL-20	XNS-48	S-46
MCLNR/L16-4D	50128	50129	1.000	1.000	6.00	1.250	1.250						
MCLNR/L20-4D	50132	50133	1.250	1.250	6.00	1.250	1.500						
MCLNR/L24-4D	50136	50137	1.500	1.500	6.00	1.250	2.000						
MCLNR/L24-4E	50140	50141	1.500	1.500	7.00	1.250	2.000						
MCLNR/L85-4D	50144	50145	1.000	1.250	6.00	1.250	1.250						
MCLNR/L16-5C	50148	50149	1.000	1.000	5.00	1.375	1.250	543	ICSN-533	NL-58	CL-12	XNS-510	S-58
MCLNR/L16-5D	50152	50153	1.000	1.000	6.00	1.375	1.250						
MCLNR/L20-5D	50156	50157	1.250	1.250	6.00	1.375	1.500						
MCLNR/L86-5E	50160	-	1.000	1.500	7.00	1.375	1.250	643	ICSN-633	NL-68	CL-12	XNS-510	S-68
MCLNR/L16-6C	50164	50165	1.000	1.000	5.00	1.500	1.250						
MCLNR/L16-6D	50168	50169	1.000	1.000	6.00	1.500	1.250						
MCLNR/L20-6D	50172	-	1.250	1.250	6.00	1.500	1.500						
MCLNR/L20-6E	50174	50175	1.250	1.250	7.00	1.500	1.500						
MCLNR/L24-6D	50176	50177	1.500	1.500	6.00	1.500	2.000						
MCLNR/L24-6E	50180	50181	1.500	1.500	7.00	1.500	2.000						
MCLNR/L85-6D	50184	50185	1.000	1.250	6.00	1.500	1.250						
MCLNR/L86-6E	50188	50189	1.000	1.500	7.00	1.500	1.250						

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

MCMNN Toolholder Style M - 40° Side Cutting Edge Angle for negative 80° diamond CNM_ inserts

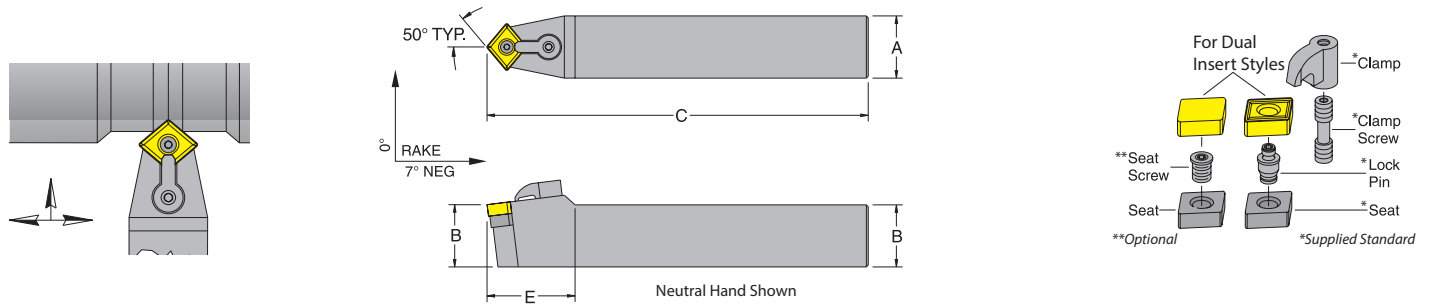
Inch Description	Part No. 733101-	A	B	C	E	CNM_ Gage Insert	Seat	Lock Pin	Clamp	Clamp Screw	Optional Seat Screw
MCMNN12-4B	50198	0.75	0.75	4.50	1.500	432	ICSN-433	NL-46	CL-12	XNS-59	S-46
MCMNN16-4D	50200	1.00	1.00	6.00	1.500	432	ICSN-433	NL-46	CL-12	XNS-510	S-46
MCMNN16-5D	50202	1.00	1.00	6.00	1.750	543	ICSN-533	NL-58	CL-12	XNS-510	S-58
MCMNN20-5D	50204	1.25	1.25	6.00	1.750						
MCMNN16-6D	50206	1.00	1.00	6.00	2.000	643	ICSN-633	NL-68	CL-30	XNS-59	S-68
MCMNN20-6D	50208	1.25	1.25	6.00	2.000	643	ICSN-633	NL-68	CL-30	XNS-510	S-68

For inserts see pages 56-87. For spare parts see pages 158-159.

MCRN R/L Toolholder Style R - 15° Side Cutting Edge Angle for negative 80° diamond CNM_ inserts

Inch Description	UPC No. 733101-		A	B	C	E	F	CNM_ Gage Insert	Seat	Lock Pin	Clamp	Clamp Screw	Optional Seat Screw
MCRNR/L 12-3B	50218	50219	0.75	0.75	4.5	0.875	0.800	432	ICSN-332	NL-34L	CL-6	XNS-37	S-34
MCRNR/L 12-4B	50220	50221	0.75	0.75	4.5	1.250	0.750						
MCRNR/L 16-4C	50224	-	1.00	1.00	5.0	1.250	1.250						
MCRNR/L 16-4D	50228	50229	1.00	1.00	6.0	1.250	1.250						
MCRNR/L 20-4D	50232	50233	1.25	1.25	6.0	1.250	1.500						
MCRNR/L 24-4E	50236	50237	1.50	1.50	7.0	1.250	2.000	543	ICSN-533	NL-58	CL-9	XNS-510	S-58
MCRNR/L 16-5D	50240	50241	1.00	1.00	6.0	1.375	1.250						
MCRNR/L 20-5D	50244	50245	1.25	1.25	6.0	1.375	1.500						
MCRNR/L 85-5D	50248	50249	1.00	1.25	6.0	1.375	1.250						
MCRNR/L 16-6D	50252	50253	1.00	1.00	6.0	1.500	1.250	643	ICSN-633	NL-68	CL-12	XNS-510	S-68
MCRNR/L 20-6D	50256	50257	1.25	1.25	6.0	1.500	1.500						
MCRNR/L 24-6E	50260	50261	1.50	1.50	7.0	1.500	2.000						
MCRNR/L 86-6E	50264	-	1.00	1.50	7.0	1.500	1.250						

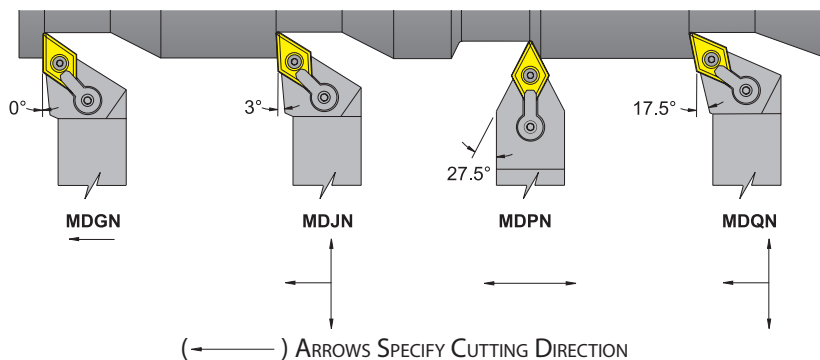
For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

MCYN N Toolholder Style Y - 50° Side Cutting Edge Angle for negative 80° diamond CNM_ Inserts


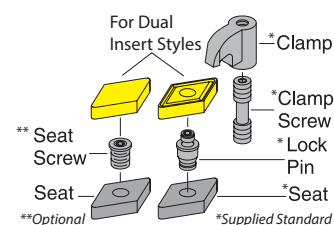
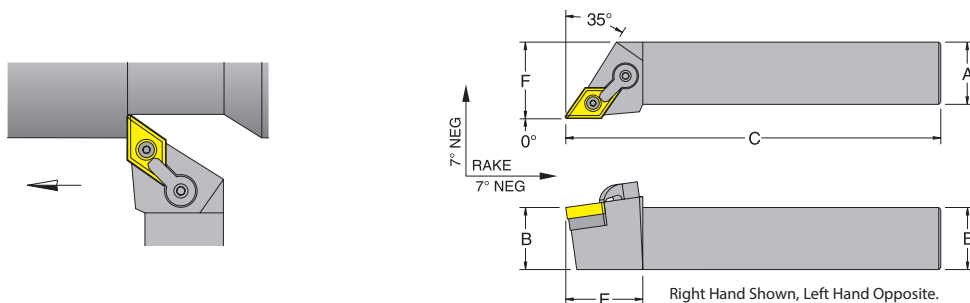
Inch Description	Part No. 733101-	A	B	C	E	CNM_ Gage Insert	Seat	Lock Pin	Clamp	Clamp Screw	Optional Seat Screw
MCYNN12-4B	50274	0.75	0.75	4.5	1.375	432	ICSN-433	NL-46	CL-20	XNS-48	S-46
MCYNN16-4D	50276	1.00	1.00	6.0	1.375						
MCYNN85-4D	50278	1.00	1.25	6.0	1.375						
MCYNN16-5D	50280	1.00	1.00	6.0	1.625	543	ICSN-533	NL-58	CL-12	XNS-510	S-58
MCYNN16-6D	50284	1.00	1.00	6.0	1.750	643	ICSN-633	NL68	CL-12	XNS-510	S-68
MCYNN20-6D	50286	1.25	1.25	6.0	1.750						
MCYNN24-6E	50288	1.50	1.50	7.0	1.750						

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

MD - Style Toolholders



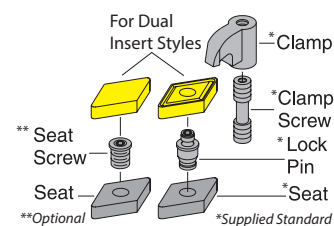
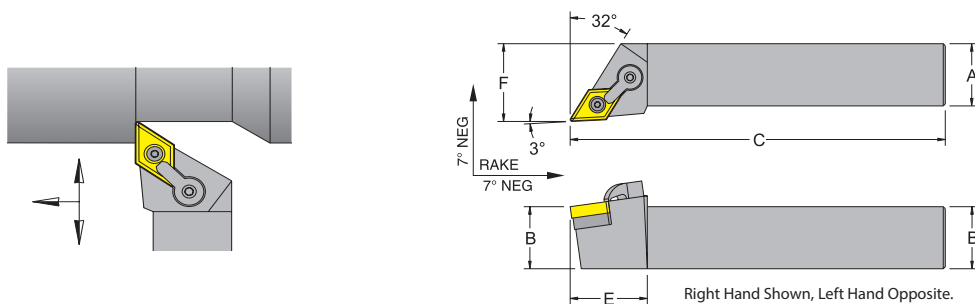
MDGN R/L Toolholder Style G- 0° Side Cutting Edge Angle for negative 55° diamond DNM_ inserts



Inch Description	UPC No. 733101-		A	B	C	E	F	DNM_ Gage Insert	Seat	Lock Pin	Clamp	Clamp Screw	Optional Seat Screw
	R.H.	L.H.											
MDGNR/L12-4B	50298	-	0.75	0.75	4.50	1.25	1.00	432	IDSN-433	NL-46	CL-7	XNS-36	S-46
MDGNR/L16-4D	50302	-	1.00	1.00	6.00	1.25	1.25	432	IDSN-433	NL-46	CL-20	XNS-48	S-46
MDGNR/L16-5D	50306	50307	1.00	1.00	6.00	1.75	1.25	543	IDSN-533	NL58	CL-12	XNS-510	S-58

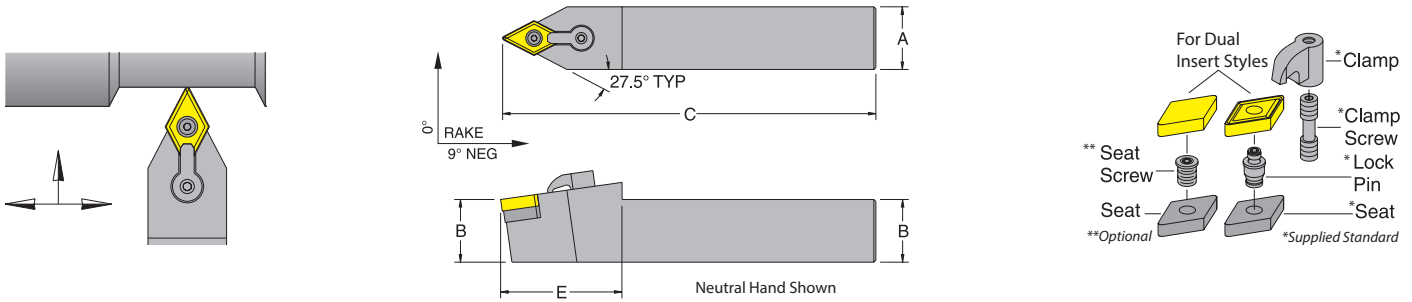
For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

MDJN R/L Toolholder Style J- 3° Side Cutting Edge Angle for negative 55° diamond DNM_ inserts



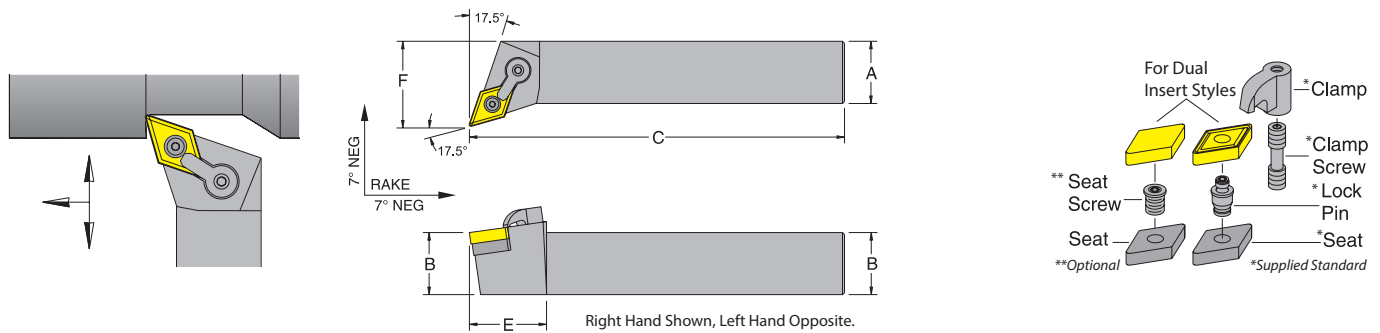
Inch Description	UPC No. 733101-		A	B	C	E	F	DNM_ Gage Insert	Seat	Lock Pin	Clamp	Clamp Screw	Optional Seat Screw
	R.H.	L.H.											
MDJNR/L08-3A	50316	50317	0.500	0.500	4.00	1.250	0.750	332	-	NL-33	CL-7	XNS-36	-
MDJNR/L10-3B	50320	50321	0.625	0.625	4.50	1.250	0.875	332	IDSN-322	NL-34L	CL-7	XNS-36	S-34
MDJNR/L12-3B	50312	50313	0.750	0.750	4.50	1.250	1.000						
MDJNR/L16-3C	50314	50315	1.000	1.000	5.00	1.250	1.250						
MDJNR/L16-3D	51318	51319	1.000	1.000	6.00	1.250	1.250	432	IDSN-433	NL-46	CL-7	XNS-36	S-46
MDJNR/L12-4B	50324	50325	0.750	0.750	4.50	1.250	1.000						
MDJNR/L16-4C	50328	50329	1.000	1.000	5.00	1.250	1.250						
MDJNR/L16-4D	50332	50333	1.000	1.000	6.00	1.250	1.250	432	IDSN-433	NL-46	CL-20	XNS-48	S-46
MDJNR/L20-4E	50336	50337	1.250	1.250	6.00	1.250	1.500						
MDJNR/L24-4D	50340	50341	1.500	1.500	6.00	1.250	2.000						
MDJNR/L24-4E	50344	50345	1.500	1.500	7.00	1.250	2.000	543	IDSN-533	NL-58	CL-12	XNS-510	S-58
MDJNR/L85-4D	50348	50349	1.000	1.250	6.00	1.250	1.250						
MDJNR/L16-5C	50350	50351	1.000	1.000	5.00	1.750	1.250						
MDJNR/L16-5D	50352	50353	1.000	1.000	6.00	1.750	1.250	543	IDSN-533	NL-58	CL-12	XNS-510	S-58
MDJNR/L20-5D	50356	50357	1.250	1.250	6.00	1.750	1.500						
MDJNR/L24-5D	50360	-	1.500	1.500	6.00	1.750	2.000						
MDJNR/L24-5E	50364	50365	1.500	1.500	7.00	1.750	2.000	543	IDSN-533	NL-58	CL-12	XNS-510	S-58
MDJNR/L86-5E	50368	-	1.000	1.500	7.00	1.750	1.250						

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

MDPN N Toolholder Style P- 27.5° Side Cutting Edge Angle for negative 55° diamond DNM_ inserts


Inch Description	Part No. 733101-	A	B	C	E	DNM_ Gage Insert	Seat	Lock Pin	Clamp	Clamp Screw	Optional Seat Screw
MDPNN12-4B	50370	0.75	0.75	4.50	1.75	432	IDSN-433	NL-46	CL-12	XNS-510	S-46
MDPNN16-4D	50372	1.00	1.00	6.00	1.75						
MDPNN20-4D	50374	1.25	1.25	6.00	1.75						
MDPNN16-5D	50376	1.00	1.00	6.00	2.00	543	IDSN-533	NL-58	CL-12	XNS-510	S-58
MDPNN20-5D	50378	1.25	1.25	6.00	2.00						
MDPNN24-5D	50380	1.50	1.50	6.00	2.00						

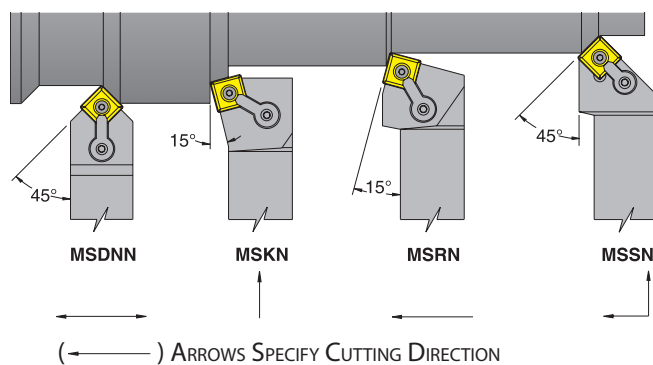
For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

MDQN R/L Toolholder Style Q- 17.5° Side Cutting Edge Angle for negative 55° diamond DNM_ inserts


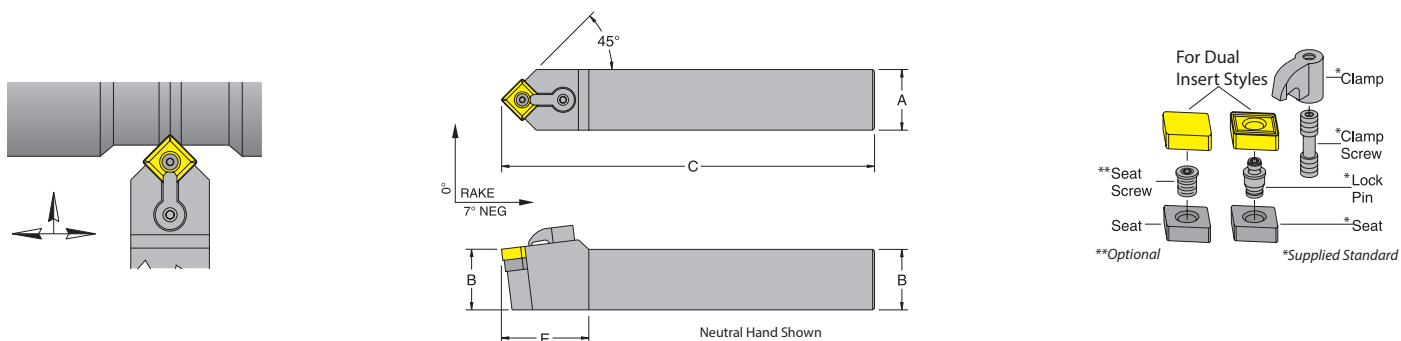
Inch Description	UPC No. 733101-		A	B	C	E	F	DNM_ Gage Insert	Seat	Lock Pin	Clamp	Clamp Screw	Optional Seat Screw
	R.H.	L.H.											
MDQNR/L12-4B	50371	50373	0.75	0.75	4.5	1.37	1.00	432	IDSN-433	NL-46	CL-20	XNS-48	S-46
MDQNR/L16-4C	50375	50377	1.00	1.00	5.0	1.37	1.25						
MDQNR/L16-4D	50379	50381	1.00	1.00	6.0	1.37	1.25						
MDQNR/L20-4D	50383	50385	1.25	1.25	6.0	1.37	1.50						
MDQNR/L24-4D	50387	50389	1.50	1.50	6.0	1.37	2.00	543	IDSN-533	NL-58	CL-12	XNS-510	S-58
MDQNR/L20-5D	50395	50397	1.25	1.25	6.0	1.47	1.50						
MDQNR/L24-5E	50403	-	1.50	1.50	7.0	1.47	2.00						

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

MS - Style Toolholders

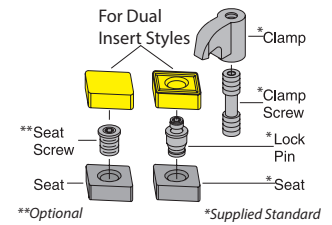
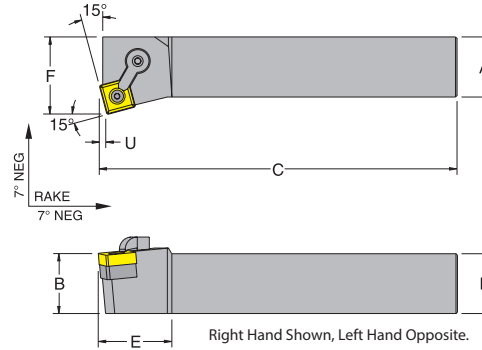
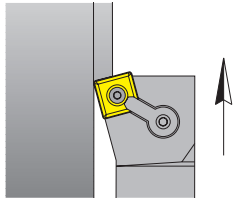


MSDN N Toolholder Style D - 45° Side Cutting Edge Angle for negative square SNM_ inserts



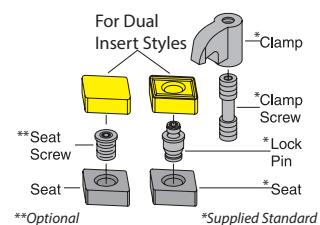
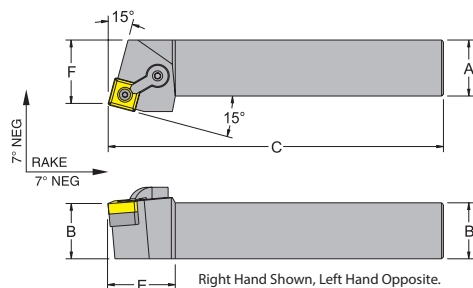
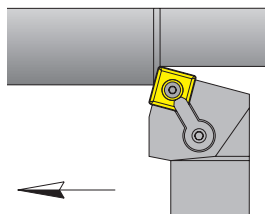
Inch Description	Part No. 733101-	A	B	C	E	SNM_Gage Insert	Seat	Lock Pin	Clamp	Clamp Screw	Optional Seat Screw
MSDNN08-3A	50392	0.500	0.500	4.00	1.000	322	ISSN-322	NL-34	CL-6	XNS-36	S-34
MSDNN08-3B	50394	0.500	0.500	4.50	1.000						
MSDNN10-3B	50396	0.625	0.625	4.50	1.000						
MSDNN12-3B	50398	0.750	0.750	4.50	1.000						
MSDNN12-4B	50400	0.750	0.750	4.50	1.375	432	ISSN-433	NL-46	CL-9	XNS-59	S-46
MSDNN16-4D	50402	1.000	1.000	6.00	1.375						
MSDNN85-4D	50404	1.000	1.250	6.00	1.375						
MSDNN16-5D	50406	1.000	1.000	6.00	1.625						
MSDNN20-5D	50408	1.250	1.250	6.00	1.625	543	ISSN-533	NL-58	CL-12	XNS-510	S-58
MSDNN85-5D	50410	1.000	1.250	6.00	1.625						
MSDNN86-5E	50412	1.000	1.500	7.00	1.625						
MSDNN16-6D	50414	1.000	1.000	6.00	1.750						
MSDNN20-6D	50416	1.250	1.250	6.00	1.750	643	ISSN-633	NL-68	CL-12	XNS-510	S-68
MSDNN20-6E	50417	1.250	1.250	7.00	1.750						
MSDNN24-6E	50418	1.500	1.500	7.00	1.750						
MSDNN85-6D	50420	1.000	1.250	6.00	1.750						
MSDNN86-6E	50422	1.000	1.500	7.00	1.750						

For inserts see pages 56-87. For spare parts see pages 158-159.

MSKN R/L Toolholder Style K- 15° End Cutting Edge Angle for negative square SNM_ inserts


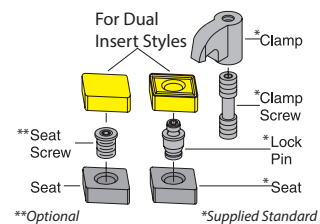
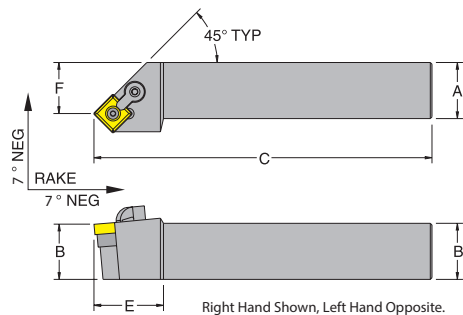
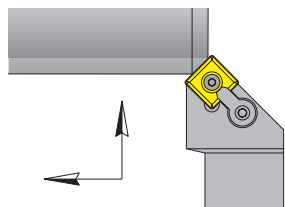
Inch Description	UPC No. 733101-		A	B	C	E	F	U	SNM_ Gage Insert	Seat	Lock Pin	Clamp	Clamp Screw	Optional Seat Screw
	R.H.	L.H.												
MSKNR/L08-3A	50432	50433	0.500	0.500	4.00	1.000	0.625	0.900	322	ISSN-322	NL-34	CL-6	XNS-36	S-34
MSKNR/L08-3B	50436	50437	0.500	0.500	4.50	1.000	0.625	0.900						
MSKNR/L10-3B	50440	50441	0.625	0.625	4.50	1.000	0.750	0.900						
MSKNR/L12-3B	50444	50445	0.750	0.750	4.50	1.000	0.875	0.900						
MSKNR/L12-4B	50448	50449	0.750	0.750	4.50	1.250	1.000	0.122	432	ISSN-433	NL-46	CL-9	XNS-59	S-46
MSKNR/L16-4C	50452	-	1.000	1.000	5.00	1.250	1.250	0.122						
MSKNR/L16-4D	50456	50457	1.000	1.000	6.00	1.000	1.250	0.122						
MSKNR/L16-5D	50460	50461	1.000	1.000	6.00	1.375	1.250	0.151						
MSKNR/L20-5D	50464	50465	1.250	1.250	6.00	1.375	1.500	0.151	543	ISSN-533	NL-58	CL-12	XNS-510	S-58
MSKNR/L85-5D	50468	50469	1.000	1.250	6.00	1.375	1.250	0.151						
MSKNR/L20-6D	50472	50473	1.250	1.250	6.00	1.500	1.500	0.183						
MSKNR/L24-6D	50476	-	1.500	1.500	6.00	1.500	2.000	0.183						
MSKNR/L24-6E	50480	50481	1.500	1.500	7.00	1.500	2.000	0.183	643	ISSN-633	NL-68	CL-12	XNS-510	S-68

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

MSRN R/L Toolholder Style R- 15° Side Cutting Edge Angle for negative square SNM_ inserts

Inch Description	UPC No. 733101-		A	B	C	E	F	SNM_ Gage Insert	Seat	Lock Pin	Clamp	Clamp Screw	Optional Seat Screw
	R.H.	L.H.											
MSRNR/L08-3A	50490	50491	0.500	0.500	4.00	1.000	0.660	322	ISSN-322	NL-34	CL-6	XNS-36	S-34
MSRNR/L08-3B	50494	50495	0.500	0.500	4.50	1.000	0.660						
MSRNR/L10-3B	50498	50499	0.625	0.625	4.50	1.000	0.785						
MSRNR/L12-3B	50502	50503	0.750	0.750	4.50	1.000	0.910						
MSRNR/L12-4B	50506	50507	0.750	0.750	4.50	1.250	0.880						
MSRNR/L16-4C	50510	50511	1.000	1.000	5.00	1.250	1.130	432	ISSN-433	NL-46	CL-9	XNS-59	S-46
MSRNR/L16-4D	50514	50515	1.000	1.000	6.00	1.250	1.130						
MSRNR/L20-4D	50518	50519	1.250	1.250	6.00	1.250	1.380						
MSRNR/L85-4D	50522	50523	1.000	1.250	6.00	1.250	1.130						
MSRNR/L16-5C	50526	50527	1.000	1.000	5.00	1.375	1.103						
MSRNR/L16-5D	50530	50531	1.000	1.000	6.00	1.375	1.103	543	ISSN-533	NL-58	CL-12	XNS-510	S-58
MSRNR/L20-5D	50534	50535	1.250	1.250	6.00	1.375	1.353						
MSRNR/L85-5D	50538	50539	1.000	1.250	6.00	1.375	1.103						
MSRNR/L16-6D	50542	50543	1.000	1.000	6.00	1.500	1.071						
MSRNR/L20-6D	50546	50547	1.250	1.250	6.00	1.500	1.315						
MSRNR/L24-6E	50550	50551	1.500	1.500	7.00	1.500	1.821	643	ISSN-633	NL-68	CL-12	XNS-510	S-68
MSRNR/L85-6D	50554	50555	1.000	1.250	6.00	1.500	1.071						

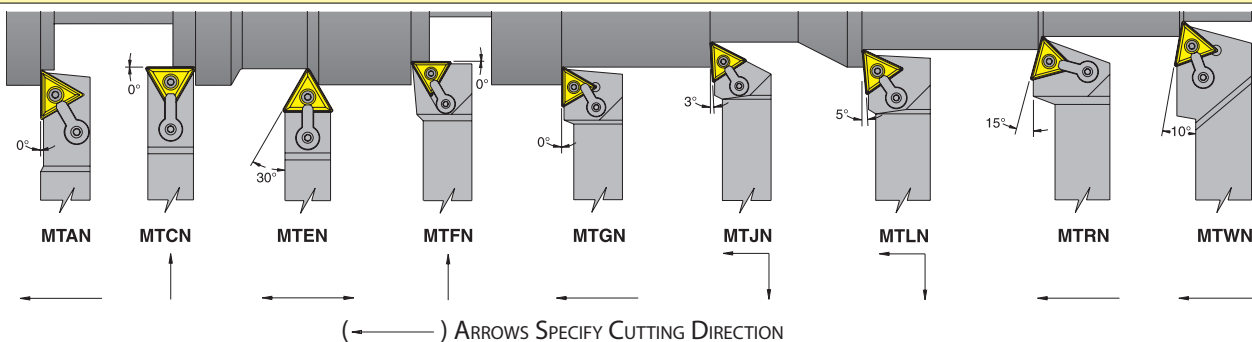
For inserts see pages 56-87. For spare parts see pages 158-159.

MSSN R/L Toolholder Style S- 45° Side Cutting Edge Angle for negative square SNM_ inserts

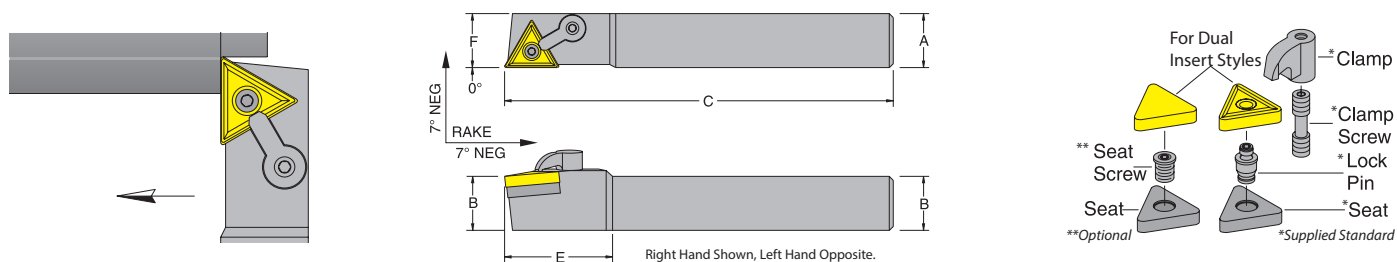
Inch Description	UPC No. 733101-		A	B	C	E	F	SNM_ Gage Insert	Seat	Lock Pin	Clamp	Clamp Screw	Optional Seat Screw
	R.H.	L.H.											
MSSNR/L08-3A	50564	50565	0.500	0.500	4.00	1.000	0.391	322	ISSN-322	NL-34	CL-6	XNS-36	S-34
MSSNR/L08-3B	50568	50569	0.500	0.500	4.50	1.000	0.391						
MSSNR/L12-4B	50572	50573	0.750	0.750	4.50	1.250	0.662						
MSSNR/L16-4D	50580	50581	1.000	1.000	6.00	1.250	0.912						
MSSNR/L85-4D	50582	50583	1.000	1.250	6.00	1.250	0.912						
MSSNR/L16-5D	50584	-	1.000	1.000	6.00	1.375	0.828	543	ISSN-533	NL-58	CL-9	XNS-510	S-58
MSSNR/L20-5D	50588	50589	1.250	1.250	6.00	1.375	1.078						
MSSNR/L20-5E	50590	-	1.250	1.250	7.00	1.375	1.078						
MSSNR/L20-6D	50592	50593	1.250	1.250	6.00	1.500	0.992						
MSSNR/L24-6E	50596	50597	1.500	1.500	7.00	1.500	1.492						

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

MT - Style Toolholders



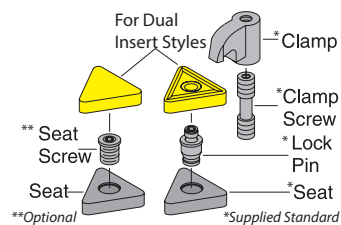
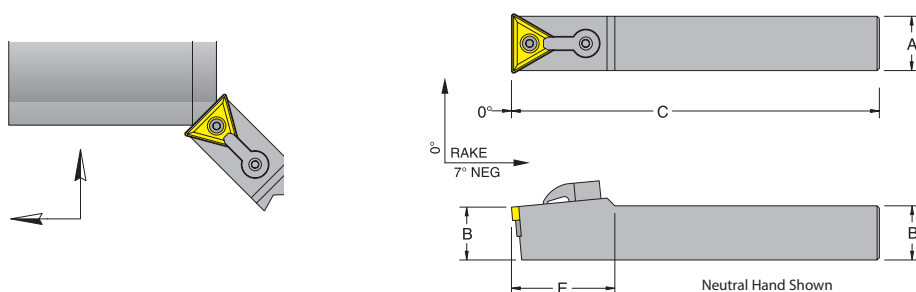
MTAN R/L Toolholder Style A- 0° Side Cutting Edge Angle for negative triangle TNM_ inserts



Inch Description	UPC No. 733101- R.H. L.H.		A	B	C	E	F	TNM_ Gage Insert	Seat	Lock Pin	Clamp	Clamp Screw	Optional Seat Screw
MTANR/L08-2A	50606	50607	0.500	0.500	4.00	0.875	0.500	221	-	NL-23	CL-19	XNS-36	-
MTANR/L10-2B	50610	50611	0.625	0.625	4.50	0.875	0.625						
MTANR/L10-3B	50614	50615	0.625	0.625	4.50	1.000	0.625						
MTANR/L12-3B	50618	50619	0.750	0.750	4.50	1.000	0.750	322	ITSN-333	NL-34L	CL-6	XNS-36	S-34
MTANR/L16-3D	50622	50623	1.000	1.000	6.00	1.000	1.000	332	ITSN-322	NL-34L	CL-6	XNS-36	S-34
MTANR/L64-3D	50626	50627	0.750	1.000	6.00	1.000	0.750						
MTANR/L16-4D	50630	50631	1.000	1.000	6.00	1.375	1.000	432	ITSN-433	NL-46	CL-9	XNS-59	S-46
MTANR/L85-4D	50638	50639	1.000	1.250	6.00	1.375	1.000						
MTANR/L86-4E	50642	50643	1.000	1.500	7.00	1.375	1.000						
MTANR/L16-5D	50646	50647	1.000	1.000	6.00	1.500	1.000	543	ITSN-533	NL-58	CL-9	XNS-510	S-58
MTANR/L20-5D	50650	50651	1.250	1.250	6.00	1.500	1.250						
MTANR/L20-5E	50652	-	1.250	1.250	7.00	1.500	1.250						
MTANR/L24-6E	50654	50655	1.500	1.500	7.00	1.750	1.500	663	ITSN-636	NL-68L	CL-12	XNS-510	S-68

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

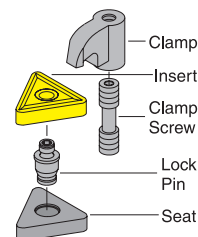
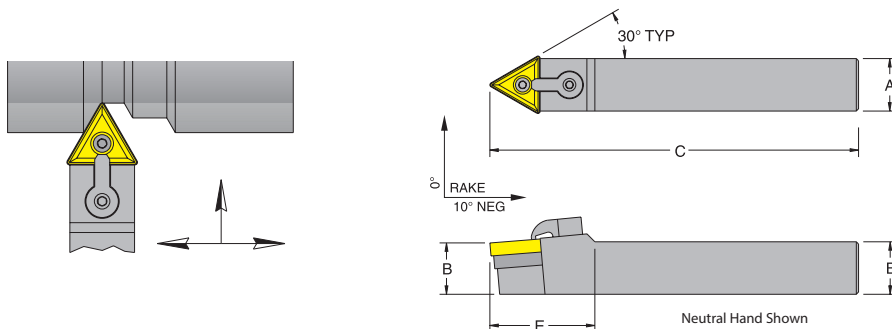
MTCN N Toolholder Style C- 0° End Cutting Edge Angle for negative triangle TNM_ inserts



Inch Description	Part No. 733101-	A	B	C	E	TNM_ Gage Insert	Seat	Lock Pin	Clamp	Clamp Screw	Optional Seat Screw
MTCNN08-3A	50664	0.500	0.500	4.00	1.000	322	ITSN-333	NL-34L	CL-7	XNS-36	S-34
MTCNN08-3B	50666	0.500	0.500	4.50	1.000						
MTCNN44-3D	50668	0.500	1.000	6.00	1.000	332	ITSN-322	NL-34L	CL-7	XNS-36	S-34
MTCNN44-3F	50670	0.500	1.000	8.00	1.000						
MTCNN12-4B	50672	0.750	0.750	4.50	1.375	432	ITSN-433	NL-46	CL-12	XNS-59	S-46
MTCNN64-4D	50674	0.750	1.000	6.00	1.375						
MTCNN64-4F	50676	0.750	1.000	8.00	1.375						
MTCNN66-4E	50678	0.750	1.500	7.00	1.375						
MTCNN66-4F	50680	0.750	1.500	8.00	1.375						

For inserts see pages 56-87. For spare parts see pages 158-159.

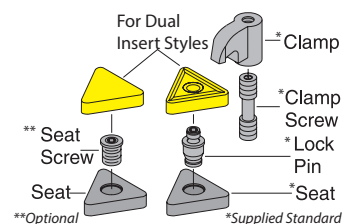
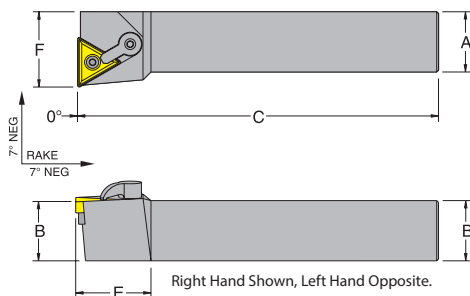
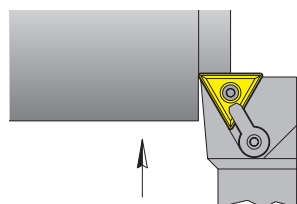
MTEN N Toolholder Style E- 30° Side Cutting Edge Angle for negative triangle TNM_ inserts



Inch Description	Part No. 733101-	A	B	C	E	TNM_ Gage Insert	Seat	Lock Pin	Clamp	Clamp Screw
MTENN08-2A	50690	0.500	0.500	4.00	1.000	221	-	NL-23	CL-6	XNS-36
MTENN10-3B	50692	0.625	0.625	4.50	1.125	322 332	ITSN-333 ITSN-322	NL-34L NL-34L	CL-6 CL-6	XNS-36 XNS-36
MTENN12-3B	50694	0.750	0.750	4.50	1.125					
MTENN64-3D	50696	0.750	1.000	6.00	1.125	432	ITSN-433	NL-46	CL-9	XNS-59
MTENN12-4B	50698	0.750	0.750	4.50	1.500					
MTENN16-4D	50700	1.000	1.000	6.00	1.500					
MTENN85-4D	50702	1.000	1.250	6.00	1.500					
MTENN86-4E	50704	1.000	1.500	7.00	1.500					
MTENN20-5D	50706	1.250	1.250	6.00	1.625	543	ITSN-533	NL-58	CL-9	XNS-510
MTENN20-5E	50708	1.250	1.250	7.00	1.625					
MTENN24-5E	50710	1.500	1.500	7.00	1.625					

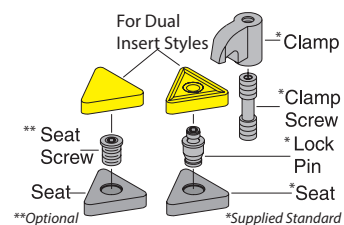
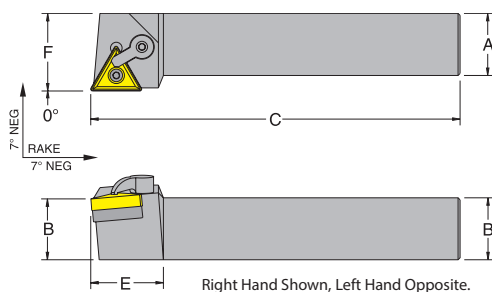
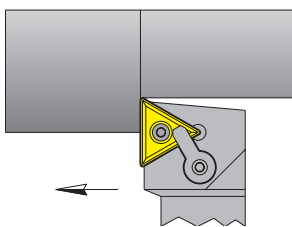
For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

MTFN R/L Toolholder Style F- 0° End Cutting Edge Angle for negative triangle TNM_ inserts



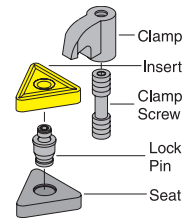
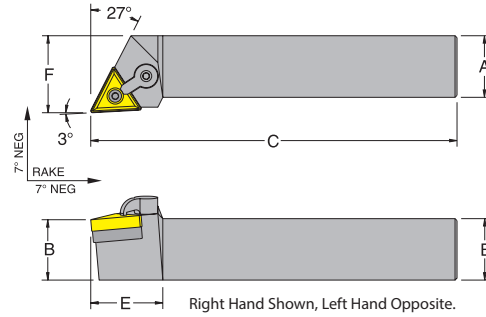
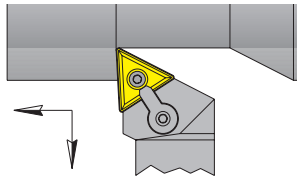
Inch Description	UPC No. 733101- R.H. L.H.		A	B	C	E	F	TNM_ Gage Insert	Seat	Lock Pin	Clamp	Clamp Screw	Optional Seat Screw
MTFNR/L08-2A	50722	50723	0.500	0.500	4.00	0.875	0.750	221	-	NL-23	CL-19	XNS-36	-
MTFNR/L10-2B	50726	50727	0.625	0.625	4.50	0.875	0.875						
MTFNR/L12-2B	50730	50731	0.750	0.750	4.50	0.875	1.000						
MTFNR/L10-3B	50734	50735	0.625	0.625	4.50	1.000	0.875	322	ITSN-333	NL-34L	CL-6	XNS-36	S-34
MTFNR/L12-3B	50738	50739	0.750	0.750	4.50	1.000	1.000						
MTFNR/L16-3C	50742	50743	1.000	1.000	5.00	1.000	1.250						
MTFNR/L16-3D	50746	50747	1.000	1.000	6.00	1.000	1.250	332	ITSN-322	NL-34L	CL-6	XNS-36	S-34
MTFNR/L16-4C	50750	50751	1.000	1.000	5.00	1.250	1.250						
MTFNR/L16-4D	50754	50755	1.000	1.000	6.00	1.250	1.250						
MTFNR/L20-4D	50758	50759	1.250	1.250	6.00	1.250	1.500	432	ITSN-433	NL-46	CL-9	XNS-510	S-46
MTFNR/L24-4E	-	50763	1.500	1.500	7.00	1.250	2.000						
MTFNR/L85-4D	50766	50767	1.000	1.250	6.00	1.250	1.250						
MTFNR/L16-5D	50774	50775	1.000	1.000	6.00	1.375	1.250	543	ITSN-533	NL-58	CL-12	XNS-510	S-58
MTFNR/L20-5D	50778	50779	1.250	1.250	6.00	1.375	1.500						
MTFNR/L24-5E	50782	-	1.500	1.500	7.00	1.375	2.000						
MTFNR/L85-5D	50786	-	1.000	1.250	6.00	1.375	1.250	663	ITSN-636	NL-68L	CL-12	XNS-510	S-68
MTFNR/L86-5E	50790	50791	1.000	1.500	7.00	1.375	1.250						
MTFNR/L24-6E	50792	50793	1.500	1.500	7.00	1.500	2.000						

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

MTGN R/L Toolholder Style G- 0° Side Cutting Edge Angle for negative triangle TNM_ inserts


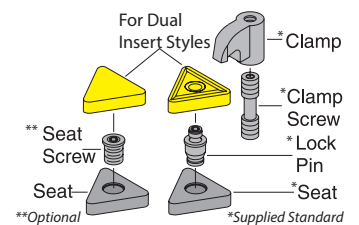
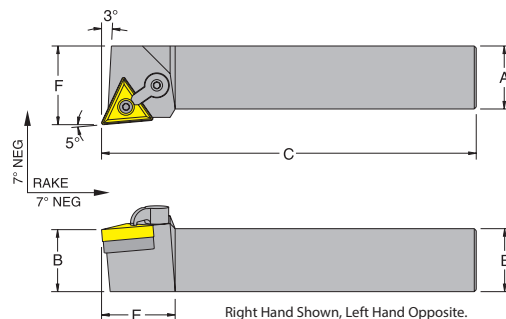
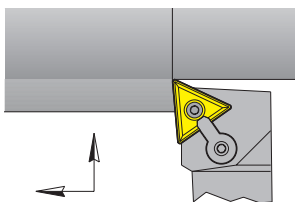
Inch Description	UPC No. 733101- R.H. L.H.		A	B	C	E	F	TNM_ Gage Insert	Seat	Lock Pin	Clamp	Clamp Screw	Optional Seat Screw
MTGNR/L08-2A	50802	50803	0.500	0.500	4.00	0.875	0.625	221	-	NL-23	CL-19	XNS-36	-
MTGNR/L10-2B	50806	50807	0.625	0.625	4.50	0.875	0.750						
MTGNR/L10-3B	50810	50811	0.625	0.625	4.50	1.000	0.875	322	ITSN-333	NL-34L	CL-6	XNS-36	S-34
MTGNR/L12-3B	50814	50815	0.750	0.750	4.50	1.000	1.000						
MTGNR/L16-3C	50818	50819	1.000	1.000	5.00	1.000	1.250	332	ITSN-322	NL-34L	CL-6	XNS-36	S-34
MTGNR/L16-3D	50822	50823	1.000	1.000	6.00	1.000	1.250						
MTGNR/L16-4C	50826	50827	1.000	1.000	5.00	1.375	1.250	432	ITSN-433	NL-46	CL-9	XNS-510	S-46
MTGNR/L16-4D	50830	50831	1.000	1.000	6.00	1.375	1.250						
MTGNR/L20-4D	50834	50835	1.250	1.250	6.00	1.375	1.500						
MTGNR/L24-4D	50836	50837	1.500	1.500	6.00	1.375	2.000						
MTGNR/L24-4E	50838	50839	1.500	1.500	7.00	1.375	2.000						
MTGNR/L85-4D	50842	50843	1.000	1.250	6.00	1.375	1.250						
MTGNR/L86-4E	50846	-	1.000	1.500	7.00	1.375	1.250						
MTGNR/L16-5C	50850	50851	1.000	1.000	5.00	1.500	1.250						
MTGNR/L16-5D	50854	50855	1.000	1.000	6.00	1.500	1.250	543	ITSN-533	NL-58	CL-9	XNS-510	S-58
MTGNR/L20-5D	50858	50859	1.250	1.250	6.00	1.500	1.500						
MTGNR/L24-5E	50862	50863	1.500	1.500	7.00	1.500	2.000						
MTGNR/L85-5D	50866	50867	1.000	1.250	6.00	1.500	1.250						
MTGNR/L24-6E	50872	50873	1.500	1.500	7.00	1.750	2.000	663	ITSN-636	NL-68L	CL-12	XNS-510	S-68

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

MTJN R/L Toolholder Style J- 3° Side Cutting Edge Angle for negative triangle TNM_ inserts

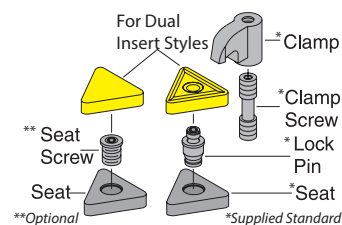
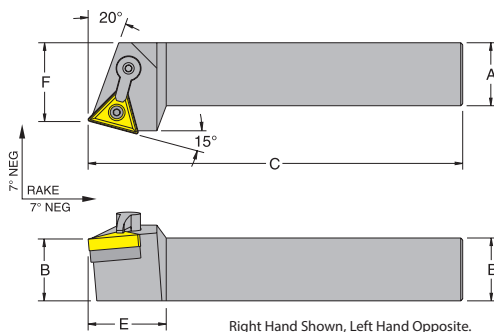
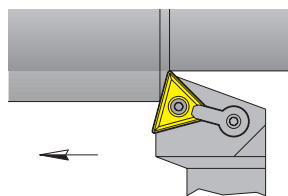
Inch Description	UPC No. 733101- R.H. L.H.		A	B	C	E	F	TNM_ Gage Insert	Seat	Lock Pin	Clamp	Clamp Screw
MTJNR/L08-2A	50882	50883	0.500	0.500	4.00	1.000	0.625	221	-	NL-23	CL-19	XNS-36
MTJNR/L10-2B	50886	50887	0.625	0.625	4.50	1.000	0.750					
MTJNR/L10-3B	50890	50891	0.625	0.625	4.50	1.000	0.875					
MTJNR/L12-3B	50894	50895	0.750	0.750	4.50	1.000	1.000	322 332	ITSN-333 ITSN-322	NL-34L NL-34L	CL-6 CL-6	XNS-36 XNS-36
MTJNR/L16-3D	50898	50899	1.000	1.000	6.00	1.000	1.250					
MTJNR/L16-4D	50902	50903	1.000	1.000	6.00	1.250	1.250	432	ITSN-433	NL-46	CL-9	XNS-510
MTJNR/L20-4D	50906	50907	1.250	1.250	6.00	1.250	1.500					
MTJNR/L20-4E	50908	50909	1.250	1.250	7.00	1.250	1.500					
MTJNR/L85-4D	50910	-	1.000	1.250	6.00	1.250	1.250					
MTJNR/L16-5D	50914	50915	1.000	1.000	6.00	1.500	1.250	543	ITSN-533	NL-58	CL-9	XNS-510
MTJNR/L20-5D	50918	50919	1.250	1.250	6.00	1.500	1.500					
MTJNR/L24-5E	50922	50923	1.500	1.500	7.00	1.500	2.000					
MTJNR/L85-5D	50926	50927	1.000	1.250	6.00	1.500	1.250					
MTJNR/L86-5E	50930	50931	1.000	1.500	7.00	1.500	1.250	663	ITSN-636	NL-68L	CL-12	XNS-510
MTJNR/L24-6E	50934	50935	1.500	1.500	7.00	1.625	2.000					

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

MTLN R/L Toolholder Style L- Negative 5° Side Cutting Edge Angle for negative triangle TNM_ inserts

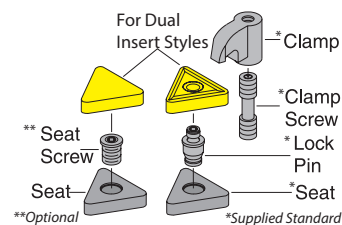
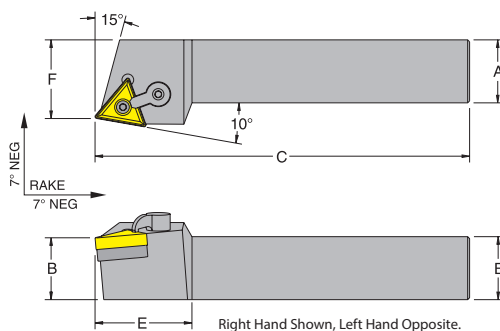
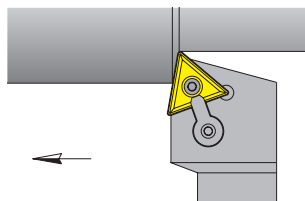
Inch Description	UPC No. 733101- R.H. L.H.		A	B	C	E	F	TNM_ Gage Insert	Seat	Lock Pin	Clamp	Clamp Screw	Optional Seat Screw
MTLNR/L16-4D	50942	50943	1.000	1.000	6.00	1.375	1.250	432	ITSN-433	NL-46	CL-9	XNS-510	S-46
MTLNR/L20-4D	50946	50947	1.250	1.250	6.00	1.375	1.500						
MTLNR/L20-5D	-	50951	1.250	1.250	6.00	1.500	1.500	543	ITSN-533	NL58	CL-9	XNS-510	S-58

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

MTRN R/L Toolholder Style R - 15° Side Cutting Edge Angle for negative triangle TNM_ inserts

Inch Description	UPC No. 733101- R.H. L.H.		A	B	C	E	F	TNM_ Gage Insert	Seat	Lock Pin	Clamp	Clamp Screw	Optional Seat Screw
MTRNR/L08-2A	50960	50961	0.500	0.500	4.00	0.875	0.651	221	-	NL-23	CL-19	XNS-36	-
MTRNR/L10-2B	50964	50965	0.625	0.625	4.50	0.875	0.776						
MTRNR/L12-3B	50972	50973	0.750	0.750	4.50	1.250	0.855	322 332	ITSN-333 ITSN-322	NL-34L NL-34L	CL-20 CL-20	XNS-47 XNS-47	S-34
MTRNR/L16-3D	50976	50977	1.000	1.000	6.00	1.250	1.105						
MTRNR/L16-4D	50980	50981	1.000	1.000	6.00	1.375	1.048	432	ITSN-433	NL-46	CL-9	XNS-510	S-46
MTRNR/L20-4D	50984	50985	1.250	1.250	6.00	1.375	1.298						
MTRNR/L85-4D	50988	50989	1.000	1.250	6.00	1.375	1.048						
MTRNR/L16-5D	50992	50993	1.000	1.000	6.00	1.500	1.002	543	ITSN-533	NL-58	CL-9	XNS-510	S-58
MTRNR/L20-5D	50996	50997	1.250	1.250	6.00	1.500	1.252						
MTRNR/L24-6E	51012	51013	1.500	1.500	7.00	1.750	1.697	663	ITSN-636	NL-68L	CL-12	XNS-510	S-68

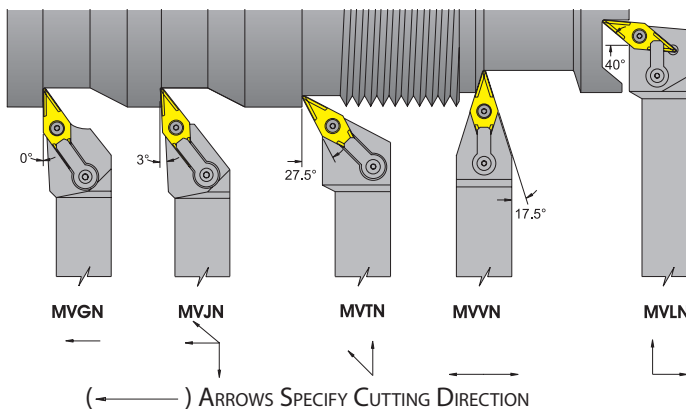
For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

MTWN R/L Toolholder Style W - 10° Side Cutting Edge Angle for negative triangle TNM_ inserts

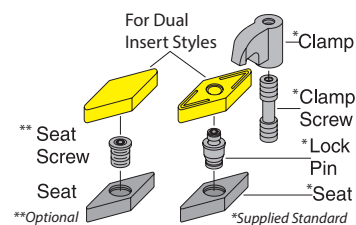
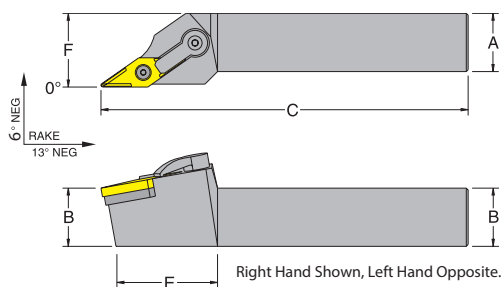
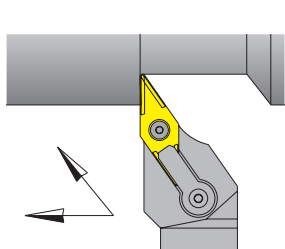
Inch Description	UPC No. 733101- R.H. L.H.		A	B	C	E	F	TNM_ Gage Insert	Seat	Lock Pin	Clamp	Clamp Screw	Optional Seat Screw
MTWNR/L12-3B	51022	51023	0.750	0.750	4.50	1.375	0.880	322 332	ITSN-333 ITSN-322	NL-34L	CL-6	XNS-36	S-34
MTWNR/L16-4D	51026	51027	1.000	1.000	6.00	1.500	1.098						
MTWNR/L20-4D	51030	51031	1.250	1.250	6.00	1.500	1.317	432	ITSN-433	NL-46	CL-9	XNS-510	S-46

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

MV - Style Toolholders



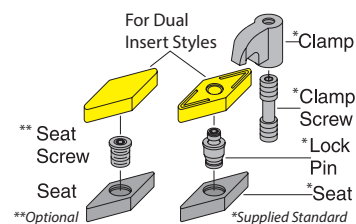
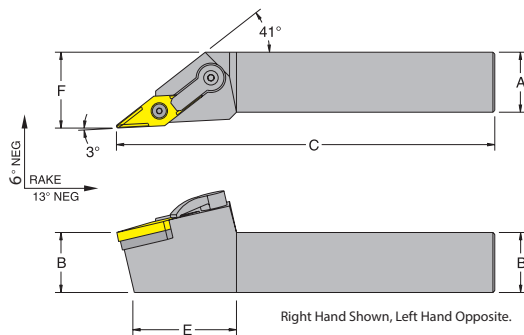
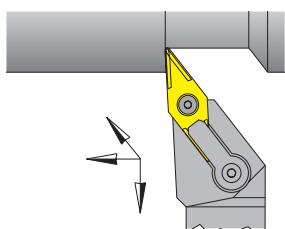
MVGN R/L Toolholder Style G- 0° Side Cutting Edge Angle for negative 35° diamond VNM_ inserts



Inch Description	UPC No. 733101-		A	B	C	E	F	VNM_ Gage Insert	Seat	Lock Pin	Clamp	Clamp Screw	Optional Seat Screw
	R.H.	L.H.											
MVGNR/L12-3B	51044	51045	0.75	0.75	4.50	1.750	1.00	332	IVSN-322	NL-34L	CL-30	XNS-510	S-34
MVGNR/L16-3D	-	51049	1.00	1.00	6.00	1.750	1.25						
MVGNR/L16-4D	51052	-	1.00	1.00	6.00	2.125	1.25	432	IVSN-433	NL-46	CL-30	XNS-510	S-46

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

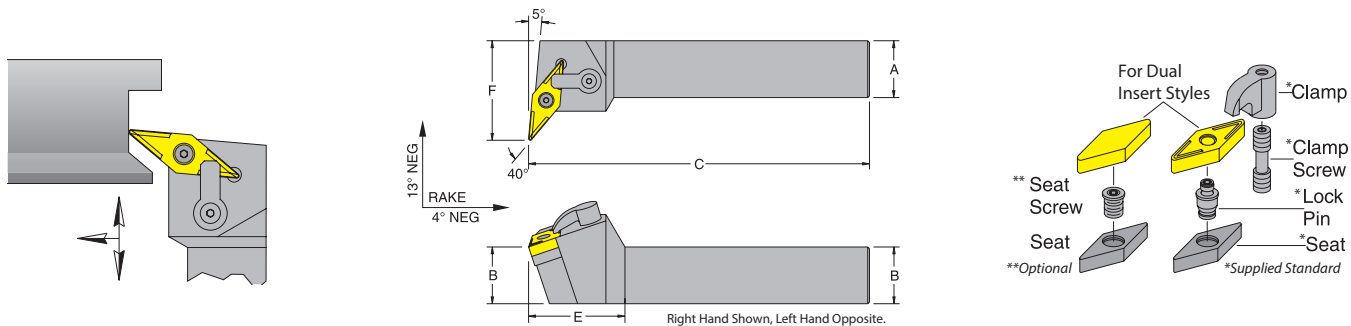
MVJN R/L Toolholder Style J- Negative 3° Side Cutting Edge Angle for negative 35° diamond VNM_ inserts



Inch Description	UPC No. 733101-		A	B	C	E	F	VNM_ Gage Insert	Seat	Lock Pin	Clamp	Clamp Screw	Optional Seat Screw
	R.H.	L.H.											
MVJNR/L12-3B	51062	51063	0.75	0.75	4.50	1.750	1.00	332	IVSN-322	NL-34L	CL-30	XNS-510	S-34
MVJNR/L16-3C	51066	51067	1.00	1.00	5.00	1.750	1.25						
MVJNR/L16-3D	51070	51071	1.00	1.00	6.00	1.750	1.25						
MVJNR/L20-3D	51074	51075	1.25	1.25	6.00	1.750	1.50						
MVJNR/L24-3E	51078	51079	1.50	1.50	7.00	2.000	2.00						
MVJNR/L12-4B	51082	51083	0.75	0.75	4.50	2.125	1.00	432	IVSN-433	NL-46	CL-30	XNS-510	S-46
MVJNR/L16-4C	51086	51087	1.00	1.00	5.00	2.125	1.25						
MVJNR/L16-4D	51090	51091	1.00	1.00	6.00	2.125	1.25						
MVJNR/L20-4D	51094	51095	1.25	1.25	6.00	2.125	1.50						
MVJNR/L24-4E	51098	51099	1.50	1.50	7.00	2.125	2.00						

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

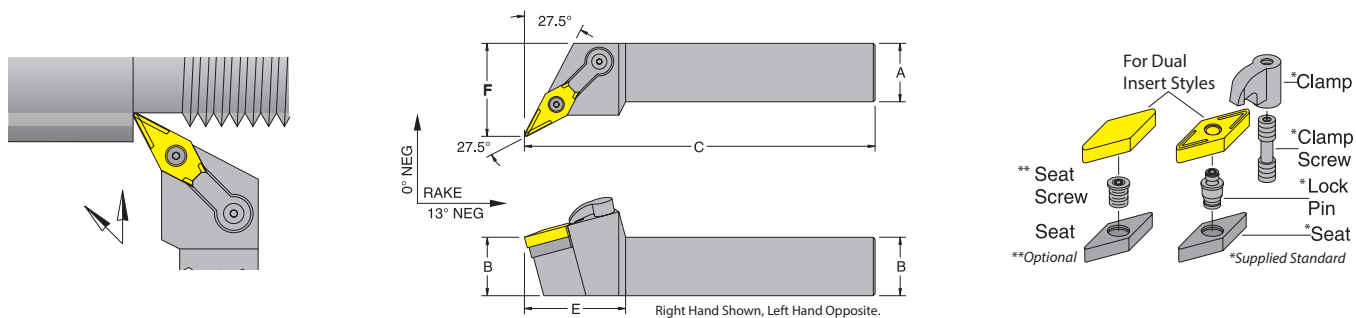
MVLN R/L Toolholder Style L- Negative 5° End Cutting Edge Angle for negative 35° diamond VNM_ inserts



Inch Description	UPC No. 733101-		A	B	C	E	F	VNM_ Gage Insert	Seat	Lock Pin	Clamp	Clamp Screw	Optional Seat Screw
	R.H.	L.H.											
MVLNR/L16-4C	51108	51109	1.00	1.00	5.00	1.50	1.75	432	IVSN-433	NL-46	CL-30	XNS-510	S-46
MVLNR/L16-4D	51112	51113	1.00	1.00	6.00	1.50	1.75						
MVLNR/L20-4D	51116	51117	1.25	1.25	6.00	1.50	2.00						
MVLNR/L24-4D	-	51121	1.50	1.50	6.00	1.50	2.25						
MVLNR/L24-4E	51124	51125	1.50	1.50	7.00	1.50	2.25						

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

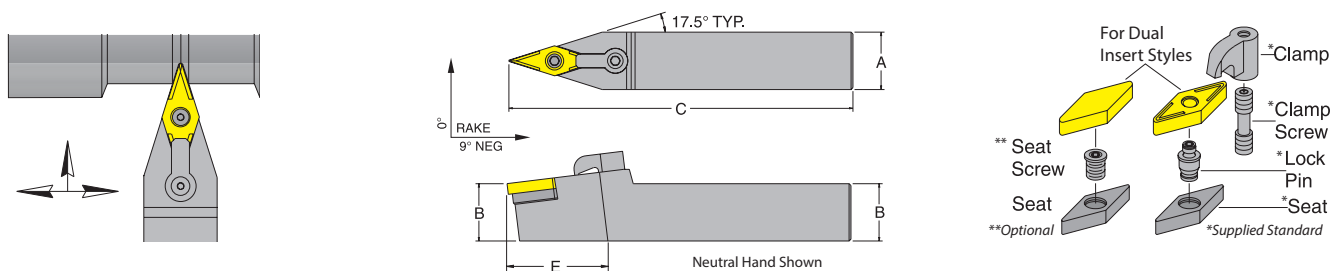
MVTN R/L Toolholder Style N- Negative 27.5° End Cutting Edge Angle for negative 35° diamond VNM_ inserts



Inch Description	UPC No. 733101-		A	B	C	E	F	VNM_ Gage Insert	Seat	Lock Pin	Clamp	Clamp Screw	Optional Seat Screw
	R.H.	L.H.											
MVTNR/L12-3B	51134	51135	0.75	0.75	4.50	1.625	1.00	332	IVSN-322	NL-34L	CL-30	XNS-510	S-34
MVTNR/L16-3C	51138	51139	1.00	1.00	5.00	1.625	1.25						
MVTNR/L16-3D	51142	51143	1.00	1.00	6.00	1.625	1.25						
MVTNR/L20-3D	51146	51147	1.25	1.25	6.00	1.625	1.50						
MVTNR/L24-3E	51150	-	1.50	1.50	7.00	1.625	1.75						

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

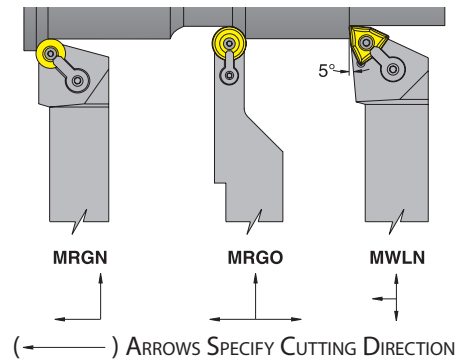
MVVN N Toolholder Style V- 17.5° Side Cutting Edge Angle for negative 35° diamond VNM_ inserts



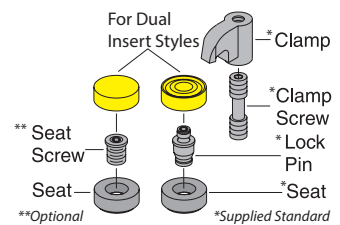
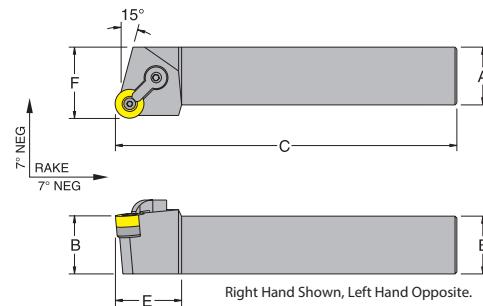
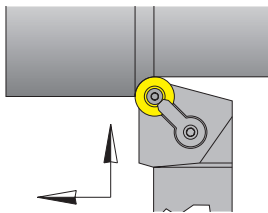
Inch Description	UPC No. 733101-	A	B	C	E	VNM_ Gage Insert	Seat	Lock Pin	Clamp	Clamp Screw	Optional Seat Screw
MVVNN12-3B	51160	0.75	0.75	4.50	1.75	332	IVSN-322	NL-34L	CL-30	XNS-58	S-34
MVVNN16-3C	51162	1.00	1.00	5.00	1.75						
MVVNN16-3D	51164	1.00	1.00	6.00	1.75						
MVVNN16-4C	51166	1.00	1.00	5.00	2.25	432	IVSN-433	NL-46	CL-30	XNS-510	S-46
MVVNN16-4D	51168	1.00	1.00	6.00	2.25						

For inserts see pages 56-87. For spare parts see pages 158-159.

MR & MW - Style Toolholders



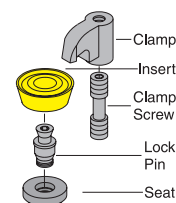
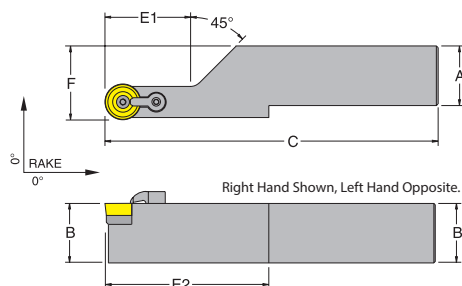
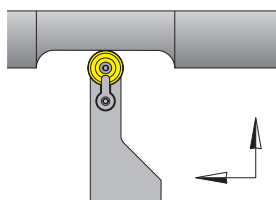
MRGN R/L Toolholder Style G- 0° Side Cutting Edge Angle for negative round RNM_ inserts



Inch Description	UPC No. 733101- R.H. L.H.		A	B	C	E	F	RNM_ Gage Insert	Seat	Lock Pin	Clamp	Clamp Screw	Optional Seat Screw
MRGNR/L08-3A	51178	51179	0.500	0.500	4.00	0.875	0.750	32	IRSN-32	NL-34	CL-6	XNS-36	S-34
MRGNR/L10-3B	51182	51183	0.625	0.625	4.50	0.875	0.875						
MRGNR/L12-3B	51186	51187	0.750	0.750	4.50	0.875	1.000						
MRGNR/L16-3D	51190	51191	1.000	1.000	6.00	0.875	1.250						
MRGNR/L10-4B	51194	51195	0.625	0.625	4.50	1.250	0.875	43	-	NL-44	CL-9	XNS-58	-
MRGNR/L12-4B	51198	51199	0.750	0.750	4.50	1.250	1.000						
MRGNR/L16-4C	51202	51203	1.000	1.000	5.00	1.250	1.250						
MRGNR/L16-4D	51206	51207	1.000	1.000	6.00	1.250	1.250						
MRGNR/L20-4D	51210	51211	1.250	1.250	6.00	1.250	1.500	43	IRSN-43	NL-46	CL-9	XNS-59	S-46
MRGNR/L24-4E	51214	51215	1.500	1.500	7.00	1.250	2.000						
MRGNR/L85-4D	51218	51219	1.000	1.250	6.00	1.250	1.250						
MRGNR/L86-4E	-	51223	1.000	1.500	7.00	1.250	1.250						
MRGNR/L16-5D	51226	51227	1.000	1.000	6.00	1.250	1.250	54	IRSN-53	NL-58	CL-9	XNS-58	S-58
MRGNR/L20-6D	51230	51231	1.250	1.250	6.00	1.375	1.500						
MRGNR/L24-6E	51234	51235	1.500	1.500	7.00	1.375	2.000						
								64	IRSN-63	NL-68	CL-12	XNS-58	S-68

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

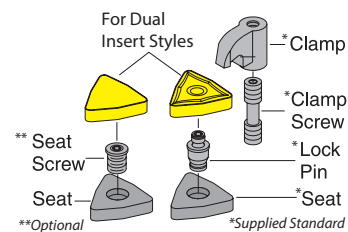
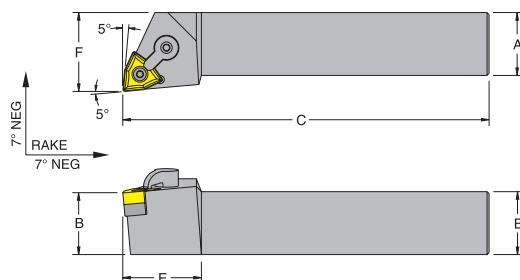
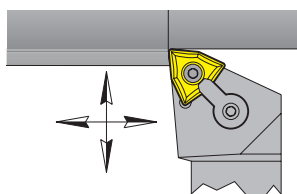
MRGO R/L Toolholder Style G- Profiling, Plunging, and Turning for positive round RCM_ inserts



Inch Description	UPC No. 733101- R.H. L.H.		A	B	C	E1	E2	F	RCM_ Gage Insert	Seat	Lock Pin	Clamp	Clamp Screw
MRGOR/L85-4D	51244	51245	1.000	1.250	6.00	1.040	2.360	1.250	43	RS-43P	PL-46	CL-6	XNS-37
MRGOR/L20-6E	51248	51249	1.250	1.250	7.00	1.800	3.500	1.500	64	RS-63P	PL-68	CL-9	XNS-58
MRGOR/L24-8E	51252	51253	1.500	1.500	7.00	2.050	3.880	2.000	84	RS-83P	PL-68	CL-12	XNS-510

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

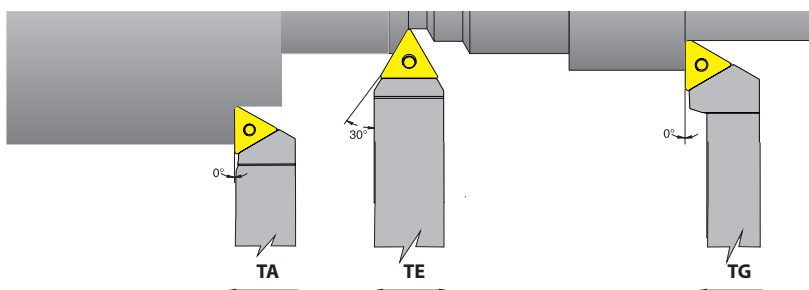
MWLN R/L Toolholder Style L- Negative 5° End or Side Cutting Edge Angle for negative 80° trigon WNM_ inserts



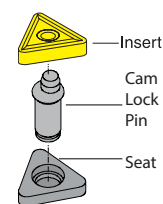
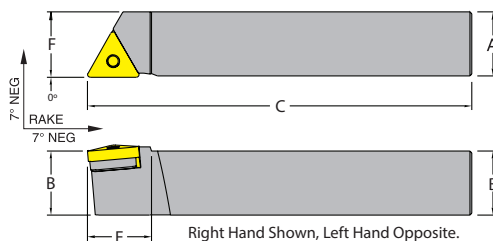
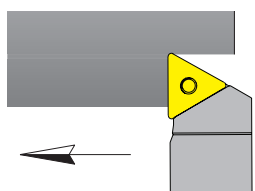
Inch Description	UPC No. 733101- R.H. L.H.		A	B	C	E	F	WNM_ Gage Insert	Seat	Lock Pin	Clamp	Clamp Screw	Optional Seat Screw
MWLN/R/L12-3B	51262	51263	0.75	0.75	4.50	1.00	1.00	332	IWSN-322	NL-34L	CL-6	XNS-36	S-34
MWLN/R/L16-3C	51264	51265	1.00	1.00	5.00	1.00	1.25						
MWLN/R/L12-4B	51266	51267	0.75	0.75	4.50	1.25	1.00	432	IWSN-433	NL-46	CL-9	XNS-59	S-46
MWLN/R/L12-4D	51268	-	0.75	0.75	6.00	1.25	1.00						
MWLN/R/L16-4C	51280	51281	1.25	1.25	5.00	1.25	1.25						
MWLN/R/L16-4D	51270	51271	1.00	1.00	6.00	1.25	1.25						
MWLN/R/L20-4D	51274	51275	1.25	1.25	6.00	1.25	1.50						
MWLN/R/L20-4E	54276	51277	1.25	1.25	7.00	1.25	1.50						
MWLN/R/L85-4E	51296	51297	1.00	1.25	7.00	1.25	1.25						
MWLN/R/L16-5D	51282	51283	1.00	1.00	6.00	1.25	1.25	543	IWSN-533	NL-58	CL-9	XNS-59	S-46
MWLN/R/L20-5D	51286	-	1.25	1.25	6.00	1.37	1.50						

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

Cam-Lock - Style Toolholders



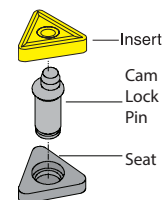
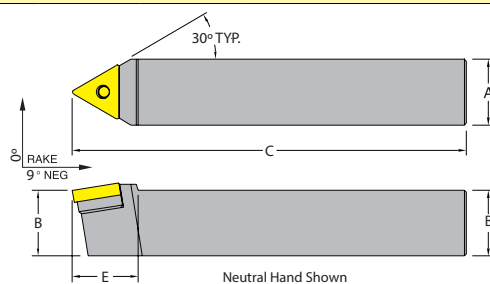
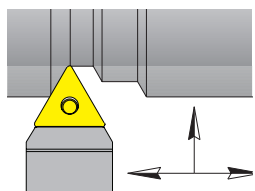
TA R/L Toolholder Style A- 0° Side Cutting Edge Angle for negative triangle TNM_ inserts



Inch Description	UPC No. 733101-		A	B	C	E	F	TNM_ Gage Insert	Cam-Lock Pin	Seat
	R.H.	L.H.								
TAR/L08-2B	54401	54402	0.500	0.500	4.500	-	0.516	221	CLP-14	-
TAR/L10-3B	54407	54408	0.625	0.625	4.500	0.750	0.641	322	CLP-25	TSN-324
TAR/L12-3B	54411	54412	0.750	0.750	4.500	0.750	0.766			
TAR/L16-4D	54417	54418	1.000	1.000	6.000	1.000	1.016	432	CLP-38	TSN-435

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

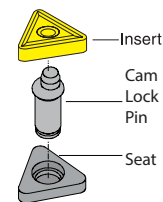
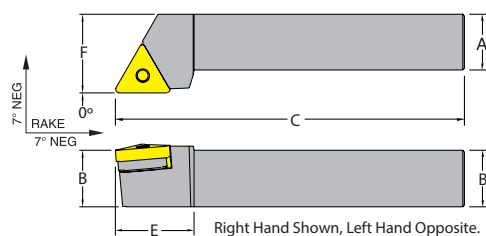
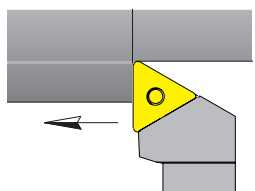
TE N Toolholder Style E- 30° Side Cutting Edge Angle for negative triangle TNM_ inserts



Inch Description	UPC No. 733101-		A	B	C	E	F	TNM_ Gage Insert	Cam-Lock Pin	Seat
	Neutral									
TE08-2B	54423		0.500	0.500	4.500	-	-	221	CLP-14	-
TE10-3B	54428		0.625	0.625	4.500	0.750	-	322	CLP-25	TSN-324
TE12-3B	54431		0.750	0.750	4.500	0.750	-			
TE16-4D	54436		1.000	1.000	6.000	1.000	-	432	CLP-38	TSN-435

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

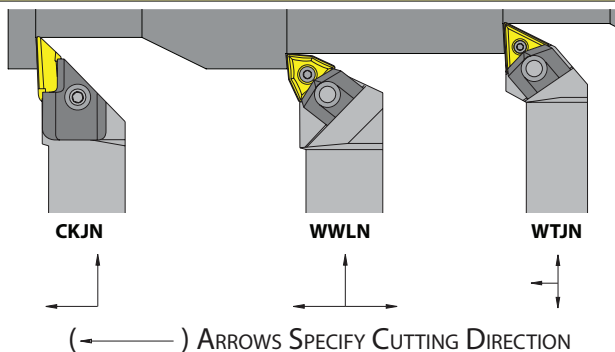
TG R/L Toolholder Style G- 0° Side Cutting Edge Angle for negative triangle TNM_ inserts



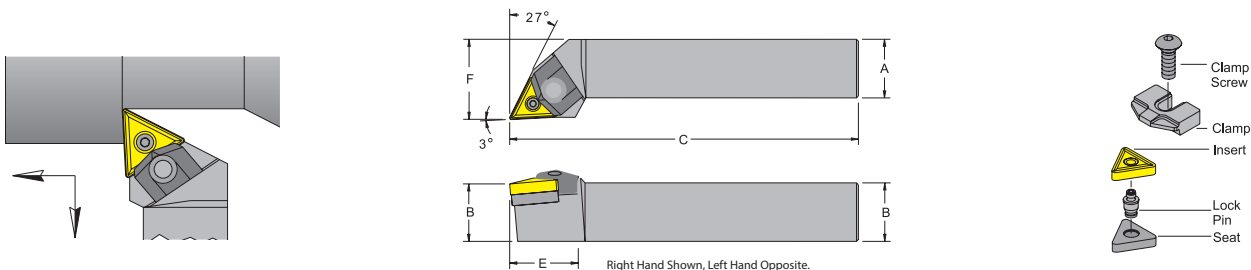
Inch Description	UPC No. 733101-		A	B	C	E	F	TNM_ Gage Insert	Cam-Lock Pin	Seat
	R.H.	L.H.								
TGR/L08-2B	54441	54442	0.500	0.500	4.50	0.688	0.750	221	CLP-14	-
TGR/L10-3B	54447	54448	0.625	0.625	4.50	0.875	0.875	322	CLP-25	TSN-324
TGR/L12-3B	54451	54452	0.750	0.750	4.50	0.875	1.000			
TGR/L16-4D	54457	54458	1.000	1.000	6.00	1.125	1.250	432	CLP-38	TSN-435

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

WT, WW & CK - Style Toolholders



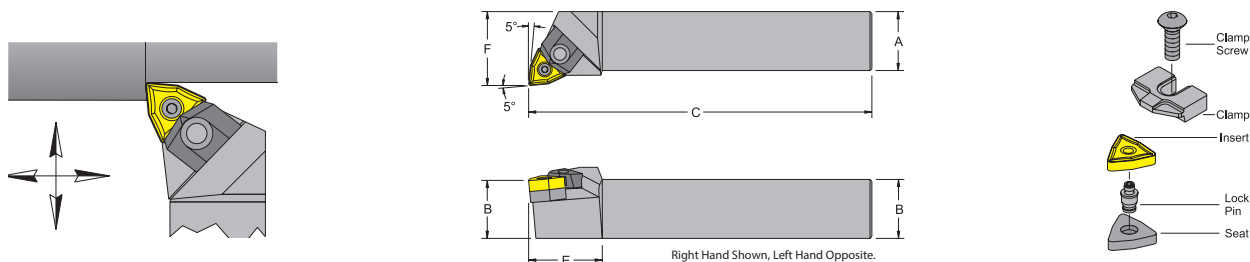
WTJN R/L Toolholder Style J- 3° Side Cutting Edge Angle for negative triangle TNM_ inserts



Inch Description	UPC No. 733101- R.H.	L.H.	A	B	C	E	F	TNM_ Gage Insert	Seat	Lock Pin	Clamp	Clamp Screw	Optional Seat Screw
WTJNR/L12-3C	51623	-	0.75	0.75	5.0	1.00	1.000	332	S6016P	P0502	C6016N	V6016	V83006
WTJNR/L16-3D	-	51629	1.00	1.00	6.0	1.00	1.250						

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

WWLN R/L Toolholder Style L- 5° End or Side Cutting Edge Angle for negative 80° trigon WNM_ inserts

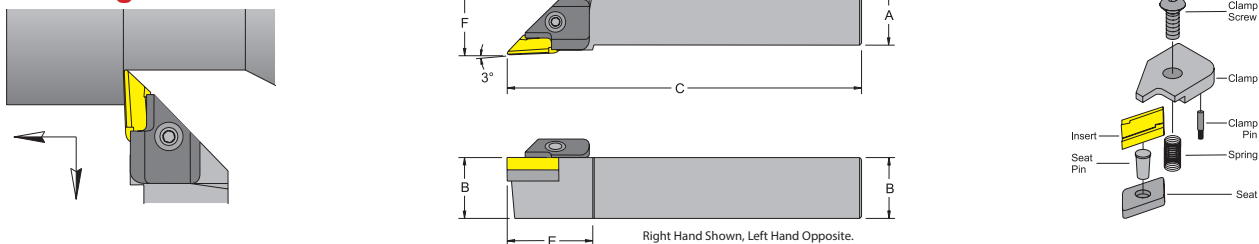


Inch Description	UPC No. 733101- R.H.	L.H.	A	B	C	E	F	WNM_ Gage Insert	Seat	Lock Pin	Clamp	Clamp Screw
WWLNR/L16-4D	51637	51638	1.00	1.00	6.0	1.00	1.250	432	S8008P	P060Z	C8008N	V8008N

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

CKJNR Toolholder Style J- 3° Side Cutting Edge Angle for negative KNUX inserts

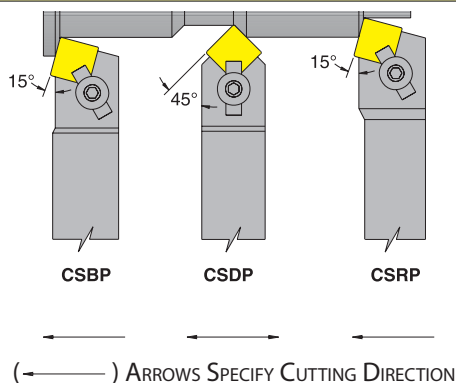
Profiling Toolholder



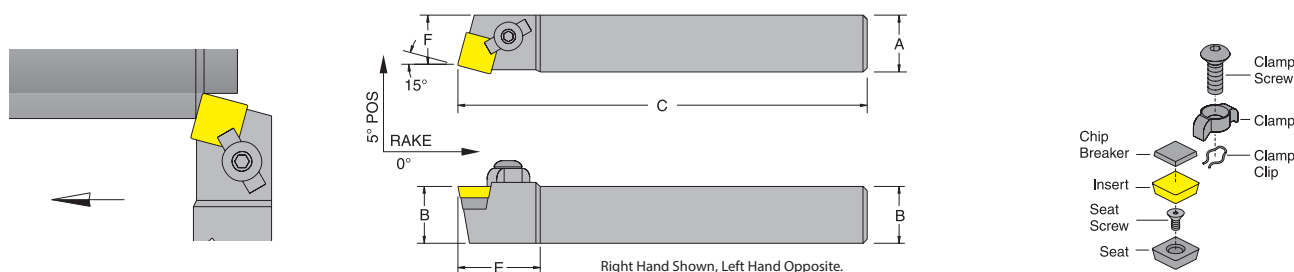
Inch Description	UPC No. 733101- R.H.	A	B	C	E	F	KNUX Gage Insert	Seat	Seat Pin	Clamp	Clamp Screw	Clamp Pin	Spring	Wrench
CKJNR12-5C	51592	0.75	0.75	5.0	1.34	1.000	160405	CKN16R	5311	SKN16R	V0616	SC510	M428	CBR40
CKJNR16-5D	51594	1.00	1.00	6.0	1.34	1.250								
CKJNR20-5E	51596	1.25	1.25	7.0	1.34	1.500								

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

CS - Style Toolholders



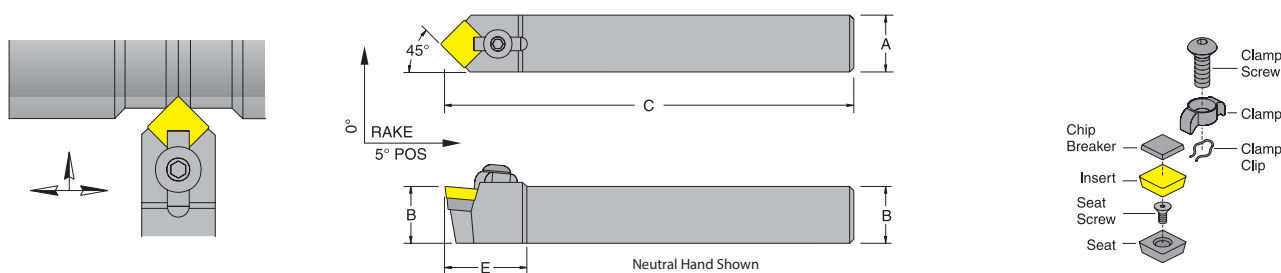
CSBP R/L Toolholder Style B- 15° Side Cutting Edge Angle for 11° positive square SPG inserts



Inch Description	UPC No. 733101- R.H.	L.H.	A	B	C	E	F	SPG Gage Insert	Seat	Seat Screw	Clamp	Clamp Clip	Clamp Screw	Optional Chip Breaker
CSBPR/L10-3B	51300	51301	0.625	0.625	4.50	1.00	0.531	322	-	-	HC-9	CLP-9	CS-96	S3BC
CSBPR/L12-3B	51304	-	0.750	0.750	4.50	1.00	0.658							
CSBPR/L12-4B	51308	51309	0.750	0.750	4.50	1.25	0.627	422	SM-40	TS-4	HC-12	CLP-12	CS-126	S4BE
CSBPR/L16-4D	51312	51313	1.000	1.000	6.00	1.25	0.877							
CSBPR/L20-6D	51320	51321	1.250	1.250	6.00	1.50	1.065	633	SM-36	TS-6	HC-12	CLP-12	CS-126	S6BG

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

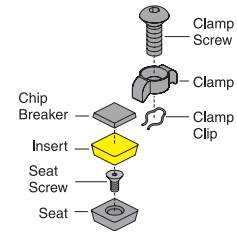
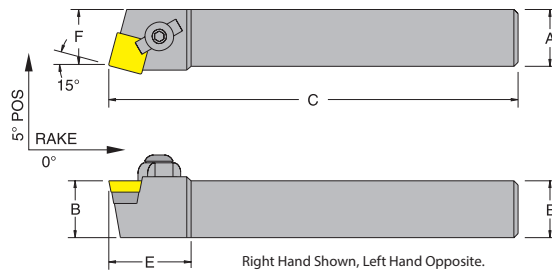
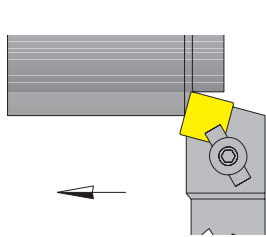
CSDP N Toolholder Style D- 45° Side Cutting Edge Angle for 11° positive square SPG inserts



Inch Description	UPC No. 733101- Neutral	A	B	C	E	SPG Gage Insert	Seat	Seat Screw	Clamp	Clamp Clip	Clamp Screw	Optional Chip Breaker
CSDPN08-3J	51330	0.500	0.500	3.50	1.000	322	-	-	HC-9	CLP-9	CS-96	S3BC
CSDPN10-3B	51332	0.625	0.625	4.50	1.000							
CSDPN12-3B	51334	0.750	0.750	4.50	1.000	422	SM-40	TS-4	HC-12	CLP-12	CS-126	S4BE
CSDPN12-4B	51336	0.750	0.750	4.50	1.375							
CSDPN16-4D	51338	1.000	1.000	6.00	1.375	633	SM-36	TS-6	HC-12	CLP-12	CS-126	S6BG
CSDPN16-6D	51346	1.000	1.000	6.00	1.625							
CSDPN85-6D	51348	1.000	1.250	6.00	1.625							
CSDPN86-6E	51350	1.000	1.500	7.00	1.625							

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

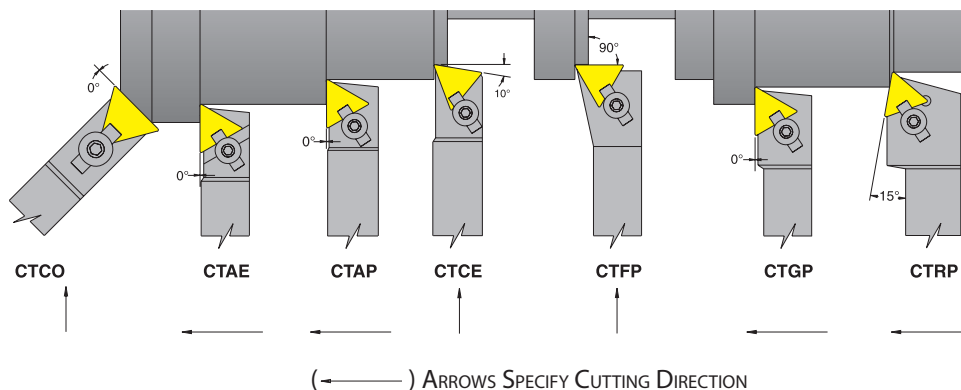
CSRPR R/L Toolholder Style R- 15° Side Cutting Edge Angle for 11° positive square SPG inserts



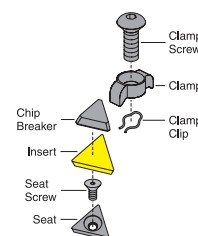
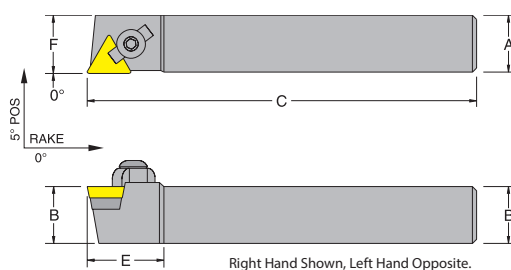
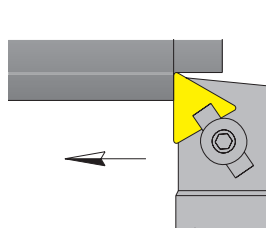
Inch Description	UPC No. 733101-		A	B	C	E	F	SPG		Seat Screw	Clamp	Clamp Clip	Clamp Screw	Optional Chip Breaker
	R.H.	L.H.						Gage Insert	Seat					
CSRPR/L08-3J	51364	51365	0.500	0.500	3.50	1.00	0.533	322	-	-	HC-9	CLP-9	CS-94	S3BC
CSRPR/L16-6D	51368	51369	1.000	1.000	6.00	1.50	1.003	633	SM-36	TS-6	HC-12	CLP-12	CS-126	S6BG
CSRPR/L85-6D	-	51373	1.000	1.250	6.00	1.50	1.003							
CSRPR/L86-6E	51376*	51377	1.000	1.500	7.00	1.50	1.003							

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92. *Non-Stock Items

CT - Style Toolholders



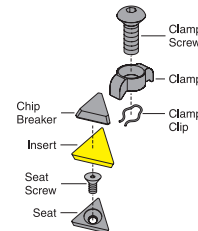
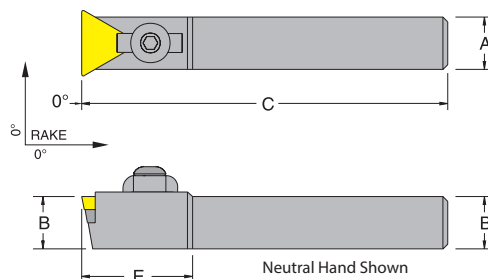
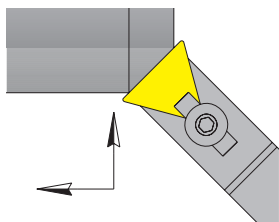
CTAP R/L Toolholder Style A- 0° Side Cutting Edge Angle for 11° positive triangle TPG inserts



Inch Description	UPC No. 733101-		A	B	C	E	F	TPG Gage Insert	Seat	Seat Screw	Clamp	Clamp Clip	Clamp Screw	Optional Chip Breaker
	R.H.	L.H.												
CTAPR/L06-2J	51382	51383	0.375	0.375	3.50	0.875	0.515	221	-	-	HC-9	CLP-9	CS-94	T2AC
CTAPR/L08-2J	51386	51387	0.500	0.500	3.50	0.875	0.515	221	-	-	HC-9	CLP-9	CS-96	
CTAPR/L10-2B	51390	51391	0.625	0.625	4.50	0.875	0.640	221	-	-	HC-9	CLP-9	CS-96	
CTAPR/L12-3B	51398	51399	0.750	0.750	4.50	1.250	0.765	322	SM-41	TS-4	HC-12	CLP-12	CS-126	T3AE
CTAPR/L16-3D	51402	51403	1.000	1.000	6.00	1.250	1.015							
CTAPR/L65-3D	51406	51407	0.750	1.250	6.00	1.250	0.765							
CTAPR/L16-4D	51410	51411	1.000	1.000	6.00	1.250	1.015	432	SM-37	TS-6	HC-12	CLP-12	CS-126	T4AE
CTAPR/L85-4D	51414	51415	1.000	1.250	6.00	1.250	1.015							

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

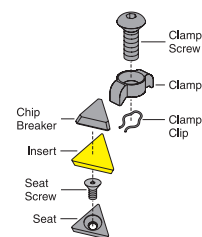
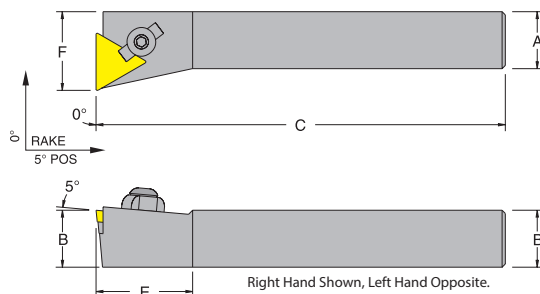
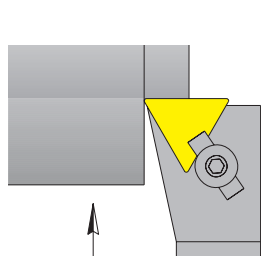
CTCO N Toolholder Style C- 0° End Cutting Edge Angle for 11° positive triangle TPG inserts



Inch Description	UPC No. 733101- Neutral	A	B	C	E	TPG Gage Insert	Seat	Seat Screw	Clamp	Clamp Clip	Clamp Screw	Optional Chip Breaker
CTCON08-3J	51424	0.50	0.50	3.50	1.125	322	-	-	HC-9	CLP-9	CS-96	T3AE
CTCON44-3F	51426	0.50	1.00	8.00	1.125	322	SM-41	TS-4	HC-9	CLP-9	CS-96	
CTCON12-4B	51428	0.75	0.75	4.50	1.375	432	SM-37	TS-6	HC-12	CLP-12	CS-126	T4AE
CTCON64-4F	51430	0.75	1.00	8.00	1.375							
CTCON66-4F	51432	0.75	1.50	8.00	1.375							

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

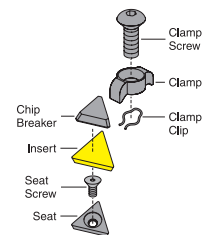
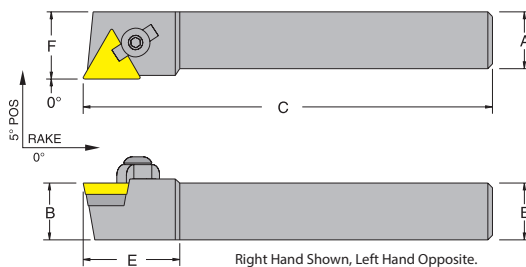
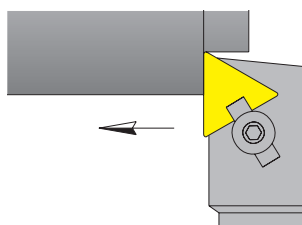
CTFP R/L Toolholder Style F- 0° End Cutting Edge Angle for 11° positive triangle TPG inserts



Inch Description	UPC No. 733101- R.H. L.H.		A	B	C	E	F	TPG Gage Insert	Seat	Seat Screw	Clamp	Clamp Clip	Clamp Screw	Optional Chip Breaker
CTFPR/L10-3B	51442	51443	0.625	0.625	4.50	1.125	0.875	322	SM-41	TS-4	HC-12	CLP-12	CS-126	T3AE
CTFPR/L12-3B	51446	51447	0.750	0.750	4.50	1.250	1.000							
CTFPR/L16-3D	51450	51451	1.000	1.000	6.00	1.125	1.250							
CTFPR/L12-4B	51454	-	0.750	0.750	4.50	1.125	1.000							
CTFPR/L16-4C	51458	51459	1.000	1.000	5.00	1.000	1.250	432	SM-37	TS-6	HC-12	CLP-12	CS-126	T4AE
CTFPR/L16-4D	51462	51463	1.000	1.000	6.00	1.000	1.250							
CTFPR/L20-4D	51466	51467	1.250	1.250	6.00	1.000	1.500							
CTFPR/L85-4D	51470	-	1.000	1.250	6.00	1.000	1.250							

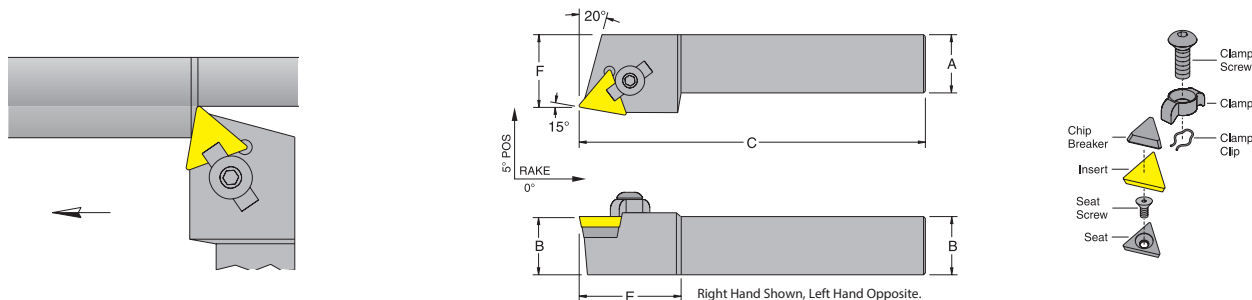
For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

CTGP R/L Toolholder Style G- 0° Side Cutting Edge Angle for 11° positive triangle TPG inserts



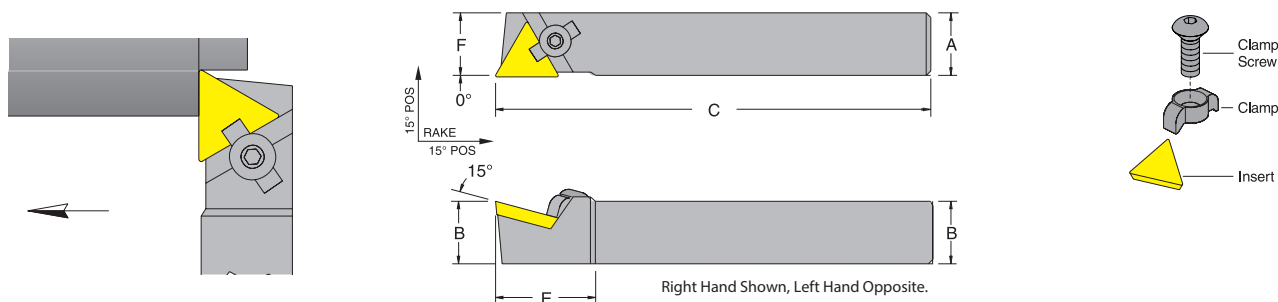
Inch Description	UPC No. 733101- R.H. L.H.		A	B	C	E	F	TPG Gage Insert	Seat	Seat Screw	Clamp	Clamp Clip	Clamp Screw	Optional Chip Breaker
CTGPR/L10-3B	51492	51493	0.625	0.625	4.50	1.000	0.875	322	SM-41	TS-4	HC-12	CLP-12	CS-126	T3AE
CTGPR/L12-3B	51496	51497	0.750	0.750	4.50	1.000	1.000							
CTGPR/L16-4C	51500	51501	1.000	1.000	5.00	1.250	1.250							
CTGPR/L16-4D	51504	51505	1.000	1.000	6.00	1.250	1.250	432	SM-37	TS-6	HC-12	CLP-12	CS-126	T4AE
CTGPR/L20-4D	51508	51509	1.250	1.250	6.00	1.250	1.500							
CTGPR/L85-4D	51512	51513	1.000	1.250	6.00	1.250	1.250							
CTGPR/L16-5D	51516	51517	1.000	1.000	6.00	1.375	1.250	543	SM-99	TS-10	HC-12	CLP-12	CS-126	T5AE
CTGPR/L20-5D	51520	51521	1.250	1.250	6.00	1.375	1.500							
CTGPR/L24-5E	51524	51525	1.500	1.500	7.00	1.375	2.000							

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

CTRP R/L Toolholder Style R- 15° Side Cutting Edge Angle for 11° positive triangle TPG inserts


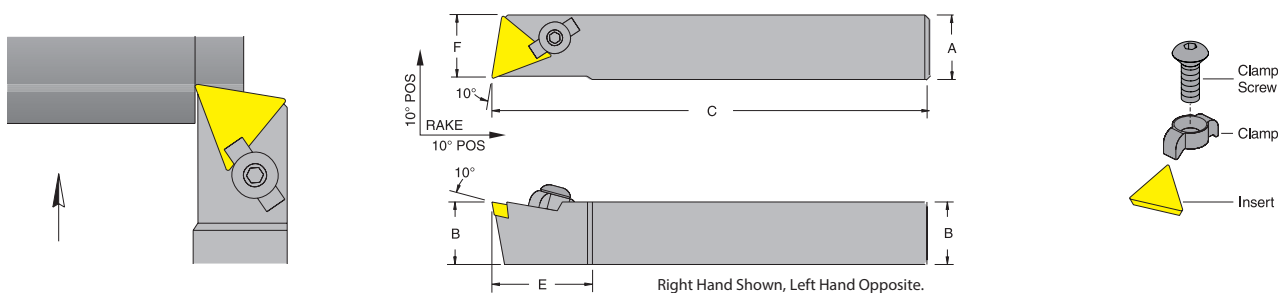
Inch Description	UPC No. 733101- R.H. L.H.		A	B	C	E	F	TPG Gage Insert	Seat	Seat Screw	Clamp	Clamp Clip	Clamp Screw	Optional Chip Breaker
CTRP/L10-2B	51534	51535	0.625	0.625	4.50	1.000	0.776	221	-	-	HC-9	CLP-9	CS-96	T2AC
CTRP/L12-3B	51538	51539	0.750	0.750	4.50	1.250	0.855	322	SM-41	TS-4	HC-12	CLP-12	CS-126	T3AE
CTRP/L16-3D	51542	51543	1.000	1.000	6.00	1.250	1.105	432	SM-37	TS-6	HC-12	CLP-12	CS-126	T4AE
CTRP/L85-4D	51546	51547	1.000	1.250	6.00	1.375	1.048							

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

CTAE R/L Toolholder Style A 0° Side Cutting Edge Angle for 20° positive triangle TEGE inserts


Inch Description	UPC No. 733101- R.H. L.H.		A	B	C	E	F	TEGE Gage Insert	Clamp	Clamp Screw
CTAER/L06-7	51380	51381	0.375	0.375	2.50	0.625	0.375	731	HC-7	SHC-7

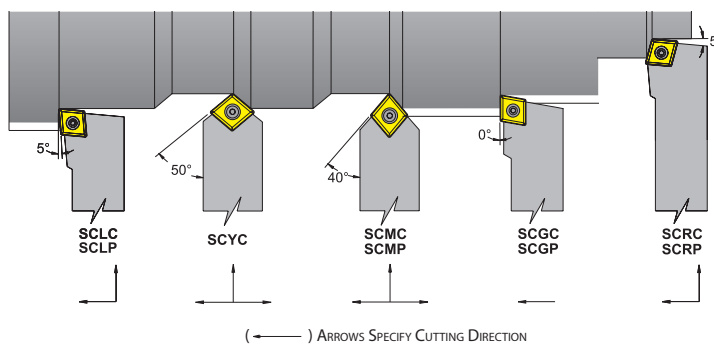
For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

CTCE R/L Toolholder Style L -10° End Cutting Edge Angle for 20° positive triangle TEGE inserts


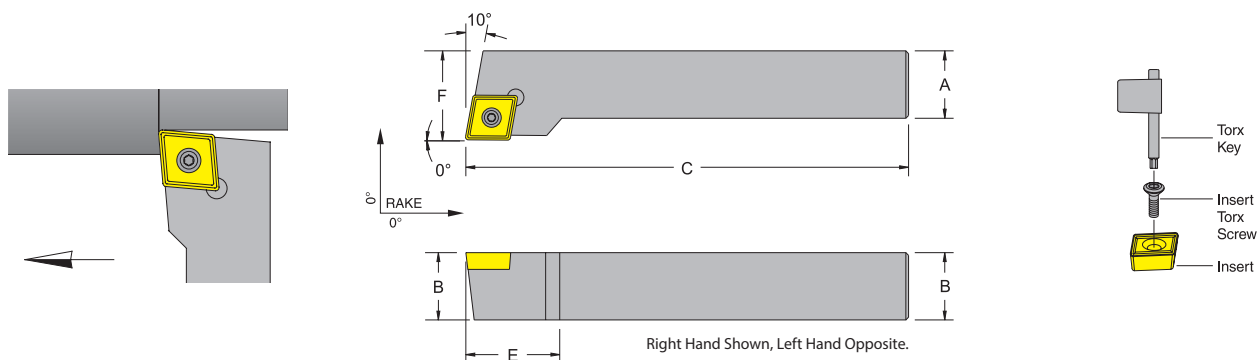
Inch Description	UPC No. 733101- R.H. L.H.		A	B	C	E	F	TEGE Gage Insert	Clamp	Clamp Screw
CTCER/L06-7	51418	51419	0.375	0.375	2.50	0.625	0.391	1.81.51	HC-7	SHC-7

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

SC - Style Toolholders

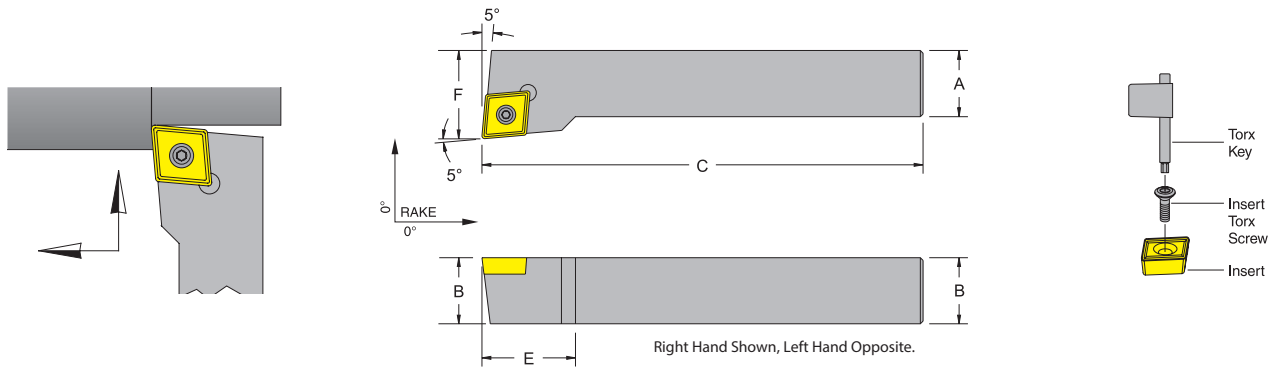


SCGC R/L Toolholder Style G- 0° Side Cutting Edge Angle for 7° positive 80° diamond CC_T inserts



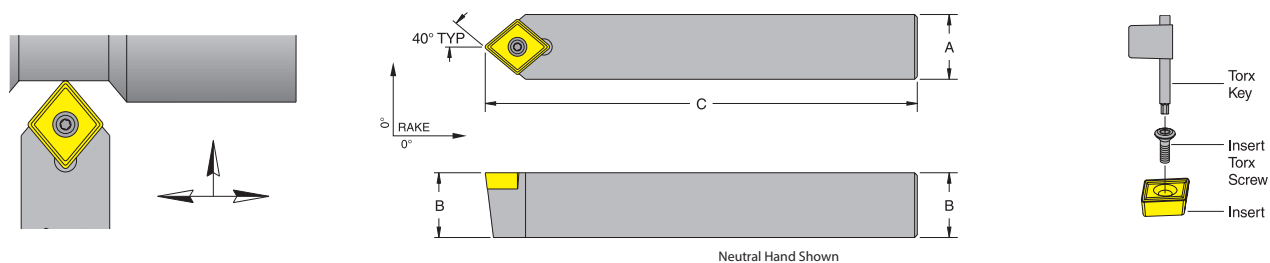
Inch Description	UPC No. 733101-		A	B	C	E	F	CC_T Gage Insert	Insert Torx Screw	Torx Key
	R.H.	L.H.								
SCGCR/L05-2	51790	51791	0.312	0.312	2.50	.500	0.375	21.51	TS-25.45-6M2	T-8
SCGCR/L06-2J	51792	51793	0.375	0.375	3.50	.500	0.500			
SCGCR/L08-2A	51794	51795	0.500	0.500	4.00	.500	0.625			
SCGCR/L10-3A	-	51797	0.625	0.625	4.00	.688	0.750	32.52	TS-4.7-10M1	T-15
SCGCR/L12-3B	51798	51799	0.750	0.750	4.50	.688	1.000			

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

SCLC R/L Toolholder Style L- Negative 5° End or Side Cutting Edge Angle for 7° positive 80° diamond CC_T inserts

Inch Description	UPC No. 733101-		A	B	C	E	F	CC_T Gage Insert	Insert Torx Screw	Torx Key
	R.H.	L.H.								
SCLCR/L05-2	51806	51807	0.312	0.312	2.500	0.500	0.375	21.51	TS-25.45-6M2	T-8
SCLCR/L06-2	-	51811	0.375	0.375	2.500	0.500	0.500			
SCLCR/L06-2J	51800	51801	0.375	0.375	3.500	0.500	0.500			
SCLCR/L08-2J	-	51815	0.500	0.500	3.500	0.500	0.625			
SCLCR/L10-2A	-	51819	0.625	0.625	4.000	0.500	0.750			
SCLCR/L08-3A	51804	51805	0.500	0.500	4.000	0.688	0.625	32.52	TS-4.7-10M1	T-15
SCLCR/L10-3A	51822	51823	0.625	0.625	4.000	0.688	0.750			
SCLCR/L10-3B	51808	51809	0.625	0.625	4.500	0.688	0.750			
SCLCR/L12-3B	51812	51813	0.750	0.750	4.500	0.688	1.000			
SCLCR/L16-3D	51816	51817	1.000	1.000	6.000	0.688	1.250			
SCLCR/L12-4B	51820	51821	0.750	0.750	4.500	0.850	1.000	432	TS-5.8-10M1	T-20
SCLCR/L16-4D	51824	51825	1.000	1.000	6.000	0.850	1.250			
SCLCR/L20-4D	51826	-	1.250	1.250	6.000	0.850	1.500			

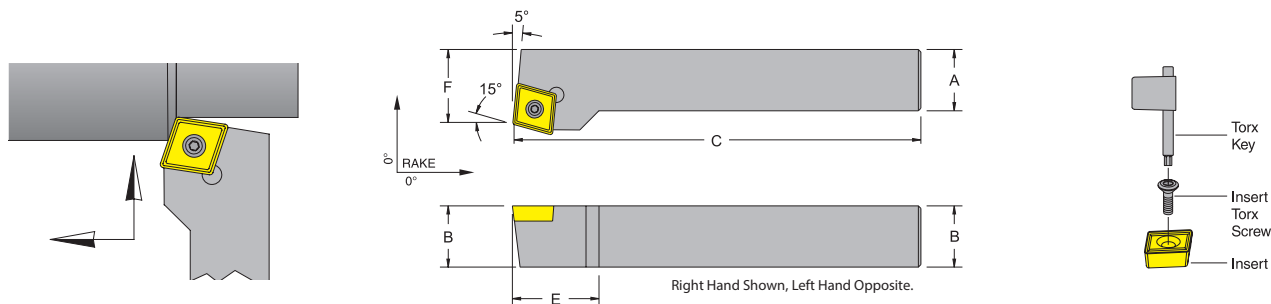
For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

SCMC N Toolholder Style M- 40° Side Cutting Edge Angle for 7° positive 80° diamond CC_T inserts

Inch Description	UPC No. 733101- Neutral	A	B	C	CC_T Gage Insert	Insert Torx Screw	Torx Key
SCMCN08-2J	51833	0.500	0.500	3.500	21.51	TS-25.45-6M2	T-8
SCMCN10-2A	51829	0.625	0.625	4.000			
SCMCN08-3J	51830	0.500	0.500	3.500			
SCMCN08-3A	51836	0.500	0.500	4.000	32.52	TS-4.7-10M1	T-15
SCMCN10-3A	51831	0.625	0.625	4.000			
SCMCN10-3B	51838	0.625	0.625	4.500			
SCMCN12-3B	51840	0.750	0.750	4.500			
SCMCN16-3D	51832	1.000	1.000	6.000			
SCMCN12-4B	51842	0.750	0.750	4.500	432	TS-5.8-10M1	T-20
SCMCN16-4D	51844	1.000	1.000	6.000			

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

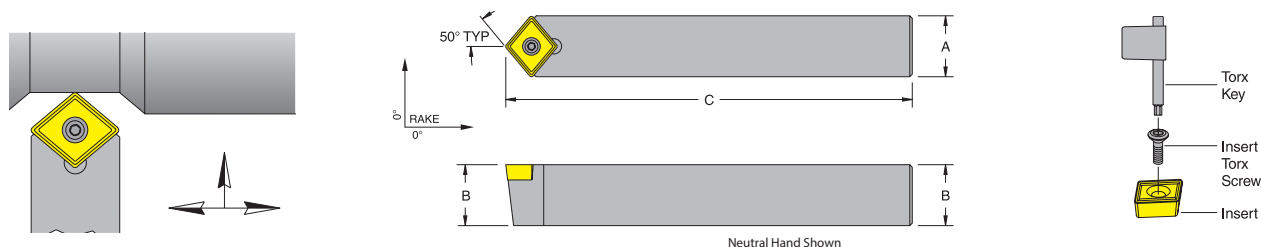
SCRC R/L Toolholder Style R -15° Side Cutting Edge Angle for 7° positive 80° diamond CC_T inserts



Inch Description	UPC No. 733101-		A	B	C	E	F	CC_T Gage Insert	Insert Torx Screw	Torx Key
	R.H.	L.H.								
SCRCR/L06-2	51859	51861	0.375	0.375	2.500	0.500	0.439	21.51	TS-25.45-6M2	T-8
SCRCR/L08-2J	51863	51865	0.500	0.500	3.500	0.500	0.564			
SCRCR/L08-3J	51866	51867	0.500	0.500	3.500	0.688	0.548	32.52	TS-4.7-10M1	T-15
SCRCR/L10-3A	51868	51869	0.625	0.625	4.000	0.688	0.673			

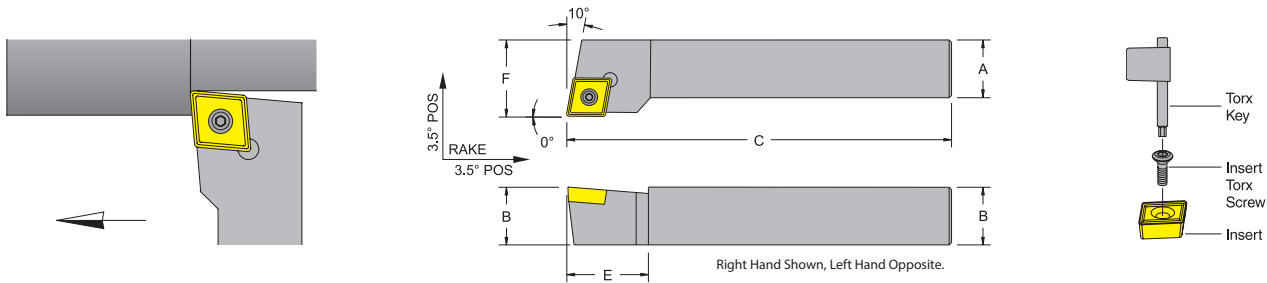
For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

SCYC N Toolholder Style Y- 50° Side Cutting Edge Angle for 7° positive 80° diamond CC_T inserts



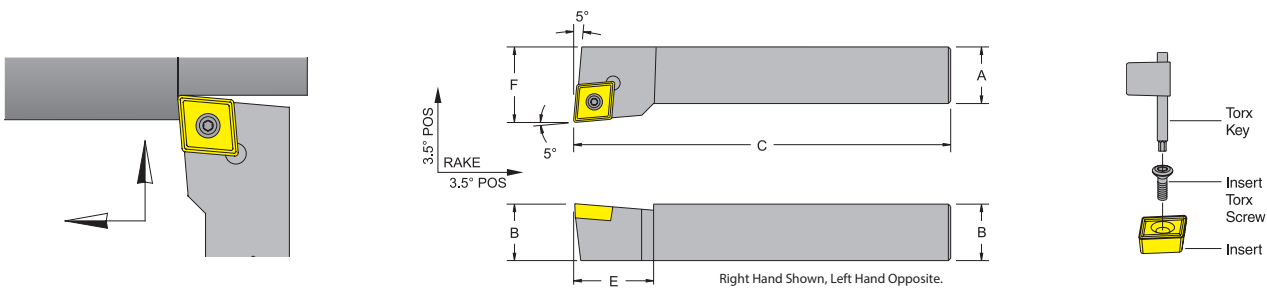
Inch Description	UPC No. 733101- Neutral	A	B	C	CC_T Gage Insert	Insert Torx Screw	Torx Key
SCYCN06-2J	51854	0.375	0.375	3.500	21.51	TS-25.45-6M2	T-8
SCYCN08-3A	51856	0.500	0.500	4.000	32.52	TS-4.7-10M1	T-15
SCYCN12-3B	51860	0.750	0.750	4.500			
SCYCN12-4B	51862	0.750	0.750	4.500	432	TS-5.8-10M1	T-20
SCYCN16-4D	51864	1.000	1.000	6.000			

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

SCGP R/L Toolholder Style G- 0° End Cutting Edge Angle for 11° positive 80° diamond CP_T inserts

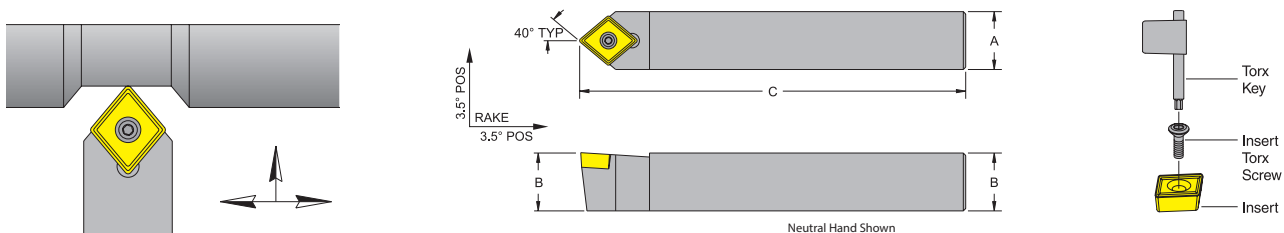
Inch Description	UPC No. 733101-		A	B	C	E	F	CP_T Gage Insert	Insert Torx Screw	Torx Key
	R.H.	L.H.								
SCGPR/L06-2	51870	51871	0.375	0.375	2.500	0.500	0.500	21.51	TS-25.45-6M2	T-8
SCGPR/L08-3J	51874	51875	0.500	0.500	3.500	0.688	0.625	32.52	TS-4.7-10M1	T-15
SCGPR/L12-3B	51878	51879	0.750	0.750	4.500	0.688	1.000			

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

SCLP R/L Toolholder Style L -Negative 5° End or Side Cutting Edge Angle for 11° positive 80° diamond CP_T inserts

Inch Description	UPC No. 733101-		A	B	C	E	F	CP_T Gage Insert	Insert Torx Screw	Torx Key
	R.H.	L.H.								
SCLPR/L06-2	51882	-	0.375	0.375	2.500	0.500	0.500	21.51	TS-25.45-6M2	T-8
SCLPR/L08-3J	51886	51887	0.500	0.500	3.500	0.688	0.625	32.52	TS-4.7-10M1	T-15
SCLPR/L12-3B	51890	51891	0.750	0.750	4.500	0.688	1.000			

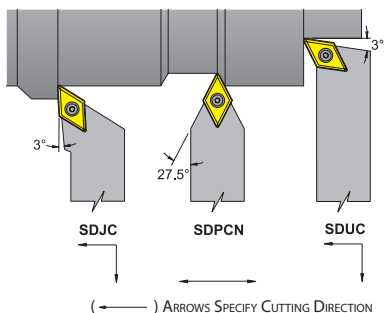
For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

SCMP N Toolholder Style M- 40° Side Cutting Edge Angle for 11° positive 80° diamond CP_T inserts

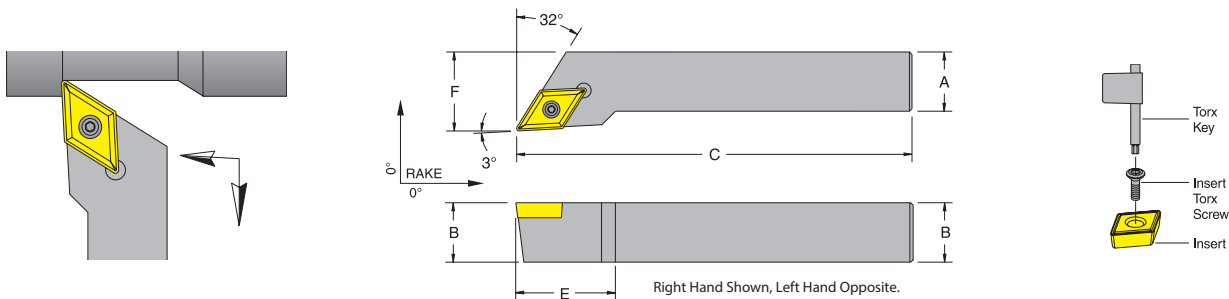
Inch Description	UPC No. 733101- Neutral	A	B	C	CP_T Gage Insert	Insert Torx Screw	Torx Key
SCMPN06-2	51894	0.375	0.375	2.500	21.51	TS-25.45-6M2	T-8
SCMPN08-3J	51895	0.500	0.500	3.500	32.52	TS-4.7-10M1	T-15

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

SD - Style Toolholders

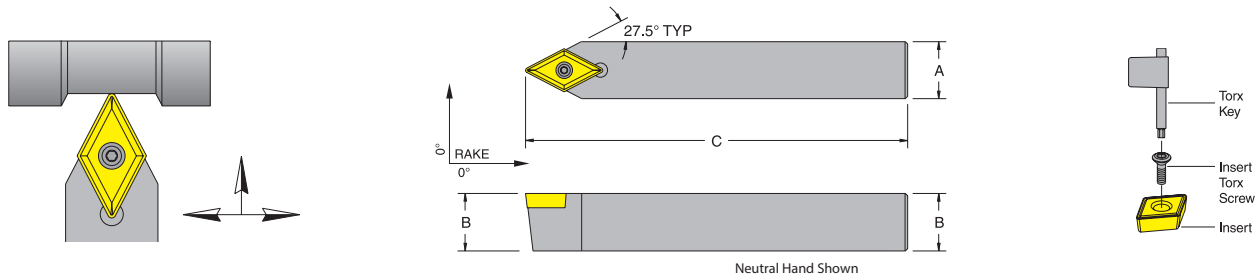


SDJC R/L Toolholder Style J- Negative 3° Side Cutting Edge Angle for 7° positive 55° diamond DC_T inserts



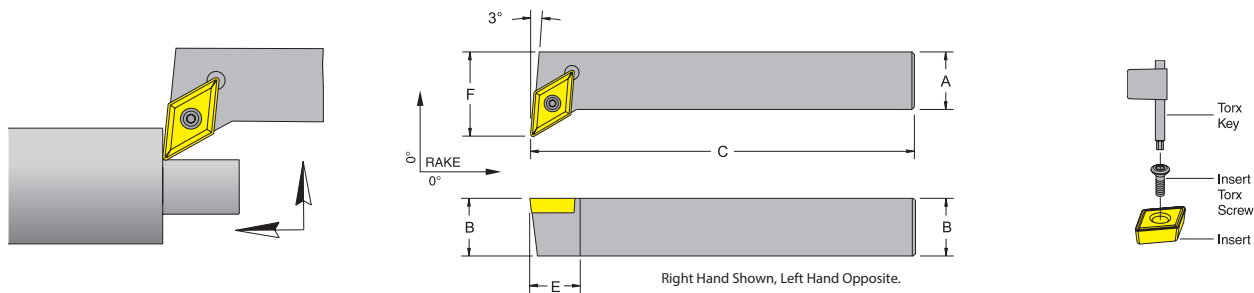
Inch Description	UPC No. 733101-		A	B	C	E	F	DC_T Gage Insert	Insert Torx Screw	Torx Key
	R.H.	L.H.								
SDJCR/L06-2J	51872	51873	0.375	0.375	3.500	0.688	0.500	21.51	TS-25.45-6M2	T-8
SDJCR/L08-2A	51876	51877	0.500	0.500	4.000	0.688	0.625			
SDJCR/L08-3A	51880	51881	0.500	0.500	4.000	1.000	0.625	32.52	TS-4.7-10M1	T-15
SDJCR/L10-3B	51884	51885	0.625	0.625	4.500	1.000	0.750			
SDJCR/L12-3B	51888	51889	0.750	0.750	4.500	1.000	1.000			
SDJCR/L16-3D	51892	51893	1.000	1.000	6.000	1.000	1.250	432	TS-5.8-10M1	T-20
SDJCR/L12-4B	51896	-	0.750	0.750	4.500	1.250	1.000			
SDJCR/L16-4D	51900	51901	1.000	1.000	6.000	1.250	1.250			

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

SDPC N Toolholder Style P- 27.5° Side Cutting Edge Angle for 7° positive 55° diamond DC_T inserts


Inch Description	UPC No. 733101-Neutral	A	B	C	DC_T Gage Insert	Insert Torx Screw	Torx Key
SDPCN06-2J	51910	0.375	0.375	3.500	21.51	TS-25.45-6M2	T-8
SDPCN06-2D	51942	0.375	0.375	6.000			
SDPCN08-2A	51912	0.500	0.500	4.000			
SDPCN08-2D	51943	0.500	0.500	6.000			
SDPCN08-3D	51944	0.500	0.500	6.000	32.52	TS-4.7-10M1	T-15
SDPCN10-3B	51914	0.625	0.625	4.500			
SDPCN10-3D	51945	0.625	0.625	6.000			
SDPCN12-3B	51916	0.750	0.750	4.500			
SDPCN16-3D	51918	1.000	1.000	6.000	432	TS-5.8-10M1	T-20
SDPCN12-4B	51920	0.750	0.750	4.500			
SDPCN16-4D	51922	1.000	1.000	6.000			

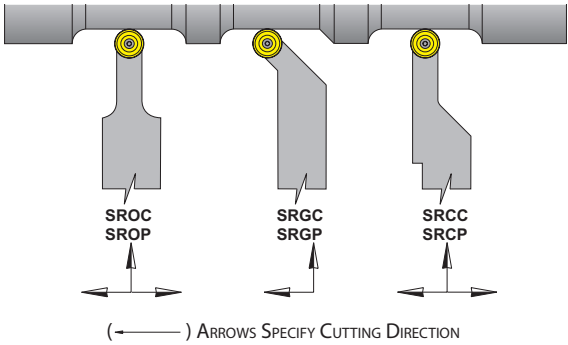
For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

SDUC R/L Toolholder Style U- 3° End Cutting Edge Angle for 7° positive 55° diamond DC_T inserts


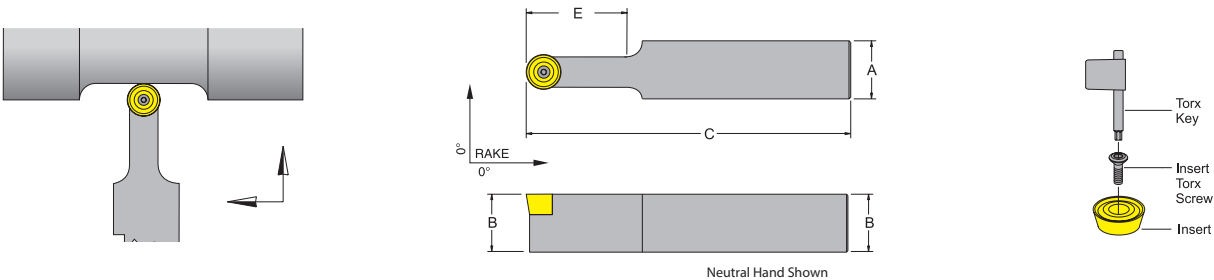
Inch Description	UPC No. 733101-R.H.	L.H.	A	B	C	E	F	DC_T Gage Insert	Insert Torx Screw	Torx Key
SDUCR/L08-2J	51946	51947	0.500	0.500	3.500	0.500	0.670	21.51	TS-25.45-6M2	T-8
SDUCR/L10-2A	51948	-	0.625	0.625	4.000	0.500	0.795			
SDUCR/L10-3A	51954	51959	0.625	0.625	4.000	0.688	0.871	32.52	TS-4.7-10M1	T-15

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

SR - Style Toolholders

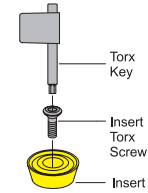
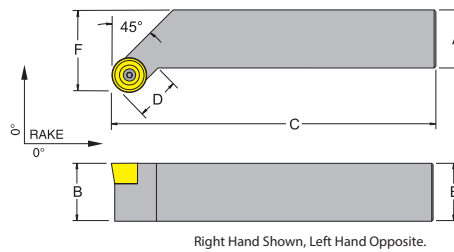
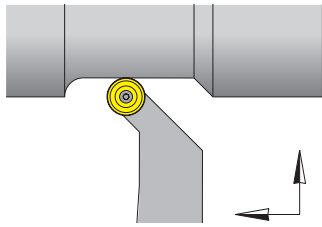


SROC N Toolholder Style O- Profiling, Plunging, and Turning for 7° positive round RC_T inserts



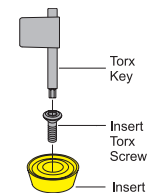
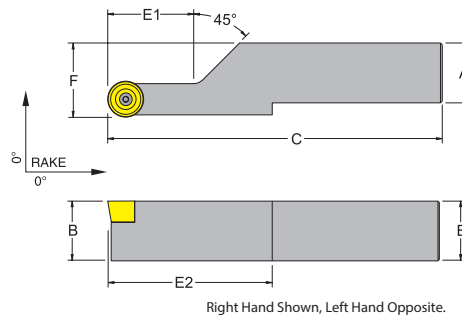
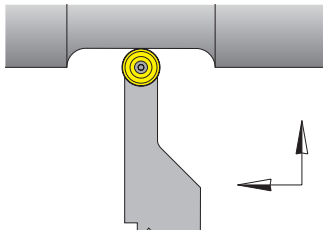
Inch Description	UPC No. 733101-Neutral	A	B	C	E	RC_T Gage Insert	Insert Torx Screw	Torx Key
SROCN10-06A	52160	0.625	0.625	4.000	0.625	0602MO	TS-25.45-6M2	T-8
SROCN16-06D	52162	1.000	1.000	6.000	1.000			
SROCN20-06D	52163	1.250	1.250	6.000	1.250			
SROCN20-10D	52169	1.250	1.250	6.000	1.250	1003MO	TS-35.6-9M1	T-15

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

SRGC R/L Toolholder Style G- Profiling, Plunging, and Turning for 7° positive round RC_T inserts


Inch Description	UPC No. 733101-		A	B	C	D	F	RC_T Gage Insert	Insert Torx Screw	Torx Key
	R.H.	L.H.								
SRGCR/L16-06D	-	52181	1.000	1.000	6.000	0.420	1.250	0602MO	TS-25.45-6M2	T-8
SRGCR/L12-08B	52184	-	0.750	0.750	4.500	0.450	1.000	0803MO	TS-3.5-7M1	T-8
SRGCR/L12-10B	-	52191	0.750	0.750	4.500	0.470	1.000	1003MO	TS-35.6-9M1	T-15
SRGCR/L20-10D	52194	52195	1.250	1.250	6.000	0.470	1.500			

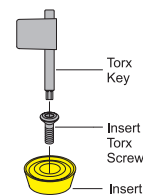
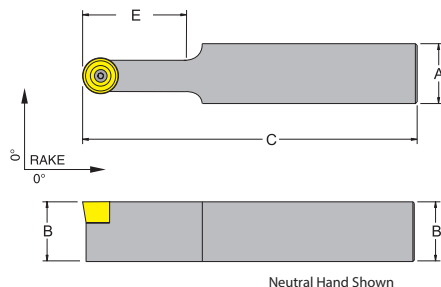
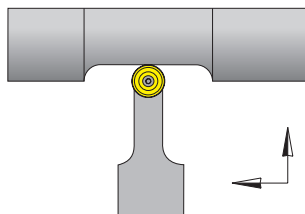
For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

SRCC R/L Toolholder Style C- Profiling, Plunging and Turning for 7° positive round RC_T inserts


Inch Description	UPC No. 733101-		A	B	C	E1	E2	F	RC_T Gage Insert	Insert Torx Screw	Torx Key
	R.H.	L.H.									
SRCCR/L12-06B	52214	-	0.750	0.750	4.500	0.810	1.560	0.868	0602MO	TS-25.45-6M2	T-8
SRCCR/L16-06D	-	52217	1.000	1.000	6.000	0.810	1.810	1.118			
SRCCR/L12-08B	52220	52221	0.750	0.750	4.500	1.020	1.770	0.908	0803MO	TS-3.5-7M1	T-8
SRCCR/L16-08D	52222	52223	1.000	1.000	6.000	1.020	2.020	1.158			
SRCCR/L12-10B	52226	52227	0.750	0.750	4.500	1.230	1.980	0.947	1003MO	TS-35.6-9M1	T-15

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

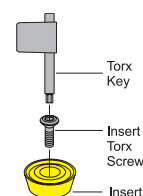
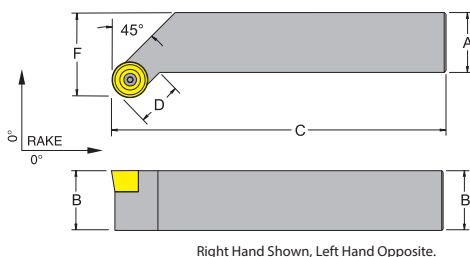
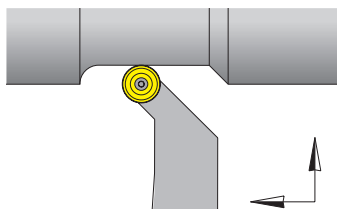
SRON N Toolholder Style O- Profiling, Plunging and Turning for 11° positive round RP_T inserts



Inch Description	UPC No. 733101-Neutral	A	B	C	E	RP_T Gage Insert	Insert Torx Screw	Torx Key
SRON16-10D	52171	1.000	1.000	6.000	1.000	1003MO	TS-35.6-9M1	T-15
SRON20-10D	52172	1.250	1.250	6.000	1.250			

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

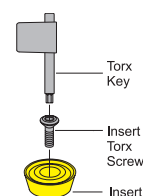
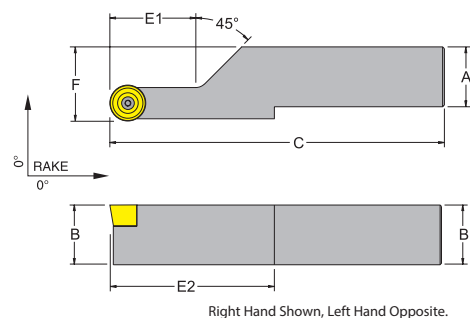
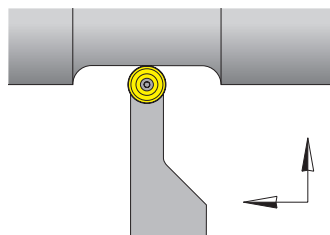
SRGP R/L Toolholder Style G- Profiling, Plunging and Turning for 11° positive round RP_T inserts



Inch Description	UPC No. 733101-R.H.	L.H.	A	B	C	D	F	RP_T Gage Insert	Insert Torx Screw	Torx Key
SRGPRL16-10D	52198	-	1.000	1.000	6.000	0.470	1.250	1003MO	TS-35.6-9M1	T-15

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

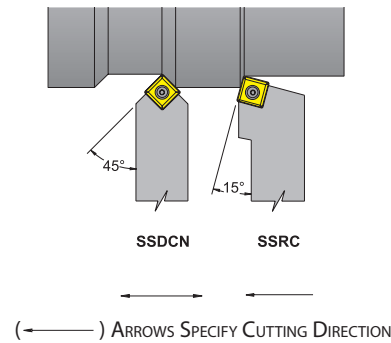
SRCP R/L Toolholder Style C- Profiling, Plunging and Turning for 11° positive round RP_T inserts



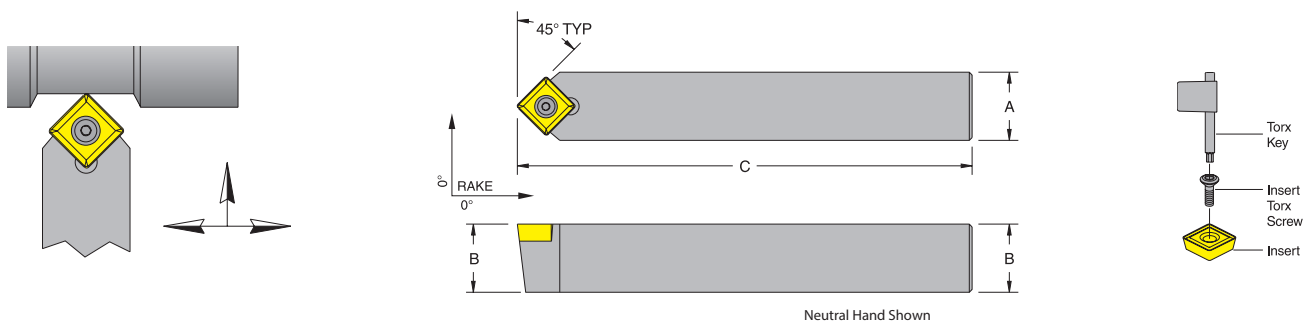
Inch Description	UPC No. 733101-R.H.	L.H.	A	B	C	E1	E2	F	RP_T Gage Insert	Insert Torx Screw	Torx Key
SRCPRL12-10B	52232	52233	0.750	0.750	4.500	1.230	1.980	0.947	1003MO	TS-35.6-9M1	T-15

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

SS - Style Toolholders



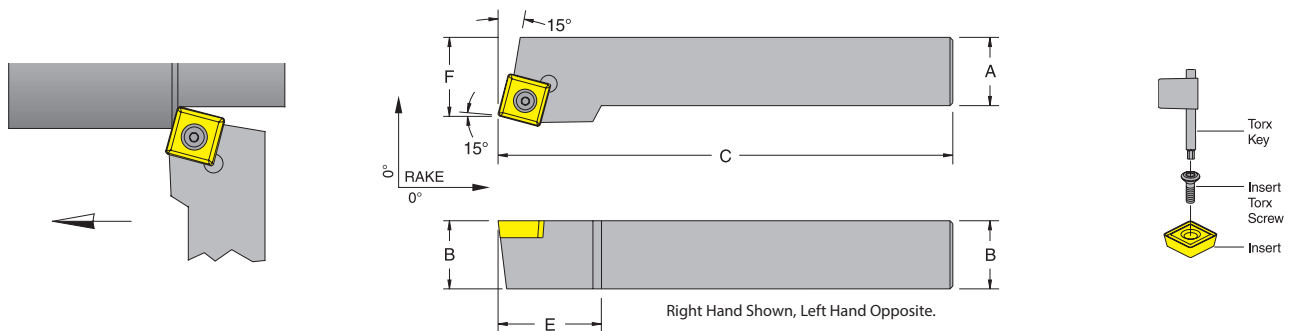
SSDC N Toolholder Style D - 45° Side Cutting Edge Angle for 7° positive square SC_T inserts



Inch Description	UPC No. 733101-Neutral	A	B	C	SC_T Gage Insert	Insert Torx Screw	Torx Key
SSDCN08-3A	51932	0.500	0.500	4.000	32.52	TS-4.7-10M1	T-15
SSDCN10-3B	51934	0.625	0.625	4.500			
SSDCN12-3B	51936	0.750	0.750	4.500			
SSDCN16-4D	51938	1.000	1.000	6.000	432	TS-5.8-10M1	T-20

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

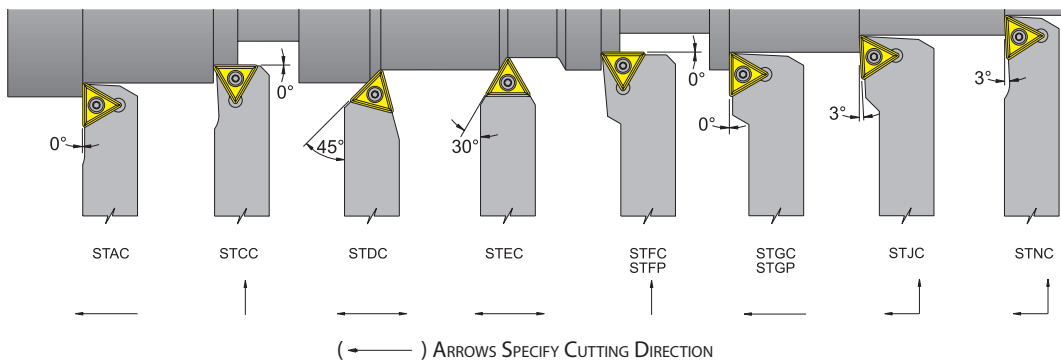
SSRC R/L Toolholder Style R - 15° Side Cutting Edge Angle for 7° positive square SC_T inserts



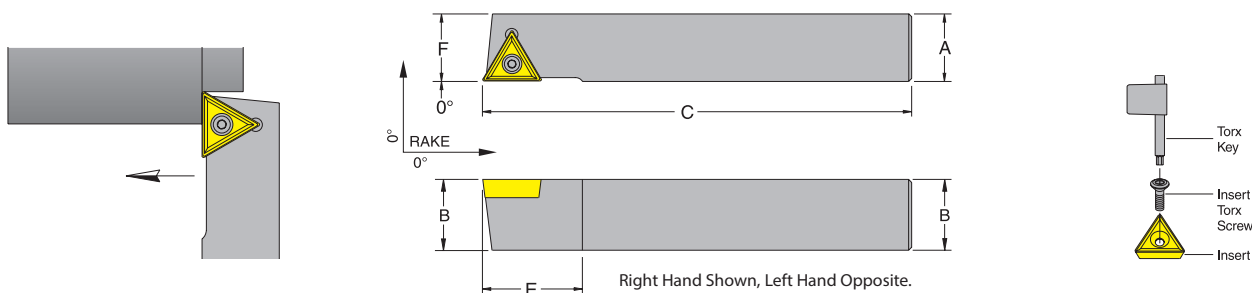
Inch Description	UPC No. 733101-R.H.	L.H.	A	B	C	E	F	SC_T Gage Insert	Insert Torx Screw	Torx Key
SSRCR/L08-3A	51952	51953	0.500	0.500	4.000	0.750	0.625	32.52	TS-4.7-10M1	T-15
SSRCR/L10-3A	51956	-	0.625	0.625	4.000	0.750	0.785			
SSRCR/L10-3B	51960	51961	0.625	0.625	4.500	0.750	0.785			
SSRCR/L12-3B	51964	51965	0.750	0.750	4.500	0.750	0.910			
SSRCR/L16-4C	51968	-	1.000	1.000	5.000	0.875	1.130	432	TS-5.8-10M1	T-20
SSRCR/L16-4D	51972	51973	1.000	1.000	6.000	0.875	1.130			

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

ST - Style Toolholders



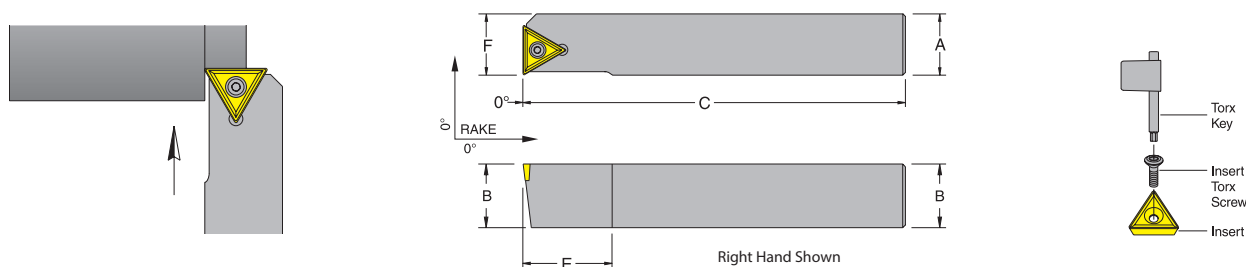
STAC R/L Toolholder Style A- 0° Side Cutting Edge Angle for 7° positive triangle TC_T inserts



Inch Description	UPC No. 733101-		A	B	C	E	F	TC_T Gage Insert	Insert Torx Screw	Torx Key
	R.H.	L.H.								
STACR/L06-2	51556	51557	0.375	0.375	2.50	0.625	0.375	21.51	TS-25.45-6M2	T-8
STACR/L08-2J	51558	-	0.500	0.500	3.50	0.625	0.500			
STACR/L10-2A	51560	51561	0.625	0.625	4.00	0.625	0.625			
STACR/L10-3B	-	51565	0.625	0.625	4.50	0.750	0.625	32.52	TS-4.7-10M1	T-15
STACR/L12-3B	51562	51567	0.750	0.750	4.50	1.125	0.750			
STACR/L64-3D	51564	51569	0.750	1.000	6.00	1.125	0.750			
STACR/L85-4D	51566	-	1.000	1.250	6.00	1.250	1.000	432	TS-5.8-10M1	T-20
STACR/L106-4D	51568	-	1.250	1.500	6.00	1.250	1.250			

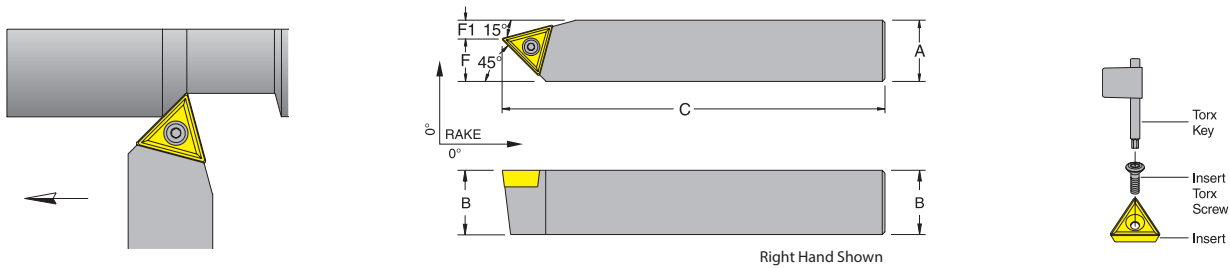
For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

STCC R Toolholder Style C - 0° End Cutting Edge Angle for 7° positive triangle TC_T inserts



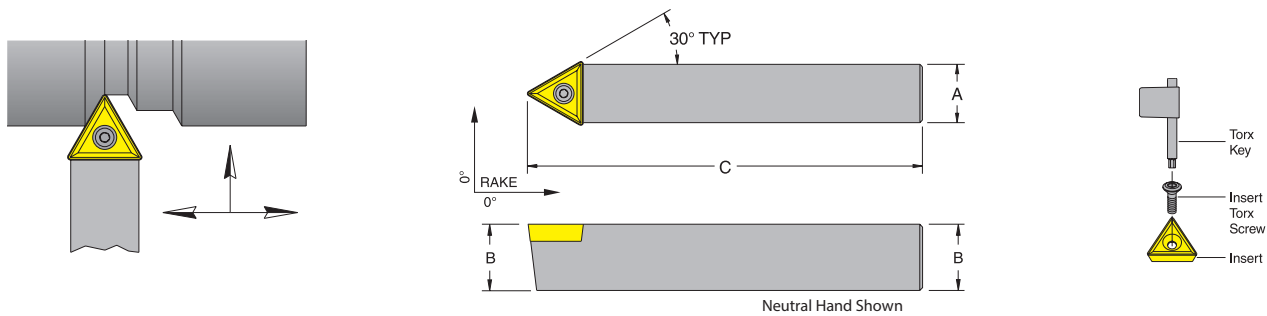
Inch Description	UPC No. 733101-		A	B	C	E	F	TC_T Gage Insert	Insert Torx Screw	Torx Key
	R.H.									
STCCR06-2	51578		0.375	0.375	2.50	0.520	0.395	21.51	TS-25.45-6M2	T-8
STCCR08-2J	51580		0.500	0.500	3.50	0.520	0.520			
STCCR10-2A	51582		0.625	0.625	4.00	0.520	0.645			
STCCR12-3B	51584		0.750	0.750	4.50	1.140	0.770	32.52	TS-4.7-10M1	T-15
STCCR64-3D	51586		0.750	1.000	6.00	1.140	0.770			
STCCR85-4D	51588		1.000	1.250	6.00	1.233	1.020			
STCCR106-4D	51590		1.250	1.500	6.00	1.233	1.270	432	TS-5.8-10M1	T-20

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

STDC R Toolholder Style D - 45° Side Cutting Edge Angle for 7° positive triangle TC_T inserts


Inch Description	UPC No. 733101- R.H.	A	B	C	F	F1	TC_T Gage Insert	Insert Torx Screw	Torx Key
STDCR06-2	51600	0.375	0.375	2.50	.260	.115	21.51	TS-25.45-6M2	T-8
STDCR08-2J	51602	0.500	0.500	3.50	.298	.201			
STDCR10-2A	51604	0.625	0.625	4.00	.361	.264			
STDCR12-3B	51606	0.750	0.750	4.50	.456	.294	32.52	TS-4.7-10M1	T-15
STDCR64-3D	51608	0.750	1.000	6.00	.456	.294			
STDCR85-4D	51610	1.000	1.250	6.00	.613	.387	432	TS-5.8-10M1	T-20
STDCR106-4D	51612	1.250	1.500	6.00	.738	.512			

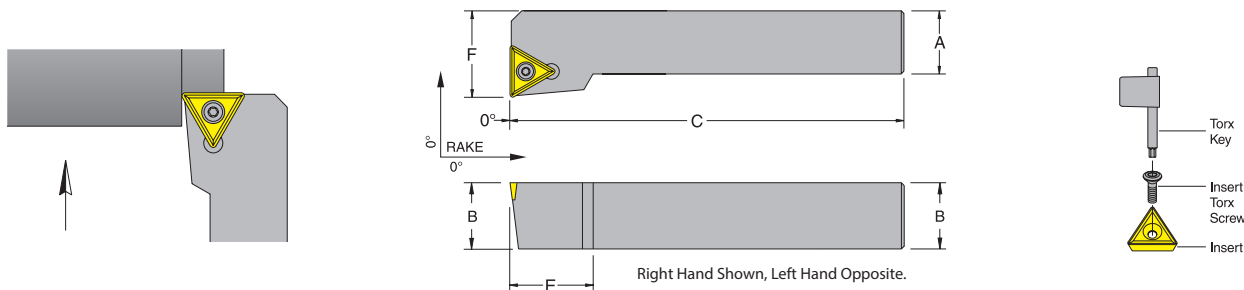
For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

STEC N Toolholder Style E- 30° Side Cutting Edge Angle for 7° positive triangle TC_T inserts


Inch Description	UPC No. 733101- Neutral	A	B	C	TC_T Gage Insert	Insert Torx Screw	Torx Key
STECN06-2	51622	0.375	0.375	2.50	21.51	TS-25.45-6M2	T-8
STECN08-2J	51624	0.500	0.500	3.50			
STECN10-2A	51626	0.625	0.625	4.00			
STECN12-3B	51628	0.750	0.750	4.50	32.52	TS-4.7-10M1	T-15
STECN64-3D	51630	0.750	1.000	6.00			
STECN85-4D	51632	1.000	1.250	6.00	432	TS-5.8-10M1	T-20
STECN106-4D	51634	1.250	1.500	6.00			

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

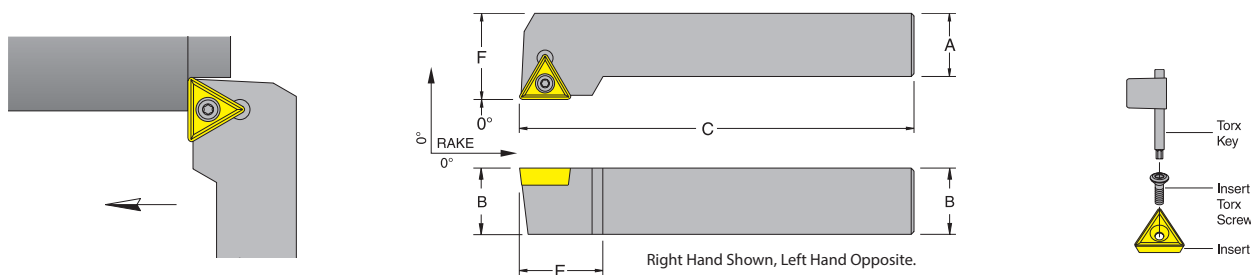
STFC R/L Toolholder Style F- 0° End Cutting Edge Angle for 7° positive triangle TC_T inserts



Inch Description	UPC No. 733101-		A	B	C	E	F	TC_T Gage Insert	Insert Torx Screw	Torx Key
	R.H.	L.H.								
STFCRL06-2	51644	51645	0.375	0.375	2.500	0.500	0.500	21.51	TS-25.45-6M2	T-8
STFCRL08-2J	51648	-	0.500	0.500	3.500	0.500	0.625			
STFCRL10-2A	51652	51653	0.625	0.625	4.000	0.500	0.750			
STFCRL10-3B	51656	51657	0.625	0.625	4.500	0.850	0.750	32.52	TS-4.7-10M1	T-15
STFCRL12-3B	51660	-	0.750	0.750	4.500	0.850	1.000			
STFCRL16-3D	51664	51665	1.000	1.000	6.000	0.850	1.250			
STFCRL20-4D	51668	51669	1.250	1.250	6.000	1.000	1.500	432	TS-5.8-10M1	T-20

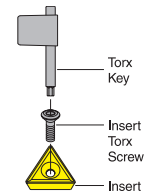
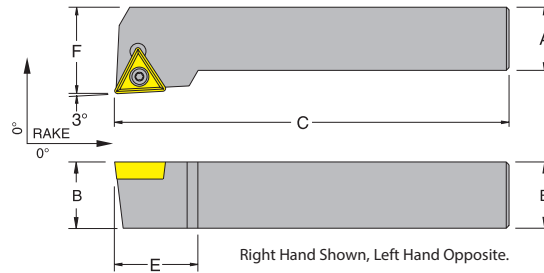
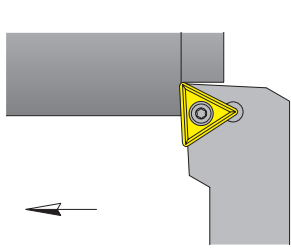
For inserts see pages 56-87. For spare parts see pages 158-159.

STGC R/L Toolholder Style G- 0° Side Cutting Edge Angle for 7° positive triangle TC_T inserts



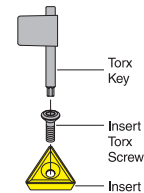
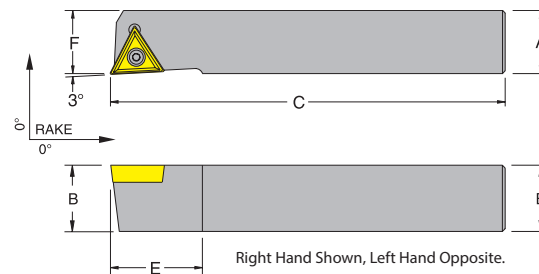
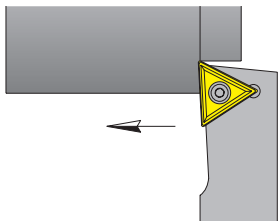
Inch Description	UPC No. 733101-		A	B	C	E	F	TC_T Gage Insert	Insert Torx Screw	Torx Key
	R.H.	L.H.								
STGCRL06-2	51672	51673	0.375	0.375	2.500	0.500	0.500	21.51	TS-25.45-6M2	T-8
STGCRL08-2J	51676	51677	0.500	0.500	3.500	0.500	0.625			
STGCRL10-2A	51680	51681	0.625	0.625	4.000	0.500	0.750			
STGCRL10-3B	51684	51685	0.625	0.625	4.500	0.850	0.750	32.52	TS-4.7-10M1	T-15
STGCRL12-3B	51688	51689	0.750	0.750	4.500	0.850	1.000			
STGCRL16-3D	51692	51693	1.000	1.000	6.000	0.850	1.250			
STGCRL20-4D	-	51697	1.250	1.250	6.000	1.250	1.500	432	TS-5.8-10M1	T-20

For inserts see pages 56-87. For spare parts see pages 158-159.

STJC R/L Toolholder Style J - 3° Side Cutting Edge Angle for 7° positive triangle TC_T inserts


Inch Description	UPC No. 733101-		A	B	C	E	F	TC_T Gage Insert	Insert Torx Screw	Torx Key
	R.H.	L.H.								
STJCR/L06-2	51700	51701	0.375	0.375	2.500	0.500	0.500	21.51	TS-25.45-6M2	T-8
STJCR/L08-2J	-	51705	0.500	0.500	3.500	0.500	0.625			
STJCR/L10-2A	51708	51709	0.625	0.625	4.000	0.500	0.750			
STJCR/L10-3B	51712	51713	0.625	0.625	4.500	0.850	0.750	32.52	TS-4.7-10M1	T-15
STJCR/L12-3B	51716	-	0.750	0.750	4.500	0.850	1.000			
STJCR/L16-3D	51720	51721	1.000	1.000	6.000	0.850	1.250			
STJCR/L20-4D	51724	51725	1.250	1.250	6.000	1.250	1.500	432	TS-5.8-10M1	T-20

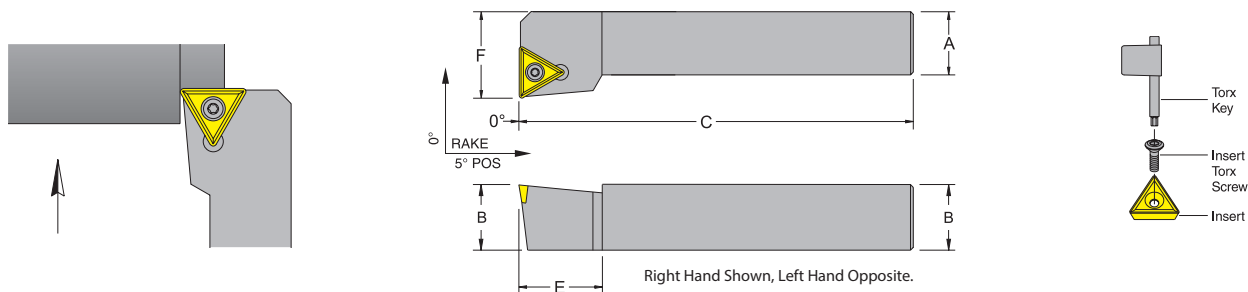
For inserts see pages 56-87. For spare parts see pages 158-159.

STNC R/L Toolholder Style N - 3° Side Cutting Edge Angle for 7° positive triangle TC_T inserts


Inch Description	UPC No. 733101-		A	B	C	E	F	TC_T Gage Insert	Insert Torx Screw	Torx Key
	R.H.	L.H.								
STNCR/L06-2	51734	51735	0.375	0.375	2.500	0.625	0.375	21.51	TS-25.45-6M2	T-8
STNCR/L08-2J	51736	51741	0.500	0.500	3.500	0.625	0.500			
STNCR/L10-2A	51738	51747	0.625	0.625	4.000	0.625	0.625			
STNCR/L10-2B	51749	-	0.625	0.625	4.500	0.625	0.625	32.52	TS-4.7-10M1	T-15
STNCR/L12-3B	51740	-	0.750	0.750	4.500	1.125	0.750			
STNCR/L64-3D	51742	-	0.750	1.000	6.000	1.125	0.750			
STNCR/L85-4D	51746	-	1.000	1.250	6.000	1.250	1.000	432	TS-5.8-10M1	T-20
STNCR/L106-4D	51748	51763	1.250	1.500	6.000	1.250	1.250			

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

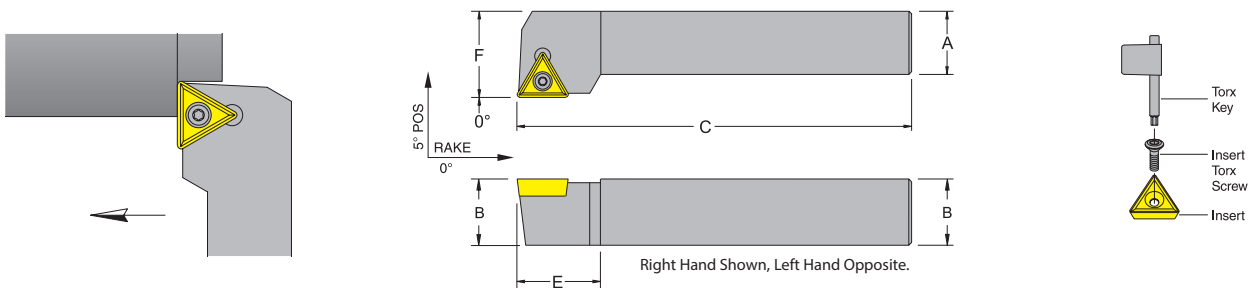
STFP R/L Toolholder Style F - 0° End Cutting Edge Angle for 11° positive triangle TP_T inserts



Inch Description	UPC No. 733101-		A	B	C	E	F	TC_T Gage Insert	Insert Torx Screw	Torx Key
	R.H.	L.H.								
STFPR/L06-2	51764	51765	0.375	0.375	2.500	0.500	0.500	21.51	TS-25.45-6M2	T-8
STFPR/L08-2J	51766	51767	0.500	0.500	3.500	0.500	0.625			

For inserts see pages 56-87. For spare parts see pages 158-159.

STGP R/L Toolholder Style G - 0° Side Cutting Edge Angle for 11° positive triangle TP_T inserts



Inch Description	UPC No. 733101-		A	B	C	E	F	TC_T Gage Insert	Insert Torx Screw	Torx Key
	R.H.	L.H.								
STGPR/L06-2	51771	51773	0.375	0.375	2.500	0.500	0.500	21.51	TS-25.45-6M2	T-8
STGPR/L08-2J	-	51775	0.500	0.500	3.500	0.500	0.625			

For inserts see pages 56-87. For spare parts see pages 158-159.

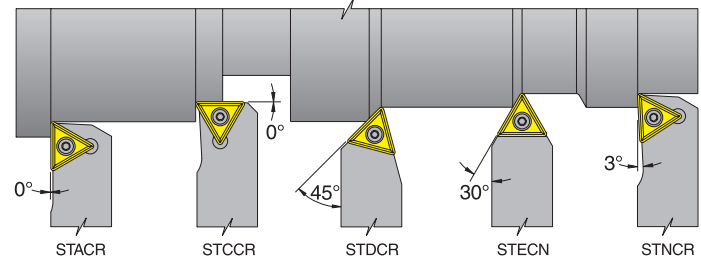
ST5CR Multiple Application Sets

1 Insert
+ 5 Tools

Turning, Facing, Chamfering

**SAVE MONEY
ON SETS!!**

We Are Making Turning Simple For You!



- **High Performance** - Positive rake for fast material removal, as well as finishing with low cutting force.
- **Rigidity** - Holder made of heat treated, precision ground alloy steel.

ST5CR Utility Turning Sets For 7° positive triangle TC_T Inserts

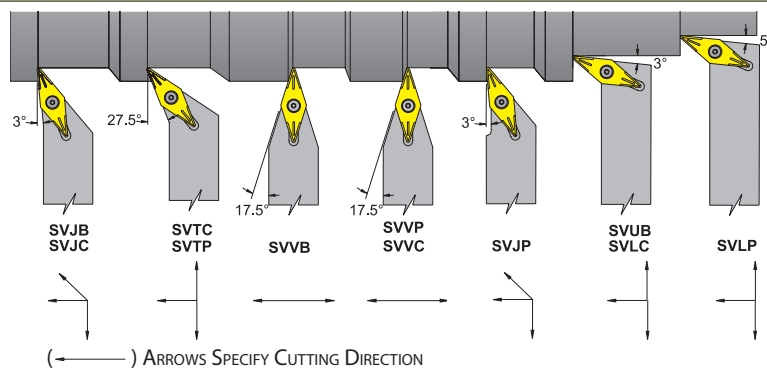


7° positive triangle TC_T
Inserts X 10 pcs.

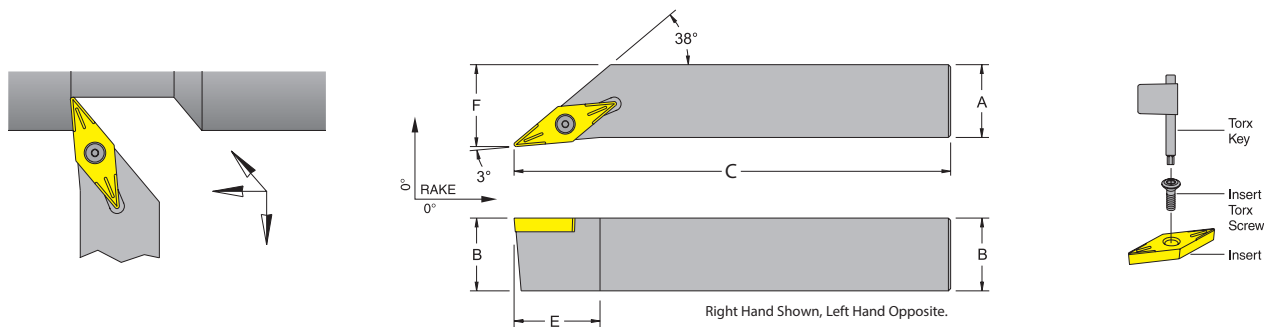
Set UPC No. 733101-	Shank Size	Tool Length	17 Piece Set Includes			
			(5) Toolholder	(10) Inserts	(1) Torx key	(1) Storage Box
85092	0.375	2.5	(1) STACR (1) STCCR (1) STDCR	TCMT-21.51-PEM-DPC25UT	T-8	Storage Box
85096	0.500	3.5				
85100	0.625	4.0				
85104	0.750	4.5	(1) STECN (1) STNCR	TCMT-32.52-PEM-DPC25UT	T-15	Storage Box
85108	1.000	6.0				

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

SV - Style Toolholders



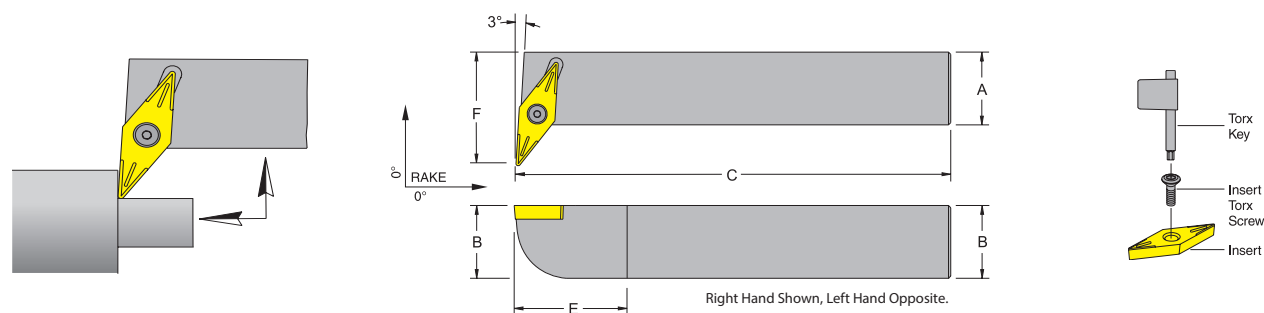
SVJB R/L Toolholder Style J - Negative 3° Side Cutting Edge Angle for 5° positive 35° diamond VB_T inserts



Inch Description	UPC No. 733101-		A	B	C	E	F	VB_T Gage Insert	Insert Torx Screw	Torx Key
	R.H.	L.H.								
SVJBR/L06-2	51984	51985	0.375	0.375	2.500	0.875	0.500	221	TS-25.45-8M2	T-8
SVJBR/L08-2J	51986	51987	0.500	0.500	3.500	0.875	0.625			
SVJBR/L10-2A	51988	51989	0.625	0.625	4.000	0.875	0.750			
SVJBR/L12-3B	52006	52007	0.750	0.750	4.500	1.250	1.000			
SVJBR/L16-3C	52010	52011	1.000	1.000	5.000	1.250	1.250	332	TS-4.7-10M1	T-15
SVJBR/L16-3D	52014	52015	1.000	1.000	6.000	1.250	1.250			
SVJBR/L20-3D	-	52019	1.250	1.250	6.000	1.250	1.500			

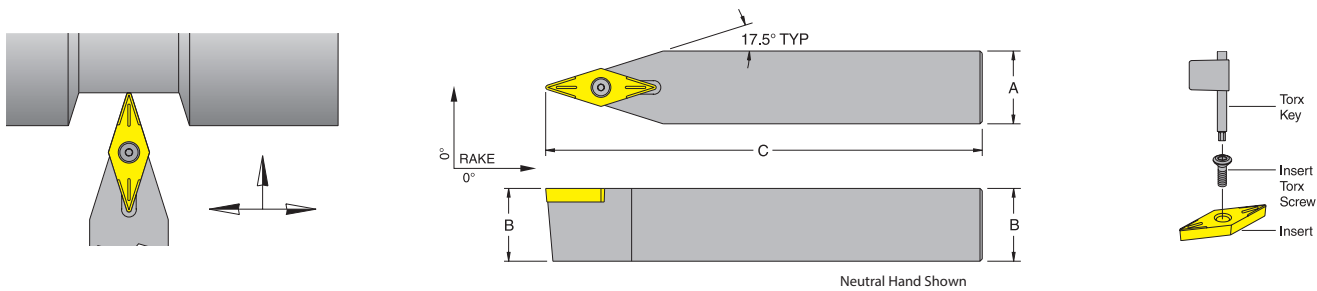
For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

SVUB R/L Toolholder Style U - 3° End Cutting Edge Angle for 5° positive 35° diamond VB_T inserts



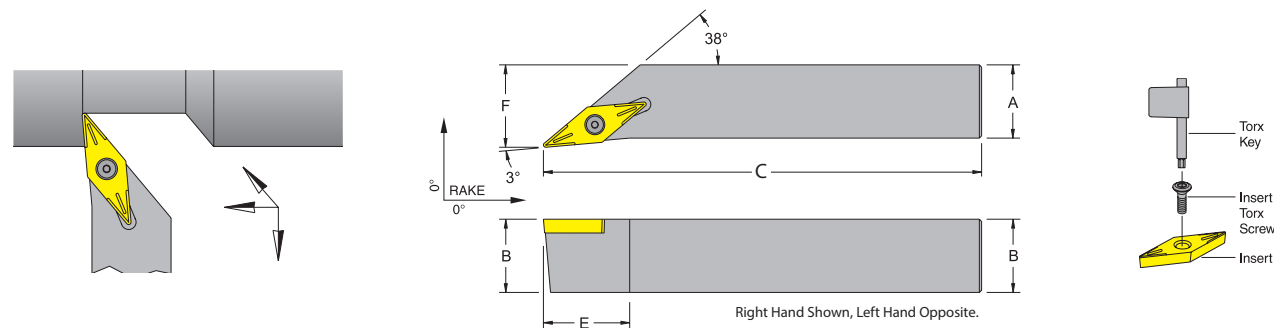
Inch Description	UPC No. 733101-		A	B	C	E	F	VB_T Gage Insert	Insert Torx Screw	Torx Key
	R.H.	L.H.								
SVUBR/L08-2J	51996	51997	0.500	0.500	3.500	0.500	0.830	221	TS-25.45-8M2	T-8
SVUBR/L10-2A	51998	51999	0.625	0.625	4.000	0.500	0.955			

For inserts see pages 56-87. For spare parts see pages 158-159.

SVVB N Toolholder Style V - 17.5° Side Cutting Edge Angle for 5° positive 35° diamond VB_T inserts


Inch Description	UPC No. 733101-Neutral	A	B	C	VB_T Gage Insert	Insert Torx Screw	Torx Key
SVVBN12-3B	52062	0.750	0.750	4.500	332	TS-4.7-10M1	T-15
SVVBN16-3D	52064	1.000	1.000	6.000			
SVVBN20-3D	52066	1.250	1.250	6.000			

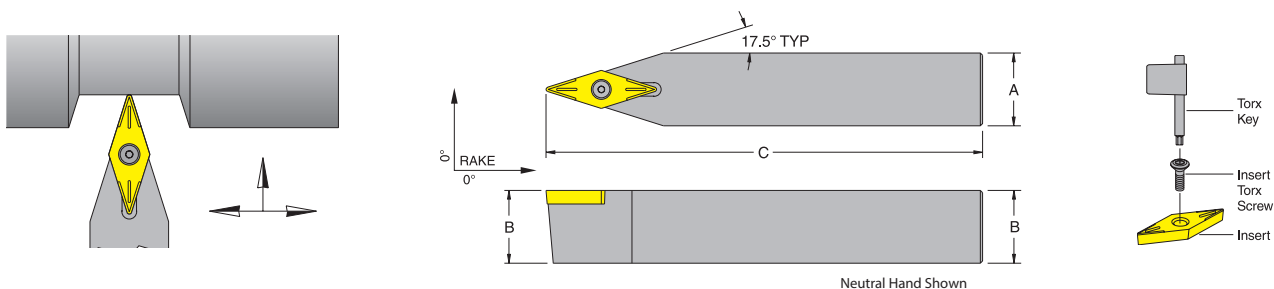
For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

SVJC R/L Toolholder Style J - Negative 3° Side Cutting Edge Angle for 7° positive 35° diamond VC_T inserts


Inch Description	UPC No. 733101-R.H.	L.H.	A	B	C	E	F	VC_T Gage Insert	Insert Torx Screw	Torx Key
SVJCR/L06-2J	52028	52029	0.375	0.375	3.500	1.000	0.500	221	TS-25.45-8M2	T-8
SVJCR/L08-2A	52032	52033	0.500	0.500	4.000	1.000	0.625			
SVJCR/L10-2B	52036	52037	0.625	0.625	4.500	1.000	0.750			
SVJCR/L12-3B	52040	52041	0.750	0.750	4.500	1.250	1.000	332	TS-4.7-10M1	T-15
SVJCR/L16-3C	52044	-	1.000	1.000	5.000	1.250	1.250			
SVJCR/L16-3D	52048	52049	1.000	1.000	6.000	1.250	1.250			
SVJCR/L20-3D	52052	-	1.250	1.250	6.000	1.250	1.500	448	TS-43.58-10M1	T-20
SVJCR/L16-4D	52054	52055	1.000	1.000	6.000	1.250	1.250			

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

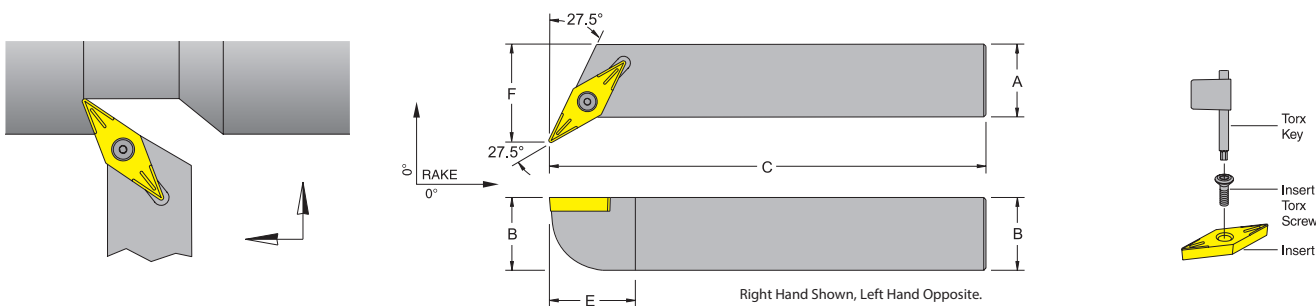
SVVC N Toolholder Style V - 17.5° Side Cutting Edge Angle for 7° positive 35° diamond VC_T inserts



Inch Description	UPC No. 733101-Neutral	A	B	C	VC_T Gage Insert	Insert Torx Screw	Torx Key
SVVCN06-2J	52076	0.375	0.375	3.500	221	TS-25.45-8M2	T-8
SVVCN10-2B	52080	0.625	0.625	4.500			
SVVCN12-3B	52082	0.750	0.750	4.500			
SVVCN16-3D	52084	1.000	1.000	6.000	332	TS-4.7-10M1	T-15
SVVCN20-3D	52086	1.250	1.250	6.000			

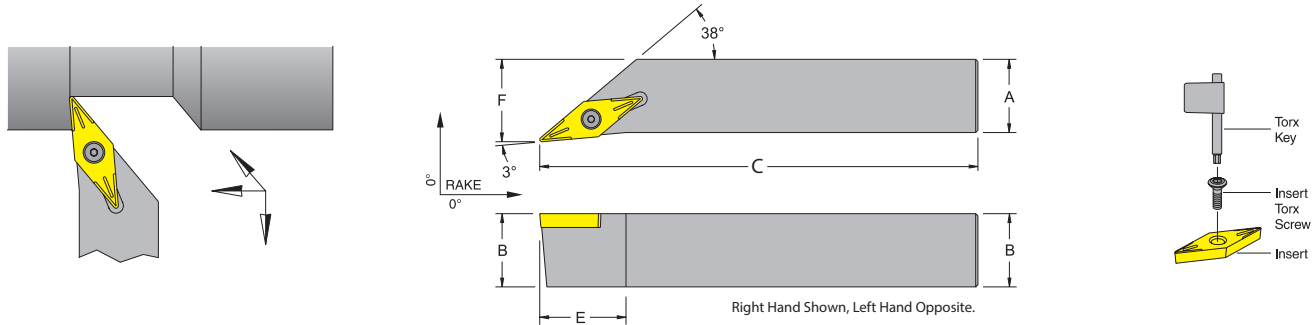
For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

SVTC R/L Toolholder Style T - 27.5° End Cutting Edge Angle for 7° positive 35° diamond VC_T inserts



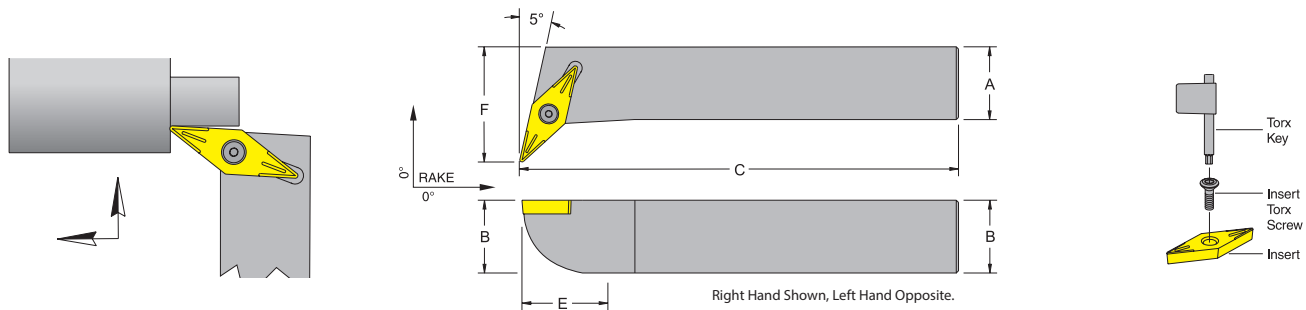
Inch Description	UPC No. 733101-R.H.	UPC No. 733101-L.H.	A	B	C	E	F	VC_T Gage Insert	Insert Torx Screw	Torx Key
SVTCRL16-4D	52102	52103	1.000	1.000	6.000	1.625	1.500	448	TS-5.8-10M1	T-20
SVTCRL20-4D	52106	52107	1.250	1.250	6.000	1.625	1.750			

For inserts see pages 56-87. For spare parts see pages 158-159.

SVJP R/L Toolholder Style J - Negative 3° Side Cutting Edge Angle for 11° positive 35° diamond VP_T inserts


Inch Description	UPC No. 733101- R.H. L.H.		A	B	C	E	F	VC_T Gage Insert	Insert Torx Screw	Torx Key
SVJPR/L16-4D	52248	-	1.000	1.000	6.000	1.250	1.250	448	TS-5.8-10M1	T-20
SVJPR/L20-4D	52250	52251	1.250	1.250	6.000	1.250	1.500			

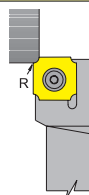
For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

SVLP R/L Toolholder Style L - 5° End Cutting Edge Angle for 11° positive 35° diamond VP_T inserts


Inch Description	UPC No. 733101- R.H. L.H.		A	B	C	E	F	VP_T Gage Insert	Insert Torx Screw	Torx Key
SVLPR/L16-4D	52274	52275	1.000	1.000	6.000	1.625	1.500	448	TS-5.8-10M1	T-20
SVLPR/L20-4D	52276	52277	1.250	1.250	6.000	1.625	1.750			

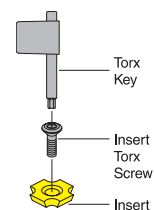
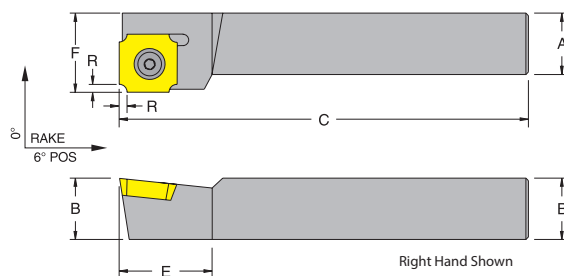
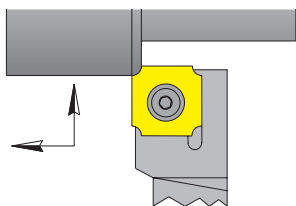
For inserts see pages 56-87. For spare parts see pages 158-159.

SS - Style Toolholders

Convex Radius
Toolholder

(←) ARROWS SPECIFY CUTTING DIRECTION

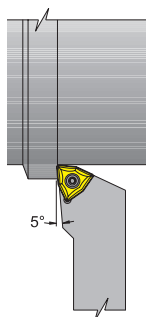
SSQD R Toolholder Style Q - Convex Radius Cutting Edge for 15° positive square convex SDGX inserts



Inch Description	UPC No. 733101- R.H.						R-Range		SDGX Gage Insert	Insert Torx Screw	Torx Key
		A	B	C	E	F	Min.	Max.			
SSQDR12-6B-08	52136	0.750	0.750	4.500	1.250	1.000	.078	.125	19C_	TS-5.8-10M1	T-20
SSQDR16-6D-08	52138	1.000	1.000	6.000	1.250	1.250	.078	.125			
SSQDR20-6D-08	52140	1.250	1.250	6.000	1.250	1.500	.078	.125			
SSQDR12-6B-16	52142	0.750	0.750	4.500	1.250	1.000	.141	.250	19C_	TS-5.8-10M1	T-20
SSQDR16-6D-16	52144	1.000	1.000	6.000	1.250	1.250	.141	.250			
SSQDR20-6D-16	52146	1.250	1.250	6.000	1.250	1.500	.141	.250			

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

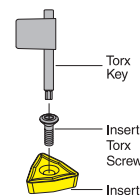
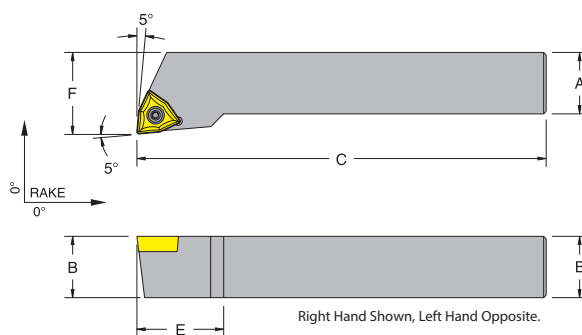
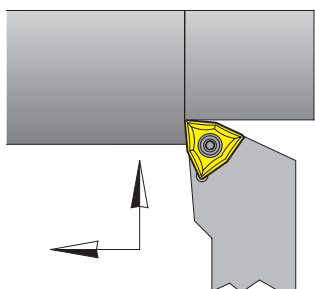
SW - Style Toolholders

Trigon
Toolholder

SWLC

() ARROWS SPECIFY CUTTING DIRECTION

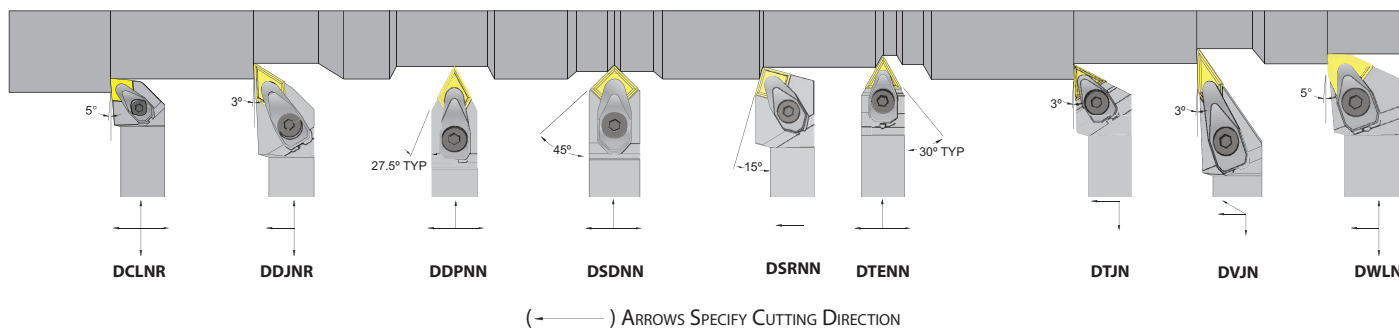
SWLC R/L Toolholder Style L - Negative 5° End or Side Cutting Edge Angle for 7° positive 80° trigon WC_T inserts



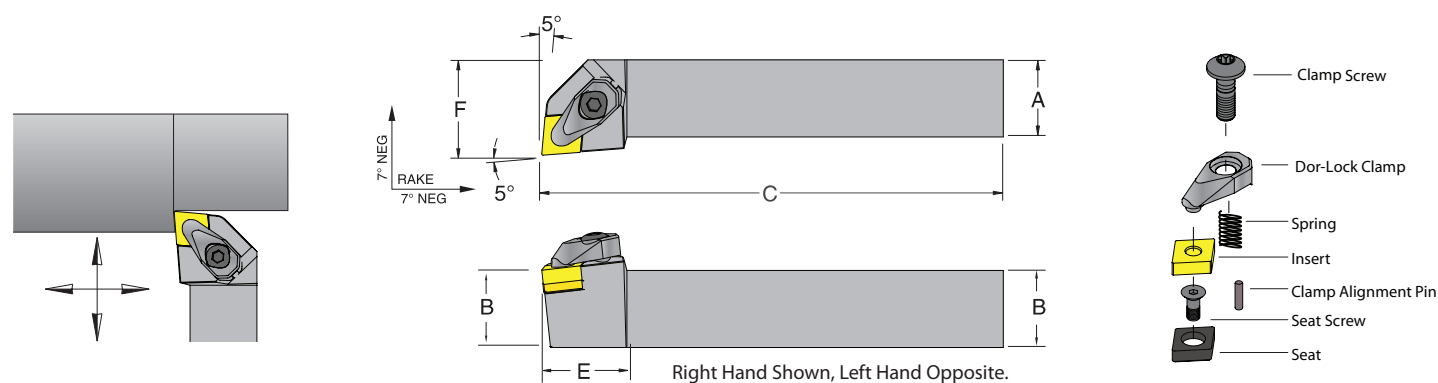
Inch Description	UPC No. 733101-							WC_T Gage Insert	Insert Torx Screw	Torx Key
	R.H.	L.H.	A	B	C	E	F			
SWLCR/L06-2J	52096	52097	0.375	0.375	3.500	0.500	0.500	21.51	TS-25.45-6M2	T-8
SWLCR/L08-3A	52100	52101	0.500	0.500	4.000	0.688	0.625	32.52	TS-4.7-10M1	T-15
SWLCR/L10-3B	52104	52105	0.625	0.625	4.500	0.688	0.750			
SWLCR/L12-3B	52108	52109	0.750	0.750	4.500	0.688	1.000			
SWLCR/L16-3D	52112	-	1.000	1.000	6.000	0.688	1.250			
SWLCR/L12-4B	52116	-	0.750	0.750	4.500	1.000	1.000	432	TS-5.8-10M1	T-20
SWLCR/L16-4D	52120	52121	1.000	1.000	6.000	1.000	1.250			

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

D- Style Toolholders

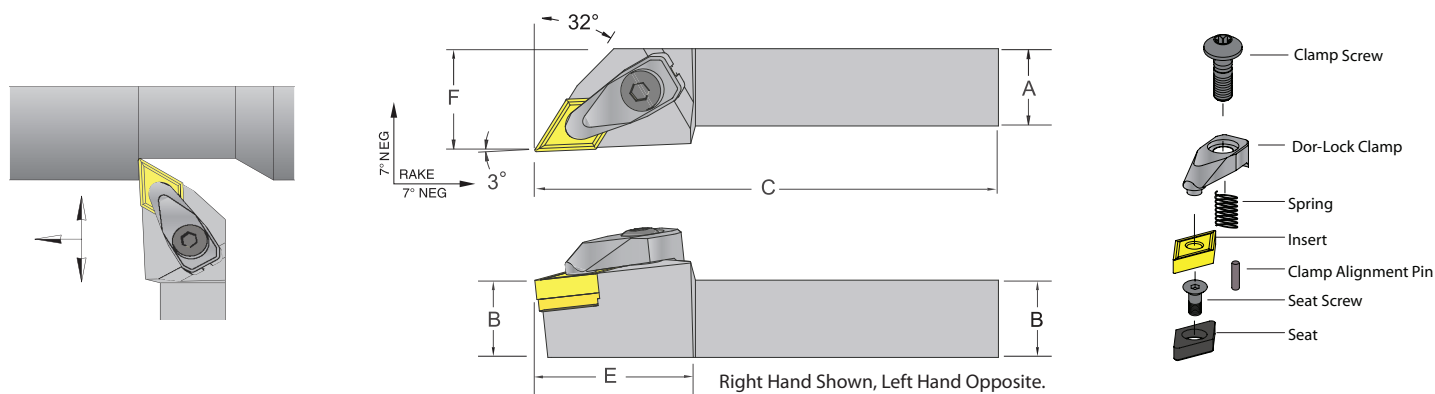


DCLN R/L Toolholder Style L - 5° end or side cutting lead angle for negative 80° diamond CNM_inserts



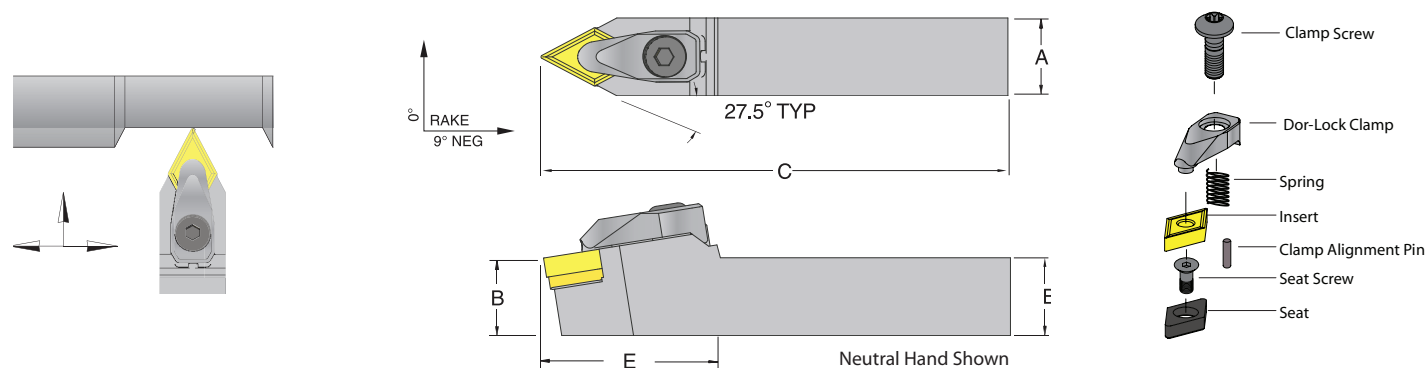
Inch Description	UPC No. 733101-		A	B	C	E	F	CNM_ Gage Insert	Seat	Seat Screw	Dor-Lock Clamp	Clamp Screw	Clamp Spring
	R.H.	L.H.											
DCLNR/L12-4B	53800	53801	0.75	0.75	4.50	1.250	1.000	432	JC-432	SM-S4	DCTW-4N	DCS-04	DSP-04
DCLNR/L16-4D	53802	53803	1.00	1.00	6.00	1.250	1.250	432	JC-432	SM-S4	DCTW-4N	DCS-04	DSP-04
DCLNR/L20-4D	53804	53805	1.25	1.25	6.00	1.250	1.500	432	JC-432	SM-S4	DCTW-4N	DCS-04	DSP-04
DCLNR/L20-5D	53806	53807	1.25	1.25	6.00	1.375	1.500	543	JC-533	SM-M6	DC-5N	DCS-04	DSP-04
DCLNR/L20-5E	53808	53809	1.25	1.25	7.00	1.375	1.500	543	JC-533	SM-M6	DC-5N	DCS-04	DSP-04

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

DDJN R/L Toolholder Style J - 3° side cutting lead angle for negative 55° diamond DNM_inserts


Inch Description	UPC No. 733101-		A	B	C	E	F	DNM_		Seat Screw	Dor-Lock Clamp	Clamp Screw	Clamp Spring
	R.H.	L.H.						Gage Insert	Seat				
DDJNR/L12-4B	53810	53811	0.75	0.75	4.50	1.500	1.000	432	JD-432	SM-S4	DD-4N	DCS-04	DSP-04
DDJNR/L16-4D	53812	53813	1.00	1.00	6.00	1.500	1.250	432	JD-432	SM-S4	DD-4N	DCS-04	DSP-04
DDJNR/L20-4D	53814	53815	1.25	1.25	6.00	1.500	1.500	432	JD-432	SM-S4	DD-4N	DCS-04	DSP-04

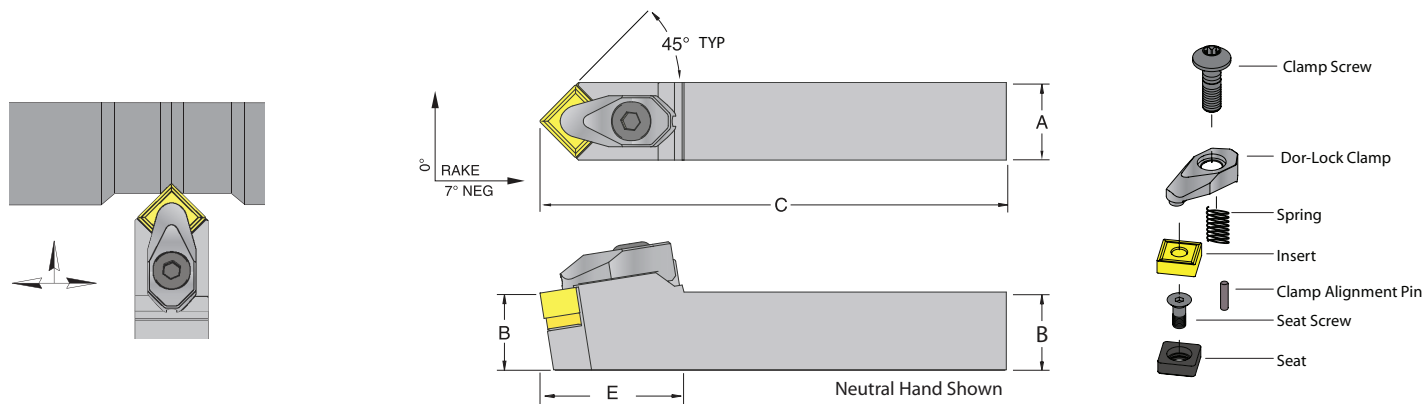
For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

DDPNN Toolholder Style P - 27.5° side cutting lead angle for negative 55° diamond DNM_inserts


Inch Description	UPC No. 733101-					DNM_		Seat Screw	Dor-Lock Clamp	Clamp Screw	Clamp Spring
	Neutral	A	B	C	E	Gage Insert	Seat				
DDPNN12-4B	53816	0.75	0.75	4.50	1.750	432	JD-432	SM-S4	DD-4N	DCS-04	DSP-04
DDPNN16-4D	53817	1.00	1.00	6.00	1.750	432	JD-432	SM-S4	DD-4N	DCS-04	DSP-04
DDPNN20-4D	53818	1.25	1.25	6.00	1.750	432	JD-432	SM-S4	DD-4N	DCS-04	DSP-04

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

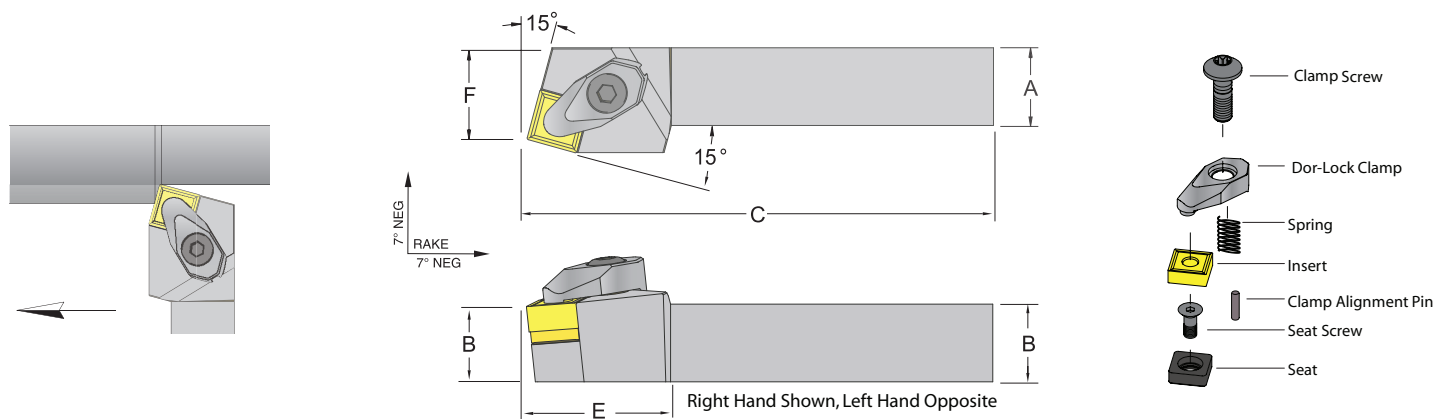
DSDNN Toolholder Style D - 45° side cutting lead angle for negative square SNM_inserts



Inch Description	UPC No. 733101-Neutral	A	B	C	E	SNM_Gage Insert	Seat	Seat Screw	Dor-Lock Clamp	Clamp Screw	Clamp Spring
DSDNN12-4B	53825	0.75	0.75	4.50	1.375	432	JS-432	SM-S4	DCTW-4N	DCS-04	DSP-04
DSDNN16-4D	53826	1.00	1.00	6.00	1.375	432	JS-432	SM-S4	DCTW-4N	DCS-04	DSP-04
DSDNN20-4D	53827	1.25	1.25	6.00	1.375	432	JS-432	SM-S4	DCTW-4N	DCS-04	DSP-04

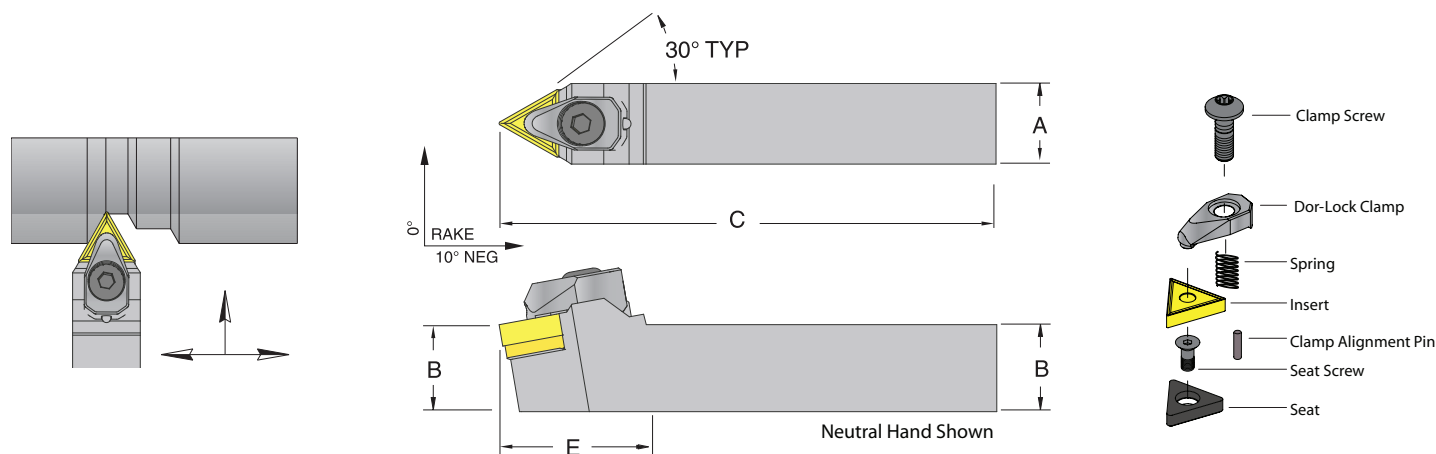
For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

DSRNR/L Toolholder Style R - 15° side cutting lead angle for negative square SNM_inserts



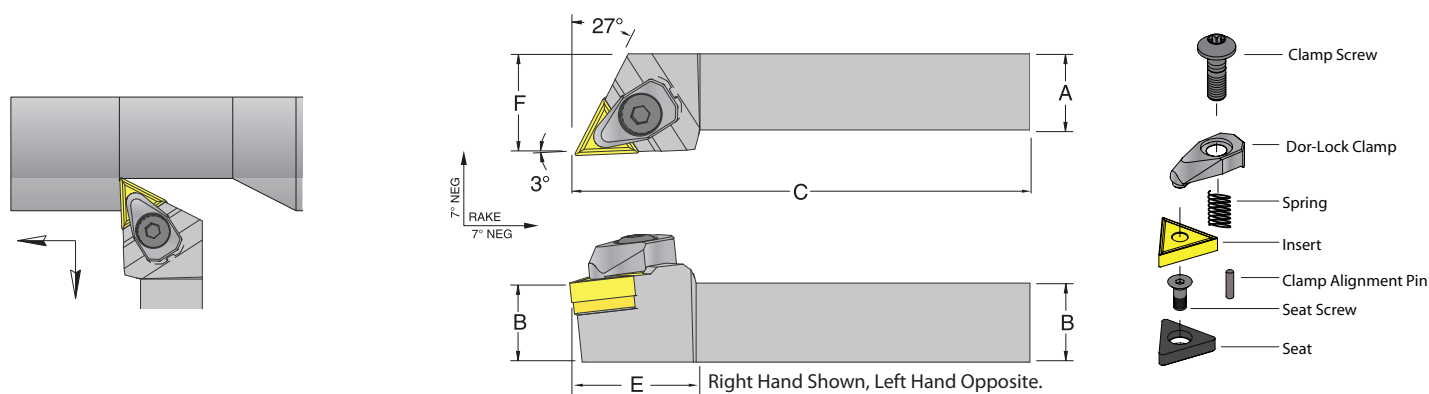
Inch Description	UPC No. 733101-R.H.	UPC No. 733101-L.H.	A	B	C	E	F	SNM_Gage Insert	Seat	Seat Screw	Dor-Lock Clamp	Clamp Screw	Clamp Spring
DSRNR/L12-4B	53819	53820	0.75	0.75	4.50	1.375	0.880	432	JS-432	SM-S4	DCTW-4N	DCS-04	DSP-04
DSRNR/L16-4D	53821	53822	1.00	1.00	6.00	1.375	1.130	432	JS-432	SM-S4	DCTW-4N	DCS-04	DSP-04
DSRNR/L20-5D	53823	53824	1.25	1.25	6.00	1.375	1.353	543	JS-533	SM-M6	DC-5N	DCS-04	DSP-04

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

DTENN Toolholder Style E - 30° side cutting lead angle for negative triangle TNM_inserts

Inch Description	UPC No. 733101- Neutral	A	B	C	E	TNM_ Gage Insert	Seat	Seat Screw	Dor-Lock Clamp	Clamp Screw	Clamp Spring
DTENN12-3B	53836	0.75	0.75	4.50	1.375	332	JT-322	SM-M3-T	DCTW-3N	DCS-04	DSP-04
DTENN16-3D	53827	1.00	1.00	6.00	1.375	332	JT-322	SM-M3-T	DCTW-3N	DCS-04	DSP-04
DTENN16-4D	53838	1.00	1.00	6.00	1.375	432	JT-433	SM-S4	DCTW-4N	DCS-04	DSP-04
DTENN20-4D	53839	1.25	1.25	6.00	1.500	432	JT-433	SM-S4	DCTW-4N	DCS-04	DSP-04

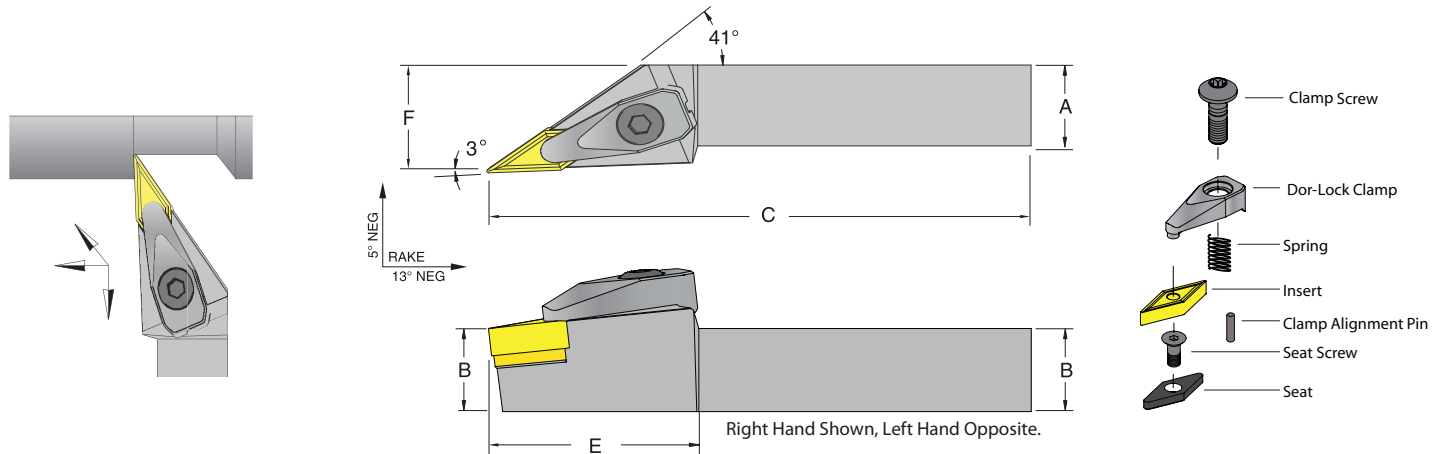
For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

DTJN R/L Toolholder Style J - 3° side cutting lead angle for negative triangle TNM_ inserts

Inch Description	UPC No. 733101- R.H.	L.H.	A	B	C	E	F	TNM_ Gage Insert	Seat	Seat Screw	Dor-Lock Clamp	Clamp Screw	Clamp Spring
DTJNR/L12-3B	53828	53829	0.75	0.75	4.50	1.250	1.000	332	JT-322	SM-M3-T	DCTW-3N	DCS-04	DSP-04
DTJNR/L16-3D	53830	53831	1.00	1.00	6.00	1.250	1.500	332	JT-322	SM-M3-T	DCTW-3N	DCS-04	DSP-04
DTJNR/L16-4D	53832	53833	1.00	1.00	6.00	1.250	2.000	432	JT-433	SM-S4	DCTW-4N	DCS-04	DSP-04
DTJNR/L20-4D	53834	53835	1.25	1.25	6.00	1.375	2.000	432	JT-433	SM-S4	DCTW-4N	DCS-04	DSP-04

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

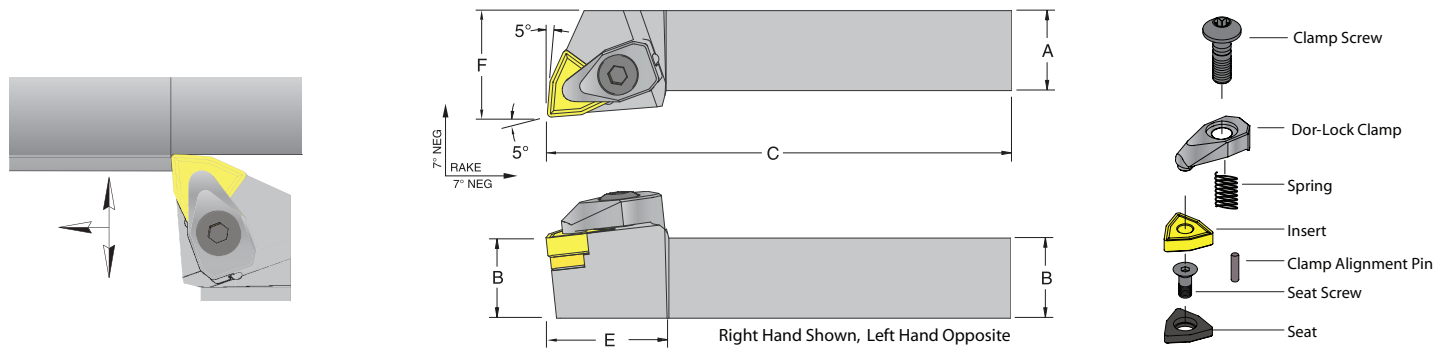
DVJN R/L Toolholder Style J - Negative 3° side cutting lead angle for negative 35° diamond VNM_inserts



Inch Description	UPC No. 733101- R.H.	L.H.	A	B	C	E	F	VNM_ Gage Insert	Seat	Seat Screw	Dor-Lock Clamp	Clamp Screw	Clamp Spring
DVJNR/L12-3B	53840	53841	0.75	0.75	4.50	1.750	1.000	332	JV-322	SM-M3	DV-3N	DCS-04	DSP-04
DVJNR/L16-3D	53842	53843	1.00	1.00	6.00	1.750	1.250	332	JV-322	SM-M3	DV-3N	DCS-04	DSP-04
DVJNR/L20-3D	53844	53845	1.25	1.25	6.00	1.750	1.500	332	JV-322	SM-M3	DV-3N	DCS-04	DSP-04

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

DWLNR R/L Toolholder Style L - Negative 5° end or side cutting lead angle for negative 80° trigon WNM_inserts



Inch Description	UPC No. 733101- R.H.	L.H.	A	B	C	E	F	WNM_ Gage Insert	Seat	Seat Screw	Dor-Lock Clamp	Clamp Screw	Clamp Spring
DWLNR/L12-3B	53846	53847	0.75	0.75	4.50	1.000	1.000	332	IWSN-322	SM-M4-245	DCTW-3N	DCS-04	DSP-04
DWLNR/L12-4B	53848	53849	0.75	0.75	4.50	1.250	1.000	432	IWSN-433	SM-S4	DCTW-4N	DCS-04	DSP-04
DWLNR/L16-3D	53850	53851	1.00	1.00	6.00	1.000	1.250	332	IWSN-322	SM-M4-245	DCTW-3N	DCS-04	DSP-04
DWLNR/L16-4D	53852	53853	1.00	1.00	6.00	1.250	1.250	432	IWSN-433	SM-S4	DCTW-4N	DCS-04	DSP-04
DWLNR/L20-4D	53854	53855	1.25	1.25	6.00	1.250	1.500	432	IWSN-433	SM-S4	DCTW-4N	DCS-04	DSP-04

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.



**"M" - Multi-Lock
Boring System**

Page C-65 - C-70

- Maximum rigidity
- Utilizes lock pin and clamp
- Holds insert and seat secure for less vibration



**"C" - Clamp-Lock
Boring System**

Page C-70

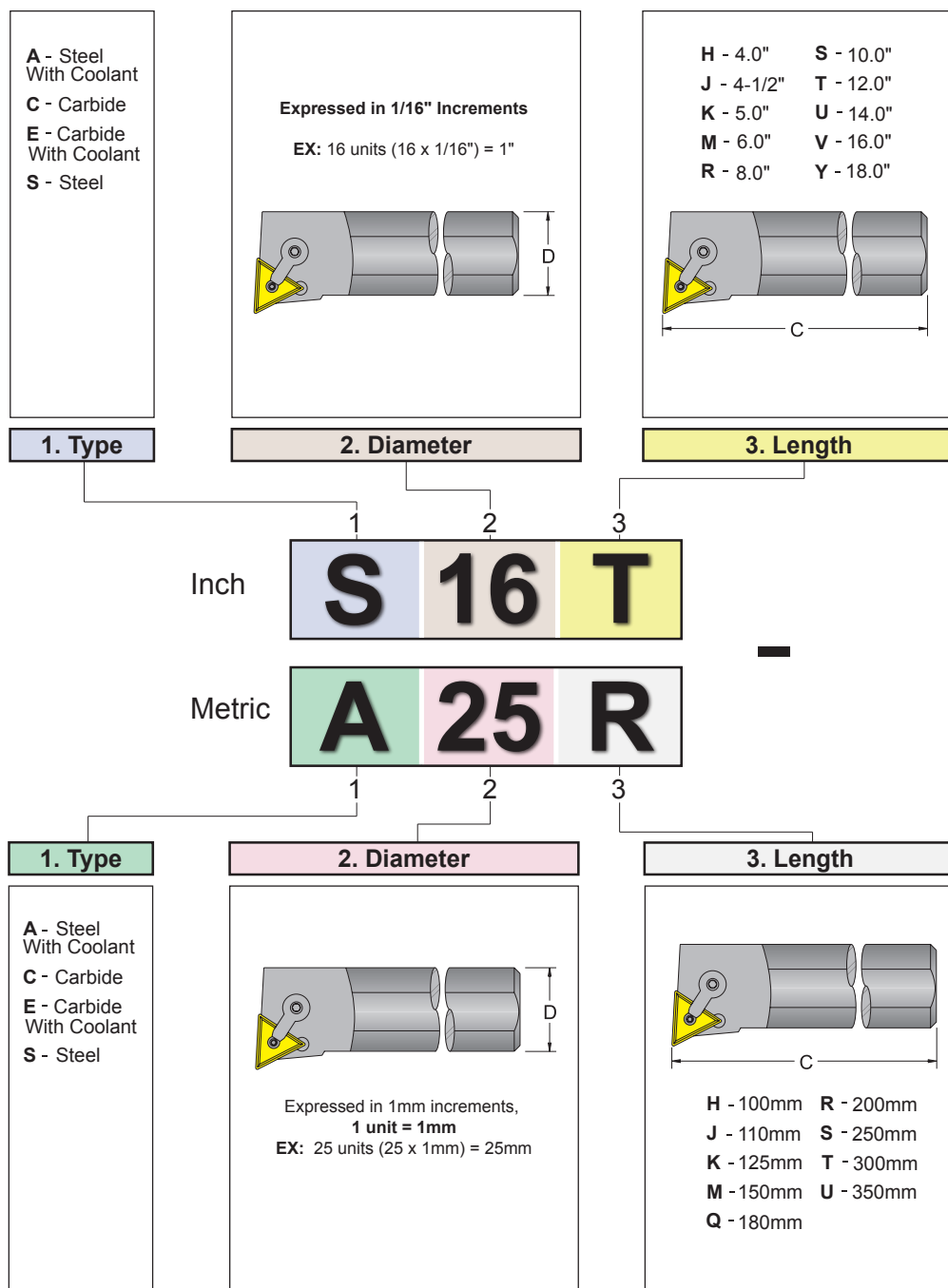
- Excellent locking ability
- Easier to index or change insert without the lock pin
- Allows for an optional chipbreaker to be placed on the insert



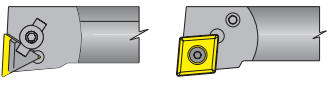
**"S" - Screw-Lock
Boring System**

Page C-71 - C-81

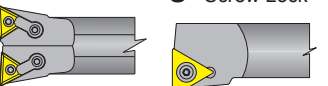
- Easy to index insert
- Uses Torx screw for a secure lock with more force



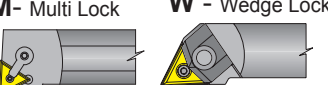
C - Clamp Lock **P** - Lever Lock



D - Double Insert **S** - Screw Lock



M - Multi Lock **W** - Wedge Lock



4. Holding Method

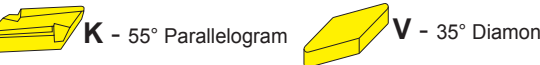
C - 80° Diamond **S** - Square



D - 55° Diamond **T** - Triangle



K - 55° Parallelogram **V** - 35° Diamond

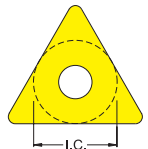


R - Round **W** - 80° Trigon



5. Insert Geometry

Insert I.C.
(Inscribed Circle):
Measures surface in 1/8" or 1/32"
increments, **1 unit = 1/8"**
EX: 4 units (4 x 1/8") = 1/2"



Note: Old A.N.S.I. standards may apply for
I.C.s under 1/4" (if > 1/4" I.C., 1 unit = 1/32")

9. Insert Size I.C.

4 5 6 7 8

M T U N R

9

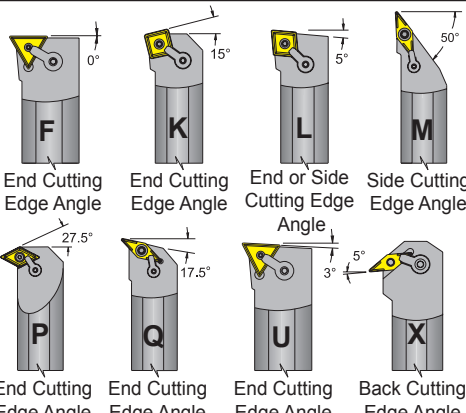
3

Inch

16

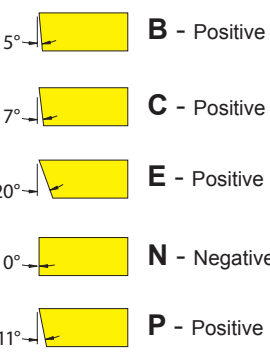
Metric

6. Tool Style



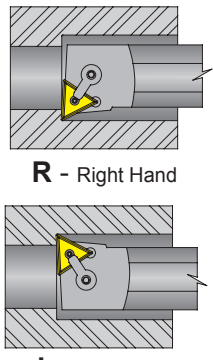
F 0° End Cutting Edge Angle
K 15° End Cutting Edge Angle
L 5° End or Side Cutting Edge Angle
M 50° Side Cutting Edge Angle
P 27.5° End Cutting Edge Angle
Q 17.5° End Cutting Edge Angle
U 3° End Cutting Edge Angle
X 5° Back Cutting Edge Angle

7. Insert Clearance Angle



5° **B** - Positive
7° **C** - Positive
20° **E** - Positive
0° **N** - Negative
11° **P** - Positive

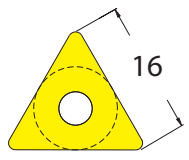
8. Hand of Tool



R - Right Hand
L - Left Hand

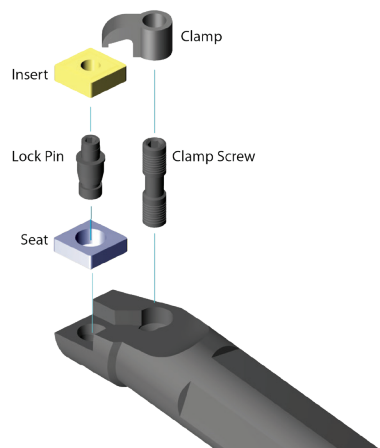
9. Insert Size

Cutting Edge Length
shown in 1mm increments

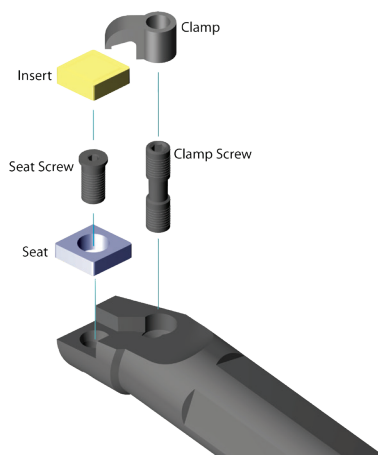


"M" - Multi-Lock Boring Bar System Spare Parts

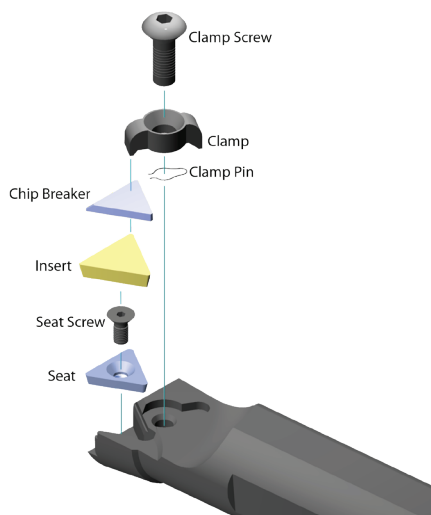
Supplied Standard



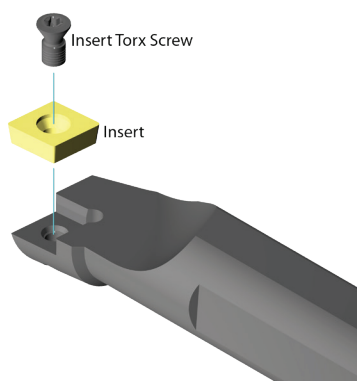
Optional

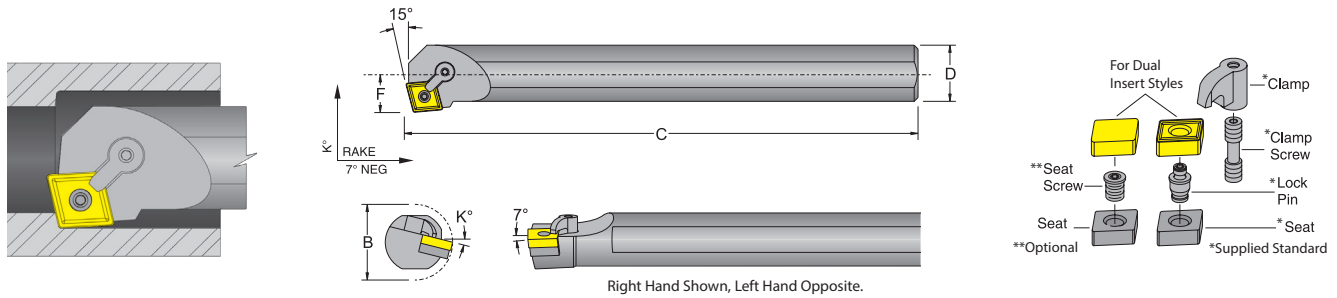


"C" - Clamp-Lock Boring Bar System Spare Parts



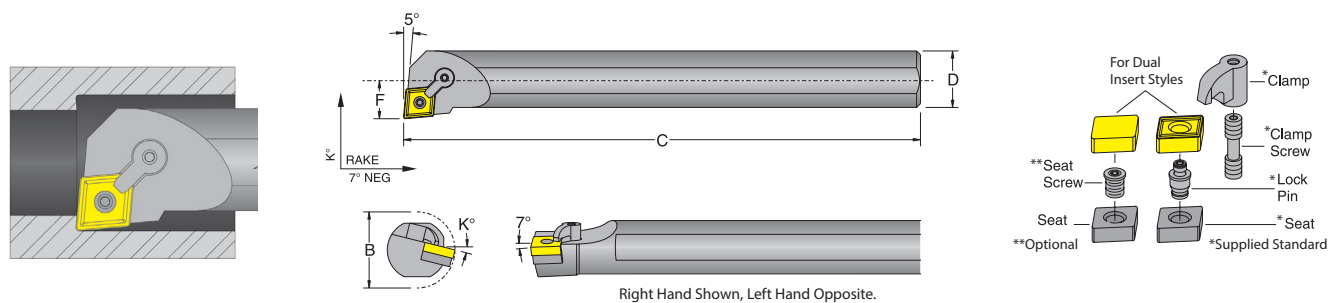
"S" - ISO Screw-Lock Boring Bar System Spare Parts



S-MCKN R/L Boring Bar Style K - Negative 15° End Cutting Edge Angle for negative 80° diamond CNM_ inserts

Inch Description	UPC No. 733101-		Min. Bore B	C	D	F	K°	CNM_ Gage Insert	Seat	Lock Pin	Clamp	Clamp Screw	Optional Seat Screw
	R.H.	L.H.											
S20U-MCKNR/L-4	54992	54993	1.470	14.0	1.25	0.765	14°	432	-	NL-44	CL-20	XNS-48	-
S24U-MCKNR/L-4	54994	54995	1.760	14.0	1.50	0.890	12°	432	ICSN-433	NL-46	CL-20	XNS-48	S-46
S32V-MCKNR/L-4	54996	54997	2.400	16.0	2.00	1.281	8°						
S32V-MCKNR/L-5	54998	54999	2.400	16.0	2.00	1.281	10°	543	ICSN-533	NL-58	CL-12	XNS-510	S-58

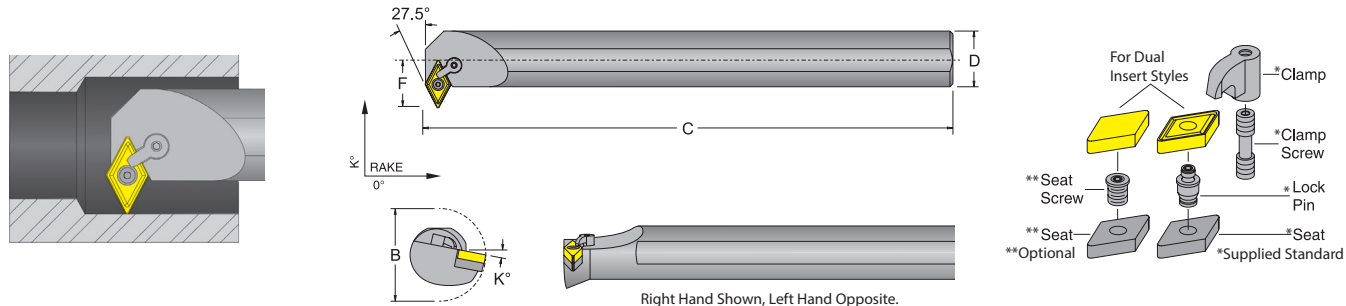
For inserts see pages 56-87. For spare parts see pages 158-159.

S-MCLN R/L Boring Bar Style L - Negative 5° Side & End Cutting Edge Angle for negative 80° diamond CNM_ inserts

Inch Description	UPC No. 733101-		Min. Bore B	C	D	F	K°	CNM_ Gage Insert	Seat	Lock Pin	Clamp	Clamp Screw	Optional Seat Screw
	R.H.	L.H.											
S12S-MCLNR/L-3	55002	55003	1.000	10.0	0.75	0.500	10°	322	-	NL-33	CL-6	XNS-36	-
S16T-MCLNR/L-3	55004	55005	1.280	12.0	1.00	0.640	10°						
S12S-MCLNR/L-4	55006	55007	1.000	10.0	0.75	0.500	14°	432	-	NL-44	CL-7	XNS-36	-
S16T-MCLNR/L-4	55010	55011	1.280	12.0	1.00	0.640	14°	432	-	NL-44	CL-20	XNS-48	-
S20U-MCLNR/L-4	55014	55015	1.530	14.0	1.25	0.765	14°						
S24U-MCLNR/L-4	55018	55019	1.780	14.0	1.50	0.890	11°	432	ICSN-433	NL-46	CL-20	XNS-48	S-46
S28U-MCLNR/L-4	55022	55023	2.030	14.0	1.75	1.015	11°						
S32V-MCLNR/L-4	55024	55025	2.562	16.0	2.00	1.281	11°						
S24U-MCLNR/L-5	55026	55027	2.374	14.0	1.50	1.187	11°						
S32V-MCLNR/L-5	55030	55031	2.562	16.0	2.00	1.281	11°	543	ICSN-533	NL-58	CL-12	XNS-510	S-58
S40V-MCLNR/L-5	55034	55035	3.062	16.0	2.50	1.531	11°						
S48V-MCLNR/L-5	55038	55039	3.562	18.0	3.00	1.781	11°						
S32V-MCLNR/L-6	55042	55043	2.562	16.0	2.00	1.281	11°						
S36V-MCLNR-6	55046	-	2.812	16.0	2.25	1.406	11°	643	ICSN-633	NL-68	CL-12	XNS-510	S-68
S40V-MCLNR/L-6	55050	55051	3.062	16.0	2.50	1.531	11°						

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

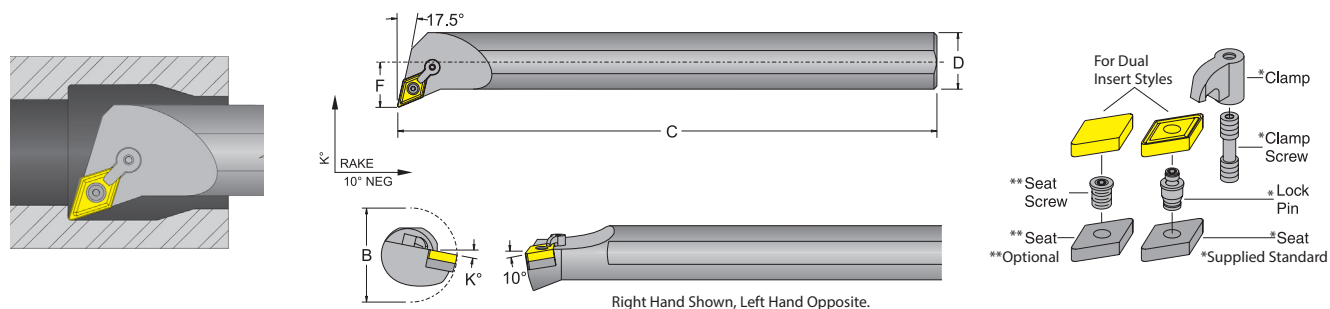
S-MDPN R/L Boring Bar Style P - Negative 27.5° End Cutting Edge Angle for negative 55° diamond DNM_ inserts



Inch Description	UPC No. 733101- R.H. L.H.	Min. Bore B	C	D	F	K°	DNM_ Gage Insert	Seat	Lock Pin	Clamp	Clamp Screw	Optional Seat Screw
S20U-MDPNR/L-4	55053 55054	1.705	14.0	1.25	1.000	13°	432	IDSN-433	NL-46	CL-20	XNS-47	S-46
S24U-MDPNR/L-4	55055 55056	2.000	14.0	1.50	1.125	10°						

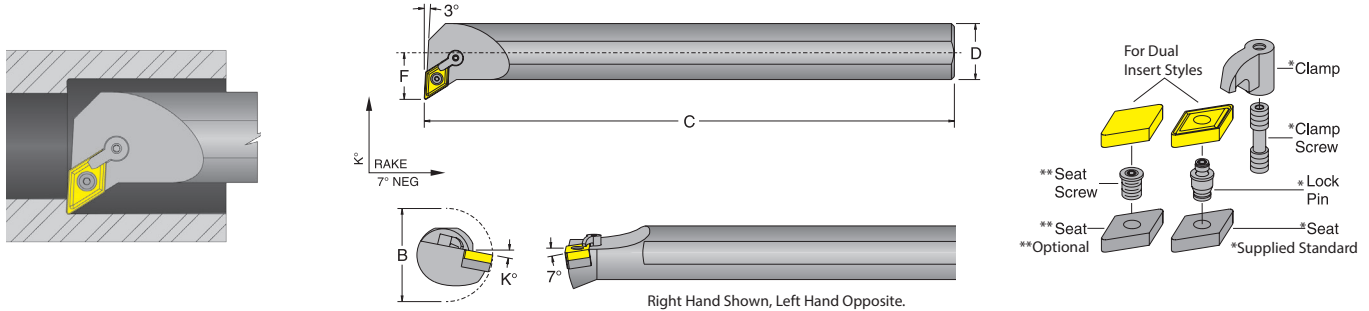
For inserts see pages 56-87. For spare parts see pages 158-159.

S-MDQN R/L Boring Bar Style Q - Negative 17.5° End Cutting Edge Angle for negative 55° diamond DNM_ inserts



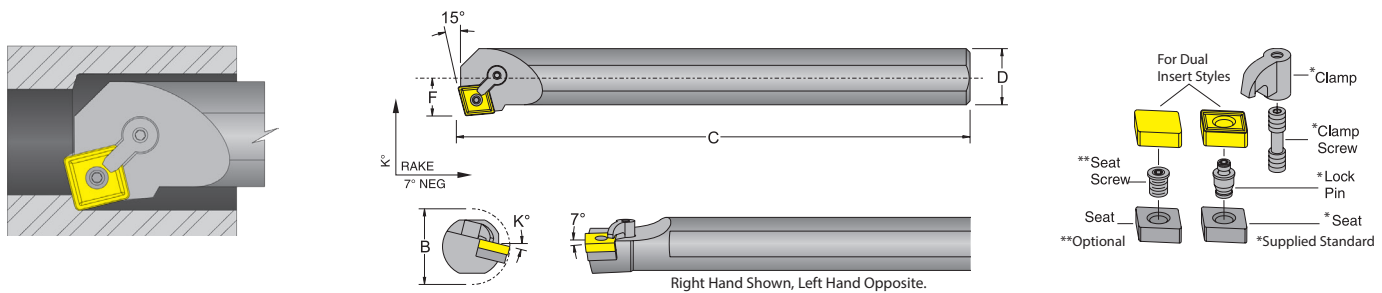
Inch Description	UPC No. 733101- R.H. L.H.	Min. Bore B	C	D	F	K°	DNM_ Gage Insert	Seat	Lock Pin	Clamp	Clamp Screw	Optional Seat Screw
S20U-MDQNR-4	55057 -	1.705	14.0	1.25	1.000	12°	432	IDSN-433	NL-46	CL-12	XNS-59	S-46
S24U-MDQNR/L-4	55059 55060	2.000	14.0	1.50	1.125	8.5°						

For inserts see pages 56-87. For spare parts see pages 158-159.

S-MDUN R/L Boring Bar Style U - Negative 3° End Cutting Edge Angle for negative 55° diamond DNM_ inserts

Inch Description	UPC No. 733101- R.H.	L.H.	Min. Bore B	C	D	F	K°	DNM_ Gage Insert	Seat	Lock Pin	Clamp	Clamp Screw	Optional Seat Screw
S16T-MDUNR/L-3	55066	55067	1.300	12.0	1.00	0.750	11°	332	-	NL-33	CL-7	XNS-36	-
S20U-MDUNR/L-4	55070	55071	2.00	14.0	1.25	1.000	11°	432	IDSN-433	NL-46	CL-12	XNS-59	S-46
S24U-MDUNR/L-4	55074	55075	2.25	14.0	1.50	1.125	11°						
S28U-MDUNR/L-4	55078	55079	2.50	14.0	1.75	1.250	11°						
S32V-MDUNR/L-4	55082	55083	3.00	16.0	2.00	1.375	11°						
S32V-MDUNR/L-5	55090	55091	3.00	16.0	2.00	1.500	11°	543	IDSN-533	NL-58	CL-30	XNS-510	S-58
S36V-MDUNR/L-5	55094	55095	3.25	16.0	2.25	1.625	11°						
S40V-MDUNR/L-5	55098	55099	3.50	16.0	2.50	1.750	11°						

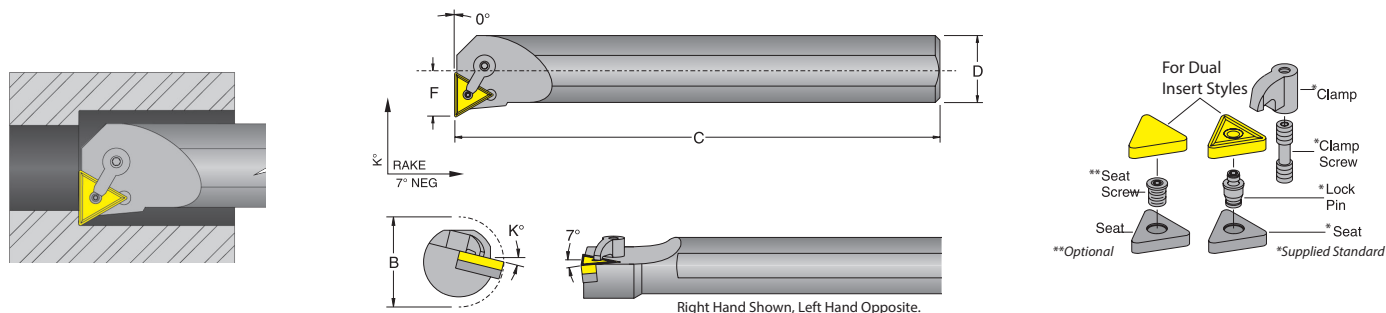
For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

S-MSKN R/L Boring Bar Style K - 15° End Cutting Edge Angle for negative square SNM_ inserts

Inch Description	UPC No. 733101- R.H.	L.H.	Min. Bore B	C	D	F	K°	SNM_ Gage Insert	Seat	Lock Pin	Clamp	Clamp Screw	Optional Seat Screw
S20U-MSKNR/L-4	55100	55101	1.47	14.0	1.25	0.765	14°	432	-	NL-44	CL-20	XNS-47	-
S24U-MSKNR/L-4	55102	55103	1.76	14.0	1.50	0.890	10°	432	ISSN-433	NL-46	CL-20	XNS-47	S-46
S28U-MSKNR-4	55104	-	2.01	14.0	1.75	1.015	10°						
S32V-MSKNR/L-6	55106	55107	2.40	16.0	2.00	1.281	12°	643	ISSN-633	NL-68	CL-12	XNS-510	S-68
S40V-MSKNR/L-6	55108	55109	3.03	16.0	2.50	1.531	10°						

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

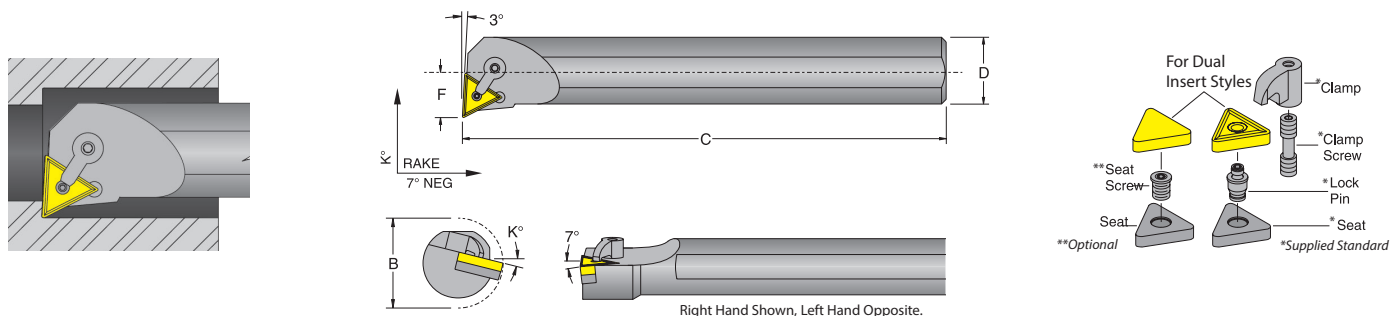
S-MTFN R/L Boring Bar Style F - 0° End Cutting Edge Angle for negative triangle TNM_ inserts



Inch Description	UPC No. 733101- R.H.	L.H.	Min. Bore B	C	D	F	K°	TNM_ Gage Insert	Seat	Lock Pin	Clamp	Clamp Screw	Optional Seat Screw
S12S-MTFNR-3	55150	-	1.000	10.0	0.75	0.500	14°	322	-	NL-33	CL-7	XNS-36	-
S16T-MTFNR/L-3	55154	55155	1.280	12.0	1.00	0.640	14°	322 332	ITSN-333 ITSN-322	NL-34L NL-34L	CL-7 CL-7	XNS-36 XNS-36	S-34 S-34
S20U-MTFNR/L-3	55158	55159	1.530	14.0	1.25	0.765	14°						
S24U-MTFNR-3	55162	-	1.780	14.0	1.50	0.890	11°						
S28U-MTFNR/L-3	55166	55167	2.030	14.0	1.75	1.015	11°						
S20U-MTFNR/L-4	55170	55171	1.530	14.0	1.25	0.765	14°	432	ITSN-433	NL-46	CL-9	XNS-59	S-46
S24U-MTFNR/L-4	55174	55175	2.060	14.0	1.50	0.890	11°						
S28U-MTFNR/L-4	55178	55179	2.312	14.0	1.75	1.156	11°						
S32V-MTFNR/L-4	55182	55183	2.562	16.0	2.00	1.281	11°						
S36V-MTFNR-4	55186	-	2.812	16.0	2.25	1.406	11°						
S40V-MTFNR/L-4	55190	55191	3.062	16.0	2.50	1.531	11°						
S48Y-MTFNR/L-4	55194	55195	3.562	18.0	3.00	1.781	11°						

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

S-MTUN R/L Boring Bar Style U - Negative 3° End Cutting Edge Angle for negative triangle TNM_ inserts



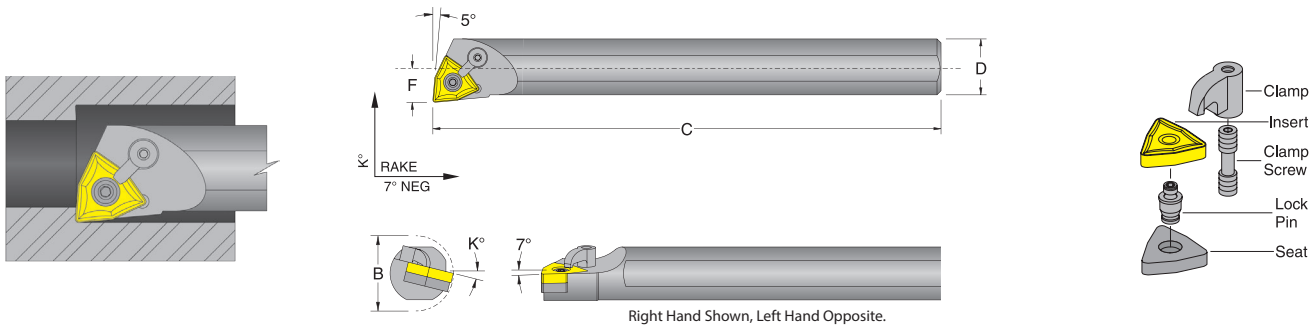
Inch Description	UPC No. 733101- R.H.	L.H.	Min. Bore B	C	D	F	K°	TNM_ Gage Insert	Seat	Lock Pin	Clamp	Clamp Screw	Optional Seat Screw
S12S-MTUNR/L-3	55204	55205	1.000	10.0	0.75	0.500	14°	322	-	NL-33	CL-6	XNS-36	-
S16T-MTUNR/L-3	55208	55209	1.280	12.0	1.00	0.640	14°	322 332	ITSN-333 ITSN-322	NL-34L NL-34L	CL-7 CL-7	XNS-36 XNS-36	S-34
S20U-MTUNR/L-3	55212	55213	1.530	14.0	1.25	0.765	14°						
S24U-MTUNR/L-3	55216	55217	2.060	14.0	1.50	0.890	11°						
S20U-MTUNR/L-4	55220	55221	1.530	14.0	1.25	0.765	14°						
S24U-MTUNR/L-4	55224	55225	2.060	14.0	1.50	0.890	11°	432	ITSN-433	NL-46	CL-9	XNS-59	S-46
S32V-MTUNR/L-4	55228	55229	2.562	16.0	2.00	1.281	11°						
S40V-MTUNR/L-4	55232	55233*	3.062	16.0	2.50	1.531	11°						

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

C-69

Multi-Lock Negative Insert & Clamp-Lock Positive Insert Boring Bars

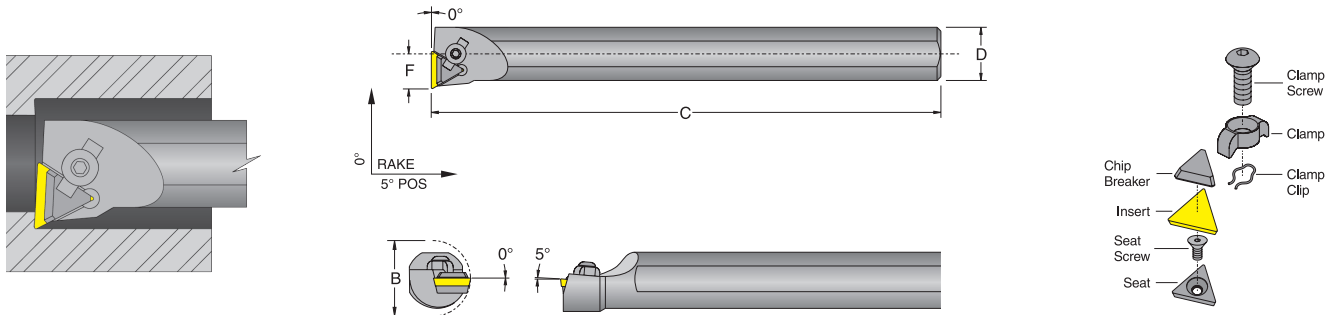
S-MWLN R/L Boring Bar Style L - Negative 5° End & Side Cutting Edge Angle for negative trigon WNM_ inserts



Inch Description	UPC No. 733101- R.H.	L.H.	Min.Bore B	C	D	F	K°	WNM_ Gage Insert	Seat	Lock Pin	Clamp	Clamp Screw
S12S-MWLNRL-3	55318	55319	1.00	10.0	0.75	0.500	14°	332	-	NL-33L	HC-7	SHC-7
S16T-MWLNRL-3	55320	55321	1.28	12.0	1.00	0.640	14°	332	-	NL-33L	CL-7	XNS-36
S16T-MWLNRL-4	55322	55323	1.28	12.0	1.00	0.640	14°	432	-	NL-44	CL-20	XNS-47
S20U-MWLNRL-4	55326	55327	1.53	14.0	1.25	0.765	14°	432	IWSN-433	NL-46	CL-20	XNS-47
S24U-MWLNRL-4	55330	55331	1.78	14.0	1.50	0.890	11°					

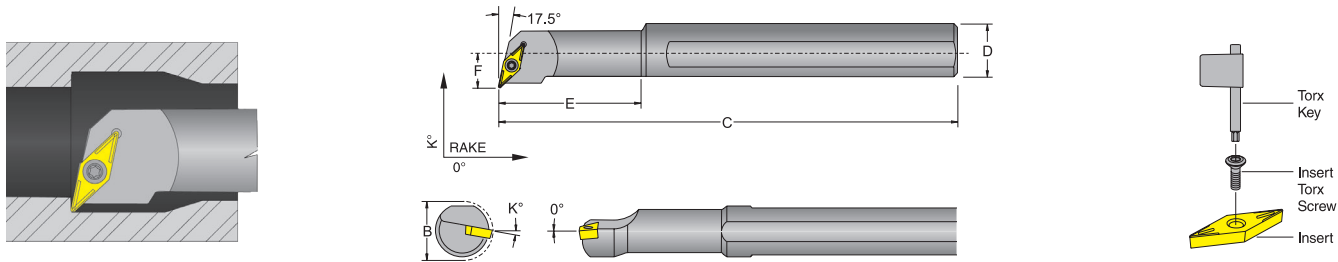
For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

S-CTFP R/L Boring Bar Style F - 0° End Cutting Edge Angle for 11° positive triangle TPG inserts



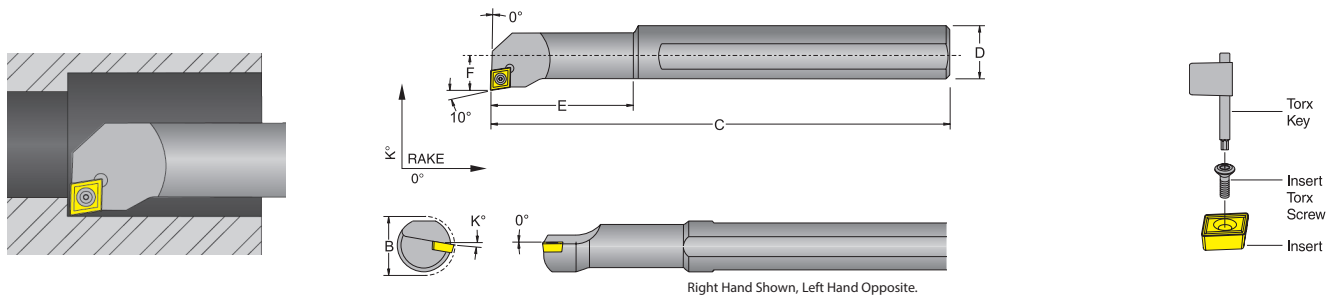
Inch Description	UPC No. 733101- R.H.	L.H.	Min.Bore B	C	D	F	TPG Gage Insert	Seat	Seat Screw	Clamp	Clamp Clip	Clamp Screw	Optional Chip Breaker
S08R-CTFPR/L-2	55356	55357	0.600	8.0	0.500	0.312	221	-	-	HC-7	-	SHC-7	-
S10S-CTFPR/L-2	55358	55359	0.770	10.0	0.625	0.406							
S12S-CTFPR/L-3	55360	55361	1.125	10.0	0.750	0.500	322	-	-	HC-12	CLP-12	CS-126	T3AE
S16T-CTFPR/L-3	55364	55365	1.280	12.0	1.000	0.640	322	SM-41	TS-4	HC-12	CLP-12	CS-126	T3AE
S20U-CTFPR/L-3	55368	55369	1.530	14.0	1.250	0.765							
S24U-CTFPR/L-3	55372	55373	1.840	14.0	1.500	0.890							
S28U-CTFPR/L-3	55376	55377	2.100	14.0	1.750	1.015							
S20U-CTFPR/L-4	55380	55381	1.530	14.0	1.250	0.765							
S24U-CTFPR/L-4	55384	55385	2.060	14.0	1.500	0.890	432	SM-37	TS-6	HC-12	CLP-12	CS-126	T4AE
S28U-CTFPR/L-4	55388	55389	2.380	14.0	1.750	1.156							
S32V-CTFPR/L-4	55392	55393	2.562	16.0	2.000	1.281							
S36V-CTFPR/L-4	55396	55397	2.880	16.0	2.250	1.406							
S40V-CTFPR/L-4	55400	55401	3.062	16.0	2.500	1.531							
S48Y-CTFPR/L-4	55404	55405	3.562	18.0	3.000	1.781							

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

S-SVQB R/L Boring Bar Style Q - Negative 5° End Cutting Edge Angle for 5° positive 35° diamond VB_T inserts

Inch Description	UPC No. 733101- R.H. L.H.	Min.Bore B	C	D	E	F	K°	VB_T Gage Insert	Insert Torx Screw	Torx Key
S10S-SVQBR/L-2	55410 55411	0.85	10.0	0.625	1.000	0.500	6°	221	TS-25.45-6M2	T-8
S12S-SVQBR/L-2	55412 55413	0.98	10.0	0.750	1.250	0.562	5°			
S16T-SVQBR-3	55414 -	1.30	12.0	1.000	1.500	0.750	5°	332	TS-4.7-10M1	T-15

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

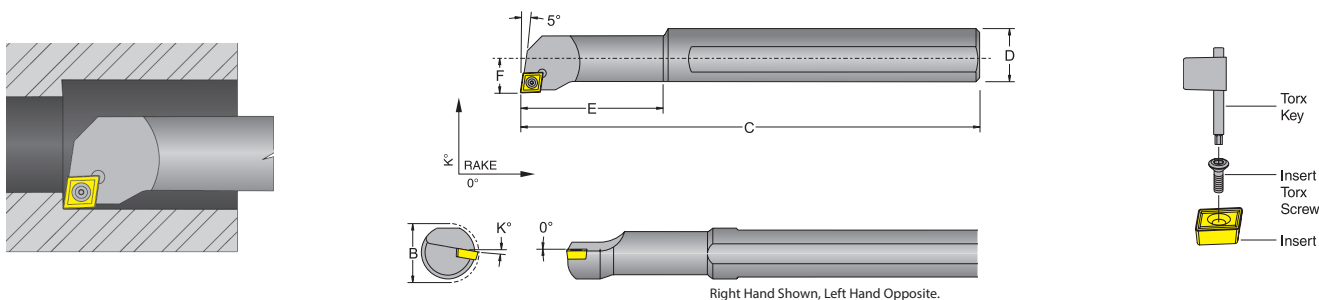
S-SCFC R/L Boring Bar Style F - 7° End Cutting Edge Angle for 7° positive 80° diamond CC_T inserts

Inch Description	UPC No. 733101- R.H. L.H.	Min.Bore B	C	D	E	F	K°	CC_T Gage Insert	Insert Torx Screw	Torx Key
S06M-SCFCL-2	- 55417	0.48	6.0	0.375	0.625	.250	8°	21.51	TS-25.45-6M2	T-8
S08R-SCFCR-2	55418 -	0.60	8.0	0.500	0.750	.312	7°			
S10S-SCFCR-2	55420 -	0.77	10.0	0.625	1.250	.406	5°			
S12S-SCFCR/L-3	55422 55423	0.93	10.0	0.750	1.875	.500	8°	32.52	TS-4.7-8M1	T-15
S16T-SCFCR-3	55424 -	1.20	12.0	1.000	1.875	.640	4°			

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

Screw-Lock 7° Positive Insert Boring Bars

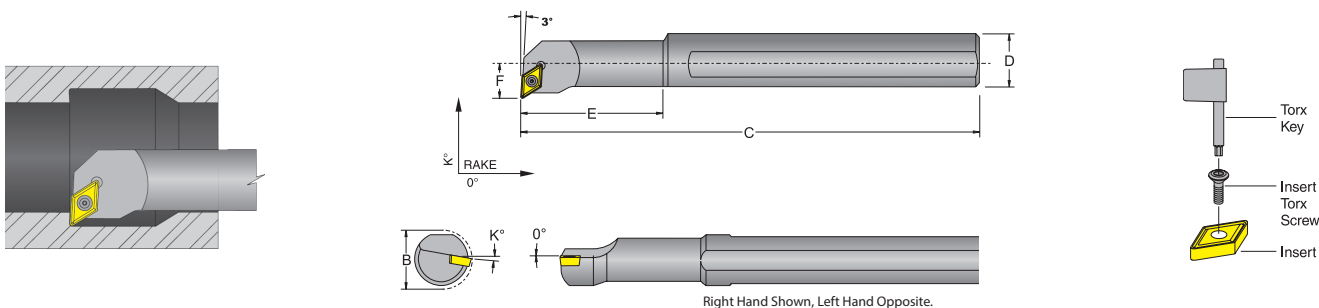
S-SCLC R/L Boring Bar Style L - Negative 5° End & Side Cutting Edge Angle for 7° positive 80° diamond CC_T inserts



Inch Description	UPC No. 733101-		Min. Bore B	C	D	E	F	K°	CC_T Gage Insert	Insert Torx Screw	Torx Key
	R.H.	L.H.									
S06M-SCLCR/L-2	55470	55471	0.477	6.00	0.375	0.625	.250	15°	21.51	TS-25.45-6M2	T-8
S08M-SCLCR/L-2	55474	55475	0.602	6.00	0.500	0.750	.312	13°			
S10R-SCLCR/L-2	55478	55479	0.812	8.00	0.625	1.250	.406	10°			
S08M-SCLCR/L-3	55482	55483	0.625	6.00	0.500	1.250	.312	13°	32.52	TS-4.7-8M1	T-15
S10R-SCLCR/L-3	55486	55487	0.797	8.00	0.625	1.250	.406	10°			
S12S-SCLCR/L-3	55490	55491	0.954	10.0	0.750	1.875	.500	8°			
S16T-SCLCR/L-3	55494	55495	1.250	12.0	1.000	2.500	.625	7°	32.52	TS-4.7-10M1	T-15
S16T-SCLCR/L-4	55498	55499	1.280	12.0	1.000	2.500	.640	7°			
S20U-SCLCR/L-4	55502	55503	1.530	14.0	1.250	2.500	.765	5°	432	TS-5.8-10M1	T-20
S24U-SCLCR/L-4	55506	55507	1.780	14.0	1.500	2.500	.890	5°			

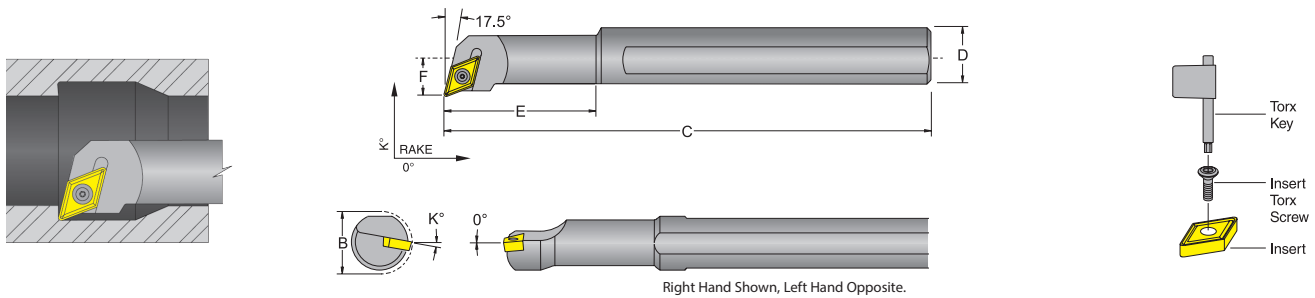
For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

S-SDUC R/L Boring Bar Style U - Negative 3° End Cutting Edge Angle for 7° positive 55° diamond DC_T inserts



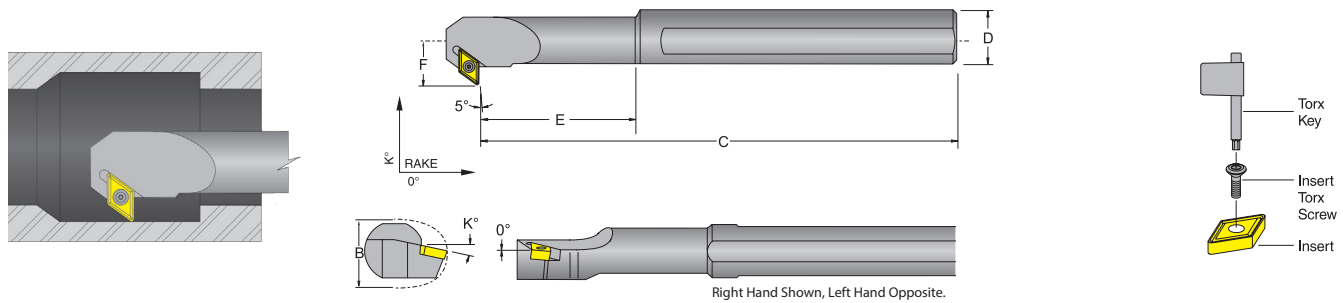
Inch Description	UPC No. 733101-		Min. Bore B	C	D	E	F	K°	DC_T Gage Insert	Insert Torx Screw	Torx Key
	R.H.	L.H.									
S06M-SDUCR/L-2	55560	55561	0.625	6.00	0.375	0.625	.375	11°	21.51	TS-25.45-6M2	T-8
S08M-SDUCR/L-2	55564	55565	0.780	6.00	0.500	0.750	.437	11°			
S10R-SDUCR/L-2	55568	55569	0.840	8.00	0.625	1.250	.500	5°			
S12S-SDUCR/L-3	55572	55573	1.125	10.0	0.750	1.275	.562	6°	32.52	TS-4.7-10M1	T-15
S16T-SDUCR/L-3	55576	55577	1.500	12.0	1.000	2.500	.750	4°			
S20U-SDUCR/L-3	55580	55581	1.750	14.0	1.125	2.500	.875	4°			
S16T-SDUCR/L-4	55582	55583	1.500	12.0	1.000	2.500	.750	5°	432	TS-5.8-10M1	T-20

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

S-SDQC R/L Boring Bar Style Q - Negative 17.5° End Cutting Edge Angle for 7° positive 55° diamond DC_T inserts

Inch Description	UPC No. 733101- R.H.	L.H.	Min.Bore B	C	D	E	F	K°	DC_T Gage Insert	Insert Torx Screw	Torx Key
S08M-SDQCR-2	55585	-	0.73	6.0	0.500	0.875	0.437	10°	21.51	TS-25.45-6M2	T-8
S10R-SDQCR/L-2	55587	55588	0.85	8.0	0.625	1.000	0.500	7°			
S12S-SDQCR-3	55589	-	0.98	10.0	0.750	1.250	0.562	7°	32.52	TS-4.7-10M1	T-15

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

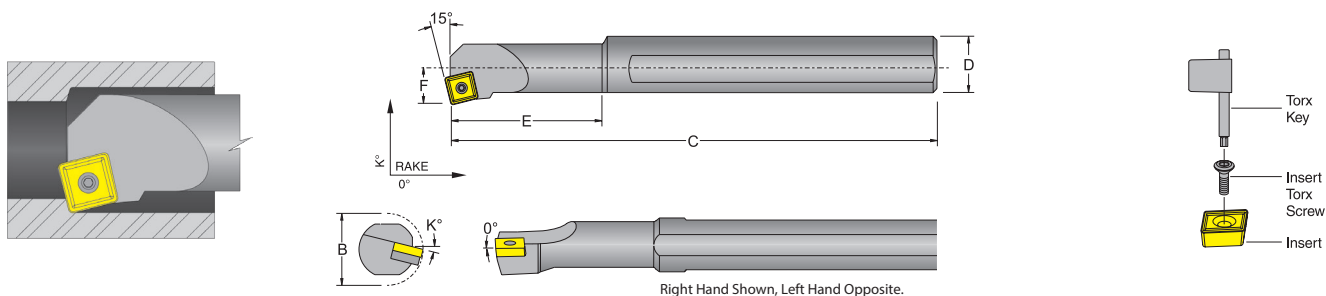
S-SDXC R/L Boring Bar Style X - Negative 5° Back Boring Cutting Edge Angle for 7° positive 55° diamond DC_T inserts

Inch Description	UPC No. 733101- R.H.	L.H.	Min.Bore B	C	D	E	F	K°	DC_T Gage Insert	Insert Torx Screw	Torx Key
S08R-SDXCR/L-2	55426	55427	0.73	8.0	0.500	0.875	0.437	6°	21.51	TS-25.45-6M2	T-8
S10S-SDXCL-2	-	55429	0.85	10.0	0.625	1.000	0.500	5°			
S12S-SDXCR/L-3	55430	55431	0.98	10.0	0.750	1.250	0.562	5°	32.52	TS-4.7-10M1	T-15
S16T-SDXCR/L-3	55432	55433	1.30	12.0	1.000	1.500	0.750	3°			

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

Screw-Lock 7° Positive Insert Boring Bars

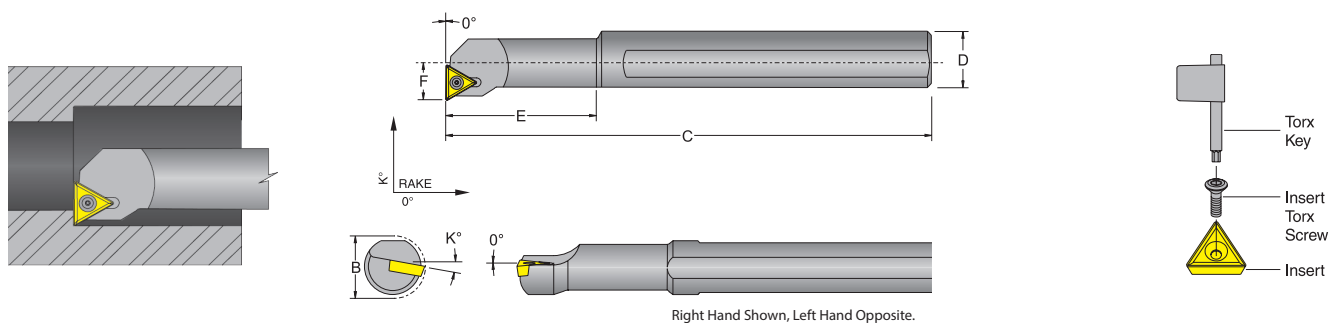
S-SSKC R/L Boring Bar Style K -15° End Cutting Edge Angle for 7° positive square SC_T inserts



Inch Description	UPC No. 733101- R.H.	L.H.	Min.Bore B	C	D	E	F	K°	SC_T Gage Insert	Insert Torx Screw	Torx Key
S10R-SSKCR/L-3	55593	55594	0.800	8.0	0.625	1.250	.406	10°	32.52	TS-4.7-10M1	T-15
S12S-SSKCR/L-3	55595	55596	0.975	10.0	0.750	1.875	.500	8°			
S16T-SSKCR-4	55597	-	1.220	12.0	1.000	2.500	.640	7°	432	TS-5.8-10M1	T-20

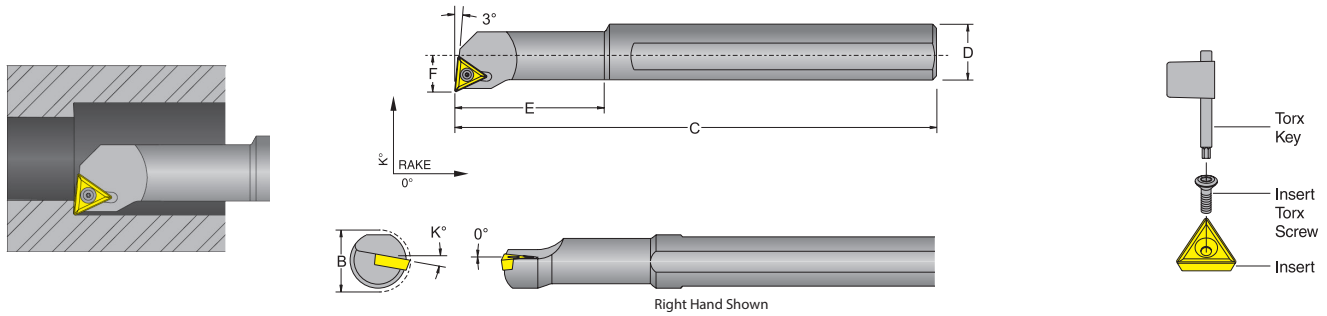
For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

S-STFC R/L Boring Bar Style F - 0° End Cutting Edge Angle for 7° positive triangle TC_T inserts



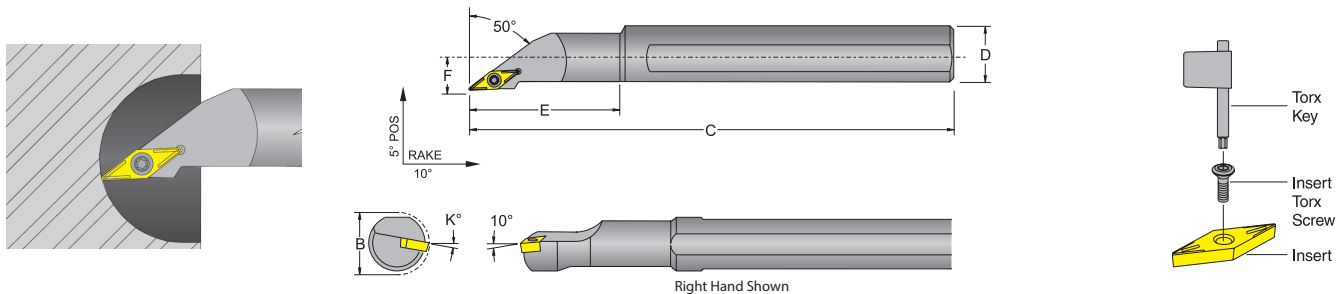
Inch Description	UPC No. 733101- R.H.	L.H.	Min.Bore B	C	D	E	F	K°	SC_T Gage Insert	Insert Torx Screw	Torx Key
S06M-STFCR/L-2	55600	55601	0.500	6.00	0.375	0.625	.250	11°	21.51	TS-25.45-6M2	T-8
S08M-STFCR/L-2	55604	55605	0.625	6.00	0.500	0.750	.312	9°			
S10R-STFCR/L-2	55608	55609	0.812	8.00	0.625	1.250	.406	7°			
S12S-STFCR/L-2	55612	55613	1.000	10.0	0.750	1.875	.500	6°			
S16T-STFCR/L-3	55616	55617	1.280	12.0	1.000	2.500	.640	6°			
S20U-STFCR/L-3	55620	55621	1.530	14.0	1.250	2.500	.765	5°	32.52	TS-4.7-10M1	T-15
S24U-STFCL-3	-	55625	1.780	14.0	1.500	2.500	.890	4°			

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

S-STUC R Boring Bar Style U - Negative 3° End Cutting Edge Angle for 7° positive triangle TC_T inserts

Inch Description	UPC No. 733101-R.H.	Min.Bore B	C	D	E	F	K°	TC_T Gage Insert	Insert Torx Screw	Torx Key
S06M-STUCR-2	55628	0.477	6.00	0.375	0.625	.250	15°	21.51	TS-25.45-6M2	T-8
S08M-STUCR-2	55629	0.602	6.00	0.500	0.750	.312	13°			
S10R-STUCR-2	55630	0.797	8.00	0.625	1.250	.406	10°			
S12S-STUCR-3	55631	0.954	10.0	0.750	1.875	.500	8°	32.52	TS-4.7-10M1	T-15
S16T-STUCR-3	55632	1.280	12.0	1.000	2.500	.640	7°			
S20T-STUCR-4	55633	1.370	12.0	1.250	2.500	.682	7°	432	TS-5.8-10M1	T-20
S24T-STUCR-4	55634	1.680	12.0	1.500	2.500	.840	5°			

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

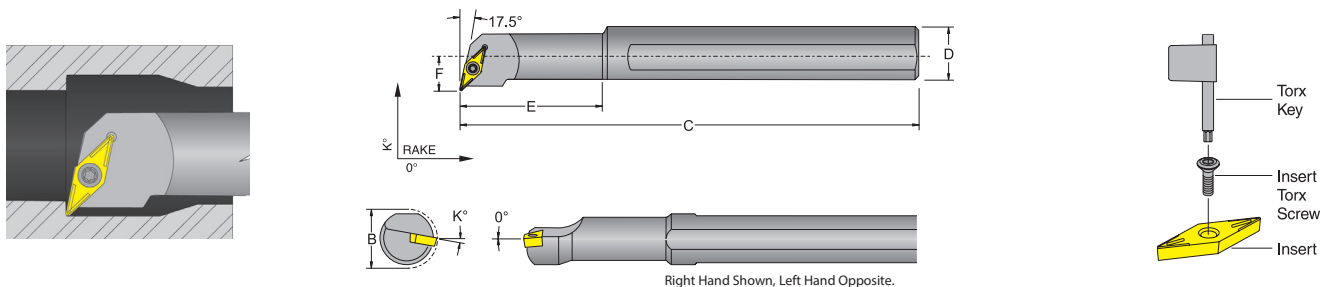
S-SVMC R Boring Bar Style M - Negative 5° Side Cutting Edge Angle for 7° positive 35° diamond VC_T inserts

Inch Description	UPC No. 733101-R.H.	Min.Bore B	C	D	E	F	K°	VC_T Gage Insert	Insert Torx Screw	Torx Key
S08R-SVMCR-2	55730	0.580	8.00	0.500	1.250	0.312	5°	221	TS-25.45-8M2	T-8
S10S-SVMCR-2	55731	0.980	10.0	0.625	1.500	0.406	5°			
S12S-SVMCR-3	55732	1.000	10.0	0.750	1.250	0.500	5°	332	TS-4.7-10M1	T-15
S16T-SVMCR-3	55733	1.300	12.0	1.000	2.000	0.640	5°			

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

Screw-Lock 7° Positive Insert Boring Bars

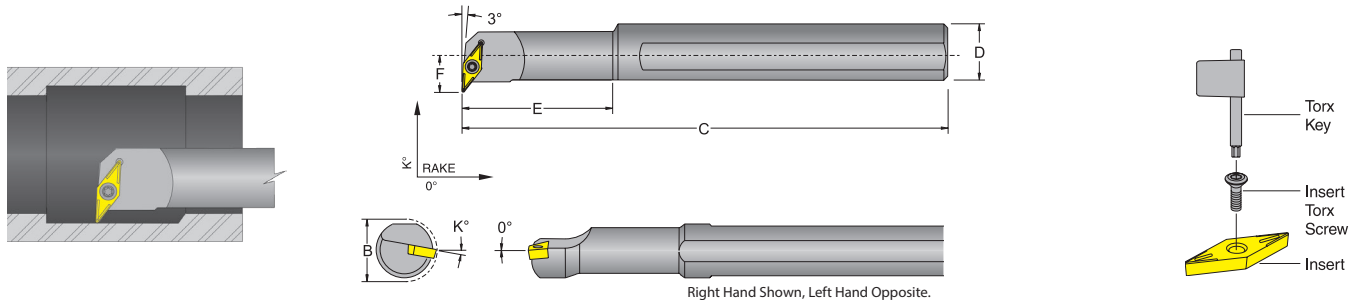
S-SVQC R Boring Bar Style Q - Negative 17.5° End Cutting Edge Angle for 7° positive 35° diamond VC_T inserts



Inch Description	UPC No. 733101-R.H.	Min. Bore B	C	D	E	F	K°	VC_T Gage Insert	Insert Torx Screw	Torx Key
S10R-SVQCR-2	55814	0.85	8.0	0.625	1.000	0.500	8°	221	TS-25.45-8M2	T-8
S12S-SVQCR-2	55816	0.98	10.0	0.750	1.250	0.562	7°			
S16T-SVQCR-3	55818	1.30	12.0	1.000	1.500	0.750	6°	332	TS-4.7-10M1	T-15

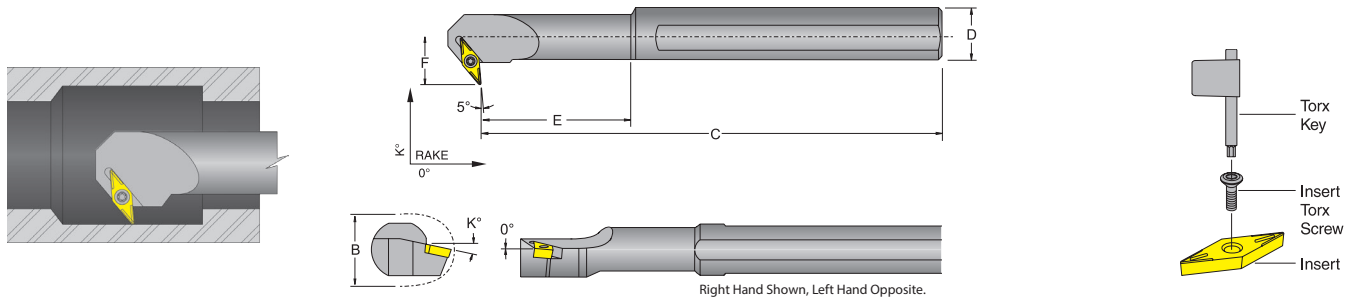
For inserts see pages 56-87. For spare parts see pages 158-159.

S-SVUC R/L Boring Bar Style U - Negative 3° End Cutting Edge Angle for 7° positive 35° diamond VC_T inserts



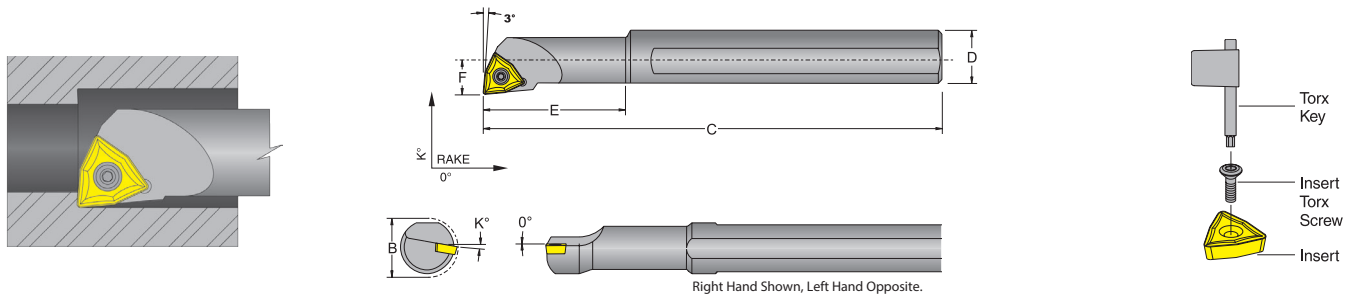
Inch Description	UPC No. 733101-R.H.	L.H.	Min. Bore B	C	D	E	F	K°	VC_T Gage Insert	Insert Torx Screw	Torx Key
S12S-SVUCR/L-2	55800	55801	1.125	10.0	0.75	1.250	0.625	6°	221	TS-25.45-8M2	T-8
S16T-SVUCR-2	55804	-	1.300	12.0	1.00	1.500	0.750	6°			
S16T-SVUCR/L-3	55808	55809	1.625	12.0	1.00	1.500	0.750	6°	332	TS-4.7-10M1	T-15
S20U-SVUCR/L-3	55812	55813	1.625	14.0	1.25	2.000	1.000	6°			

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92. *Non-Stock Item

S-SVXC R/L Boring Bar Style X - Negative 5° Back Boring Cutting Edge Angle for 7° positive 35° diamond VC_T inserts

Inch Description	UPC No. 733101- R.H. L.H.	Min. Bore B	C	D	E	F	K°	VC_T Gage Insert	Insert Torx Screw	Torx Key
S12S-SVXCR-2	55822 -	1.125	10.0	0.75	1.250	0.625	6°	221	TS-25.45-8M2	T-8
S16T-SVXCR-2	55826 -	1.500	12.0	1.00	1.500	0.750	6°			
S16T-SVXCR/L-3	55830 55831	2.000	12.0	1.00	1.500	0.750	6°	332	TS-4.7-10M1	T-15
S20U-SVXCR/L-3	55834 55835	2.250	14.0	1.25	1.500	1.000	6°			

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

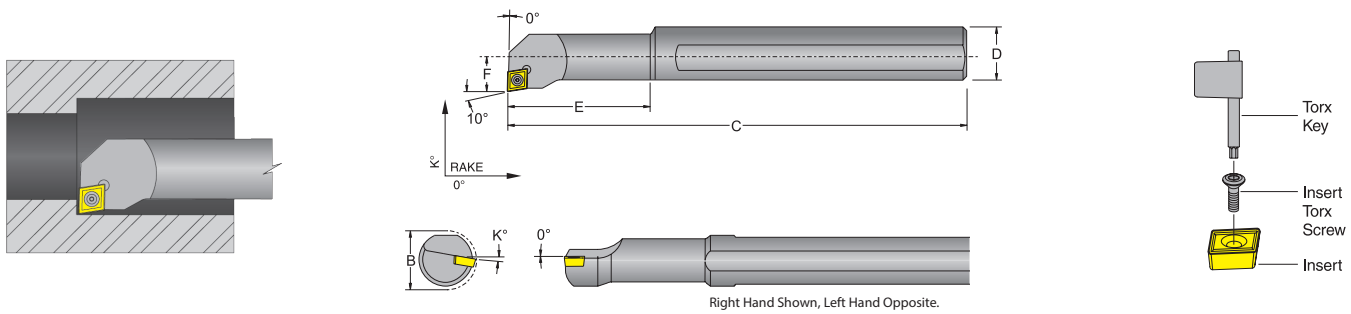
S-SWUC R/L Boring Bar Style U - Negative 3° End Cutting Edge Angle for 7° positive 80° trigon WC_T inserts

Inch Description	UPC No. 733101- R.H. L.H.	Min. Bore B	C	D	E	F	K°	WC_T Gage Insert	Insert Torx Screw	Torx Key
S06M-SWUCR/L-2	55912 55913	0.500	6.00	0.375	0.625	.250	11°	21.51	TS-25.45-6M2	T-8
S08M-SWUCR/L-2	55916 55917	0.625	6.00	0.500	0.750	.312	9°			
S10R-SWUCR/L-2	55920 55921	0.812	8.00	0.625	1.250	.406	7°			
S08M-SWUCR/L-3	55924 55925	0.625	6.00	0.500	1.250	.312	11°	32.52	TS-4.7-8M1	T-15
S10R-SWUCR/L-3	55928 55929	0.812	8.00	0.625	1.250	.406	7°			
S12S-SWUCR/L-3	55932 55933	1.000	10.0	0.750	1.875	.500	10°	32.52	TS-4.7-10M1	T-15
S16T-SWUCR/L-4	55940 55941	1.280	12.0	1.000	2.500	.640	5°			
S24U-SWUCR-4	55948 -	1.780	14.0	1.500	2.500	.890	5°	432	TS-5.8-10M1	T-20

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

Screw-Lock 11° Positive Insert Boring Bars

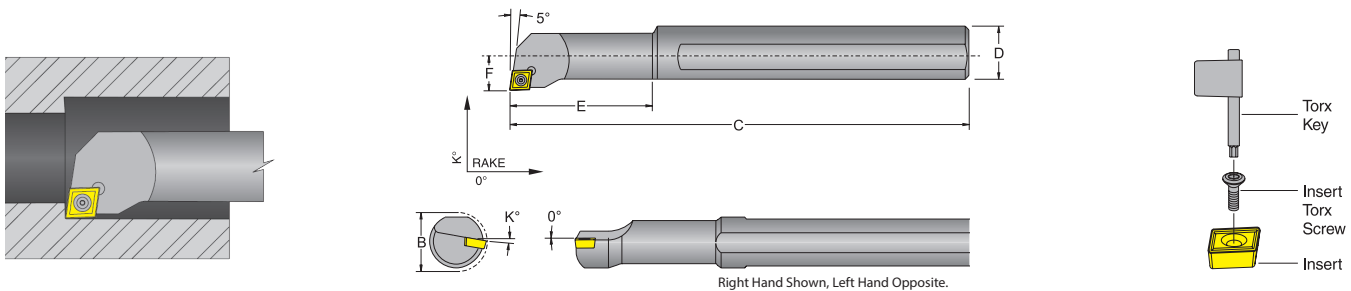
S-SCFP R Boring Bar Style F - 0° End Cutting Edge Angle for 11° positive 80° diamond CP_T inserts



Inch Description	UPC No. 733101- R.H.	Min.Bore B	C	D	E	F	K°	CP_T Gage Insert	Insert Torx Screw	Torx Key
S06M-SCFPR-2	55751	0.48	6.0	0.375	0.625	.250	4°	21.51	TS-25.45-6M2	T-8
S08R-SCFPR-2	55753	0.60	8.0	0.500	0.750	.312	2°			
S10S-SCFPR-2	55755	0.77	10.0	0.625	1.250	.406	0°			

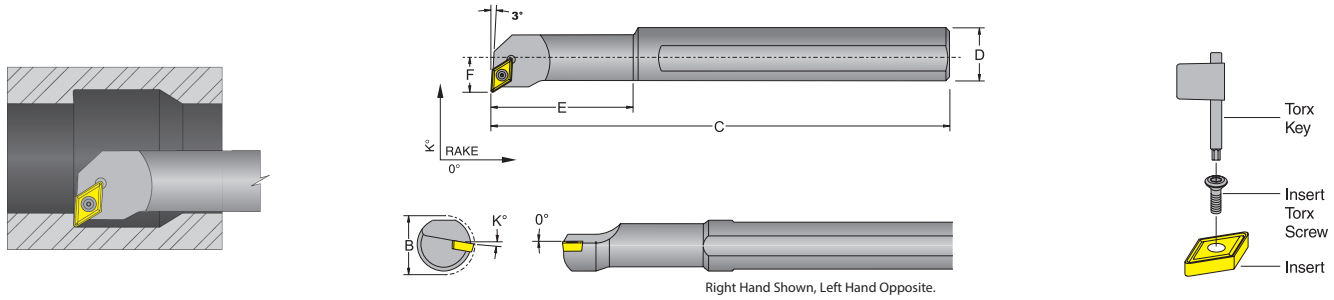
For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

S-SCLP R/L Boring Bar Style L - Negative 5° End & Side Cutting Edge Angle for 11° positive 80° diamond CP_T inserts



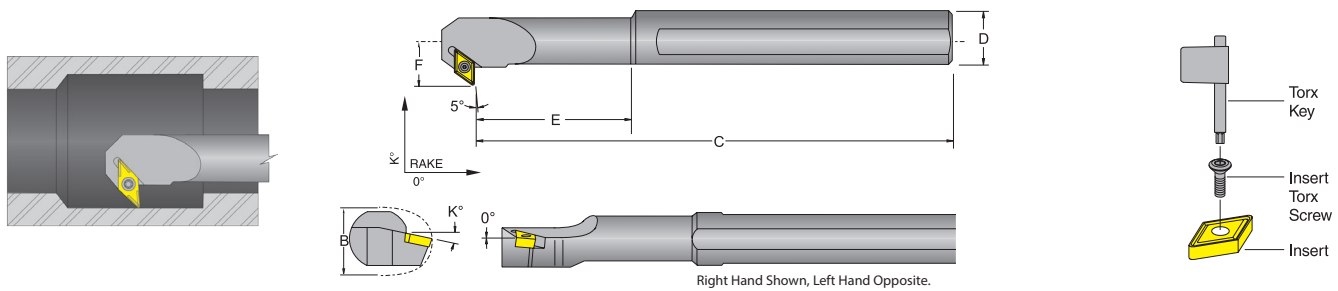
Inch Description	UPC No. 733101- R.H.	L.H.	Min.Bore B	C	D	E	F	K°	CP_T Gage Insert	Insert Torx Screw	Torx Key
S06M-SCLPR-2	55761	-	0.48	6.0	0.375	0.625	0.250	6°	21.51	TS-25.45-6M2	T-8
S08R-SCLPR/L-2	55763	55764	0.60	8.0	0.500	0.750	0.312	3°			
S10S-SCLPR/L-2	55765	55766	0.77	10.0	0.625	1.250	0.406	2°			
S10S-SCLPR/L-3	55767	55768	0.77	10.0	0.625	1.250	0.406	2°	32.52	TS-4.7-8M1	T-15
S12S-SCLPR/L-3	55769	55770	0.93	10.0	0.750	1.250	0.500	2°			
S16T-SCLPR/L-3	55771	55772	1.20	12.0	1.000	1.875	0.640	0°			

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

S-SDUP R/L Boring Bar Style U - Negative 3° End Cutting Edge Angle for 11° positive 55° diamond DP_T inserts

Inch Description	UPC No. 733101- R.H. L.H.	Min.Bore B	C	D	E	F	K°	DP_T Gage Insert	Insert Torx Screw	Torx Key
S06M-SDUPR/L-2	55774 55775	0.60	6.0	0.375	0.625	0.375	3°	21.51	TS-25.45-6M2	T-8
S08R-SDUPR-2	55776 -	0.73	8.0	0.500	0.500	0.437	2°			
S12S-SDUPR/L-3	55780 55781	0.98	10.0	0.750	1.875	0.562	2°	32.52	TS-4.7-10M1	T-15
S16T-SDUPR/L-3	55782 55783	1.30	12.0	1.000	2.500	0.750	0°			

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

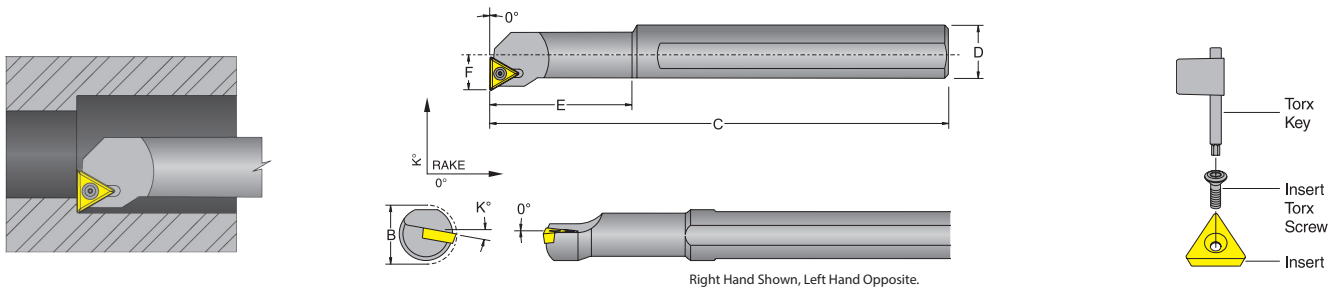
S-SDXP R/L Boring Bar Style X - Negative 5° Back Boring Cutting Edge Angle for 11° positive 55° diamond DP_T inserts

Inch Description	UPC No. 733101- R.H. L.H.	Min.Bore B	C	D	E	F	K°	DP_T Gage Insert	Insert Torx Screw	Torx Key
S10S-SDXPR-2	55786 -	0.85	10.0	0.625	1.000	0.500	0°	21.51	TS-25.45-6M2	T-8
S16T-SDXPL-3	- 55791	1.30	12.0	1.000	1.500	0.750	0°	32.52	TS-4.7-10M1	T-15

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

Screw-Lock 11° Positive Insert Boring Bars

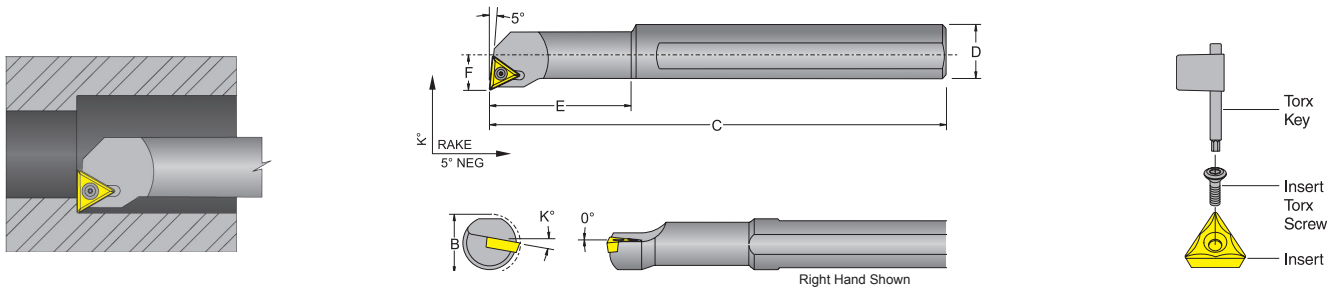
S-STFP R/L Boring Bar Style F - 0° End Cutting Edge Angle for 11° positive triangle TPGH and TPGH inserts



Inch Description	UPC No. 733101- R.H.	L.H.	Min.Bore B	C	D	E	F	K°	TPG_ Gage Insert	Insert Torx Screw	Torx Key
S06M-STFPR/L-2	55636	55637	0.470	6.00	0.375	0.625	.250	4°	21.51	TS-25.45-6M2	T-8
S08M-STFPR/L-2	55640	55641	0.600	6.00	0.500	0.750	.312	2°			
S10R-STFPR/L-2	55644	55645	0.770	8.00	0.625	1.250	.406	0°			
S12S-STFPR-3	55648	-	0.930	10.0	0.750	1.875	.500	2°	322	TS-44-3M	T-10

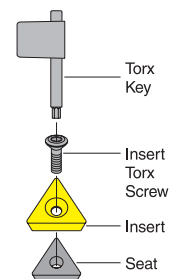
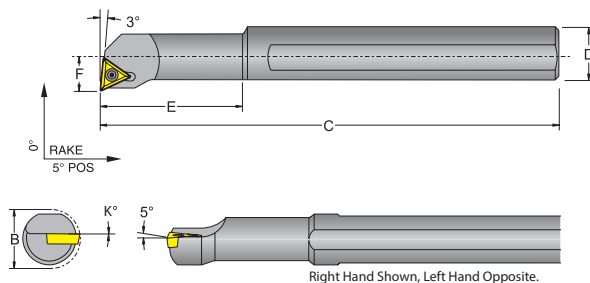
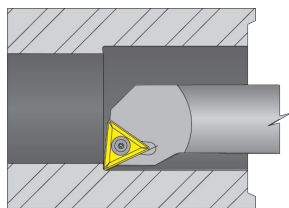
For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

S-STLP R Boring Bar Style L - Negative 5° End Cutting Edge Angle for 11° positive triangle TPGH and TPGH inserts



Inch Description	UPC No. 733101- R.H.	Min.Bore B	C	D	E	F	K°	TPG_ Gage Insert	Insert Torx Screw	Torx Key
S06M-STLPR-2	55846	0.430	6.00	0.375	0.625	.232	4°	21.51	TS-25.45-6M2	T-8
S08M-STLPR-2	55848	0.590	6.00	0.500	0.750	.287	2°			
S10R-STLPR-2	55850	0.682	8.00	0.625	1.250	.350	0°			
S12S-STLPR-3	55852	0.845	10.0	0.750	1.875	.422	2°	322	TS-44-3M	T-10
S16T-STLPR-3	55854	1.115	12.0	1.000	2.500	.555	0°			
S20T-STLPR-3	55856	1.370	12.0	1.250	2.500	.682	0°			

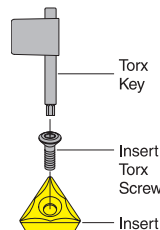
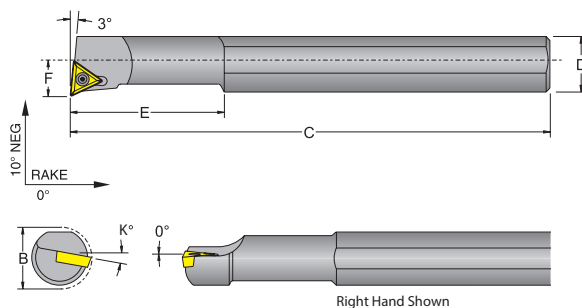
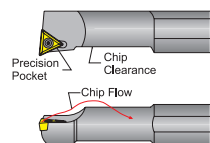
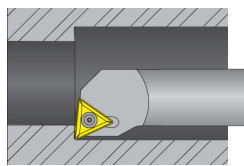
For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

S-STUP R/L Boring Bar Style U - Negative 3° End Cutting Edge Angle for 11° positive triangle TPGH and TPGB inserts


Inch Description	UPC No. 733101-		Min. Bore B	C	D	E	F	K°	TPG Gage Insert	Seat	Insert Torx Screw	Torx Key
	R.H.	L.H.										
S16T-STUPR/L-3	55682	55683	1.22	12.0	1.00	2.500	0.578	0°	322	SM-41	TS-44-4M	T-10
S24U-STUPR/L-3	55690	55691	1.84	14.0	1.50	2.500	0.891	0°				
S24U-STUPR-4	55698	-	2.12	14.0	1.50	2.500	1.031	0°				
S28U-STUPR/L-4	55702	55703	2.38	14.0	1.75	2.500	1.156	0°	432	SM-37	TS-83-4M1	T-20
S32V-STUPR-4	55706	-	2.62	16.0	2.00	3.000	1.281	0°				
S40V-STUPR-4	55714	-	3.12	16.0	2.25	3.000	1.531	0°				

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

STCMB Boring Bar - Roughing to Finishing, Square Shoulders to Through Bores for 7° positive triangle TCMT Inserts

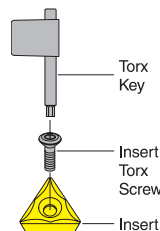
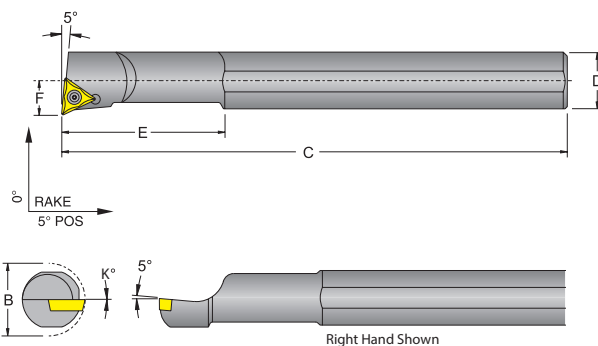
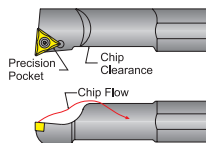
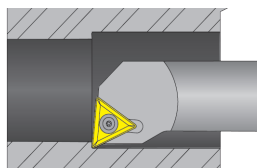


- **Small Hole Capacity** - to a minimum of .500
- **High Tech** - Insert pocket has been scientifically designed to eliminate vibration and maximize the depth of cut
- **Rigidity** - Bar made of heat treated, precision ground alloy steel
- **Insert Locking** - The insert is securely held with the Torx screw to reduce tool slipping
- **Better Finish** - The clearance angle of the insert, in relation to the cutting edge, gives the best micro finish
- **Fast Material Removal** - The positive insert with advanced chip breaker design allows for heavier cuts

Inch Description	UPC No. 733101-R.H.	Min.Bore B	C	D	E	F	K°	TC_T Gage Insert	Insert Torx Screw	Torx Key
STCMB06-2	55738	0.500	5.00	0.500	1.25	.208	10°	21.51	TS-25.45-6M2	T-8
STCMB08-2	55740	0.590	6.00	0.500	1.50	.287	10°			
STCMB10-2	55742	0.750	8.00	0.625	2.25	.350	10°			
STCMB12-3	55744	0.845	10.0	0.750	2.50	.422	10°	32.52	TS-4.7-10M1	T-15
STCMB16-3	55746	1.115	12.0	1.000	3.00	.555	10°			
STCMB20-4	55748	1.370	12.0	1.250	3.50	.682	10°	432	TS-5.8-10M1	T-20

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

TPBN Boring Bar - Roughing to Finishing, Square Shoulders to Through Bores for 11° positive triangle TPGH or TPGB Inserts



- **Small Hole Capacity** - to a minimum of .430
- **High Performance** - Positive rake for fast material removal, as well as finishing
- **Rigidity** - Bar made of heat treated, precision ground alloy steel
- **Insert Locking** - The insert is securely held with the Torx screw to reduce tool slipping.
- **Chip Control** - Advanced precision chip clearance allows for maximum boring capacity
- **Inserts** - TIN coated with added chip breaker

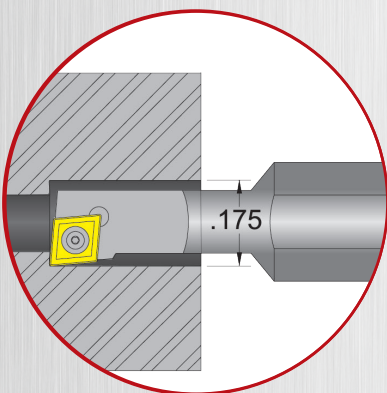
Inch Description	UPC No. 733101-R.H.	Min.Bore B	C	D	E	F	K°	TP_Gage Insert	Insert Torx Screw	Torx Key
TPBN06-2	55658	0.430	5.00	0.500	1.25	.208	0°	21.51	TS-25.45-6M2	T-8
TPBN08-2	55660	0.590	6.00	0.500	1.50	.287	0°			
TPBN10-2	55662	0.682	8.00	0.625	2.25	.350	0°			
TPBN12-3	55664	0.845	10.0	0.750	2.50	.422	0°	322	TS-44-3M	T-10
TPBN16-3	55666	1.115	12.0	1.000	3.00	.555	0°			
TPBN20-3	55668	1.370	12.0	1.250	3.50	.682	0°	432	TS-83-4M1	T-20
TPBN20-4	55670	1.370	12.0	1.250	3.50	.682	0°			
TPBN24-4	55672	1.680	12.0	1.500	4.00	.840	0°			

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

Eliminate Reamers With Miniature Indexable Boring Bars

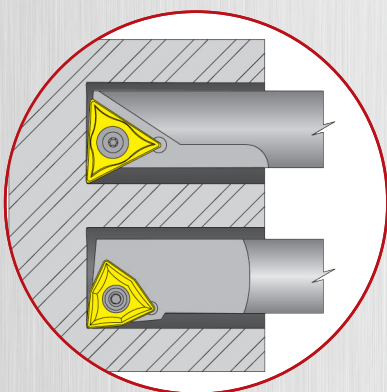
- **Small Hole Capacity** - to a minimum of .175
- **High Tech** - Insert pocket has been scientifically designed to eliminate vibration and maximize the depth of cut
- **Rigidity** - Bar made of heat treated, precision ground alloy steel as well as solid carbide
- **Insert Locking** - The insert is securely held with the Torx screw to reduce tool slipping

- **Better Finish** - The clearance angle of the insert, in relation to the cutting edge, gives the best micro finish
- **Eliminate Reamers** - The small hole boring capacity can now bore holes that were once reamed

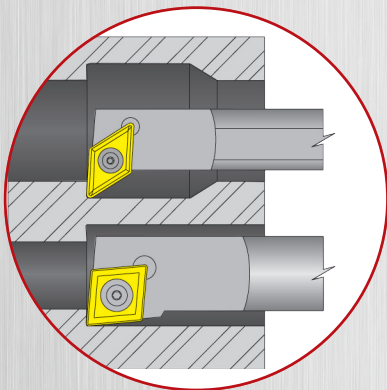


Advantages of Miniature Boring Bars

The miniature boring bars are replacing reamers with many advantages. The small inserts and finishing coated grades available make boring to a minimum diameter of .175 possible.



- Close tolerances
- Better surface finish
- Less machine load
- Never gets stuck
- Bores to a blind hole
- Min. diameter of .175



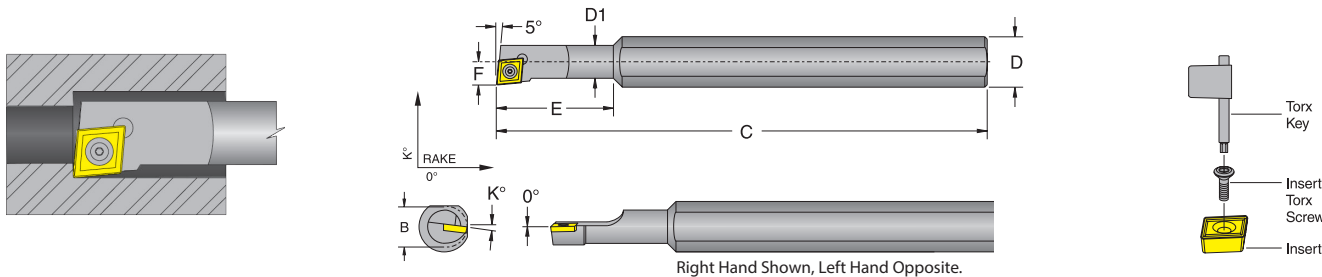
Available In a variety of insert styles and shank sizes.

Insert Styles:
 "C" - 80° Diamond
 "D" - 55° Diamond
 "T" - 60° Triangle
 "W" - 80° Trigon

Shank Sizes:
 3/8"
 1/2"
 5/8"

Carbide Shank Sizes:
 5/32"
 3/16"
 7/32"
 1/4"

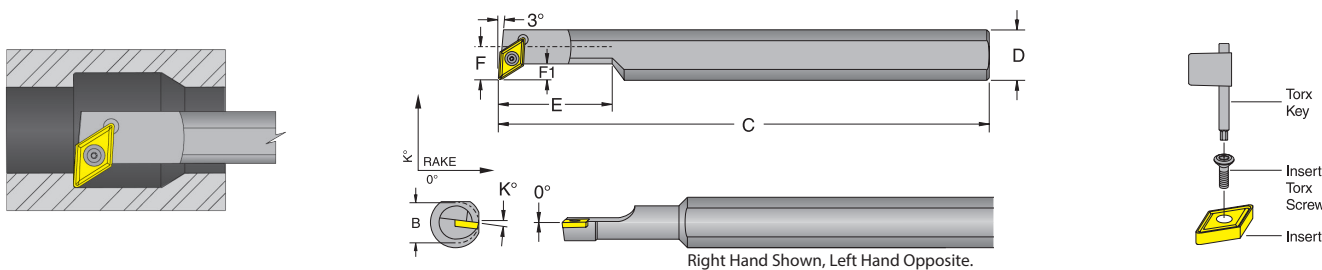
MINI S-SCLC R/L Boring Bar Style L - Negative 5° End & Side Cutting Edge Angle for 7° positive 80° diamond CC_T inserts



Inch Description	UPC No. 733101- R.H.	L.H.	Min.Bore B	C	D	D1	E	F	K°	CC_T Gage Insert	Insert Torx Screw	Torx Key
S06H-SCLCR/L-2	55450	55451	.394	4.0	.375	.315	1.25	.236	11°	21.51	TS-25.45-6M2	T-8
S08K-SCLCR/L-2	55454	55455	.550	5.0	.500	.390	1.50	.275	9°			
S10M-SCLCR/L-2	55458	55459	.708	6.0	.625	.472	2.00	.354	7°			

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

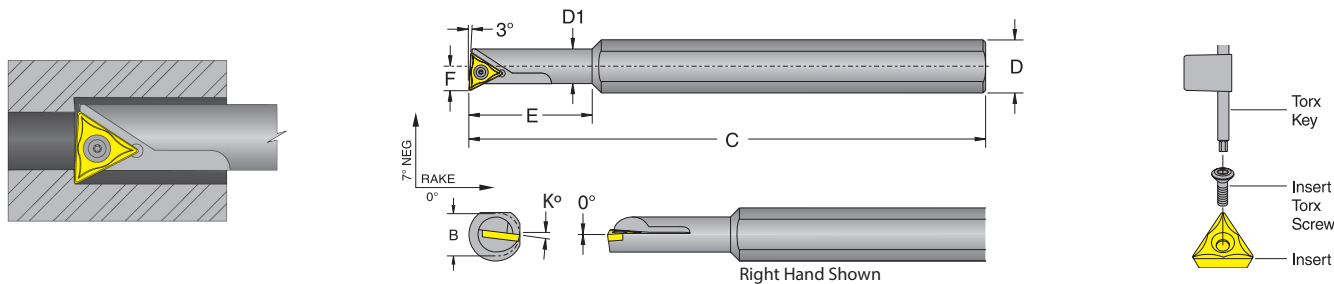
MINI S-SDUC R/L Boring Bar Style U - Negative 3° End Cutting Edge Angle for 7° positive 55° diamond DC_T inserts



Inch Description	UPC No. 733101- R.H.	L.H.	Min.Bore B	C	D	E	F	F1	K°	DC_T Gage Insert	Insert Torx Screw	Torx Key
S06H-SDUCR-2	55540	-	.492	4.00	.375	0.875	.324	.197	11°	21.51	TS-25.45-6M2	T-8
S08K-SDUCR/L-2	55544	55545	.610	5.00	.500	1.125	.383	.197	9°			
S10M-SDUCR-2	55548	-	.768	6.00	.625	1.500	.433	.197	7°			

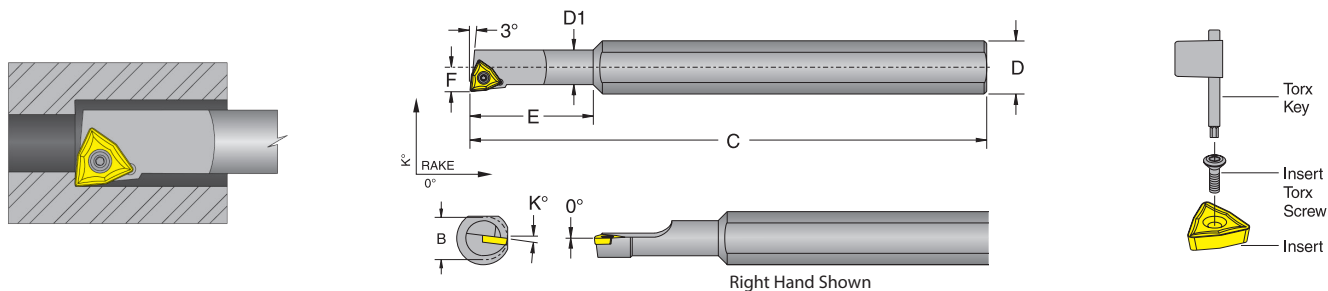
For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

MINI S-STUC R Boring Bar Style U - Negative 3° End Cutting Edge Angle for 7° positive triangle TC_T inserts



Inch Description	UPC No. 733101- R.H.	Min.Bore B	C	D	D1	E	F	K°	TC_T Gage Insert	Insert Torx Screw	Torx Key
S08H-STUCR-1.2-2	55724	.286	4.00	.500	.265	1.125	.143	7°	52.50	TS-06	T-6
S08H-STUCR-1.2-3	55726	.313	4.00	.500	.300	1.125	.157	7°			
S08H-STUCR-1.2-4	55728	.374	4.00	.500	.358	1.125	.189	7°			

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

MINI S-SWUC R Boring Bar Style U - Negative 3° End Cutting Edge Angle for 7° positive 80° trigon WC_T inserts


Inch Description	UPC No. 733101-R.H.	Min.Bore B	C	D	D1	E	F	K°	WC_T Gage Insert	Insert Torx Screw	Torx Key
S08H-SWUCR-1.2-2	55900	0.228	4.0	.50	.197	0.750	.114	11°	1.210.0	TS-06	T-6
S08H-SWUCR-1.2-3	55902	0.308	4.0	.50	.236	1.000	.154	11°			
S08H-SWUCR-1.2-4	55904	0.374	4.0	.50	.300	1.125	.189	11°			
S06H-SWUCR-2	55906	.394	4.0	.375	.315	1.25	.236	11°	21.51	TS-25.45-6M2	T-8
S08K-SWUCR-2	55907	.550	5.0	.500	.390	1.50	.275	9°			
S10M-SWUCR-2	55908	.708	6.0	.625	.472	2.00	.354	7°			

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

1 Tool - Multiple Operations
From
Roughing to Finishing
Turning - Facing - Boring - Chamfering - Threading

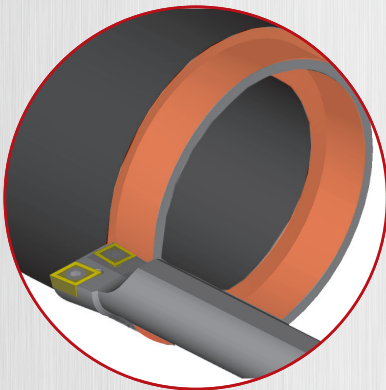
- One-half the cost in tooling
- One station saved
- One less tool to set-up

- One less tool to index
- Less down time
- Improve productivity
- Reduce production cost

- Standard indexable insert
- Standard hardware
- Heat treated alloy ground steel

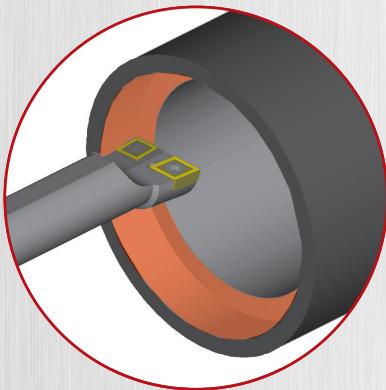
ONE TOOL FOR:

**Manual Lathe
Hardinge Chucker
Turning Center**



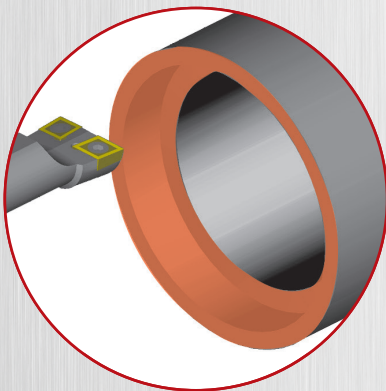
TURNING

Turning is performed with the double insert boring bar, eliminating tool changes. The right insert is offset ahead of the left insert to create clearance in turning and facing.



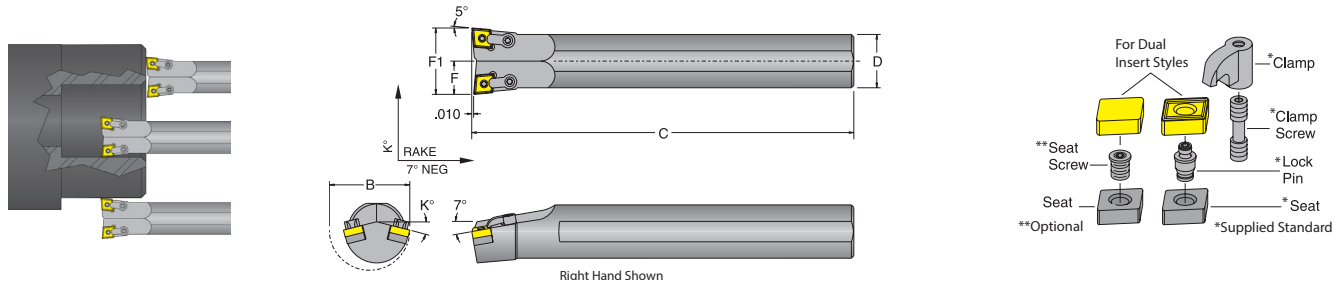
BORING

Boring is performed with the same double insert boring bar, eliminating tool changes. The left insert is offset behind the right insert to create clearance in boring.



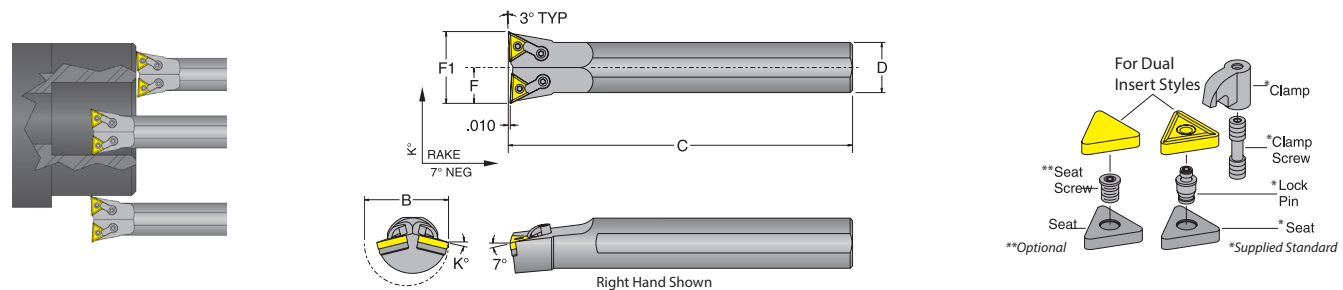
FACING

Facing is performed with the same double insert boring bar, eliminating tool changes. The right insert is offset ahead of the left insert to create clearance in turning and facing.

S-DCLN R Boring Bar Style L - Negative 5° End or Side Cutting Edge Angle for two 80° diamond CNM_ inserts


Inch Description	UPC No. 733101-R.H.	Min.Bore B	C	D	F	F1	K°	CNM_ Gage Insert	Seat	Lock Pin	Clamp	Clamp Screw	Optional Seat Screw
S12M-DCLN-3	57504	1.250	6.0	0.75	0.500	1.530	14°	332	-	NL-44	CL-7	XNS-36	-
S16T-DCLN-4	57510	1.500	12.0	1.00	0.640	1.280	14°	432	-	NL-44	CL-7	XNS-35	-
S16Q-DCLN-4	57506	1.500	7.0	1.00	0.640	1.530	14°	432	ICSN-433	NL-46	CL-20	XNS-48	S-46
S20R-DCUN-4	57508	1.750	8.0	1.25	0.765	1.530	11°						
S20U-DCLN-4	57514	1.750	14.0	1.25	0.765	1.530	14°						
S24U-DCLN-4	57518	2.000	14.0	1.50	0.890	1.780	11°						
S24U-DCLN-5	57522	2.000	14.0	1.50	0.890	1.780	11°						
S32V-DCLN-5	57526	2.625	16.0	2.00	1.281	2.562	11°	543	ICSN-533	NL-58	CL-20	XNS-48	S-58

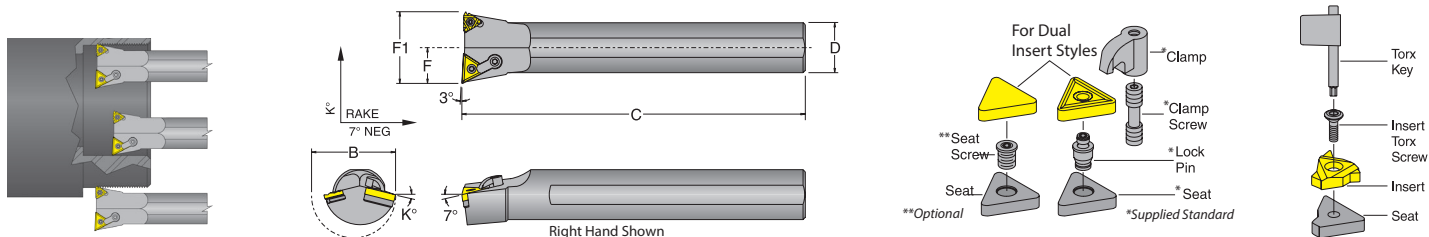
For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

S-DTUN R Boring Bar Style U - Negative 3° End or Side Cutting Edge Angle for two triangle TNM_ inserts


Inch Description	UPC No. 733101-R.H.	Min.Bore B	C	D	F	F1	K°	TNM_ Gage Insert	Seat	Lock Pin	Clamp	Clamp Screw	Optional Seat Screw
S16Q-DTUN-3	57550	1.500	7.0	1.00	0.640	1.530	14°	322	ITSN-322	NL-34	CL-6	XNS-35	S-34
S20R-DTUN-3	57552	1.750	8.0	1.25	0.765	1.530	14°						
S16T-DTUN-3	57554	1.500	12.0	1.00	0.640	1.280	14°						
S20U-DTUN-3	57558	1.750	14.0	1.25	0.765	1.530	14°	322	ITSN-322	NL-34	CL-6	XNS-36	S-34
S24U-DTUN-3	57562	2.000	14.0	1.50	0.890	1.780	11°						
S32V-DTUN-4	57570	2.625	16.0	2.00	1.281	2.562	11°	432	ITSN-433	NL-46	CL-9	XNS-59	S-46

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

S-DTUN_T R Bar Style U - Negative 3° End or Side Cutting Edge Angle for one negative triangle TNM_ & one Laydown insert

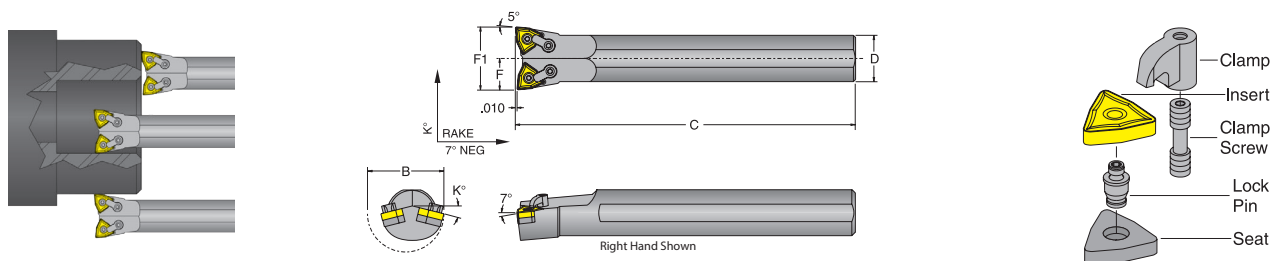


Boring & Threading

Inch Description	UPC No. 733101-R.H.	Min.Bore B	C	D	F	F1	K°	TNM_ Gage Insert	Seat	Lock Pin	Clamp	Clamp Screw	Laydown Insert	TPI	Seat	Insert Torx Screw	Torx Key
S16Q-DTUN-3-T16	57576	1.50	7.00	1.00	.640	1.28	14°	322	ITSN-322	NL-34	CL-6	XNS-36	16ILAG60	8-48	GX-16-1	TS-16	T-10
S20R-DTUN-3-T16	57578	1.75	8.00	1.25	.765	1.53	14°										
S16T-DTUN-3-T16	57580	1.50	12.00	1.00	.640	1.28	14°										

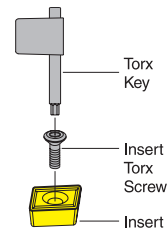
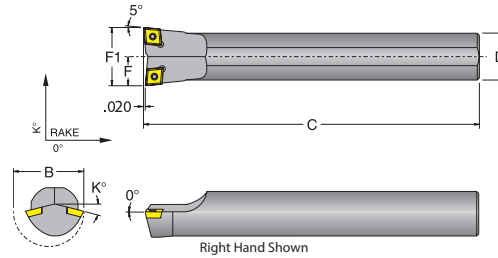
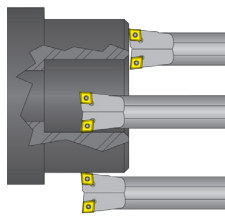
For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

S-DWLN R Boring Bar Style L - Negative 5° End or Side Cutting Edge Angle for negative 80° trigon WNM_ inserts



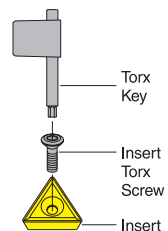
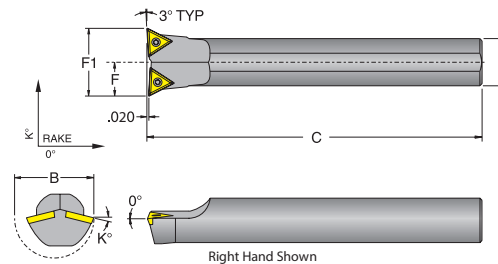
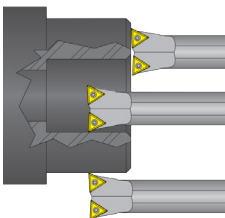
Inch Description	UPC No. 733101-R.H.	Min.Bore B	C	D	F	F1	K°	WNM_ Gage Insert	Seat	Lock Pin	Clamp	Clamp Screw
S12M-DWLN-3	57610	1.25	6.00	0.75	.500	1.00	14°	332	-	NL-33L	HC-7	SHC-7
S16Q-DWLN-3	57614	1.50	7.00	1.00	.640	1.28	14°					
S16T-DWLN-4	57618	1.50	12.00	1.00	.665	1.33	14°					
S16Q-DWLN-4	57617	1.50	7.00	1.00	.665	1.53	14°	432	-	NL-44	CL-6	XNS-36
S20R-DWLN-4	57620	1.75	8.00	1.25	.890	1.53	14°					
S20U-DWLN-4	57622	1.75	14.00	1.25	.765	1.53	14°					
S24U-DWLN-4	57626	2.00	14.00	1.50	.890	1.78	11°	432	IWSN-433	NL-46	CL-6	XNS-36

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

MINI S-DCLC R Boring Bar Style L - Negative 5° End or Side Cutting Edge Angle for double 7° positive 80° diamond CC_T inserts


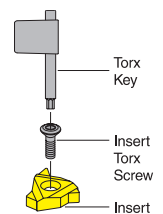
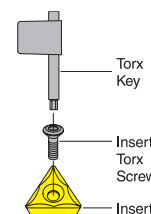
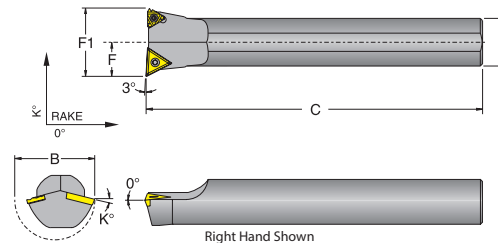
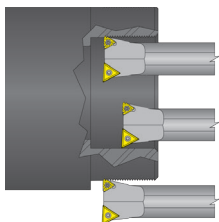
Inch Description	UPC No. 733101- R.H.	Min.Bore B	C	D	F	F1	K°	CC_T Gage Insert	Insert Torx Screw	Torx Key
S08K-DCLC-2	57700	0.688	5.0	.500	.312	0.624	5°	21.51	TS-25.45-6M2	T-8
S10L-DCLC-2	57704	0.938	5.5	.625	.406	0.812	5°			
S12M-DCLC-3	57708	1.063	6.0	.750	.500	1.000	5°	32.52	TS-4.7-10M1	T-15
S16Q-DCLC-4	57710	1.375	7.0	1.00	.640	1.280	7°	432	TS-5.8-10M1	T-20
S20R-DCLC-4	57712	1.625	8.0	1.25	0.77	1.530	5°			

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

MINI S-DTUC R Boring Bar Style U - Negative 3° End or Side Cutting Edge Angle for double 7° positive triangle TC_T inserts


Inch Description	UPC No. 733101- R.H.	Min.Bore B	C	D	F	F1	K°	TC_T Gage Insert	Insert Torx Screw	Torx Key
S08K-DTUC-2	57736	0.875	5.0	0.500	.421	0.842	5°	21.51	TS-25.45-6M2	T8
S12M-DTUC-2	57744	1.062	6.0	0.750	.500	1.000	5°			
S16Q-DTUC-3	57747	1.312	7.0	1.000	.640	1.280	5°	32.52	TS-4.7-10M1	T-15
S20R-DTUC-3	57750	1.625	8.0	1.250	.770	1.530	5°			

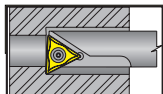
For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

MINI S-DTUC-T R Bar Style U - Negative 3° End or Side Cutting Edge Angle for one 7° positive triangle TC_T & one Laydown inserts

Boring & Threading

Inch Description	UPC No. 733101- R.H.	Min.Bore B	C	D	F	F1	K°	TC_T Gage Insert	Seat	Lock Pin	Laydown Insert	TPI	Insert Torx Screw	Torx Key
S08K-DTUC-2-T11	57758	0.875	5.0	0.500	.421	0.842	5°	21.51	TS-25.45-6M2	T-8	11ILA60	16-48	TS-25.45-6M2	T-8
S10L-DTUC-2-T11	57762	1.000	5.5	0.625	.437	0.874	5°							
S12M-DTUC-2-T11	57766	1.062	6.0	0.750	.500	1.000	5°							
S16Q-DTUC-3-T16	57770	1.312	7.0	1.000	.640	1.280	5°	32.52	TS-4.7-10M1	T-15	16ILA60	8-48	TS-16	T-10
S20R-DTUC-3-T16	57772	1.625	8.0	1.250	.770	1.530	5°							

For Turning inserts see pages A-58 - A-88. For spare parts see pages C-91-C-92.

Miniature & Medium Boring Bar Sets



STUCR Miniature Boring Set

Min. bore .286"

Negative 3° End Cutting Edge Angle
for 7° positive 60° triangle inserts

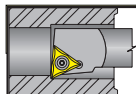
- Small hole boring without the use of reamers
- Greater productivity through better tool utilization
- Close tolerances
- Eliminates reamers
- Better surface finish
- Alloy steel boring bar



Set Offers:

- 3 Boring Bars
- 10 Inserts

Set UPC No. 733101-	Shank Size	Min. Bore	15 Piece Set Includes			
			(3) Boring Bars	(10) Inserts	(1) Torx Key	(1) Storage Box
85076	.500 .500 .500	.286 .313 .374	S08H-STUCR-1.2-2 S08H-STUCR-1.2-3 S08H-STUCR-1.2-4	TCMT-1.21.20.2-PEF- DPC25UT	T-6	Storage Box



TPBN Medium Boring Set

Negative 5° End Cutting Edge Angle
for 11° positive 60° triangle inserts

**For a Precise Bore
With a Quality Boring Bar**

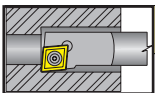
From Roughing To Finishing,
Square Shoulders to Through Bores



Set Offers:

- 4 Boring Bars
- 20 Inserts

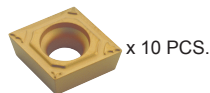
Set UPC No. 733101-	Shank Size	Min. Bore	27 Piece Set Includes			
			(4) Boring Bars	(20) Inserts	(2) Torx Keys	(1) Storage Box
85086	.500 .500 .625 .750	.430 .590 .682 .845	TPBN06-2 TPBN08-2 TPBN10-2 TPBN12-3	(10) TPGH-21.51-EZ-DPP30GT (10) TPGH-321-EZ-DPP30GT	T-8 T-10	Storage Box



SCLCR Miniature Boring Set

Negative 5° End Cutting Edge Angle
for 7° positive 80° diamond inserts

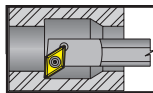
- Precision finishing operation
- For steel & stainless steel
- Sharp cutting edge
- Good chip control



Set Offers:

- 3 Boring Bars
- 10 Inserts

Set UPC No. 733101-	Shank Size	Min. Bore	15 Piece Set Includes			
			(3) Boring Bars	(10) Inserts	(1) Torx Key	(1) Storage Box
85064	.375 .500 .625	.394 .550 .708	S06H-SCLCR-2 S08K-SCLCR-2 S10M-SCLCR-2	CCMT-21.51- PEM-DPC25UT	T-8	Storage Box



SDUCR Miniature Boring Set

Negative 3° End Cutting Edge Angle
for 7° positive 55° diamond inserts

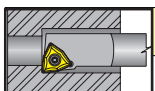
- Precision finishing operation
- For steel & stainless steel
- Sharp cutting edge
- Good chip control



Set Offers:

- 3 Boring Bars
- 10 Inserts

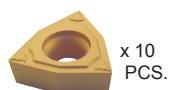
Set UPC No. 733101-	Shank Size	Min. Bore	15 Piece Set Includes			
			(3) Boring Bars	(10) Inserts	(1) Torx Key	(1) Storage Box
85068	.375 .500 .625	.492 .610 .768	S06H-SDUCR-2 S08K-SDUCR-2 S10M-SDUCR-2	DCMT-21.51- PEF-DPC25UT	T-8	Storage Box



SWUCR Medium Boring Set

Negative 3° End Cutting Edge Angle
for 7° positive 80° trigon inserts

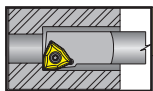
- Precision finishing operation
- For steel & stainless steel
- Sharp cutting edge
- Good chip control



Set Offers:

- 3 Boring Bars
- 10 Inserts

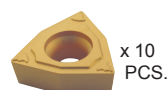
Set UPC No. 733101-	Shank Size	Min. Bore	15 Piece Set Includes			
			(3) Boring Bars	(10) Inserts	(1) Torx Key	(1) Storage Box
85072	.375 .500 .625	.394 .550 .708	S06H-SWUCR-2 S08K-SWUCR-2 S10M-SWUCR-2	WCGT-21.51- UEU-DUP15VT	T-8	Storage Box



SWUCR Miniature Boring Set

Negative 3° End Cutting Edge Angle
for 7° positive 80° trigon inserts

- Precision finishing operation
- For steel & stainless steel
- Sharp cutting edge
- Good chip control



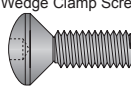
Set Offers:

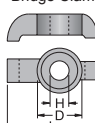
- 3 Boring Bars
- 10 Inserts

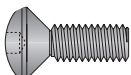
Set UPC No. 733101-	Shank Size	Min. Bore	15 Piece Set Includes			
			(3) Boring Bars	(10) Inserts	(1) Torx Key	(1) Storage Box
85070	.500 .500 .500	.228 .308 .374	S08H-SWUCR-1.2-2 S08H-SWUCR-1.2-3 S08H-SWUCR-1.2-4	WCMT-1.210.2-PEF- DPC25UT	T-6	Storage Box

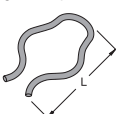
Finger Clamp	Part No. 733101-		B	C	D	E	G	Thread	PKG.
	Desc.	733101-							
	CL-5	90680	.280	.52	.350	.102	-	10-32	10
	CL-6	90681	.310	.58	.440	.187	.094	10-32	
	CL-7	90682	.310	.64	.310	.082	-	10-32	
	CL-9	90683	.430	.75	.660	.344	.125	5/16-24	
	CL-12	90684	.430	.88	.660	.344	.125	5/16-24	
	CL-19	90685	.310	.55	.310	.062	-	10-32	
	CL-20	90686	.375	.73	.380	.125	-	1/4-28	
CL-24	90687	.491	1.0	.785	.453	.136	3/8-24		
CL-30	90688	.430	1.0	.660	.344	.125	5/16-24		
Dor-Lock Clamp	Part No. 733101-		Dor-Lock Clamp						
	DC-5N	90151							
	DCTW-3N	90153							
	DCTW-4N	53256							
	DD-4N	90152							
	DV-3N	90154							
Dor-Lock Clamp Screw	Part No. 733101-		Dor-Lock Clamp Screw						
	DCS-04	90155							
	Part No. 733101-		Dor-Lock Clamp Spring						
Dor-Lock Clamp Spring	DSP-04	90156							
Negative Lock Pins	Part No. 733101-		Insert I.C.	Nominal Length	Thread	Hex Wrench Size	PKG.		
	Inch								
	NL-23	90472	.250	.328	8-32	1/16	10		
	NL-33	90473	.375	.344	10-32	5/64			
	NL-33L	90474	.375	.406	10-32	5/64			
	NL-34	90475	.375	.453	10-32	5/64			
	NL-34L	90476	.375	.516	10-32	5/64			
	NL-43	90477	.500	.420	10-32	5/64			
	NL-44	90478	.500	.516	1/4-28	3/32			
	NL-46	90479	.500	.672	1/4-28	3/32			
	NL-46L	90480	.500	.730	1/4-28	3/32			
	NL-56	90481	.625	.703	5/16-24	1/8			
	NL-57	90482	.625	.810	5/16-24	1/8			
	NL-58	90483	.625	.859	5/16-24	1/8			
	NL-58L	90484	.625	.890	5/16-24	1/8			
	NL-66	90485	.750	.703	3/8-24	9/64			
	NL-66L	90486	.750	.828	3/8-24	9/64			
	NL-68	90487	.750	.859	3/8-24	9/64			
	NL-68L	90488	.750	.953	3/8-24	9/64			
	NL-808	90489	1.00	.940	7-16-20	5/32			
	NL-810	90490	1.00	1.17	7-16-20	5/32			
Metric									
S535		91320	09	5	-	2,5	10		
S635		91321	12	6	-	3,0			
S840		91322	16	8	-	3,0			
S990		91323	19	10,5	-	3,0			
P0502		91324	16	16	-	--			
P0602		91325	08	15	-	--			
S311		91326	16	11	-	4,0			
Positive Lock Pins	Part No. 733101-		Insert I.C.	Nominal Length	Hex Wrench Size	PKG.			
	PL-46	90495	.500	.672	3/32	10			
	PL-58	90496	.625	.859	1/8				
	PL-68	90497	.750	.859	9/64				
Finger Clamp Screws	Part No. 733101-		A	B	C	Thread Size	Hex Wrench Size	PKG.	
	XNS-26	90900	0.750	.31	.31	8-32	5/64	10	
	XNS-35	90901	0.625	.22	.22	10-32	3/32		
	XNS-36	90902	0.750	.25	.25	10-32	3/32		
	XNS-37	90903	0.840	.31	.31	10-32	3/32		
	XNS-38	90904	1.000	.37	.37	10-32	3/32		
	XNS-46	90905	0.750	.31	.31	1/4-28	1/8		
	XNS-47	90906	0.875	.28	.28	1/4-28	1/8		
	XNS-48	90907	1.000	.37	.37	1/4-28	1/8		
	XNS-58	90910	1.000	.50	.28	5/16-24	5/32		
	XNS-59	90911	1.125	.47	.41	5/16-24	5/32		
XNS-510	90908	1.250	.50	.50	5/16-24	5/32			
XNS-610	90912	1.250	.50	.50	3/8-24	3/16			
Profiling Clamp Pin and Spring	Part No. 733101-		Clamp Pin						
	SC510	91330							
	M428	91331	Spring						

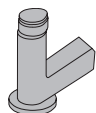
	Desc.	Part No.	733101-		PKG.
	C6016N	91332	Wedge Lock Clamp		10
	C8008N	91333			
	SKN16R	91334			
	SKN16L	91335	Profiling Clamps		10

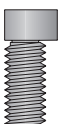
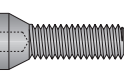
	Desc.	Part No.	733101-	Length	Thread	Hex Wrench Size	PKG.
	V6016	91336		23	M5	2.5	10
	V8008N	91337		23	M6	3.0	10
	Desc.	Part No.	733101-	L	D	H	PKG.
	HC-7	90915		.469	.313	.172	10
HC-9	90917		.625	.375	.203		
HC-12	90919		.812	.500	.266		

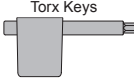
	Desc.	Part No.	733101-	Length	Thread	Hex Wrench Size	PKG.
	SHC-7	90920		.375	8-32	3-32	10
	CS-94	90921		.580	10-32	1/8	
	CS-96	90923		.840	10-32	1/8	
	CS-126	90925		.860	1/4-28	5/32	

	Desc.	Part No.	733101-	Length		PKG.
	CLP-9	90928		.312		10
	CLP-12	90930		.422		

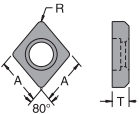
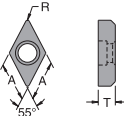
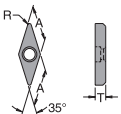
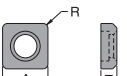
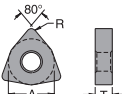
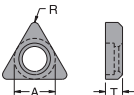
	Desc.	Part No.	733101-		PKG.
	LV01	91338	10		
	LV02	91339			
	LV05	91340			
	LV06	91341			
LV09	91342				

	Desc.	Part No.	733101-		PKG.
	V0601	91344	10	LV01	3.0
	V0802	91345		LV02	3.0
	V0805	91346		LV05	3.0
	V1006	91347		LV06	4.0
V1209	91348	LV09		4.0	

	Desc.	Part No.	733101-	Lever	Hex Wrench Size	PKG.
	TS-06	91306	10	0.156	T-6	
	TS-103-4M1	90956		0.500	T-20	
	TS-18.35-1.5M1	91305		0.188	T-6	
	TS-18.35-1M1	91304		0.156	T-6	
TS-25.45-6M2	90972	0.250		T-8		
TS-25.45-8M2	90974	0.250		T-8		
TS-3.5-7M1	90971	0.315		T-8		
TS-35.6-9M1	90973	0.394		T-15		
TS-4.7-10M1	90982	0.375		T-15		
TS-4.7-8M1	90976	0.375		T-15		
	Desc.	Part No.	733101-	I.C.	Hex Wrench Size	PKG.
	TS-4	90931	10	.375 or .500	T-10	
	TS-6	90944		.500 or .750	T-20	
	TS-10	90955		.625	T-25	

	Desc.	Part No.	733101-	Desc.	Part No.	733101-
	T-6	92001		T-15	92006	
	T-7	92002		T-20	92007	
	T-8	92003		T-25	92008	
	T-9	92004		T-30	92009	
T-10	92005					

Triangle Chipbreakers		Effective Width		PKG.	
Desc.	Part No.733101-	I.C.	W		
T2AC	90446	.250	.060	10	
T3AC	90452	.375	.060		
T3AE	90453	.375	.090		
T3AG	90454	.375	.125		
T4AC	90459	.500	.060		
T4AE	90460	.500	.090		
T4AG	60461	.500	.125		
T5AC	90465	.625	.100		
T5AG	90466	.625	.140		
T5AJ	90467	.625	.180		
Square Chipbreakers		Effective Width		PKG.	
Desc.	Part No.733101-	I.C.	W		
S3BC	90440	.375	.060	10	
S4BE	90442	.500	.060		
S6BG	90444	.750	.125		
Positive Square Shim Seats		A	T	R	PKG.
Desc.	Part No.733101-				
Inch					
SM-40	90373	.500	.1250	.0156	10
SM-36	90374	.750	.1250	.0469	
Metric					
S9012P	90370	11,4	3,18	0,8	10
Positive 80° Diamond Shim Seats		A	T	R	PKG.
Desc.	Part No.733101-				
Metric					
S8012P	53291	11,4	3,18	0,8	10
Positive 55° Diamond Shim Seats		A	T	R	PKG.
Desc.	Part No.733101-				
Metric					
S5515P	91351	8,4	3,18	0,8	10
Positive 35° Diamond Shim Seats		A	T	R	PKG.
Desc.	Part No.733101-				
Metric					
S3516P	53299	8,4	3,18	0,8	10
S3516	91350	8,4	3,18	0,8	
Profiling Shim Seats		A	T	R	PKG.
Desc.	Part No.733101-				
Metric					
CKN16R	91353	14,5	4,76	1,0	10
CKN16L	91354	14,5	4,76	1,0	
Positive Triangle Shim Seats		A	T	R	PKG.
Desc.	Part No.733101-				
Inch					
SM-41	90367	.332	.1250	.0156	
SM-37	90366	.452	.1250	.0312	
SM-99	90371	.540	.1875	.0469	
Metric					
S6016P	91355	8,8	3,18	0,8	10
Positive Round Shim Seats		A	T	PKG.	
Desc.	Part No.733101-				
RS-43P	90375	.500	.1875	10	
RS-63P	90377	.750	.1875		
RS-83P	90378	1.00	.1875		

Negative 80° Diamond Seats		Desc.		Part No.733101-		A	T	R	PKG.
									
Inch									
ICSN-322	90003	.375	.1250	.0312	10				
ICSN-332	90007	.375	.1875	.0312					
ICSN-422	90004	.500	.1250	.0312					
ICSN-423	90005	.500	.1250	.0469					
ICSN-433	90008	.500	.1875	.0469					
ICSN-533	90010	.625	.1875	.0469					
ICSN-633	90012	.750	.1875	.0469					
JC-432	90111	.500	.1250	.0312					
JC-533	90112	.625	.1875	.0469					
Metric									
S8009N	91356	8,5	3,18	0,8	10				
S8012N	91357	11,4	3,18	1,2					
S8016N	91358	14,6	4,76	1,4					
S8019N	91359	18,0	4,76	1,6					
Negative 55° Diamond Seats		Desc.		Part No.733101-		A	T	R	PKG.
									
Inch									
IDSN-322	90016	.375	.1250	.0312	10				
IDSN-423	90018	.500	.1250	.0469					
IDSN-433	90021	.500	.1875	.0469					
IDSN-533	90024	.625	.1875	.0469					
IDSN-534	90025	.625	.1875	.0625					
JD-432	90113	.500	.1875	.0312					
Metric									
S5515N	91360	11,8	3,18	1,2	10				
Negative 35° Diamond Seats		Desc.		Part No.733101-		A	T	R	PKG.
									
Inch									
IVSN-322	90065	.375	.1250	.0312	10				
IVSN-324	90066	.375	.1250	.0625					
IVSN-433	90068	.500	.1875	.0469					
JV-322	90119	.375	.1250	.0312					
Negative Square Seats		Desc.		Part No.733101-		A	T	R	PKG.
									
Inch									
ISNN-322	90050	.375	.1250	.0312	10				
ISNN-323	90051	.375	.1250	.0469					
ISNN-333	90054	.375	.1875	.0469					
ISNN-423	90056	.500	.1250	.0469					
ISNN-433	90059	.500	.1875	.0469					
ISNN-533	90060	.625	.1875	.0469					
ISNN-633	90062	.750	.1875	.0469					
ISNN-634	90063	.750	.1875	.0625					
ISNN-846	90064	1.00	.2500	.0937					
JS-432	90114	.500	.1875	.0312					
JS-533	90115	.625	.1875	.0469					
Metric									
S9012N	91361	11,4	3,8	0,8	10				
Negative Round Seats		Desc.		Part No.733101-		A	T	PKG.	
									
Inch									
IRSN-32	90030	.375	.1250	10					
IRSN-43	90031	.500	.1875						
IRSN-53	90032	.625	.1875						
IRSN-63	90033	.750	.1875						
IRSN-84	90034	1.00	.2500						
Negative 80° Trigon Seats		Desc.		Part No.733101-		A	T	R	PKG.
									
Inch									
IWSN-322	90070	.375	.1250	.0312	10				
IWSN-432	90071	.500	.1875	.0312					
IWSN-433	90072	.500	.1875	.0469					
IWSN-533	90073	.625	.1875	.0469					
Metric									
S8008P	91362	12,5	3,18	1,0	10				
Negative Triangle Seats		Desc.		Part No.733101-		A	T	R	PKG.
									
Inch									
ITSN-322	90084	.375	.1250	.0312	10				
ITSN-323	90085	.375	.1250	.0469					
ITSN-324	90086	.375	.1250	.0625					
ITSN-332	90087	.375	.1875	.0312					
ITSN-333	90088	.375	.1875	.0469					
ITSN-334	90089	.375	.1875	.0625					
ITSN-423	90090	.500	.1250	.0469					
ITSN-433	90093	.500	.1875	.0469					
ITSN-434	90094	.500	.1875	.0625					
ITSN-533	90098	.625	.1875	.0469					
ITSN-534	90099	.625	.1875	.0625					
ITSN-633	90105	.750	.1875	.0469					
ITSN-636	90106	.750	.1875	.0937					
JT-322	90117	.375	.1250	.0312					
JT-433	90116	.500	.1875	.0469					
Metric									
S6016P	91363	8,4	3,18	0,8	10				