

Hemfil

TOOL SUPPLY INC.

Jet-Stream™ Thru Coolant Tools

Turning & Boring Tools

Threading Tools

Cut-off Toolholders & Inserts

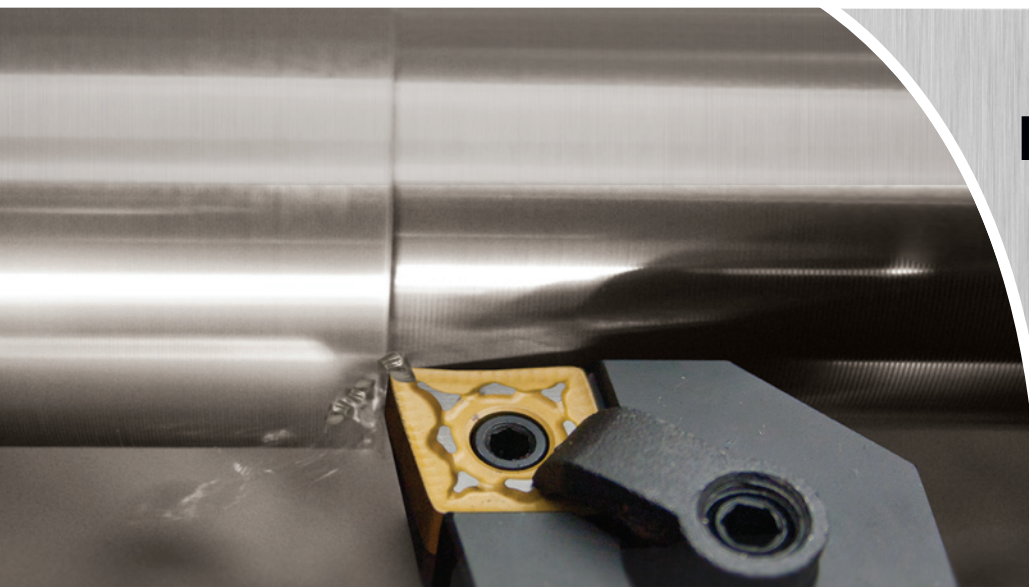
Milling Tools & Inserts

Super Quick Change Tool Post & Toolholders

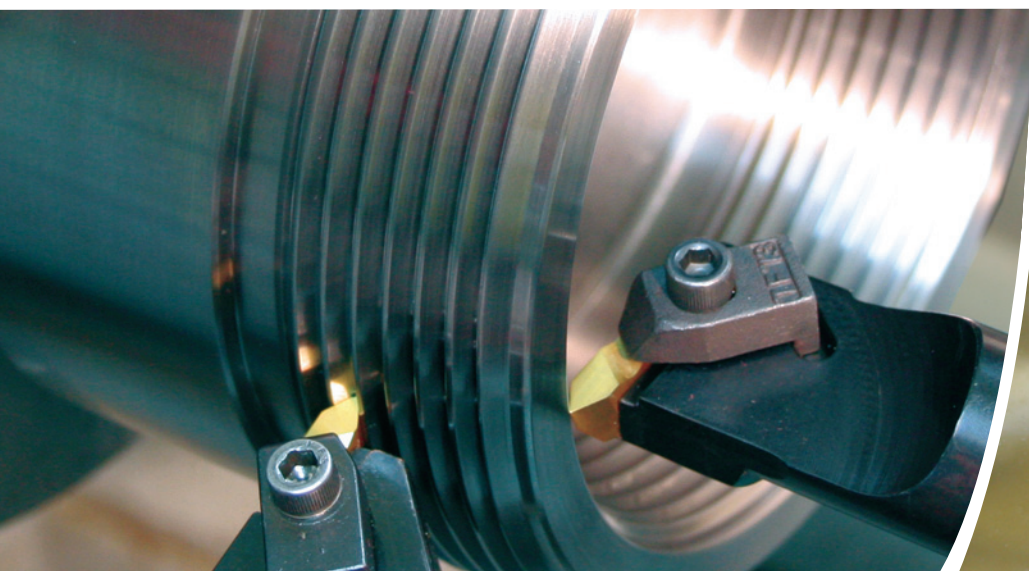
Milling Machine Accessories

Bushings

Boring Bar Sets



High Performance
Cutting Tools, Inserts and
Machine Tool Accessories
For Every Day
Machining!



Jet-Stream™ Thru Coolant Turning & Boring Tools



Why use Thru Coolant Toolholders?

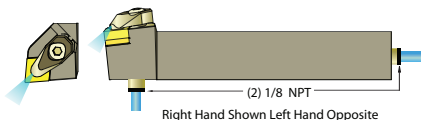
- Increases Insert Life
- Improves Surface Finish
- Delivers coolant at a high pressure straight to the cutting edge of the insert, directly underneath the chip
- Stops the chips from adhering to the insert
- Rapidly removes heat from the cutting zone
- Effective from 100 psi up to 1400 psi

Single Clamp Rigid Locking!

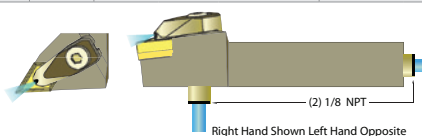
- Patented Thru Coolant and Locking Clamp in One System
- Provides Downward Force on Insert
- Pulls Insert Back into Pocket Walls
- Hardened Clamp and Screw for Durability



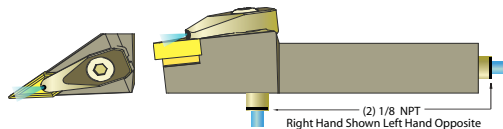
Turning



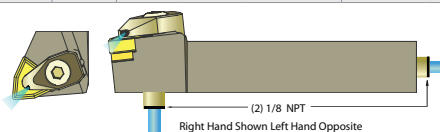
ADCLN Description	Part No. 733101-		Length	Shank Size	Insert Style	List Price	Sale Price
	R.H.	L.H.					
ADCLNR/L-12-4B	53000	53001	4.50	0.75	CNMG43□	\$127.88	\$111.26
ADCLNR/L-16-4D	53002	53003	6.00	1.00	CNMG43□	\$147.60	\$128.41
ADCLNR/L-20-4D	53004	53005	6.00	1.25	CNMG43□	\$156.87	\$136.48
ADCLNR/L-20-5D	53006	53007	6.00	1.25	CNMG54□	\$156.87	\$136.48



ADDJN Description	Part No. 733101-		Length	Shank Size	Insert Style	List Price	Sale Price
	R.H.	L.H.					
ADDJNR/L-12-4B	53018	53019	4.50	0.75	DNMG43□	\$147.54	\$128.36
ADDJNR/L-16-4D	53020	53021	6.00	1.00	DNMG43□	\$158.14	\$137.58
ADDJNR/L-20-4D	53022	53023	6.00	1.25	DNMG43□	\$168.08	\$146.23
ADDJNR/L-24-4E	53024	53025	7.00	1.50	DNMG43□	\$214.02	\$186.20

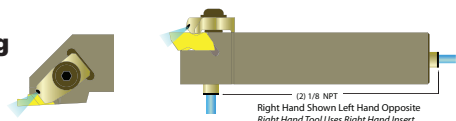


ADVJN Description	Part No. 733101-		Length	Shank Size	Insert Style	List Price	Sale Price
	R.H.	L.H.					
ADVJNR/L-12-3B	53081	53082	4.50	0.75	VNMG33□	\$137.71	\$119.81
ADVJNR/L-16-3D	53083	53084	6.00	1.00	VNMG33□	\$158.14	\$137.58
ADVJNR/L-20-3D	53085	53086	6.00	1.25	VNMG33□	\$168.08	\$146.23



ADWLN Description	Part No. 733101-		Length	Shank Size	Insert Style	List Price	Sale Price
	R.H.	L.H.					
ADWLN/L-12-3B	53093	53094	4.50	0.75	WNMG33□	\$127.88	\$111.26
ADWLN/L-12-4B	53095	53096	4.50	0.75	WNMG43□	\$127.88	\$111.26
ADWLN/L-16-4D	53099	53100	6.00	1.00	WNMG43□	\$147.60	\$128.41
ADWLN/L-20-4D	53101	53102	6.00	1.25	WNMG43□	\$156.87	\$136.48

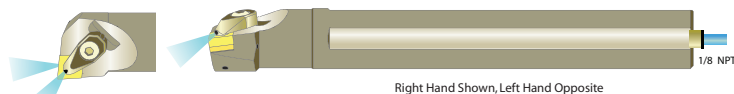
Threading



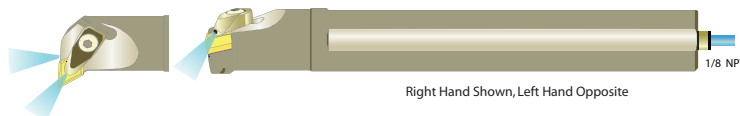
ADNS Description	Part No. 733101-		Length	Shank Size	Insert Style	List Price	Sale Price
	R.H.	L.H.					
ADNSR/L-12-3B	53450	53451	4.50	0.75	*NG-3R ** NG-3L	\$135.85	\$118.19
ADNSR/L-16-3D	53452	53453	6.00	1.00		\$143.00	\$124.41
ADNSR/L-20-3D	53454	53455	6.00	1.25	*NG-4R ** NG-4L	\$157.30	\$136.85
ADNSR/L-16-4D	53456	53457	6.00	1.00		\$143.00	\$124.41
ADNSR/L-20-4D	53458	53459	6.00	1.25		\$157.30	\$136.85

* For external right hand tools ** For external left hand tools

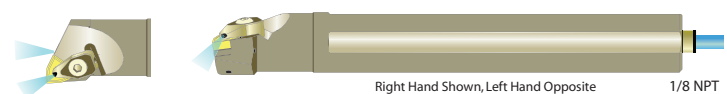
Boring



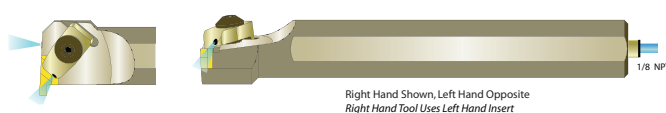
AS-ADCLN Description	Part No. 733101-		Length	Bar Dia.	Min. Bore	Insert Style	List Price	Sale Price
	R.H.	L.H.						
AS-12R-ADCLNR/L-3	53120	53121	8.00	0.75	1.000	CNMG32□	\$235.95	\$205.28
AS-16R-ADCLNR/L-4	53122	53123	8.00	1.00	1.280	CNMG43□	\$290.40	\$252.65
AS-20S-ADCLNR/L-4	53124	53125	10.00	1.25	1.530	CNMG43□	\$326.70	\$284.23
AS-24S-ADCLNR/L-4	53126	53127	10.00	1.50	1.780	CNMG43□	\$344.85	\$300.02
AS-32T-ADCLNR/L-4	53128	53129	12.00	2.00	2.562	CNMG43□	\$435.60	\$378.97
AS-32T-ADCLNR/L-5	53130	53131	12.00	2.00	2.562	CNMG54□	\$435.60	\$378.97



AS-ADDUN Description	Part No. 733101-		Length	Bar Dia.	Min. Bore	Insert Style	List Price	Sale Price
	R.H.	L.H.						
AS-16R-ADDUNR/L-3	53137	53138	8.00	1.00	1.300	DNMG33□	\$290.40	\$252.65
AS-20S-ADDUNR/L-4	53139	53140	10.00	1.25	2.000	DNMG43□	\$326.70	\$284.23
AS-24S-ADDUNR/L-4	53141	53142	10.00	1.50	2.250	DNMG43□	\$344.85	\$300.02
AS-32T-ADDUNR/L-4	53143	53144	12.00	2.00	3.000	DNMG43□	\$435.60	\$378.97



AS-ADWLN Description	Part No. 733101-		Length	Bar Dia.	Min. Bore	Insert Style	List Price	Sale Price
	R.H.	L.H.						
AS-12R-ADWLN/L-3	53198	53199	8.00	0.75	1.000	WNMG33□	\$235.95	\$205.28
AS-16R-ADWLN/L-4	53200	53201	8.00	1.00	1.280	WNMG43□	\$290.40	\$252.65
AS-20S-ADWLN/L-4	53202	53203	10.00	1.25	1.530	WNMG43□	\$326.70	\$284.23
AS-24S-ADWLN/L-4	53204	53205	10.00	1.50	1.780	WNMG43□	\$344.85	\$300.02
AS-32T-ADWLN/L-4	53206	53207	12.00	2.00	2.000	WNMG43□	\$435.60	\$378.97

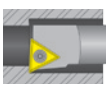


AS-ADNE Description	Part No. 733101-		Length	Bar Dia.	Min. Bore	Insert Style	List Price	Sale Price
	R.H.	L.H.						
AS-16R-ADNER/L-3	53490	53491	8.00	1.00	1.38	**NG-3R * NG-3L	\$274.56	\$238.87
AS-20S-ADNER/L-3	53492	53493	10.00	1.25	1.75		\$291.72	\$253.80
AS-24S-ADNER/L-3	53494	53495	10.00	1.50	2.00	**NG-4R * NG-4L	\$343.20	\$298.58
AS-32T-ADNER/L-4	53496	53497	12.00	2.00	2.75		\$427.93	\$372.30

* For internal right hand tools ** For internal left hand tools

Boring Tools

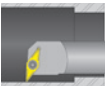
S-STUC - Positive Boring Bars

	Description	UPC No. 733101- R.H.	Bar Size	Min. Bore	TC_T Insert	List Price	Sale Price
	S06M-STUCR-2	55628	0.375	0.477	21.51	\$90.21	\$72.17
	S08M-STUCR-2	55629	0.500	0.602	21.51	\$90.21	\$72.17
	S10R-STUCR-2	55630	0.625	0.797	21.51	\$106.72	\$85.38
	S12S-STUCR-3	55631	0.750	0.954	32.52	\$128.33	\$102.66
	S16T-STUCR-3	55632	1.000	1.280	32.52	\$202.02	\$161.62

S-SVMC - Positive Boring Bars

	Description	UPC No. 733101- R.H.	Bar Size	Min. Bore	VC_T Insert	List Price	Sale Price
	S10S-SVMCR-2	55731	0.625	.0980	221	\$143.99	\$115.19
	S12S-SVMCR-3	55732	0.750	1.000	332	\$168.19	\$134.55
	S16T-SVMCR-3	55733	1.000	1.300	332	\$221.07	\$176.86

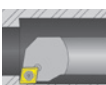
S-SVUC - Positive Boring Bars

	Description	UPC No. 733101- R.H.	Bar Size	Min. Bore	VC_T Insert	List Price	Sale Price
	S12S-SVUCR-2	55800	0.750	1.125	221	\$168.19	\$134.56
	S16T-SVUCR-2	55804	1.000	1.300	221	\$232.32	\$185.86
	S16T-SVUCR-3	55808	1.000	1.375	332	\$232.32	\$185.86
	S20U-SVUCR-3	55812	1.250	1.750	332	\$250.47	\$200.38

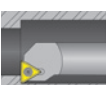
S-SVXC - Positive Boring Bars

	Description	UPC No. 733101- R.H.	Bar Size	Min. Bore	VC_T Insert	List Price	Sale Price
	S12S-SVXCR-2	55822	0.750	1.125	221	\$168.19	\$134.55
	S16T-SVXCR-2	55826	1.000	1.500	221	\$232.32	\$185.86
	S20U-SVXCR-3	55834	1.250	2.250	332	\$250.47	\$200.38

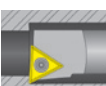
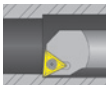
S-SCLP - Positive Boring Bars

	Description	UPC No. 733101- R.H.	Bar Size	Min. Bore	CP_T Insert	List Price	Sale Price
	S06M-SCLPR-2	55761	0.375	0.480	21.51	\$90.21	\$72.17
	S08R-SCLPR-2	55763	0.500	0.600	21.51	\$90.21	\$72.17
	S10S-SCLPR-3	55767	0.625	0.770	32.52	\$106.72	\$85.38
	S12S-SCLPR-3	55769	0.750	0.930	32.52	\$128.33	\$102.66
	S16T-SCLPR-3	55771	1.000	1.200	32.52	\$202.02	\$161.62

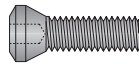
S-STFP - Positive Boring Bars

	Description	UPC No. 733101- R.H.	Bar Size	Min. Bore	TPG_ Insert	List Price	Sale Price
	S06M-STFPR-2	55636	0.375	0.470	21.51	\$90.21	\$72.17
	S08M-STFPR-2	55640	0.500	0.600	21.51	\$90.21	\$72.17
	S10R-STFPR-2	55644	0.625	0.770	21.51	\$106.72	\$85.38
	S12S-STFPR-3	55648	0.750	0.930	322	\$128.33	\$102.66

STCMB / TPBN - Positive Utility Boring Bars

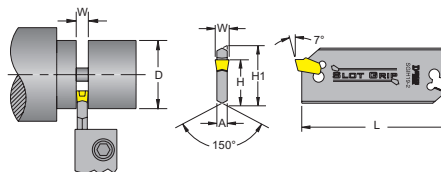
	Description	UPC No. 733101- R.H.	Bar Size	Min. Bore	Gage Insert	List Price	Sale Price
	STCMB06-2	55738	0.500	0.500	TC_T, 21.51	\$90.21	\$72.17
	STCMB08-2	55740	0.500	0.590		\$90.21	\$72.17
	STCMB10-2	55742	0.625	0.750		\$106.72	\$85.38
	STCMB12-3	55744	0.750	0.845	TC_T, 32.52	\$128.33	\$102.66
	STCMB16-3	55746	1.000	1.115		\$202.02	\$161.62
	STCMB20-4	55748	1.250	1.370	TC_T, 432	\$218.53	\$174.82
	TPBN06-2	55658	0.500	0.430	TPG_ 21.51	\$60.70	\$48.56
	TPBN08-2	55660	0.500	0.590		\$62.29	\$49.83
	TPBN10-2	55662	0.625	0.682		\$63.50	\$50.80
	TPBN12-3	55664	0.750	0.845	TPG_ 322	\$66.79	\$53.43
	TPBN16-3	55666	1.000	1.115		\$114.20	\$91.36
	TPBN20-3	55668	1.250	1.370	TPG_ 432	\$130.31	\$104.25
	TPBN20-4	55670	1.250	1.370		\$130.31	\$104.25

Spare Parts

	Description	UPC No. 733101-	PKG	List Price	Sale Price
	TS-06	91306	10	\$2.71	\$1.73
	TS-4.7-8M1	90976		\$2.84	\$1.82
	TS-4.7-10M1	90982		\$3.20	\$2.05
	TS-44-3-M	90937		\$2.84	\$1.82
	TS-83-4M1	90950	10	\$3.16	\$2.02
	TS-5.8-10M1	90986		\$4.16	\$2.66
	TS-25.-45-6M2	90972		\$2.68	\$1.72
	TS-4.7-10M1	90982		\$3.20	\$2.05
	T-6	92001		\$10.20	\$6.53
	T-7	92002		\$10.20	\$6.53
	T-15	92006	10	\$10.20	\$6.53
	T-20	92007		\$10.20	\$6.53

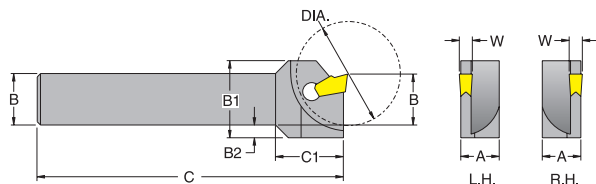
Cut-off Toolholders & Inserts

Slot Grip Positive Stop Blades - Improved blade design featuring a "Positive Stop". Inserts are securely held in Slot Grip Blades by a tapered locking system featuring a "Positive Stop" that prevents insert drift and the blade pocket from spreading once the insert is firmly in place. The inserts' cutting edge location repeats accurately and, as a result, prevents insert splitting under heavy feed and shock loads. The blade and insert geometry permits free chip flow, minimizing insert breakage due to chip build-up. Clearance angle ranges from 4° to 7°.



Desc.	UPC No. 733101-	List Price	Sale Price	Insert Used	W in mm	D Max in mm	A in mm	L in mm	H in mm	H 1 in mm
SGIH19-2	62950	\$72.16	\$46.18	SGT(N/R/L)-2	.087 2	1.57 39,9	.063 1,57	3.38 85,9	.618 15,7	0.75 19,1
SGIH26-2	62951	\$85.95	\$55.01	SGT(N/R/L)-2	.087 2	2.00 50,8	.063 1,57			
SGIH26-3	62952	\$85.95	\$55.01	SGT(N/R/L)-3	.122 3	3.00 76,2	.094 2,39	4.33 110,0	.842 21,4	1.02 25,9
SGIH26-4	62953	\$85.95	\$55.01	SGT(N/R/L)-4	.161 4	3.15 80,0	.125 3,18			
SGIH32-3	62956	\$99.42	\$63.63	SGT(N/R/L)-3	.122 3	3.94 100,0	.094 2,39			
SGIH32-4	62957	\$99.42	\$63.63	SGT(N/R/L)-4	.161 4	3.94 100,0	.125 3,18	5.90 149,9	.984 25,0	1.25 31,8
SGIH32-5	62958	\$99.42	\$63.63	SGT(N/R/L)-5	.201 5	4.71 119,6	.156 3,96			
SGIH32-6	62959	\$99.42	\$63.63	SGT(N/R/L)-6	.252 6	4.72 119,9	.203 5,16			

Cut-Off Toolholder - The square shank design of the Cut-Off toolholder ensures a precise center line of the insert with respect to the center of the working part, when the toolholder is mounted directly on the CNC turret. Inserts are securely held in Slot Grip blades by a tapered locking system. No additional clamping devices are required. Slot Grip Cut-Off toolholders come in a broad selection of shank sizes.



Description	UPC No. 733101- R.H.	List Price	Sale Price	B	Max Dia	W	Insert Used
SGTHR/L-9,5-2	63000	\$70.52	\$56.42	0.375	1.109	.087 & 0.93	SGTN/R/L-2-2,4
SGTHR/L-12,7-2	63002	\$76.34	\$61.07	0.500	1.172	.087 & 0.93	
SGTHR/L-16-2	63004	\$82.16	\$65.73	0.625	1.172	.087 & 0.93	
SGTHR/L-19-2	63006	\$98.71	\$78.97	0.750	1.266	.087 & 0.93	SGTN/R/L-3
SGTHR/L-12,7-3	63010	\$76.34	\$61.07	0.500	1.266	.120	
SGTHR/L-16-3	63012	\$82.16	\$65.73	0.625	1.406	.120	
SGTHR/L-19-3	63014	\$98.71	\$78.97	0.750	2.062	.120	SGTN/R/L-4,8-5
SGTHR/L-25,4-3	63016	\$123.91	\$99.13	1.000	1.328	.120	
SGTHR/L-19-5	63024	\$98.71	\$78.97	0.750	1.531	.187 & .200	
SGTHR/L-25,4-5	63026	\$123.91	\$99.13	1.000	3.000	.187 & .200	

Neutral Cut-Off Toolholder - The two piece clamp style of this tool provides a precise and rigid blade locking and easy mounting of the tool into CNC turrets. Simple block design accommodates Slot Grip and competitive blade systems. Slot Grip Cut-Off toolholders come in a broad selection of shank sizes.



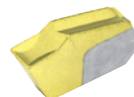
Description	UPC No. 733101- Neutral	List Price	Sale Price	Shank Size	Blade Used
SGTBN12,7-2	62970	\$171.52	\$87.82	0.500	SGIH19-2
SGTBN19-5	62973	\$180.73	\$92.53	0.750	SGIH26-2 THRU SGIH26-6
SGTBN19-6	62974	\$180.73	\$92.53	0.750	SGIH32-3 THRU SGIH32-9
SGTBN25,4-6	62975	\$186.22	\$95.34	1.000	
SGTBN31,8-6	62976	\$191.27	\$97.94	1.250	

Cut-Off & Grooving Inserts - Designed for use with standard cut-off inserts and standard cut-off blade holders. The insert's cutting edge location repeats accurately and as a result prevents insert splitting under heavy feed and shock loads. The blade and insert geometry permits free chip flow, minimizing insert breakage due to chip build-up.

Desc.	DC656 UPC No. 733101-	List Price	Sale Price	Insert Size	Lead Angle	Width ± .004 in mm
SGTN-2	82222	\$9.95	\$5.97	2	0°	.087 2mm
SGTR-2-8	82250	\$10.07	\$6.05	2	8°	.087 2mm
SGTN-3	82226	\$9.95	\$5.97	3	0°	.122 3mm
SGTR-3-8	82254	\$10.07	\$6.05	3	8°	.122 3mm
SGTN-4	82230	\$10.60	\$6.37	4	0°	.161 4mm
SGTR-4-8	82258	\$11.11	\$6.67	4	8°	.161 4mm
SGTN-5	82234	\$10.35	\$6.21	5	0°	.201 5mm
SGTN-6	82238	\$12.32	\$7.39	6	0°	.252 6mm
SGTN-8	82242	\$21.59	\$12.96	8	0°	.315 8mm
SGTN-9	82246	\$22.20	\$13.33	9	0°	.378 9mm

Chipbreaker Geometry

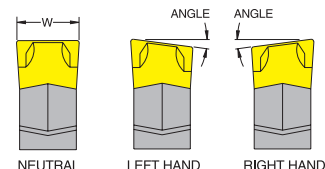
- Reduced machining force
- Controlled, coiled chip flow
- Higher material removal rate



DC656 - Titanium Nitride coated grade insert for machining alloy steel, stainless steel, and ductile iron. This grade has both high wear resistance and heat resistance, increasing machining speeds up to 50%.

Application

- Quickly inserted into adjustable blades
- For cut-off and grooving
- Fair for interrupted cuts



Cutting Data

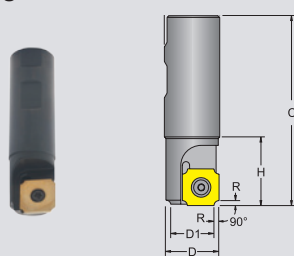
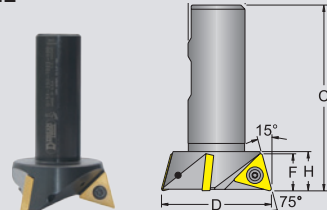
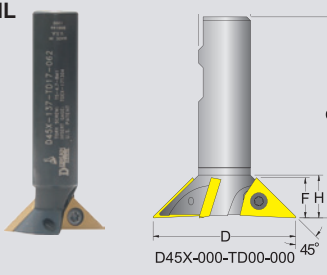
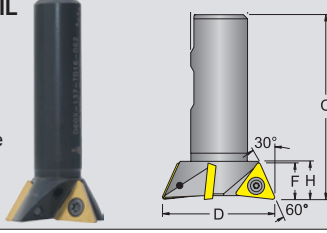
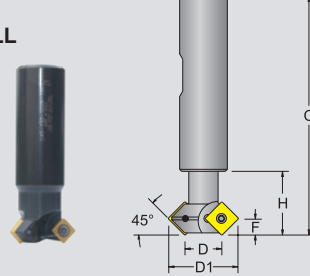
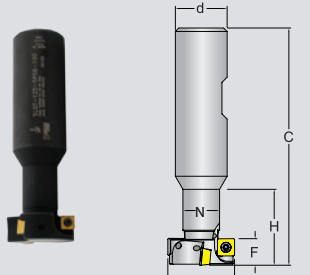
Feed Per Revolution (in./rev.) .006-.031
Surface Feet/Minute (ft./min.) 375-730

Blade & Insert Set

Set Desc.	Set Part No. 733101-	List Price	Sale Price	(1) Blade	(10) Inserts
SGIH26-3S	85360	\$185.45	\$114.69	SGIH26-3	SGTN-3
SGIH32-3S	85364	\$198.92	\$123.31	SGIH32-3	SGTN-3

Blade, Toolholder & Insert Set

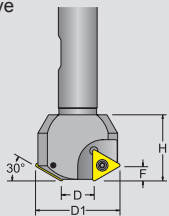
Set Desc.	Set Part No. 733101-	List Price	Sale Price	(1) Blade	(10) Inserts	(1) Toolholder
SGTBN19-5S	85326	\$366.18	\$207.25	SGIH26-3	SGTN-3	SGTBN19-5
SGTBN25,4-6S	85330	\$385.14	\$218.69	SGIH32-3	SGTN-3	SGTBN25,4-6

CONVEX RADIUS CUTTER Cutting Rake - 15° for 15° positive square convex radius SDGX inserts			<table><tr><th>Description</th><th>C</th><th>D</th><th>D1</th><th>Shank Size</th><th>H</th><th>R-Range Min.</th><th>R-Range Max.</th><th>Insert Qty.</th><th>SDGX Insert</th><th>UPC No. 733101-</th><th>List Price</th><th>Sale Price</th></tr><tr><td>QV-062-S304-050</td><td>3.000</td><td>0.625</td><td>0.503</td><td>0.500</td><td>1.000</td><td>.0156</td><td>.0625</td><td>1</td><td>09C_</td><td>65101</td><td>\$114.27</td><td>\$91.42</td></tr><tr><td>QV-062-S304-062</td><td>3.250</td><td>0.625</td><td>0.503</td><td>0.625</td><td>1.000</td><td>.0156</td><td>.0625</td><td>1</td><td>09C_</td><td>65103</td><td>\$114.27</td><td>\$91.42</td></tr><tr><td>QV-100-S608-075</td><td>3.500</td><td>1.000</td><td>0.754</td><td>0.750</td><td>1.000</td><td>.0781</td><td>.1250</td><td>1</td><td rowspan="8">19C_</td><td>65118</td><td>\$144.58</td><td>\$115.66</td></tr><tr><td>QV-100-S608-100</td><td>3.625</td><td>1.000</td><td>0.754</td><td>1.000</td><td>1.125</td><td>.0781</td><td>.1250</td><td>1</td><td>65120</td><td>\$132.92</td><td>\$106.34</td></tr><tr><td>QV-200-S608-100</td><td>3.750</td><td>2.000</td><td>1.750</td><td>1.000</td><td>1.250</td><td>.0781</td><td>.1250</td><td>3</td><td>65122</td><td>\$254.19</td><td>\$203.35</td></tr><tr><td>QV-100-S612-075</td><td>3.500</td><td>1.000</td><td>0.632</td><td>0.750</td><td>1.000</td><td>.1406</td><td>.1875</td><td>1</td><td>65124</td><td>\$144.58</td><td>\$115.66</td></tr><tr><td>QV-100-S612-100</td><td>3.625</td><td>1.000</td><td>0.632</td><td>1.000</td><td>1.125</td><td>.1406</td><td>.1875</td><td>1</td><td>65126</td><td>\$132.92</td><td>\$106.34</td></tr><tr><td>QV-100-S616-075</td><td>3.500</td><td>1.000</td><td>0.510</td><td>0.750</td><td>1.000</td><td>.2031</td><td>.2500</td><td>1</td><td>65130</td><td>\$144.58</td><td>\$115.66</td></tr><tr><td>QV-100-S616-100</td><td>3.625</td><td>1.000</td><td>0.510</td><td>1.000</td><td>1.125</td><td>.2031</td><td>.2500</td><td>1</td><td>65132</td><td>\$132.92</td><td>\$106.34</td></tr><tr><td>QV-200-S616-100</td><td>3.750</td><td>2.000</td><td>1.500</td><td>1.000</td><td>1.250</td><td>.2031</td><td>.2500</td><td>3</td><td>65134</td><td>\$254.19</td><td>\$203.35</td></tr></table>	Description	C	D	D1	Shank Size	H	R-Range Min.	R-Range Max.	Insert Qty.	SDGX Insert	UPC No. 733101-	List Price	Sale Price	QV-062-S304-050	3.000	0.625	0.503	0.500	1.000	.0156	.0625	1	09C_	65101	\$114.27	\$91.42	QV-062-S304-062	3.250	0.625	0.503	0.625	1.000	.0156	.0625	1	09C_	65103	\$114.27	\$91.42	QV-100-S608-075	3.500	1.000	0.754	0.750	1.000	.0781	.1250	1	19C_	65118	\$144.58	\$115.66	QV-100-S608-100	3.625	1.000	0.754	1.000	1.125	.0781	.1250	1	65120	\$132.92	\$106.34	QV-200-S608-100	3.750	2.000	1.750	1.000	1.250	.0781	.1250	3	65122	\$254.19	\$203.35	QV-100-S612-075	3.500	1.000	0.632	0.750	1.000	.1406	.1875	1	65124	\$144.58	\$115.66	QV-100-S612-100	3.625	1.000	0.632	1.000	1.125	.1406	.1875	1	65126	\$132.92	\$106.34	QV-100-S616-075	3.500	1.000	0.510	0.750	1.000	.2031	.2500	1	65130	\$144.58	\$115.66	QV-100-S616-100	3.625	1.000	0.510	1.000	1.125	.2031	.2500	1	65132	\$132.92	\$106.34	QV-200-S616-100	3.750	2.000	1.500	1.000	1.250	.2031	.2500	3	65134	\$254.19	\$203.35
Description	C	D	D1	Shank Size	H	R-Range Min.	R-Range Max.	Insert Qty.	SDGX Insert	UPC No. 733101-	List Price	Sale Price																																																																																																																															
QV-062-S304-050	3.000	0.625	0.503	0.500	1.000	.0156	.0625	1	09C_	65101	\$114.27	\$91.42																																																																																																																															
QV-062-S304-062	3.250	0.625	0.503	0.625	1.000	.0156	.0625	1	09C_	65103	\$114.27	\$91.42																																																																																																																															
QV-100-S608-075	3.500	1.000	0.754	0.750	1.000	.0781	.1250	1	19C_	65118	\$144.58	\$115.66																																																																																																																															
QV-100-S608-100	3.625	1.000	0.754	1.000	1.125	.0781	.1250	1		65120	\$132.92	\$106.34																																																																																																																															
QV-200-S608-100	3.750	2.000	1.750	1.000	1.250	.0781	.1250	3		65122	\$254.19	\$203.35																																																																																																																															
QV-100-S612-075	3.500	1.000	0.632	0.750	1.000	.1406	.1875	1		65124	\$144.58	\$115.66																																																																																																																															
QV-100-S612-100	3.625	1.000	0.632	1.000	1.125	.1406	.1875	1		65126	\$132.92	\$106.34																																																																																																																															
QV-100-S616-075	3.500	1.000	0.510	0.750	1.000	.2031	.2500	1		65130	\$144.58	\$115.66																																																																																																																															
QV-100-S616-100	3.625	1.000	0.510	1.000	1.125	.2031	.2500	1		65132	\$132.92	\$106.34																																																																																																																															
QV-200-S616-100	3.750	2.000	1.500	1.000	1.250	.2031	.2500	3		65134	\$254.19	\$203.35																																																																																																																															
15° DOVETAIL CUTTER Cutting Rake - 15° for 15° positive TDEX inserts.			<table><tr><th>Description</th><th>C</th><th>D</th><th>Shank Size</th><th>F</th><th>H</th><th>Insert Qty.</th><th>TDEX Gage Insert</th><th>UPC No. 733101-</th><th>List Price</th><th>Sale Price</th></tr><tr><td>D15X-050-TD11-037</td><td>2.42</td><td>0.500</td><td>0.375</td><td>.359</td><td>0.42</td><td>1</td><td rowspan="2">110204</td><td>65225</td><td>\$94.91</td><td>\$75.93</td></tr><tr><td>D15X-100-TD11-050</td><td>2.42</td><td>1.000</td><td>0.500</td><td>.359</td><td>0.42</td><td>3</td><td>65226</td><td>\$164.18</td><td>\$131.34</td></tr><tr><td>D15X-187-TD16-075</td><td>3.20</td><td>1.875</td><td>0.750</td><td>.550</td><td>0.75</td><td>3</td><td>160308</td><td>65227</td><td>\$212.92</td><td>\$170.34</td></tr><tr><td>D15X-250-TD22-100</td><td>3.75</td><td>2.500</td><td>1.000</td><td>.750</td><td>1.00</td><td>3</td><td>220408</td><td>65228</td><td>\$297.56</td><td>\$238.05</td></tr></table>	Description	C	D	Shank Size	F	H	Insert Qty.	TDEX Gage Insert	UPC No. 733101-	List Price	Sale Price	D15X-050-TD11-037	2.42	0.500	0.375	.359	0.42	1	110204	65225	\$94.91	\$75.93	D15X-100-TD11-050	2.42	1.000	0.500	.359	0.42	3	65226	\$164.18	\$131.34	D15X-187-TD16-075	3.20	1.875	0.750	.550	0.75	3	160308	65227	\$212.92	\$170.34	D15X-250-TD22-100	3.75	2.500	1.000	.750	1.00	3	220408	65228	\$297.56	\$238.05																																																																																		
Description	C	D	Shank Size	F	H	Insert Qty.	TDEX Gage Insert	UPC No. 733101-	List Price	Sale Price																																																																																																																																	
D15X-050-TD11-037	2.42	0.500	0.375	.359	0.42	1	110204	65225	\$94.91	\$75.93																																																																																																																																	
D15X-100-TD11-050	2.42	1.000	0.500	.359	0.42	3		65226	\$164.18	\$131.34																																																																																																																																	
D15X-187-TD16-075	3.20	1.875	0.750	.550	0.75	3	160308	65227	\$212.92	\$170.34																																																																																																																																	
D15X-250-TD22-100	3.75	2.500	1.000	.750	1.00	3	220408	65228	\$297.56	\$238.05																																																																																																																																	
45° DOVETAIL CUTTER Cutting Rake - 11° for 11° positive TDEX inserts.			<table><tr><th>Description</th><th>C</th><th>D</th><th>Shank Size</th><th>F</th><th>H</th><th>Insert Qty.</th><th>TDEX Gage Insert</th><th>UPC No. 733101-</th><th>List Price</th><th>Sale Price</th></tr><tr><td>D45X-050-TD09-037</td><td>2.39</td><td>0.500</td><td>0.375</td><td>.247</td><td>.125</td><td>1</td><td rowspan="2">090202</td><td>65233</td><td>\$94.91</td><td>\$75.93</td></tr><tr><td>D45X-075-TD09-037</td><td>2.39</td><td>0.750</td><td>0.375</td><td>.247</td><td>.214</td><td>2</td><td>65234</td><td>\$128.26</td><td>\$102.61</td></tr><tr><td>D45X-100-TD09-050</td><td>2.39</td><td>1.000</td><td>0.500</td><td>.250</td><td>.244</td><td>3</td><td rowspan="3">17T304</td><td>65235</td><td>\$164.18</td><td>\$131.34</td></tr><tr><td>D45X-137-TD17-062</td><td>2.94</td><td>1.375</td><td>0.625</td><td>.375</td><td>.320</td><td>2</td><td>65236</td><td>\$182.13</td><td>\$145.70</td></tr><tr><td>D45X-187-TD17-075</td><td>2.94</td><td>1.875</td><td>0.750</td><td>.468</td><td>.444</td><td>3</td><td>65237</td><td>\$212.92</td><td>\$170.34</td></tr><tr><td>D45X-225-TD25-100</td><td>3.50</td><td>2.250</td><td>1.000</td><td>.700</td><td>.696</td><td>2</td><td rowspan="2">250404</td><td>65238</td><td>\$269.35</td><td>\$215.48</td></tr><tr><td>D45X-250-TD25-100</td><td>3.50</td><td>2.500</td><td>1.000</td><td>.700</td><td>.700</td><td>3</td><td>65239</td><td>\$297.56</td><td>\$238.05</td></tr></table>	Description	C	D	Shank Size	F	H	Insert Qty.	TDEX Gage Insert	UPC No. 733101-	List Price	Sale Price	D45X-050-TD09-037	2.39	0.500	0.375	.247	.125	1	090202	65233	\$94.91	\$75.93	D45X-075-TD09-037	2.39	0.750	0.375	.247	.214	2	65234	\$128.26	\$102.61	D45X-100-TD09-050	2.39	1.000	0.500	.250	.244	3	17T304	65235	\$164.18	\$131.34	D45X-137-TD17-062	2.94	1.375	0.625	.375	.320	2	65236	\$182.13	\$145.70	D45X-187-TD17-075	2.94	1.875	0.750	.468	.444	3	65237	\$212.92	\$170.34	D45X-225-TD25-100	3.50	2.250	1.000	.700	.696	2	250404	65238	\$269.35	\$215.48	D45X-250-TD25-100	3.50	2.500	1.000	.700	.700	3	65239	\$297.56	\$238.05																																																				
Description	C	D	Shank Size	F	H	Insert Qty.	TDEX Gage Insert	UPC No. 733101-	List Price	Sale Price																																																																																																																																	
D45X-050-TD09-037	2.39	0.500	0.375	.247	.125	1	090202	65233	\$94.91	\$75.93																																																																																																																																	
D45X-075-TD09-037	2.39	0.750	0.375	.247	.214	2		65234	\$128.26	\$102.61																																																																																																																																	
D45X-100-TD09-050	2.39	1.000	0.500	.250	.244	3	17T304	65235	\$164.18	\$131.34																																																																																																																																	
D45X-137-TD17-062	2.94	1.375	0.625	.375	.320	2		65236	\$182.13	\$145.70																																																																																																																																	
D45X-187-TD17-075	2.94	1.875	0.750	.468	.444	3		65237	\$212.92	\$170.34																																																																																																																																	
D45X-225-TD25-100	3.50	2.250	1.000	.700	.696	2	250404	65238	\$269.35	\$215.48																																																																																																																																	
D45X-250-TD25-100	3.50	2.500	1.000	.700	.700	3		65239	\$297.56	\$238.05																																																																																																																																	
60° DOVETAIL CUTTER Cutting Rake - 15° for 15° positive triangle TDEX inserts.			<table><tr><th>Description</th><th>C</th><th>D</th><th>Shank Size</th><th>F</th><th>H</th><th>Insert Qty.</th><th>TDEX Gage Insert</th><th>UPC No. 733101-</th><th>List Price</th><th>Sale Price</th></tr><tr><td>D60X-050-TD11-037</td><td>2.390</td><td>0.500</td><td>0.375</td><td>.325</td><td>.142</td><td>1</td><td rowspan="3">110204</td><td>65244</td><td>\$94.91</td><td>\$75.93</td></tr><tr><td>D60X-075-TD11-037</td><td>2.390</td><td>0.750</td><td>0.375</td><td>.325</td><td>.282</td><td>2</td><td>65245</td><td>\$128.26</td><td>\$102.61</td></tr><tr><td>D60X-100-TD11-050</td><td>2.390</td><td>1.000</td><td>0.500</td><td>.325</td><td>.375</td><td>3</td><td>65246</td><td>\$164.18</td><td>\$131.34</td></tr><tr><td>D60X-137-TD16-062</td><td>2.862</td><td>1.375</td><td>0.625</td><td>.510</td><td>.550</td><td>3</td><td rowspan="2">160308</td><td>65247</td><td>\$182.13</td><td>\$145.70</td></tr><tr><td>D60X-187-TD16-075</td><td>3.000</td><td>1.875</td><td>0.750</td><td>.510</td><td>.550</td><td>3</td><td>65248</td><td>\$212.92</td><td>\$170.34</td></tr><tr><td>D60X-225-TD22-100</td><td>3.500</td><td>2.250</td><td>1.000</td><td>.700</td><td>.750</td><td>3</td><td rowspan="2">220408</td><td>65249</td><td>\$269.35</td><td>\$215.48</td></tr><tr><td>D60X-250-TD22-100</td><td>3.500</td><td>2.500</td><td>1.000</td><td>.700</td><td>.750</td><td>3</td><td>65250</td><td>\$297.56</td><td>\$238.05</td></tr></table>	Description	C	D	Shank Size	F	H	Insert Qty.	TDEX Gage Insert	UPC No. 733101-	List Price	Sale Price	D60X-050-TD11-037	2.390	0.500	0.375	.325	.142	1	110204	65244	\$94.91	\$75.93	D60X-075-TD11-037	2.390	0.750	0.375	.325	.282	2	65245	\$128.26	\$102.61	D60X-100-TD11-050	2.390	1.000	0.500	.325	.375	3	65246	\$164.18	\$131.34	D60X-137-TD16-062	2.862	1.375	0.625	.510	.550	3	160308	65247	\$182.13	\$145.70	D60X-187-TD16-075	3.000	1.875	0.750	.510	.550	3	65248	\$212.92	\$170.34	D60X-225-TD22-100	3.500	2.250	1.000	.700	.750	3	220408	65249	\$269.35	\$215.48	D60X-250-TD22-100	3.500	2.500	1.000	.700	.750	3	65250	\$297.56	\$238.05																																																				
Description	C	D	Shank Size	F	H	Insert Qty.	TDEX Gage Insert	UPC No. 733101-	List Price	Sale Price																																																																																																																																	
D60X-050-TD11-037	2.390	0.500	0.375	.325	.142	1	110204	65244	\$94.91	\$75.93																																																																																																																																	
D60X-075-TD11-037	2.390	0.750	0.375	.325	.282	2		65245	\$128.26	\$102.61																																																																																																																																	
D60X-100-TD11-050	2.390	1.000	0.500	.325	.375	3		65246	\$164.18	\$131.34																																																																																																																																	
D60X-137-TD16-062	2.862	1.375	0.625	.510	.550	3	160308	65247	\$182.13	\$145.70																																																																																																																																	
D60X-187-TD16-075	3.000	1.875	0.750	.510	.550	3		65248	\$212.92	\$170.34																																																																																																																																	
D60X-225-TD22-100	3.500	2.250	1.000	.700	.750	3	220408	65249	\$269.35	\$215.48																																																																																																																																	
D60X-250-TD22-100	3.500	2.500	1.000	.700	.750	3		65250	\$297.56	\$238.05																																																																																																																																	
DOUBLE 45° CHAMFER MILL Cutting Rake - 15° for 15° positive square SD__ inserts			<table><tr><th>Description</th><th>C</th><th>D</th><th>D1</th><th>Shank Size</th><th>F</th><th>H</th><th>Insert Qty.</th><th>SDGW Gage Insert</th><th>UPC No. 733101-</th><th>List Price</th><th>Sale Price</th></tr><tr><td>C45-112-SD09-075</td><td>3.375</td><td>0.625</td><td>1.125</td><td>0.750</td><td>0.230</td><td>0.750</td><td>2</td><td rowspan="5">090308</td><td>65414</td><td>\$101.44</td><td>\$81.15</td></tr><tr><td>C45-125-SD09-075</td><td>3.375</td><td>0.772</td><td>1.250</td><td>0.750</td><td>0.230</td><td>0.750</td><td>2</td><td>65416</td><td>\$104.94</td><td>\$83.95</td></tr><tr><td>C45-150-SD09-100</td><td>3.500</td><td>1.040</td><td>1.500</td><td>1.000</td><td>0.230</td><td>1.000</td><td>3</td><td>65418</td><td>\$115.43</td><td>\$92.34</td></tr><tr><td>C45XL-112-SD09-075</td><td>7.75</td><td>0.625</td><td>1.125</td><td>0.750</td><td>0.230</td><td>0.750</td><td>2</td><td>65420</td><td>\$161.61</td><td>\$129.29</td></tr><tr><td>C45XL-150-SD09-100</td><td>7.75</td><td>1.040</td><td>1.500</td><td>1.000</td><td>0.230</td><td>1.000</td><td>3</td><td>65421</td><td>\$198.22</td><td>\$158.58</td></tr><tr><td colspan="7">Cutting Rake - 15° for 15° positive square SPHX inserts</td><th>Insert Qty.</th><th>SPHX Gage Insert</th><th>UPC No. 733101-</th><th>List Price</th><th>Sale Price</th></tr><tr><td>C45-062-SP06-062</td><td>3.000</td><td>0.325</td><td>0.625</td><td>0.625</td><td>0.159</td><td>0.750</td><td>1</td><td rowspan="3">060304</td><td>65410</td><td>\$90.95</td><td>\$72.76</td></tr><tr><td>C45-075-SP06-062</td><td>3.000</td><td>0.448</td><td>0.750</td><td>0.625</td><td>0.159</td><td>0.750</td><td>2</td><td>65411</td><td>\$96.20</td><td>\$76.96</td></tr><tr><td>C45XL-062-SP06-062</td><td>7.75</td><td>.0325</td><td>0.625</td><td>0.625</td><td>0.159</td><td>0.750</td><td>2</td><td>65409</td><td>\$131.44</td><td>\$105.15</td></tr></table>	Description	C	D	D1	Shank Size	F	H	Insert Qty.	SDGW Gage Insert	UPC No. 733101-	List Price	Sale Price	C45-112-SD09-075	3.375	0.625	1.125	0.750	0.230	0.750	2	090308	65414	\$101.44	\$81.15	C45-125-SD09-075	3.375	0.772	1.250	0.750	0.230	0.750	2	65416	\$104.94	\$83.95	C45-150-SD09-100	3.500	1.040	1.500	1.000	0.230	1.000	3	65418	\$115.43	\$92.34	C45XL-112-SD09-075	7.75	0.625	1.125	0.750	0.230	0.750	2	65420	\$161.61	\$129.29	C45XL-150-SD09-100	7.75	1.040	1.500	1.000	0.230	1.000	3	65421	\$198.22	\$158.58	Cutting Rake - 15° for 15° positive square SPHX inserts							Insert Qty.	SPHX Gage Insert	UPC No. 733101-	List Price	Sale Price	C45-062-SP06-062	3.000	0.325	0.625	0.625	0.159	0.750	1	060304	65410	\$90.95	\$72.76	C45-075-SP06-062	3.000	0.448	0.750	0.625	0.159	0.750	2	65411	\$96.20	\$76.96	C45XL-062-SP06-062	7.75	.0325	0.625	0.625	0.159	0.750	2	65409	\$131.44	\$105.15																						
Description	C	D	D1	Shank Size	F	H	Insert Qty.	SDGW Gage Insert	UPC No. 733101-	List Price	Sale Price																																																																																																																																
C45-112-SD09-075	3.375	0.625	1.125	0.750	0.230	0.750	2	090308	65414	\$101.44	\$81.15																																																																																																																																
C45-125-SD09-075	3.375	0.772	1.250	0.750	0.230	0.750	2		65416	\$104.94	\$83.95																																																																																																																																
C45-150-SD09-100	3.500	1.040	1.500	1.000	0.230	1.000	3		65418	\$115.43	\$92.34																																																																																																																																
C45XL-112-SD09-075	7.75	0.625	1.125	0.750	0.230	0.750	2		65420	\$161.61	\$129.29																																																																																																																																
C45XL-150-SD09-100	7.75	1.040	1.500	1.000	0.230	1.000	3		65421	\$198.22	\$158.58																																																																																																																																
Cutting Rake - 15° for 15° positive square SPHX inserts							Insert Qty.	SPHX Gage Insert	UPC No. 733101-	List Price	Sale Price																																																																																																																																
C45-062-SP06-062	3.000	0.325	0.625	0.625	0.159	0.750	1	060304	65410	\$90.95	\$72.76																																																																																																																																
C45-075-SP06-062	3.000	0.448	0.750	0.625	0.159	0.750	2		65411	\$96.20	\$76.96																																																																																																																																
C45XL-062-SP06-062	7.75	.0325	0.625	0.625	0.159	0.750	2		65409	\$131.44	\$105.15																																																																																																																																
T-SLOT CUTTER Cutting Rake - 20° for positive TEHW SPHX SDHW inserts			<table><tr><th>Description</th><th>C</th><th>D</th><th>Shank Size</th><th>F</th><th>H</th><th>N</th><th>No. Inserts</th><th>No. Flutes</th><th>Gage Insert</th><th>UPC No. 733101-</th><th>List Price</th><th>Sale Price</th></tr><tr><td>SLOT-056-TE06-050</td><td>2.594</td><td>0.563</td><td>0.500</td><td>0.234</td><td>0.690</td><td>0.266</td><td>2</td><td>1</td><td rowspan="2">TEHW-0602</td><td>65171</td><td>\$125.93</td><td>\$100.74</td></tr><tr><td>SLOT-066-TE06-050</td><td>2.688</td><td>0.656</td><td>0.500</td><td>0.266</td><td>0.810</td><td>0.328</td><td>2</td><td>1</td><td>65172</td><td>\$132.92</td><td>\$106.34</td></tr><tr><td>SLOT-078-SP06-075</td><td>3.250</td><td>0.781</td><td>0.750</td><td>0.328</td><td>0.928</td><td>0.406</td><td>2</td><td>1</td><td rowspan="3">SPHX-060304</td><td>65183</td><td>\$160.91</td><td>\$128.73</td></tr><tr><td>SLOT-097-SP06-075</td><td>3.438</td><td>0.969</td><td>0.750</td><td>0.390</td><td>1.100</td><td>0.531</td><td>4</td><td>2</td><td>65184</td><td>\$195.89</td><td>\$156.71</td></tr><tr><td>SLOT-125-SP06-100</td><td>3.938</td><td>1.250</td><td>1.000</td><td>0.484</td><td>1.375</td><td>0.660</td><td>3</td><td>1</td><td>65185</td><td>\$195.89</td><td>\$156.71</td></tr><tr><td>SLOT-147-SD09-100</td><td>4.438</td><td>1.469</td><td>1.000</td><td>0.624</td><td>1.757</td><td>0.781</td><td>4</td><td>2</td><td rowspan="5">SDHW-090308</td><td>65186</td><td>\$219.21</td><td>\$175.37</td></tr><tr><td>SLOT-184-SD09-125</td><td>4.813</td><td>1.844</td><td>1.250</td><td>0.827</td><td>2.108</td><td>1.031</td><td>5</td><td>2</td><td>65187</td><td>\$242.53</td><td>\$194.02</td></tr><tr><td>SLOT-222-SD09-125</td><td>5.375</td><td>2.219</td><td>1.250</td><td>1.093</td><td>2.714</td><td>1.281</td><td>6</td><td>2</td><td>65188</td><td>\$289.17</td><td>\$231.34</td></tr><tr><td>SLOT-266-SD09-125</td><td>5.906</td><td>2.656</td><td>1.250</td><td>1.343</td><td>3.440</td><td>1.531</td><td>8</td><td>2</td><td>65189</td><td>\$335.81</td><td>\$268.65</td></tr></table>	Description	C	D	Shank Size	F	H	N	No. Inserts	No. Flutes	Gage Insert	UPC No. 733101-	List Price	Sale Price	SLOT-056-TE06-050	2.594	0.563	0.500	0.234	0.690	0.266	2	1	TEHW-0602	65171	\$125.93	\$100.74	SLOT-066-TE06-050	2.688	0.656	0.500	0.266	0.810	0.328	2	1	65172	\$132.92	\$106.34	SLOT-078-SP06-075	3.250	0.781	0.750	0.328	0.928	0.406	2	1	SPHX-060304	65183	\$160.91	\$128.73	SLOT-097-SP06-075	3.438	0.969	0.750	0.390	1.100	0.531	4	2	65184	\$195.89	\$156.71	SLOT-125-SP06-100	3.938	1.250	1.000	0.484	1.375	0.660	3	1	65185	\$195.89	\$156.71	SLOT-147-SD09-100	4.438	1.469	1.000	0.624	1.757	0.781	4	2	SDHW-090308	65186	\$219.21	\$175.37	SLOT-184-SD09-125	4.813	1.844	1.250	0.827	2.108	1.031	5	2	65187	\$242.53	\$194.02	SLOT-222-SD09-125	5.375	2.219	1.250	1.093	2.714	1.281	6	2	65188	\$289.17	\$231.34	SLOT-266-SD09-125	5.906	2.656	1.250	1.343	3.440	1.531	8	2	65189	\$335.81	\$268.65												
Description	C	D	Shank Size	F	H	N	No. Inserts	No. Flutes	Gage Insert	UPC No. 733101-	List Price	Sale Price																																																																																																																															
SLOT-056-TE06-050	2.594	0.563	0.500	0.234	0.690	0.266	2	1	TEHW-0602	65171	\$125.93	\$100.74																																																																																																																															
SLOT-066-TE06-050	2.688	0.656	0.500	0.266	0.810	0.328	2	1		65172	\$132.92	\$106.34																																																																																																																															
SLOT-078-SP06-075	3.250	0.781	0.750	0.328	0.928	0.406	2	1	SPHX-060304	65183	\$160.91	\$128.73																																																																																																																															
SLOT-097-SP06-075	3.438	0.969	0.750	0.390	1.100	0.531	4	2		65184	\$195.89	\$156.71																																																																																																																															
SLOT-125-SP06-100	3.938	1.250	1.000	0.484	1.375	0.660	3	1		65185	\$195.89	\$156.71																																																																																																																															
SLOT-147-SD09-100	4.438	1.469	1.000	0.624	1.757	0.781	4	2	SDHW-090308	65186	\$219.21	\$175.37																																																																																																																															
SLOT-184-SD09-125	4.813	1.844	1.250	0.827	2.108	1.031	5	2		65187	\$242.53	\$194.02																																																																																																																															
SLOT-222-SD09-125	5.375	2.219	1.250	1.093	2.714	1.281	6	2		65188	\$289.17	\$231.34																																																																																																																															
SLOT-266-SD09-125	5.906	2.656	1.250	1.343	3.440	1.531	8	2		65189	\$335.81	\$268.65																																																																																																																															

Milling Tools

CHAMFER MILL

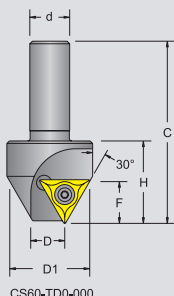
Cutting Rake - 11° for 11° positive triangle TPHT inserts



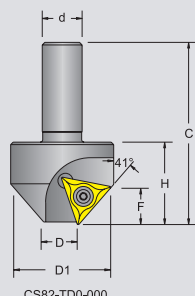
Description		O.A.L.	Shank Size	D	D1	F	H	Insert Qty.	TPHT Gage Insert	UPC No. 733101-	List Price	Sale Price
30°	C30-062-TP3-075	3.500	0.625	1.600	0.750	.275	1.25	2	32.52	65400	\$101.44	\$81.15
45°	C45-075-TP3-075	3.500	0.750	1.517	0.750	.392	1.25	2	32.52	65402	\$101.44	\$81.15
60°	C60-100-TP3-075	3.500	1.000	1.560	0.750	.484	1.25	2	32.52	65404	\$101.44	\$81.15

COUNTERSINK

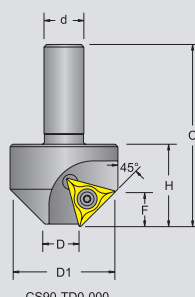
Cutting Rake -11° & 15° for 11° & 15° positive triangle TDGH & TPGH inserts



CS60-TD0-000



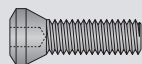
CS82-TD0-000



CS90-TD0-000

60° Countersink For Manual Machines												List Price	Sale Price
Description	C	d	D	D1	F	H	Insert Qty.	TDGH & TPGH Gage Insert	Insert Torx Screw	Torx Key	Part No. 733101-		
CS60-TD5-037	2.00	.375	.125	0.375	.227	0.375	1	TDGH 520	TS-06	T-6	65300	\$79.29	\$63.43
CS60-TD2-037	2.25	.375	.250	0.750	.336	1.000	1	TDGH 21.51	TS-25.45-6M1	T-8	65302	\$86.28	\$69.02
CS60-TD3-050	2.50	.500	.500	1.250	.523	1.000	1	TDGH 321	TS-4.7-8M1	T-15	65304	\$123.60	\$98.88
CS60-TP3-075	3.50	.750	.600	2.500	.523	1.250	1	TPGH 321	TS-4.7-8M1	T-15	65307	\$158.58	\$126.86
82° Countersink For Manual Machines												List Price	Sale Price
Description	C	d	D	D1	F	H	Insert Qty.	TDGH & TPGH Gage Insert	Insert Torx Screw	Torx Key	Part No. 733101-		
CS82-TD5-037	2.00	.375	.125	0.469	.197	0.375	1	TDGH 520	TS-06	T-6	65308	\$79.29	\$63.43
CS82-TD2-037	2.25	.375	.250	0.687	.291	1.000	1	TDGH 21.51	TS-25.45-6M1	T-8	65310	\$86.28	\$69.02
CS82-TD3-050	2.50	.500	.500	1.250	.455	1.000	1	TDGH 321	TS-4.7-8M1	T-15	65312	\$123.60	\$98.88
CS82-TP3-075	3.50	.750	.600	2.500	.455	1.250	1	TPGH 321	TS-4.7-8M1	T-15	65315	\$158.58	\$126.86
90° Countersink For Manual Machines												List Price	Sale Price
Description	C	d	D	D1	F	H	Insert Qty.	TDGH & TPGH Gage Insert	Insert Torx Screw	Torx Key	Part No. 733101-		
CS90-TD5-037	2.00	.375	.125	0.500	.185	0.375	1	TDGH 520	TS-06	T-6	65316	\$79.29	\$63.43
CS90-TD2-037	2.25	.375	.250	0.750	.272	1.000	1	TDGH 21.51	TS-25.45-6M1	T-8	65318	\$86.28	\$69.02
CS90-TD3-050	2.50	.500	.500	1.250	.426	1.000	1	TDGH 321	TS-4.7-8M1	T-15	65320	\$123.60	\$98.88
CS90-TP3-075	3.50	.750	.560	2.500	.426	1.250	1	TPGH 321	TS-4.7-8M1	T-15	65323	\$158.58	\$126.86

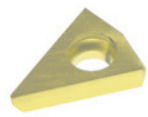
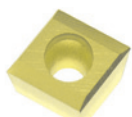
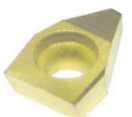
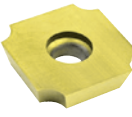
Milling Insert Torx Screw



Description	UPC No. 733101-	PKG.	List Price	Sale Price
TS-06	91306	10	\$2.71	\$1.73
TS-25.45-6M2	90972		\$2.68	\$1.72
TS-4.7-6M1	90975		\$2.95	\$1.89
TS-4.7-8M1	90976	10	\$2.84	\$1.82
TS-4.7-10M1	90982		\$3.20	\$2.05
TS-1032-5M1	90960		\$3.71	\$2.37
TS-5.8-10M1	90986		\$4.16	\$2.66

At Dorian Tool we have created a great insert to mill a wide spectrum of materials including:
Aerospace Inconel, Titanium & High Temper Alloys, Stainless Steel, Cast Iron, Copper, Brass, Hardened Alloy Steel to HRC 62

New Coatings
 Using the latest and most advanced technology for the coating to give the insert the optimum performance in any milling application and materials.

Insert Type
TDEX 60° 
TDEX 45° 
CEHW 
TEHW 
SDGX 

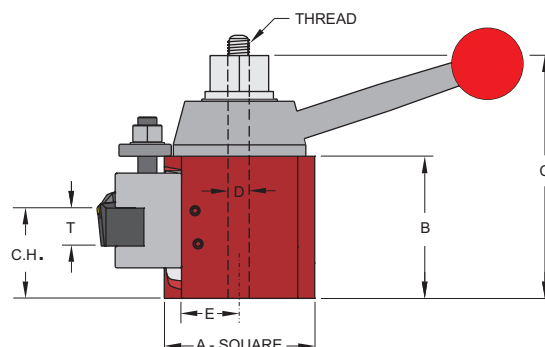
Cutting Condition	General Purpose								
Application	Non-Ferrous			Ferrous			Ferrous		
Dorian Insert Grade	DASK25B			DASP35B			DHP440F		
Description	UPC No. 733101-	List Price	Sale Price	UPC No. 733101-	List Price	Sale Price	UPC No. 733101-	List Price	Sale Price
TDEX-110204-EN	95422	\$13.04	\$9.39	95426	\$11.50	\$8.28	95428	\$12.51	\$9.01
TDEX-110208-EN	95432	\$13.04	\$9.39	95436	\$11.50	\$8.28	95438	\$12.51	\$9.01
TDEX-160304-EN	95442	\$14.50	\$10.44	95446	\$12.92	\$9.30	95448	\$14.32	\$10.31
TDEX-160308-EN	95452	\$14.50	\$10.44	95456	\$12.92	\$9.30	95458	\$14.32	\$10.31
TDEX-220404-EN	95462	\$19.45	\$14.00	95466	\$19.27	\$13.87	95468	\$20.33	\$14.64
TDEX-220408-EN	95472	\$19.45	\$14.00	95476	\$19.27	\$13.87	95478	\$20.33	\$14.64
TDEX-090202-EN	95492	\$11.24	\$8.09	95495	\$10.22	\$7.36	95496	\$10.22	\$7.36
TDEX-090204-EN	95502	\$15.84	\$11.40	95505	\$14.82	\$10.67	95506	\$10.22	\$7.36
TDEX-17T304-EN	95512	\$15.84	\$11.40	95515	\$14.82	\$10.67	95516	\$14.82	\$10.67
TDEX-17T308-EN	95522	\$15.84	\$11.40	95525	\$14.82	\$10.67	95526	\$14.82	\$10.67
TDEX-250404-EN	95532	\$22.56	\$16.24	95535	\$21.29	\$15.33	95538	\$21.29	\$15.33
TDEX-250408-EN	95542	\$22.56	\$16.24	95545	\$21.29	\$15.33	95548	\$21.29	\$15.33
CEHW-0602-AEER-	95553	\$17.51	\$12.61	95555	\$16.63	\$11.97	95556	\$18.00	\$12.96
CEHW-0602-AEEL-	95573	\$17.51	\$12.61	95575	\$16.63	\$11.97	95576	\$18.00	\$12.96
CEHW-1204-AEER-	95563	\$22.46	\$16.17	95565	\$21.52	\$15.49	95566	\$22.44	\$16.16
CEHW-1204-AEEL-	95583	\$22.46	\$16.17	95585	\$21.52	\$15.49	95586	\$22.44	\$16.16
TEHW-0602-AEEN-	95593	\$20.53	\$14.78	95595	\$19.66	\$14.16	95596	\$21.03	\$15.14
SDGX-09C01-E-	95299	\$28.74	\$20.69						
SDGX-09C02-E-	95303	\$29.47	\$21.22						
SDGX-09C03-E-	95307	\$29.47	\$21.22						
SDGX-09C04-E-	95311	\$29.47	\$21.22						
SDGX-19C05-E-	95250	\$39.50	\$28.44						
SDGX-19C06-E-	95254	\$39.50	\$28.44						
SDGX-19C07-E-	95258	\$39.50	\$28.44						
SDGX-19C08-E-	95262	\$42.45	\$30.56						
SDGX-19C09-E-	95266	\$42.45	\$30.56						
SDGX-19C10-E-	95270	\$42.45	\$30.56						
SDGX-19C11-E-	95274	\$44.35	\$31.93						
SDGX-19C12-E-	95278	\$44.35	\$31.93						
SDGX-19C13-E-	95282	\$47.47	\$34.18						
SDGX-19C14-E-	95286	\$47.47	\$34.18						
SDGX-19C15-E-	95290	\$43.49	\$31.31						
SDGX-19C16-E-	95294	\$43.49	\$31.31						

SUPER Quick Change Tool Post with Triple Action Wedge Style Locking System

- **Rigidity**
- **Repeatability**
- **Quality**



- Zero Backlash
- Triple Action Wedge Style Locking System
- Precise Repeatability within .0001
- 15° Locking Handle Position Adjustment
- Industry-Standard Interchangeable Holders
- Thousands of pounds of locking force with a finger tip



SUPER Quick Change Tool Post						
Description	SDN25AXA	SDN30BXA	SDN35CXA	SDN40CA	SDN50DA	SDN60EA
Part No. 733101-	01000	01002	01004	01006	01008	01010
List Price	\$318.11	\$397.97	\$544.38	\$690.79	\$1,058.51	\$1,555.94
Sale Price	\$276.75	\$346.23	\$473.61	\$600.99	\$920.90	\$1,353.67
Lathe Swing Over Bed	≤12	13-15	14-17	16-20	17-32	≥25
A	2.625	3.000	3.500	4.000	5.000	6.000
B	2.500	2.750	3.250	3.750	4.625	5.000
C	4.240	4.710	5.650	6.335	7.435	8.060
D	0.500	0.625	0.750	0.875	1.000	1.125
E	0.880	1.115	1.199	1.530	1.900	2.207
T-Tool Capacity*	1/2-3/4	5/8-1.0	3/4-1.0	1.0-1 1/4	1 1/4-1 1/2	1 1/2
Optimum C.H.**	1.250	1.312	1.625	1.937	2.562	3.000
C.H. MIN.	0.875	1.062	1.250	1.562	2.000	2.500
C.H. MAX.	1.875	1.937	2.250	2.562	3.575	3.500
Thread	1/2-20	5/8-18	3/4-16	7/8-14	1.0-14	1 1/8-12

** Optimum center height is calculated with the smaller tool size of the tool capacity. If the higher size tool is to be used, add 1/8" to the optimum center height.

Super Quick Change Standard Sets

(1) Tool Post
(4) Holders

NEW

Tooling Not Included



D1



D2



D4-CNC



D7-71C



Description	SDN25AXA-INSS	SDN30BXA-INSS	SDN35CXA-INSS	SDN40CA-INSS	SDN50DA-INSS	SDN60EA-INSS
Part No. 733101-	01020	01021	01022	01023	01024	01025
List Price	\$697.61	\$813.07	\$1,044.02	\$1,290.35	\$1,970.93	\$2,859.55
Sale Price	\$606.92	\$707.37	\$908.29	\$1,122.60	\$1,714.70	\$2,487.81
Lathe Swing	Up to 12"	13" to 15"	14" to 17"	16" to 20"	17" to 32"	≥ 25"

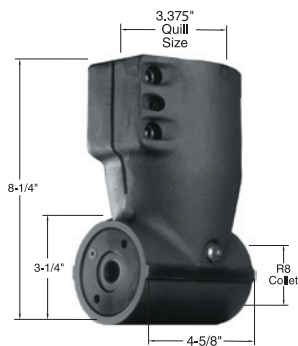
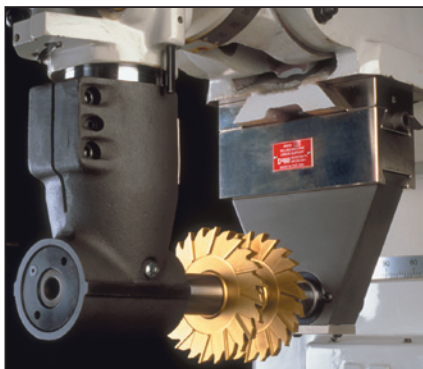
5 Piece Standard Set Includes

(1) Tool Post	SDN25AXA	SDN30BXA	SDN35CXA	SDN40CA	SDN50DA	SDN60EA
(4) Holders	(1) D25AXA-1 (1) D25AXA-2 (1) D25AXA-4-CNC (1) D25AXA-7-71C	(1) D30BXA-1 (1) D30BXA-2 (1) D30BXA-4-CNC (1) D30BXA-7-71C	(1) D35CXA-1 (1) D35CXA-2 (1) D35CXA-4-CNC (1) D35CXA-7-71C	(1) D40CA-1 (1) D40CA-2 (1) D40CA-4-CNC (1) D40CA-7-71C	(1) D50DA-1 (1) D50DA-2 (1) D50DA-4-CNC (1) D50DA-7-71C	(1) D60EA-1 (1) D60EA-2 (1) D60EA-4-CNC (1) D60EA-7-71C

Use With SDN Tool Post	Description	SDN25AXA	SDN30BXA	SDN35CXA	SDN40CA	SDN50DA	SDN60EA
Turning & Facing 	Description	D25AXA-1	D30BXA-1	D35CXA-1	D40CA-1	D50DA-1	D60EA-1
	List Price	\$64.57	\$62.90	\$86.65	\$107.61	\$172.98	\$268.33
	Sale Price	\$56.18	\$54.72	\$75.38	\$93.62	\$150.49	\$233.45
	Tool Capacity	1/2" to 3/4"	5/8" to 1"	3/4" to 1"	1" to 1 1/4"	1 1/4" to 1 1/2"	1 1/2"
Turning, Facing and Boring 	Description	D25AXA-2	D30BXA-2	D35CXA-2	D40CA-2	D50DA-2	D60EA-2
	List Price	\$61.49	\$68.49	\$90.85	\$114.60	\$185.22	\$277.92
	Sale Price	\$53.50	\$59.58	\$79.04	\$99.70	\$161.14	\$241.79
	Tool Capacity	1/2" to 3/4"	5/8" to 1"	3/4" to 1"	1" to 1 1/4"	1 1/4" to 1 1/2"	1 1/2"
Heavy Duty Boring 	Description	D25AXA-4-CNC	D30BXA-4-CNC	D35CXA-4-CNC	D40CA-4-CNC	D50DA-4-CNC	D60EA-4-CNC
	List Price	\$104.18	\$121.59	\$139.76	\$167.71	\$263.54	\$428.34
	Sale Price	\$90.64	\$105.79	\$121.59	\$145.91	\$229.28	\$372.66
	Tool Capacity	3/4"	1"	1"	1 1/4"	1 1/2"	2"
Extra Heavy Duty Boring 	Description	D25AXA-41-CNC	D30BXA-41-CNC	D35CXA-41-CNC	D40CA-41-CNC	D50DA-41-CNC	D60EA-41-CNC
	List Price	\$109.26	\$127.05	\$152.46	\$171.52	\$287.50	\$441.41
	Sale Price	\$95.06	\$110.53	\$132.64	\$149.22	\$250.13	\$384.03
	Tool Capacity	1"	1 1/4"	1 1/4"	1 1/2"	2"	2 1/2"
Oversized Extra Heavy Duty Boring 	Description	x	x	D35CXA-41-150-CNC	D40CA-41-200-CNC	D50DA-41-250-CNC	D60EA-41-300-CNC
	List Price			\$214.72	\$263.00	\$373.16	\$572.09
	Sale Price			\$186.81	\$228.81	\$324.65	\$497.72
	Tool Capacity			1 1/2"	2"	2 1/2"	3"
Morse Taper 	Description	D25AXA-5-2	D30BXA-5-3	D35CXA-5-4	D40CA-5-4	D50DA-5-5	D60EA-5-5
	List Price	\$107.37	\$135.70	\$175.33	\$182.95	\$263.54	\$351.38
	Sale Price	\$93.41	\$118.06	\$152.54	\$159.17	\$229.28	\$305.70
	Tool Capacity Morse Taper	2	3	4	4	5	5
Extra HD Cut-Off Blade Toolholder 	Description	D25AXA-7-71C	D30BXA-7-71C	D35CXA-7-71C	D40CA-7-71C	D50DA-7-71C	D60EA-7-71C
	List Price	\$155.13	\$162.12	\$182.38	\$209.64	\$290.69	\$329.02
	Sale Price	\$134.97	\$141.04	\$158.67	\$182.39	\$252.90	\$286.25
	Blade Size	19-2	19-2	26-2 to 26-6	26-2 to 26-6	32-3 to 32-9	32-3 to 32-9
ID & OD Threading 	Description	D25AXA-881-OE	D30BXA-881-OE	D35CXA-881-OE	D40CA-881-OE	X	X
	List Price	\$141.79	\$156.34	\$167.71	\$187.54		
	Sale Price	\$123.36	\$136.02	\$145.91	\$163.16		
	Threading Insert	On Edge for OD , Laydown for ID					
Dovetail Drill Chuck Holder 	Description	D25AXA-35	D30BXA-35	D35CXA-35	D40CA-35	X	X
	List Price	\$251.56	\$259.55	\$306.13	\$326.10		
	Sale Price	\$218.86	\$225.81	\$266.33	\$283.71		
	Tool Capacity	0-12"	0-12"	0-12"	0-12"		
5C Collet Holder 	Description	D25AXA-36	D30BXA-36	D35CXA-36	D40CA-36	X	X
	List Price	\$152.46	\$158.82	\$177.87	\$202.02		
	Sale Price	\$132.64	\$138.17	\$154.75	\$175.76		
	Tool Capacity	5C Collet	5C Collet	5C Collet	5C Collet		

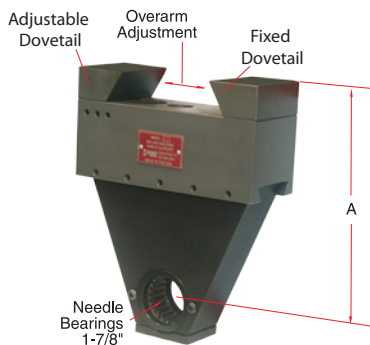
Milling Machine Accessories

R8 Right Angle Milling Attachment for Vertical Milling Machines



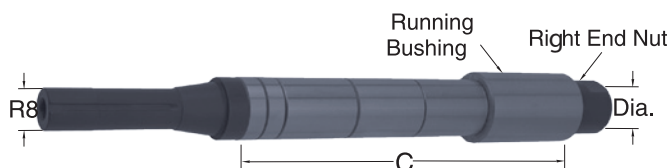
Features	Output	R8
• For Manual Machines • Ductile Iron Body • Precision Hardened & Ground Spiral Bevel Gears • Sealed High Speed Bearings • 1.33 to 1 Gear Ratio • Grease Fitting • Alignment Flats on 2 Sides • R-8 Collet Spindle	Shank	3 3/8" Quill with R8 Taper
	Description	MMRAA-R8
	UPC NO. 733101-	04000
	List Price	\$1,091.42
	Sale Price	\$949.54

Heavy Duty Milling Machine Arbor Support



Features	Machine Type	Bridgeport 50° Dovetail	Alliant-Sharp 60° Dovetail	Index 45° Dovetail Widover arm	Clausing Kondia 55° Dovetail
• Quick Lock System • Quick Center Line Adjustment • Double Dovetail Track • Precision Needle Bearing • Overarm Adjustment • Steel Support • Aluminum Body • Heat Treated and Precision Ground Dovetails	A	8.555	8.625	9.730	8.555
	I.D. Boring	1.875	1.875	1.875	1.875
	Arbor	.875 - 1.00 - 1.25	.875 - 1.00 - 1.25	.875 - 1.00 - 1.25	.875 - 1.00 - 1.25
	Description	MMAS-B-1	MMAS-A-1	MMAS-I-1	MMAS-K-1
	UPC NO. 733101-	04052	04056	04060	04064
	List Price	\$610.45	\$692.75	\$718.14	\$718.14
	Sale Price	\$531.09	\$602.69	\$624.78	\$624.78

R8 Right Angle Milling Machine Arbor



The Milling Machine Arbor is designed for slotting operations. It is used with the Right Angle Head and the Arbor Support.

Dia.	C Length	Running Bushing	Description	UPC NO. 733101-	List Price	Sale Price
0.875	10.0	1.875	R8MMA-87-BI	04070	\$482.79	\$420.03
1.000	10.0	1.875	R8MMA-100-BI	04072	\$482.79	\$420.03
1.250	10.0	1.875	R8MMA-125-BI	04074	\$609.84	\$530.56

Draw Bar



Standard Draw Bar						
Machine Type	Bar Length	Hex Length	Desc.	UPC NO. 733101-	List Price	Sale Price
1 J Head Bridgeport Step Pulley	18.000	2.500	SDB-1J	04080	\$17.16	\$14.93
2 J Head Bridgeport Variable Speed	18.000	5.500	SDB-2J	04082	\$21.48	\$18.69
Alliant-Sharp	18.000	6.500	SDB-AS	04084	\$24.02	\$20.90
Index Lagun	18.000	8.500	SDB-IL	04086	\$28.59	\$24.87

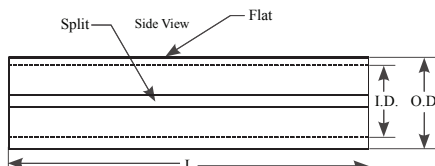
Special Draw Bar for MMRAA						
Machine Type	Bar Length	Hex Length	Description	UPC NO. 733101-	List Price	Sale Price
Bridgeport Kondia	18.000	8.500	BDBRA-2J800	04090	\$38.72	\$33.69
Index Lagun	18.000	11.500	ILBRA-110	04092	\$43.56	\$37.90
Alliant-Sharp	18.000	9.500	ADBRA-190	04094	\$43.56	\$37.90

4 Piece Bridgeport Set

4 Piece Bridgeport Set Includes				Desc.	Set UPC NO. 733101-	List Price	Sale Price
(1) R8 Right Angle Milling Attachment UPC NO. 733101- 04000	(1) Bridgeport 50° Dovetail Arbor Support UPC NO. 733101-04052	(1) 1"Dia. Arbor UPC NO. 733101-04072	(1) Bridgeport Kondia Draw Bar UPC NO. 733101-04090	MMRASS	04076	\$2,223.38	\$1,934.34

Boring Bar Bushings

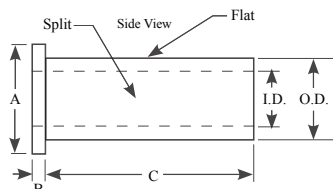
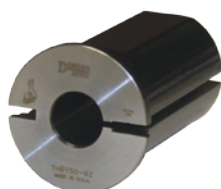
Boring Bar Bushings' split-style design provides 360° surface area locking for maximum rigidity. They are made from Chromium-Molybdenum Alloy Steel, and are heat treated and precision ground for concentricity. Used for holding small boring bars and other round tools.



Description	Part No. 733101-	List Price	O.D.	I.D.	L
D25-4B	03705	\$59.40	0.750	0.500	2.750
D30-4B	03707	\$59.40	1.000	0.750	3.250
D35-4B	03709	\$69.30	1.000	0.750	3.750
D40-4B	03711	\$69.30	1.250	1.000	4.500
D50-4B	03713	\$102.30	1.500	1.250	5.500
D60-4B	03715	\$145.20	2.000	1.500	6.500
D25-41B	03719	\$59.40	1.000	0.750	2.750
D30-41B	03721	\$59.40	1.250	1.000	3.250
D35-41B	03723	\$69.30	1.250	1.000	3.750
D40-41B	03725	\$69.30	1.500	1.250	4.500
D50-41B	03727	\$102.30	2.000	1.500	5.500
D60-41B	03729	\$191.40	2.500	2.000	6.500
D25-41SB	03733	\$72.60	1.250	1.000	3.000
D30-41SB	03735	\$72.60	1.500	1.250	3.500
D35-41SB	03737	\$79.20	1.500	1.250	4.000
D40-41SB	03739	\$85.80	2.000	1.500	4.500
D50-41SB	03741	\$128.70	2.500	2.000	6.500
D60-41SB	03743	\$264.00	3.000	2.500	7.000

Type B Reducer Bushings

Type B Reducer Bushings' split-style design provides 360° surface area locking for maximum rigidity. They are made from Chromium-Molybdenum Alloy Steel, and are heat treated and precision ground for concentricity. Used for holding drills, reamers, small boring bars, and other round tools.

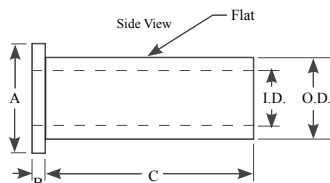


Description	Part No. 733101-	List Price	Sale Price	O.D.	I.D.	A	B	C
THB75-25	93106	\$65.34	\$56.85	0.750	.250	1.00	0.25	1.50
THB75-31	93107	\$65.34	\$56.85		.321			
THB75-38	93108	\$65.34	\$56.85		.375			
THB75-50	93109	\$65.34	\$56.85		.500			
THB100-38	93110	\$71.87	\$62.53	1.000	.375	1.25	0.25	1.75
THB100-50	93111	\$71.87	\$62.53		.500			
THB100-62	93112	\$71.87	\$62.53		.625			
THB100-75	93113	\$71.87	\$62.53		.750			
THB125-38	93114	\$78.41	\$68.21	1.250	.375	1.50	0.25	2.00
THB125-50	93115	\$78.41	\$68.21		.500			
THB125-62	93116	\$78.41	\$68.21		.625			
THB125-75	93117	\$78.41	\$68.21		.750			
THB125-100	93118	\$78.41	\$68.21	1.500	1.00	1.75	0.25	2.50
THB150-50	93119	\$84.94	\$73.90		.500			
THB150-62	93120	\$84.94	\$73.90		.625			
THB150-75	93121	\$84.94	\$73.90		.750			
THB150-100	93122	\$84.94	\$73.90	2.000	1.00	2.25	0.25	3.50
THB150-125	93123	\$84.94	\$73.90		1.25			
THB200-50	93124	\$107.81	\$93.80		.500			
THB200-62	93125	\$107.81	\$93.80		.625			
THB200-75	93126	\$107.81	\$93.80	2.500	.750	2.75	0.25	4.00
THB200-100	93127	\$107.81	\$93.80		1.00			
THB200-125	93128	\$107.81	\$93.80		1.25			
THB200-150	93129	\$107.81	\$93.80		1.50			
THB200-175	93130	\$107.81	\$93.80	2.000	1.75	2.00		
THB250-50	93131	\$127.41	\$110.85		.500			
THB250-62	93132	\$127.41	\$110.85		.625			
THB250-75	93133	\$127.41	\$110.85		.750			
THB250-100	93134	\$127.41	\$110.85	2.500	1.00	2.25	0.25	4.00
THB250-125	93135	\$127.41	\$110.85		1.25			
THB250-150	93136	\$127.41	\$110.85		1.50			
THB250-175	93137	\$127.41	\$110.85		1.75			
THB250-200	93138	\$127.41	\$110.85	2.000	2.00			
THB250-225	93139	\$127.41	\$110.85		2.25			

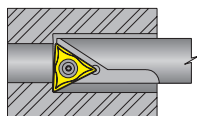
Type LBF Reducer Bushings

Type LBF Reducer Bushings' are manufactured with two set screws for clamping drills, boring bars, and shank tools and a flat for clamping toolholders.

These bushings are also equipped with two clearance notches for coolant, are heat treated and precision ground. They are also used to adapt drills, boring bars and other shank tools.



Description	Part No. 733101-	List Price	Sale Price	O.D.	D1	A	B	C
LBF125-0375	93216	\$160.08	\$139.27	1.250	0.375	1.50	.625	2.813
LBF125-0500	93217	\$160.08	\$139.27		0.500			
LBF125-0625	93218	\$160.08	\$139.27		0.625			
LBF125-0750	93219	\$160.08	\$139.27		0.750			
LBF125-0875	93220	\$160.08	\$139.27	1.500	0.875	1.75	.625	3.156
LBF125-1000	93221	\$160.08	\$139.27		1.000			
LBF150-0250	93222	\$160.08	\$139.27		0.250			
LBF150-0375	93223	\$160.08	\$139.27		0.375			
LBF150-0500	93224	\$160.08	\$139.27	2.000	0.500	2.25	.750	3.750
LBF150-0625	93225	\$160.08	\$139.27		0.625			
LBF150-0750	93226	\$160.08	\$139.27		0.750			
LBF150-0875	93227	\$160.08	\$139.27		0.875			
LBF150-1000	93228	\$160.08	\$139.27	2.500	1.000	2.50		
LBF150-1000	93229	\$199.29	\$173.38		1.250			
LBF200-0500	93230	\$199.29	\$173.38		0.500			
LBF200-0625	93231	\$199.29	\$173.38		0.625			
LBF200-0750	93232	\$199.29	\$173.38	3.000	0.750	2.75	.750	4.500
LBF200-0875	93233	\$199.29	\$173.38		0.875			
LBF200-1000	93234	\$199.29	\$173.38		1.000			
LBF200-1250	93235	\$199.29	\$173.38		1.250			
LBF200-1500	93236	\$199.29	\$173.38	3.500	1.500			
LBF200-1750	93237	\$199.29	\$173.38		1.750			



STUCR Miniature

Boring Set List Price \$251.32

Sale Price \$163.99

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

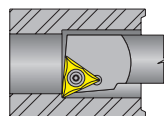


x 10 PCS.



STUCR Miniature Boring Set

Set Part No.	Shank Size	Min. Bore	(3) Boring Bars	(10) Inserts	(1) Torx Key	(1) Storage Box
733101-						
85076	.500 .500 .500	.286 .313 .374	S08H-STUCR-1.2-2 S08H-STUCR-1.2-3 S08H-STUCR-1.2-4	TCMT-52.50-UF-DHCP25	T-6	Storage Box



TPBN Medium

Boring Set List Price \$425.88

Sale Price \$277.89

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

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

Set Offers:

- 4 Boring Bars
- 20 Inserts

From Roughing To Finishing,
Square Shoulders to Through Bores

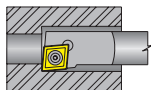


x 20 PCS.



TPBN Medium Boring Set

Set Part No.	Shank Size	Min. Bore	(4) Boring Bars	(20) Inserts	(2) Torx Keys	(1) Storage Box
733101-						
85086	.500 .500 .625 .750	.430 .590 .682 .845	TPBN06-2 TPBN08-2 TPBN10-2 TPBN12-3	(10) TPGH-21.51-EZ-DVP656 (10) TPGH-321-EZ-DVP656	T-8 T-10	Storage Box



SCLCR Miniature

Boring Set List Price \$265.72

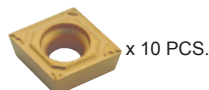
Sale Price \$173.38

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

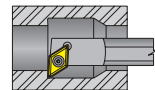


x 10 PCS.



SCLCR Miniature Boring Set

Set Part No.	Shank Size	Min. Bore	(3) Boring Bars	(10) Inserts	(1) Torx Key	(1) Storage Box
733101-						
85064	.375 .500 .625	.394 .550 .708	S06H-SCLCR-2 S08K-SCLCR-2 S10M-SCLCR-2	CCMT-21.51-UF-DHCP25	T-8	Storage Box



SDUCR Miniature

Boring Set List Price \$293.93

Sale Price \$191.79

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

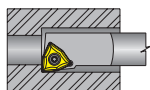


x 10 PCS.



SDUCR Miniature Boring Set

Set Part No.	Shank Size	Min. Bore	(3) Boring Bars	(10) Inserts	(1) Torx Key	(1) Storage Box
733101-						
85068	.375 .500 .625	.492 .610 .768	S06H-SDUCR-2 S08K-SDUCR-2 S10M-SDUCR-2	DCMT-21.51-UF-DHCP25	T-8	Storage Box



SWUCR Medium

Boring Set List Price \$279.42

Sale Price \$182.32

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

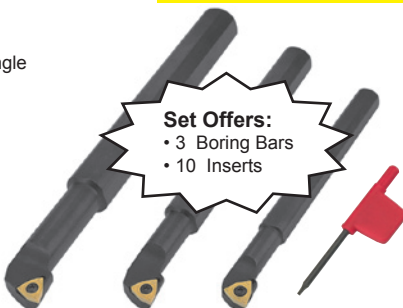
- Precision finishing operation
- For steel & stainless steel
- Sharp cutting edge
- Good chip control

Set Offers:

- 3 Boring Bars
- 10 Inserts

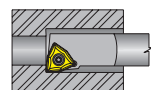


x 10 PCS.



SWUCR Medium Boring Set

Set Part No.	Shank Size	Min. Bore	(3) Boring Bars	(10) Inserts	(1) Torx Key	(1) Storage Box
733101-						
85072	.375 .500 .625	.394 .550 .708	S06H-SWUCR-2 S08K-SWUCR-2 S10M-SWUCR-2	WCMT-21.51-UF-DHCP25	T-8	Storage Box



SWUCR Miniature

Boring Set List Price \$251.32

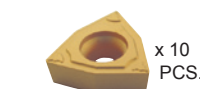
Sale Price \$163.99

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



x 10 PCS.



SWUCR Miniature Boring Set

Set Part No.	Shank Size	Min. Bore	(3) Boring Bars	(10) Inserts	(1) Torx Key	(1) Storage Box
733101-						
85070	.500 .500 .500	.228 .308 .374	S08H-SWUCR-1.2-2 S08H-SWUCR-1.2-3 S08H-SWUCR-1.2-4	WCMT-520-UF-DHCP25	T-6	Storage Box