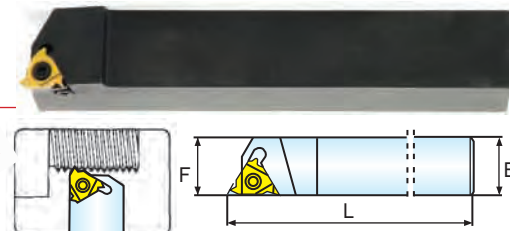
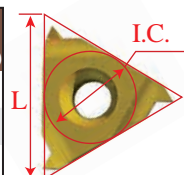


SHARS External Indexable Threading Toolholders

Right Hand • 1-1/2° positive helix angle • Min. Bore 0.47"

Insert IC	Shank Square	OAL	F	Model #	Right Hand Order #	USA Brand	SHARS (D)
3/8"	3/8"	2-1/2"	3/8"	SER-0375-D16	404-1978	\$61.00	\$29.95
3/8	1/2	3-1/4	5/8	SER-0500-F16	404-1979	70.00	30.95
3/8	5/8	4	5/8	SER-0625-H16	404-1280	70.00	33.95
3/8	3/4	5	3/4	SER-0750-K16	404-1281	70.00	35.95
3/8	1	6	1	SER-1000-M16	404-1282	74.00	37.95



Insert Style	.IC	TPI	Grade	Order No	Price(D)
16 ER A60	3/8"	16-48"	YBG201	424-1379	\$9.27
16 ER AG60	3/8	8-48	TiN	404-1285	9.50
Insert Screw S16	M3.5x10			404-2227	1.95
Shim Screw S16	M5x5			404-2212	1.95
Carbide Shim AE16				404-2215	3.50

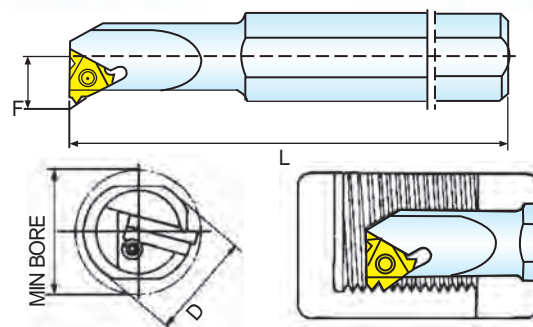
SHARS Internal Indexable Threading Toolholders

Right Hand • 1-1/2° positive helix angle • Min. Bore 0.47"

• Accept partial or full profile threading insert

Insert IC	Shank	OAL	Min. Bore	F	Model #	Right Hand Order #	USA Brand	SHARS (D)
1/4"	3/8"	4"	0.47"	0.29"	SIR-0375-H11	404-2220	\$62.00	\$27.50
1/4	5/8	5	0.47	0.26	SIR-0375-K11	404-2221	73.00	32.50
3/8	1/2	7	0.64	0.39	SIR-0500-P16-1/2	404-2290		37.95
3/8	5/8	7	0.75	0.45	SIR-0500-P16-5/8	404-2291		36.95
3/8	3/4	7	0.75	0.45	SIR-0625-P16	404-2223	73.00	34.60
3/8	3/4	7	1	0.51	SIR-0750-P16	404-2224	78.00	37.95
3/8	1	8	1.20	0.65	SIR-1000-R16	404-2225	102.00	39.95

Insert Style	.IC	TPI	Grade	Order No	Price(D)
11 IR A60	1/4"	16-48"	TiN	404-2228	\$9.50
16 IR AG60	3/8	8-48	YBG201	424-1432	9.27
For 11 IR A60 Insert Screw S11	M2.5x6			404-2229	1.95
for 404-2223	M3.5 x 8			404-4544	2.50
For 16 IR A60 Insert Screw S16	M3.5x10			404-2227	1.95
For Shim Screw 16 IR A60	M5x5			404-2212	1.95
Carbide Shim AE16				404-2214	3.50



SHARS External & Internal Threading Carbide Inserts

Partial Profile • Full Profile UN • ISO Metric

NEW



YBG201 Carbide Grade

PVD TiN coated carbide grade with good toughness and wear resistance. Good for threading and drilling (both peripheral and central inserts) on low carbon steels, stainless steel, heat resistance steel, and cast iron.

Reduce Work Flow

WIPER edge design on insert achieves desired vertex diameter on each thread's tip while maintaining good finish saving you from having to make an additional finish pass.

Eliminate Deburring

The wiper edge on the insert produces good surface finish on the tip of each threads. After the thread is made, it eliminates the deburring procedure.

Chip Removal Control

Unique wave shape chip breaker design allows the chip flows to be raised up by the chip breaker during threading, guides the chip forming along the front of chip breaker, and controls the chip formation into a smaller curvature radius.

Finish Ground Insert

Inserts with finish ground teeth and rake surface can thread with high precision and stable working condition.

PROFILE+	INSERT I.C.	Pitch Range		External Thread		Internal Thread		Price(B)
		mm	T.P.I.	TiN	YBG201	TiN	YBG201	
A60	3/8	0.5~1.5	16-48	404-2226	424-1379	404-2228	424-1430	\$9.27
G60	3/8	1.75~3.0	8-14		424-1380		424-1431	9.27
AG60	3/8	0.5~3.0	8-48	404-1285	424-1381		424-1432	9.27
N60	1/2	3.5~5.0	5-7		424-1382		424-1433	14.18
8UN	3/8		8		424-1392		424-1443	9.27
10UN	3/8		10		424-1393		424-1444	9.27
12UN	3/8		12		424-1394		424-1445	9.27
14UN	3/8		14		424-1395		424-1446	9.27
16UN	3/8		16		424-1396		424-1447	9.27
18UN	3/8		18		424-1397		424-1448	9.27
20UN	3/8		20		424-1398		424-1449	9.27
1.00GM	3/8	1.00			424-1408		424-1459	9.27
1.25GM	3/8	1.25			424-1409		424-1460	9.27
1.50GM	3/8	1.50			424-1410		424-1461	9.27
1.75GM	3/8	1.75			424-1411		424-1462	9.27
2.00GM	3/8	2.00			424-1412		424-1463	9.27
2.50GM	3/8	2.50			424-1413		424-1464	9.27
3.00GM	3/8	3.00			424-1414		424-1465	9.27
3.50GM	1/2	3.50			424-1415		424-1466	14.18
4.00GM	1/2	4.00			424-1416		424-1467	14.18
4.50GM	1/2	4.50			424-1417		424-1468	14.18
5.00GM	1/2	5.00			424-1418		424-1469	14.18
5.50GM	1/2	5.50			424-1419		424-1470	14.18
6.00GM	1/2	6.00			424-1420		424-1471	14.18

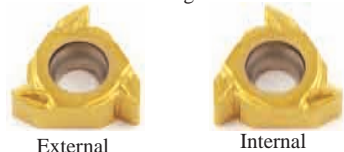
Partial Profile Threading Insert



Full Profile UN Threading Insert



Metric Threading Insert



SHARS 3/4" Shank Indexable Threading Tool 11PC Sets



UN External Right Hand

Order #	USA Brand	SHARS (D)
404-1283	\$184.80	\$129.95

UN Internal Right Hand

Order #	USA Brand	SHARS (D)
404-1284	\$191.10	\$134.95

SET INCLUDES:

- 7 Full profile TiN coated insert, Grade P25C coated, 3/8" IC: 1 each of 8, 12, 14, 16, 18, 20, 24 T.P.I. range.
- 3 Partial profile TiN coated inserts, Grade P25C coated, 3/8" IC: 1 each A-60°, AG-60°, G-60°
- 3/4" Shank
- 1 Screw and wrench
- Fitted case

SHARS Miniature Threading Toolholders & Sets

Features

- Miniature TiN coated threading inserts are super for running at low speeds
- Threads all the way down in a blind hole
- Reduces the number of different taps required
- 3 cutting edges provide 3x tool life
- Holders and inserts for right hand

404-2230,2235
x = 0.6mm
y = 0.7mm

404-2231,2232
x = 0.5mm
y = 0.6mm



Style	Shank Dia.	Insert IC	D1	L	L1	Min. Bore	Order No.	Price(D)
SIR 0205 H06	1/2	5/32	.205	4	.500	.240	404-2257	36.95
SIR 0310 K08U	5/8"	3/16	.290	5	.830	.354	404-2234	39.95
SIR 0265 K08	5/8"	3/16"	.265"	5"	.710"	.307"	404-2235	\$43.95

Replacement Inserts

Insert Style	Pitch TPI Range	IC	X	Y	ALTiN Order No.	Price(D)
08 IR A60	48-16	3/16"	.02"	.03"	404-2233	\$12.95
08 IR U60	14-11	3/16	.03	.016	404-2239	17.20
06 IR A60	48-20	5/32	.02	.024	404-2232	12.95

Set No	Includes In Set	Price(D)
404-2231	• IC: 5/32" 10 Inserts: 06 IR A60 AlTiN • 1 Tool Holder: SIR 0205 H06 1/2" • 1 Key: T6 • 48-20 TPI Range	\$149.00
404-2230	• IC: 3/16" 10 Inserts: 08 IR A60 AlTiN • 1 Tool Holder: SIR 0265 K08 5/8" • 1 Key: T8 • 48-16 TPI Range	\$149.00

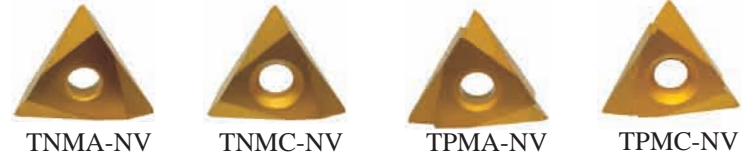
Replacement Screws

	Order No.	Price(D)
For 08 IR A60 Inserts	404-2240	\$1.50
For 06 IR A60 Inserts	404-2258	1.50

SHARS Threading Carbide Inserts

For MTVO Style turning toolholders

- 60 V thread form on the edge
- Use for threading in a wide variety of materials
- Use the same tool holder for threading or grooving
- Most inserts can be used for either internal or external threading
- Three cutting edges per insert

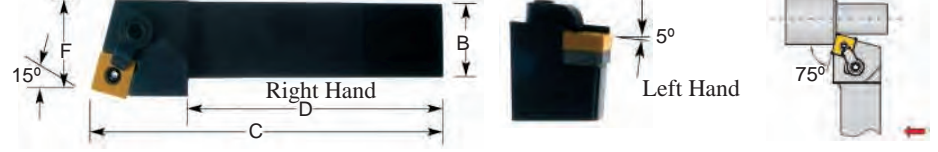


Insert #	IC	Thickness	B	Hole Size	Tin Coated	Order #	Price(B)
TNMA-NV Negative Rake, Precision Ground							
TNMA 32NV	3/8"	1/8"	.306"	.150"		424-0788	\$6.60
TNMA 43NV	1/2"	3/16"	.415	.202		424-0791	8.25
TNMC-NV Negative Rake, Precision Ground							
TNMC 32NV	3/8"	1/8"	.306"	.150"		424-0797	6.60
TNMC 43NV	1/2"	3/16"	.415	.202		424-0800	8.25
TPMA-NV 10° Top Positive Rake, Precision Ground							
TPMA 32NV	3/8"	1/8"	.306"	.150"		424-0806	6.60

SHARS MSRN R/L Toolholder



- Negative rake
- For facing and tubing front
- 15° end cutting edge angle
- For square SNMG, SNMP, SNG SNU inserts Page63



Shank Square	OAL	I.C	Thick	Model	Finger Clamp #	Clamp Screw	Locking Pin	Shims #	Right Hand Order No	Left Hand Order No	USA Brand	SHARS (D)
1"	6"	1/2"	3/16"	MSRN R/L-16-4D	CL-12	XNS-0829	NL-0617	S1203B404-1976	404-1977	\$54.00	\$35.95	

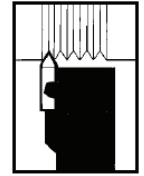
SHARS MTVO Toolholders

• For OD threading and grooving • Neutral rake • Accept threading & grooving insert:

TNMC-NV, TNMC-NG, TPMC-NV Page74



RIGHT HAND



Shank Square	OAL	Insert I.C. T	Model #	Finger Clamp #	Locking Pins #	Right Hand Order #	Left Hand Order #	USA Brand	SHARS (D)
1/2"	4-1/2"	3/8" 1/8"	MTVO R/L08-3B	MTH0820Z	MTH0610	404-2251	404-2252	\$55.35	\$24.00
5/8	4-1/2	3/8 1/8	MTVO R/L-10-3B	MTH0820Z	MTH0610	404-1843	404-1844	58.00	25.00
3/4	4-1/2	3/8 1/8	MTVO R/L-12-3B	MTH0820Z	MTH0610	404-1813	404-1817	60.40	26.00
3/4	4-1/2	1/2 3/16	MTVO R/L-12-4B	MTH0820Z	MTH0610	404-1814	404-1818	60.40	32.95
1	6	3/8 1/8	MTVO R/L-16-3D	MTH0820Z	MTH0610	404-1815	404-1819	65.70	31.00
1	6	1/2 3/16	MTVO R/L-16-4D	MTH0820Z	MTH0610	404-1816	404-1820	65.70	37.95

SHARS Grooving Carbide Inserts

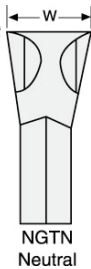
Insert #	IC	Insert T	Groove		Grade C2 Order #	Grade C5 Order #	TIN Coated	
			Width	Depth			Price(B) Order #	Price(B)
TNMC-NG Grooving, Negative Rake With Double Countersink, Precision Ground								
TNMC 32NGR	3/8"	1/8"	1/16"	.151	424-0720	424-0721	\$6.40	424-0722 \$7.84
TNMC 32NGL	3/8	1/8	1/16	.151	424-0741	424-0742	6.40	424-0743 7.84
TNMC 32NGR	3/8	1/8	3/32	.151	424-0723	424-0724	6.40	424-0725 7.84
TNMC 32NGL	3/8	1/8	3/32	.151	424-0744	424-0745	6.40	424-0746 7.84
TNMC 32NG	3/8	1/8	1/8	.151	424-0726	424-0727	6.40	424-0728 7.84
TNMC 43NGR	1/2	3/16	1/8	.210	424-0729	424-0730	7.20	424-0731 8.80
TNMC 43NGL	1/2	3/16	1/8	.210	424-0747	424-0748	7.20	424-0749 8.80
TNMC 43NGR	1/2	3/16	5/32	.210	424-0732	424-0733	7.20	424-0734 8.80
TNMC 43NGL	1/2	3/16	5/32	.210	424-0750	424-0751	7.20	424-0752 8.80
TNMC 43NGR187	1/2	3/16	3/16	.210	424-0735	424-0736	7.20	424-0737 8.80
TNMC 54NGR250	5/8	1/4	1/4	.210	424-0738	424-0739	10.80	424-0740 12.60



TPMC-NV

For MTVO Style turning toolholders

SHARS Self-Lock Carbide Cut-Off Inserts

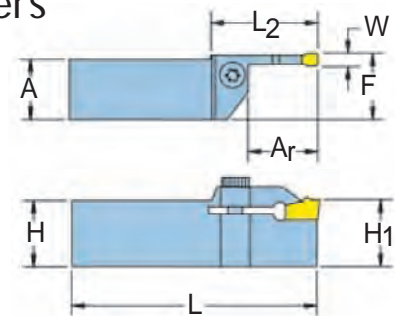


For cut-off and grooving, Single-sided notation. **TIN coated** for extra strength at higher speeds. Grade C-5 is a general purpose grade for cutting all steel and stainless steels.

Insert #	Lead Angle	Width	C5 Grade Order #	Price(E)	XL-Tin Order #	Price(E)
GTN-2	0°	.087"	404-0415	\$5.50	404-0420	\$6.95
GTN-3	0°	.120	404-0416	3.95	404-0421	4.60
GTN-4	0°	.160	404-0417	4.50	404-0422	5.25
GTN-5	0°	.200	404-0418	4.95	404-0423	5.50
GTN-6	0°	.250	404-0419	5.40	404-0424	6.25

SHARS Precision Grooving and Profile Turning Toolholders

- For shallow precision grooving and profile/copy turning
- O-ring, snap-ring, relief grooving and high production
- Opening of wide grooves by plunging and side turning
- Precision clamping and insert indexing accuracy
- Stable under side cutting forces when profile turning
- Maximum stability due to short overhang
- Insert price varies, please check GTN inserts.



Model #	Seat Size	Max Depth AR	Dimension					Right Hand Order #	Left Hand Order #	USA Brand	SHARS (D)
			Insert Range W	A	F	H/H1	L				
111R/L 12-20	20	0.320"	.065-.088"	0.750"	1.000"	0.750"	4.50"	404-0044	404-0051	\$114.00	\$29.95
109R/L 08-20	20	0.590"	.065-.088"	0.500"	0.750"	0.500"	4.50"	404-0016	404-0030	111.00	25.95
109R/L 10-20	20	0.590	.065-.088	0.625	0.875	0.625	4.50	404-0017	404-0031	111.00	25.95
109R/L 08-25	25	0.790	.098-.133	0.500	0.750	0.500	4.50	404-0018	404-0032	111.00	29.95
111R/L 12-30	30	0.400	.118-.163	0.750	1.000	0.750	4.50	404-0046	404-0053	114.00	33.95
111R/L 16-30	30	0.400	.118-.163	1.000	1.250	1.000	5.00	404-0047	404-0054	120.00	46.95
111R/L 16-40	40	0.510	.156-.203	1.000	1.250	1.000	5.00	404-0049	404-0056	120.50	45.00
109R/L 16-40	40	0.980	.156-.203	1.000	1.250	1.000	6.00	404-0024	404-0038	120.00	31.95
109R/L 20-40	40	0.980	.156-.203	1.250	1.500	1.250	6.00	404-0025		120.50	36.95