

SOWA

METALWORKING SOLUTIONS



Canadians Supporting Canadians

HAPPY NEW YEAR
ALL THE BEST IN
2016

Pricing valid from January 1 to March 31, 2016

2016 Winter Flyer

CMTS

September 2015

CANADIAN
MANUFACTURING
TECHNOLOGY SHOW

Sowa Tool would like to thank everyone that came by the booth at the CMTS show .

We would also like to congratulate **Sean Brown**, an apprentice at Novy Mfg Waterloo, for winning the CMTS booth prize draw. He will be receiving the Asimeto 5pc Precision Tool Kit, valued at \$1,025.50

ASIMETO



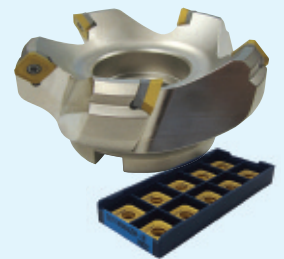
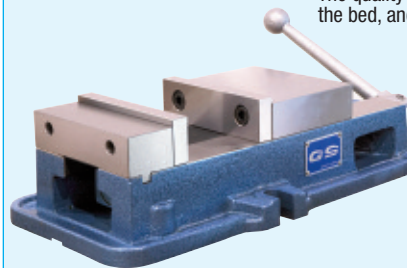
We look forward to seeing you at the next show.

PRECISION GS VISE / FACE MILL KIT



GS675 Vise

- Vises are Matched
- An integral key and large fasteners reduce deflection by 50%
- 4 jaw plate positions allow extra capacity with the jaw plates in the outside position
- The swivel base is graduated 360° in one degree increments
- Chip cover protects leadscrew from damage
- The quality movable jaw does not lift off the bed, and the deflection of the stationary jaw is minimized



3" 5-flute 45° Face Mill

SEXT 14M4AGSN PM25C Insert

- For high speed milling of Steel and Stainless Steel
- Excellent general purpose geometry

Description

Code No.

GS675 Vise Kit

500-770

Includes each of the following:

- 1pc - 327-275M (GS675 machine vise 6" x 7.5")
- 1pc - 147-813 (3" 5-flute MM 45° face mill)
- 10pcs - 147-730 (SEXT 14M4AGSN PM25C)









\$1,107.00



WWW.SOWATOOL.COM

Distributed by:

SOWA INDEXABLE TOOLING

TURNING		PT10C R1	PT22C M	MT30P SM
CNMG432		146-111 \$9.73	146-677 \$9.73	147-489 \$9.73
DNMG432		146-263 \$11.76	146-555 M \$11.76 145-652 M1 \$11.76	147-561 \$11.76
TNMG432		147-621 R2 \$11.97	148-771 \$11.97	147-616 \$11.97
WNMG432			148-773 \$10.15	148-425 \$10.15
MILLING		PM10C	PM25C	PM30P
APKT1003			148-174 \$12.88	147-793 \$12.88
ADKT1505			148-358 \$16.17	147-794 \$16.17
APKT1604		146-472 \$16.17	146-530 \$16.17	147-333 \$16.17
SEK42			146-340 \$14.07	146-486 \$14.07
		PTM30U UNCOATED	PM25C	
TPU322		146-780 \$6.44	146-709 \$8.12	
TPU432		146-820 \$9.03	146-711 \$11.34	P Steel
TPU433		146-840 \$9.03	146-712 \$11.34	M Stainless Steel
TPK43		146-700 \$13.09	146-720 \$16.38	

CHIPBREAKER

R1

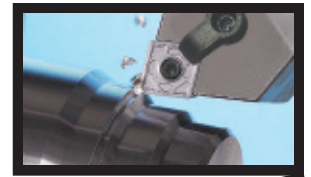
- Suitable for deep depth of cut and fast feed cutting of steel and cast iron.
- Suitable for intermittent cutting.

M/M1

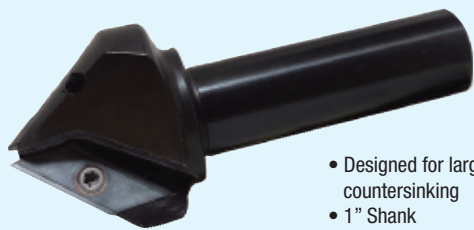
- Wide available chip control range from medium-finishing to medium-roughing.
- Suitable chip breaker for CNC machining

SM

- Exclusive design for stainless steel cutting provide longer tool life
- Wear resistance have been reinforced through high rake angle of chip breaker land.



INDEXABLE CHAMFER TOOLS



- Designed for large chamfers and countersinking
- 1" Shank

Model No.	Angle	Dia. Range	Code No.	SALE \$
CSC05031R-41-A	82°	6-42.9mm	149-096	249.90
CSC05031R-45-A	90°	6-46.9mm	149-097	249.90

INSERT



SCW200



SCW300

- SCW200 - Tin coated carbide grade for heavier duty applications
- SCW300 - TiAlN coated carbide for higher speed applications

Model No.	Code No.	SALE \$
XCET310404 ER SCW200	149-094	38.20
XCET310404 ER SCW300	149-095	41.73

NEW

INDEXABLE KITS

CUTTING TOOLS



COMBO TURNING & DRILLING TOOL KITS

Features

- Double coolant system
- Excellent chip evacuation and tool life
- Ideal flute design minimizing stress concentrations

Uses

- External/Internal turning
- Facing
- Drilling

Consists of:

- 1 - Combo Tool
- 10 - QCMT Inserts



Coolant through

Kit Contents	Insert	Kit No.	SALE \$
0.394" Combo Tool (147-993)	QCMT050204-CM (147-241)	500-757	537.45
0.472" Combo Tool (147-243)	QCMT060204-CM (147-436)	500-758	549.68
0.551" Combo Tool (147-698)	QCMT070304-CM (146-364)	500-759	558.38
0.630" Combo Tool (147-008)	QCMT080304-CM (147-044)	500-760	569.70



TSC MILLING CUTTER KITS

Consists of:

- 1 - TSC Milling Cutter
- 10 - CPMT Inserts



AA:0°, AR:5°, RR:-5°

Kit Contents	Insert	Kit No.	SALE \$
0.83" Cutter (147-892)	CPMT060204-M (147-717)	500-761	478.73
0.98" Cutter (147-925)	CPMT060204-M (147-717)	500-762	498.08
1.26" Cutter (147-698)	CPMT080308-M (147-110)	500-763	496.50



HFNC HIGH FEED FACE MILL KITS

Consists of:

- 1 - HFNC Face Mill
- 10 - WNMX Inserts



Coolant through

Kit Contents	Insert	Kit No.	SALE \$
2.5" Face Mill (148-798)	WNMX09T316ZNN-M (146-890)	500-764	1,102.05
3" Face Mill (148-813)	WNMX09T316ZNN-M (146-890)	500-765	1,236.00
4" Face Mill (148-815)	WNMX09T316ZNN-M (146-890)	500-766	1,370.03



AP 16 CHAMFER MILL KITS



Consists of:

- 1 - AP 16 Chamfer Mill
- 10 - APKT 1604 Inserts



Kit Contents	Insert	Kit No.	SALE \$
.750 - 1.303" Mill (147-187)	APKT 1604 PDSR-M (147-333)	500-767	368.70
.688 - 1.414" Mill (147-188)	APKT 1604 PDSR-M (147-333)	500-768	368.70
.688 - 1.471" Mill (147-189)	APKT 1604 PDSR-M (147-333)	500-769	368.70

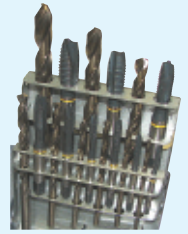


YELLOW RING TAP & DRILL SETS

Featuring Yellow Ring Taps

For tough materials including:

- High Carbon Steel
- High Alloy
- Titanium
- Aluminum



Comes in metal case.

Description	Code No.	SALE \$
N.C. Yellow Ring Spiral Point Tap and Drill Set	113-651	154.14
Set consists of the following: Taps - 6-32 to 1/2-13 Drills - #36, #29, #25, #21, #7, F, 5/16, U, 27/64		
N.F. Yellow Ring Spiral Point Tap and Drill Set	113-656	154.14
Set consists of the following: Taps - 6-40 to 1/2-20 Drills - #36, #29, #25, #21, #7, F, 5/16, U, 27/64		



HSS TIALN TIP JOBBER LENGTH DRILL SET



A stronger self repairing coating leading to longer tool life compared to TiN Coating. TiAlN Tip also allows increased speeds and feeds.



Description	Pieces Per Set	Code No.	SALE \$
1/16 - 1/2 x 64ths Fractional Set	29	127-050	126.84



5PC COBALT METRIC COUNTERSINK SETS

- M35 Cobalt
- Wide flutes provide good chip evacuation
- Positive cut
- Constant profile aids regrinding of the tool
- Self-centering of the cutting mill (three bearing points) virtually eliminates vibration

European Made



121-870
82°



121-865
90°

Description	Code No.	SALE \$
Cobalt sets include 6.3mm, 10.4mm, 16.5mm, 20.5mm, 25.0mm		
82°	121-860	237.93
90°	121-865	237.93
TiN Coated sets include 10.4mm, 16.5mm, 20.5mm, 25mm, 31mm		
82°	121-870	368.62

CUTTING TOOLS



- ABS plastic
- 62 sheaths
- 6mm-42mm
(Reg. List \$34.60)

FREE! END MILL SHEATH RACK

WHEN YOU PURCHASE \$100.00 NET ON ANY ENDMILLS

RACK ALSO AVAILABLE INDIVIDUALLY

AT THE LOW PRICE OF

\$19.80

Code No. 326-545

Please mention at time of order.



MULTI-FLUTE ROUGHERS TiAlN COATED

These fine pitch roughing end mills have an excellent flute design for roughing applications in a variety of materials. TiAlN coating enhances speeds-feeds and tool life.

- 4 flutes
- Regular length
- Solid Carbide



Inch

Cutting Dia.	Shank Dia.	Flute Length	Overall Length	TiAlN Code No.	SALE \$
1/4	1/4	3/4	2-1/2	102-185	47.78
5/16	5/16	3/4	2-1/2	102-190	55.88
3/8	3/8	1	2-1/2	102-200	63.90
1/2	1/2	1-1/4	3	102-205	84.90
5/8	5/8	1-1/4	3-1/2	102-210	139.35
3/4	3/4	1-5/8	4	102-215	164.03
1	1	1-3/4	4	102-220	321.08



CARBIDE END MILL SETS

- Micrograin carbide
- Bright finish

Sets contain 1pc each of 1/4", 5/16", 3/8", 1/2", 5/8", 3/4"



Description	Code No.	SALE \$
2 flute	103-846	332.70
4 flute	103-847	332.03



VARIABLE HELIX PMX END MILLS

High Performance Powdered Metal Steel

High resistance and toughness

- 4 flutes
- TiAlN coated for increased speed and feed capabilities and enhanced tool life
- Variable Helix geometry to avoid vibration and cutting edge scaling
- Noise reduction for silent and soft machining
- Weldon flat



Inch

Cutting Dia.	Shank Dia.	Flute Length	Overall Length	Code No.	SALE \$
1/4"	3/8"	5/8"	2-7/16"	102-284	28.35
5/16"	3/8"	3/4"	2-1/2"	102-286	30.00
3/8"	3/8"	3/4"	2-1/2"	102-288	30.83
7/16"	3/8"	1"	2-11/16"	102-290	37.13
1/2"	1/2"	1-1/4"	3-1/4"	102-292	36.23
5/8"	5/8"	1-5/8"	3-3/4"	102-294	49.20
3/4"	3/4"	1-5/8"	3-7/8"	102-296	74.25
1"	1"	2"	4-1/2"	102-298	129.38

Speeds & Feeds

Material	SFM	1/4	5/16	3/8	7/16	1/2	5/8	3/4	1
Low Carbon	148-246	.0015	.0017	.0028	.0034	.0034	.0057	.0057	.0057
Tool Steels	65-155	.0012	.0015	.0026	.0026	.0026	.0037	.0037	.0037
Stainless 300	65-115	.0012	.0015	.0026	.0026	.0026	.0037	.0037	.0037
Stainless 400	98-148	.0012	.0015	.0026	.0026	.0026	.0037	.0037	.0037
Cast Iron	115-213	.0015	.0017	.0028	.0034	.0034	.0057	.0057	.0057
Titanium	98-148	.0020	.0030	.0038	.0045	.0045	.0063	.0074	.0074
Bronze	360-689	.0020	.0030	.0038	.0045	.0045	.0063	.0074	.0074
Aluminum 60-61	951-1378	.0020	.0030	.0038	.0045	.0045	.0063	.0074	.0074
Aluminum 70-75	295-557	.0015	.0017	.0028	.0034	.0034	.0057	.0057	.0057

* All speeds and feeds are suggested starting points. They may be increased or decreased depending on machine condition, depth of cut, finish required, coolant, etc.



CARBIDE DRILL MILLS

- Drill/Mills can be used for drilling, slotting, profile milling
- 2 Flute - 60° & 90° included point angle
- Made from submicron grain carbide
- Cutting diameter tolerance: +.000/- .002



Cutting Dia. (in.)	Shank Dia. (in.)	Flute Length (in.)	Overall Length (in.)	60°		90°	
				Code No.	SALE \$	Code No.	SALE \$
1/16	1/8	3/16	1-1/2	153-187	15.15	153-186	14.55
3/32	1/8	3/8	1-1/2	153-189	15.15	153-188	15.15
1/8	1/8	1/2	1-1/2	153-191	14.03	153-190	14.03
3/16	3/16	5/8	2	153-193	20.10	153-192	20.10
1/4	1/4	3/4	2-1/2	153-195	25.80	153-194	25.80
5/16	5/16	13/16	2-1/2	153-197	31.05	153-196	32.55
3/8	3/8	1	2-1/2	153-199	40.58	153-198	40.58
7/16	7/16	1	2-3/4	153-201	44.93	153-200	53.18
1/2	1/2	1	3	153-203	67.05	153-202	67.05
5/8	5/8	1-1/4	3-1/2	153-205	129.23	153-204	129.23
3/4	3/4	1-1/2	4	153-207	154.95	153-206	171.38

CUTTING TOOLS



3 X D PREMIUM CLASS SUB-MICROGRAIN CARBIDE DRILLS



PC253

Cutting Dia. (mm)	Flute Length (mm)	Shank Dia. (mm)	Overall Length (mm)	Code No.	SALE \$
3.0	20	6	62	138-210	60.98
3.1	20	6	62	138-211	60.98
3.2	20	6	62	138-212	60.98
3.3	20	6	62	138-213	60.98
3.4	20	6	62	138-214	60.98
3.5	20	6	62	138-215	60.98
3.6	20	6	62	138-216	60.98
3.7	24	6	62	138-217	60.98
3.8	24	6	66	138-218	60.98
3.9	24	6	66	138-219	60.98
4.0	24	6	66	138-220	60.98
4.1	24	6	66	138-221	60.98
4.2	24	6	66	138-222	60.98
4.3	24	6	66	138-223	60.98
4.4	24	6	66	138-224	60.98
4.5	24	6	66	138-225	60.98
4.6	24	6	66	138-226	60.98
4.7	24	6	66	138-227	60.98
4.8	28	6	66	138-228	60.98
4.9	28	6	66	138-229	60.98
5.0	28	6	66	138-230	60.98
5.1	28	6	66	138-231	60.98
5.2	28	6	66	138-232	60.98
5.3	28	6	66	138-233	60.98
5.4	28	6	66	138-234	60.98
5.5	28	6	66	138-235	60.98
5.6	28	6	66	138-236	60.98
5.7	28	6	66	138-237	60.98
5.8	28	6	66	138-238	60.98
5.9	28	6	66	138-239	60.98
6.0	28	6	66	138-240	60.98
6.1	34	8	79	138-241	84.38
6.2	34	8	79	138-242	84.38
6.3	34	8	79	138-243	84.38
6.4	34	8	79	138-244	84.38
6.5	34	8	79	138-245	84.38
6.6	34	8	79	138-246	84.38
6.7	34	8	79	138-247	84.38
6.8	34	8	79	138-248	84.38
6.9	34	8	79	138-249	84.38
7.0	34	8	79	138-250	84.38
7.1	41	8	79	138-251	84.38
7.2	41	8	79	138-252	84.38
7.3	41	8	79	138-253	84.38
7.4	41	8	79	138-254	84.38
7.5	41	8	79	138-255	84.38
7.6	41	8	79	138-256	84.38
7.7	41	8	79	138-257	84.38
7.8	41	8	79	138-258	84.38

Coolant Through

PC253

Cutting Dia. (mm)	Flute Length (mm)	Shank Dia. (mm)	Overall Length (mm)	Code No.	SALE \$
7.9	41	8	79	138-259	84.38
8.0	41	8	79	138-260	84.38
8.1	47	10	89	138-261	116.93
8.2	47	10	89	138-262	116.93
8.3	47	10	89	138-263	116.93
8.4	47	10	89	138-264	116.93
8.5	47	10	89	138-265	116.93
8.6	47	10	89	138-266	116.93
8.7	47	10	89	138-267	116.93
8.8	47	10	89	138-268	116.93
8.9	47	10	89	138-269	116.93
9.0	47	10	89	138-270	116.93
9.1	47	10	89	138-271	116.93
9.2	47	10	89	138-272	116.93
9.3	47	10	89	138-273	116.93
9.4	47	10	89	138-274	116.93
9.5	47	10	89	138-275	116.93
9.6	47	10	89	138-276	116.93
9.7	47	10	89	138-277	116.93
9.8	47	10	89	138-278	116.93
9.9	47	10	89	138-279	116.93
10.0	47	10	89	138-280	116.93
10.1	55	12	102	138-281	178.95
10.2	55	12	102	138-282	178.95
10.3	55	12	102	138-283	178.95
10.4	55	12	102	138-284	178.95
10.5	55	12	102	138-285	178.95
10.6	55	12	102	138-286	178.95
10.7	55	12	102	138-287	178.95
10.8	55	12	102	138-288	178.95
10.9	55	12	102	138-289	178.95
11.0	55	12	102	138-290	178.95
11.1	55	12	102	138-291	178.95
11.2	55	12	102	138-292	178.95
11.3	55	12	102	138-293	178.95
11.4	55	12	102	138-294	178.95
11.5	55	12	102	138-295	178.95
11.6	55	12	102	138-296	178.95
11.7	55	12	102	138-297	178.95
11.8	55	12	102	138-298	178.95
11.9	55	12	102	138-299	178.95
12.0	55	12	102	138-300	178.95
12.1	60	14	107	138-301	178.95
12.2	60	14	107	138-302	178.95
12.3	60	14	107	138-303	178.95
12.4	60	14	107	138-304	178.95
12.5	60	14	107	138-305	217.35
12.6	60	14	107	138-306	217.35
12.7	60	14	107	138-307	217.35

5 X D PREMIUM CLASS SUB-MICROGRAIN CARBIDE DRILLS

ALSO AVAILABLE

SEE PAGE B4 IN THE NEW CATALOGUE

FOR SPEEDS & FEEDS

SEE PAGE B80

CUTTING TOOLS



215PC TABLE TOP DRILL SET



\$856.24
NET

Empty case also available.
Code# 113-843
Price: **\$59.40**

**118" General Purpose HSS
Jobbers Length Drills
1/16" - 1/2" by 64ths**

10 Drills ea.

- 1/16, 5/64, 3/32, 7/64, 1/8, 9/64, 5/32, 11/64, 3/16, 13/64, 7/32, 15/64, 1/4, 17/64

5 Drills ea.

- 9/32, 19/64, 5/16, 21/64, 11/32, 23/64, 3/8, 25/64, 13/32, 27/64, 7/16, 29/64, 15/32, 31/64, 1/2

New Product!

Code # 500-731

List \$1,070.30



Drills made in the USA



NOGA DEBURRING KITS

"N" COBALT SET NG8100

- For plastic and hard materials
Contains • Noga Grip 2 Handle • 20pcs N10 (B10) Cobalt blades



Model No.	Code No.	SALE \$
NG8100	165-466	31.28

PROMO "N" NOGA SET NG8000

- For steel, aluminum, and plastic
Contains • Noga Grip 2 Handle • 10pcs N1 (B10) blades



Model No.	Code No.	SALE \$
NG8000	165-474	14.63

"S" GOLDEN NOGA SET NG8152

- For abrasive materials
Contains • Noga Grip 1 Handle • 10pcs S10 TiN coated blades



Model No.	Code No.	SALE \$
NG8152	165-460	25.28

"N" GOLDEN NOGA SET NG8002

- For steel, aluminum & plastic
Contains • Noga Grip 1 Handle • 10pcs N1 TiN coated blades



Model No.	Code No.	SALE \$
NG8002	165-465	20.78



HSS ANNULAR CUTTERS - INCH

- Eliminate multi-step drilling
- Lower cost per hole
- Better finishing
- More accurate, cleaner holes.
- Longer tool life
- 3/4" shank dia. with two flats
- Cutters are interchangeable with other standard hole cutting systems.



Size	1" Depth		2" Depth		3" Depth	
	Code No.	SALE \$	Code No.	SALE \$	Code No.	SALE \$
7/16	138-000	51.68	138-054	72.00		
1/2	138-002	54.60	138-056	74.78		
9/16	138-004	54.60	138-058	74.78		
5/8	138-006	54.60	138-060	74.78		
11/16	138-008	54.60	138-062	74.78		
3/4	138-010	57.98	138-064	80.70		
13/16	138-012	63.98	138-066	85.95	138-108	121.13
7/8	138-014	65.03	138-068	96.53	138-110	133.28
15/16	138-016	68.93	138-070	102.53	138-112	147.23
1	138-018	72.98	138-072	109.13	138-114	147.23
1-1/16	138-020	77.25	138-074	115.13	138-116	156.08
1-1/8	138-022	84.30	138-076	115.80	138-118	175.35
1-3/16	138-024	87.75	138-078	120.00	138-120	180.53
1-1/4	138-026	89.55	138-080	126.30	138-122	189.30
1-5/16	138-028	98.33	138-082	134.93	138-124	196.35
1-3/8	138-030	108.83	138-084	144.90	138-126	213.90
1-7/16	138-032	119.25	138-086	157.88	138-128	234.75
1-1/2	138-034	129.83	138-088	164.78	138-130	252.38
1-9/16	138-036	136.73	138-090	176.33	138-132	276.90
1-5/8	138-038	140.33	138-092	182.78	138-134	287.33
1-11/16	138-040	157.88	138-094	206.93	138-136	297.90
1-3/4	138-042	161.33	138-096	210.30	138-138	325.88
1-13/16	138-044	182.40	138-098	227.93		
1-7/8	138-046	182.40	138-100	231.38	138-142	378.38
1-15/16	138-048	189.30	138-102	245.33	138-144	392.40
2	138-050	203.25	138-104	252.38	138-146	417.00
2-1/16	138-052	236.55	138-106	287.33		

ANNULAR CUTTER HOLDERS



**Straight Shank
R8 Shank**

Morse Taper Shank

- Holder shank allows different machines to drive cutter
- Select adapter lengths reduce the number of machine set ups.

Model No.	Shank	Cutter Shank Size	Gauge Length	Code No.	SALE \$
Straight Shank - 3 flats					
HEN-1	1/2"	3/4"	2-1/8"	425-435	138.38
Morse Taper Shank					
HEN-3-6	MT2	3/4"	6"	425-445	185.78
HEN-4	MT3	3/4"	2"	425-447	185.10
HEN-4-6	MT3	3/4"	6"	425-448	210.38
R8 Shank					
HEN-5	R8	3/4"	1-3/4"	425-453	197.70

WORKHOLDING



"C" CLAMPS

- SG iron with a tensile strength over 60,000 psi
- Powder coated finish
- Swiveling pad
- Handle designed to bend before the frame can be overstressed



Model	Clamp Capacity	Throat Depth	Load Capacity	Code No.	SALE \$
GCL/13D/100	4"	2-11/32"	1200	231-442	22.68
GCL/13D/150	6"	3"	1400	231-443	28.84
GCL/13D/200	8"	3-1/8"	1700	231-444	36.54
GCL/13D/250	10"	3-1/2"	2200	231-445	51.03



EDM TOOL MAKER VISE

LIMITED SUPPLY!

- Parallelism: $\pm 0.002\text{mm}/100\text{mm}$
- Squareness: $\pm 0.002\text{mm}/100\text{mm}$
- Stainless Steel
- VSTV-50W designed specifically for wire cutter use



VSTV-50W

Model	Max Opening	Thickness	Jaw Depth	Weight (kg)	Code No.	SALE \$
VSTV-50W	55mm	27mm	25mm	1.0	230-840	505.61



3 JAW CAST IRON SCROLL CHUCKS 2PC HARD REV. JAWS

These chucks are designed for all types of workshop machining operations on conventional lathes and milling fixtures.

- Smart design allowing inner parts to be replaced quickly



QUALITY IMPORT

Ask for our complete range.

Chuck Dia.	Hole Dia	Mount	Weight (lbs)	Code No.	SALE \$
6"	1.575"	Plain Back	18.26	4440710	359.45
8"	2.559"	Plain Back	31.02	4440715	429.66
12"	3.937"	Plain Back	90.20	4440725	892.08



5/8" TABLE SLOT MACHINIST CLAMPING KIT

SALE \$96.10



Each set contains

- 24 1/2-13 Studs 4 each 3, 4, 5, 6, 7, 8" lengths
- 6 T-slot nuts
- 6 Flange nuts
- 4 Coupling nuts
- 6 1" Thick Step blocks
- 6 Serrated end clamps
- 1 T-slot cleaner
- 1 Metal holder

Code No. 333-550
Reg List \$186.00



PRECISION BORING HEADS

- Ideal for mill or jig bore operations
- These heads readily adapt to many different machines due to interchangeable shanks



Head Dia.	Hole Size	Offset	Code No.	SALE \$
3	3/4	3/4	356-002	115.50
4	1	1	356-003	173.16

SHANKS FOR PRECISION BORING HEADS



Size	Thread	Code No.	SALE \$
R8	1-1/2 - 18TPI	356-010	57.84
ISA40	1-1/2 - 18TPI	356-012	72.24
1" Straight	1-1/2 - 18TPI	356-025	43.50



CAT TAPER KEYLESS DRILL CHUCKS

These chucks provide exceptionally high torque - up to three times the gripping strength of conventional drill chuck / taper holder combinations. The design eliminates any possibility of chuck / holder misalignment, and it assures separation safety

- High precision, premium tolerance
- The jaws feature a TiN coated surface treatment to assure durability.



Taper	Capacity	Gauge Length	Code No.	SALE \$
CAT40	1/4"	3.35"	531-480	201.96
CAT40	1/2"	4.16"	531-482	227.94
CAT40	5/8"	4.16"	531-483	300.66
CAT50	1/2"	4.16"	531-484	364.80
CAT50	5/8"	4.16"	531-485	433.74



TYPE 25 COLLET CHUCK SETS

Set includes:

1 chuck, 1 wrench, 1 each collet and fitted case

Type 25

- 1/8", 3/16", 1/4", 5/16", 3/8", 1/2", 5/8", 3/4", 7/8", 1"



Chuck	Code No.	SALE \$
COLLET SETS CONSIST OF 10 COLLETS 1/8" - 1" (TYPE 25)		
ISA-40	334-605	317.94
R-8	334-620	317.94

WORKHOLDING



PERMANENT MAGNETIC LIFTERS

Features:

- Faster and safer than using straps and slings.
 - Beveled surface for lifting round objects.
 - Magnets are maintenance free and never wear out.
 - Magnets have built-in safety factor of 3.5 times the rated load.
- Do Not lift more than the maximum rated load.



Model	Capacity (lbs)	Code No.	SALE \$
VML-100	220	230-600	550.97
VML-300	660	230-605	1,303.61
VML-600	1320	230-610	2,093.00



POT MAGNETS

Unique combination of a strong magnet with nickel chrome plated insulating ring gives these magnets the superior holding power of larger ones

- 1/4"-20 threaded



Model	Diameter (in.)	Height (in.)	Magnetic Pull (kg)	Code No.	SALE \$
PMG/11-16	11/16"	5/8"	2.7	231-420	5.95
PMG/13-16	13/16"	3/4"	4.5	231-422	7.63
PMG/1-1-16	1-1/16"	1"	6.0	231-424	11.97
PMG/1-3-8	1-3/8"	1-3/16"	13	231-426	17.36



MAGNETIC LIFTERS

- Work is held and released very smoothly
- Most suitable to move materials or semi-finished products such as black steel plate, flat iron and other materials.



Model	Capacity (kgf)	Length (mm)	Width (mm)	Height (mm)	Code No.	SALE \$
VML-140	140	120	50	55	230-602	76.23
VML-150	150	140	100	140	230-604	195.16



ER COLLET SETS

- Shipped as set, no plastic container



Collet	Description	Range	Code No.	SALE \$
ER16	Inch 11pc Collet Set	1/16"-3/8" x 32nds	337-440	110.74
ER25	Inch 17pc Collet Set	1/8"-5/8" x 32nds	337-442	184.24
ER32	Inch 21pc Collet Set	1/8"-3/4" x 32nds	337-444	243.81



ER COLLET CHUCK & COLLET SET COMBOS

- 100% Forged Construction • Balanced up to 30,000 rpm
- All Traverse Ground • DIN Coolant option - standard
- Taper-AT3 or better



* Case may not be as shown

CAT 40
Premium
Balanced
30x
RPM

CAT 50
Premium
Balanced
25x
RPM

CAT40

Description	Promo Code No.	SALE \$
ER11 Set • CT40 ER11 x 2.50" Gauge Length Chuck (531-400) • 7pc ER11 Collet Set 1/16-1/4 x 32nds (337-401) • ER11 Chuck Nut Wrench (337-388)	500-232	\$208.98
ER16 Set • CT40 ER16 x 2.50" Gauge Length Chuck (531-406) • 11pc ER16 Collet Set 1/16-3/8 x 32nds (337-403) • ER16 Chuck Nut Wrench (337-395)	500-231	\$272.28
ER20 Set • CT40 ER20 x 4.00" Gauge Length Chuck (531-414) • 15pc ER20 Collet Set 1/16-1/2 x 32nds (337-404) • ER20 Chuck Nut Wrench (337-397)	500-230	\$342.30
ER25 Set • CT40 ER25 x 2.50" Gauge Length Chuck (531-418) • 17pc ER25 Collet Set 1/8-5/8 x 32nds (337-405) • ER25 Chuck Nut Wrench (337-396)	500-229	\$398.94
ER32 Set • CT40 ER32 x 2.50" Gauge Length Chuck (531-421) • 21pc ER32 Collet Set 1/8-3/4 x 32nds (337-407) • ER32 Chuck Nut Wrench (337-398)	500-241	\$494.82

CAT50

Description	Promo Code No.	SALE \$
ER25 Set • CT50 ER25 x 4.00" Gauge Length Chuck (531-448) • 17pc ER25 Collet Set 1/8-5/8 x 32nds (337-405) • ER25 Chuck Nut Wrench (337-396)	500-233	\$446.52
ER32 Set • CT50 ER32 x 4.00" Gauge Length Chuck (531-454) • 21pc ER32 Collet Set 1/8-3/4 x 32nds (337-407) • ER32 Chuck Nut Wrench (337-398)	500-234	\$516.96

PRECISION TOOLS



PRECISION HARDNESS TESTER

A high grade precision instrument, using the Rockwell method for testing hardness in metals.

Accessories:

- Hardness standards (one each) for Rockwell "C", "B", and "A" scales
- Diamond penetrator
- Flat anvil, "V" anvil, and large flat anvil
- Rockwell standard block set

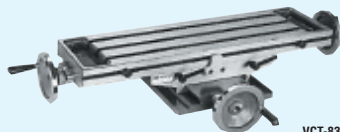
Note: Consists of high, medium and low "C" scale. A and B masters. No need to change weight loads. Can be easily adjusted by a calibrated knob.



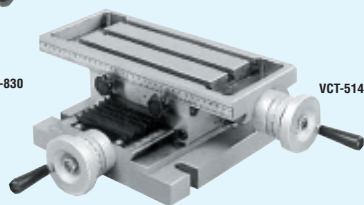
Test Height	Throat Depth	L x W x H	Code No.	SALE \$
6-3/4"	5-5/16"	18-3/8" x 9-3/8" x 24-13/16"	240-200	1,952.54



PRECISION CROSS SLIDE TABLES



VCT-830



VCT-514

Model VCT-830, Model VCT-514

- A heavy, rugged slide in all kinds of positioning, milling, drilling, microscopic viewing and staging
- Adjustable bases for heavy loads, small jig boring, precision cut-off

Model No.	Table (mm)	Height (mm)	Travel (mm)	Base (mm)	Dial Grad. (mm)	Net Weight (kg)	Code No.	SALE \$
VCT-514	350 x 150	130	175 x 150	300 x 220	0.02	38	230-950	1,877.12
VCT-830	210 x 730	150	350 x 165	360 x 285	0.02	80	230-955	2,082.08



ULTRA PRECISION DIAL GAUGES

Features

- Made in Germany, high precision dial gauge commonly used in the automotive industry for checking fixtures.
- Limited dial gauge movement eliminates error caused by multiple rotations of the dial gauge that may be missed by the operator
- Effective shockproof system for gauge protection
- Pinions and shafts are jeweled to increase gauge longevity
- Easy zeroing of the dial to the gauge master
- Safety cap prevents unintentional movement
- Stem and spindle made of stainless steel and provide measurement sensitivity
- Tolerance markers are provided for easy reading interpretation
- Stem Diameter: Inch - 3/8" (4-48) Metric - 8mm (M2.5x0.45)



Range	Resolution	Accuracy	Repeatability	Code No.	SALE \$
.004"	.00005"	.00006"	.000025"	7422211	307.86
0.1mm	0.001mm	0.0012mm	0.0005mm	7422212	307.86



DIGITAL CALIPERS

- Resolution .0005" / 0.01mm
- Extra large LCD readout
- The origin position is retained through the on/off cycle
- Inch/Metric conversion



Range	Accuracy	Code No.	SALE \$
0-6"/0-150mm	±.001"/±0.02mm	7307065	64.44
0-8"/0-200mm	±.0015"/±0.03mm	7307081	94.02
0-12"/0-300mm	±.0015"/±0.03mm	7307125	130.26



INSIDE MICROMETERS INTERCHANGEABLE ROD TYPE

- Graduation: .001"
- Rods marked with its measuring range
- Satin chrome finish throughout
- All contact points hardened for extra long tool life
- With locking clamp
- Zero point can be readjusted by rotating the micrometer head sleeve
- Carbide tipped measuring faces



Range	Head Travel	Graduation	Spacing Collar	Diameter of Rod	Code No.	SALE \$
2-12"	.50"	.001"	.500"	0.248"	7242121	196.02
8-20"	1.00"	.001"	1", 2"	0.355"	7242201	281.04
8-40"	1.00"	.001"	1", 2"	0.355"	7242401	868.08



NOGA MAG BASE/ INDICATOR COMBO



- Standard Holder DG1033 (165-350)
- 11" reach
- Powerful On/Off magnetic base (80kg/f)
- 0 - 0.4, .0005 Coolant Proof Indicator (200-075)
- Water resistant
- Reverse counter
- Lugback (1/4" hole)
- AGD2
- Interchangeable point



Code No.: 500-228

\$214.50

PRECISION TOOLS



CLEARANCE

50% Savings

SP6200 - COMPARATOR STAND

Noga high quality comparator stand holds indicators and probes for thickness

- **Plate : Serrated anvil face.**
- Microlapped plates 2 microns flatness to DIN876 grade 00.
- Plates are made of hardened chrome rich steel.
- Measures microns.
- 25 mm dia. Stainless steel post.
- Accepts all electronic and standard gauges.
- Max. measuring height: 120mm.
- Plate size 78x78mm
- Cross arm 74mm



Indicator not included

ONLY 1 LEFT

List Price: \$510.90

Model No.	Code No.	SALE \$
SP6200 Comparator	165-468	255.45

SP6400 - COMPARATOR STAND

- **Plate flat anvil face.**
- Microlapped plates 2 microns flatness to DIN876 grade 00.
- Plates are made of hardened chrome rich steel.
- Measures microns.
- 25 mm dia. Stainless steel post.
- Accepts all electronic and standard gauges.
- Max. measuring height: 100mm.
- Plate size Dia. 50mm
- Cross arm 74mm



Indicator not included

ONLY 7 LEFT

List Price: \$332.80

Model No.	Code No.	SALE \$
SP6400 Comparator	165-469	166.40

ACCESSORIES



CA3000 VARI HP COOL ARM

Noga is introducing its patent pending newest product to the Cooling Systems line. This High Pressure (HP) Arm will become synonymous in the industry for stability and flexibility.

The Vari HP Cool Arm can be fitted with three different sizes of nozzles which will deliver fluids or cooling liquids at high pressure, up to 1000psi, allowing a higher level of machining. The arm is easy to set in position.

- Long articulated arms provide full axis rotation. Sturdy tightening fixtures for total stability.
- Length: 238mm
- Thread: Int. NPT 1/4"
- Provided with hex key (CA1010) and 4mm nozzle (CA1004)

NEW

Code No.: 165-422

\$264.53



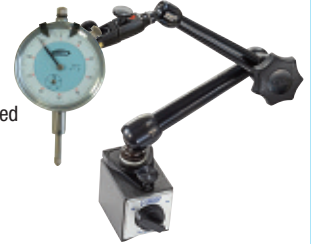
NOGA MAG BASE/ INDICATOR COMBO



MG6161 (165-501) **NEW**

MG HOLDER WITH DOUBLE FINE ADJUSTMENT

- New double fine adjustment
- Bottom: unique single direction
- Top: universal swivel clamp
- Holds 6mm, 8mm, 3/8", dovetail, and lug back
- Five axis holder
- Unique central locking mechanism with Noga designed spring loaded bearing
- Powerful magnetic base 80kg/f



DIAL INDICATOR (200-010)

- 1", 0 - 100", .001"
- Reverse counter
- Stainless steel components
- Rotating bezel with clamp
- Lugback (1/4" hole)
- Interchangeable point
- Conforms to AGD 2 standards
- Teclock Style

Code No.: 500-771

\$275.87



SJ-210 SURFTTEST PORTABLE SURFACE ROUGHNESS TESTER

- 2.4" colour graphic, backlit LCD screen
- Interface supports 16 languages which can be freely switched
- Access to each feature can be password protected
- In addition to calculation results, the SurfTest SJ-210 can display sectional calculation results and assessed profiles, load curves, and amplitude distribution curves
- Up to 10 measurement conditions and one measured profile can be stored in internal memory
- An optional memory card can be used as extended memory
- Complies with the following standards: JIS (JIS-B0601-2001, JIS-B0601-1994, JIS-B0601-1982), VDA, ISO-1997, and ANSI
- Measuring Force: 4mN
- Measuring Method: Skidded



Model	MTI No.	Measuring Range	Sowa Code No.	NET \$
SJ-210	178-561-02A	.70", (17.5mm)	847-140	2,500.00

Be sure to ask for your copy of the Asimeto tool box booklet.



SHOP SUPPLIES

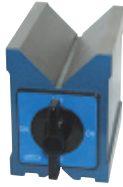


MAGNETIC V-BLOCK

Used to hold cylindrical workpieces for grinding. Will hold both itself and the work on any flat ferrous surface, including a permanent magnet chuck (without energizing the chuck.)

There are two vees:

- The smaller for workpieces up to .750" diameter and the larger for workpieces up to 2.500" diameter



Description	Code No.	SALE \$
Magnetic V-Blocks	225-710	101.99



POLYURETHANE HAMMER SERIES

- Steel structure containing steel shot
- Main body made from polyurethane resin, the handle from soft quality TPR



Model	Head Diameter	Head Width	Overall Length	Weight (kg)	Code No.	SALE \$
VHM-38	38mm	100mm	287mm	0.49	231-460	24.43
VHM-46	46mm	100mm	306mm	0.69	231-462	27.44
VHM-50	50mm	110mm	340mm	0.93	231-464	34.02

FASTENER BLACK BOOK

- Inch / Fasteners
- ISO & DIN Specifications
- Fastener Platings & Finishes
- Pre-Loads & Tightening Torques
- Thread Terminology & Classifications
- Standard Grades, Tolerances & Markings
- Thread Forms, Heads, Points, Materials & Coatings



Description	Code No.	SALE \$
Fastener Black Book	180-156	47.11

FLAT EYE POLYESTER SLINGS

NEW PRODUCT!

Vertical Choker Basket



Type 3, Single Ply, Flat Eye Polyester Web Slings

Vertical:	Choker:	Basket:	Size:	Code No.	SALE \$
1,600 lbs.	1,200 lbs.	3,200 lbs.	1" x 2 ft	904-008	14.03
1,600 lbs.	1,200 lbs.	3,200 lbs.	1" x 3 ft	904-009	9.01
1,600 lbs.	1,200 lbs.	3,200 lbs.	1" x 4 ft	904-010	15.26

Vertical:	Choker:	Basket:	Size:	Code No.	SALE \$
3,200 lbs.	2,400 lbs.	6,400 lbs.	2" x 6 ft	904-011	24.37
3,200 lbs.	2,400 lbs.	6,400 lbs.	2" x 8 ft	904-012	27.48
3,200 lbs.	2,400 lbs.	6,400 lbs.	2" x 10 ft	904-013	30.23

Type 3, Two Ply, Flat Eye Polyester Web Slings

Vertical:	Choker:	Basket:	Size:	Code No.	SALE \$
6,400 lbs.	4,800 lbs.	12,800 lbs.	2" x 6 ft	904-135	31.58
6,400 lbs.	4,800 lbs.	12,800 lbs.	2" x 8 ft	904-217	36.40
6,400 lbs.	4,800 lbs.	12,800 lbs.	2" x 10 ft	904-218	41.98

Vertical:	Choker:	Basket:	Size:	Code No.	SALE \$
8,600 lbs.	6,500 lbs.	17,200 lbs.	3" x 10 ft	904-014	52.81
8,600 lbs.	6,500 lbs.	17,200 lbs.	3" x 20 ft	904-015	61.78



INCH/METRIC BALLPOINT HEX KEY DOUBLE PACK

Both 10937 & 10999 in one pack.

- 10937: 13pcs .050" - 3/8" Long series
- 10999: 9pcs 1.5 - 10mm Long series
- Ballend inserts into screw at a 25° angle
- Works in hard to reach places



Model No.	Code No.	SALE \$
20199	619-041	38.94



HAND ROTARY BARREL PUMP

- Dual Directional Operation allows the pump to both empty, as well as refill containers
- Extremely heavy duty and rugged
- Pump body is sturdy cast iron with precisely machined cast iron vanes for better draw and smoother delivery
- Fits 15-55 gallon barrels
- Complete with suction tube, 2" cast iron bung nut, and discharge spout



Model	Code No.	SALE \$
GNB-25/3R/SPL	231-390	110.60



SAFETY AIR BLOW GUN

- 4-1/2" stainless steel nozzle
- Conforms to OSHA STD 1-13.1 for safety
- Operating pressure: 50-235 PSI
- Vent in tip prevents pressure from exceeding 30psi if tip becomes blocked
- Impact & weather resistant nylon body
- Operating temperature: -10° to 70° C



PREMIUM

Model	Noise Level (100psi)	Blowing Force (100psi)	Air Consumption (100psi)	Code No.	SALE \$
ABG/3/1-4F/N	80db	0.76 lb	15.18 cfm	231-474	35.98



INDESTRUCTIBLE HANDLE HAMMERS

Made with spring steel bars that run all the way through the handle. Bars are locked with the hammer head using steel locking plates ensuring that the head never gets dislodged

- Ergonomic rubber grip handle
- Hammer head is forged from special steel & is induction case hardened to 52-56 HRC for extended life



Style	Head Weight	Handle Length	Model	Code No.	SALE \$
Club	4 lb	12"	CHID/4/12	231-468	91.49
Sledge	8 lb	30"	SHID/8/30	231-470	183.96
Ball Pein	32 oz	14"	BPID/32/14	231-472	80.01



FREE TACKLE BOX

WITH THE PURCHASE OF A MASTER BORING BAR KIT



(Boring bars will fit into the case)

Kit Consists of:

- 1 - 5/8" \varnothing B/Bar, SI-SCLCR 10-3 (#145-925)
- 1 - 3/4" \varnothing B/Bar, SI-SCLCR 12-3 (#145-926)
- 1 - 1" \varnothing B/Bar, SI-SCLCR 16-3 (#145-927)
- 10 - CCMT 32 \cdot 51 inserts (#146-361)
- 1 - wrench (#146-940)



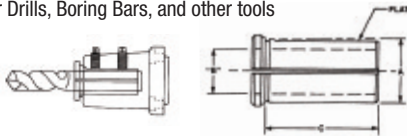
Code No.: 500-754

\$256.00



TYPE B TOOLHOLDER BUSHINGS

- Split style
- Shorter length
- Clamp on flat
- Bushing collapses to hold tool.
- Used for Drills, Boring Bars, and other tools

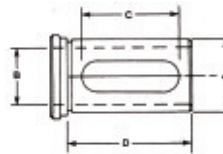


Bushing Type	Dia. (A)	Bore (B)	Length Under Head (C)	Code No.	SALE \$
B	1-1/2"	1/2"	2-1/2"	470-510	57.23
B	1-1/2"	5/8"	2-1/2"	470-511	57.23
B	1-1/2"	3/4"	2-1/2"	470-512	57.23
B	1-1/2"	1"	2-1/2"	470-513	57.23
B	1-1/2"	1-1/4"	2-1/2"	470-514	57.23
B	2"	5/8"	3-1/2"	470-515	93.00
B	2"	3/4"	3-1/2"	470-516	93.00
B	2"	1"	3-1/2"	470-517	93.00
B	2"	1-1/4"	3-1/2"	470-518	93.00
B	2"	1-1/2"	3-1/2"	470-519	93.00
B	2"	1-3/4"	3-1/2"	470-520	93.00



TYPE C TOOLHOLDER BUSHINGS

- Designed for use on all CNC Turning Machines
- Elongated slot
- For use with Drills, Boring Bars, Reamers, etc.
- Precision ground throughout



Bushing Type	Dia (A)	Bore (B)	Length of Slot (C)	Length Under Head (D)	Code No.	SALE \$
C	1-1/2"	1/2"	3"	3-3/8"	470-500	62.18
C	1-1/2"	5/8"	3"	3-3/8"	470-501	62.18
C	1-1/2"	3/4"	3"	3-3/8"	470-502	62.18
C	1-1/2"	1"	3"	3-3/8"	470-503	62.18
C	1-1/2"	1-1/4"	3"	3-3/8"	470-504	62.18
C	2"	3/4"	3-5/8"	4"	470-505	94.65
C	2"	1"	3-5/8"	4"	470-506	94.65
C	2"	1-1/4"	3-5/8"	4"	470-507	94.65
C	2"	1-1/2"	3-5/8"	4"	470-508	94.65
C	2"	1-3/4"	3-5/8"	4"	470-509	94.65

Pricing valid from January 1 to March 31, 2016 or while quantities last.



Sowa Tool & Machine Co. Ltd.
500 Manitou Drive
Kitchener, Ontario
N2C 1L3

Toll Free: 1-800-265-8221
Phone: (519) 748-5750
Fax: (519) 748-9304
Email: sales@sowatool.com
web: www.sowatool.com

