

# SPRING INTO SAVINGS 2026



## Tool+Cutter

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## FEATURING

### "The Original" - Locking Pliers

Curved and straight jaws. Tremendous pressure applies when closed  
Guarded release trigger to protect.



PG. 25

DRWIN  
VISE-GRIP

### DIGIMATIC CALIPER

It keeps track of its origin point once set, no more repeated zero setting is required with the encoder technology.



PG. 37

Mitutoyo

### MORSE ENDMILL HOLDER

3/16" bore diameter, 0.69" body diameter, and 6-1/2" overall length, designed for secure and precise end mill performance.



PG. 11

M MORSE  
CUTTING TOOLS

### SURFPRO SHOP ROLLS

50 Yard Aluminum Oxide Shop Rolls. Ideal for cleaning and deburring metal surfaces and Cut or tear to required length



PG. 14

SURF PRO

WORK HARD.  
SAVE SMART.

PRICES EFFECTIVE APRIL 1ST  
THROUGH JUNE 30 2026



## ▶ RAPIDKUT ◀ Boring Bar Inserts

### Popular Sizes for Boring Bars



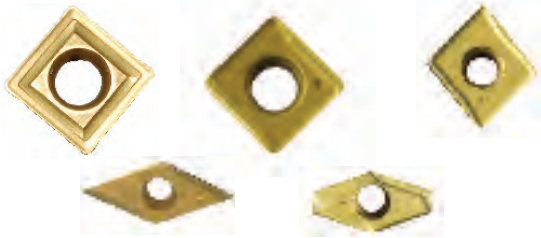
Insert Size	Grade	Inscribed Circle Diameter (IC)	Insert Thickness (S)	Corner Radius (RE)	Order No.	Regular Price	SALE
21.51	PT1115	1/4"	0.094"	0.016"	<b>1130926</b>	10.68	<b>8.24</b>
21.51	PT1225	1/4"	0.094"	0.016"	<b>1131008</b>	10.46	<b>8.06</b>
21.51	PT1225	1/4"	0.094"	0.016"	<b>1130856</b>	10.15	<b>7.82</b>
32.51	PT1115	3/8"	0.156"	0.016"	<b>1130928</b>	13.75	<b>10.59</b>
32.51	KT1125	3/8"	0.156"	0.016"	<b>1130930</b>	13.75	<b>10.59</b>
32.51	PT1225	3/8"	0.156"	0.016"	<b>1131010</b>	13.26	<b>10.22</b>
32.51	PT1225	3/8"	0.156"	0.016"	<b>1131013</b>	13.26	<b>10.22</b>
32.51	PT1225	3/8"	0.156"	0.016"	<b>1130863</b>	15.04	<b>11.58</b>
32.52	PT1225	3/8"	0.156"	0.032"	<b>1130867</b>	15.04	<b>11.58</b>
32.52	PT1225	3/8"	0.156"	0.032"	<b>1130870</b>	15.04	<b>11.58</b>
32.52	PT1225	3/8"	0.156"	0.032"	<b>1130937</b>	13.75	<b>10.59</b>
32.52	PT1225	3/8"	0.156"	0.032"	<b>1130940</b>	13.75	<b>10.59</b>

7513

## ▶ EVEREDE TOOL COMPANY ◀ Spot Drill and Engraving Inserts

### Grade Selection

NC40 - TiN coated universal insert for carbon steel, alloy steel and cast iron applications  
 NC2071 - TiN coated high positive geometry, fully ground edge and relief angle. Universal grade for most all materials.



Inscribed Circle Diameter (IC)	Insert Thickness (S)	Corner Radius (RE)	Insert Style	Grade	Order No.	Regular Price	SALE
0.63"	0.187"	0.047"	V1421604 Grade NC2071 - Carbide Insert	NC2071	<b>0513052</b>	116.96	<b>111.69</b>
0.196"	0.071"	0.016"	N9GX	NC2071	<b>0513047</b>	52.42	<b>50.06</b>
0.236"	0.079"	0.008"	V06006T1W06 Grade NC2071 - Carbide Insert	NC2071	<b>0513054</b>	68.45	<b>65.37</b>
0.236"	0.079"	0.008"	V04506T1W06 Grade NC2071 - Carbide Insert	NC2071	<b>0513053</b>	68.45	<b>65.37</b>
0.312"	0.094"	0.031"	N9GX	NC40	<b>0513048</b>	48.59	<b>46.41</b>
0.315"	0.094"	0.016"	V0820802 Grade NC2071 - Carbide Insert	NC2071	<b>0513045</b>	58.00	<b>55.40</b>
0.315"	0.094"	0.031"	V1420803 Grade NC2071 - Carbide Insert	NC2071	<b>0513051</b>	90.13	<b>86.07</b>
0.433"	0.156"	0.031"	N9GX	NC40	<b>0513049</b>	48.59	<b>46.41</b>
0.472"	0.156"	0.031"	V08212T3 Grade NC2071 - Carbide Insert	NC2071	<b>0513046</b>	81.65	<b>77.98</b>
0.669"	0.187"	0.047"	N9GX	NC2071	<b>0513050</b>	95.38	<b>91.08</b>

1076

## ▶ RAPIDKUT ◀ Steel Boring Bars

STFC Style

- Positive 60°
- Uses TCMT style inserts



Tool Type	Minimum Bore Diameter (DMIN)	Overall Length (OAL)	Order No.	Regular Price	SALE
Boring Bar	1.25"	12"	<b>0979118</b>	236.33	<b>210.17</b>

2610

## ▶ EVEREDE TOOL COMPANY ◀ Inserts

- NC2032 - K20F grade, AlTiN coated. First choice for high carbon, high alloy, and hardened steels as well as cast iron.
- NC9071 - K20F grade, TiN coated. High positive rake angle and honed sharp edge. The best choice for low carbon steel, low carbon alloy steel, stainless steel, Al, Al-alloy, brass, bronze and most non-ferrous metal.



Corner Radius (RE)	Grade	Order No.	Price	SALE
-	NC2032	<b>0513057</b>	26.50	<b>25.31</b>
-	NC2032	<b>0513058</b>	30.79	<b>29.40</b>
0.047"	CV6	<b>0513030</b>	22.88	<b>21.10</b>
0.047"	CS2	<b>0513031</b>	18.37	<b>17.72</b>

5318

## ▶ EVEREDE TOOL COMPANY ◀ Spotting Drills

- One tool will perform multiple applications
- Each insert has two or four cutting edges
- Great for spotting, chamfering, grooving and engraving applications



82 Degrees					
Connection Diameter Machine Side (DCONMS)	Overall Length (OAL)	Master Insert Identification (MIID)	Order No.	Price	SALE
3/8"	3-1/2"	V0820802-NC2071	<b>0512916</b>	215.53	<b>201.52</b>
5/8"	4"	V08212T3-NC2071	<b>0512917</b>	257.52	<b>240.78</b>

142 Degrees					
Connection Diameter Machine Side (DCONMS)	Overall Length (OAL)	Master Insert Identification (MIID)	Order No.	Price	SALE
5/8"	4"	V1420803-NC2071	<b>0512922</b>	257.52	<b>240.78</b>
1"	4-3/4"	V1421604-NC2071	<b>0512923</b>	434.66	<b>406.41</b>

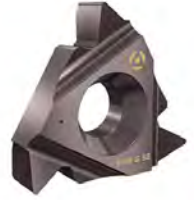
90 Degrees					
Connection Diameter Machine Side (DCONMS)	Overall Length (OAL)	Master Insert Identification (MIID)	Order No.	Price	SALE
3/8"	3.543"	N9MT080204CT-NC40	<b>0512919</b>	215.53	<b>201.52</b>
1/4"	1.378"	N9MT05T1CT-NC2071	<b>0512918</b>	171.71	<b>160.55</b>
1"	6"	N9MT1704CT-NC2071	<b>0512921</b>	339.64	<b>317.56</b>
5/8"	4"	N9MT11T3CT-NC40	<b>0512920</b>	257.52	<b>240.78</b>

1087

**TOOL FLO** Laydown LT

**55 & 60 Degree Partial Profile Threading**

- 3/8" IC
- External and Internal
- Right Hand and Left Hand



Thread Form Type (THFT)	Insert Length (INSL)	Corner Radius (RE)	Threads per Inch Minimum (TPIN)	Threads per Inch Maximum (TPIX)	Thread Pitch Minimum (TPN)	Coating	AC22A			C22			GP50A		
							Order No.	Regular Price	SALE	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE
VP55	0.649"	0.002"	16	48	0.5 mm	TiAIN	1269037	26.32	20.72	-	-	-	-	-	-
VP60	0.649"	0.002"	16	48	0.5 mm	TiAIN	1269039	26.32	20.72	-	-	-	-	-	-
VP60	0.649"	0.002"	16	48	0.5 mm	TiN	-	-	-	-	-	-	26.32	20.72	14.80
VP55	0.649"	0.0027"	8	48	0.5 mm	TiAIN	1269040	26.32	20.72	-	-	-	-	-	-
-	0.63"	0.003"	8	48	0.02 mm	Uncoated	-	-	-	2449122	21.14	16.63	-	-	-
VP55	0.649"	0.0027"	8	48	0.5 mm	TiN	-	-	-	-	-	-	26.32	20.72	14.80
M60	0.63"	0.003"	8	48	-	AlTiN	0574241	20.62	20.10	-	-	-	-	-	-
VP60	0.649"	0.002"	8	48	0.5 mm	TiN	-	-	-	-	-	-	-	-	-
VP55	0.649"	0.0091"	8	14	1.75 mm	TiAIN	1455622	26.32	20.72	-	-	-	-	-	-
VP55	0.649"	0.0091"	8	14	1.75 mm	TiN	-	-	-	-	-	-	26.32	20.72	14.80
VP60	0.649"	0.0051"	8	14	1.75 mm	TiAIN	1269041	26.32	20.72	-	-	-	-	-	-
VP60	0.649"	0.0051"	8	14	1.75 mm	Uncoated	-	-	-	2469358	21.14	16.63	-	-	-
VP60	0.649"	0.0051"	8	14	1.75 mm	TiN	-	-	-	-	-	-	26.32	20.72	14.80
VP55	0.649"	0.0024"	16	48	0.5 mm	TiAIN	1268764	26.32	20.72	-	-	-	-	-	-
VP55	0.649"	0.0024"	16	48	0.02 mm	TiN	-	-	-	-	-	-	26.32	20.72	14.80
VP60	0.649"	0.0029"	16	48	0.5 mm	TiAIN	1455003	26.32	20.72	-	-	-	-	-	-
VP60	0.649"	0.0029"	16	48	0.5 mm	TiAIN, TiN	-	-	-	-	-	-	-	-	-
VP60	0.649"	0.003"	16	48	0.5 mm	Uncoated	-	-	-	2411017	21.14	16.63	-	-	-
VP60	0.649"	0.0029"	16	48	0.5 mm	TiN	-	-	-	-	-	-	26.32	20.72	14.80
VP55	0.649"	0.0027"	8	48	0.5 mm	TiAIN	1268765	26.32	20.72	-	-	-	-	-	-
-	0.63"	0.003"	8	48	0.02 mm	Uncoated	-	-	-	2449132	21.14	16.63	-	-	-
VP55	0.649"	0.0027"	8	48	0.5 mm	TiN	-	-	-	-	-	-	26.32	20.72	14.80
M60	0.63"	0.003"	8	48	-	AlTiN	0438983	26.32	20.72	-	-	-	-	-	-
VP60	0.649"	0.0032"	8	48	0.5 mm	TiAIN, TiN	-	-	-	-	-	-	-	-	-
VP60	0.649"	0.0032"	8	48	0.5 mm	TiN	-	-	-	-	-	-	-	-	-
VP60	0.649"	0.0031"	8	48	0.5 mm	TiN	-	-	-	-	-	-	26.32	20.72	14.80
VP55	0.649"	0.0091"	8	14	1.75 mm	TiAIN	1268766	26.32	20.72	-	-	-	-	-	-
VP55	0.649"	0.0091"	8	14	1.75 mm	TiN	-	-	-	-	-	-	26.32	20.72	14.80
VP60	0.649"	0.0087"	8	14	1.75 mm	TiAIN	1268767	26.32	20.72	-	-	-	-	-	-
VP60	0.649"	0.0087"	8	14	1.75 mm	Uncoated	-	-	-	2449319	21.14	16.63	-	-	-
VP60	0.649"	0.0087"	8	14	1.75 mm	TiN	-	-	-	-	-	-	26.32	20.72	14.80
VP60	0.649"	0.002"	16	48	0.5 mm	TiAIN	1268869	26.32	20.72	-	-	-	-	-	-
VP60	0.649"	0.002"	16	48	0.5 mm	TiN	-	-	-	-	-	-	26.32	20.72	14.80
VP55	0.649"	0.0027"	8	48	0.5 mm	TiAIN	1268870	26.32	20.72	-	-	-	-	-	-
VP60	0.649"	0.002"	8	48	0.5 mm	TiAIN	1268871	26.32	20.72	-	-	-	-	-	-
VP60	0.649"	0.002"	8	48	0.5 mm	TiN	-	-	-	-	-	-	26.32	20.72	14.80
VP55	0.649"	0.0079"	8	14	1.75 mm	TiAIN	1268872	26.32	20.72	-	-	-	-	-	-
VP60	0.649"	0.0051"	8	14	1.75 mm	TiAIN	1268873	26.32	20.72	-	-	-	-	-	-
VP55	0.649"	0.002"	16	48	0.5 mm	TiN	-	-	-	-	-	-	26.32	20.72	14.80
VP60	0.649"	0.0029"	16	48	0.5 mm	TiAIN	1455605	26.32	20.72	-	-	-	-	-	-
VP60	0.649"	0.0031"	16	48	0.5 mm	TiN	-	-	-	-	-	-	26.32	20.72	14.80
VP55	0.649"	0.0028"	8	48	0.5 mm	TiAIN	1268678	26.32	20.72	-	-	-	-	-	-
VP55	0.649"	0.0027"	8	48	0.5 mm	TiN	-	-	-	-	-	-	26.32	20.72	14.80
VP60	0.649"	0.0024"	8	48	0.5 mm	TiAIN	1455597	26.32	20.72	-	-	-	-	-	-
VP60	0.649"	0.0024"	8	48	0.5 mm	TiN	-	-	-	-	-	-	26.32	20.72	20.72
VP60	0.649"	0.0087"	8	14	1.75 mm	TiAIN	1455596	26.32	20.72	-	-	-	-	-	-
VP60	0.649"	0.0087"	8	14	1.75 mm	TiN	-	-	-	-	-	-	26.32	20.72	20.72



## EVEREDE TOOL COMPANY Small Hole Boring Tools - Minimum Bore 0.180" thru 0.290"

- Minimum bore diameter .180" - 1.094"
- Free cutting action due to positive rake angle
- Use solid carbide shank tools are available where vibration and chattering is a problem
- Fig. 1 Bars are cylindrical shanks without a flat
- Fig. 2 Bars have flats - (2) opposing



Carbide						
Insert Size	Connection Diameter Machine Side (DCONMS)	Overall Length (OAL)	Minimum Bore Diameter (DMIN)	Order No.	Price	SALE
CDCD	0.187"	4"	0.18"	0512713	314.31	303.31
GDCD	0.187"	4"	0.208"	0512715	294.22	271.28
TDAB/TDAC	1/2"	3-1/2"	0.27"	0512727	407.54	393.27
WCGT-0xx	0.187"	4"	0.23"	0512735	312.49	301.56
WCGT-3xx	3/4"	10"	0.844"	0512740	800.72	772.69

Steel						
Insert Size	Connection Diameter Machine Side (DCONMS)	Overall Length (OAL)	Minimum Bore Diameter (DMIN)	Order No.	Price	SALE
CDCD	0.187"	2-1/2"	0.208"	0512744	121.76	117.50
CDCD	1/2"	2-1/2"	0.208"	0512760	186.42	179.90
CDCD	1/2"	2-3/4"	0.29"	0512767	186.42	179.90
CDCD	3/8"	2-1/2"	0.29"	0512757	182.62	176.22
TPGB2/TPGH2/TPGC2	1/2"	4"	0.438"	0512805	173.15	167.09
TDAB/TDAC	1/4"	4"	0.3"	0512771	112.27	108.33

12232

## EVEREDE TOOL COMPANY Engraving Tool

- High positive rake angle
- High speeds, high feed rates - up to 20,000 RPM
- Economical with each insert having two cutting edges with excellent repeatability



Angle	Master Insert Identification (MIID)	Connection Diameter Machine Side (DCONMS)	Overall Length (OAL)	Order No.	Price	SALE
45 Degrees	V04506TW06-NC2071	0.236"	1.575"	0512924	173.52	162.24
60 Degrees	V06006TW06-NC2071	0.236"	1.575"	0512925	173.52	162.24

1073

## EVEREDE TOOL COMPANY Chamfer Mill Kits

- TL120 grade is TiAlN coated, general purpose grade suitable for steel, stainless steel, cast iron, and hi-temp alloy applications
- Can be used for countersinking, chamfer milling and face milling
- Extra length of cut can be achieved when using a parallelogram insert



ManufacturerNo	Connection Diameter Machine Side (DCONMS)	Point Angle (SIG)	Chamfer	Order No.	Price	SALE
01319	1"	60°	1" to 1.553"	0512703	308.43	288.38
01320	3/4"	82°	0.688" to 1.414"	0512700	290.14	271.28
01321	3/4"	90°	0.688" to 1.471"	0512702	290.14	271.28
01323	1"	82°	0.938" to 1.664"	0512704	308.43	288.38

5173

## EVEREDE TOOL COMPANY Indexable Countersink Kits

- TL120 grade is TiAlN coated, general purpose grade suitable for steel, stainless steel, cast iron, and hi-temp alloy applications
- Precision ground shanks for true concentricity
- Inserts are above center for better cutting action
- Each kit includes (1) holder, (5) TP-GH-215-TL120 inserts, (1) wrench



82 Degrees					
ManufacturerNo	Connection Diameter Machine Side (DCONMS)	Chamfer	Order No.	Price	SALE
01325	3/8"	1/8" to 0.583"	0512693	235.34	220.04
01329	1/2"	3/8" to 0.833"	0512695	257.67	240.92

90 Degrees					
ManufacturerNo	Connection Diameter Machine Side (DCONMS)	Chamfer	Order No.	Price	SALE
01326	3/8"	1/8" to 0.621"	0512696	235.34	220.04
01330	1/2"	3/8" to 0.871"	0512698	257.67	240.92

5172

## DRIPAH S-MCLN R/L Boring Bars

Style L Negative 5° Side & End Cutting Edge Angle for Negative 80° Diamond CNM Inserts

Right hand shown Left hand opposite



Tool Type	Minimum Bore Diameter (DMIN)	Overall Length (OAL)	Order No.	Price	SALE
Indexable Boring Bar	2.03"	14"	0556573	627.68	419.29
Indexable Boring Bar	1.78"	14"	0556142	567.88	379.34
Indexable Boring Bars	1.78"	14"	0556143	567.88	379.34
Indexable Boring Bars	2.03"	14"	0556145	627.68	419.29
Indexable Boring Bars	3.062"	16"	0556151	873.85	583.73
Indexable Boring Bars	2.562"	16"	0556148	668.43	446.51
Indexable Boring Bars	2.374"	14"	0556147	567.88	379.34
Indexable Boring Bars	3.062"	16"	0556158	873.85	583.73
Indexable Boring Bars	2.562"	16"	0556154	668.43	446.51
Indexable Boring Bars	2.562"	16"	0556149	668.43	446.51
Indexable Boring Bars	2.812"	16"	0556156	789.07	527.10
Indexable Boring Bars	3.062"	16"	0556159	873.85	583.73
Indexable Boring Bars	3.062"	16"	0556150	873.85	583.73
Indexable Boring Bars	1.53"	14"	0556141	517.08	345.41
Indexable Boring Bars	2.562"	16"	0556155	668.43	446.51
Boring Bars-Standard	2.562"	16"	0556574	668.43	446.51
Boring Bars-Standard	2.562"	16"	0556575	668.43	446.51
Boring Bars-Standard	1"	10"	0556571	385.57	257.56
Boring Bars-Standard	1"	10"	0556572	385.57	257.56
Indexable Boring Bars	1.28"	12"	0556139	484.20	323.45
Indexable Boring Bars	1.53"	14"	0556140	517.08	345.41
Indexable Boring Bars	2.374"	14"	0556146	567.88	379.34
Indexable Boring Bars	1.28"	12"	0556138	484.20	323.45

12199



### duMont® Keyway Broach Sets

- Now you can make precision holes or keyways in seconds... a few at a time or production quantities... by a simple push-through broaching operation using a hand operated arbor press or hydraulic press
- All sets furnished in handsome varnished wood box come complete with precision broaches, slotted bushings, and necessary shims
- Set No. 00 - the most common keyway combinations for small keyways and bores. 3 broaches & 5 bushings = 15 combinations



Bushings	Style	Order No.	Regular Price	SALE
1/4 5/16 3/8 7/16 1/2	A	0433499	602.92	504.90

12683

### KEO® Combined Drills & Countersinks

#### 60° Plain Type • High Speed Steel

- For producing center holes in components or workpieces which require machining between centers



Size	Drill Bit Size / Cutting Diameter (DC)	Point Diameter (PDD)	Nose Length	Overall Length (OAL)	HSS, Plain, Uncoated			HSSCo, Aircraft, Uncoated			HSSCo, Plain, Uncoated			HSSCoPM, Plain, Uncoated			HSS, Plain, Uncoated, Left Hand			HSS, Plain, TiN			HSS, Plain, TiN, Right Hand			
					Order No.	Regular Price	SALE	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE	
#5-0	0.01"	0.01"	0.01"	1-1/4"	-	-	-	0216866	68.28	58.72	-	-	-	-	-	-	-	-	-	-	-	-	-	0216864	19.35	16.65
#4-0	0.015"	0.015"	0.015"	1-1/4"	0216870	15.93	13.71	0216873	66.35	57.06	-	-	-	-	-	-	-	-	-	-	-	-	-	0216871	17.96	15.44
#3-0	0.02"	0.02"	0.02"	1-1/4"	0216877	15.09	12.98	0216880	45.08	38.77	-	-	-	-	-	-	-	-	-	-	-	-	-	0216878	17.12	14.73
#2-0	0.025"	0.025"	0.025"	1-1/4"	0216884	15.09	12.98	0216887	45.08	38.77	-	-	-	-	-	-	-	-	-	-	-	-	-	0216885	17.12	14.73
#0	1/32"	1/32"	1/32"	1-1/4"	0216893	15.09	12.98	-	-	-	0216896	45.08	38.77	-	-	-	-	-	-	-	-	-	-	0216894	17.12	14.73
#1	1/8"	3/64"	3/64"	1-1/4"	0216886	10.53	9.87	-	-	-	0216923	24.42	22.88	0216918	36.32	31.23	0216924	22.46	19.31	0216587	12.54	11.76	-	-	-	-
#2	3/16"	5/64"	5/64"	1-7/8"	0216590	10.99	10.30	-	-	-	0216934	25.20	23.62	0216929	37.32	32.10	0216935	22.93	19.73	0216591	13.86	12.99	-	-	-	-
#3	1/4"	7/64"	7/64"	2"	0216594	11.47	10.74	-	-	-	0216945	26.04	24.40	0216940	38.33	32.97	0216946	23.53	20.24	0216595	15.32	14.35	-	-	-	-
#4	5/16"	1/8"	1/8"	2-1/8"	0216598	11.82	11.07	-	-	-	0216955	27.10	25.40	0216951	38.68	33.26	0216956	24.23	20.85	0216599	18.33	17.18	-	-	-	-
#4.5	3/8"	9/64"	9/64"	2-1/2"	0216646	16.30	15.27	-	-	-	0217095	40.32	37.79	0217094	50.89	43.76	0217096	33.88	29.13	0216647	22.76	21.34	-	-	-	-
#5	7/16"	3/16"	3/16"	2-3/4"	0216602	18.76	17.58	-	-	-	0216966	42.73	36.75	0216961	60.79	52.28	0216967	36.86	31.70	0216603	29.08	27.24	-	-	-	-
#6	1/2"	7/32"	7/32"	3"	0216606	28.20	26.42	-	-	-	0216977	66.28	62.10	0216972	93.77	80.64	0216978	53.51	46.02	0216607	38.53	36.11	-	-	-	-
#7	5/8"	1/4"	1/4"	3-1/4"	0216610	42.73	40.04	-	-	-	0216988	99.78	93.49	0216983	139.27	119.77	0216989	74.31	63.91	0216611	59.02	55.30	-	-	-	-
#8	3/4"	5/16"	5/16"	3-1/2"	0216614	58.72	55.02	-	-	-	0217000	141.25	132.34	0216994	202.01	173.73	0217001	100.58	86.49	0216615	77.22	72.35	-	-	-	-
#9	7/8"	11/32"	11/32"	3-5/8"	0216618	106.53	99.82	-	-	-	0217007	261.53	224.92	0217006	375.98	323.34	0217008	184.90	159.01	0216619	131.95	123.63	-	-	-	-
#10	1"	3/8"	3/8"	3-3/4"	0216622	139.86	131.05	-	-	-	0217014	343.39	295.32	0217013	493.64	424.54	0217015	242.72	208.74	0216623	172.20	161.35	-	-	-	-

9866

### KEO® Long Series Combined Drills & Countersinks

#### 60° • High Speed Steel and Carbide



Size	Overall Length (OAL)	Drill Bit Size / Cutting Diameter (DC)	Point Diameter (PDD)	Cutting Edge Material - HSS			Cutting Edge Material - Carbide		
				Order No.	Regular Price	SALE	Order No.	Regular Price	SALE
#2-0	4"	1/8"	0.025"	-	-	-	0217420	124.52	107.09
#2-0	6"	1/8"	0.025"	-	-	-	0217421	137.24	118.03
#0	4"	1/8"	1/32"	-	-	-	0217422	124.52	107.09
#0	6"	1/8"	1/32"	-	-	-	0217423	137.24	118.03
#1	3"	1/8"	3/64"	0217276	25.21	21.69	-	-	-
#1	4"	1/8"	3/64"	0217281	26.32	22.64	0217424	114.38	98.36
#1	5"	1/8"	3/64"	0217286	36.53	31.42	-	-	-
#1	6"	1/8"	3/64"	0217291	47.85	41.15	0217425	127.02	109.24
#1	8"	1/8"	3/64"	0217296	63.34	54.47	-	-	-
#2	3"	3/16"	5/64"	0217297	25.49	21.92	-	-	-
#2	4"	3/16"	5/64"	0217302	28.83	24.79	0217426	118.99	102.33
#2	5"	3/16"	5/64"	0217307	36.95	31.78	-	-	-
#2	6"	3/16"	5/64"	0217312	48.03	41.31	0217427	137.70	118.43
#2	8"	3/16"	5/64"	0217317	64.27	55.27	-	-	-
#3	3"	1/4"	7/64"	0217318	26.63	22.90	-	-	-
#3	4"	1/4"	7/64"	0217323	30.38	26.12	0217428	144.90	124.61
#3	5"	1/4"	7/64"	0217328	39.96	34.36	-	-	-
#3	6"	1/4"	7/64"	0217333	48.47	41.68	0217429	172.96	148.74
#4	3"	5/16"	1/8"	0217339	31.25	26.88	-	-	-
#3	8"	1/4"	7/64"	0217338	65.02	55.92	-	-	-

Size	Overall Length (OAL)	Drill Bit Size / Cutting Diameter (DC)	Point Diameter (PDD)	Cutting Edge Material - HSS			Cutting Edge Material - Carbide		
				Order No.	Regular Price	SALE	Order No.	Regular Price	SALE
#4	4"	5/16"	1/8"	0217344	33.64	28.94	0217430	164.18	141.19
#4	5"	5/16"	1/8"	0217349	43.01	36.99	-	-	-
#4	6"	5/16"	1/8"	0217354	49.64	42.70	0217431	198.95	171.09
#4	8"	5/16"	1/8"	0217359	66.16	56.90	-	-	-
#4.5	4"	3/8"	9/64"	0217360	37.83	32.54	-	-	-
#4.5	5"	3/8"	9/64"	0217365	44.70	38.44	-	-	-
#4.5	6"	3/8"	9/64"	0217370	53.96	46.40	-	-	-
#4.5	8"	3/8"	9/64"	0217375	68.40	58.83	-	-	-
#5	4"	7/16"	3/16"	0217376	44.23	38.04	0217432	248.32	213.56
#5	5"	7/16"	3/16"	0217381	51.20	44.03	-	-	-
#5	6"	7/16"	3/16"	0217386	57.48	49.43	0217433	320.18	275.35
#5	8"	7/16"	3/16"	0217391	71.26	61.28	-	-	-
#6	4"	1/2"	7/32"	0217392	47.98	41.26	0217434	342.27	294.35
#6	5"	1/2"	7/32"	0217397	54.99	47.29	-	-	-
#6	6"	1/2"	7/32"	0217402	66.49	57.18	0217435	426.64	366.91
#6	8"	1/2"	7/32"	0217407	82.40	70.87	-	-	-
#7	6"	5/8"	1/4"	0217408	123.90	106.55	0217436	611.80	526.15
#7	8"	5/8"	1/4"	0217413	149.48	128.55	-	-	-
#8	6"	3/4"	5/16"	0217414	133.80	115.07	0217437	844.02	725.86
#8	8"	3/4"	5/16"	0217419	165.89	142.66	-	-	-

9868



## **(KEC)** Solid Carbide Combined Drills & Countersinks-Plain Type

60, 82 & 90°

- Used for producing center holes in components or workpieces which require machining between centers



Size	Drill Bit Size / Cutting Diameter (DC)	Point Diameter (PDD)	Overall Length (OAL)	60 Degrees			82 Degrees			90 Degrees		
				Order No.	Regular Price	SALE	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE
#2-0	1/8"	0.025"	1-1/2"	0217239	31.33	26.95	-	-	-	-	-	-
#2-0	1/8"	0.025"	1-1/2"	-	-	-	0217240	29.90	25.72	0217241	29.90	25.72
#3-0	1/8"	0.02"	1-1/2"	0217236	38.82	33.39	0217237	38.82	33.39	0217238	38.82	33.39
#4-0	1/8"	0.015"	1-1/2"	0217233	52.96	45.54	0217234	52.96	45.54	0217235	52.96	45.54
#5-0	1/8"	0.01"	1-1/2"	0217230	56.38	48.48	0217231	56.38	48.48	0217232	56.38	48.48
#0	1/8"	1/32"	1-1/2"	0217242	28.43	24.46	0217243	27.16	23.35	0217244	27.16	23.35
#1	1/8"	3/64"	1-1/2"	0217245	28.43	24.46	0217246	27.16	23.35	0217247	27.16	23.35
#2	3/16"	5/64"	2"	0217254	42.88	36.88	0217255	40.95	35.22	0217256	40.95	35.22
#3	1/4"	7/64"	2"	0217257	57.09	49.10	0217258	54.50	46.87	0217259	54.50	46.87
#4	5/16"	1/8"	2-1/8"	0217260	72.63	62.47	0217261	69.40	59.68	0217262	69.40	59.68
#5	7/16"	3/16"	2-3/4"	0217263	113.26	97.40	0217265	108.16	93.02	0217266	108.16	93.02
#6	1/2"	7/32"	3"	0217267	149.18	128.30	0217268	142.53	122.58	0217269	142.53	122.58
#7	5/8"	1/4"	3-3/4"	0217270	333.17	286.52	0217271	318.23	273.69	0217272	318.23	273.69
#8	3/4"	5/16"	4"	0217273	454.40	390.78	0217274	433.99	373.23	0217275	433.99	373.23

9887

## **PRO-CUT** Straight Shank Capscrew Counterbores

High Speed Steel - 3 Flute - Metric



Cutting Diameter (DC)	For Screw Size	Pilot Drill Diameter (PDD)	Length Chip Flute (LCF)	Connection Diameter Machine Side (DCONMS)	Overall Length (OAL)	Order No.	Regular Price	SALE
6 mm	3 mm	3.4 mm	1"	7/32"	76 mm	0263518	44.94	37.13
8 mm	4 mm	4.5 mm	1"	5/16"	89 mm	0263519	48.66	40.20
10 mm	5 mm	5.5 mm	1-1/8"	3/8"	127 mm	0263520	62.44	51.59
11 mm	6 mm	6.6 mm	1-1/8"	3/8"	127 mm	0263521	68.85	56.88
15 mm	8 mm	9 mm	1-5/16"	1/2"	152 mm	0263522	68.85	56.88
18 mm	10 mm	11 mm	2"	1/2"	190 mm	0263512	75.82	62.64
20 mm	12 mm	14 mm	2"	1/2"	190 mm	0263513	102.49	84.66

6029

## **PRO-CUT** Corner Rounding End Mill Sets

High Speed Steel & Cobalt - 8 Pc Sets



Diameter Range	Cutting Edge Material	Order No.	Regular Price	SALE
1/16R x 3/8"   3/32R x 3/8"   1/8"R x 1/2"   5/32R x 1/2"   3/16"R x 1/2"   1/4"R x 1/2"   5/16"R x 1/2"   3/8"R x 1/2"	HSSCo	0364633	692.94	572.42
3/16"R x 3/4"   1/4"R x 3/4"   5/16"R x 3/4"   3/8"R x 3/4"   7/16R x 3/4"   1/2"R x 3/4"   5/8"R x 3/4"   3/4"R x 3/4"	HSS	0364626	1188.08	784.14
1/16R x 3/8"   3/32R x 3/8"   1/8"R x 1/2"   5/32R x 1/2"   3/16"R x 1/2"   1/4"R x 1/2"   5/16"R x 1/2"   3/8"R x 1/2"	HSS	0364605	595.77	393.21

2228

**SOLID MASTER Solid Carbide Straight Shank Chucking Reamers**

List No. 5661- Straight Flute

Diameter Tolerances

0.280" - .2500" - +.0000/+0.0002

.2501 and up - .0000/+0.0003

- Right hand cut
- Straight Flute Reamers feature flutes that run parallel to the tool axis, providing a stable and controlled cutting action. This design produces accurate hole sizes and smooth surface finishes, making them ideal for general-purpose reaming applications
- Carbide reamers are precision hole-finishing tools manufactured from solid carbide to provide exceptional rigidity, wear resistance, and dimensional stability. The solid carbide construction allows the reamer to maintain a sharp cutting edge and consistent size over long production runs, even in abrasive or hard materials.



Wire Gage			
Cutting Diameter (DC)	Order No.	Regular Price	SALE
#1	1037188	68.14	52.56
#2	1037174	70.48	54.36
#3	1037156	68.12	52.56
#4	1037148	66.63	51.39
#5	1037141	70.03	54.02
#6	1037138	66.63	51.39
#7	1037131	68.47	52.83
#8	1037127	68.47	52.83
#9	1037120	66.63	51.39
#10	1037115	69.30	53.46
#11	1037110	54.40	41.97
#12	1037106	58.16	44.87
#13	1037097	56.99	43.97
#14	1037091	56.94	43.92
#15	1037086	55.64	42.92
#16	1037079	55.64	42.92
#17	1037071	55.19	42.57
#18	1037063	57.04	44.00
#19	1037056	55.69	42.96
#20	1037046	55.72	42.99
#21	1037042	48.96	37.77
#22	1037038	48.93	37.74
#23	1037030	50.06	38.63
#24	1037026	50.04	38.60
#25	1037020	50.04	38.60
#26	1037015	50.04	38.60
#27	1037009	48.16	37.16
#28	1037001	48.16	37.16
#29	1036991	47.05	36.30
#30	1036976	46.77	36.09
#31	1036958	48.10	37.11
#32	1036949	42.03	32.42
#33	1036943	40.87	31.53
#34	1036939	40.85	31.52
#35	1036937	39.96	30.83
#36	1036929	40.85	31.52
#37	1036924	40.87	31.53
#38	1036919	40.85	31.52
#39	1036915	39.96	30.83
#40	1036911	39.94	30.81
#41	1036907	39.63	30.57
#42	1036901	36.71	28.32
#43	1036892	37.55	28.97
#44	1036886	37.55	28.97
#45	1036878	37.53	28.95
#46	1036876	33.80	26.07
#47	1036870	33.82	26.10
#48	1036864	34.59	26.69
#49	1036858	34.59	26.69
#50	1036852	33.82	26.10
#51	1036846	33.80	26.07
#52	1036839	33.77	26.06
#53	1036831	33.85	26.12
#54	1036821	36.04	27.80
#55	1036815	35.20	27.15
#56	1036803	35.20	27.15

Wire Gage			
Cutting Diameter (DC)	Order No.	Regular Price	SALE
#57	1036796	35.63	27.48
#58	1036794	36.01	27.78
#59	1036792	36.01	27.78
#60	1036790	35.56	27.44
#61	1036787	34.37	26.52
#62	1036785	30.09	23.21
#63	1036783	35.17	27.14
#64	1036781	35.15	27.12
#65	1036779	34.38	26.52
#66	1036775	28.81	22.23
#67	1036773	28.63	22.08
#68	1036770	31.70	24.45
#69	1036768	29.23	22.55
#70	1036767	31.70	24.45

Metric			
Cutting Diameter (DC)	Order No.	Regular Price	SALE
1 mm	1036788	38.98	30.06
1.5 mm	1036830	46.55	35.91
2 mm	1036871	39.97	30.84
2.5 mm	1036912	46.63	35.97
3 mm	1036954	45.78	35.31
3.5 mm	1036995	55.59	42.89
4 mm	1037039	55.40	42.74
4.5 mm	1037080	69.24	53.42
5 mm	1037122	69.34	53.49
5.5 mm	1037163	84.77	65.40
6 mm	1037206	76.50	59.01
6.5 mm	1037245	91.11	70.29
7 mm	1037270	97.89	75.51
7.5 mm	1037293	116.03	89.51
8 mm	1037318	105.56	81.44
8.5 mm	1037339	122.92	94.83
9 mm	1037361	135.98	104.90
9.5 mm	1037382	124.35	95.93
10 mm	1037406	175.00	135.00
10.5 mm	1037428	190.22	146.75
11 mm	1037449	195.80	151.05
11.5 mm	1037473	242.10	186.77
12 mm	1037496	211.23	162.95
12.5 mm	1037518	290.23	223.89
13 mm	1037535	351.22	270.95
14 mm	1037536	338.76	261.33
15 mm	1037538	342.44	264.17
16 mm	1037546	388.71	299.87

Inch			
Cutting Diameter (DC)	Order No.	Regular Price	SALE
1/32"	1036771	29.12	22.47
3/64"	1036804	33.33	25.71
1/16"	1036837	40.26	31.07
5/64"	1036869	30.55	23.57
3/32"	1036902	31.53	24.32
7/64"	1036935	36.48	28.14
1/8"	1036969	35.07	27.06

Inch			
Cutting Diameter (DC)	Order No.	Regular Price	SALE
9/64"	1037002	46.07	35.55
5/32"	1037036	45.15	34.83
11/64"	1037068	51.24	39.53
3/16"	1037103	59.67	46.04
13/64"	1037136	56.52	43.61
7/32"	1037169	59.43	45.84
15/64"	1037201	61.49	47.43
1/4" E	1037234	58.28	44.96
17/64"	1037259	76.24	58.82
9/32"	1037277	80.37	62.01
19/64"	1037295	81.45	62.84
5/16"	1037314	82.56	63.69
21/64"	1037332	101.16	78.05
11/32"	1037349	102.12	78.78
23/64"	1037367	100.52	77.55
3/8"	1037384	102.47	79.05
25/64"	1037402	127.27	98.19
13/32"	1037420	118.54	91.44
27/64"	1037437	156.53	120.75
7/16"	1037456	149.11	115.04
29/64"	1037475	172.17	132.83
15/32"	1037491	190.81	147.20
31/64"	1037510	190.04	146.60
1/2"	1037527	185.02	142.74
9/16"	1037537	376.95	290.79
5/8"	1037542	330.93	255.29
3/4"	1037550	558.81	431.09

Letter			
Cutting Diameter (DC)	Order No.	Regular Price	SALE
A	1037200	63.95	49.34
B	1037210	63.95	49.34
C	1037218	67.76	52.28
D	1037226	67.76	52.28
F	1037248	83.80	64.65
G	1037253	83.80	64.65
H	1037260	80.35	61.98
I	1037266	80.01	61.73
J	1037272	82.94	63.98
K	1037276	82.94	63.98
L	1037287	74.26	57.29
M	1037292	83.44	64.37
N	1037301	85.86	66.24
O	1037319	89.04	68.69
P	1037326	104.89	80.91
Q	1037336	100.11	77.24
R	1037344	106.64	82.26
S	1037354	113.74	87.74
T	1037365	108.39	83.61
U	1037376	119.28	92.01
V	1037388	136.08	104.97
W	1037397	134.68	103.89
X	1037410	147.43	113.73
Y	1037417	141.75	109.35
Z	1037427	145.85	112.52

# CUTTING TOOLS

## TuffCut® XT 5 Flute Carbide End Mills



### Altima® Blaze Coated

- Higher feeds over similar end mills
- Reduced vibration harmonics
- Improved part finishes
- Maintains cutting edge strength & sharpness for improved tool life
- Slotting at 1X diameter deep
- State-of-the-art Altima® Blaze coating for superior tool life and higher metal removal rates
- Designed for specific applications in steels, stainless steels, special alloys, cast iron, titanium inconel, and high temp alloys
- M.A. Ford List #278

Cutting Diameter (DC)	Connection Diameter Machine Side (DCONMS)	Usable Length (LU)	Overall Length (OAL)	Corner Radius (RE)	Order No.	Regular Price	SALE
1/8"	1/8"	1/8"	1-1/2"	None	0330782	39.26	<b>33.32</b>
1/8"	1/8"	1/4"	1-1/2"	0.015"	0330874	55.57	<b>47.15</b>
1/8"	1/8"	1/4"	1-1/2"	0.03"	0330875	55.57	<b>47.15</b>
1/8"	1/8"	3/8"	1-1/2"	None	0330783	41.69	<b>35.39</b>
1/8"	1/8"	1/2"	1-1/2"	None	0330876	49.15	<b>41.72</b>
1/8"	1/8"	1/2"	1-1/2"	0.015"	0330877	63.63	<b>54.00</b>
1/8"	1/8"	1/2"	1-1/2"	0.03"	0330878	63.63	<b>54.00</b>
1/8"	1/8"	3/4"	2-1/2"	None	0330879	66.02	<b>56.03</b>
1/8"	1/8"	3/4"	2-1/2"	0.015"	0330880	83.02	<b>70.46</b>
1/8"	1/8"	3/4"	2-1/2"	0.03"	0330881	83.02	<b>70.46</b>
5/32"	3/16"	3/16"	2"	None	0330784	55.48	<b>47.09</b>
5/32"	3/16"	7/16"	2"	None	0330785	58.90	<b>49.98</b>
3/16"	3/16"	3/16"	2"	None	0330786	54.28	<b>46.07</b>
3/16"	3/16"	5/16"	2"	0.015"	0330882	74.75	<b>63.42</b>
3/16"	3/16"	7/16"	2"	None	0330787	57.67	<b>48.93</b>
3/16"	3/16"	9/16"	2"	None	0330884	64.50	<b>54.74</b>
3/16"	3/16"	9/16"	2"	0.015"	0330885	81.55	<b>69.20</b>
3/16"	3/16"	3/4"	2-1/2"	None	0330887	79.69	<b>67.62</b>
3/16"	3/16"	3/4"	2-1/2"	0.015"	0330888	96.68	<b>82.05</b>
1/4"	1/4"	3/8"	2"	None	0330790	66.26	<b>56.24</b>
1/4"	1/4"	3/8"	2"	0.015"	0330791	69.27	<b>58.79</b>
1/4"	1/4"	3/8"	2"	0.03"	0330792	69.27	<b>58.79</b>
1/4"	1/4"	3/4"	2-1/2"	None	0330793	70.55	<b>59.87</b>
1/4"	1/4"	3/4"	2-1/2"	0.015"	0330794	73.56	<b>62.42</b>
1/4"	1/4"	3/4"	2-1/2"	0.03"	0330795	73.56	<b>62.42</b>
1/4"	1/4"	1-1/4"	3"	None	0330796	129.19	<b>109.64</b>
1/4"	1/4"	1-1/4"	3"	0.015"	0330797	135.83	<b>115.26</b>
1/4"	1/4"	1-1/4"	3"	0.03"	0330798	135.83	<b>115.26</b>
1/4"	1/4"	1-3/4"	4"	None	0330799	140.43	<b>119.18</b>
1/4"	1/4"	1-3/4"	4"	0.015"	0330800	145.70	<b>123.63</b>
1/4"	1/4"	1-3/4"	4"	0.03"	0330865	145.70	<b>123.63</b>
5/16"	5/16"	7/16"	2"	None	0330896	87.01	<b>73.83</b>
5/16"	5/16"	7/16"	2"	0.015"	0330897	104.05	<b>88.29</b>
5/16"	5/16"	7/16"	2"	0.03"	0330898	104.05	<b>88.29</b>
3/8"	3/8"	1/2"	2-1/2"	None	0330803	109.14	<b>92.61</b>
3/8"	3/8"	1/2"	2-1/2"	0.015"	0330804	114.72	<b>97.35</b>
3/8"	3/8"	1/2"	2-1/2"	0.03"	0330805	114.72	<b>97.35</b>
3/8"	3/8"	1"	2-1/2"	None	0330806	116.24	<b>98.64</b>
3/8"	3/8"	1"	2-1/2"	0.015"	0330807	122.02	<b>103.55</b>
3/8"	3/8"	1"	2-1/2"	0.03"	0330808	122.02	<b>103.55</b>
3/8"	3/8"	1-1/4"	3"	None	0330924	154.91	<b>131.45</b>
3/8"	3/8"	1-1/4"	3"	0.015"	0330925	171.93	<b>145.91</b>
3/8"	3/8"	1-1/4"	3"	0.03"	0330926	171.93	<b>145.91</b>
3/8"	3/8"	1-5/8"	4"	None	0330809	180.82	<b>153.44</b>
3/8"	3/8"	1-5/8"	4"	0.015"	0330810	184.52	<b>156.59</b>
3/8"	3/8"	1-5/8"	4"	0.03"	0330866	184.52	<b>156.59</b>
3/8"	3/8"	1-5/8"	3-1/2"	None	0330931	165.07	<b>140.07</b>
3/8"	3/8"	1-5/8"	3-1/2"	0.015"	0330932	182.06	<b>154.49</b>
3/8"	3/8"	1-5/8"	3-1/2"	0.03"	0330933	182.06	<b>154.49</b>
3/8"	3/8"	2"	4"	None	0330942	192.11	<b>163.02</b>
3/8"	3/8"	2"	4"	0.015"	0330943	209.09	<b>177.44</b>
3/8"	3/8"	2"	4"	0.03"	0330944	209.09	<b>177.44</b>
3/8"	3/8"	2-1/2"	4"	None	0330811	204.99	<b>173.94</b>
3/8"	3/8"	2-1/2"	4"	0.015"	0330812	209.17	<b>177.50</b>
3/8"	3/8"	2-1/2"	4"	0.03"	0330867	209.17	<b>177.50</b>
3/8"	3/8"	2-1/2"	6"	None	0330949	252.59	<b>214.34</b>
3/8"	3/8"	2-1/2"	6"	0.015"	0330950	269.63	<b>228.80</b>
3/8"	3/8"	2-1/2"	6"	0.03"	0330951	269.63	<b>228.80</b>
7/16"	7/16"	5/8"	2-1/2"	None	0330956	156.39	<b>132.71</b>
7/16"	7/16"	5/8"	2-1/2"	0.015"	0330957	173.40	<b>147.15</b>
7/16"	7/16"	5/8"	2-1/2"	0.03"	0330958	173.40	<b>147.15</b>

Cutting Diameter (DC)	Connection Diameter Machine Side (DCONMS)	Usable Length (LU)	Overall Length (OAL)	Corner Radius (RE)	Order No.	Regular Price	SALE
7/16"	7/16"	5/8"	2-1/2"	0.6"	0330959	177.48	<b>150.60</b>
7/16"	7/16"	1"	2-3/4"	None	0330963	164.77	<b>139.82</b>
7/16"	7/16"	1"	2-3/4"	0.015"	0330964	181.79	<b>154.26</b>
7/16"	7/16"	1"	2-3/4"	0.03"	0330965	181.79	<b>154.26</b>
7/16"	7/16"	2"	4"	None	0330970	243.92	<b>206.99</b>
7/16"	7/16"	2"	4"	0.015"	0330971	260.96	<b>221.45</b>
7/16"	7/16"	2"	4"	0.03"	0330972	260.96	<b>221.45</b>
7/16"	7/16"	2"	4"	0.6"	0330973	265.01	<b>224.88</b>
1/2"	1/2"	5/8"	3"	None	0330815	178.47	<b>151.44</b>
1/2"	1/2"	5/8"	3"	0.015"	0330816	187.67	<b>159.26</b>
1/2"	1/2"	5/8"	3"	0.03"	0330817	187.67	<b>159.26</b>
1/2"	1/2"	5/8"	3"	0.6"	0330977	196.31	<b>166.58</b>
1/2"	1/2"	1"	3"	None	0330982	188.64	<b>160.07</b>
1/2"	1/2"	1"	3"	0.015"	0330983	205.62	<b>174.48</b>
1/2"	1/2"	1"	3"	0.03"	0330984	205.62	<b>174.48</b>
1/2"	1/2"	1"	3"	0.6"	0330985	209.72	<b>177.96</b>
1/2"	1/2"	1-1/4"	3"	None	0330818	190.15	<b>161.36</b>
1/2"	1/2"	1-1/4"	3"	0.015"	0330819	199.63	<b>169.40</b>
1/2"	1/2"	1-1/4"	3"	0.03"	0330820	199.63	<b>169.40</b>
1/2"	1/2"	1-1/4"	3"	0.06"	0330868	199.61	<b>169.38</b>
1/2"	1/2"	1-5/8"	4"	None	0330994	247.58	<b>210.09</b>
1/2"	1/2"	1-5/8"	4"	0.015"	0330995	264.59	<b>224.52</b>
1/2"	1/2"	1-5/8"	4"	0.03"	0330996	264.59	<b>224.52</b>
1/2"	1/2"	1-5/8"	4"	0.6"	0330997	268.66	<b>227.97</b>
1/2"	1/2"	1-5/8"	6"	None	0331002	329.91	<b>279.95</b>
1/2"	1/2"	1-5/8"	6"	0.015"	0331003	346.92	<b>294.39</b>
1/2"	1/2"	1-5/8"	6"	0.03"	0331004	346.92	<b>294.39</b>
1/2"	1/2"	1-5/8"	6"	0.6"	0331005	350.98	<b>297.83</b>
1/2"	1/2"	2"	4"	None	0330821	250.52	<b>212.58</b>
1/2"	1/2"	2"	4"	0.015"	0330822	265.83	<b>225.57</b>
1/2"	1/2"	2"	4"	0.03"	0330823	265.83	<b>225.57</b>
1/2"	1/2"	2-1/8"	4"	None	0331010	259.43	<b>220.16</b>
1/2"	1/2"	2-1/8"	4"	0.015"	0331011	276.46	<b>234.60</b>
1/2"	1/2"	2-1/8"	4"	0.03"	0331012	276.46	<b>234.60</b>
1/2"	1/2"	2-1/8"	4"	0.6"	0331013	280.52	<b>238.04</b>
1/2"	1/2"	2-5/8"	5"	None	0331018	347.17	<b>294.60</b>
1/2"	1/2"	2-5/8"	5"	0.015"	0331019	364.17	<b>309.03</b>
1/2"	1/2"	2-5/8"	5"	0.03"	0331020	364.17	<b>309.03</b>
1/2"	1/2"	2-5/8"	5"	0.6"	0331021	368.26	<b>312.50</b>
1/2"	1/2"	3"	5"	None	0330824	313.15	<b>265.73</b>
1/2"	1/2"	3"	5"	0.015"	0330825	332.11	<b>281.82</b>
1/2"	1/2"	3"	5"	0.03"	0330826	332.11	<b>281.82</b>
1/2"	1/2"	3-1/4"	6"	None	0331026	376.40	<b>319.41</b>
1/2"	1/2"	3-1/4"	6"	0.015"	0331027	393.43	<b>333.86</b>
1/2"	1/2"	3-1/4"	6"	0.03"	0331028	393.43	<b>333.86</b>
1/2"	1/2"	3-1/4"	6"	0.6"	0331029	397.46	<b>337.28</b>
5/8"	5/8"	3/4"	3"	None	0331034	365.01	<b>309.74</b>
5/8"	5/8"	3/4"	3"	0.015"	0331035	382.03	<b>324.18</b>
5/8"	5/8"	3/4"	3"	0.03"	0331036	382.03	<b>324.18</b>
5/8"	5/8"	3/4"	3"	0.6"	0331037	386.06	<b>327.60</b>
5/8"	5/8"	1-1/4"	3-1/2"	None	0330829	352.23	<b>298.89</b>
5/8"	5/8"	1-1/4"	3-1/2"	0.015"	0330830	370.26	<b>314.19</b>
5/8"	5/8"	1-1/4"	3-1/2"	0.03"	0330831	370.26	<b>314.19</b>
5/8"	5/8"	1-1/4"	3-1/2"	0.06"	0330832	370.26	<b>314.19</b>
5/8"	5/8"	1-5/8"	3-1/2"	None	0331043	396.40	<b>336.38</b>
5/8"	5/8"	1-5/8"	3-1/2"	0.015"	0331044	413.45	<b>350.84</b>
5/8"	5/8"	1-5/8"	3-1/2"	0.03"	0331045	413.45	<b>350.84</b>
5/8"	5/8"	1-5/8"	3-1/2"	0.6"	0331046	417.47	<b>354.26</b>
5/8"	5/8"	2-1/8"	4"	None	0331052	458.02	<b>388.67</b>
5/8"	5/8"	2-1/8"	4"	0.015"	0331053	475.06	<b>403.13</b>
5/8"	5/8"	2-1/8"	4"	0.03"	0331054	475.06	<b>403.13</b>



 **TuffCut® XT 5 Flute Carbide End Mills**  
**(cont.)**



**Altima® Blaze Coated**

- Higher feeds over similar end mills
- Reduced vibration harmonics
- Improved part finishes
- Maintains cutting edge strength & sharpness for improved tool life
- Slotting at 1X diameter deep
- State-of-the-art Altima® Blaze coating for superior tool life and higher metal removal rates
- Designed for specific applications in steels, stainless steels, special alloys, cast iron, titanium inconel, and high temp alloys
- M.A. Ford List #278

Cutting Diameter (DC)	Connection Diameter Machine Side (DCONMS)	Usable Length (LU)	Overall Length (OAL)	Corner Radius (RE)	Order No.	Regular Price	SALE
5/8"	5/8"	2-1/8"	4"	0.6"	<b>0331055</b>	479.08	<b>406.53</b>
5/8"	5/8"	2-1/8"	6"	None	<b>0331061</b>	569.45	<b>483.23</b>
5/8"	5/8"	2-1/8"	6"	0.015"	<b>0331062</b>	586.47	<b>497.67</b>
5/8"	5/8"	2-1/8"	6"	0.03"	<b>0331063</b>	586.47	<b>497.67</b>
5/8"	5/8"	2-1/8"	6"	0.6"	<b>0331064</b>	590.55	<b>501.12</b>
5/8"	5/8"	2-1/4"	5"	None	<b>0330834</b>	447.69	<b>379.91</b>
5/8"	5/8"	2-1/4"	5"	0.015"	<b>0330835</b>	470.08	<b>398.90</b>
5/8"	5/8"	2-1/4"	5"	0.03"	<b>0330836</b>	470.08	<b>398.90</b>
5/8"	5/8"	2-5/8"	5"	None	<b>0331070</b>	549.42	<b>466.22</b>
5/8"	5/8"	2-5/8"	5"	0.015"	<b>0331071</b>	566.47	<b>480.69</b>
5/8"	5/8"	2-5/8"	5"	0.03"	<b>0331072</b>	566.47	<b>480.69</b>
5/8"	5/8"	2-5/8"	5"	0.6"	<b>0331073</b>	570.51	<b>484.13</b>
5/8"	5/8"	3"	6"	None	<b>0330837</b>	585.42	<b>496.77</b>
5/8"	5/8"	3"	6"	0.015"	<b>0330838</b>	597.38	<b>506.93</b>
5/8"	5/8"	3"	6"	0.03"	<b>0330839</b>	597.38	<b>506.93</b>
5/8"	5/8"	3-1/4"	6"	None	<b>0331079</b>	603.16	<b>511.83</b>
5/8"	5/8"	3-1/4"	6"	0.015"	<b>0331080</b>	620.17	<b>526.26</b>
5/8"	5/8"	3-1/4"	6"	0.03"	<b>0331081</b>	620.17	<b>526.26</b>
5/8"	5/8"	3-1/4"	6"	0.6"	<b>0331082</b>	624.23	<b>529.71</b>
5/8"	5/8"	4"	6"	None	<b>0331088</b>	645.61	<b>547.85</b>
5/8"	5/8"	4"	6"	0.015"	<b>0331089</b>	662.61	<b>562.28</b>
5/8"	5/8"	4"	6"	0.03"	<b>0331090</b>	662.61	<b>562.28</b>
5/8"	5/8"	4"	6"	0.6"	<b>0331091</b>	666.72	<b>565.76</b>
3/4"	3/4"	1"	3"	None	<b>0331097</b>	517.23	<b>438.90</b>
3/4"	3/4"	1"	3"	0.015"	<b>0331098</b>	534.27	<b>453.36</b>
3/4"	3/4"	1"	3"	0.03"	<b>0331099</b>	534.27	<b>453.36</b>
3/4"	3/4"	1"	3"	0.6"	<b>0331100</b>	538.30	<b>456.78</b>
3/4"	3/4"	1-1/2"	4"	None	<b>0330842</b>	517.80	<b>439.40</b>
3/4"	3/4"	1-1/2"	4"	0.015"	<b>0330843</b>	544.89	<b>462.38</b>
3/4"	3/4"	1-1/2"	4"	0.03"	<b>0330844</b>	544.89	<b>462.38</b>
3/4"	3/4"	1-1/2"	4"	0.06"	<b>0330845</b>	544.89	<b>462.38</b>
3/4"	3/4"	1-5/8"	4"	None	<b>0331106</b>	566.09	<b>480.38</b>
3/4"	3/4"	1-5/8"	4"	0.015"	<b>0331107</b>	583.07	<b>494.78</b>
3/4"	3/4"	1-5/8"	4"	0.03"	<b>0331108</b>	583.07	<b>494.78</b>
3/4"	3/4"	1-5/8"	4"	0.6"	<b>0331109</b>	587.15	<b>498.24</b>
3/4"	3/4"	2-1/4"	5"	None	<b>0330847</b>	631.95	<b>536.25</b>
3/4"	3/4"	2-1/4"	5"	0.015"	<b>0330848</b>	663.54	<b>563.07</b>
3/4"	3/4"	2-1/4"	5"	0.03"	<b>0330849</b>	663.54	<b>563.07</b>
3/4"	3/4"	2-3/8"	5"	None	<b>0331115</b>	650.50	<b>551.99</b>
3/4"	3/4"	2-3/8"	5"	0.015"	<b>0331116</b>	667.53	<b>566.45</b>
3/4"	3/4"	2-3/8"	5"	0.03"	<b>0331117</b>	667.53	<b>566.45</b>
3/4"	3/4"	2-3/8"	5"	0.6"	<b>0331118</b>	671.57	<b>569.87</b>
3/4"	3/4"	2-3/8"	6"	None	<b>0331124</b>	747.80	<b>634.56</b>
3/4"	3/4"	2-3/8"	6"	0.015"	<b>0331125</b>	764.81	<b>648.99</b>
3/4"	3/4"	2-3/8"	6"	0.03"	<b>0331126</b>	764.81	<b>648.99</b>
3/4"	3/4"	2-3/8"	6"	0.6"	<b>0331127</b>	768.85	<b>652.43</b>
3/4"	3/4"	3"	6"	None	<b>0330850</b>	765.93	<b>649.95</b>
3/4"	3/4"	3"	6"	0.015"	<b>0330851</b>	781.26	<b>662.96</b>
3/4"	3/4"	3"	6"	0.03"	<b>0330852</b>	781.26	<b>662.96</b>
3/4"	3/4"	3-1/4"	6"	0.015"	<b>0331134</b>	798.69	<b>677.75</b>
3/4"	3/4"	3-1/4"	6"	0.03"	<b>0331135</b>	798.69	<b>677.75</b>
3/4"	3/4"	3-1/4"	6"	0.6"	<b>0331136</b>	802.70	<b>681.15</b>
3/4"	3/4"	4-1/8"	7"	None	<b>0331142</b>	915.38	<b>776.76</b>
3/4"	3/4"	4-1/8"	7"	0.015"	<b>0331143</b>	932.37	<b>791.19</b>
3/4"	3/4"	4-1/8"	7"	0.03"	<b>0331144</b>	932.37	<b>791.19</b>
3/4"	3/4"	4-1/8"	7"	0.6"	<b>0331145</b>	936.45	<b>794.64</b>

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 **Morse Sheartap**

**Spiral Flute - Modified Bottoming Style**

- 48° Helix Angle

• **Steam Oxide Over Nitride**

- Morse List 2091 - Used in steels and stainless steels up to 35Rc.



Thread Diameter Size (TDZ)	Threads per Inch (TPI)	Thread Tolerance Class (TCTR)	Thread Cutting Part Length (THL)	Overall Length (OAL)	Flute Count (NOF)	Order No.	Regular Price	SALE
#4	40	H2	0.236"	1-7/8"	3	<b>1029525</b>	51.70	<b>42.11</b>
#4	40	H3	0.236"	1-7/8"	3	<b>1029527</b>	37.87	<b>30.84</b>
#6	32	H2	0.236"	2"	3	<b>1029534</b>	37.87	<b>30.84</b>
#6	32	H3	0.236"	2"	3	<b>1029538</b>	41.87	<b>34.10</b>
#6	32	H5	0.236"	2"	3	<b>1029536</b>	37.87	<b>30.84</b>
#8	32	H2	0.236"	2-1/8"	3	<b>1029546</b>	51.81	<b>42.20</b>
#8	32	H3	0.236"	2-1/8"	3	<b>1029542</b>	49.06	<b>39.95</b>
#8	32	H5	0.236"	2-1/8"	3	<b>1029554</b>	81.10	<b>66.05</b>
#10	24	H2	0.354"	2-3/8"	3	<b>1029550</b>	67.00	<b>54.56</b>
#10	32	H2	0.354"	2-3/8"	3	<b>1029558</b>	119.62	<b>97.40</b>
#10	24	H3	0.354"	2-3/8"	3	<b>1029548</b>	51.81	<b>42.20</b>
#10	32	H3	0.354"	2-3/8"	3	<b>1029540</b>	41.87	<b>34.10</b>
#10	32	H5	0.354"	2-3/8"	3	<b>1029563</b>	182.06	<b>148.25</b>
1/4"	20	H3	0.433"	2-1/2"	3	<b>1029580</b>	373.17	<b>303.87</b>
1/4"	20	H5	0.433"	2-1/2"	3	<b>1029581</b>	373.17	<b>303.87</b>
1/4"	28	H3	0.433"	2-1/2"	3	<b>1029552</b>	67.00	<b>54.56</b>
1/4"	28	H4	0.433"	2-1/2"	3	<b>1029562</b>	182.06	<b>148.25</b>
5/16"	18	H3	0.472"	2-23/32"	3	<b>1029556</b>	81.10	<b>66.05</b>
5/16"	18	H5	0.472"	2-23/32"	3	<b>1029531</b>	37.87	<b>30.84</b>
5/16"	24	H3	0.472"	2-23/32"	3	<b>1029560</b>	146.16	<b>119.01</b>
5/16"	24	H4	0.472"	2-23/32"	3	<b>1029544</b>	49.06	<b>39.95</b>
3/8"	16	H3	0.551"	2-15/16"	3	<b>1029559</b>	119.62	<b>97.40</b>
3/8"	16	H5	0.551"	2-15/16"	3	<b>1029561</b>	146.16	<b>119.01</b>
3/8"	24	H3	0.551"	2-15/16"	3	<b>1029543</b>	49.06	<b>39.95</b>
3/8"	24	H4	0.551"	2-15/16"	3	<b>1029545</b>	49.06	<b>39.95</b>
7/16"	14	H3	0.591"	3-5/32"	3	<b>1029547</b>	51.81	<b>42.20</b>
7/16"	14	H5	0.591"	3-5/32"	3	<b>1029549</b>	51.81	<b>42.20</b>
7/16"	20	H3	0.591"	3-5/32"	3	<b>1029551</b>	67.00	<b>54.56</b>
7/16"	20	H5	0.591"	3-5/32"	3	<b>1029553</b>	67.00	<b>54.56</b>
1/2"	13	H3	0.63"	3-3/8"	3	<b>1029555</b>	81.10	<b>66.05</b>
1/2"	13	H5	0.63"	3-3/8"	3	<b>1029557</b>	85.22	<b>69.39</b>
1/2"	20	H3	0.63"	3-3/8"	3	<b>1029578</b>	286.57	<b>233.34</b>
1/2"	20	H5	0.63"	3-3/8"	3	<b>1029579</b>	286.57	<b>233.34</b>
9/16"	12	H3	0.69"	3-19/32"	3	<b>1029582</b>	583.31	<b>474.98</b>
9/16"	18	H3	0.69"	3-19/32"	3	<b>1029583</b>	524.99	<b>427.49</b>
5/8"	11	H3	0.745"	3-13/16"	3	<b>1029584</b>	755.87	<b>615.50</b>
5/8"	18	H3	0.745"	3-13/16"	3	<b>1029585</b>	755.87	<b>615.50</b>
3/4"	10	H3	0.82"	4-1/4"	4	<b>1029586</b>	902.71	<b>735.06</b>
3/4"	16	H3	0.82"	4-1/4"	4	<b>1029587</b>	812.43	<b>661.56</b>
7/8"	9	H4	0.911"	4-11/16"	4	<b>1029588</b>	1094.28	<b>891.06</b>
7/8"	14	H4	0.911"	4-11/16"	4	<b>1029589</b>	984.86	<b>801.96</b>
1"	8	H4	1.025"	5-1/8"	4	<b>1029590</b>	1581.36	<b>1287.68</b>
1"	12	H4	1.025"	5-1/8"	4	<b>1029591</b>	2521.68	<b>2053.37</b>
1-1/8"	7	H4	1.143"	5-7/16"	4	<b>1029526</b>	51.70	<b>42.11</b>
1-1/8"	12	H4	1.143"	5-7/16"	4	<b>1029528</b>	37.87	<b>30.84</b>
1-1/4"	7	H4	1.143"	5-3/4"	4	<b>1029529</b>	37.87	<b>30.84</b>
1-1/4"	12	H4	1.143"	5-3/4"	4	<b>1029530</b>	37.87	<b>30.84</b>
1-3/8"	6	H4	1.333"	6-1/16"	4	<b>1029532</b>	37.87	<b>30.84</b>
1-3/8"	12	H4	1.333"	6-1/16"	4	<b>1029533</b>	37.87	<b>30.84</b>
1-1/2"	6	H4	1.333"	6-3/8"	4	<b>1029535</b>	37.87	<b>30.84</b>
1-1/2"	12	H4	1.333"	6-3/8"	4	<b>1029537</b>	37.87	<b>30.84</b>
1-3/4"	5	H7	1.6"	7"	6	<b>1029539</b>	41.87	<b>34.10</b>
2"	4.5	H7	1.777"	7-5/8"	6	<b>1029541</b>	41.87	<b>34.10</b>

Note: sizes available through 2-4-1/2. TIN coating also available.

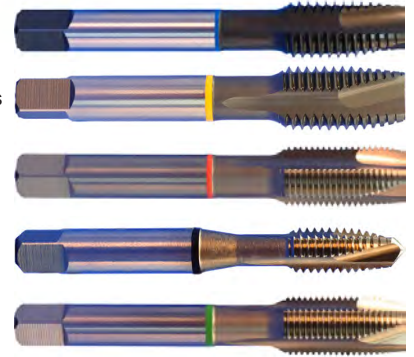
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## CUTTING TOOLS

### SINGLE MICRO TAP High Performance Spiral Point Taps

- **Blue Ring:** General-purpose machining for low to high carbon steels, low alloy steels, and steel castings or forgings.
- **Yellow Ring:** Designed for tough materials including stainless steels, heat/corrosion-resistant alloys, valve stainless steel, and high-carbon tool steels.
- **Red Ring:** Ideal for high-tensile and superalloy materials such as titanium, Inconel, Waspaloy, Hastelloy, Monel, and high-strength stainless steels.
- **Black Ring:** Multi-purpose option for a wide range of materials including steels, stainless steels, aluminum, cast iron, copper, and brass.
- **Green Ring:** Optimized specifically for all aluminum materials, including pure aluminum, aluminum alloys, and aluminum castings.



Thread Diameter Size (TDZ)	Threads per Inch (TPI)			Thread Tolerance Class (TCTR)	Thread Cutting Part Length (THL)	Overall Length (OAL)	List No. 3091 Blue			List No. 3093 Yellow			List No. 3095 Red			List No. 3097 Black			List No. 4001 Green		
	NC	NF	NS				Uncoated	Regular Price	SALE	Uncoated	Regular Price	SALE	Uncoated	Regular Price	SALE	Uncoated	Regular Price	SALE	Uncoated	Regular Price	SALE
#4	40	-	-	H2	0.335"	1-7/8"	7485828	10.30	7.21	7485440	15.48	10.84	7485924	38.36	26.85	7485316	17.81	12.46	7485912	15.48	10.84
	-	48	-	H2	0.335"	1-7/8"	-	-	-	-	-	-	-	-	-	7485317	17.81	12.46	-	-	-
#5	40	-	-	H2	0.374"	1-15/16"	-	-	-	-	-	-	-	-	7485318	17.81	12.46	-	-	-	
	40	-	-	H2	0.374"	1-15/16"	-	-	-	-	-	-	7485413	34.19	23.93	-	-	-	-	-	
#6	-	44	-	H2	0.374"	1-15/16"	-	-	-	-	-	-	-	-	7485319	17.81	12.46	-	-	-	
	32	-	-	H3	0.413"	2"	7485348	11.31	7.92	-	-	-	-	-	-	-	-	-	7485401	16.03	11.23
	32	-	-	H3	0.413"	2"	-	-	-	7485441	15.39	10.77	7485414	33.92	23.74	7485320	18.4	12.88	-	-	-
	-	40	-	H2	0.413"	2"	7485349	11.10	7.77	-	-	-	-	-	-	7485321	17.42	12.19	7485402	15.85	11.09
#8	-	40	-	H2	0.413"	2"	-	-	-	7485442	15.85	11.09	-	-	-	-	-	-	-	-	-
	32	-	-	H3	0.453"	2-1/8"	7485350	10.81	7.56	-	-	-	-	-	-	-	-	-	-	-	-
	32	-	-	H3	0.453"	2-1/8"	-	-	-	7485443	16.03	11.23	7485415	35.03	24.51	7485322	18.4	12.88	-	-	-
	-	36	-	H2	0.453"	2-1/8"	-	-	-	-	-	-	-	-	-	7485323	18.4	12.88	-	-	-
#10	24	-	-	H3	0.531"	2-3/8"	7485829	10.81	7.56	-	-	-	-	-	-	-	-	-	7485913	15.39	10.77
	24	-	-	H3	0.531"	2-3/8"	-	-	-	7485952	16.03	11.23	7485925	33.92	23.74	7485324	18.4	12.88	-	-	-
	-	32	-	H3	0.531"	2-3/8"	7485830	10.81	7.56	-	-	-	-	-	-	-	-	-	7485914	16.03	11.23
	-	32	-	H3	0.531"	2-3/8"	-	-	-	7485444	16.03	11.23	7485926	33.92	23.74	7485325	18.4	12.88	-	-	-
#12	24	-	-	H3	0.571"	2-3/8"	7485831	13.12	9.18	-	-	-	-	-	-	-	-	-	7485915	17.68	12.38
	24	-	-	H3	0.571"	2-3/8"	-	-	-	7485953	18.4	12.88	-	-	-	7485326	21.1	14.77	-	-	-
1/4"	-	28	-	H3	0.571"	2-3/8"	-	-	-	-	-	-	-	-	7485327	21.1	14.77	-	-	-	
	20	-	-	H3	0.591"	2-1/2"	7485832	13.12	9.18	-	-	-	-	-	-	-	-	-	7485916	17.68	12.38
	20	-	-	H3	0.591"	2-1/2"	-	-	-	7485954	18.4	12.88	7485927	36.93	25.86	-	-	-	-	-	
	20	-	-	H5	0.591"	2-1/2"	-	-	-	-	-	-	-	-	-	7485328	21.1	14.77	-	-	-
	-	28	-	H2	0.591"	2-1/2"	-	-	-	-	-	-	-	-	-	-	-	-	7485404	17.68	12.38
	-	28	-	H2	0.591"	2-1/2"	-	-	-	7485445	18.4	12.88	-	-	-	-	-	-	-	-	-
	-	28	-	H3	0.591"	2-1/2"	7485351	13.71	9.59	-	-	-	7485928	36.93	25.86	-	-	-	-	-	-
	-	28	-	H4	0.591"	2-1/2"	-	-	-	-	-	-	-	-	-	7485329	21.1	14.77	-	-	-
5/16"	18	-	-	H3	0.669"	2-23/32"	7485352	17.71	12.40	-	-	-	-	-	-	-	-	-	7485405	23.1	16.17
	18	-	-	H3	0.669"	2-23/32"	-	-	-	7485446	24.04	16.83	7485416	41.16	28.81	-	-	-	-	-	
	18	-	-	H5	0.669"	2-21/32"	-	-	-	-	-	-	-	-	7485330	26.59	18.61	-	-	-	
	-	24	-	H3	0.669"	2-23/32"	-	-	-	-	-	-	-	-	-	-	-	-	7485406	24.04	16.83
3/8"	-	24	-	H3	0.669"	2-23/32"	7485353	16.91	11.84	7485447	23.1	16.17	7485417	41.16	28.81	-	-	-	-	-	
	-	24	-	H4	0.669"	2-21/32"	-	-	-	-	-	-	-	-	7485331	26.59	18.61	-	-	-	
	16	-	-	H3	0.748"	2-15/16"	7485833	17.15	12.01	7485955	23.83	16.67	7485929	50.43	35.29	-	-	-	7485917	22.86	16
	16	-	-	H5	0.748"	2-15/16"	-	-	-	-	-	-	-	-	7485332	27.29	19.1	-	-	-	
7/16"	-	24	-	H3	0.748"	2-15/16"	7485834	17.98	12.59	7485956	23.83	16.67	7485930	48.76	34.13	-	-	-	7485918	22.86	16
	-	24	-	H4	0.748"	2-15/16"	-	-	-	-	-	-	-	-	7485333	27.29	19.1	-	-	-	
	14	-	-	H3	0.866"	3-5/32"	7485354	30.86	21.60	7485448	36.29	25.4	7485418	69.33	48.52	-	-	-	7485407	36.29	25.4
	14	-	-	H5	0.866"	3-5/32"	-	-	-	-	-	-	-	-	7485334	43.33	30.34	-	-	-	
1/2"	-	20	-	H3	0.866"	3-5/32"	7485355	30.86	21.60	7485449	37.77	26.45	7485419	69.33	48.52	-	-	-	7485408	36.29	25.4
	-	20	-	H5	0.866"	3-5/32"	-	-	-	-	-	-	-	-	7485336	43.33	30.34	-	-	-	
	13	-	-	H3	0.984"	3-3/8"	7485835	33.36	23.35	7485957	42.27	29.58	7485931	79.94	55.96	-	-	-	7485919	42.27	29.58
	13	-	-	H5	0.984"	3-3/8"	-	-	-	-	-	-	-	-	7485338	50.43	35.29	-	-	-	
9/16"	-	20	-	H3	0.984"	3-3/8"	7485836	33.36	23.35	7485958	42.27	29.58	7485932	82.53	57.78	-	-	-	7485920	43.92	30.74
	-	20	-	H5	0.984"	3-3/8"	-	-	-	-	-	-	-	-	7485339	50.43	35.29	-	-	-	
	12	-	-	H5	0.984"	3-19/32"	-	-	-	-	-	-	-	-	7485335	51.88	36.32	-	-	-	
	-	18	-	H5	0.984"	3-19/32"	-	-	-	-	-	-	-	-	7485337	51.88	36.32	-	-	-	
5/8"	11	-	-	H3	1.083"	3-13/16"	7485356	33.05	23.14	7485450	42	29.4	7485420	175.15	122.61	-	-	-	7485409	43.62	30.53
	11	-	-	H5	1.083"	3-13/16"	-	-	-	-	-	-	-	-	7485340	51.88	36.32	-	-	-	
	-	18	-	H3	1.083"	3-13/16"	7485357	33.05	23.14	7485451	42	29.4	7485421	180.49	126.34	-	-	-	7485410	42	29.4
	-	18	-	H5	1.083"	3-13/16"	-	-	-	-	-	-	-	-	7485341	51.88	36.32	-	-	-	
3/4"	10	-	-	H3	1.201"	4-1/4"	7485837	46.52	32.56	7485959	61.54	43.08	7485933	233.18	163.23	-	-	-	7485921	59.32	41.52
	10	-	-	H5	1.201"	4-1/4"	-	-	-	-	-	-	-	-	7485342	76.5	53.55	-	-	-	
	-	16	-	H3	1.201"	4-1/4"	7485838	44.74	31.32	7485960	61.54	43.08	7485934	233.18	163.23	-	-	-	7485922	61.54	43.08
	-	16	-	H5	1.201"	4-1/4"	-	-	-	-	-	-	-	-	7485343	76.5	53.55	-	-	-	
7/8"	9	-	-	H4	1.339"	4-11/16"	7485358	102.84	71.99	7485452	132.24	92.57	-	-	-	-	-	-	7485411	132.24	92.57
	9	-	-	H6	1.339"	4-11/16"	-	-	-	-	-	-	-	-	7485344	157.28	110.1	-	-	-	
	-	14	-	H4	1.339"	4-11/16"	7485359	99.57	69.69	7485453	132.24	92.57	-	-	-	-	-	-	7485412	132.24	92.57
	-	14	-	H6	1.339"	4-11/16"	-	-	-	-	-	-	-	-	7485345	157.28	110.1	-	-	-	
1"	-	32	-	H3	1.339"	2-1/8"	-	-	-	-	-	-	-	-	-	-	-	-	7485403	16.03	11.23
	8	-	-	H4	1.5"	5-1/8"	7485839	135.09	94.56	7485961	185.67	129.96	-	-	-	-	-	-	7485923	185.67	129.96
	8	-	-	H6	1-1/2"	5-1/8"	-	-	-	-	-	-	-	-	7485346	213.4	149.38	-	-	-	
	-	12	-	H4	1.5"	5-1/8"	7485840	135.09	94.56	7485962	185.67	129.96	-	-	-	-	-	-	-	-	-
-	12	-	H6	1-1/2"	5-1/8"	-	-	-	-	-	-	-	-	7485347	213.4	149.38	-	-	-		

**MORSE CUTTING TOOLS Morse V-Flange End Mill Holders**

Runout: .0002"

Taper Shank Tolerance: AT3 or Better

Balancing: CAT40 = G2.5 at 20,000 RPM  
CAT50 = G2.5 at 20,000 RPM



Coolant: Form AD – Central Coolant Through the Spindle

DCONWS required - Connection Diameter Workpiece Side (DCONWS)	LPR optional - Protruding Length (LPR)	BD required - Body Diameter (BD)	order #					
			CAT40	Regular Price	SALE	CAT50	Regular Price	SALE
1/8"	1.38"	0.69"	741495A	169.20	93.06	-		
	4.25"		741496A	182.94	100.62	-		
3/16"	1.38"	0.69"	741497A	169.20	93.06	-		
	2.25"		741498A	180.59	99.32	741541A	182.94	100.62
	4.25"		741499A	182.94	100.62	741542A	196.00	107.80
	6"		741500A	206.77	113.72			
1/4"	1.38"	0.78"	741501A	106.09	58.35			
	2.25"		741502A	111.20	61.17	741543A	182.94	100.62
	4.25"		741503A	127.12	69.92	741544A	196.00	107.80
	6"		741504A	206.77	113.72	741545A	234.42	128.93
5/16"	1.38"	0.88"	741505A	106.09	58.35			
	4.25"		741506A	127.12	69.92	741546A	196.00	107.80
3/8"	1.38"	1"	741507A	106.11	58.35			
	2.25"		741508A	111.20	61.17	741547A	168.29	92.57
	4.25"		741509A	116.00	63.80	741548A	196.00	107.80
	6.5"		741510A	206.77	113.72	741549A	264.17	145.29
7/16"	2.25"	1.25"	741511A	247.65	136.21	741550A	287.46	158.10
	4.25"		741512A	111.20	61.17	741551A	180.32	99.18
1/2"	1.75"	1.25"	741513A	116.00	63.80	741552A	226.30	124.46
	2.62"		741514A	199.85	109.91			
	4.62"		741515A	111.20	61.17	741553A	180.32	99.18
	6.62"		741516A	116.00	63.80	741554A	226.30	124.46
	8"		741517A	199.85	109.91	741555A	264.17	145.29
			741518A	247.65	136.21	741556A	417.44	229.59
5/8"	1.75"	1.5"	741519A	100.67	55.37			
	3.75"		741520A	116.00	63.80	741557A	180.32	99.18
	5.75"		741521A	199.85	109.91	741558A	264.17	145.29
	8"		741522A	247.65	136.21	741559A	417.44	229.59
3/4"	1.75"	1.75"	741523A	100.67	55.37			
	3.75"		741524A	116.00	63.80	741560A	177.31	97.52
	5.75"		741525A	199.85	109.91	741561A	264.17	145.29
	8"		741526A	247.65	136.21	741562A	417.44	229.59
7/8"	3.5"	1.88"	741527A	111.20	61.17			
	4"		741528A	116.00	63.80	741563A	180.32	99.18
	6"		741529A	217.88	119.84	741564A	269.58	148.27
1"	1.75"	2"	741530A	111.20	61.17			
	4"		741531A	116.00	63.80	741565A	180.32	99.18
	6"		741532A	217.88	119.84	741566A	269.58	148.27
	8"		741533A	300.54	165.30	741567A	424.35	233.39
1-1/4"	2"	2.5"	741534A	116.42	64.04			
	4.25"		741535A	120.22	66.12	741568A	180.32	99.18
	6.25"		741536A	230.51	126.78	741569A	279.50	153.72
	8"		741537A	318.26	175.04	741570A	442.08	243.14
1-1/2"	4.62"	2.5"	741538A	152.38	83.80	741571A	180.32	99.18
	6.62"		741539A	288.51	158.68	741572A	301.74	165.96
	8"		741540A	449.30	247.11	741573A	491.67	270.41
2"	5.62"	3.75"	-			741574A	377.17	207.45
	8"		-			741575A	509.60	280.28

## A Brand® A-TAP® Spiral Flute Taps

### VC10 - Modified Bottoming Style

- Sharp cutting edge stabilizes chip shape
- Variable helix accelerates chip evacuation
- OSG's V coating for long tool life
- Good for carbon steels, alloy steels, 300 and 400 series stainless steels
- OSG List #16505



Thread Diameter Size (TDZ)	Threads per Inch (TPI)	Thread Tolerance Class (TCTR)	Overall Length (OAL)	Flute Count (NOF)	Order No.	Regular Price	SALE
#4	48	H2	2.2"	2	1286018	180.84	171.79
#6	40	H2	2.2"	2	1286010	95.09	90.33
#4	40	H2	2.2"	2	1286002	65.45	62.17
#6	32	H3	2.2"	3	1285999	58.87	55.93
#6	40	H2	2.2"	3	1286031	402.11	382.00
#8	32	H2	2.48"	2	1286025	242.68	230.54
#8	32	H3	2.48"	3	1286027	324.14	307.93
#8	36	H2	2.48"	3	1286003	65.45	62.17
#10	24	H3	2.75"	2	1285979	57.68	54.80
#10	32	H3	2.75"	2	1286023	231.10	219.55
#10	32	H2	2.75"	2	1286022	231.10	219.55
#10	32	H2	2.75"	3	1286024	242.68	230.54
#10	32	H3	2.75"	3	1286028	340.34	323.33
1/4"	28	H4	3.14"	2	1286011	95.09	90.33
1/4"	28	H3	3.14"	2	1286019	180.84	171.79
1/4"	20	H3	3.14"	3	1285998	58.87	55.93
1/4"	32	H3	3.14"	3	1285994	53.03	50.39
5/8"	18	H5	3.93"	3	1286105	95.09	90.33
1/2"	13	H5	4.33"	3	1286084	53.03	50.39
1/2"	13	H3	4.33"	3	1286054	594.97	565.22
1"	12	H4	6.29"	4	1286079	48.27	45.86
1-1/2"	6	H10	7.87"	4	1285983	4719	44.83
1-5/8"	8	H10	7.87"	4	1285997	53.03	50.39
1-3/4"	10	H10	7.87"	4	1619590	449.54	427.07
1-7/8"	8	H10	8.85"	4	1285995	53.03	50.39

10207

## A Brand® A-SFT® Spiral Flute Taps

### VC10 - Modified Bottoming Style

- Sharp cutting edge stabilizes chip shape
- Variable helix accelerates chip evacuation
- OSG's V coating for long tool life
- Good for carbon steels, alloy steels, 300 and 400 series stainless steels
- OSG List #16500



Thread Diameter Size (TDZ)	Thread Pitch (TP)	Thread Tolerance Class (TCTR)	Overall Length (OAL)	Flute Count (NOF)	Order No.	Regular Price	SALE
M2	0.4 mm	D3	45 mm	2	1285882	92.25	87.64
M2.5	0.45 mm	D3	50 mm	2	1285887	87.50	83.13
M3	0.5 mm	D3	56 mm	3	1285849	65.55	62.27
M4	0.7 mm	D4	63 mm	3	1285851	54.61	51.88
M5	0.8 mm	D4	70 mm	3	1285853	55.78	52.99
M5	0.8 mm	D4	70 mm	3	1285954	55.78	52.99
M6	1 mm	D5	80 mm	3	1285856	61.52	58.44
M6	1 mm	D5	80 mm	3	1285958	61.52	58.44
M8	1.25 mm	D5	90 mm	3	1285858	68.17	64.76
M10	1.25 mm	D5	100 mm	3	1285860	107.23	101.86
M10	1.5 mm	D6	100 mm	3	1285861	107.23	101.86
M12	1 mm	D5	100 mm	3	1285862	127.90	121.51
M12	1.25 mm	D6	100 mm	3	1285863	127.90	121.51
M14	1.5 mm	D6	100 mm	3	1285866	176.05	167.24
M16	1.5 mm	D6	100 mm	3	1285868	188.17	177.77
M14	1 mm	D5	100 mm	3	1285905	202.92	192.77
M15	1.5 mm	D6	100 mm	3	1285908	186.70	177.37
M12	1.75 mm	D6	110 mm	3	1285865	127.89	121.49
M16	2 mm	D7	110 mm	3	1285869	188.16	178.75
M12	1.75 mm	D6	110 mm	3	1285978	127.89	121.49
M22	1.5 mm	D6	125 mm	4	1285874	413.83	393.13
M20	2.5 mm	D7	140 mm	4	1285873	378.92	359.98
M24	1.5 mm	D6	140 mm	4	1285876	541.28	514.22
M27	2 mm	D8	140 mm	4	1285921	628.18	596.78
M24	3 mm	D8	160 mm	4	1285877	541.28	514.22

10206

## A Brand® A-POT® Spiral Pointed Taps

### VC10 - Plug Style

- Sharp cutting edge stabilizes chip shape
- Variable helix accelerates chip evacuation
- OSG's V coating for long tool life
- Good for carbon steels, alloy steels, 300 and 400 series stainless steels
- OSG List #16515



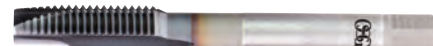
Thread Diameter Size (TDZ)	Threads per Inch (TPI)	Thread Tolerance Class (TCTR)	Overall Length (OAL)	Flute Count (NOF)	Order No.	Regular Price	SALE
#2	64	H2	1.77"	2	1286236	70.71	67.17
#4	40	H2	2.2"	2	1286180	43.27	41.10
#6	32	H3	2.2"	3	1286184	36.25	34.44
#8	32	H3	2.48"	3	1286187	36.25	34.44
#8	36	H2	2.48"	3	1286189	36.25	34.44
#10	24	H3	2.75"	3	1286190	36.99	35.14
#10	32	H3	2.75"	3	1286191	36.99	35.14
#12	24	H3	3.14"	3	1286193	47.95	45.56
1/4"	20	H5	3.14"	3	1286195	47.95	45.56
1/4"	20	H3	3.14"	3	1286196	47.95	45.56
5/16"	18	H5	3.54"	3	1286199	52.22	49.62
5/16"	18	H3	3.54"	3	1286200	52.22	49.62
5/16"	24	H3	3.54"	3	1286202	52.22	49.62
3/8"	16	H5	3.93"	3	1286203	58.87	55.93
3/8"	16	H3	3.93"	3	1286204	58.87	55.93
7/16"	20	H3	3.93"	3	1286210	76.08	72.27
1/2"	20	H3	3.93"	3	1286214	88.48	84.06
1/2"	13	H3	4.33"	3	1286212	88.48	84.06
5/8"	11	H5	4.33"	3	1286219	146.52	139.20
5/8"	11	H3	4.33"	3	1286220	146.52	139.20
3/4"	10	H5	4.92"	3	1286223	231.10	219.55
3/4"	10	H3	4.92"	3	1286224	231.10	219.55
7/8"	14	H4	4.92"	3	1286230	272.33	258.71
7/8"	20	H5	4.92"	3	1286250	354.33	336.62
1"	8	H4	6.29"	3	1286232	300.65	285.61

10211

## A Brand® A-POT® Spiral Pointed Taps

### VC10 - Plug Style

- Sharp cutting edge stabilizes chip shape
- Variable helix accelerates chip evacuation
- OSG's V coating for long tool life
- Good for carbon steels, alloy steels, 300 and 400 series stainless steels
- OSG List #16510



Thread Diameter Size (TDZ)	Thread Pitch (TP)	Usable Length (LU)	Thread Tolerance Class (TCTR)	Overall Length (OAL)	Flute Count (NOF)	Order No.	Regular Price	SALE
M1.4	0.3 mm	9 mm	D2	40 mm	2	1286138	94.23	89.52
M1.6	0.35 mm	9 mm	D3	40 mm	2	1286139	94.23	89.52
M1.7	0.35 mm	11 mm	D3	40 mm	2	1286140	94.23	89.52
M2	0.4 mm	12 mm	D3	45 mm	2	1286142	78.57	74.63
M2.2	0.45 mm	12 mm	D3	45 mm	2	1286144	87.65	83.27
M2.5	0.45 mm	14 mm	D3	50 mm	2	1286147	68.63	65.20
M3	0.5 mm	18 mm	D3	56 mm	3	1286109	50.29	47.77
M3.5	0.6 mm	20 mm	D3	56 mm	3	1286151	48.40	45.98
M4	0.7 mm	21 mm	D4	63 mm	3	1286111	39.52	37.55
M5	0.8 mm	25 mm	D4	70 mm	3	1286113	40.52	38.49
M6	1 mm	30 mm	D5	80 mm	3	1286116	46.70	44.37
M7	1 mm	30 mm	D5	80 mm	3	1286156	66.02	62.72
M8	1 mm	35 mm	D5	90 mm	3	1286117	59.00	56.04
M8	1.25 mm	35 mm	D5	90 mm	3	1286118	56.20	53.38
M10	1 mm	35 mm	D5	100 mm	3	1286119	81.16	77.10
M10	1.25 mm	39 mm	D5	100 mm	3	1286120	81.16	77.10
M10	1.5 mm	39 mm	D6	100 mm	3	1286121	81.16	77.10
M12	1 mm	32 mm	D5	100 mm	3	1286122	98.35	93.44
M12	1.25 mm	32 mm	D6	100 mm	3	1286123	98.35	93.44
M16	1.5 mm	36 mm	D6	100 mm	4	1286128	164.85	156.60
M12	1.75 mm	32 mm	D6	110 mm	3	1286125	98.35	93.44
M16	2 mm	36 mm	D7	110 mm	3	1286129	164.85	156.60
M18	2.5 mm	43 mm	D7	125 mm	3	1286131	232.64	221.00
M22	1.5 mm	44 mm	D6	125 mm	4	1286134	353.63	335.94
M20	2.5 mm	44 mm	D7	140 mm	3	1286133	323.82	307.64

10212

## PRO CUT Tap and Drill Set

### High Speed Steel with Metal Index

- All the popular taps and necessary drills plus metal index.
- Set Includes:** 6-32, drill #368-32, drill #2910-24, drill #2510-32, drill #211/4-20, drill #75/16-18, drill F3/8-16, drill 5/167/16-14, drill U1/2-13, drill 27/64



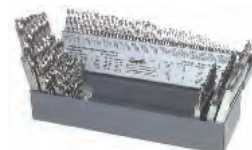
FamilyName	Order No.	Regular Price	SALE
PCUET5018TDS-I 18 Pc. Tap and Drill Set #6 thru 1/2" NF Taps - #21 thru 29/64" Drills	<b>0425013</b>	141.88	<b>117.20</b>
PCUET5099TDS-I 18 Pc. Tap and Drill Set #6 thru 1/2" Tap -#36 thru 27/64" Drill	<b>0425017</b>	133.76	<b>110.49</b>

10372



## PRO CUT 3-in-1 118° Standard & 135° Split Point Combination High Speed Steel Jobber Drill Sets

- Complete with index
- Drills ground from solid



Quantity	Diameter Range	Coating	Tool Type	Morse Cutting Tools			Chicago-Latrobe			Precision Twist Drill			ProCut		
				Order No.	Regular Price	SALE	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE
114	1/16" to 1/2" #1 to #60   1 mm to 13 mm	Bright	Standard Point	-	-	-	-	-	-	<b>1120881</b>	1820.52	<b>842.85</b>	-	-	-
115	1/16" to 1/2"   A to Z #1 to #60	Bright	Jobber Length	<b>1019095</b>	721.73	<b>505.20</b>	<b>0279366</b>	1245.51	<b>891.44</b>	<b>1120882</b>	1841.88	<b>852.75</b>	-	-	-
115	1/16" to 1/2"   A to Z #1 to #60	Black Oxide	Jobber Length	<b>1019094</b>	692.92	<b>482.57</b>	<b>0279414</b>	1236.21	<b>884.78</b>	<b>1120919</b>	1834.25	<b>849.21</b>	-	-	-
115	1/16" to 1/2"   A to Z #1 to #60	Black Oxide	Split Point   Heavy Duty	-	-	-	<b>0279026</b>	1443.74	<b>1033.31</b>	-	-	-	-	-	-
115	1/16" to 1/2"   A to Z #1 to #60	TiN	Standard Point	-	-	-	-	-	-	-	-	-	<b>0215337</b>	443.03	<b>390.18</b>

9624



## Heavy Duty Jobber Drills - Letter Sizes

### Cobalt • 135° Split Point

- For drilling in tough, high tensile strength materials like stainless steels, titanium and inconel
- Made of heat resistant cobalt high speed steel
- Made to NAS907 Type J specifications
- Designed for high production drilling of a wide variety of materials
- Perform well under many different operating conditions
- Morse List #2332
- Chicago-Latrobe List #550
- Precision Twist List #R15CO



Drill Bit Size / Cutting Diameter (DC)	Overall Length (OAL)	Morse Cutting Tools			Chicago-Latrobe			Precision Twist Drill		
		Order No.	Regular Price	SALE	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE
A	3-7/8"	1018533	11.51	<b>7.65</b>	0280300	16.69	<b>11.94</b>	1117749	24.34	<b>11.78</b>
B	4"	1018535	12.29	<b>8.16</b>	0280301	17.74	<b>12.69</b>	1117750	28.31	<b>13.70</b>
C	4"	1018536	12.15	<b>8.07</b>	0280302	17.74	<b>12.69</b>	1117751	28.31	<b>13.70</b>
D	4"	1018537	12.05	<b>8.01</b>	0280303	18.02	<b>12.90</b>	1117752	31.66	<b>15.32</b>
1/4"-E	4"	1018538	10.84	<b>7.20</b>	0280199	15.81	<b>11.31</b>	1117719	22.13	<b>10.70</b>
F	4-1/8"	1018539	12.24	<b>8.13</b>	0280304	18.52	<b>13.26</b>	1117753	27.85	<b>13.47</b>
G	4-1/8"	1018540	12.70	<b>8.43</b>	0280306	19.73	<b>14.12</b>	1117754	28.31	<b>13.70</b>
H	4-1/8"	1018542	13.45	<b>8.94</b>	0280307	20.26	<b>14.51</b>	1117755	31.66	<b>15.32</b>
I	4-1/8"	1018543	14.31	<b>9.51</b>	0280308	20.80	<b>14.90</b>	1117756	29.68	<b>14.36</b>
J	4-1/8"	1018544	14.17	<b>9.41</b>	0280309	22.06	<b>15.80</b>	1117757	31.66	<b>15.32</b>
K	4-1/4"	1018545	15.47	<b>10.28</b>	0280310	22.65	<b>16.22</b>	1117758	31.66	<b>15.32</b>
L	4-1/4"	1018547	16.00	<b>10.64</b>	0280311	24.75	<b>17.72</b>	1117759	35.94	<b>17.39</b>
M	4-3/8"	1018548	16.37	<b>10.88</b>	0280312	26.88	<b>19.25</b>	1117760	38.07	<b>18.42</b>
N	4-3/8"	1018550	16.94	<b>11.25</b>	0280313	27.45	<b>19.65</b>	1117761	38.07	<b>18.42</b>
O	4-1/2"	1018552	18.10	<b>12.03</b>	0280314	29.88	<b>21.39</b>	1117762	41.81	<b>20.22</b>
P	4-5/8"	1018553	18.93	<b>12.57</b>	0280315	31.25	<b>22.37</b>	1117763	44.71	<b>21.63</b>
Q	4-3/4"	1018555	19.89	<b>13.22</b>	0280316	31.47	<b>22.53</b>	1117764	46.39	<b>22.44</b>
R	4-3/4"	1018556	20.09	<b>13.35</b>	0280317	32.07	<b>22.95</b>	1117765	46.39	<b>22.44</b>
S	4-7/8"	1018558	22.74	<b>15.11</b>	0280318	37.72	<b>27.00</b>	1117766	56.54	<b>27.35</b>
T	4-7/8"	1018559	23.00	<b>15.29</b>	0280319	38.60	<b>27.63</b>	1117767	56.54	<b>27.35</b>
U	5"	1018561	26.00	<b>17.27</b>	0280320	39.96	<b>28.59</b>	1117768	56.54	<b>27.35</b>
V	5"	1018563	27.10	<b>18.00</b>	0280321	41.78	<b>29.90</b>	1117769	62.49	<b>30.23</b>
W	5-1/8"	1018564	27.80	<b>18.47</b>	0280322	42.21	<b>30.21</b>	1117770	62.49	<b>30.23</b>
X	5-1/8"	1018566	29.19	<b>19.40</b>	0280323	44.73	<b>32.01</b>	1117771	62.49	<b>30.23</b>
Y	5-1/4"	1018567	29.58	<b>19.65</b>	0280324	45.78	<b>32.76</b>	1117772	66.15	<b>32.00</b>
Z	5-1/4"	1018569	31.56	<b>20.96</b>	0280325	48.47	<b>34.70</b>	1117773	72.10	<b>34.88</b>

9688

## SURF PRO® 50 Yard Aluminum Oxide Shop Rolls

- Ideal for cleaning and deburring metal surfaces
- Convenient packaging
- Flexible cloth backing
- Cut or tear to required length
- 50 Yard rolls

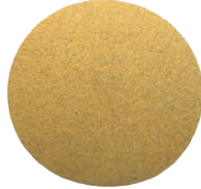


Grit	1"			1-1/2"			2"		
	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE
40	681952A	43.20	<b>33.70</b>	681964A	61.22	<b>47.75</b>	681976A	88.19	<b>68.78</b>
50	681953A	39.20	<b>30.58</b>	681965A	55.43	<b>43.23</b>	681977A	80.00	<b>62.40</b>
60	681954A	36.97	<b>28.84</b>	681966A	52.12	<b>40.66</b>	681978A	75.46	<b>58.86</b>
80	681955A	36.08	<b>28.14</b>	681967A	51.30	<b>40.01</b>	681979A	74.09	<b>57.79</b>
100	681956A	33.85	<b>26.40</b>	681968A	47.57	<b>37.10</b>	681980A	69.09	<b>53.89</b>
120	681957A	32.97	<b>25.72</b>	681969A	46.75	<b>36.46</b>	681981A	67.27	<b>52.47</b>
150	681958A	32.07	<b>25.02</b>	681970A	45.09	<b>35.17</b>	681982A	65.00	<b>50.71</b>
180	681959A	31.63	<b>24.67</b>	681971A	44.67	<b>34.85</b>	681983A	64.09	<b>49.99</b>
220	681960A	31.63	<b>24.67</b>	681972A	44.67	<b>34.85</b>	681984A	64.54	<b>50.34</b>
240	681961A	34.30	<b>26.75</b>	681973A	48.40	<b>37.74</b>	681985A	70.00	<b>54.60</b>
320	681962A	32.97	<b>25.72</b>	681974A	46.75	<b>36.46</b>	681986A	67.73	<b>52.84</b>
400	681963A	31.18	<b>24.32</b>	681975A	44.25	<b>34.52</b>	681987A	63.64	<b>49.64</b>

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## SURF PRO® Velcro Backed Resin Paper Abrasive Discs

- Aluminum oxide resin free cut treated for metal, wood and plastic
- Easy press-on/peel-off - saves time
- Hook and loop backing adds strength, reducing tearing and run cooler for longer life
- Holding power not affected by dirt, dust, heat, humidity
- We also offer the vacuum hole paper disc and conversion hardware for the clean air vacuum sanders



C Weight Paper Back-8 Hole						
Grit	Diameter - 6"			Diameter - 5"		
	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE
80	1217517	1.69	<b>1.37</b>	1217493	1.67	<b>1.34</b>
100	1217519	1.40	<b>1.13</b>	1217495	1.61	<b>1.29</b>
120	1217521	1.29	<b>1.04</b>	1217497	1.43	<b>1.16</b>
150	1217523	1.76	<b>1.43</b>	1217499	1.43	<b>1.16</b>
180	1217525	1.40	<b>1.13</b>	1217501	1.43	<b>1.16</b>
220	1217527	1.76	<b>1.43</b>	1217503	1.61	<b>1.29</b>
240	1217529	1.40	<b>1.13</b>	1217505	1.15	<b>0.93</b>
280	1217531	3.93	<b>3.17</b>	1217507	1.15	<b>0.93</b>
320	1217533	1.40	<b>1.13</b>	1217509	1.15	<b>0.93</b>
400	1217535	1.40	<b>1.13</b>	1217511	1.15	<b>0.93</b>

C Weight Paper Back-No Hole						
Grit	Diameter - 5"			Diameter - 6"		
	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE
80	1217491	1.48	<b>1.20</b>	1217515	1.69	<b>1.37</b>
100	1217494	1.15	<b>0.93</b>	1217518	1.76	<b>1.43</b>
120	1217496	1.44	<b>1.16</b>	1217520	2.03	<b>1.64</b>
150	1217498	1.43	<b>1.16</b>	1217522	1.53	<b>1.23</b>
180	1217500	1.15	<b>0.93</b>	1217524	1.40	<b>1.13</b>
220	1217502	1.26	<b>0.80</b>	1217526	1.40	<b>1.13</b>
240	1217504	1.15	<b>0.93</b>	1217528	1.40	<b>1.13</b>
280	1217506	1.15	<b>0.93</b>	1217530	1.40	<b>1.13</b>
320	1217508	1.43	<b>1.16</b>	1217532	1.40	<b>1.13</b>
400	1217510	1.15	<b>0.93</b>	1217534	1.40	<b>1.13</b>

E Weight Paper Back-No Hole			
Grit	Diameter - 6"		
	Order No.	Regular Price	SALE
40	1217512	2.59	<b>2.09</b>

950

## NORTON SAINT-GOBAIN Norton RazorStar CA Quick-Change Discs

Designed for medium to high pressure metal removal in the toughest grinding applications, Norton RazorStar quick-change discs feature 100% engineered shaped grain which cuts through metal with unbeatable speed.



- Strong polyester backing stands up to even the most extreme pressure you put on it.
- Premier choice for coarse grit stock removal, weld blending, beveling and deburring applications.
- The unique combination of razor-sharp grain along with supersized grinding aid helps to significantly reduce heat generation for cooler cuts and longer life.

Diameter	Grit	Maximum RPM	TR Type III			TS Type II		
			Order No.	Regular Price	SALE	Order No.	Regular Price	SALE
2"	36	30000	9718938	5.24	<b>4.42</b>	109554A	5.60	<b>4.42</b>
2"	36	30000	109553A	5.60	<b>4.42</b>	9718942	5.24	<b>4.42</b>
2"	36	30000	109564A	7.24	<b>5.73</b>	-	-	-
3"	36	20000	9718944	6.37	<b>5.39</b>	109552A	6.82	<b>5.39</b>
3"	36	20000	109555A	6.82	<b>5.39</b>	9718947	6.37	<b>5.39</b>
3"	36	20000	109565A	8.67	<b>6.86</b>	-	-	-

60711

## NORTON SAINT-GOBAIN Norton RazorStar Fiber Discs

Designed for medium to high pressure metal removal in the toughest grinding applications, Norton RazorStar discs feature 100% engineered shaped grain which cuts through metal with unbeatable performance.



- Heavy fiber backing for additional strength and tear resistance.
- A single disc design has been optimized for superior performance on all materials including carbon steel, aluminum, stainless steel and hard-to-grind metals.
- The unique combination of razor-sharp grain along with supersized grinding aid helps to significantly reduce heat generation for cooler cuts and longer disc life.

TR Type III					
Diameter	Grit	Maximum RPM	Order No.	Regular Price	SALE
4-1/2"	36	11000	109556A	13.09	<b>10.35</b>
5"	36	10000	109557A	13.09	<b>10.35</b>
6"	36	8600	109563A	14.08	<b>11.13</b>
7"	36	8600	109558A	15.08	<b>11.93</b>
9-1/8"	36	6600	109559A	20.01	<b>15.82</b>

Speed-Lok Fastener					
Diameter	Grit	Maximum RPM	Order No.	Regular Price	SALE
4-1/2"	36	13000	109566A	20.66	<b>16.34</b>
5"	36	13000	109567A	21.26	<b>16.80</b>
7"	36	8600	109568A	24.46	<b>19.35</b>

Speed-Change Fastener					
Diameter	Grit	Maximum RPM	Order No.	Regular Price	SALE
4-1/2"	36	20000	109560A	13.95	<b>11.03</b>
5"	36	12000	109561A	13.95	<b>11.03</b>
7"	36	8600	109562A	16.09	<b>12.73</b>

60712

### 3M Scotch-Brite™ Roloc™ Surface Conditioning Discs

- Scotch-Brite™ Roloc™ surface non-woven web provides a burr free decorative finish
- Removes grind marks, rust and coatings
- Roloc TR plastic button



Diameter	Maximum RPM	Grade	Color	Order No.	Regular Price	SALE
1"	30,000	Medium	Maroon	1248124	1.65	1.43
1"	30,000	Very Fine	Teal	1248123	1.65	1.43
1-1/2"	30,000	Coarse	Brown	1248053	1.72	1.50
1-1/2"	30,000	Medium	Maroon	1248054	1.72	1.50
1-1/2"	30,000	Very Fine	Teal	1248055	1.72	1.50
2"	25,000	Coarse	Brown	1248023	2.51	2.17
2"	25,000	Medium	Maroon	1248022	2.51	2.17
2"	25,000	Medium	Maroon	1248323	2.59	2.24
2"	25,000	Very Fine	Teal	1248021	2.51	2.17
3"	18,000	Coarse	Brown	1248027	4.63	4.02
3"	18,000	Medium	Maroon	1248026	4.63	4.02
3"	18,000	Very Fine	Teal	1248025	4.63	4.02
4"	12,000	Coarse	Brown	1249461	6.72	6.24

60707

### SURF PRO® Resin Fibre Discs

- Excellent economical discs for all shop applications
- Long lasting aluminum oxide and zirconia alumina grains
- These fibre discs feature a full resin bond system with a heavy duty fibre backing for increased strength, durability and tear resistance
- Aluminum oxide versatile abrasive for general purpose applications, X weight cloth back
- Zirconia alumina recommended for removal and finish on ferrous and non-ferrous metals, X weight polyester back



Diameter	Grit	Aluminum Oxide			Zirconium		
		Order No.	Regular Price	SALE	Order No.	Regular Price	SALE
4 1/2"	16	-	-	-	1217447	1.29	1.01
4 1/2"	36	1217450	1.71	1.26	-	-	-
4 1/2"	50	-	-	-	1217453	1.99	1.50
4 1/2"	60	-	-	-	1217455	1.92	1.43
4 1/2"	80	-	-	-	1217457	1.92	1.43
4 1/2"	100	1217458	1.37	1.05	-	-	-
4 1/2"	120	1217459	1.44	1.05	-	-	-
5"	24	1217462	2.06	1.58	-	-	-
5"	60	-	-	-	1217469	2.09	1.57
7"	16	-	-	-	1217475	4.05	3.15
7"	24	1217476	3.39	2.58	-	-	-
7"	24	-	-	-	1217477	4.30	3.22
7"	50	-	-	-	1217481	3.72	2.70
7"	60	1217482	2.59	1.96	-	-	-
7"	100	1217486	2.59	1.96	-	-	-
7"	120	1217487	2.59	1.96	-	-	-

956

### VSM Ceramic Resin Fibre Discs-XF870

VSM XF870 ceramic material has an extremely high stock removal rate thanks to constant recreation of sharp grain points. Cool grinding and extension of service lives with VSM TOP SIZE additional grinding-active layer. High wear resistance. Form-resistant



- Ceramic grain abrasive with a medium coat and self-sharpening effect for medium contact pressures
- impressive results on stainless steels or superalloys with aggressive cut and a very long lifetime
- additional TOP SIZE layer improves stock removal while reducing the temperature in the grinding zone.
- For Use on Unalloyed Steels, Stainless Steels, Super Alloys, Non-Ferrous and Aluminum
- Best for use on carbon steel, stainless steel, cast iron, and ductile iron.
- Arbor hole are all 7/8"

Arbor Hole	Grit	Maximum RPM	7"			4-1/2"		
			Order No.	Regular Price	SALE	Order No.	Regular Price	SALE
7/8"	24	13,000	1693089	11.03	9.12	1693074	5.54	4.58
7/8"	36	8,600	1316244	10.67	8.82	1693075	4.96	4.10
7/8"	50	8,000	1316245	9.91	8.19	1693076	4.96	4.10
7/8"	60	13,000	1693091	9.91	8.19	1693077	4.96	4.10
7/8"	100	13,000	1693087	6.61	5.46	1693072	3.44	2.85
7/8"	120	13,000	1693088	6.61	5.46	1693073	3.44	2.85

3505

### CGW Resin Fiber Discs

Premium Aluminum Oxide:

- Designed for long life, high stock removal and cool cutting action on metal and welds.

Zirconia Alumina:

- High concentration of Zirconia and heat-treated AO grain provides twice the cutting action of premium AO discs and is extremely heat resistant



Diameter	Grit	Arbor Hole	Zirconia Alumina			Aluminum Oxide		
			Order No.	Price	SALE	Order No.	Price	SALE
4 1/2"	36	7/8"	0983654	2.10	1.52	0983618	1.43	1.02
4 1/2"	50	7/8"	0983656	1.96	1.41	0983620	1.34	0.96
4 1/2"	60	7/8"	0983657	1.74	1.25	0983621	1.27	0.92
4 1/2"	80	7/8"	0983658	1.71	1.23	0983622	1.25	0.90
4 1/2"	100	7/8"	-	-	-	0983623	1.25	0.90
4 1/2"	120	7/8"	-	-	-	0983624	1.25	0.90
5"	16	7/8"	-	-	-	0983625	2.06	1.47
5"	24	7/8"	0983659	2.31	1.67	0983626	1.64	1.17
5"	36	7/8"	0983660	2.17	1.56	0983627	1.57	1.13
5"	50	7/8"	0983662	2.06	1.47	0983629	1.50	1.08
5"	60	7/8"	0983663	1.81	1.29	0983630	1.34	0.96
5"	80	7/8"	0983664	1.78	1.28	0983631	1.32	0.95

962



## **SURF PRO** Aluminum Oxide Abrasive Belts

### Benchstand and File Belts

- Aluminum oxide resin cloth abrasive belts for bench and standing grinders
- Butt splice bi-directional for stronger belt life
- Closed coat for metals working
- Full resin bond coating on "X" weight - heavy duty cloth backing



Backstand and Benchtop Belts						
Width	Length	Grit	Order No.	Price	SALE	
1"	42"	40	438495A	4.69	2.76	
1"	42"	50	438497A	4.69	2.77	
1"	42"	60	438498A	4.27	2.52	
1"	42"	80	438500A	4.13	2.43	
1"	42"	100	438487A	3.99	2.36	
1"	42"	120	438488A	3.99	2.35	
1"	42"	150	438490A	3.85	2.27	
1 1/2"	60"	40	438475A	9.10	5.38	
1 1/2"	60"	60	438476A	7.62	4.49	
1 1/2"	60"	80	438477A	7.53	4.44	
1 1/2"	60"	100	438468A	7.42	4.38	
1 1/2"	60"	120	438469A	7.22	4.26	
2"	42"	40	438523A	8.78	5.18	
2"	42"	60	438524A	7.38	4.35	
2"	42"	80	438525A	7.31	4.31	
2"	42"	120	438522A	7.01	4.14	
2"	48"	36	438535A	9.70	5.73	
2"	48"	40	438537A	9.66	5.70	
2"	48"	50	438538A	9.66	5.70	
2"	48"	60	438539A	8.19	4.83	
2"	48"	80	438541A	8.05	4.75	
2"	48"	100	438526A	7.91	4.67	
2"	48"	120	438528A	7.77	4.58	
2"	48"	150	438530A	7.35	4.34	
2"	60"	40	438551A	11.54	6.80	
2"	60"	50	438553A	10.50	6.20	
2"	60"	60	438554A	10.08	5.95	
2"	60"	80	438556A	9.94	5.87	
2"	60"	100	438543A	9.80	5.78	
2"	60"	120	438544A	9.52	5.61	
2 1/2"	60"	36	438505A	14.17	8.36	
2 1/2"	60"	40	438507A	9.90	5.84	
2 1/2"	60"	50	438508A	9.90	5.84	
2 1/2"	60"	60	438509A	12.32	7.27	
2 1/2"	60"	80	438511A	12.18	7.18	
2 1/2"	60"	100	438502A	11.90	7.03	
2 1/2"	60"	120	438503A	11.62	6.86	
4"	36"	36	438642A	14.32	8.45	
4"	36"	40	438643A	14.32	8.46	
4"	36"	50	438645A	14.28	8.42	
4"	36"	60	438647A	12.60	7.43	
4"	36"	80	438649A	12.46	7.35	
4"	36"	100	438634A	12.18	7.18	
4"	36"	120	438635A	11.90	7.02	
4"	36"	150	438637A	11.37	6.71	
4"	54"	40	438654A	19.80	11.67	
4"	54"	50	438656A	19.74	11.64	
4"	54"	60	438658A	17.08	10.08	
4"	54"	80	438660A	16.94	9.99	
4"	54"	100	438651A	16.66	9.83	
4"	54"	120	438652A	16.24	9.58	
4"	60"	40	438667A	21.66	12.77	
4"	60"	60	438668A	18.69	11.01	
4"	60"	80	438669A	18.47	10.88	
4"	60"	100	438662A	18.16	10.71	
4"	60"	120	438663A	17.63	10.40	
6"	48"	36	438679A	26.29	15.51	
6"	48"	40	438682A	26.32	15.53	
6"	48"	50	438684A	26.32	15.53	
6"	48"	60	438687A	22.68	13.37	
6"	48"	80	438690A	22.40	13.20	
6"	48"	100	438670A	22.12	13.05	
6"	48"	120	438671A	21.42	12.64	

Portable Files						
Width	Length	Grit	Order No.	Price	SALE	
1/2"	12"	120	438432A	2.73	1.61	

**CGW** **Paper Aluminum Oxide Sanding Discs - Gold "C" Weight**

- Made with a strong .0005 Mylar film for superior edge tear resistance
- PASCO Advantage outperforms other "C" weight gold discs
- Stearated paper with heat treated aluminum oxide grain and a full phenolic bond system provides uniform scratch pattern
- Open coat disc delivers fast cut and exceptionally long life



		Disc on Roll			PSA Disc with Tab		
Diameter	Grit	Order No.	Price	SALE	Order No.	Price	SALE
5"	60	0984311	1.04	0.75	-	-	-
5"	80	0984312	0.78	0.57	0984325	0.78	0.57
5"	100	0984313	0.74	0.54	0984326	0.74	0.54
5"	120	0984314	0.74	0.54	0984327	0.74	0.54
5"	150	0984315	0.74	0.54	0984328	0.74	0.54
5"	180	0984316	0.74	0.54	0984329	0.74	0.54
5"	220	0984317	0.74	0.54	0984330	0.74	0.54
6"	80	0984318	1.18	0.84	-	-	-
6"	100	0984319	1.06	0.77	-	-	-
6"	120	0984320	1.06	0.77	-	-	-
6"	150	0984321	1.06	0.77	-	-	-
6"	180	0984322	1.06	0.77	-	-	-
6"	220	0984323	1.06	0.77	-	-	-

8002

**SURF PRO** **Aluminum Oxide Abrasive Belts**

**Backstand and Portable**

- Aluminum oxide resin cloth abrasive
- Belts for bench and standing grinders
- Butt splice bi-directional for stronger belt life
- Closed coat for metal working
- Full resin bond coating on "X" weight - heavy duty cloth backing



Width	Grit	Length	Order No.	Regular Price	SALE
2"	80	132"	438521A	19.00	11.19
3"	40	21"	438597A	7.27	4.28
3"	40	24"	438611A	7.91	4.67
3"	50	21"	438600A	7.35	4.34
3"	50	24"	438613A	7.91	4.67
3"	60	24"	438614A	7.07	4.17
3"	80	132"	438591A	27.80	16.38
3"	100	21"	438592A	6.37	3.75
3"	240	132"	438589A	23.94	14.12
4"	120	132"	438620A	34.76	20.49
8"	80	107"	438695A	58.88	34.70

2737

**SURF PRO** **9"x11" Emery Cloth Sheets**

- Natural emery abrasive with flexible cloth backing
- Removes burrs, cleans and polishes metal
- Can be used dry or with oil



Grade	Order No.	Regular Price	SALE
Coarse	684398A	1.78	1.43
Extra Coarse	684399A	1.96	1.58
Fine	684400A	1.64	1.32
Medium	684401A	1.64	1.32

993

**SURF PRO** **6" x 9" Non-Woven Hand Pads**

- Excellent for hand finishing and cleaning of woods, metals and composites
- Ideal for wood finishing, paint prep and general cleaning
- Regular Priced each / sold in standard pack (20) only

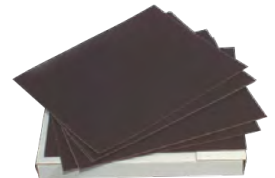


Grade	Width	Length	Color	Feature	Abrasive Material	Order No.	Price	SALE
Ultra Fine	6"	9"	Light Gray	Cleaning	Silicon Carbide	1217637	2.32	1.74
Very Fine	6"	9"	Green	Scouring	Aluminum Oxide	1217635	2.09	1.62
Very Fine	6"	9"	Maroon	General Purpose	Aluminum Oxide	1217638	2.14	1.61
Medium	6"	9"	Tan	Heavy Duty	Aluminum Oxide	1217640	3.36	2.62

971

**SURF PRO** **9" x 11" Aluminum Oxide Abrasive Cloth Sheets**

- Aluminum oxide abrasive on durable X wt. cloth backing
- Ideal for all utility jobs
- Can be torn into strips and rolled without shelling



Grit	Order No.	Regular Price	SALE
80	684406A	1.86	1.50
120	684410A	1.86	1.50
220	684416A	1.86	1.50
320	684421A	1.86	1.50

994

## **NORTON** Mini Flap Discs

- Plate steel/structural steel
- Civil/construction/military equipment
- Propane tanks
- Farm equipment
- Strong zirconia alumina plus abrasive delivers aggressive cut rate and up to 30% longer life on mild carbon steel welds
- Semi-open coat retards loading on aluminum



Diameter	Width	Arbor Hole	Maximum RPM	Gemini			BlueFire		
				Order No.	Regular Price	SALE	Order No.	Regular Price	SALE
7"	1/4"	7/8"	8600	0985675	15.40	10.11	0985804	26.63	17.58
7"	1/4"	5/8"-11	8600	0985679	23.34	15.32	0985803	33.31	21.98
6"	1/4"	7/8"	10,185	0985358	14.67	9.69	0985450	25.00	16.50
6"	1/4"	5/8"-11	10,185	0985381	19.60	12.93	0985452	30.63	20.22
5"	1/4"	7/8"	12,225	-	-	-	0985264	20.93	13.82
5"	1/4"	5/8"-11	12,225	-	-	-	0985263	26.17	17.27
4-1/2"	1/4"	7/8"	13,580	-	-	-	0985215	15.60	10.29
4-1/2"	1/4"	5/8"-11	13,580	-	-	-	0985214	20.33	13.41

1770

## **NORTON** Small Diameter Cut-Off Wheels

- Bluefire:**
- Zirc/AO blend
  - For light to heavy applications on gray iron, carbon, stainless steel and alloys
- Gemini:**
- Aluminum oxide grain
  - Best for steel and ferrous metals as well as aluminum and foundries



Gemini								
Diameter	Thickness	Grit	Arbor Hole	Maximum RPM	Order No.	Price	SALE	
2"	0.035"	60	3/8"	30,560	0984804	5.53	3.63	
2"	0.035"	60	1/4"	30,560	0984803	5.53	3.63	
2"	0.035"	60	1/8"	30,560	0984802	5.53	3.63	
2"	1/16"	36	3/8"	30,560	0984806	5.53	3.63	
2"	1/16"	36	1/4"	30,560	0984805	5.53	3.63	
2"	1/8"	36	3/8"	30,560	0984808	5.43	3.57	
2"	1/8"	36	1/4"	30,560	0984807	5.43	3.57	
2-1/2"	1/16"	36	3/8"	30,560	0984800	6.06	3.98	
2-1/2"	1/16"	36	1/4"	30,560	0984799	6.06	3.98	
3"	0.035"	60	3/8"	25,465	0984850	5.77	4.77	
3"	0.035"	60	1/4"	25,465	0984849	5.77	3.81	
3"	1/16"	36	3/8"	25,465	0984852	5.70	4.70	
3"	1/16"	36	1/4"	25,465	0984851	5.77	3.81	
3"	1/16"	36	1/4"	25,465	0984854	3.93	2.34	
3"	1/8"	36	3/8"	25,465	0984858	8.54	5.60	
3"	1/8"	36	3/8"	25,465	0984856	8.06	5.29	
3"	1/8"	36	1/4"	25,465	0984855	7.87	5.17	
4"	0.035"	60	1/4"	19,100	0984945	7.90	5.21	
4"	0.035"	60	3/8"	19,100	0984946	8.90	7.35	
4"	1/16"	36	1/4"	19,100	0984947	7.84	5.18	
4"	1/16"	36	3/8"	19,100	0984948	7.84	6.50	
4"	1/8"	36	1/4"	19,100	0984950	10.96	7.20	
4"	1/8"	36	3/8"	19,100	0984951	10.53	6.90	

BlueFire								
Diameter	Thickness	Grit	Arbor Hole	Maximum RPM	Order No.	Price	SALE	
3"	0.035"	46	3/8"	25,465	0984904	8.43	6.69	
3"	0.035"	60	3/8"	25,465	0984880	25.17	16.51	
3"	1/16"	46	3/8"	25,465	0984905	8.57	6.80	
4"	0.035"	46	3/8"	19,100	0985050	11.61	9.23	
4"	1/16"	46	3/8"	19,100	0985049	11.61	9.23	

1777

### WEILER BobCat® Quick Change 2 & 3" Abrasive Flap Discs - Zirconia

- BobCat flap discs outperform conventional quick change discs at least 19 to 1
- Ideal for grinding, deburring and blending steel and stainless metal fabrication
- Applications include aggressive and rapid stock removal
- Angled style for maximum contact
- Flat style for smoother grinding and enhanced conformability



2"								
			S			R		
Wheel Type	Grit	Maximum RPM	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE
Type 27	36	30,000	0999488	10.40	7.80	0999503	10.40	7.80
Type 27	40	30,000	0999489	10.40	7.80	0999504	10.40	7.80
Type 27	60	30,000	0999490	10.40	7.80	0999505	10.40	7.80
Type 27	80	30,000	0999491	10.40	7.80	0999506	10.40	7.80
Type 27	120	30,000	0999492	10.40	7.80	0999507	10.40	7.80
Type 29	36	30,000	-	-	-	0999493	10.40	7.80
Type 29	40	30,000	0999484	10.40	7.80	0999494	10.40	7.80
Type 29	60	30,000	0999485	10.40	7.80	0999495	10.40	7.80
Type 29	80	30,000	0999486	10.40	7.80	0999496	10.40	7.80
Type 29	120	30,000	-	-	-	0999497	10.40	7.80

3"								
			S			R		
Wheel Type	Grit	Maximum RPM	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE
Type 27	36	20,000	0999478	13.44	9.41	0999508	13.44	9.41
Type 27	40	20,000	0999479	13.44	9.41	0999509	13.44	9.41
Type 27	60	20,000	0999480	13.44	9.41	0999510	13.44	9.41
Type 27	80	20,000	0999481	13.44	9.41	0999511	13.44	9.41
Type 27	120	20,000	0999482	13.44	9.41	0999512	13.44	9.41
Type 29	36	20,000	0999498	13.44	9.41	0999473	13.44	9.41
Type 29	40	20,000	0999499	13.44	9.41	0999474	13.44	9.41
Type 29	60	20,000	0999475	13.44	9.41	-	-	-
Type 29	60	20,000	0999500	13.44	9.41	-	-	-
Type 29	80	20,000	0999476	13.44	9.41	-	-	-
Type 29	80	20,000	0999501	13.44	9.41	-	-	-

471

### NORTON Mini Flap Discs

- Plate steel/structural steel
- Civil/construction/military equipment
- Propane tanks
- Farm equipment
- Strong zirconia alumina plus abrasive delivers aggressive cut rate and up to 30% longer life on mild carbon steel welds
- Semi-open coat retards loading on aluminum



		TR			TS		
Diameter	Grit	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE
2"	P36	-	-	-	0988851	14.34	9.42
2"	P36	0988846	14.34	8.85	-	-	-
2"	P40	0988847	14.34	8.85	0988852	14.34	9.42
2"	P60	0988848	14.34	8.85	0988853	14.34	9.42
2"	P80	0988849	14.34	8.85	0988854	14.34	9.42
2"	P120	0988850	14.34	8.85	0988855	14.34	9.42

474

**Sioux 0.3HP Right Angle Die Grinder**

- Lockoff Lever. Rear Exhaust. Built-in Speed Control
- Power: 0.3 hp (022 kW) - 1hp (0.75 W)
- Speed: 12,000 rpm - 23,000 rpm
- Collet Size: 1/4" & 6 mm



Drive	Features	Average Air Consumption	Air Inlet Size	Order No.	Regular Price	SALE
1/2"	High power to weight ratio. forged aluminum anvil housing. One hand forward/reverse operation. Working torque 100-625 ft/lbs. Maximum torque 780 ft/lbs. Bolt capacity 5/8" Blows per minute 1200. 9400 RPM.	4 CFM	1/4" NPT	1461549	821.94	575.36

2293

**Sioux 0.3HP Right Angle Die Grinder**

- Lockoff Lever. Rear Exhaust. Built-in Speed Control
- Power: 0.3 hp (022 kW) - 1hp (0.75 W)
- Speed: 12,000 rpm - 23,000 rpm
- Collet Size: 1/4" & 6 mm



Collet/Chuck	Horsepower	Maximum RPM	Exhaust Type	Air Inlet Size	Average Air Consumption	Overall Length	ManufacturerNo	Order No.	Regular Price	SALE
1/4"	0.3 hp	12,000	Rear	1/4" NPT	11 CFM	5-5/8"	SAG03S12	1461621	771.47	540.04

30610

**Sioux 1HP 1/2 T Handle Non Reverse**

- Non-Reversible
- Lever Start
- Handle Grips



Order No.	Regular Price	SALE
1461493	2970.52	2168.47

60699

**Chicago Pneumatic CP9361 Air Scribe**

- Lightweight, easy to operate
- Simple, piston supplied power for trouble free use
- Graduated sleeve throttle permits accurate power selection
- Change of stylus converts tool to scaler or hammer



Order No.	Regular Price	SALE
1097086	768.98	711.86

29263

**DYNABRADE 1/4" Female Coupler with 1/4" Male Plug Assembly**

- Assemblies include one female coupler with one male plug
- Maximum working pressure: 150 PSIG (10 Bar)
- Temperature Range: -4°F to 212°F (-20°C to 100°C)



Order No.	Regular Price	SALE
1096218	44.07	40.38

60701

**DEWALT 4-1/2" Small Angle Grinder with No Lock-On**

- 11 Amp AC/DC 11,000 RPM motor designed for faster material removal and higher overload protection
- Low profile gear case allows for access into tighter spaces
- One-Touch Guard allows for 360 degree rotation of the guard with a single action
- Matching wheel flanges allow the use of common accessories
- Dust Ejection System provides durability by ejecting damaging dust and debris particles that enter the tool through the air intake vents
- Quick-Change™ Wheel Release provides easier and quicker wheel removal without the need for a wrench
- No Lock-On Paddle switch lock-off provides the user protection from accidental start up



Order No.	Regular Price	SALE
1089213	218.50	190.09

22349

**DEWALT 20V Max Lithium Ion Grinder Tool Kit**

- 8,000 RPM motor provides high-power for cutting and grinding applications
- Tool-free guard allows for quick and easy guard adjustments/positioning
- 2-position side handle offers greater control, comfort and versatility
- Power to Grind
- Quick Change™ Wheel Release allows tool-free wheel removal without need for a wrench
- 2-Finger trigger switch (w/lock-off button) allows for convenient activation and easier gripping
- 5.0 amp hour batteries (2)



Order No.	Regular Price	SALE
1088990	714.70	621.80

30961

**DEWALT 20V MAX 1/2" IMPACT WRENCH**

- Dual LEDs help illuminate the work surface
- Variable-speed dial allows the user to match speed of the router to the application
- Depth adjustment ring allows for fast and easy height adjustments
- Soft start motor with full-time electronic feedback allows the motor to maintain speed during cuts
- Electronic brake slows the motor down faster after the unit is shut off
- Tool only.... battery and charger not included
- Router Motor, Fixed Base, Instruction Manual, Wrench



Drive	Maximum RPM	Battery and Charger	Model No	Order No.	Regular Price	SALE
1/2"	0-2,300	Not Included	DCF880B	1088953	299.82	260.85

30734

**DEWALT 20V Lithium Ion Impact Driver Kits**

- Compact, lightweight design fits into tight areas
- 3 LED lights with 20-second delay after trigger release, provide visibility without shadows
- XR™ Li-Ion batteries with fuel gauge provides 33% more capacity over standard packs
- **DCF887B DOES NOT INCLUDE BATTERY**
- Haz Code HAZ05



Model No	Drive	Voltage	Impacts per Minute	Maximum RPM	Order No.	Regular Price	SALE
DCF887M2	1/4"	20 V	3,600	0-1,000 / 2,800 / 3,250	1088963	601.52	523.32
DCF887B	1/4"	20 V	3,800	0-1,000 / 2,800 / 3,250	1088961	280.98	244.45

2081

**DEWALT 20V MAX XR Drywall Screw Gun & Impact Driver Kit**

- Brushless motor in both units
- (2) Belt hooks included on both units for portability
- LEDs for increased visibility
- Precision drive in speed 1 for precision applications and added control
- XR Li-ION batteries with fuel gauge
- (2) DCB204 20V MAX XR 4.0Ah Battery Pack
- Charger
- Contractor Bag

**DCF620 20V MAX XR DRYWALLS SCREW GUN:**

- Balanced and ergonomic
- 4400 RPM

**DCF887 20V MAX XR 1/4" IM-PACT DRIVER:**

- Compact (5.55" Length) and lightweight
- One-handed loading 1/4" hex chuck accepts 1" bit tips
- 3-speed settings for optimized application versatility



Model No	Order No.	Regular Price	SALE
DCK267M2	1089012	756.41	658.07

2086

## sureorglove Sure Knit S10SXB | XS-2XL

- Food safe antimicrobial extreme cut-resistant gloves that are thicker for more cushioning plus blue yarn for contamination detection



Model No.	Size	Order No.	Regular Price	SALE
S10SXB/XS	XS	0114589	13.72	9.00
S10SXB/S	S	0114590	13.72	9.00
S10SXB/M	M	0114591	13.72	9.00
S10SXB/L	L	0114592	13.72	9.00
S10SXB/XL	XL	0114593	13.72	9.00
S10SXB/XXL	2XL	0114594	13.72	9.00

50006

## sureorglove Dexterity S13HVLX | 6-11

- Hi-viz gloves with latex palm coating for grip.



Model No.	Size	Order No.	Regular Price	SALE
S13HVLX-6	6	0114738	5.53	3.63
S13HVLX-7	7	0114739	5.53	3.63
S13HVLX-8	8	0114740	5.53	3.63
S13HVLX-9	9	0114741	5.53	3.63
S13HVLX-10	10	0114742	5.53	3.63
S13HVLX-11	11	0114743	5.53	3.63

50007

## sureorglove DEXTERITY S10LXQ | 7-11

- Latex palm coating for superior wet or dry grip
- ANSI level 4 puncture resistant and ANSI Level 4 abrasion resistant
- Excellent flexibility and a comfortable ergonomic shape



Model No.	Size	Order No.	Regular Price	SALE
S10LXQ-7	7	0114572	5.95	3.91
S10LXQ-8	8	0114573	5.95	3.91
S10LXQ-9	9	0114574	5.95	3.91
S10LXQ-10	10	0114575	5.95	3.91
S10LXQ-11	11	0114576	5.95	3.91

30804

## sureorglove Dexterity TKTAGLX | M-3XL

- Water-resistant cold protection with cut resistance plus latex palm coating for flexible dry grip.



Model No.	Size	Order No.	Regular Price	SALE
TKTAGLX-M	M	0115759	13.72	9.00
TKTAGLX-L	L	0115760	12.60	8.26
TKTAGLX-XL	XL	0115761	12.60	8.26
TKTAGLX-XXL	2XL	0115762	13.72	9.00
TKTAGLX-XXX	3XL	0115763	13.72	9.00

30681

## sureorglove TENACTIV STAGBPU | 5-12

- Black knit gloves that hide dirt and stains with moderate cut protection plus polyurethane palm coating for better dry grip
- Made with material with biodegradable additive



Model No.	Size	Order No.	Regular Price	SALE
STAGBPU-5	5	0115626	10.26	6.73
STAGBPU-6	6	0115627	10.26	6.73
STAGBPU-7	7	1757673	10.26	6.73
STAGBPU-8	8	1669051	10.26	6.73
STAGBPU-9	9	1669052	10.26	6.73
STAGBPU-10	10	1669053	10.26	6.73
STAGBPU-11	11	1763953	10.26	6.73
STAGBPU-12	12	0115628	10.26	6.73

30683

## sureorglove TENACTIV STACXPURT | 5-12

- Maximum abrasion resistance with reinforced thumb crotch for high durability plus non-marring polyurethane palm coating for better dry grip



Model No.	Size	Order No.	Regular Price	SALE
STACXPURT-5	5	0115574	15.93	10.46
STACXPURT-6	6	0115575	15.93	10.46
STACXPURT-7	7	0115576	15.93	10.46
STACXPURT-8	8	1669054	15.93	10.46
STACXPURT-9	9	1669055	15.93	10.46
STACXPURT10	10	1669056	15.93	10.46
STACXPURT11	11	0115577	15.93	10.46
STACXPURT12	12	0115578	15.93	10.46

30707

**CONTENDER SPGRK2D | S-2XL**

- High cut resistance and ANSI 3 heat protection with dotted PVC palm coating to balance flexibility, breathability, and grip.



Model No.	Size	Order No.	Regular Price	SALE
SPGRK2D/S	S	0115477	15.12	9.91
SPGRK2D/M	M	0115478	15.12	9.91
SPGRK2D/L	L	0115479	15.12	9.91
SPGRK2D/XL	XL	0115480	15.12	9.91
SPGRK2D/XX	2XL	0115481	15.12	9.91

30809

**CUTBAN KPW | ONE SIZE**

- Tubular style with low cut protection



Model No.	Size	Order No.	Regular Price	SALE
KPW12	L-XL	0114158	7.88	5.17
KPW12XL	L-XL	0114159	7.88	5.17
KPW14	L-XL	1669083	8.37	5.49
KPW14TH	L-XL	0114163	9.94	6.52
KPW14TH/XL	XL	0114164	9.94	6.52
KPW14XL	L-XL	0114162	8.37	5.49
KPW18	L-XL	1669084	9.94	6.52
KPW18/XL	XL	0114165	9.94	6.52
KPW18TH	L-XL	1763948	11.34	7.43
KPW18TH/XL	XL	0114166	11.34	7.43
KPW22	L-XL	0114167	10.89	7.14
KPW22/XL	XL	0114168	10.89	7.14

30700

**CUTBAN KP1T | XS-XL**

- Tapered style with low cut protection plus inner bicep elastic and grip to stay in place.



Model No.	Size	Order No.	Regular Price	SALE
KP1T18	XS-XL	8782514	17.33	11.37
KP1T18/XS	XS	0114121	17.33	11.37
KP1T18/S	S	0114122	17.33	11.37
KP1T18/M	M	0114123	17.33	11.37
KP1T18/XL	XL	0114125	17.33	11.37
KP1T18THXS	XS	0114131	18.90	12.40
KP1T18TH/S	S	0114132	18.90	12.40
KP1T18TH/M	M	0114133	18.90	12.40
KP1T18TH	L	0114134	18.90	12.40
KP1T18TH/X	XL	0114135	18.90	12.40

50008

**CONTENDER KAWC | One-Size**

- Double-layered sleeves with low cut protection that sparks and melting



Model No.	Size	Order No.	Regular Price	SALE
KAWC10	L	0113940	9.77	6.41
KAWC10TH	L	0113941	11.03	7.24
KAWC14	L	0113943	13.41	8.79
KAWC18	L	0113945	16.07	10.54
KAWC18TH	L	0113946	17.33	11.37
KAWC6	L	8782565	7.42	4.87
KAWC9THE	L	8782501	5.22	3.26

30810



## PRM<sup>PRO</sup> Dead Blow Hammers

- Steel shot inside head eliminates rebound, conserving energy of each blow
- High-impact poly jacket surrounds the all-steel handle\* and head, preventing marring of surfaces
- Diamond textured handle for non-slip grip
- Made with lead-free and 3P phthalate-free materials
- Lifetime warranty against manufacture defects



Face Diameter	Head Length	Overall Length	Handle Material	Order No.	Price	SALE
1-7/16	3-5/8	11-3/4	Rubber	1116093	29.89	<b>22.42</b>
1-7/8	3-5/8	12	Rubber	1116094	33.22	<b>24.92</b>
2	4	13	Rubber	1116095	35.43	<b>26.57</b>
2-1/4	4-1/4	14-1/2	Rubber	1116096	44.31	<b>33.23</b>
2-1/2	4-5/8	15	Rubber	1116097	36.54	<b>27.41</b>
2-5/8	5	15-1/2	Rubber	1116098	42.64	<b>31.98</b>
3-5/8	6	36-1/2	Rubber & Fiberglass	1116099	146.89	<b>110.17</b>
4	8	36-7/8	Rubber & Fiberglass	1116100	194.03	<b>145.52</b>

2802

## WILLIAMS 10 Pc. Extractor Set

- Will remove broken screws, bolts, studs and pipes
- Will handle a range from 1/4" to 1-1/2"
- A space for the proper drill size has been molded in the case for your convenience



For Removing	Drive Size	Order No.	Regular Price	SALE
1/4" - 5/16", 3/8", 7/16", 1/2" - 9/16", 5/8", 3/4", 7/8", 1" - 1-1/8", 1-1/4" - 1-3/8", 1-1/2"	1/8", 3/16", 7/32", 5/16", 3/8", 15/32", 9/16", 21/32", 13/16", 11/16"	0888150	361.20	<b>253.88</b>

3133

## APEX Torx® Bits



Tip Size	Drive Size	Overall Length	Model No	Order No.	Regular Price	SALE
T6	1/4"	1"	440-TX-06X	0912395	8.42	<b>7.37</b>
T7	1/4"	1"	440-TX-07X	0912396	8.42	<b>7.37</b>
T8	1/4"	1"	440-TX-08X	0912397	8.42	<b>7.37</b>
T9	1/4"	1"	440-TX-09X	0912398	8.42	<b>7.37</b>
T10	1/4"	1"	440-TX-10X	0912399	7.09	<b>6.20</b>
T15	1/4"	1"	440-TX-15X	0912400	7.09	<b>6.20</b>
T20	1/4"	1"	440-TX-20X	0912401	7.18	<b>6.29</b>
T25	1/4"	1"	440-TX-25X	0912402	7.18	<b>6.29</b>
T27	1/4"	1"	440-TX-27X	0912403	7.18	<b>6.29</b>
T30	1/4"	1"	440-TX-30X	0912404	7.18	<b>6.29</b>
T40	1/4"	1"	440-TX-40X	0912405	7.18	<b>6.29</b>
T45	1/4"	1 1/4"	440-TX-45X	0912406	11.61	<b>10.16</b>
T50	1/4"	1 1/4"	440-TX-50X	0912407	12.70	<b>11.12</b>
T27	5/16"	1 1/4"	480-TX-27X	0912409	9.38	<b>8.21</b>
T30	5/16"	1 1/4"	480-TX-30X	0912410	9.29	<b>8.13</b>
T40	5/16"	1 1/4"	480-TX-40X	0912411	9.29	<b>8.13</b>
T45	5/16"	1 1/4"	480-TX-45X	0912412	10.49	<b>9.18</b>
T50	5/16"	1 1/4"	480-TX-50X	0912413	10.49	<b>9.18</b>
T55	5/16"	1 1/4"	480-TX-55X	0912414	11.86	<b>10.38</b>

3448

## Half Round Swiss Pattern Files



- Designed to provide the finest cut available
- Used for delicate detailed work
- Surfaces taper to a point
- Flat and convex surfaces double cut



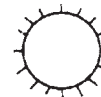
Overall Length	Cut Type	Order No.	Regular Price	SALE
6 1/4"	0 Cut-Bastard	0796382	33.70	<b>21.89</b>
7"	0 Cut-Bastard	0796386	39.55	<b>25.68</b>
6 1/4"	1 Cut-2nd	0796383	33.05	<b>21.47</b>
7"	2 Cut-Smooth	0796387	38.42	<b>24.95</b>
6 1/4"	4 Cut-Dead Smooth	0796385	35.06	<b>22.76</b>

11340



## Round Swiss Pattern Files

- Designed to provide the finest cut available
- Used for delicate detailed work
- Surfaces taper to a point
- Double cut



Overall Length	Cut Type	Order No.	Regular Price	SALE
5 1/2"	0 Cut-Bastard	0796400	25.02	<b>16.25</b>
6 1/4"	0 Cut-Bastard	0796403	27.20	<b>17.66</b>
6 1/4"	2 Cut-Smooth	0796405	27.20	<b>17.66</b>
7"	2 Cut-Smooth	0796408	31.36	<b>20.36</b>
5 1/2"	4 Cut-Dead Smooth	0796402	25.02	<b>16.25</b>

11344

## PRM<sup>PRO</sup> Flag Drivers

- Flag shape style wing with thumb stop
- Top spinner knob for easy control and smooth turning
- Flag handles molded on for permanent bond
- Exact fit machined tips
- S2 modified steel through hardness for maximum durability
- Lifetime warranty against mfg defect



Torx Size	Blade Length	Order No.	Price	SALE
T9	1.56"	0887769	4.76	<b>3.81</b>
T10	1.56"	0887770	4.76	<b>3.81</b>
T15	1.56"	0887771	4.76	<b>3.81</b>
T20	1.56"	0887772	4.76	<b>4.28</b>
T6	1.37"	0887766	5.36	<b>4.29</b>
T7	1.37"	0887767	5.36	<b>4.29</b>
T8	1.37"	0887768	5.36	<b>4.29</b>

1137

## **CRESCENT** 150 Piece Mechanic's Tool Set

- Newly designed 72T Crescent quick release ratchet
- Carefully selected assortment of hand tools for most industrial, mechanical, and consumer applications.
- Set includes 1/4", 3/8" drive tools with both SAE & Metric components, to tackle a wide range of projects.
- Tool meet stringent new ANSI and ASME specifications and come with a full satisfaction guarantee.
- Upgraded set includes a heavy-duty blow molded case to keep your tools organize and secure.
- Get incredible access from combination wrenches with narrow heads, adjustable wrenches and pliers, and long-beam ratchets with small teardrop heads
- Blow molded case



Order No.	Regular Price	SALE
1294952	304.64	233.97

799

## **IRWIN VISE-GRIP** "The Original" Locking Pliers

- Curved and straight jaws
- Wire cutters available
- Tremendous pressure applies when closed
- Guarded release trigger to protect against accidental release
- Hardened teeth to grip from any angle



Curved						
Overall Length	Jaw Capacity	Jaw Thickness	Wire Cutter	Order No.	Regular Price	SALE
4"	15/16"	1/4"	Yes	0913186	32.78	27.71
5"	1 1/8"	1/4"	Yes	0913201	45.81	38.72
7"	1 5/8"	5/16"	No	0913220	47.07	37.13
7"	1 1/2"	5/16"	Yes	0913223	47.07	37.13
10"	1 7/8"	3/8"	Yes	0912947	47.86	37.76
10"	1 7/8"	3/8"	No	0912944	47.94	37.81

Straight						
Overall Length	Jaw Capacity	Jaw Thickness	Wire Cutter	Order No.	Regular Price	SALE
7"	1 5/16"	5/16"	No	0913222	47.07	37.13
10"	1 3/4"	7/16"	No	0912946	47.86	37.76

2656

## **STANLEY** Lineman's Cutting Pliers

- Hardened cutting edges for durability
- Serrated jaw for additional grip and leverage
- Forged steel construction
- Rust resistant finish
- Double dipped handle for comfort
- Meets or exceeds ANSI standards



Overall Length	Model No	Order No.	Regular Price	SALE
8"	84-113	0901404	31.54	21.45

7761

## **wiha** Torx® Screwdrivers

- Round blades
- Hardened steel for maximum durability
- Sure fit tips
- Soft handles



Tip Size	Blade Length	Order No.	Regular Price	SALE
T6	2 1/2"	0883859	9.70	8.46
T7	2 1/2"	0883861	9.42	8.23
T8	2 1/2"	0883863	9.42	7.81
T9	2 1/2"	0883865	10.50	8.68
T10	3"	0883867	10.58	8.72
T15	3"	0883869	12.11	9.41
T20	4"	0883871	11.66	9.67
T25	4"	0883873	13.87	12.12

782

## **STANLEY** Heavy Duty Chrome Plated Steel Staple Gun

- Chrome-plated all steel construction for durability
- Bottom load staples for quick and easy reloading
- Handle lock for convenient storage
- For everyday stapling needs around the home or office
- Uses TRA700 Series; T50 Staples from 1/4" to 9/16"



Order No.	Regular Price	SALE
0901484	45.92	31.22

11502

## **Green Manufacturing Company** Non-Marring Mallets Economical Selected Hickory Handles

Head Diameter	Head Length	Head Weight	Head Material	Order No.	Price	SALE
1"	2"	2 oz	Rawhide	0913636	41.88	35.60
1 1/4"	2 1/2"	4 oz	Rawhide	0913637	46.92	39.88
1 1/2"	3"	6 oz	Rawhide	0913638	55.18	46.90
1 3/4"	3 1/8"	9 oz	Rawhide	0913639	70.31	59.76
2"	3 1/2"	11 oz	Rawhide	0913640	80.40	68.34
2 3/4"	4 1/4"	22 oz	Rawhide	0913641	142.61	121.22
2 3/4"	4 3/4"	24 oz	Rawhide	0913642	155.45	132.13

10804

**MCR** **Regular Weight Terrycloth Cotton Polyester Sleeves**

- 15-Inch Long
- 16 Ounce loop-out cotton polyester blend
- Provides Basic cut, abrasion and heat protection
- Provides comfort and warmth
- Soft to the touch



Color	Size	Material	Order No.	Price	SALE
Natural	Large	Terrycloth	1145663	52.98	42.43

60700

**2-Ply Kevlar® Sleeve with Thumb Hole**

- Kevlar provides excellent cut protection and heat resistance for the wrists and arms
- Seamless knit for comfort and flexibility
- 2-Ply construction for added protection
- Integrated thumb hole allows protection all the way to the knuckle without sacrificing dexterity



Size	Color	Material	Order No.	Price	SALE
10"	Yellow	Kevlar blend	1109623	7.45	5.74
12"	Yellow	Kevlar blend	1109627	7.83	6.02
14"	Yellow	Kevlar blend	1109633	9.38	7.22
18"	Yellow	Kevlar blend	1109640	7.07	5.45
24"	Yellow	Kevlar blend	1109646	15.75	12.12

29799

**Kocher BrightStar** **Intrinsically Safe Razor LED**

- **Bulb:** LED
- **Run time:** 24 Hours
- **Lumens:** 125
- **Batteries:** 3 AA batteries (not included)
- Intrinsically safe
- **Features:** high output LED, fully waterproof to one meter, floats, weighs just 7 ounces, tactical, tail cap slot for optional lanyard or s-biner. extremely lightweight, super tough nylon construction, limited lifetime warranty



Body Color	Order No.	Regular Price	SALE
Hi Vis Green	0879607	49.46	43.46

2744

**Wells Lamont Industrial** **10" Kevlar Sleeve 2 Ply SK-10**



Size	without Thumbhole			with Thumbhole		
	Order No.	Price	SALE	Order No.	Price	SALE
10"	0946799	4.52	3.84	-	-	-
14"	0946800	6.31	5.36	0946801	6.92	5.88
16"	0946802	7.24	6.15	-	-	-
18"	0946803	8.02	6.82	0946804	8.62	7.33
24"	0946806	10.75	9.14	0946807	11.27	9.58

59608

**REUSABLE TPR CORDED EAR**

- Pre-formed plug shape with no rolling required makes insertion simple
- Self-sealing flanges give all day comfort
- Rigid stem makes insertion easy and reduces the risk of contamination
- Corded versions use a non-resonating textile cord for comfort and easy storage
- Cord can be detached for added safety when working around machines, or when the TPR plug is to be cleaned using soap and water
- Can be reused several times, making them very cost efficient
- Moderate attenuation allows for safe usage that blocks out hazardous noise yet allows warning signals and voices to be clearly understood



Noise Reduction Rating	Style	Standard Pack	Order No.	Price	SALE
27 dB	Reusable / Corded	100	1159678	159.60	122.89

60702

**MOLDEX Rockets® Reusable Earplugs**

- Easy grip handle lets earplugs easily slip into ear
- Air bubble in tip provides cushioned comfort
- Pocket-Pak® carrying case provides hygienic storage of plugs between uses
- Available in corded and uncorded



Noise Reduction Rating	Style	Standard Pack	Order No.	Price	SALE
27 dB	Uncorded	50	9721549	149.74	113.80
27 dB	Corded	50	9721551	209.86	159.49
27 dB	Corded	50	9721550	197.65	150.21
27 dB	Corded	50	9721553	234.88	178.51

60671

**MOLDEX** **Glide® Twist-in Earplugs**

- Glide foam twist-in
- Corded foam earplug
- NRR 30dB



Noise Reduction Rating	Style	Standard Pack	Order No.	Price	SALE
30 dB	Uncorded	100	9721534	102.10	77.60
30 dB	Corded	100	9721536	148.51	112.87
30 dB	Corded	150	9721596	229.03	174.06
30 dB	Uncorded	50	9721437	63.64	48.37

60683

**Honeywell** **Max Lite® Foam Earplugs**

- Ideal for people with smaller ear canals
- Self adjusting polyurethane foam expands to fit virtually every wearer
- Contoured T-shape for easy insertion and wear
- Smooth, soil-resistant closed cell foam skin prevents dirt build-up
- Compliance: ANSI S3.19-1974
- **Priced per each**



Noise Reduction Rating	Style	Type	Standard Pack	Order No.	Price	SALE
30 dB	Uncorded	Earplug	200	0916553	0.34	0.32
30 dB	Corded	Earplug	100	0916556	0.64	0.59
30 dB	Reusable / Uncorded	Earplug Refill	500	0916554	0.34	0.29

2711

**Honeywell**  
**Fusion® Reusable Earplugs**

- Patented dual material design
- Unique detachable cord system
- Includes HearPack® hard plastic kidney shaped case
- SoftFlange® design delivers unmatched comfort and attenuation
- Sold by box of 100 pair only (priced per each pair)



Noise Reduction Rating	Style	Standard Pack	Order No.	Price	SALE
27 dB	Corded	100	<b>0916536</b>	3.33	<b>2.74</b>
27 dB	Corded	100	<b>0916534</b>	3.33	<b>2.74</b>

3235

**3M 3M™ Skull Screws™ Earplugs P1310**

- Polyurethane
- Tough look of threaded metal, but feel of soft foam
- Push-to-fit style prevents earplug roll down
- Foam tip stays clean
- NRR 32 dB



Noise Reduction Rating	Style	Order No.	Regular Price	SALE
32 dB	Corded	<b>0782501</b>	1.55	<b>1.34</b>

22585

Sold in Box Only

**3M 3M™ Peltor™ Optime™ 105 Earmuff,**
**Over-the-Head**

- Suitable for noise levels up to 105 dBA
- Wide, softly padded headband and soft foam-filled ear cushions provide a comfortable fit



Noise Reduction Rating	Order No.	Regular Price	SALE
30 dB	<b>0772451</b>	57.96	<b>50.13</b>

2399

**3M 3M™ Removable Transfer Tape 465**

- A highly versatile tape consisting of a thin adhesive film, which can be transferred to many dry surfaces
- Once the tape has been removed from the surface, it's virtually impossible to detect any residue remaining on the surface
- Color: clear



Width	Length	Order No.	Price	SALE
1/2"	60 yard	<b>0917065</b>	20.12	<b>16.98</b>
1"	60 yard	<b>0917067</b>	40.25	<b>33.98</b>
2"	60 yard	<b>0917252</b>	80.50	<b>67.94</b>

2378

**3M 3M™ High Performance Green Masking Tape 401**

- High performance for critical paint masking applications
- Solvent-free adhesive sticks to most surfaces including metal, rubber, glass and plastic while removing cleanly in one piece
- Withstands surface temperatures up to 250°F (121°C)
- Color: Green



Width	Length	Order No.	Price	SALE
1"	60 yard	<b>0921567</b>	14.10	<b>11.90</b>
2"	60 yard	<b>0921569</b>	28.17	<b>23.77</b>
3"	60 yard	<b>0921570</b>	42.29	<b>35.70</b>

2373

**3M 3M™ Double-Sided Tape 415**

- High quality, acid-free double sided transparent tape
- Most often used when creating Mylar envelopes, as well as mounting labels and photographs
- Color: clear



Width	Length	Order No.	Price	SALE
1"	36 yard	<b>0917057</b>	55.36	<b>46.72</b>
1 1/2"	36 yard	<b>0917058</b>	83.03	<b>70.08</b>
2"	36 yard	<b>0917250</b>	110.71	<b>93.44</b>

2376

**3M 3M™ Double-Sided Masking Tape 410**

- Instantly bonds and grips to just about anything
- This double-sided tape is thick and sticky made with a rubber adhesive
- Used for splicing and mounting printing plates



Length	Width	Color	Order No.	Price	SALE
36 yard	2"	White/Off-White	<b>0919327</b>	96.82	<b>81.72</b>
60 yard	1"	Green	<b>0929839</b>	48.41	<b>40.87</b>

29334

**3M 3M™ Masking Tape 201**

- General use for light to medium holding and bundling
- Rubber based adhesive sticks to a variety of surfaces
- Smooth conformable crepe paper backing is easy to handle, apply and remove in one piece
- Withstands temperatures up to 200°F
- Color: Natural

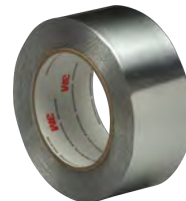


Width	Length	Order No.	Price	SALE
3/4"	60 yard	<b>0921545</b>	4.54	<b>3.82</b>
1"	60 yard	<b>0921546</b>	5.68	<b>4.80</b>
1 1/2"	60 yard	<b>0921547</b>	8.55	<b>7.22</b>
2"	60 yard	<b>0921548</b>	11.38	<b>9.60</b>

2368

**3M 3M™ Aluminum Foil Tape 425**

- Shiny, silver, dead soft aluminum foil with transparent, pressure sensitive adhesive
- Aluminum backing provides excellent reflection of both heat and light
- Good candidate as a maskant in electroplating of aluminum because it will not contaminate the bath



Width	Length	Order No.	Price	SALE
2"	60 yard	<b>0920996</b>	136.40	<b>115.12</b>

2377

**PRM PRO Drum Dolly-Non-Marring Caster Wheels**

- For 55 Gal drums
- Wheels are designed to protect floor from marring or scratching

Order No.	Price	SALE
<b>1765703</b>	310.03	<b>279.03</b>

1198



## MCR SAFETY BK3 - 2.5X Bifocal Safety Glasses

- Basic-fit visitor reader safety glasses have limited comfort features while ensuring that site visitors have appropriate ANSI-rated, impact-resistant safety glasses when touring warehouses and production facilities.
- They're also worn by workers who require short-term protection.
- These glasses are often placed near work area entrances to keep eye protection readily accessible where eye protection is required.



Lens Color	Lens Coating	Frame Color	Order No.	Price	SALE
Clear	Scratch Resistant	Clear	0785921	10.15	8.04

60703

## MCR SAFETY BK1®

- Non-slip temple sleeves
- Single wrap-around lens design with integral side shields



Lens Color	Lens Coating	Frame Color	Order No.	Price	SALE
Clear	Uncoated	Clear	0785922	3.12	2.66
Clear	Scratch Resistant	Clear	0785923	3.33	2.82
Clear	Anti-Fog & Scratch Resistant	Clear	0785924	4.48	3.80
Gray	Scratch Resistant	Gray	0785925	3.33	2.82
Light Blue	Scratch Resistant	Light Blue	0785926	4.20	3.57
Mirrored	Scratch Resistant	Clear	0785927	4.20	3.57

2529

## PYRAMEX Safety Glasses

### Exceeds ANSI Z87.1-2003 High Impact Requirements

#### Avante

- Lightweight sport styling
- Built in rubber nose pad
- Vented frame
- 99% Effective against UV rays
- Black frame



Avante

#### V2 Reader

- Reader lens is out of user's direct line of sight
- 5 Different sizes of magnification available, clear lens
- 9.75 Base curved lens provides full side protection
- Black frame



V2 Reader Magnifiers

Style - Avante			
Lens Color	Order No.	Regular Price	SALE
Amber	0784761	9.97	6.95

Style - V2 Reader Magnifiers				
Lens Color	Magnification	Order No.	Regular Price	SALE
Clear	1.0x	0784739	23.07	16.07
Clear	1.5x	0784740	23.07	16.07
Clear	2.0x	0784741	23.07	16.07
Clear	2.5x	0784742	23.07	16.07
Clear	3.0x	0784743	23.07	16.07

24

## 3M 3M™ BX™ Protective Eyewear with Readers

- Clear choice for workers who have difficulty reading small print or who are engaged in small detail work
- BX protective reader eyewear features three magnifying diopters to choose from
- Lightweight, polycarbonate lenses with adjustable soft-tip temples, and a soft nose-bridge
- Curved lens side protection



Lens Color	Lens Coating	Frame Color	Order No.	Price	SALE
Clear	Anti-Fog	Silver	0774822	27.05	22.86
Clear	Anti-Fog	Silver	0774823	27.05	22.86
Clear	Anti-Fog	Silver	0774824	27.05	22.86

1020

## 3M Semi-Rimless Safety Glasses with Black Frame, Clear Lens and Anti-Scratch / Anti-Fog Coating

- Lightweight, semi-rimless design provides all day user comfort
- Sleek, sporty style with wraparound lens protection
- Bayonet temples with flexible rubber tips offer a comfortable, secure fit
- Supplied with an adjustable neck cord
- Meets ANSI Z87.1+



Lens Color	Lens Coating	Frame Color	Order No.	Price	SALE
Clear	Anti-Scratch	Black	1111127	7.38	5.39
Clear	Anti-Scratch / Anti-Fog	Black	1111128	7.07	5.16
Gray	Anti-Scratch	Black	1111129	7.00	5.11
Light Blue	Anti-Scratch	Black	1111130	7.00	5.11
I/O	Anti-Scratch	Black	1111131	8.20	5.99
Blue	Anti-Scratch	Black	1111132	11.20	8.18

2364

## airmaster 42" Belt Drive High Volume MANCOOLER®

- 1/2 HP/1PH/115V 2 speed ODP motor
- 42" Diameter barrel with wheels
- 3 Blade aluminum propeller
- 42" Blade size
- 14000/8000 CFM High/Low
- 540/400 RPM High/Low
- Epoxy coated steel spiral guards and barrel
- Two speed rocker switch
- 10" Three conductor cord and plug
- 8" Steel wheels
- Fully assembled
- UL/CUL listed
- Shipping weight 120 lbs
- 2 Year warranty



Order No.	Price	SALE
1116835	1289.72	1160.75

2630

**airmaster** Commercial Pivot Stand Air Circulators

- 115V, 1 Phase, 3 speed, open drip proof, ball bearing motor
- Aluminum props
- Easy reach switch
- Chrome plated tubular steel base
- 10' Three conductor power cord and plug
- High stand and yoke mount adjusts 360°
- UL listed
- 1 Year commercial warranty
- UPS dimensional weight shipping rates apply



Floor							
Blade Size	Flow	Maximum RPM	Horsepower	Shipping Weight	Order No.	Regular Price	SALE
12"	1855/1550/1300 CFM	1,450	1/16 hp	10.0 lbs	<b>1116848</b>	228.41	<b>208.02</b>
12"	1,448/1,165/953 CFM	1,500	1/16 hp	10.0 lbs	<b>1116828</b>	205.58	<b>187.22</b>
18"	2,966/2,437/2,013 CFM	1,600	1/8 hp	15.0 lbs	<b>1116830</b>	282.98	<b>257.72</b>

2444

**airmaster** 1/4 HP Industrial Wall & Pedestal Fans

- Adjustable column - 5' to 8'
- 4400/3460 CFM rating
- 115V, non-oscillating, 1 phase, 3 speed, totally enclosed air over ball bearing motor
- 15' Connecting cord
- Aluminum blades
- Wall/ceiling mounts with safety cable included
- UL/ CUL listed
- 2 Year warranty
- UPS dimensional weight charges apply, ships in one box



Flow	Model	Order No.	Regular Price	SALE
4,400/3,460/2,460 CFM	Adjustable Floor	<b>1116822</b>	748.69	<b>636.39</b>
4,400/3,460/2,460 CFM	Wall/Ceiling Mount	<b>1116823</b>	587.52	<b>499.39</b>

22699

**WEILER** Coarse Sweeping

- Non-absorbent - oil resistant - wash easily
- Wet or dry sweeping
- Lacquered hardwood block
- Two threaded handle holes
- Handles Sold Separately



Overall Length	Trim Length	Bristle Material	Order No.	Price	SALE
18"	3 1/4"	Synthetic Fill/Oil Resistant	<b>0916017</b>	32.23	<b>22.59</b>
24"	3 1/4"	Synthetic Fill/Oil Resistant	<b>0916018</b>	47.36	<b>33.20</b>
24"	3"	Tampico Fiber	<b>0916077</b>	82.43	<b>57.78</b>

1362

**WEILER** Upright Brooms

- Fiber brooms are for rough surfaces and corn brooms are for smooth
- Both can be used in wet or dry applications



Trim Length	Bristle Material	Order No.	Price	SALE
10"	Palmyra	<b>0916115</b>	61.50	<b>34.85</b>
18"	Corn Fiber	<b>0916116</b>	34.87	<b>19.75</b>
15"	Corn Fiber	<b>0916117</b>	38.43	<b>21.77</b>
7 1/2"	Plastic	<b>0916150</b>	32.54	<b>17.49</b>

1366

**WEILER** Floor Brush Handles

- Lacquered hardwood
- Standard threads



Length	Tip Material	Order No.	Price	SALE
5 feet	Wood	<b>0916125</b>	15.19	<b>10.65</b>
5 feet	Steel	<b>0916146</b>	16.27	<b>11.41</b>
5 feet	Vinyl	<b>0916147</b>	18.24	<b>12.79</b>

1367

**WEILER** Perma Sweep™ Brooms

- These rugged Perma-Sweeps™ have 2-3 times the life of ordinary sweeps
- Tough synthetic block will not split, crack, or warp
- The synthetic fill is chemical and solvent resistant
- Wet or dry application



				Push Broom Head		
Overall Length	Style	Bristle Color	Trim Length	Order No.	Price	SALE
18"	Fine	Green	3"	<b>0916080</b>	39.77	<b>21.38</b>
24"	Fine	Green	3"	<b>0916081</b>	55.20	<b>29.69</b>
18"	Medium	Yellow	3"	<b>0916082</b>	39.77	<b>21.38</b>
24"	Medium	Yellow	3"	<b>0916083</b>	55.20	<b>29.69</b>
18"	Heavy	Maroon	3"	<b>0916084</b>	39.77	<b>21.38</b>
24"	Heavy	Maroon	3"	<b>0916085</b>	55.20	<b>29.69</b>

1365



## SHOWA 7500PF

- Latex-free
- Competitively-priced
- Retains tactility
- Rolled cuff keeps debris out
- **Thickness:** 4 mil

- **Material:** nitrile
- **Color:** blue
- 100 Gloves per box



Size	Order No.	Price	SALE
Small	1201327	22.26	14.25
Medium	1201328	22.26	14.25
Large	1201329	22.26	14.25
X-Large	1201330	22.26	14.25
2X-Large	1201331	22.26	14.25

3091

## SHOWA 377

- Excellent wet & oil grip
- Liquid-resistant to knit wrist
- Warmth, protection and comfort
- Splash protection against wide range of chemical substances
- Mimics the curvature of a human hand to reduce fatigue
- Coating: nitrile, foam nitrile
- Liner: seamless knit, 13-gauge
- Color: blue/black palm



Size	Order No.	Regular Price	SALE
Small	1201675	12.95	8.29
Medium	1201676	12.95	8.29
Large	1201677	12.95	8.29
X-Large	1201678	12.95	8.29
2X-Large	1201679	12.95	8.29

30763

## MCR SAFETY 9673 UltraTech® Foam Gloves

- 24 Gauge gray nylon shell
- Black foam nitrile coating on palm and fingertips
- Used in multi-industrial applications
- Breathable material



Size	Order No.	Regular Price	SALE
Small	0784491	5.26	4.35
Medium	0784490	5.26	4.35
Large	0784489	5.26	4.35
X-Large	0784493	5.26	4.35

30900

## superiorglove ParaActiv Pro™ SPGRK

### Latex-free knit heat protection with 360 cut resistance

- These uncoated knit heat-resistant gloves are made of spun yarn for breathability.
- Uncoated gloves provide increased breathability and dexterity over coated gloves.
- They eliminate the risk of coatings contaminating the area or workpiece.



Size	Order No.	Price	SALE
Large	1668952	20.79	16.34
Medium	1668951	20.79	16.34

3240



## EMERALD CX SCXTAPVC

Cut-resistant cold protection with PVC palm coating that won't stiffen in cold temperatures.



Size	Order No.	Price	SALE
Small	0115226	33.39	19.57
Medium	0115227	33.39	19.57
Large	0115228	33.39	19.57
X-Large	0115229	33.39	19.57
2X-Large	0115230	33.39	19.57

1045



## Endura® 378GKGE

### Economic choice for arc flash protection with cut resistance

- An economic choice for protection against arc flash and cut hazards
- Arc flash-rated level 3 with an Arc Thermal Performance Value (ATPV) of 36 cal / cm<sup>2</sup>
- ParaActiv™ engineered yarn liner for 360° cut protection with ANSI A4 cut resistance
- Cleaning instructions: dry clean



Size	Order No.	Price	SALE
Medium	1669007	28.04	16.43
Large	1669008	28.04	16.43
X-Large	1669009	28.04	16.43
2X-Large	1669010	28.04	16.43

3156



## KnitActiv™ S13BFNT

### Touchscreen compatible general use gloves with nitrile palms for better wet grip

- Foam nitrile palm coating for steady wet grip
- Touchscreen compatible to seamlessly move between tasks
- Black knit hides dirt and stains to increase wear life
- Uncoated back of the hand for comfort and dexterity
- Cleaning instructions: wash and tumble dry



Size	Order No.	Price	SALE
X-Large	1668982	5.32	3.12
Large	1668981	5.32	3.12
Medium	1668980	5.32	3.12
Small	1668979	5.32	3.12

3675

**TenActiv™ "Feel Friendly Glove" with Cut Protection & Steady Grip**

- Special material blend provides comfortable excellent ANSI Level A7 cut resistance protection
- Touchscreen compatible to seamlessly move between tasks
- Micropore nitrile coating DOES NOT absorb oil or other liquids
- Craters act like tiny suction cups to improve grip in wet and oily conditions
- Nitrile thumb crotch reinforcement to reduce wear in critical areas



Size	Order No.	Price	SALE
Medium	1669064	20.48	16.10
Large	1669065	20.48	16.10
X-Large	1669066	20.48	16.10
2X-Large	0115560	20.48	16.10
3X-Large	0115561	20.48	16.10

3493

**SEAMLESS KNIT NITRILE COATED**

- Nitrile MicroFoam coatings are compatible with light oils and will provide a good grip and excellent abrasion resistance
- Light coating gives improved flexibility and dexterity
- Surface of the glove designed to "channel" oil away to give a better grip
- Seamless one-piece nylon shell offers increased comfort, finger dexterity and breathability
- Minimal strikethrough reduces irritation and increases comfort levels
- Knit Wrist helps prevent dirt and debris from entering the glove
- Silicone and Latex free



Size	Order No.	Price	SALE
Small	1113590	8.97	6.55
Medium	1113589	8.97	6.55
Large	1113588	8.97	6.55
X-Large	1113592	8.97	6.55
2X-Large	1502387	8.97	6.55

3034

**PRM PRO Hardwearing Workers Gloves Extra Large**



Size	Order No.	Price	SALE
Medium	0783495	13.08	9.81
Large	0783493	13.08	9.81
X-Large	0783498	13.08	9.81

4395

**LINCOLN ELECTRIC Leather Welding Gloves**

- Selected shoulder split leather
- Turned cuff for safety
- Lock-stitch construction
- Fully welted seams
- Winged thumb for greater flexibility



Order No.	Price	SALE
1636151	24.60	25.83
1636152	56.43	59.25

2594

**LINCOLN ELECTRIC ADF Helmet with Grind**

- New K3419-1 Lincoln Electric welding helmet
- Lightweight design
- Durable and dependable
- Suitable for a wide range of projects
- Processes stick, TIG, pulsed TIG, MIG, pulsed MIG, flux-cored, gouging
- Auto Darkening 7-13 & Grind



Type	Lens Type	Window Style	View Height	View Width	Color	Order No.	Price	SALE
Auto Darkening Helmet	Variable/ Auto Darkening	Variable/ Auto Darkening	1-3/4"	3.82"	Black	1636125	223.76	202.82

3050

**N-Ferno® Warming Series Head & Face Cold Weather Protection**

- N-Ferno® Winter Liner 6850/6852 Econo
- 2-Layer Poly/Fleece
- Regular (6850)/ Shoulder (6852) Length
- Shell: 100% polyester with PU coating
- Lining: 100% poly fleece
- Hook & loop or chin strap
- Elastic gap control
- Water repellent
- N-Ferno® Winter Liner 6821 Balaclava
- Long length
- Single wash FR treated
- Polyester fleece



Order No.	Price	SALE
0931855	13.48	10.11
0931859	22.27	16.70
0931858	14.78	11.09

1027



**ProFlex® 100 Economy Back Supports**

- Durable 280D spandex
- Rubber-tracked webbing
- Adjustable two-stage closure
- Adjustable 1-1/4" knit elastic suspenders are detachable



Size	Order No.	Price	SALE
Medium	0930026	49.10	36.83
Large	0930025	49.10	36.83
X-Large	0930028	49.10	36.83
2X-Large	0930029	49.10	36.83

2627



**Faceshields & Headgear**

- Headgear has locking cams
- Shield provides excellent protection from particle debris and sparks
- Clear polycarbonate
- Face shield and headgear sold separate



Face Shield						
Shield Width	Shield Height	Shield Thickness	Shield Material	Order No.	Price	SALE
15 1/2"	10"	0.040"	Polycarbonate	0786087	5.95	4.89
15 1/2"	8"	0.040"	Polycarbonate	0786098	5.67	4.66

Headgear		
Order No.	Price	SALE
0786088	18.94	15.57

2621



**Chill-Its® 6615 High Performance Dew Rags**

**Rags**

- Hi Cool® moisture management performance fabric
- Comfortable to wear under hats, helmets or alone
- Absorbent terry headband
- Elastic band for a great fit



Color	Order No.	Price	SALE
Flames	0930150	13.92	10.44
Blue	0930148	13.92	10.44
Navy Western	0930147	13.92	10.44
Red Western	0930146	13.92	10.44
Camo	0930145	13.92	10.44
Stars & Stripes	0930144	13.92	10.44
Lime	0930143	13.92	10.44

2773

**Disposal Medical 3-Ply Face Mask**

- Comfortable and breathable, soft & skin friendly
- Plane ear hook
- Size 6.88 inch x 3.75 inch
- Includes adjustable nose bridge strip
- Bacterial filtration rate ≥ 95%
- FDA approved medical
- 50 per box, priced each



Order No.	Regular Price	SALE
0394255	1.44	1.23

PRICE PER EACH MASK

29357

**KN95 Respirator Mask**

- 4-Layers of protection Non-woven fabrics+
- Hot air cotton + Melt blown fabric + Non-woven fabrics
- Includes adjustable nose bridge strip
- Comfortable and breathable with ear hook design
- PTE rating >95%
- BFE rating >95%
- FFP2 PROTECTION
- Sold in minimum packs of 20 or 50
- PRICE PER EACH MASK



Order No.	Price	SALE
0394105	6.71	5.70
0394106	8.60	7.31

2218

## 3M 3M™ Particulate Respirator 8210V, N95

- Proprietary 3M™ CoolFlow™ valve helps keep wearer cool
- Cushioning nose foam
- Adjustable noseclip helps provide a custom fit and secure seal
- Min. 10 per box



2419

Order No.	Regular Price	SALE
0778684	2.60	<b>2.25</b>

## 3M Disposable Respirators

### Particulate Respirator 8511, N95

- Intended applications include grinding, sanding, sweeping, and other dusty/hot operations
- Features the Cool Flow™ exhalation valve with adjustable M-nose clip for custom fit and secure seal



### Particulate Respirator 8210, N95

- Adjustable nose clip
- Nose foam pad
- Great for grinding, bagging, sanding, sweeping and other dusty operations

Order No.	Regular Price	SALE
0778534	1.81	<b>1.57</b>
0778924	4.30	<b>3.72</b>

22582

## PRM PRO Carbons

### Pointed or Jointed

- Pointed sold in package quantity of 50 only
- Jointed sold in package quantity of 100 only



Diameter	Length	Order No.	Price	SALE
3/16"	12"	1345127	25.48	<b>17.84</b>
1/4"	12"	1345128	30.23	<b>21.15</b>
5/16"	12"	1345129	37.37	<b>26.15</b>
3/8"	12"	1345130	47.56	<b>33.29</b>
3/8"	17"	1345143	306.73	<b>214.70</b>
1/2"	17"	1345144	385.17	<b>269.61</b>

1116

## PROCELL Professional Industrial Batteries

### The Procell Difference

- World's first dual portfolio of professional batteries: by conducting intensive device testing and analysis, Procell has discovered that a way to dramatically extend alkaline battery life and cut replacement costs is to engineer device-specific industrial alkaline batteries, each with unique power profiles.
- Premium brand exclusively focused on the professional battery market.
- Deep understanding of professional devices and the battery category through device testing and analysis in our labs.
- Available in Alkaline and Lithium
- Standard power and Intense extra strength power available
- Sold in box qty. only

#### Procell

- Alkaline battery
- General purpose
- Reliable long lasting power
- Operating temperature -4° to 129.2°F

#### Procell Intense

- Alkaline battery
- For high drain devices
- Date coded
- Operating temperature -4° to 129.2°F

#### Procell Lithium Coin/Cell

- Lithium coin battery
- For compact professional devices
- Operating temperature -4° to 140°F

#### Procell High Power Lithium

- High power lithium battery
- General purpose
- Operating temperature -4° to 140°F



PROCELL					
Battery Size	Number of Batteries	ManufacturerNo	Order No.	Regular Price	SALE
AAA	24	4133353648	1617344	1.19	<b>0.95</b>
AA	24	4133352148	1617345	1.19	<b>0.95</b>
C	12	4133311440	1617346	2.88	<b>2.31</b>
D	12	4133311340	1617347	3.43	<b>2.74</b>
9V	12	4133352748	1617348	5.12	<b>4.10</b>

PROCELL INTENSE					
Battery Size	Number of Batteries	ManufacturerNo	Order No.	Regular Price	SALE
AAA	24	4133303715	0440429	1.41	<b>1.11</b>
AA	24	4133303437	1617350	1.51	<b>1.19</b>
C	12	4133303423	1617351	3.36	<b>2.63</b>
D	12	4133303424	1617352	3.79	<b>2.97</b>
9V	12	4133303716	0440438	5.17	<b>4.04</b>

PROCELL Lithium Coin/Cell					
Battery Size	Number of Batteries	ManufacturerNo	Order No.	Regular Price	SALE
3V	5	4133303459	0394124	2.86	<b>2.24</b>
3V	5	4133303458	0394125	2.49	<b>1.98</b>
3V	5	4133303457	0394126	2.49	<b>1.98</b>

PROCELL High Power Lithium					
Battery Size	Number of Batteries	ManufacturerNo	Order No.	Regular Price	SALE
3V	12	4133300438	0394127	8.01	<b>6.27</b>
3V	12	4133303456	0394128	8.01	<b>6.27</b>

29870

## NOGA Long Reach Heavy Duty Dial Gage Holder with On/Off Magnetic Base

### Fine Adjustment On Top Clamp

- Central locking mechanism with spring loaded bearing
- Rigid, steel arms
- Powerful on/off magnetic base (180 LBF)
- Extra long arm (6.43" x 4.45")



Order No.	Regular Price	SALE
0558827	300.61	231.77

4277

## NOGA Economy Dial Gage Holders with Magnetic Base

### Fine Adjustment At Base

- 3/8" 8mm, 6mm & dovetail clamp
- Unique 3-point arm lock system
- Improved "at base" single direction fine adjustment
- Magnetic base with on/off switch



Bottom Arm Length	Top Arm Length	Model No	Order No.	Regular Price	SALE
7.87"	7.48"	PH2040	0558839	94.98	63.25
4.89"	4.49"	PH3100	0558840	77.53	61.45
10.23"	8.85"	PH4016	0558841	166.14	124.87

4266

## NOGA Double Fine Adjustment Magnetic Base

### Model DG6160

- New double fine adjustment - Bottom: unique single direction; Top: universal swivel clamp
- Powerful ON/OFF magnetic base with 176 lbs force
- Holds 6mm, 8mm 3/8", dovetail, and back lug
- Unique central locking mechanism with Noga designed spring loaded bearing
- Five axis holder
- Instantly fastens in any position
- Fast and easy to set up gauges into required position
- Black finished arms
- Bottom arm measures 110mm
- Top arm measures 101mm



Order No.	Regular Price	SALE
0558811	234.85	181.08

4261

## NOGA Flex Dial Gage Holder

### With Always-On Magnetic Base 360° Fine Adjustment at the Base

- Unique, 5 axis, 3-dimensional holder (2.2" x 2.0" arms)
- Powerful 61LBF magnetic base
- Holds test and dial indicator



Order No.	Regular Price	SALE
0558832	232.57	154.90

4268

## NOGA Switchable On/Off Type - Bases Only



Base Width	Base Length	Base Height	Thread	Order No.	Regular Price	SALE
2"	2 3/8"	2 3/16"	M8	0558803	38.37	29.58
2"	3"	2 3/16"	M8	0558804	83.06	55.31
2"	4 3/4"	2 3/16"	M10	0558805	121.83	81.14

4289

## Starrett Individual Edge & Center Finders

- Edge finders accurately locate working edges, shoulders, grooves, center points and scribed lines
- Hardened and centerless ground to precision tolerances



Style	End Type	Shank	Tip Diameter	Starrett		
				Order No.	Regular Price	SALE
Single End	Single End	3/8"	0.2	1069263	58.80	47.68
Double End	Double End	1/2"	.200 x Point	1069264	70.00	56.77
Edge	Single End	10 mm	6 mm	1069833	58.10	47.12

3906

## Starrett Inside Micrometers

- Solid measuring rods
- Hardened and ground anvils
- Complete with carrying case
- .001" Graduation



Minimum Measurement	Maximum Measurement	Model No	Order No.	Regular Price	SALE
2"	8"	124AZ	1068219	576.80	467.78
2"	12"	124BZ	1068222	869.40	705.08
8"	32"	124CZ	1068225	1272.60	1032.08
2"	32"	124DZ	1068228	1787.80	1449.91

5026

## Starrett Telescoping Gages

- 5/16" to 6" Range
- Uniform contact pressure
- Self centering plungers
- Locks on any setting
- Rounded contacts
- Knurled knob on handle
- Available individually or in sets
- Bore size obtained by measuring over gage contacts with a micrometer



Telescoping Gage					
Model No	Minimum Measurement	Maximum Measurement	Order No.	Regular Price	SALE
579A	5/16" / 8.0 mm	1/2" / 12.7 mm	1068993	77.00	62.45
579B	1/2" / 12.7 mm	3/4" / 19.0 mm	1068994	82.60	66.99
579C	3/4" / 19.0 mm	1 1/4" / 32.0 mm	1068995	85.40	69.26
579D	1 1/4" / 32.0 mm	2 1/8" / 54.0 mm	1068996	84.00	68.12
579E	2 1/8" / 54.0 mm	3 1/2" / 90.0 mm	1068997	109.20	88.56
579F	3 1/2" / 90.0 mm	6" / 150.0 mm	1068998	137.20	111.27
579A-12	5/16" / 8.0 mm	1/2" / 12.7 mm	1070172	187.60	152.14
579B-12	1/2" / 12.7 mm	3/4" / 19.0 mm	1070173	193.20	156.69
579C-12	3/4" / 19.0 mm	1 1/4" / 32.0 mm	1070174	204.40	165.77
579D-12	1 1/4" / 32.0 mm	2 1/8" / 54.0 mm	1070175	208.60	169.18
579F-12	3 1/2" / 90.0 mm	6" / 150.0 mm	1070177	252.00	204.37

Telescoping Gage Set					
Model No	Minimum Measurement	Maximum Measurement	Order No.	Regular Price	SALE
S579GZ	5/16" / 8.0 mm	2 1/8" / 54.0 mm	1068999	289.80	235.03
S579HZ	5/16" / 8.0 mm	6" / 150.0 mm	1069000	494.20	400.79

Note: -8 on Starrett No, means the handle is 8"; -12 means the handle is 12"

5149

## PR CHECK Digital Micrometers

- Carbide tipped with ratchet thimble and spindle lock
- In fitted case with adjusting wrench
- Satin chrome finish with heat insulated grip plate
- Sizes over 1" are supplied with standard
- Meets or exceeds Federal specifications



Minimum Measurement	Maximum Measurement	Graduation	Order No.	Regular Price	SALE
0"	1"	0.0001"	1079630	90.05	62.05
1"	2"	0.0001"	1079631	94.42	69.71
2"	3"	0.0001"	1079632	118.10	87.18
3"	4"	0.0001"	1079633	154.53	114.08

4550

## PR CHECK Disc Micrometers

- .0001" Graduation
- Rotating spindle
- Disc for measuring gears and thickness of paper
- Ratchet stop



Minimum Measurement	Maximum Measurement	Order No.	Regular Price	SALE
0"	1"	1079646	165.45	122.15
1"	2"	1079647	189.11	139.61
2"	3"	1079648	212.77	157.07

4554

## PR CHECK 0-1" Universal Micrometer

- .0001" Graduation
- Non-rotating spindle
- Enamel frame
- Positive lever locking clamp
- Laser engraved graduations
- Ratchet friction thimble
- 7 Pairs of interchangeable anvils (flat, spherical, spline, disc, blade, point and knife-edge) for a wide range of applications

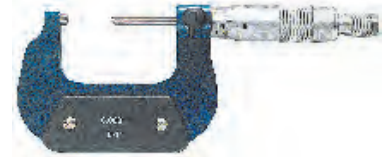


Order No.	Regular Price	SALE
1079670	449.43	331.77

4342

## PR CHECK Ball Micrometer

- .0001" Graduation
- Enamel frame
- Carbide tipped spherical anvils
- Ratchet stop
- Range: 0-1"



Order No.	Regular Price	SALE
1079677	94.42	69.71

4454

## PR CHECK Blade Micrometers

- .0001" Graduation
- Non-rotating spindle
- Laser engraved graduations
- Ratchet thimble
- Enamel frame



Minimum Measurement	Maximum Measurement	Order No.	Regular Price	SALE
0"	1"	1079617	328.73	242.67
1"	2"	1079618	354.87	261.98
2"	3"	1079619	297.98	219.98

4459

## PR CHECK Interchangeable Anvil Outside Micrometers

- .001" Graduation
- Ratchet stop and lock nut
- High accuracy interchangeable anvils
- Carbide measuring faces
- Enamel frame
- With standard fitted case



Minimum Measurement	Maximum Measurement	Order No.	Regular Price	SALE
6"	12"	1079637	560.80	413.99
12"	16"	1079638	638.88	471.63
16"	20"	1079639	828.21	611.40
0"	6"	1079640	384.44	283.80

4658

## PR+CHECK PREMIUM Outside Micrometers

### Mechanical Digital

- Ball attachment included
- Carbide tipped anvils
- Satin chrome spindle with ratchet thimble and spindle lock
- Hammertone finish with heat insulated grip plate
- Standards included on all sizes over 1"
- Includes fitted case and adjusting wrench
- 1 Year Warranty



Minimum Measurement	Maximum Measurement	Order No.	Regular Price	SALE
0"	1"	1088427	115.98	<b>85.62</b>

4701

## PR+CHECK Outside Micrometers

- Carbide tipped
- Lock nut
- Supplied with fitted case and adjusting wrench
- Satin chrome finish
- Heat-insulated grip plate
- Ratchet thimble
- 2" and larger supplied with standards



0.001"				
Minimum Measurement	Maximum Measurement	Order No.	Regular Price	SALE
0"	1"	1079642	46.98	<b>34.68</b>

0.0001"				
Minimum Measurement	Maximum Measurement	Order No.	Regular Price	SALE
0"	1"	1079649	53.37	<b>39.39</b>
1"	2"	1079653	87.08	<b>64.29</b>
2"	3"	1079654	71.50	<b>52.79</b>
3"	4"	1079655	79.16	<b>58.44</b>
4"	5"	1079656	75.50	<b>55.74</b>
5"	6"	1079657	82.60	<b>60.98</b>
6"	7"	1079658	125.20	<b>92.43</b>
7"	8"	1079659	146.50	<b>108.15</b>
8"	9"	1079660	193.82	<b>143.09</b>
9"	10"	1079650	217.50	<b>160.56</b>
10"	11"	1079651	229.33	<b>169.31</b>
11"	12"	1079652	243.54	<b>179.79</b>

4731

## PR+CHECK Point Micrometers

- .0001" Graduation
- 30° Points
- Designed to measure the small recess
- Enamel frame
- Positive lever locking clamp



Minimum Measurement	Maximum Measurement	Order No.	Regular Price	SALE
0"	1"	1079643	165.45	<b>122.15</b>
1"	2"	1079644	189.11	<b>139.61</b>
2"	3"	1079645	212.77	<b>157.07</b>

4740

## PR+CHECK V-Anvil Micrometers

- .001" Graduation
- Ratchet stop
- Laser engraved graduations
- Enamel frame



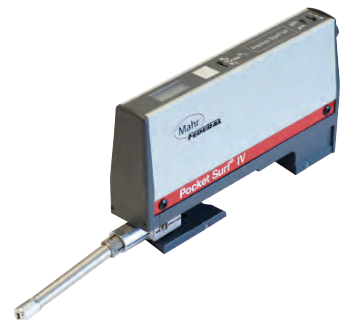
3-Flute V-Anvil Micrometer				
Minimum Measurement	Maximum Measurement	Order No.	Regular Price	SALE
0.2"	0.8"	1079671	354.77	<b>261.90</b>
0.8"	1.4"	1079673	307.43	<b>226.95</b>
1.4"	2"	1079675	426.38	<b>314.76</b>

5-Flute V-Anvil Micrometer				
Minimum Measurement	Maximum Measurement	Order No.	Regular Price	SALE
0.2"	1"	1079672	283.77	<b>209.48</b>
1"	1.8"	1079674	307.43	<b>226.95</b>
1.8"	2.6"	1079676	331.11	<b>244.44</b>

4873

## Mahr Pocket Surf® IV Portable Surface Roughness Gages

- Traverse speed: 5.08mm / .2" per second
- Probe type: Piezoelectric
- Maximum stylus force: 150.0 mN / 1500 mgf
- Power: consumer type alkaline battery, 9 volt
- Operating temperature: 10° to 45° C / 50° to 113° F
- Storage temperature: -20° to 65° C / -4° to 149° F
- Kit is furnished complete with fitted case, and included a Pocket Surf unit with a general purpose probe and a 3.2µm/125µinch (nominal) reference specimen, 9 volt battery, and riser plate

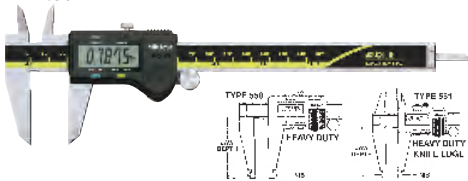


ProductName	Order No.	Regular Price	SALE
Pocket Surface Set EGH-1019 Probe 90° - 10 µm radius	1079106	5053.92	<b>4946.33</b>
Pocket Surface Set EGH-1026 Probe 90° - 5 µm radius	1079107	5053.92	<b>4946.33</b>

4856

## Mitutoyo Digimatic Calipers

- Both an LCD display and an imprinted line scale
- Smaller models offer a convenient thumb wheel
- Stainless steel construction
- Linear scale embedded in epoxy
- Inside, outside, depth and step measurements
- Absolute scale
- Repeatability: .0005"
- LCD 5-digit display
- Response speed: unlimited
- Control switch: on/zero off, inch/metric, data/hold on 4", 6", 8" & 12" models



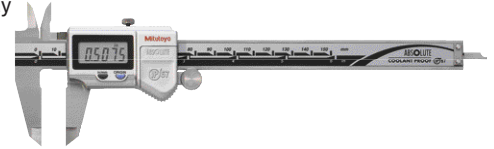
With Output					
Measuring Range	Description	Accuracy	Order No.	Regular Price	SALE
0-100 mm	1.9 mm Depth Bar	+/-0.02 mm	1596155	390.60	340.61
0-4" / 0-100 mm	.075" Round depth bar	+/-0.001"	1044442	284.20	247.83
0-150 mm	Standard	+/-0.02 mm	1596156	459.20	400.43
0-150 mm	Carbide-Tipped Outside Jaw	+/-0.02 mm	1596158	649.60	566.45
0-6" / 0-150 mm	Electronic Caliper - SPC Output	+/-0.001"	1044445	331.80	289.32
0-6" / 0-150 mm	OD, ID Carbide Jaw	+/-0.001"	1044455	680.40	593.31
0-6" / 0-150 mm	With OD Carbide Jaw	+/-0.001"	1044452	637.00	555.46
0-6" / 0-150 mm	Carbide-Tipped Inside & Outside Jaw	+/-0.02 mm	1596159	679.00	592.09
0-200 mm	Carbide-Tipped Outside Jaw	+/-0.02 mm	1596160	726.60	633.60
0-8" / 0-200mm	Standard	+/-0.001"	1044448	436.80	380.88
0-8" / 0-200 mm	With OD Carbide Jaw	+/-0.001"	1044457	708.40	617.72
0-12" / 0-300 mm	Standard	+/-0.0015"	1596123	956.20	833.81
0-24" / 0-600 mm	Without Thumb Roller	+/-0.002"	1044494	1638.00	1428.34
0-40" / 0-1000 mm	Without Thumb Roller	+/-0.003"	1044495	3164.00	2759.01

Without Output					
Measuring Range	Description	Accuracy	Order No.	Regular Price	SALE
0-6" / 0-150 mm	OD, ID Carbide Tipped Jaw	+/-0.001"	1044431	567.00	447.93
0-6" / 0-150 mm	Standard	+/-0.001"	1044474	282.80	220.58
0-200 mm	Standard	+/-0.02 mm	1596157	550.20	479.78

## Mitutoyo IP67 Digimatic Calipers

### Coolant Proof

- ABS coolant-proof caliper with dust/water protection conforming to IP67 level
- Auto power off after 20 minutes of inactivity, but the ABS scale is unaffected and power is restored to the display when slider is moved
- Can be integrated into statistical process control and measurement systems
- Large LCD display



0.0005" / 0.01 mm				
Measuring Range	Description	Order No.	Regular Price	SALE
0-6" / 0-150 mm	With SPC and CT Jaws OD	1044532	578.20	504.20
0-6" / 0-150 mm	With SPC and CT Jaws OD	1044536	725.20	632.38
0-6" / 0-150 mm	Without SPC	1044541	379.40	295.93
0-6" / 0-150 mm	SPC Output	1044548	449.40	391.87
0-6" / 0-150 mm	Without SPC; w/ Depth Bar at 1.9 mm	1044554	379.40	299.73
0-6" / 0-150 mm	Without SPC; w/ Depth Bar at 1.9 mm	1044556	449.40	391.87
0-6" / 0-150 mm	Without SPC w/CT jaws OD	1044524	506.80	400.37
0-6" / 0-150 mm	Without SPC w/CT jaws OD	1044528	651.00	514.29
0-8" / 0-200 mm	Without SPC w/CT jaws OD	1044530	800.80	632.63
0-8" / 0-200 mm	Without SPC; w/CT jaws OD	1044526	595.00	470.05
0-8" / 0-200 mm	With SPC and CT Jaws OD	1044534	651.00	567.67
0-8" / 0-200 mm	With SPC and CT Jaws OD/ID	1044538	845.60	737.37
0-8" / 0-200 mm	Without SPC	1044544	508.20	396.40
0-8" / 0-200 mm	SPC Output	1044551	567.00	494.42
0-12" / 0-300 mm	IP67 Model, Without Output	1596121	879.20	685.78
0-12" / 0-300 mm	IP67 Model, With Output	1596122	975.80	927.99

0.01 mm				
Measuring Range	Description	Order No.	Regular Price	SALE
0-150 mm	Without SPC	1044501	379.40	299.73
0-150 mm	SPC Output	1044507	449.40	391.87
0-150 mm	With SPC & Round depth bar	1044513	449.40	391.87
0-150 mm	With SPC and CT Jaws for OD/ID	1044519	725.20	632.38
0-200 mm	Without SPC	1044503	508.20	401.48
0-200 mm	SPC Output	1044509	567.00	494.42
0-200 mm	With SPC and CT Jaws for OD/ID	1044521	845.60	737.37



## Mitutoyo Coolant Proof Micrometers

### Series 293 - with Dust/Water Protection Conforming to IP65 Level

- IP65 protection level, enabling use in environments exposed to cutting oil, etc-**note:** anti-corrosion treatment is required after use
- .00005"/0.001mm Resolution
- Carbide tipped measuring faces
- Uses SR44 battery (included)
- Auto power ON/OFF function
- Standard included on sizes over 1"/25mm
- Supplied in fitted case
- Replacement battery order number is 0771789



Electronic Coolant Proof Outside Micrometer with SPC						
Maximum Measurement	Resolution	Thimble Type	Accuracy	Order No.	Regular Price	SALE
1" / 25.4 mm	0.00005" / 0.001 mm	Ratchet	±0.00005"	1043323	434.00	378.45
1" / 25.4 mm	0.00005" / 0.001 mm	Ratchet	±0.00005"	1043389	435.40	379.67
1" / 25.4 mm	0.00005" / 0.001 mm	Ratchet	±0.00005"	1043397	425.60	371.13
1" / 25.4 mm	0.00005" / 0.001 mm	Friction	±0.00005"	1043399	435.40	379.67
2"	0.00005" / 0.001 mm	Ratchet	±0.00005"	1043391	512.40	446.81
2"	0.00005" / 0.001 mm	Friction	±0.00005"	1043401	466.20	406.53
3" / 76.2 mm	0.00005" / 0.001 mm	Ratchet	±0.00005"	1043393	634.20	553.03
4" / 101.6 mm	0.00005" / 0.001 mm	Ratchet	±0.00005"	1043329	638.40	556.68
4" / 101.6 mm	0.00005" / 0.001 mm	Ratchet	± 0.0001"	1043395	683.20	595.76
5"	0.00005" / 0.001 mm	Ratchet	± 0.0001"	1043424	841.40	733.70

Electronic Coolant Proof Outside Micrometer no SPC						
Maximum Measurement	Resolution	Thimble Type	Accuracy	Order No.	Regular Price	SALE
1" / 25.4 mm	0.00005" / 0.001 mm	Ratchet	±0.00005"	1043403	400.40	312.31
1" / 25.4 mm	0.00005" / 0.001 mm	Ratchet	±0.00005"	1043411	400.40	312.31
1" / 25.4 mm	0.00005" / 0.001 mm	Friction	±0.00005"	1043419	400.40	312.31
1" / 25.4 mm	0.00005" / 0.001 mm	Friction	± 0.0001"	1043421	400.40	312.31
2"	0.00005" / 0.001 mm	Ratchet	±0.00005"	1043405	441.00	343.98
2"	0.00005" / 0.001 mm	Ratchet	±0.00005"	1043413	441.00	343.98
3" / 76.2 mm	0.00005" / 0.001 mm	Ratchet	±0.00005"	1043415	578.20	456.78
4" / 101.6 mm	0.00005" / 0.001 mm	Ratchet	±0.00005"	1043337	614.60	485.53
4" / 101.6 mm	0.00005" / 0.001 mm	Ratchet	± 0.0001"	1043417	624.40	493.28

4153

## Mitutoyo 5 Pc. Digimatic Height Gages

### Heavy Duty - With Output

The latest generation of height gages from Mitutoyo have instant, easy-to-see, error-free LCD readout and may be used in SPC Systems.

- Extra-rugged, two-column construction for more precise upward and downward slider movements. Switchable coarse/fine adjustment through large feed wheel
- Supplied with carbide-tipped scriber
- Supplied with three (Size AA) batteries. Battery life is 900 continuous hours.

† Note: 192-67X-10 Series can be used with optional two-directional touch probe featuring built-in probe diameter compensation to allow top and bottom land measurement automatically. Probe diameter is .118" (1042507)



Resolution	Order No.	Regular Price	SALE
0.0005" / 0.01 mm	1042523	2800.00	2212.00
0.0005" / 0.01 mm	1042535	3220.00	2807.84
0.0005" / 0.01 mm	1042525	3836.00	3030.44
0.0005" / 0.01 mm	1042537	4144.00	3613.57
0.0005" / 0.01 mm	1042527	4886.00	3859.94
0.0005" / 0.01 mm	1042539	5320.00	4639.04
0.0005" / 0.01 mm	1042529	9226.00	7288.54
0.0005" / 0.01 mm	1042541	9954.00	8679.89
0.01mm	1042519	9226.00	7288.54

4146

## Mitutoyo LCD Digimatic Height Gages

- Zero, inch/mm, +/- , preset, hold & data-send functions
- Slider locking clamps
- Large LCD numerals
- SPC output provided
- Operates on a single SR44 battery cell



Maximum Measurement	Resolution	Order No.	Regular Price	SALE
8" / 200 mm	0.0005" / 0.01 mm	1046341	1155.00	1007.16
24" / 600 mm	0.0005" / 0.01 mm	1046348	2058.00	1794.58

4123

## Mitutoyo Dial Calipers

- Smooth sliding
- Shock protection
- Lock screw on bezel
- 6" and 8" main beam coated with titanium nitride
- +/- .002" Accuracy



Measuring Range	Graduation	Range Per Revolution	Dial Face Color	Order No.	Regular Price	SALE
0-6"	0.001"	0.1"	White	1044623	337.40	266.55
0-6"	0.001"	0.1"	White	1044625	411.60	321.05
0-6"	0.001"	0.2"	White	1044627	210.00	163.80
0-6"	0.001"	0.1"	Blue	1044630	229.60	181.38
0-6"	0.001"	0.1"	Purple	1044631	229.60	181.38
0-6"	0.001"	0.1"	Green	1044632	229.60	181.38
0-6"	0.001"	0.1"	Red	1044633	229.60	181.38
0-6"	0.001"	0.1"	Black	1044635	229.60	179.09
0-6"	0.001"	0.2"	White	1044637	337.40	266.55
0-8"	0.001"	0.1"	White	1044624	462.00	364.98
0-8"	0.001"	0.1"	White	1044626	611.80	483.32
0-8"	0.001"	0.2"	White	1044628	312.20	246.64
0-8"	0.001"	0.1"	White	1044636	334.60	260.99
0-12"	0.001"	0.1"	White	1044639	509.60	397.49
0-12"	0.001"	0.1"	White	1044640	649.60	513.18
0-12"	0.001"	0.1"	White	1044641	967.40	764.25
0-12"	0.001"	0.2"	White	1044642	476.00	371.28
0-12"	0.001"	0.2"	White	1044643	630.00	497.70
0-150 mm	0.01 mm	1 mm	White	1044619	221.20	174.75
0-150 mm	0.02 mm	2 mm	White	1044617	201.60	159.26
0-150 mm	0.02 mm	2 mm	White	1044621	441.00	348.39
0-150 mm	0.02 mm	2 mm	White	1044622	431.20	340.65
0-200 mm	0.01 mm	1 mm	White	1044620	322.00	254.38
0-200 mm	0.02 mm	-	White	1044618	298.20	235.58
0-300 mm	0.02 mm	2 mm	White	1044638	476.00	376.04

4112

## Fowler Electronic Calipers

- Stainless steel frame
- Large easy-to-read display
- Resolution: .0005"/0.01mm
- Direct inch/metric conversion
- Absolute/incremental measurement
- 4 way measuring
- Complete in case



**XTRA-VALUE CAL**



Measuring Range	Order No.	Regular Price	SALE
0-6" / 0-150 mm	1078653	98.00	90.16
0-6" / 0-150 mm	1078658	112.00	103.04
0-8" / 0-200 mm	1078655	168.00	154.56
0-12" / 0-300 mm	1078657	280.00	257.60
0-12" / 0-300 mm	1078660	257.60	236.99

3782

## INSIZE Digital Outside Calipers

- Battery CR2032
- Data output
- Made of stainless steel
- Supplied with certification



Measuring Range	Resolution	Model No	Order No.	Regular Price	SALE
0-6" / 0-150 mm	0.0005" / 0.01 mm	1108-150	1225202	118.68	105.63
0-8" / 0-200 mm	0.0005" / 0.01 mm	1108-200	1225203	177.37	167.85
0-12" / 0-300 mm	0.0005" / 0.01 mm	1108-300	1225204	266.77	237.43

3946

## PR CHECK Tri-Blocks

- Hardened 55 to 62 HRC
- Tolerance .0003" to .0005"/0.005mm to 0.010mm



Overall Width	Overall Length	Overall Height	Order No.	Regular Price	SALE
1"	2"	3"	1085014	33.60	26.67
25 mm	50 mm	75 mm	1085015	56.57	44.91
2"	4"	6"	1085019	338.42	268.68

4839

## Lufkin Quickread Tapes

- Toggle lock button
- Marked with fractions to 1/8" and decimal equivalents
- Graduated feet and inches to 1/16" top edge
- Graduated to 1/16" bottom edge, first 12" to 1/32" (except 1" blade)



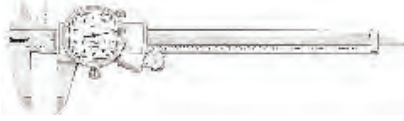
Blade Width	Order No.	Regular Price	SALE
3/4"	1076613	28.49	21.88
3/4"	1076614	32.87	25.24
1"	1076615	43.83	33.67

4030



## Starrett 3202 Series Dial Calipers

- Provides quick, accurate measurement of OD, ID and depth
- Graduation: .001"
- 100" per revolution
- White face
- Thumb operated fine adjustment roll
- Hardened stainless construction
- Includes plastic case



Measuring Range	Model No	Order No.	Regular Price	SALE
0-6"	3202-6	1070153	221.20	179.40
0-8"	3202-8	1070154	316.40	307.23
0-12"	3202-12	1070152	464.80	451.32

4964

## Starrett AGD 2 Dial Indicators

- Lug back
- Revolution counter
- 3/8" Diameter stem
- No. 2 Series



Total Range	Graduation	Dial Reading	Dial Face Diameter	Range per Revolution	Order No.	Regular Price	SALE
1.0	0.001"	0-50-0	2 1/4"	0.100"	1069377	379.40	368.40
.500	0.0005"	0-50	2 1/4"	0.050"	1069380	396.20	384.71
.500	0.001"	0-100	2 1/4"	0.100"	1069381	352.80	342.57
1.0	0.001"	0-100	2 1/4"	0.100"	1069383	315.00	255.47
1.0	0.0005"	0-50	2 1/4"	0.050"	1069388	390.60	379.27
25mm	0.01 mm	0-100	57.0 mm	1.0 mm	1069390	481.60	467.63
.500	0.001"	0-100	2 1/4"	0.100"	1070949	387.80	353.67

4964

## 3-Dimensional Electronic Sensor (x,y,z)

### Quick Detection of Position

- Operates in horizontal or vertical position
- Travel zone for all 3 axis .200
- Shank size .750
- Probe diameter .200
- Repeatability ±.0005



Order No.	Regular Price	SALE
1079606	452.27	372.72

3296

## SURF PRO General Purpose Combination Sharpening Stones

### 120/240 Grit - Rectangular Shape

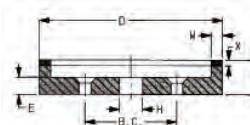


Overall Length	Width	Thickness	Abrasive Material	Order No.	Regular Price	SALE
6"	2"	1"	Silicon Carbide	0996728	8.88	5.93
8"	2"	1"	Aluminum Oxide	0996726	5.44	3.63
8"	2"	1"	Silicon Carbide	0996727	10.01	6.69

530

## SURF PRO Type 62AC for Baldor Grinder

- Any Grit Size, Concentration or Diamond Depth Not Shown - Ask for a Quotation



Diameter	Width	Arbor Hole	Concentration	Depth	120			150		
					Order No.	Regular Price	SALE	Order No.	Regular Price	SALE
6"	1"	1 1/4"	100	1/16"	1015220	470.51	376.41	1015222	446.49	357.19
6"	1"	1-1/4"	100	1/8"	1015221	529.52	423.62	1015223	457.66	366.13

630

## Mitutoyo Test Indicators with Dovetail Mount

- Jeweled bearings
- Automatic reverse
- **Basic unit** includes: (1) .078" Dia. carbide point installed, (1) stem - 3/8" Dia. (8mm dia. for metric indicators)
- **Complete unit** consists of basic unit as listed above, plus clamp with dovetail, holding bar and .039" and .118" carbide ball contact points and fitted plastic case

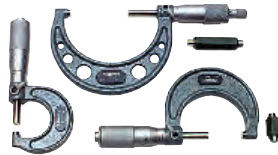
Indicator Style	Total Range	Graduation	Dial Reading	Features	Order No.	Regular Price	SALE
Dial Test Indicator	.008	0.0001"	0-4-0	Basic Set	3953410	306.60	245.28
Dial Test Indicator	.008	0.0001"	0-4-0	Full Set	1044887	359.80	287.84
Dial Test Indicator	.030	0.0001"	0-15-0	Full Set	1044972	338.80	271.04
Dial Test Indicator	.030	0.0005"	0-15-0	Basic Set	1044882	235.20	188.16
Dial Test Indicator	.030	0.0005"	0-15-0	Basic Set	1044971	306.60	245.28
Dial Test Indicator	.030	0.0005"	0-15-0	Full Set	1044883	280.00	224.00
Dial Test Indicator	.030	0.0005"	0-15-0	Full Set	1044916	338.80	271.04
Dial Test Indicator	.030	0.0005"	0-15-0	Full Set	1044917	390.60	312.48
Dial Test Indicator	.030"/0.7mm	0.0005"	0-15-0	Combo Dial	1044908	277.20	221.76
Dial Test Indicator	.030"/0.7mm	0.0005"	0-35-0	Combo Dial	1044909	306.60	245.28
Dial Test Indicator	0.2mm	0.002 mm	0-100-0	Full Set	1044903	348.60	278.88
Dial Test Indicator	0.2mm	0.002 mm	0-100-0	Full Set	1044986	404.60	343.91
Dial Test Indicator	0.8mm	0.01 mm	0-40-0	Full Set	1044893	281.40	225.12
Dial Test Indicator	0.8mm	0.01 mm	0-40-0	Full Set	1044980	338.80	287.98
Horizontal	.016	.0001	0-4-0	-	1044950	403.20	322.56
Horizontal	.060	.0005	0-15-0	-	1044942	362.60	290.08



30054

## Mitutoyo Micrometer Sets

- Hammertone-finished frame
- Spindle lock
- Supplied with fitted carrying case
- Carbide-tipped faces
- Meets or exceeds Federal Specifications
- Setting standards



†1" and 2" micrometer have friction thimbles

0.0001"				
Measuring Range	Thimble Type	Order No.	Regular Price	SALE
0-3"	Ratchet	1040703	784.00	666.40
0-6"	Ratchet/Friction	1040690	1582.00	1344.70

0.0010"				
Measuring Range	Thimble Type	Order No.	Regular Price	SALE
0-3"	Ratchet	1040706	711.20	604.52

4172

## Fowler Electronic Edge Finders

- Six equally spaced light ports provide visibility at any angle
- Read off any electrically conductive metal
- Edge finder lights instantly when stylus touches work edge
- Repeatability: .0002"
- Furnished complete with LED, 12 volt battery and protective case
- **Along with light indication, model 1078926 emits an audible "beep" at moment of contact.**



Stylus	Shank	Type	Order No.	Regular Price	SALE
0.200"	1/2"	Electronic Edge Finder	1078924	107.80	104.57
0.200" (Ball)	1/2"	Electronic Edge Finder	1078925	369.60	358.51
0.400" (Ball)	3/4"	Electronic Audible Edge Finder	1078926	369.60	358.51

3629

## Fowler Test Indicators and Sets

- Range: .060" (1.6mm metric)
- Dial reading: 0-15-0 (0-40-0 metric)
- Jeweled movement
- Revolution counter
- Easy-to-read tilted dial
- Automatic reversal
- 210° Swivel arc
- Tungsten carbide point .080" diameter

### Set Includes:

- Dial test indicator
- Axial support
- Height gage bar with clamp
- Contact point case, contact point wrench
- Adaptor sleeve
- Complete in shop hardened case



X-TEST

Dial Test Indicator						
Graduation	Dial Face Diameter	Features	Indicator Style	Order No.	Regular Price	SALE
0.0005"	1 1/2"	Indicator Only	Horizontal	1078326	238.00	214.20
0.0005"	1.0"	Indicator Only	Horizontal	1078327	238.00	214.20
0.0005"	1 1/2"	Indicator Only	Vertical	1078329	254.80	229.32

Dial Test Indicator w/Accessories						
Graduation	Dial Face Diameter	Features	Indicator Style	Order No.	Regular Price	SALE
0.0005"	1 1/2"	Indicator 52-562-001 with Accessories	Horizontal	1078334	421.40	379.26
0.0005"	1.0"	Indicator 52-562-002 with Accessories	Horizontal	1078336	330.40	297.36
0.001"	1.0"	Indicator 52-562-003 with Accessories	Horizontal	1078337	366.80	330.12

3754

## Techniks CAT40 V-Flange End Mill Holders

- Precision machined to an Industry Leading H5 standard I.D. hole tolerance
- Balanced to 15,000 RPM to save spindle bearing life and the Taper is ground to AT3 standard for maximum spindle contact
- Each holder is lab certified with an individual report to ensure quality



Connection Diameter Workpiece Side (DCONWS)	Nose Length	Protruding Length (LPR)	Order No.	Regular Price	SALE
1/8"	0.69"	2.37"	1229841	162.40	142.86
1/8"	3/4"	1-3/4"	1229843	183.40	161.33
1/8"	0.78"	5"	1229845	264.60	232.76
1/8"	0.69"	6"	1229846	219.80	193.35
3/16"	0.69"	2-1/2"	1229847	162.40	142.86
3/16"	0.795"	1-3/4"	1229849	183.40	161.33
3/16"	0.78"	4.72"	1229851	264.60	232.76
3/16"	0.69"	6"	1229852	219.80	193.35
3/16"	0.69"	6"	1229853	306.60	269.70
3/16"	0.69"	6"	1229854	352.80	310.34
1/4"	0.78"	2-1/2"	1229858	162.40	142.86
1/4"	0.78"	3"	1229856	228.20	200.73
1/4"	0.78"	6"	1229865	198.80	174.87
1/4"	0.78"	2-1/2"	1229859	228.20	200.73
1/4"	0.78"	2-1/2"	1229860	208.60	183.50
1/4"	0.78"	2-1/2"	1229861	366.80	322.65
1/4"	0.78"	4"	1229863	310.80	273.39
1/4"	0.78"	6"	1229867	352.80	310.34
1/4"	0.78"	6"	1229866	282.80	248.76
5/16"	0.88"	2-1/2"	1229871	183.40	161.33
5/16"	0.88"	3"	1229869	200.20	176.10
5/16"	0.88"	2-1/2"	1229873	226.80	199.50
5/16"	0.88"	6"	1229875	392.00	344.82
3/8"	0.88"	1-3/4"	1229877	162.40	142.86
3/8"	1"	4.72"	1229883	264.60	232.76
3/8"	1"	3"	1229876	228.20	200.73
3/8"	1"	2-1/2"	1229879	228.20	200.73
3/8"	1"	2-1/2"	1229880	226.80	199.50
3/8"	1"	2-1/2"	1229881	366.80	322.65
3/8"	1"	4"	1229882	310.80	273.39
3/8"	1"	5"	1229885	371.00	326.36

Connection Diameter Workpiece Side (DCONWS)	Nose Length	Protruding Length (LPR)	Order No.	Regular Price	SALE
3/8"	1"	5"	1229886	396.20	348.51
7/16"	1.12"	1-3/4"	1229887	183.40	161.33
7/16"	1.12"	2.500"	1229890	231.00	203.21
1/2"	1-1/4"	2-1/2"	1229895	162.40	142.86
1/2"	1-1/2"	1-3/4"	1229894	162.40	142.86
1/2"	1-1/4"	3"	1229892	228.20	200.73
1/2"	1-1/4"	3"	1229893	228.20	200.73
1/2"	1-1/4"	2-1/2"	1229896	228.20	200.73
1/2"	1-1/4"	2-1/2"	1229897	366.80	322.65
1/2"	1-1/4"	4"	1229899	310.80	273.39
1/2"	1-1/4"	4"	1229900	310.80	273.39
5/8"	1-1/2"	3"	1229905	228.20	200.73
5/8"	1-1/2"	3"	1229906	228.20	200.73
5/8"	1-1/2"	1-3/4"	1229908	200.20	176.10
5/8"	1-1/2"	1-3/4"	1229909	256.20	225.36
5/8"	1-1/2"	4"	1229910	310.80	273.39
5/8"	1-1/2"	6"	1229913	557.20	490.14
3/4"	1-3/4"	1-3/4"	1229916	323.40	284.48
3/4"	1-3/4"	1-3/4"	1229917	226.80	199.50
3/4"	1-3/4"	3"	1229919	228.20	200.73
3/4"	1-3/4"	3"	1229920	228.20	200.73
3/4"	1-3/4"	3"	1229921	366.80	322.65
3/4"	1-3/4"	4"	1229922	310.80	273.39
3/4"	1-3/4"	5"	1229924	371.00	326.36
1"	2"	4"	1229929	228.20	200.73
1"	2"	4"	1229930	228.20	200.73
1"	2"	1-3/4"	1229932	226.80	199.50
1-1/4"	2-1/2"	4.6"	1229937	228.20	200.73
1-1/2"	2-1/2"	4-1/2"	1229941	274.40	241.38

7058

## ROYAL Heavy Duty Spindle Type Live Centers

- An excellent heavy-duty live center designed to handle most turning applications
- ±0.00005" T.I.R guaranteed
- Heavy-duty precision bearings provide exceptional thrust and radial load capacities
- The substantial point extends into the shank where it is supported by a large needle bearing for increased strength and rigidity
- Bearing life is significantly extended with the exclusive Royal Roto-Shield™ coolant slinger and upgraded, long-life, spring-loaded seal that is resistant to abrasion, high temperatures and virtually all metalworking fluids
- Body and point are hardened for strength and durability
- On the CNC model, the extended point provides great tool clearance



CNC											
Mount	Head Diameter	Head Length	Point Length	Point Diameter	Tip Diameter	Maximum RPM	Radial Load	Thrust Load	Order No.	Regular Price	SALE
2 MT	1 3/4"	1 7/16"	1 3/8"	7/8"	3/8"	6,000	375 lbs	2,360 lbs	0703480	1449.00	1304.10
3 MT	2 3/8"	1 3/4"	1 7/8"	1"	3/8"	5,000	740 lbs	3,900 lbs	0703481	1449.00	1304.10
4 MT	2 3/4"	1 31/32"	2 7/32"	1 1/4"	1/2"	4,500	1,120 lbs	4,050 lbs	0703482	1841.00	1656.90
5 MT	3 1/2"	2 13/16"	2 5/8"	1 1/2"	1/2"	3,500	1,930 lbs	5,700 lbs	0703483	2464.00	2217.60

Standard											
Mount	Head Diameter	Head Length	Point Length	Point Diameter	Tip Diameter	Maximum RPM	Radial Load	Thrust Load	Order No.	Regular Price	SALE
2 MT	1 3/4"	1 7/16"	1 1/32"	7/8"	7/8"	6,000	725 lbs	2,360 lbs	0703475	1374.80	1237.32
3 MT	2 3/8"	1 3/4"	1 1/4"	1"	1"	5,000	970 lbs	3,900 lbs	0703476	1374.80	1237.32
4 MT	2 3/4"	1 31/32"	1 1/2"	1 1/4"	1 1/4"	4,500	1,720 lbs	4,050 lbs	0703477	1799.00	1619.10
5 MT	3 1/2"	2 13/16"	1 7/8"	1 1/2"	1 1/2"	3,500	3,260 lbs	5,700 lbs	0703478	2464.00	2217.60
6 MT	4 5/32"	3 5/32"	2 5/32"	2"	2"	3,500	4,080 lbs	6,000 lbs	0703479	4613.00	4151.70

6900

### TECHNICS CAT50 V-Flange End Mill Holders

- Precision machined to an Industry Leading H5 standard I.D. hole tolerance
- Balanced to 15,000 RPM to save spindle bearing life and the Taper is ground to AT3 standard for maximum spindle contact
- Each holder is lab certified with an individual report to ensure quality



Connection Diameter Workpiece Side (DCONWS)	Nose Length	Protruding Length (LPR)	Order No.	Regular Price	SALE
1/4"	0.78"	2-1/2"	1229946	278.60	245.07
1/4"	0.78"	4"	1229942	246.40	216.75
1/4"	0.78"	4"	1229943	330.40	290.64
1/4"	0.78"	4"	1229944	309.40	272.16
1/4"	0.78"	6"	1229947	505.40	444.57
5/16"	0.88"	4"	1229949	246.40	216.75
3/8"	1"	2-1/2"	1229954	278.60	245.07
3/8"	1"	4"	1229951	330.40	290.64
3/8"	1"	4"	1229952	309.40	272.16
3/8"	1"	6"	1229955	278.60	245.07
3/8"	1"	6"	1229956	364.00	320.19
3/8"	1"	6-1/2"	1229957	505.40	444.57
3/8"	1"	8"	1229959	319.20	280.785
3/8"	1"	8"	1229958	407.40	358.365
1/2"	1-1/4"	2.63"	1229964	278.60	245.07
1/2"	1-1/4"	4"	1229961	341.60	300.48
1/2"	1-1/4"	4"	1229962	309.40	272.16
1/2"	1-1/4"	6"	1229965	282.80	248.76
1/2"	1-1/4"	6"	1229966	357.00	314.04
1/2"	1-1/4"	6"	1229967	352.80	310.335
1/2"	1-1/4"	8"	1229969	326.20	286.935
1/2"	1-1/4"	8"	1229970	407.40	358.365
1/2"	1-1/4"	8"	1229971	406.00	357.135
5/8"	1-1/2"	1.44"	1229975	246.40	216.75
5/8"	1-1/2"	3"	1229977	312.20	274.62
5/8"	1-1/2"	4"	1229973	357.00	314.04
5/8"	1-1/2"	4"	1229974	309.40	272.16
5/8"	1-1/2"	7-1/4"	1229980	534.80	470.43

Connection Diameter Workpiece Side (DCONWS)	Nose Length	Protruding Length (LPR)	Order No.	Regular Price	SALE
5/8"	1-1/2"	8"	1229981	326.20	286.935
3/4"	1-3/4"	1.44"	1229988	312.20	274.62
3/4"	1-3/4"	3"	1229989	246.40	216.75
3/4"	1-3/4"	3"	1229990	312.20	274.62
3/4"	1-3/4"	3"	1229991	264.60	232.755
3/4"	1-3/4"	4"	1229984	246.40	216.75
3/4"	1-3/4"	4"	1229985	357.00	314.04
3/4"	1-3/4"	4"	1229986	309.40	272.16
3/4"	1-3/4"	6"	1229994	357.00	314.04
3/4"	1-3/4"	7-1/4"	1229995	539.00	474.135
3/4"	1-3/4"	8"	1229996	326.20	286.935
3/4"	1-3/4"	8"	1229997	407.40	358.365
7/8"	1.88"	6"	1230000	407.40	358.365
7/8"	2"	8"	1230002	407.40	358.365
1"	2"	2.62"	1230007	396.20	348.51
1"	2"	4"	1230004	357.00	314.04
1"	2"	4"	1230005	309.40	272.16
1"	2"	6"	1230009	306.60	269.70
1"	2"	8"	1230012	368.20	323.88
1-1/4"	2-1/2"	2.62"	1230017	450.80	396.54
1-1/4"	2-1/2"	4.6"	1230014	364.00	320.19
1-1/4"	2-1/2"	4.6"	1230015	316.40	278.325
1-1/4"	2-1/2"	6"	1230019	368.20	323.88
1-1/4"	2-1/2"	8"	1230021	421.40	370.68
1-1/2"	2-1/2"	4.6"	1230023	380.80	334.965
1-1/2"	2-1/2"	4.6"	1230024	316.40	278.325
2"	3-3/4"	6"	1230027	380.80	334.965

7059

### KURT WORKHOLDING DX Series Crossover™ Vises

- DX CrossOver™ vises are a combination of AngLock®, Pull-Type and 4 bolt stationary jaw design.
- Hardened vise bed/jaw plates
- Semi-hard steel screw
- 80,000 psi ductile iron body, nut and movable jaw
- Bolts & locates on 40mm, 50mm and 2" grid patterns
- Accepts sine keys for alignment (not included)
- Chip evacuation straight through the body
- Screw support held in place with snap rings

- GrooveLock® jaw plate and workstop included
- New brush seal design makes it easier to replace
- Includes chip guard
- Powder coat paint is long lasting and durable
- Lifetime Iron Clad Warranty

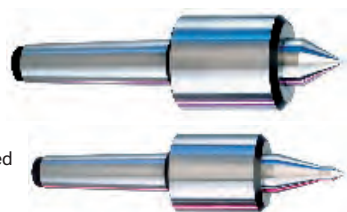


Jaw Width	Jaw Opening Capacity	Jaw Height	Overall Length	Model No	Order No.	Regular Price	SALE
4"	6.5"	1.235"	12.5"	DX4	0721735	1098.72	1043.784
6"	9.08"	1.735"	16.81"	DX6	0721736	1125.18	1068.928

1291

### ROYAL High Precision Quad Bearing Live Centers

- Great for grinding and tight tolerance turning
- ±0.00005" T.I.R. guaranteed
- Three precision angular contact bearings are secured to the point with a locknut to form a rigid, preloaded assembly
- The point extends into the body where it is supported by a needle roller bearing, which further increases rigidity, reduces point deflection, and dampens vibration
- Bearing life is significantly extended with the exclusive Royal Roto-Shield™ coolant slinger and upgraded, long-life, spring-loaded seal that is resistant to abrasion, high temperatures and virtually all metalworking fluids
- Low profile head provides excellent tool clearance
- Body and point are hardened for strength and durability



CNC											
Mount	Head Diameter	Head Length	Point Length	Point Diameter	Tip Diameter	Maximum RPM	Radial Load	Thrust Load	Order No.	Regular Price	SALE
4 MT	2.45"	2.780"	2.35"	1.250"	0.500"	5,000	1,230 lbs	2,150 lbs	0703517	1953.00	1757.70
5 MT	2.45"	2.780"	2.35"	1.250"	0.500"	5,000	1,230 lbs	2,150 lbs	0703518	2065.00	1858.50
3 MT	1.70"	2.120"	1.75"	0.880"	0.380"	6,000	465 lbs	1,270 lbs	0703516	1603.00	1442.70

Standard											
Mount	Head Diameter	Head Length	Point Length	Point Diameter	Tip Diameter	Maximum RPM	Radial Load	Thrust Load	Order No.	Regular Price	SALE
5 MT	3.82"	3.890"	2.31"	2.00"	2"	3,000	5,240 lbs	5,300 lbs	0703493	4130.00	3717.00
5 MT	2.45"	2.780"	1.47"	1.250"	1 1/4"	5,000	2,240 lbs	2,150 lbs	0703492	2065.00	1858.50
4 MT	2.45"	2.780"	1.47"	1.250"	1 1/4"	5,000	2,240 lbs	2,150 lbs	0703491	1953.00	1757.70
3 MT	1.70"	2.120"	1.07"	0.880"	3/8"	6,000	885 lbs	1,270 lbs	0703490	1652.00	1486.80

6901

# SPRING INTO SAVINGS 2026



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### 1/4 HP Industrial Wall & Pedestal Fans

#### Fans

- Adjustable column - 5' to 8'
- Permanently sealed ball bearing motor
- 15' Connecting cord
- Aluminum blades
- UL Listed
- 1 Year limited warranty
- UPS dimensional weight charges apply, ships
- in one box
- 30" blade



Blade Size	Flow	Maximum RPM	Horse power	Shipping Weight	Order No.	Price	SALE
30"	6,100/4,400/2,700 CFM	1,100	1/4 hp	87.0 lbs	1116824	768.98	653.63
30"	6,100/4,400/2,700 CFM	1,100	1/4 hp	49.0 lbs	1116827	620.51	527.44

2632

### NORTON Norton RazorStar CA Cloth File Belts

- Fast cut rate and durability combine to deliver optimum productivity and lower process cost.
- Supersized grinding aid acts as a cooling lubricant to reduce heat generation resulting in less thermal damage to the workpiece.
- Patented grain geometry maintains a razor-sharp cutting edge for longer life.



Width	Length	Grit	Order No.	Regular Price	SALE
3/4"	18"	36	866361A	15.93	13.48
1/2"	12"	36	866360A	13.47	11.40
1/2"	18"	36	590442A	15.55	12.29
1/2"	24"	36	590443A	16.63	13.15

60713



### 1/8" Steel Parallel Set

#### 10 Pair Set

- 1/8 x 1/2 to 1/8 x 1-5/8"
- Made of high grade alloy steel, hardened and ground from 1/8" stock
- Two holes in each parallel
- Accuracy: ± .0002" parallelism in height
- ± .001" to size in height



Order No.	Price	SALE
1085021	166.33	86.82

679

### NORTON Norton RazorStar CA Cloth Narrow Belts

- Best for aggressive material removal on a variety of surfaces.
- Supersized grinding aid acts as a cooling lubricant to reduce heat generation resulting in less thermal damage to the workpiece.
- Patented grain geometry maintains a razor-sharp cutting edge for longer life.



Width	Length	Grit	Order No.	Regular Price	SALE
2"	48"	36	866362A	45.70	38.65
2"	72"	36	866364A	61.07	51.66
2"	132"	36	866365A	99.37	84.07
4"	132"	36	866366A	194.33	164.40
6"	48"	36	866363A	134.26	113.58

60714

PRICES EFFECTIVE APRIL 1ST THROUGH JUNE 30, 2026

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