

PAGE 43



Jacobs®
CHUCK

**Heavy Duty
Plain Bearing
Chucks**

**25%
OFF**

PAGE 11



UP TO
**20%
OFF**

NOGA
SIMPLY SOPHISTICATED

**007
Deburring
Set**

**SAVE
25%**

**Uniflute®
Countersinks**



PAGE 9

**25%
OFF**

MORSE
CUTTING TOOLS

**Straight Shank
Straight Flute
Chucking Reamers**



PAGE 7

CARBIDE

RAPIDKUT Cut Off Blades

- Positive stop cut-off blades - "F" style
- Positive blade design creates a strengthened clamping force for higher stability while machining
- For use on conventional or CNC machines
- Uses "MEGFN" style inserts



Cutting Width Minimum (CWN)	Cutting Depth Maximum (CDX)	Overall Height (OAH)	Order No.	Regular Price	SALE
0.079"	1.5"	0.75"	ME1710000	110.74	86.38
0.079"	2"	1.03"	ME1710001	110.74	86.38
0.122"	3"	1.03"	ME1710002	110.74	86.38
0.079"	2"	1.25"	ME1710003	123.75	96.53
0.122"	4"	1.25"	ME1710004	123.75	96.53
0.161"	4"	1.25"	ME1710005	123.75	96.53

30036

DORIAN TOOL Buy a Complete Boring Bar Set

Includes 4 Boring Bars and 20 TiN Coated Inserts

Set Includes: Boring Bar No. (1 ea.) Shank Size Minimum Bore

- TPBN 06-2 1/2 .430
- TPBN 08-2 1/2 .590
- TPBN 10-2 5/8 .682
- TPBN 12-3 3/4 .845
- (10) TPGH 21.51 inserts
- (10) TPGH 321 inserts
- (1) Torx key T7
- (1) Torx key T10
- (1) Storage case
- Note: Set includes TiN coated grade DPP30GT carbide inserts for general purpose alloy steel, stainless and ductile iron applications



Order No.	Regular Price	SALE
FL4543840	995.11	863.76

8663

RAPIDKUT "F" Style Cut-Off & Grooving Kits

- Kit comes with 1 blade and 10 TiN CVD coated inserts
- Positive stop design creates a strengthened clamping force for higher stability while machining
- Uses GFN style insert

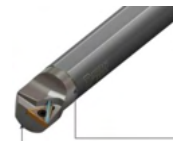


Overall Length (OAL)	Contains	Order No.	Regular Price	SALE
5.87"	MEFH32-3 and (10) MEGFN3 Inserts	ME2010005	258.12	180.68

30037

DORIAN TOOL Carbide Boring Bars

- Deep boring
- Carbide shank
- Alloy steel head- hardened to RC 40-44
- Focused coolant-thru delivery system
- Threaded end on 1/2" and larger bars



Connection Diameter Machine Side (DCONMS)	Overall Length (OAL)	Minimum Bore Diameter (DMIN)	Master Insert Identification (MIID)	Order No.	Regular Price	SALE
3/8"	6"	0.396"	CCMT2151	FL4559595	329.42	311.30
1/2"	5"	0.55"	CCMT2151	FL4559599	340.51	321.78
1/2"	8"	0.55"	CCMT2151	FL4559603	448.42	428.24
5/8"	6"	0.74"	CCMT3252	FL4559623	429.86	406.22
5/8"	10"	0.74"	CCMT3252	FL4559627	618.17	590.35
3/8"	6"	0.396"	CPMT2151	FL4559635	329.42	311.30
1/2"	8"	0.55"	CPMT2151	FL4559643	448.42	428.24
5/8"	6"	0.74"	CPMT2151	FL4559647	429.86	406.22
5/8"	6"	0.74"	CPMT3252	FL4559663	429.86	406.22
5/8"	10"	0.74"	CPMT3252	FL4559667	618.17	590.35
3/8"	6"	0.456"	TCMT2151	FL4559763	329.42	311.30
1/2"	5"	0.587"	TCMT2151	FL4559767	340.51	321.78
1/2"	8"	0.587"	TCMT2151	FL4559771	448.42	428.24
5/8"	10"	3/4"	TCMT2151	FL4559779	618.17	590.35
1"	8"	1.2"	CCMT3252	FL4559971	1,056.73	1,009.18
3/4"	7"	0.93"	TCMT3252	FL4560027	673.47	643.16
3/4"	10"	0.93"	TCMT3252	FL4560029	870.38	822.51

23085

RAPIDKUT Cut Off Inserts

F Style

- Grade ME435 is AlTiN CVD coated
- Grades ME1025 and ME2205 are TiCN PVD coated
- Available in Left, Right, or Neutral



Insert Style	Cutting Width (CW)	Corner Radius (RE)	Insert Rake Angle (GAN)	Cutting Direction (HAND)	Grade	ST	SS	CI	H	N	S	Order No.	Price	SALE
MEGFL 2	0.079"	0.016"	8 Degrees	Left Hand	ME435	X	X	X	-	-	X	ME1810006	22.50	18.00
MEGFL 3	0.122"	0.020"	8 Degrees	Left Hand	ME435	X	X	X	-	-	X	ME1810007	29.11	22.41
MEGFN 2	0.079"	0.016"	0 Degrees	Neutral	ME435	X	X	X	-	-	X	ME1810009	20.78	16.00
MEGFN 3	0.122"	0.020"	0 Degrees	Neutral	ME435	X	X	X	-	-	X	ME1810010	20.93	16.12
MEGFN 4	0.161"	0.024"	0 Degrees	Neutral	ME435	X	X	X	-	-	X	ME1810011	23.62	18.19
MEGFN 5	0.201"	0.028"	0 Degrees	Neutral	ME435	X	X	X	-	-	X	ME1810012	25.55	19.67
MEGFR 2	0.079"	0.016"	8 Degrees	Right Hand	ME435	X	X	X	-	-	X	ME1810013	22.50	17.33
MEGFR 3	0.122"	0.020"	8 Degrees	Right Hand	ME435	X	X	X	-	-	X	ME1810014	23.52	18.11
MEGFR 4	0.161"	0.024"	8 Degrees	Right Hand	ME435	X	X	X	-	-	X	ME1810015	32.05	24.68
MEGFN 2	0.079"	0.016"	0 Degrees	Neutral	ME1025	X	X	-	-	-	-	ME1821000	16.37	12.60
MEGFN 3	0.122"	0.02"	0 Degrees	Neutral	ME1025	X	X	-	-	-	-	ME1821015	15.15	11.67
MEGFL 3-8D	0.122"	0.02"	8 Degrees	Left Hand	ME1025	X	X	-	-	-	-	ME1821025	15.50	11.94
MEGFR 3-4D	0.122"	0.02"	4 Degrees	Right Hand	ME1025	X	X	-	-	-	-	ME1821030	15.50	11.94
MEGFN 4	0.161"	0.024"	0 Degrees	Neutral	ME1025	X	X	-	-	-	-	ME1821040	18.03	13.88
MEGFN 5	0.201"	0.028"	0 Degrees	Neutral	ME1025	X	X	-	-	-	-	ME1821065	20.12	15.49
MEGFN 3	0.122"	0.02"	0 Degrees	Neutral	ME2205	-	X	-	-	-	-	ME1822005	15.15	11.67
MEGFN 4	0.161"	0.024"	0 Degrees	Neutral	ME2205	-	X	-	-	-	-	ME1822020	18.03	13.88

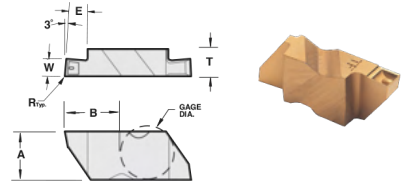
9300



Chip-Flo Grooving Inserts with Chipbreaker, FLG-CB

Carbide Grades

- AC3 - PVD TiAlN for 300 series stainless steel and other high temp alloy steel in premium conditions
- AC50 - PVD TiAlN for standard steels and 400 series stainless steel
- GP50 - PVD TiN general purpose for standard steel



AC50C									
ProductName	Cutting Width (CW)	Thread Pitch Maximum (TPX)	Corner Radius (RE)	Insert Thickness (S)	Cutting Depth Maximum (CDX)	Left Hand or Right Hand	Order No.	Regular Price	SALE
FLG-2047L-CB	0.047"	0.219"	0.002" 0.005"	0.15"	0.05"	Left	FG31026240	37.23	33.69
FLG-2047R-CB	0.047"	0.219"	0.002" 0.005"	0.15"	0.05"	Right	FG31026280	37.23	33.69
FLG-2078L-CB	0.078"	0.219"	0.005" 0.01"	0.15"	0.11"	Left	FG31026440	37.23	33.69
FLG-2078R-CB	0.078"	0.219"	0.005" 0.01"	0.15"	0.11"	Right	FG31026480	37.23	33.69
FLG-2094L-CB	0.094"	0.219"	0.005" 0.01"	0.15"	0.11"	Left	FG31026540	37.23	33.69
FLG-2094R-CB	0.094"	0.219"	0.005" 0.01"	0.15"	0.11"	Right	FG31026590	37.23	33.69
FLG-2125L-CB	0.125"	0.219"	0.005" 0.01"	0.15"	0.11"	Left	FG31026640	37.23	33.69
FLG-2125R-CB	0.125"	0.219"	0.005" 0.01"	0.15"	0.11"	Right	FG31026680	37.23	33.69
FLG-3047L-CB	0.047"	0.344"	0.005" 0.01"	0.195"	0.075"	Left	FG31027800	37.23	33.69
FLG-3072L-CB	0.072"	0.344"	0.005" 0.01"	0.195"	0.12"	Left	FG31027960	37.23	33.69
FLG-3072R-CB	0.072"	0.344"	0.005" 0.01"	0.195"	0.12"	Right	FG31028050	37.23	33.69
FLG-3078L-CB	0.078"	0.344"	0.005" 0.01"	0.195"	0.12"	Left	FG31028150	37.23	33.69
FLG-3078R-CB	0.078"	0.344"	0.005" 0.01"	0.195"	0.12"	Right	FG31028210	37.23	33.69
FLG-3088L-CB	0.088"	0.344"	0.005" 0.01"	0.195"	0.18"	Left	FG31028300	37.23	33.69
FLG-3088R-CB	0.088"	0.344"	0.005" 0.01"	0.195"	0.18"	Right	FG31028370	37.23	33.69
FLG-3097R-CB	0.097"	0.344"	0.01" 0.015"	0.195"	0.18"	Right	FG31028580	37.23	33.69
FLG-3125L-CB	0.125"	0.344"	0.005" 0.01"	0.195"	0.195"	Left	FG31028880	37.23	33.69
FLG-3142R	0.142"	0.344"	0.005" 0.01"	0.195"	0.18"	Right	FG31029010	37.23	33.69
FLG-3189R-CB	0.189"	0.344"	0.02" 0.025"	0.195"	0.18"	Right	FG31029350	37.23	33.69
FLG-4125L-CB	0.125"	0.453"	0.005" 0.01"	0.255"	0.25"	Left	FG31030510	53.59	49.57
FLG-4125R-CB	0.125"	0.453"	0.005" 0.01"	0.255"	0.25"	Right	FG31030570	53.59	49.57
FLG-2062L-CB	0.062"	0.219"	0.005" 0.01"	0.15"	0.11"	Left	FG312662PLAC50C	37.23	33.69
FLG-2062R-CB	0.062"	0.219"	0.005" 0.01"	0.15"	0.11"	Right	FG312662PRAC50C	37.23	33.69
FLG-3031L-CB	0.031"	0.344"	0.002" 0.005"	0.195"	0.05"	Left	FG31563631PLAC5	37.23	33.69
FLG-3031R-CB	0.031"	0.344"	0.002" 0.005"	0.195"	0.05"	Right	FG31563631PRAC5	37.23	33.69
FLG-3047R-CB	0.047"	0.344"	0.005" 0.01"	0.195"	0.075"	Right	FG31563647PRAC5	37.23	33.69
FLG-3062L-CB	0.062"	0.344"	0.005" 0.01"	0.195"	0.12"	Left	FG31563662PLAC5	37.23	33.69
FLG-3062R-CB	0.062"	0.344"	0.005" 0.01"	0.195"	0.12"	Right	FG31563662PRAC5	37.23	33.69
FLG-3094L-CB	0.094"	0.344"	0.005" 0.01"	0.195"	0.195"	Left	FG31563694PLAC5	37.23	33.69
FLG-3094R-CB	0.094"	0.344"	0.005" 0.01"	0.195"	0.195"	Right	FG31563694PRAC5	37.23	33.69
FLG-3125R-CB	0.125"	0.344"	0.005" 0.01"	0.195"	0.195"	Right	FG31563825PRAC5	37.23	33.69
FLG-3189L-CB	0.189"	0.344"	0.02" 0.025"	0.195"	0.18"	Left	FG31563889PLAC5	37.23	33.69
FLG-4189L-CB	0.189"	0.453"	0.02" 0.025"	0.255"	0.25"	Left	FG31564889PLAC5	53.59	49.57
FLG-4189R-CB	0.189"	0.453"	0.02" 0.025"	0.255"	0.25"	Right	FG31564889PRAC5	53.59	49.57

AC3R									
ProductName	Cutting Width (CW)	Thread Pitch Maximum (TPX)	Corner Radius (RE)	Insert Thickness (S)	Cutting Depth Maximum (CDX)	Left Hand or Right Hand	Order No.	Regular Price	SALE
FLG-2078L-CB	0.078"	0.219"	0.005" 0.01"	0.15"	0.11"	Left	FG31026430	37.23	33.69
FLG-2078R-CB	0.078"	0.219"	0.005" 0.01"	0.15"	0.11"	Right	FG31026470	37.23	33.69
FLG-3031L-CB	0.031"	0.344"	0.002" 0.005"	0.195"	0.05"	Left	FG31027710	37.23	33.69
FLG-3031R-CB	0.031"	0.344"	0.002" 0.005"	0.195"	0.05"	Right	FG31027740	37.23	33.69
FLG-3072L-CB	0.072"	0.344"	0.005" 0.01"	0.195"	0.12"	Left	FG31027950	37.23	33.69
FLG-3072R-CB	0.072"	0.344"	0.005" 0.01"	0.195"	0.12"	Right	FG31028040	37.23	33.69
FLG-3078L-CB	0.078"	0.344"	0.005" 0.01"	0.195"	0.12"	Left	FG31028140	37.23	33.69
FLG-3088L-CB	0.088"	0.344"	0.005" 0.01"	0.195"	0.18"	Left	FG31028290	37.23	33.69
FLG-3088R-CB	0.088"	0.344"	0.005" 0.01"	0.195"	0.18"	Right	FG31028360	37.23	33.69
FLG-3097R-CB	0.097"	0.344"	0.01" 0.015"	0.195"	0.18"	Right	FG31028570	37.23	33.69
FLG-3189L-CB	0.189"	0.344"	0.02" 0.025"	0.195"	0.18"	Left	FG31029290	37.23	33.69
FLG-4125R-CB	0.125"	0.453"	0.005" 0.01"	0.255"	0.25"	Right	FG31030560	53.59	49.57
FLG-4125L-CB	0.125"	0.453"	0.005" 0.01"	0.255"	0.25"	Left	FG31564825PLAC3	53.59	49.57
FLG-2047L-CB	0.047"	0.219"	0.002" 0.005"	0.15"	0.05"	Left	FG31FLG2047LCB	37.23	33.69
FLG-2047R-CB	0.047"	0.219"	0.002" 0.005"	0.15"	0.05"	Right	FG31FLG2047RCB	37.23	33.69
FLG-2062L-CB	0.062"	0.219"	0.005" 0.01"	0.15"	0.11"	Left	FG31FLG2062LCB	37.23	33.69
FLG-2062R-CB	0.062"	0.219"	0.005" 0.01"	0.15"	0.11"	Right	FG31FLG2062RCB	37.23	33.69
FLG-2094L-CB	0.094"	0.219"	0.005" 0.01"	0.15"	0.11"	Left	FG31FLG2094LCB	37.23	33.69
FLG-2094R-CB	0.094"	0.219"	0.005" 0.01"	0.15"	0.11"	Right	FG31FLG2094RCB	37.23	33.69
FLG-2125L-CB	0.125"	0.219"	0.005" 0.01"	0.15"	0.11"	Left	FG31FLG2125LCB	37.23	33.69
FLG-2125R-CB	0.125"	0.219"	0.005" 0.01"	0.15"	0.11"	Right	FG31FLG2125RCB	37.23	33.69
FLG-3047L-CB	0.047"	0.344"	0.005" 0.01"	0.195"	0.075"	Left	FG31FLG3047LCB	37.23	33.69
FLG-3047R-CB	0.047"	0.344"	0.005" 0.01"	0.195"	0.075"	Right	FG31FLG3047RCB	37.23	33.69
FLG-3062L-CB	0.062"	0.344"	0.005" 0.01"	0.195"	0.12"	Left	FG31FLG3062LCB	37.23	33.69
FLG-3062R-CB	0.062"	0.344"	0.005" 0.01"	0.195"	0.12"	Right	FG31FLG3062RCB	37.23	33.69
FLG-3094L-CB	0.094"	0.344"	0.005" 0.01"	0.195"	0.195"	Left	FG31FLG3094LCB	37.23	33.69
FLG-3094R-CB	0.094"	0.344"	0.005" 0.01"	0.195"	0.195"	Right	FG31FLG3094RCB	37.23	33.69
FLG-3125L-CB	0.125"	0.344"	0.005" 0.01"	0.195"	0.195"	Left	FG31FLG3125LCB	37.23	33.69
FLG-3125R-CB	0.125"	0.344"	0.005" 0.01"	0.195"	0.195"	Right	FG31FLG3125RCB	37.23	33.69

AC3									
ProductName	Cutting Width (CW)	Thread Pitch Maximum (TPX)	Corner Radius (RE)	Insert Thickness (S)	Cutting Depth Maximum (CDX)	Left Hand or Right Hand	Order No.	Regular Price	SALE
FLG-3078R-CB	0.078"	0.344"	0.005" 0.01"	0.195"	0.12"	Right	FG31028230	37.23	33.69
FLG-3189R-CB	0.189"	0.344"	0.02" 0.025"	0.195"	0.18"	Right	FG31029370	37.23	33.69
FLG-4189L-CB	0.189"	0.453"	0.02" 0.025"	0.255"	0.25"	Left	FG31564889PLAC3	53.59	49.57
FLG-4189R-CB	0.189"	0.453"	0.02" 0.025"	0.255"	0.25"	Right	FG31564889PRAC3	53.59	49.57

AC3A									
ProductName	Cutting Width (CW)	Thread Pitch Maximum (TPX)	Corner Radius (RE)	Insert Thickness (S)	Cutting Depth Maximum (CDX)	Left Hand or Right Hand	Order No.	Regular Price	SALE
FLG-4250L-CB	0.25"	0.453"	0.02" 0.025"	0.255"	0.25"	Left	FG31030810	53.59	49.57
FLG-4250R-CB	0.25"	0.453"	0.02" 0.025"	0.255"	0.25"	Right	FG31574050PRAC3	53.59	49.57

AC50E									
ProductName	Cutting Width (CW)	Thread Pitch Maximum (TPX)	Corner Radius (RE)	Insert Thickness (S)	Cutting Depth Maximum (CDX)	Left Hand or Right Hand	Order No.	Regular Price	SALE
FLG-4250L-CB	0.25"	0.453"	0.02" 0.025"	0.255"	0.25"	Left	FG31030820	53.59	49.57
FLG-4250R-CB	0.25"	0.453"	0.02" 0.025"	0.255"	0.25"	Right	FG31030880	53.59	49.57

CUTTING TOOLS

IMCO Solid Carbide 4 Flute Square End Mills

M924 Series POW-R-FEED

IMCO's M924 is the second generation of the Pow-R-FEED M9 series, designed for production environments. Reinforced cutting edges give you even longer tool life in more demanding applications

- Better performance, longer tool life with optimized rake and relief angles
- New AlCrNX engineered coating shown to improve tools life exponentially
- Plunge, slot, finish in all kinds of materials
- Cut wet or dry, depending on your tool path and the materials you're machining
- Maximum feeds and speeds you never thought possible



Order No.	Regular Price	SALE
DD4167098	84.67	65.28
DD4167124	106.05	81.76
DD4167132	134.47	103.68
DD4167188	145.52	112.20
DD4167204	163.53	126.08
DD4167222	172.94	133.34
DD4167276	273.48	210.85
DD4167286	276.81	213.42
DD4167326	510.93	393.93
DD4167356	486.19	374.85
DD4167366	558.49	430.60
DD4167406	753.37	580.85
DD4167498	3713	28.63
DD4167510	55.94	43.13
DD4167524	65.73	50.68
DD4167530	79.27	61.12

23396

IMCO enDURO® M525 5 Flute Single End Mills with Corner Radius

Series M525-CR

Advanced tooling for aerospace and medical parts manufacturing. Hard core for hard work

- Amazing corner strength
- Fine micrograin tungsten carbide substrate
- Optimized rake and relief angles
- Variable indexing
- Five flutes, 40° helix
- Premium heat-resistant coating



Order No.	Regular Price	SALE
DD4065050	88.66	68.36

30960

IMCO 4 Flute Solid Carbide Square End End Mills

Series E14 • Center Cutting

- Precision ground for reliability and repeatability
- Fine grain carbide for greater toughness and wear resistance
- Coatings for a wide range of applications



Long						
				IM106 AITIN		
Cutting Diameter (DC)	Connection Diameter Machine Side (DCONMS)	Depth of Cut Maximum (APMX)	Overall Length (OAL)	Order No.	Regular Price	SALE
1/8"	1/8"	3/4"	2-1/4"	DD4030417	39.37	30.35
0.313"	0.313"	1-1/8"	3"	DD4030461	90.12	69.48
5/8"	5/8"	2-1/4"	5"	DD4030561	340.23	262.32

Standard									
				IM106 AITIN			IM100 Uncoated		
Cutting Diameter (DC)	Connection Diameter Machine Side (DCONMS)	Depth of Cut Maximum (APMX)	Overall Length (OAL)						
				Order No.	Regular Price	SALE	Order No.	Regular Price	SALE
0.156"	0.188"	9/16"	2"	DD4030501	39.72	30.62	-	-	-
0.188"	0.188"	5/8"	2"	DD4030520	37.13	28.63	-	-	-
1/8"	1/8"	1/2"	1-1/2"	DD4030521	26.91	20.75	-	-	-
5/8"	5/8"	1-1/4"	3-1/2"	DD4030555	233.66	180.15	-	-	-
1/8"	1/8"	1/2"	1-1/2"	-	-	-	DD4030713	21.57	16.63
0.156"	0.188"	9/16"	2"	-	-	-	DD4030717	32.19	24.82
0.188"	0.188"	5/8"	2"	-	-	-	DD4030721	30.35	23.40
1/4"	1/4"	3/4"	2-1/2"	-	-	-	DD4030729	35.67	27.50
0.313"	0.313"	13/16"	2-1/2"	-	-	-	DD4030737	50.44	38.89
3/8"	3/8"	1"	2-1/2"	-	-	-	DD4030745	62.86	48.47
1/2"	1/2"	1"	3"	-	-	-	DD4030761	102.80	79.26
5/8"	5/8"	1-1/4"	3-1/2"	-	-	-	DD4030765	198.14	152.77
3/4"	3/4"	1-1/2"	4"	-	-	-	DD4030769	290.26	223.79
0.313"	0.313"	13/16"	2-1/2"	DD4030898	64.67	49.86	-	-	-

Extra Long									
				IM106 AITIN			IM100 Uncoated		
Cutting Diameter (DC)	Connection Diameter Machine Side (DCONMS)	Depth of Cut Maximum (APMX)	Overall Length (OAL)	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE
1/8"	1/8"	3/4"	2-1/4"	-	-	-	DD4037708	34.09	26.28
0.188"	0.188"	3/4"	2-1/2"	-	-	-	DD4037712	43.67	33.67
1/4"	1/4"	1-1/8"	3"	-	-	-	DD4037716	53.82	41.50
0.313"	0.313"	1-1/8"	3"	-	-	-	DD4037720	71.61	55.21
3/8"	3/8"	1-1/8"	3"	-	-	-	DD4037724	83.65	64.49
3/8"	3/8"	1-1/8"	3"	-	-	-	-	-	-
1/2"	1/2"	2"	4"	-	-	-	DD4037732	145.43	112.13
1/2"	1/2"	2"	4"	DD4037735	173.74	133.95	-	-	-
5/8"	5/8"	2-1/4"	5"	-	-	-	DD4037740	279.9	215.80
3/4"	3/4"	2-1/4"	5"	-	-	-	DD4037748	372.85	287.47
3/4"	3/4"	2-1/4"	5"	DD4037751	446.31	344.11	-	-	-
0.188"	0.188"	3/4"	2-1/2"	DD4037793	53.34	41.13	-	-	-
3/8"	3/8"	1"	2-1/2"	DD4098244	77.88	60.05	-	-	-
1/2"	1/2"	1"	3"	DD4098245	124.53	96.01	-	-	-
1/4"	1/4"	3/4"	2-1/2"	DD4098955	45.40	35.00	-	-	-
3/4"	3/4"	1-1/2"	4"	DD4098956	341.99	263.67	-	-	-
1/4"	1/4"	1-1/8"	3"	DD4099336	66.18	51.02	-	-	-

23364

A Brand® AE-BD-H High Performance Carbide Ball Nose End Mills

Stub Length - 2 Flute

- List 8410
- Inch
- DUROREY Coating

Cutting Diameter (DC)	Connection Diameter Machine Side (DCONMS)	Depth of Cut Maximum (APMX)	Overall Length (OAL)	Order No.	Regular Price	SALE
1/32"	1/4"	0.031"	1-1/2"	TP4684100023	109.19	98.27
1/16"	1/4"	0.063"	1-1/2"	TP4684100123	109.19	98.27
3/32"	1/4"	0.094"	1-1/2"	TP4684100223	109.19	98.27
1/8"	1/4"	1/8"	2"	TP4684100323	109.19	98.27
3/16"	1/4"	0.188"	2-1/2"	TP4684100423	115.44	103.90
1/4"	1/4"	1/4"	3"	TP4684100523	115.44	103.90
5/16"	5/16"	5/16"	3-1/2"	TP4684100623	174.48	157.03
3/8"	3/8"	3/8"	3-1/2"	TP4684100723	201.82	181.64
1/2"	1/2"	1/2"	4"	TP4684100823	294.34	264.91

29329

A Brand® AE-BD-H High Performance Carbide Ball Nose End Mills

Regular Length - 4 Flute - Fractional Sizes

- List 8430
- For High Hardness Steels
- DUROREY Coating

Cutting Diameter (DC)	Connection Diameter Machine Side (DCONMS)	Depth of Cut Maximum (APMX)	Overall Length (OAL)	Order No.	Regular Price	SALE
1/8"	1/8"	1/8"	2"	TP4684300023	143.05	128.75
3/16"	3/16"	0.188"	2-1/2"	TP4684300123	151.23	136.11
1/4"	1/4"	1/4"	3-1/2"	TP4684300223	151.23	136.11
5/16"	5/16"	5/16"	4"	TP4684300323	228.58	205.72
3/8"	3/8"	3/8"	4"	TP4684300423	264.43	237.99
1/2"	1/2"	1/2"	4-3/8"	TP4684300523	385.56	347.00

29330

A Brand® AE-BD-H High Performance Carbide Ball Nose End Mills

Stub Length - 2 Flute - Metric Sizes

- List 8510
- For High Hardness Steels
- DUROREY Coating

Cutting Diameter (DC)	Connection Diameter Machine Side (DCONMS)	Depth of Cut Maximum (APMX)	Overall Length (OAL)	Order No.	Regular Price	SALE
1 mm	4 mm	0.8 mm	50 mm	TP463042001	72.32	65.09
1.5 mm	4 mm	1.2 mm	50 mm	TP463042002	87.16	78.44
2 mm	6 mm	1.6 mm	50 mm	TP463042003	85.95	59.36
3 mm	6 mm	2.4 mm	60 mm	TP463042004	78.75	70.88
4 mm	4 mm	3.4 mm	60 mm	TP463042005	89.36	80.42
4 mm	6 mm	3.4 mm	70 mm	TP463042006	89.36	80.42
5 mm	6 mm	4.2 mm	80 mm	TP463042008	105.45	94.91
6 mm	6 mm	9 mm	90 mm	TP463042010	109.49	98.54
8 mm	8 mm	12 mm	100 mm	TP463042012	164.37	147.93
10 mm	10 mm	15 mm	100 mm	TP463042014	205.69	185.12
12 mm	12 mm	18 mm	110 mm	TP463042016	294.20	264.78
0.2 mm	4 mm	0.16 mm	40 mm	TP4685100023	118.89	107.00
0.8 mm	4 mm	0.6 mm	40 mm	TP4685100123	78.68	70.81
1.4 mm	4 mm	1.1 mm	50 mm	TP4685100223	140.41	126.37
2.5 mm	4 mm	2 mm	50 mm	TP4685100323	109.59	98.63

29331

A Brand® AE-VMSS Advanced Performance Anti-Vibration Carbide End Mills

Square End - Stub Length - Metric Sizes

- List 8206
- Variable Helix
- Center Cutting
- Duarise Coating

Cutting Diameter (DC)	Connection Diameter Machine Side (DCONMS)	Depth of Cut Maximum (APMX)	Flute Count (NOF)	Overall Length (OAL)	Order No.	Regular Price	SALE
3 mm	6 mm	4.5 mm	4	45 mm	TP468556430	84.29	75.86
4 mm	6 mm	6 mm	4	45 mm	TP468556440	76.69	69.02
5 mm	6 mm	7.5 mm	4	45 mm	TP468556450	73.77	66.39
6 mm	6 mm	9 mm	4	45 mm	TP468556460	69.66	62.69
8 mm	8 mm	12 mm	4	60 mm	TP468556480	82.92	74.63
10 mm	10 mm	15 mm	4	70 mm	TP468556500	113.25	101.93
12 mm	12 mm	18 mm	4	75 mm	TP468556520	172.38	155.14

29323

A Brand® AE-BM-H High Performance Carbide Ball Nose End Mills

Regular Length - 4 Flute - Metric Sizes

- List 8530
- For High Hardness Steels
- DUROREY Coating

Cutting Diameter (DC)	Connection Diameter Machine Side (DCONMS)	Depth of Cut Maximum (APMX)	Overall Length (OAL)	Order No.	Regular Price	SALE
2 mm	6 mm	2 mm	50 mm	TP468549602	142.16	127.94
3 mm	6 mm	3 mm	50 mm	TP468549603	126.28	113.65
4 mm	6 mm	4 mm	60 mm	TP468549604	126.28	113.65
5 mm	6 mm	5 mm	60 mm	TP468549605	156.66	140.99
6 mm	6 mm	9 mm	60 mm	TP468549606	156.66	140.99
8 mm	8 mm	12 mm	70 mm	TP468549608	184.95	166.46
10 mm	10 mm	15 mm	80 mm	TP468549610	237.01	213.31
12 mm	12 mm	18 mm	90 mm	TP468549612	292.73	263.46
1 mm	4 mm	2 mm	50 mm	TP4685300023	163.59	147.23
1.5 mm	4 mm	3 mm	50 mm	TP4685300123	152.91	137.62
2.5 mm	6 mm	5 mm	60 mm	TP4685300223	142.48	128.23

29332

A Brand® - AE-VMS Advanced Performance Anti-Vibration Carbide End Mills

Square End - Multiple Lengths - Metric Sizes

- List 8205
- Variable Helix
- Center Cutting
- Duarise Coating

Cutting Diameter (DC)	Connection Diameter Machine Side (DCONMS)	Depth of Cut Maximum (APMX)	Flute Count (NOF)	Overall Length (OAL)	Order No.	Regular Price	SALE
3mm	6mm	8mm	4	60mm	TP468555830	84.29	75.86
4mm	6mm	11mm	4	60mm	TP468555840	76.69	69.02
5mm	6mm	13mm	4	60mm	TP468555850	77.36	69.62
6mm	6mm	13mm	4	60mm	TP468555860	72.90	65.61
8mm	8mm	19mm	4	70mm	TP468555890	87.22	78.50
10mm	10mm	22mm	4	80mm	TP468555900	123.91	111.52
12mm	12mm	26mm	4	90mm	TP468555920	180.98	162.88
16mm	16mm	32mm	4	100mm	TP468555960	349.89	314.90
20 mm	20 mm	40 mm	4	110 mm	TP468556000	456.75	411.08
25 mm	25 mm	50 mm	4	120 mm	TP468556010	730.45	657.41

29317

A Brand® - AE-VMS Advanced Performance Anti-Vibration Carbide End Mills

Square End - Multiple Lengths - Fractional Sizes

- List 8200
- Variable Helix
- Center Cutting
- Duarise Coating

Cutting Diameter (DC)	Connection Diameter Machine Side (DCONMS)	Depth of Cut Maximum (APMX)	Flute Count (NOF)	Overall Length (OAL)	Order No.	Regular Price	SALE
3/16"	3/16"	7/16"	4	2"	TP4682000021	51.93	46.74
5/16"	5/16"	13/16"	4	2-1/2"	TP4682000421	90.13	81.12
3/8"	3/8"	1/2"	4	2-1/2"	TP4682000621	107.31	96.58
7/16"	7/16"	1"	4	2-3/4"	TP4682001021	146.85	132.17
1/2"	1/2"	1"	4	3"	TP4682001421	166.33	149.70
1/2"	1/2"	1-1/4"	4	3-1/2"	TP4682001621	171.68	154.51
5/8"	5/8"	3/4"	4	3"	TP4682001821	315.42	283.88
5/8"	5/8"	1-5/8"	4	5"	TP4682002221	377.45	339.71
3/4"	3/4"	7/8"	4	3-1/2"	TP4682002421	406.78	366.10
3/4"	3/4"	1-1/2"	4	4"	TP4682002621	455.04	409.54
3/4"	3/4"	1-5/8"	4	4"	TP4682002821	475.68	428.11
1"	1"	1-1/2"	4	4"	TP4682003021	687.72	618.95
1"	1"	2"	4	5"	TP4682003221	730.77	657.69
1"	1"	2-1/2"	4	5"	TP4682003421	777.34	699.61
5/64"	1/8"	0.017"	4	2"	TP4682004421	40.21	36.19
3/32"	1/8"	9/64"	4	2"	TP4682004621	40.21	36.19
7/64"	1/8"	0.164"	4	2"	TP4682004821	40.50	36.45
1/8"	1/8"	3/16"	4	2"	TP4682005021	39.02	35.12
9/64"	3/16"	0.211"	4	2"	TP4682005221	56.34	50.71
5/32"	3/16"	15/64"	4	2"	TP4682005421	47.42	42.68

29316

CUTTING TOOLS

HSS FM CL Heavy Duty Jobber Drills - Fractional 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 #2330
- Chicago-Latrobe List #550
- Precision Twist List #R10CO



Drill Bit Size / Cutting Diameter (DC)		Morse Cutting Tools			Chicago-Latrobe		
	Overall Length (OAL)	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE
1/64"	3/4"	MT1117099	8.81	5.73	CH1246601	14.80	10.33
1/32"	1-3/8"	MT1117100	6.94	4.51	CH1246602	7.92	5.53
3/64"	1-3/4"	MT1117106	3.30	2.21	CH1246603	6.29	4.39
1/16"	1-7/8"	MT1117110	3.30	2.15	CH1246604	5.81	4.06
5/64"	2"	MT1117116	3.30	2.15	CH1246605	5.84	4.08
3/32"	2-1/4"	MT1117123	3.88	2.52	CH1246606	5.99	4.18
7/64"	2-5/8"	MT1117130	3.99	2.59	CH1246607	6.66	4.65
1/8"	2-3/4"	MT1117136	4.41	2.87	CH1246608	7.45	5.20
9/64"	2-7/8"	MT1117140	5.14	3.34	CH1246609	7.83	5.47
5/32"	3-1/8"	MT1117146	5.50	3.58	CH1246610	8.97	6.26
11/64"	3-1/4"	MT1117152	6.05	3.93	CH1246611	9.65	6.74
3/16"	3-1/2"	MT1117158	6.55	4.26	CH1246612	10.88	7.59
13/64"	3-5/8"	MT1117165	7.10	4.62	CH1246613	11.96	8.35
7/32"	3-3/4"	MT1117170	7.87	5.12	CH1246614	12.88	8.99
15/64"	3-7/8"	MT1117174	8.81	5.73	CH1246615	13.87	9.68
1/4" E	4"	MT1117178	9.28	6.03	CH1246616	15.05	10.50
17/64"	4-1/8"	MT1117182	9.93	6.45	CH1246617	17.15	11.97
9/32"	4-1/4"	MT1117187	11.23	7.30	CH1246618	19.15	13.37
19/64"	4-3/8"	MT1117190	12.75	8.29	CH1246619	22.32	15.58
5/16"	4-1/2"	MT1117192	13.23	8.60	CH1246620	23.55	16.44
21/64"	4-5/8"	MT1117195	14.74	9.58	CH1246621	26.80	18.71
11/32"	4-3/4"	MT1117198	15.90	10.34	CH1246622	29.02	20.26
23/64"	4-7/8"	MT1117201	17.84	11.60	CH1246623	32.77	22.87
3/8"	5"	MT1117203	19.26	12.52	CH1246624	35.07	24.48
25/64"	5-1/8"	MT1117206	21.31	13.85	CH1246625	38.56	26.91
13/32"	5-1/4"	MT1117209	23.34	15.17	CH1246626	40.53	28.29
27/64"	5-3/8"	MT1117211	25.19	16.37	CH1246627	44.38	30.98
7/16"	5-1/2"	MT1117212	26.66	17.33	CH1246628	47.25	32.98
29/64"	5-5/8"	MT1117213	29.12	18.93	CH1246629	53.80	37.55
15/32"	5-3/4"	MT1117214	31.33	20.36	CH1246630	55.57	38.79
31/64"	5-7/8"	MT1117215	32.54	21.15	CH1246631	60.21	42.03
1/2"	6"	MT1117216	34.06	22.14	CH1246632	63.29	44.18
33/64"	6-5/8"	-	-	-	CH1250075	141.36	98.67
17/32"	6-5/8"	-	-	-	CH1250076	142.80	99.67
35/64"	6-5/8"	-	-	-	CH1250077	156.21	109.03
9/16"	6-5/8"	-	-	-	CH1250078	157.00	109.59
37/64"	6-5/8"	-	-	-	CH1250079	165.48	115.51
19/32"	7-1/8"	-	-	-	CH1250080	169.82	118.53
39/64"	7-1/8"	-	-	-	CH1250081	171.71	119.85
5/8"	7-1/8"	-	-	-	CH1250082	173.18	120.88
41/64"	7-1/8"	-	-	-	CH1250083	201.84	140.88
21/32"	7-1/8"	-	-	-	CH1250084	207.87	145.09
11/16"	7-5/8"	-	-	-	CH1250086	239.20	166.96

† Sizes not split point

9687

duMont® Keyway Broaches

High Speed Steel

Supplied with shims



Size	Style	Minimum Cut	Maximum Cut	Number of Shims	Order No.	Regular Price	SALE
1/16"	A	13/64"	1-1/8"	0	FB5022201	123.62	114.60
3/32"	A	13/64"	1-1/8"	0	FB5022202	123.62	114.60
3/32"	B	19/64"	1-11/16"	0	FB5022204	146.86	136.14
1/8"	A	13/64"	1-1/8"	1	FB5022203	123.62	114.60
1/8"	B	19/64"	1-11/16"	1	FB5022205	146.86	136.14
5/32"	B	19/64"	1-11/16"	1	FB5022206	146.86	136.14
3/16"	B	19/64"	1-11/16"	1	FB5022207	146.86	136.14
3/16"	C	25/64"	2-1/2"	1	FB5022208	185.14	171.62
1/4"	C	25/64"	2-1/2"	1	FB5022209	185.14	171.62
5/16"	C	25/64"	2-1/2"	2	FB5022210	185.14	171.62
5/16"	D	1"	6"	2	FB5022212	283.09	262.42
3/8"	C	25/64"	2-1/2"	2	FB5022211	185.14	171.62
3/8"	D	1"	6"	2	FB5022213	283.09	262.42
7/16"	D	1"	6"	3	FB5022214	283.09	262.42
1/2"	D	1"	6"	3	FB5022215	283.09	262.42
5/8"	E	1"	6"	4	FB5022216	472.50	438.01
3/4"	E	1"	6"	5	FB5022217	472.50	438.01
7/8"	F	1"	6"	6	FB5022218	972.65	901.65
1"	F	1"	6"	7	FB5022219	972.65	901.65

Special sizes and types available. All broaches available TiN coated.

9713



Straight Shank Straight Flute Chucking Reamers



High Speed Steel

- Diameter Tolerances: thru 1/2" diameter +.0002 -.0000 above 1/2" to 5/8" +.0003 -.0000 above 5/8" to 1-1/2" +.0001 +.0004
- Morse List #1655

Inch									
				Morse Cutting Tools			ProCut		
Cutting Diameter (DC)	Length Chip Flute (LCP)	Overall Length (OAL)	Flute Count (NOF)	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE
1/64"	3/8"	3/4"	2	MT5022090	49.67	37.25	-	-	-
1/32"	1/2"	1-3/8"	3	MT5029003	39.23	29.42	-	-	-
3/64"	1/2"	2-1/2"	4	MT5022106	37.42	29.56	BD50003	33.08	22.46
1/16"	1/2"	2-1/2"	4	MT5022110	33.71	25.28	BD50004	29.33	19.92
5/64"	3/4"	3"	4	MT5022116	30.13	23.80	BD50005	27.59	18.73
3/32"	3/4"	3"	4	MT5022123	27.19	20.39	BD50006	25.42	17.26
7/64"	7/8"	3-1/2"	4	MT5022130	31.39	24.80	BD50007	28.85	19.59
1/8"	7/8"	3-1/2"	4	MT5022137	28.53	22.54	BD50008	16.30	11.07
9/64"	1"	4"	4	MT5022142	37.42	29.56	BD50009	25.06	17.02
5/32"	1"	4"	6	MT5022148	37.42	29.56	BD50010	22.44	15.24
11/64"	1-1/8"	4-1/2"	6	MT5022154	40.02	31.62	BD50011	25.06	17.02
3/16"	1-1/8"	4-1/2"	6	MT5022161	36.31	27.23	BD50012	22.74	15.44
13/64"	1-1/4"	5"	6	MT5022169	44.89	35.46	BD50013	30.10	20.44
7/32"	1-1/4"	5"	6	MT5022174	44.89	35.46	BD50014	29.18	19.81
15/64"	1-1/2"	6"	6	MT5022178	46.03	36.36	BD50015	30.10	20.44
7/16"	1-1/2"	6"	6	MT5022188	54.08	42.72	BD50017	33.59	22.81
9/32"	1-1/2"	6"	6	MT5022193	51.41	40.61	BD50018	33.59	22.81
19/64"	1-1/2"	6"	6	MT5022196	54.08	42.72	BD50019	35.46	24.08
5/16"	1-1/2"	6"	6	MT5022199	49.00	36.75	BD50020	31.08	21.10
21/64"	1-1/2"	6"	6	MT5022203	57.91	45.75	BD50021	38.44	26.10
11/32"	1-1/2"	6"	6	MT5022206	57.91	45.75	BD50022	38.44	26.10
23/64"	1-3/4"	7"	6	MT5022209	58.49	46.21	BD50023	38.44	26.10
3/8"	1-3/4"	7"	6	MT5022212	53.02	41.89	BD50024	33.59	22.81
25/64"	1-3/4"	7"	6	MT5022216	63.44	50.12	BD50025	39.52	26.83
13/32"	1-3/4"	7"	6	MT5022219	65.95	52.10	BD50026	30.74	20.87
27/64"	1-3/4"	7"	6	MT5022221	65.95	52.10	BD50027	43.12	29.28
7/16"	1-3/4"	7"	6	MT5022223	59.84	44.88	BD50028	39.52	26.83
29/64"	1-3/4"	7"	6	MT5022225	71.82	56.74	BD50029	48.10	32.66
15/32"	1-3/4"	7"	6	MT5022226	71.82	56.74	BD50030	46.89	31.84
31/64"	2"	8"	6	MT5022227	71.82	56.74	BD50031	48.10	32.66
1/2"	2"	8"	6	MT5022229	65.10	55.34	BD50032	43.12	29.28
7/32"	2"	8"	6	MT5022231	94.12	70.59	BD50034	51.42	34.91
9/16"	2"	8"	8	MT5022232	97.13	72.85	BD50036	50.34	34.18
19/32"	2"	8"	6	MT5022233	97.13	72.85	BD50038	58.65	39.82
5/8"	2-1/4"	9"	8	MT5022234	113.69	85.27	BD50040	58.65	39.82
21/32"	2-1/4"	9"	6	MT5022235	131.46	98.60	BD50042	58.65	39.82
11/16"	2-1/4"	9"	8	MT5022236	131.46	98.60	BD50044	66.64	45.25
23/32"	2-1/4"	9"	6	MT5022237	146.79	110.09	BD50046	77.48	52.61
3/4"	2-1/2"	9-1/2"	8	MT5022238	147.60	110.70	BD50048	74.13	50.33
25/32"	2-1/2"	9-1/2"	8	MT5022239	159.24	119.43	BD50050	86.25	58.56
13/16"	2-1/2"	9-1/2"	8	MT5022240	159.24	119.43	BD50052	86.25	58.56
27/32"	2-1/2"	9-1/2"	8	MT5022241	188.36	141.27	BD50054	98.15	66.64
7/8"	2-5/8"	10"	8	MT5022242	192.71	144.53	BD50056	96.11	65.26
29/32"	2-5/8"	10"	8	MT5022243	207.61	155.71	BD50058	107.86	73.24
15/16"	2-5/8"	10"	8	MT5022244	207.61	155.71	BD50060	107.86	73.24
31/32"	2-5/8"	10"	8	MT5022245	232.60	174.45	BD50062	121.35	82.40
1"	2-3/4"	10-1/2"	8	MT5022246	232.60	176.04	BD50064	125.79	85.41
1-1/16"	2-3/4"	10-1/2"	8	MT5022247	260.26	195.20	BD50068	144.34	98.01
1-1/8"	2-7/8"	11"	8	MT5022248	276.51	207.38	BD50072	154.14	104.66
1-3/16"	2-7/8"	11"	8	MT5022249	323.97	242.98	BD50076	173.67	117.92
1-1/4"	3"	11-1/2"	8	MT5022250	343.31	257.48	BD50080	188.97	128.31
1-5/16"	3"	11-1/2"	-	-	-	-	BD50084	208.66	141.68
1-3/8"	3-1/4"	12"	10	MT5022251	420.74	315.56	BD50088	178.78	128.18
1-7/16"	3-1/4"	12-1/2"	-	-	-	-	BD50092	230.78	156.70
1-1/2"	3-1/2"	12-1/2"	10	MT5022252	485.86	364.40	BD50096	268.32	182.19
1-1/4"E	1-1/2"	6"	6	MT5022183	44.01	34.77	BD50016	26.19	17.78

Letter									
				Morse Cutting Tools			ProCut		
Cutting Diameter (DC)	Length Chip Flute (LCP)	Overall Length (OAL)	Flute Count (NOF)	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE
A	1-1/2"	6"	6	MT5022177	46.03	36.36	BD50201	32.62	22.15
B	1-1/2"	6"	6	MT5022179	48.52	38.33	BD50202	32.62	22.15
C	1-1/2"	6"	6	MT5022180	48.52	38.33	BD50203	32.62	22.15
D	1-1/2"	6"	6	MT5022181	48.52	38.33	BD50204	21.64	14.69
F	1-1/2"	6"	6	MT5022186	48.52	38.33	BD50206	32.62	22.15
G	1-1/2"	6"	6	MT5022187	48.52	38.33	BD50207	34.64	23.52
H	1-1/2"	6"	6	MT5022189	54.08	42.72	BD50208	36.39	24.71
I	1-1/2"	6"	6	MT5022190	54.08	42.72	BD50209	36.39	24.71
J	1-1/2"	6"	6	MT5022191	54.08	42.72	BD50210	36.39	24.71
K	1-1/2"	6"	6	MT5022192	54.08	42.72	BD50211	36.39	24.71
L	1-1/2"	6"	6	MT5022194	54.08	42.72	BD50212	36.39	24.71
M	1-1/2"	6"	6	MT5022195	54.08	42.72	BD50213	36.39	24.71
N	1-1/2"	6"	6	MT5022197	54.08	42.72	BD50214	36.39	24.71
O	1-1/2"	6"	6	MT5022201	54.08	42.72	BD50215	37.95	25.77
P	1-1/2"	6"	6	MT5022202	57.91	45.75	BD50216	39.03	26.50
Q	1-1/2"	6"	6	MT5022204	57.91	45.75	BD50217	39.03	26.50
R	1-1/2"	6"	6	MT5022205	57.91	45.75	BD50218	39.03	26.50
S	1-3/4"	7"	6	MT5022207	58.49	46.21	BD50219	39.03	26.50
T	1-3/4"	7"	6	MT5022208	58.49	46.21	BD50220	39.03	26.50
U	1-3/4"	7"	6	MT5022210	58.49	46.21	BD50221	39.03	26.50
V	1-3/4"	7"	6	MT5022214	63.44	50.12	BD50222	43.23	29.35
W	1-3/4"	7"	6	MT5022215	63.44	50.12	BD50223	43.23	29.35

Letter									
				Morse Cutting Tools			ProCut		
Cutting Diameter (DC)	Length Chip Flute (LCP)	Overall Length (OAL)	Flute Count (NOF)	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE
X	1-3/4"	7"	6	MT5022217	63.44	50.12	BD50224	43.23	29.35
Y	1-3/4"	7"	6	MT5022218	66.95	52.10	BD50225	44.52	30.23
Z	1-3/4"	7"	6	MT5022220	65.95	52.10	BD50226	44.52	30.23

Wire Gage									
				Morse Cutting Tools			ProCut		
Cutting Diameter (DC)	Length Chip Flute (LCF)	Overall Length (OAL)	Flute Count (NOF)	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE
#1	1-1/2"	6"	6	MT5022176	46.03	34.52	BD50101	29.79	16.95
#2	1-1/2"	6"	6	MT5022175	46.03	34.52	BD50102	29.79	16.95
#3	1-1/4"	5"	6	MT5022173	44.89	33.67	BD50103	29.79	16.95
#4	1-1/4"	5"	6	MT5022172	44.89	33.67	BD50104	29.79	16.95
#5	1-1/4"	5"	6	MT5022171	44.89	33.67	BD50105	29.79	16.95
#6	1-1/4"	5"	6	MT5022170	44.89	33.67	BD50106	29.79	16.95
#7	1-1/4"	5"	6	MT5022168	44.89	33.67	BD50107	29.79	16.95
#8	1-1/4"	5"	6	MT5022167	44.89	33.67	BD50108	29.79	16.95
#9	1-1/4"	5"	6	MT5022166	44.89	33.67	BD50109	29.79	16.95
#10	1-1/4"	5"	6	MT5022165	44.89	33.67	BD50110	29.79	16.95
#11	1-1/4"	5"	6	MT5022164	44.89	33.67	BD50111	29.79	16.95
#12	1-1/8"	4-1/2"	6	MT5022163	40.02	30.02	BD50112	25.42	14.46
#13	1-1/8"	4-1/2"	6	MT5022159	40.02	30.02	BD50113	27.59	15.70
#14	1-1/8"	4-1/2"	6	MT5022158	40.02	30.02	BD50114	27.59	15.70
#15	1-1/8"	4-1/2"	6	MT5022157	40.02	30.02	BD50115	27.59	15.70
#16	1-1/8"	4-1/2"	6	MT5022156	40.02	30.02	BD50116	25.42	14.46
#17	1-1/8"	4-1/2"	6	MT5022155	40.02	30.02	BD50117	25.42	14.46
#18	1-1/8"	4-1/2"	6	MT5022153	40.02	30.02	BD50118	23.70	13.49
#19	1-1/8"	4-1/2"	6	MT5022152	40.02	30.02	BD50119	23.70	13.49
#20	1-1/8"	4-1/2"	6	MT5022151	40.02	30.02	BD50120	23.70	13.49
#21	1-1/8"	4-1/2"	6	MT5022150	40.02	30.02	BD50121	23.70	13.49
#22	1"	4"	6	MT5022149	37.42	28.07	BD50122	23.70	13.49
#23	1"	4"	4	MT5022147	37.42	28.07	BD50123	23.70	13.49
#24	1"	4"	4	MT5022146	37.42	28.07	BD50124	23.70	13.49
#25	1"	4"	4	MT5022145	37.42	28.07	BD50125	23.70	13.49
#26	1"	4"	4	MT5022144	37.42	28.07	BD50126	23.70	13.49
#27	1"	4"	4	MT5022143	37.42	28.07	BD50127	23.70	13.49
#28	1"	4"	4	MT5022141	37.42	28.07	BD50128	23.70	13.49
#29	1"	4"	4	MT5022140	37.42	28.07	BD50129	23.70	13.49
#30	7/8"	3-1/2"	4	MT5022139	31.39	23.54	BD50130	18.20	10.36
#31	7/8"	3-1/2"	4	MT5022135	31.39	23.54	BD50131	24.15	13.74
#32	7/8"	3-1/2"	4	MT5022134	31.39	23.54	BD50132	24.15	13.74
#33	7/8"	3-1/2"	4	MT5022133	31.39	23.54	BD50133	24.15	13.74
#34	7/8"	3-1/2"	4	MT5022132	31.39	23.54	BD50134	25.70	14.62
#35	7/8"	3-1/2"	4	MT5022131	31.39	23.54	BD50135	25.70	14.62
#36	7/8"	3-1/2"	4	MT5022129	30.53	22.90	BD50136	25.70	14.62
#37	7/8"	3-1/2"	4	MT5022128	30.53	22.90	BD50137	25.70	14.62
#38	7/8"	3-1/2"	4	MT5022127	30.53	22.90	BD50138	25.70	14.62
#39	7/8"	3-1/2"	4	MT5022126	30.53	22.90	BD50139	25.70	14.62

CUTTING TOOLS

HSS MGP PRO CUT Straight Shank Straight Flute Chucking Reamers (cont.)



Wire Gage									
Morse Cutting Tools									
Cutting Diameter (DC)	Length Chip Flute (LCF)	Overall Length (OAL)	Flute Count (NOF)	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE
#70	1/2"	1-1/4"	3	MT5022099	49.67	37.25	-	-	-
#71	1/2"	1-1/4"	3	MT5022098	49.67	37.25	-	-	-
#72	1/2"	1-1/8"	3	MT5022097	49.67	37.25	-	-	-
#73	1/2"	1-1/8"	3	MT5022096	49.67	37.25	-	-	-
#74	1/2"	1"	3	MT5022095	49.67	37.25	-	-	-
#75	1/2"	1"	3	MT5022094	49.67	37.25	-	-	-
#76	3/8"	7/8"	2	MT5022093	49.67	37.25	-	-	-
#77	3/8"	7/8"	2	MT5022092	49.67	37.25	-	-	-
#78	3/8"	7/8"	2	MT5022091	49.67	37.25	-	-	-
#79	3/8"	3/4"	2	MT5022089	49.67	37.25	-	-	-
#80	3/8"	3/4"	2	MT5022088	49.67	37.25	-	-	-

10632

PRO CUT 64 Piece Tap and Round Die Sets



Cutting Edge Material	Order No.	Regular Price	SALE
Carbon Steel	ET51C99146	786.28	493.78
HSS	ET51HS99146	1638.53	1029.00

10290

HSS MGP PRO CUT Metric Hand Taps

High Speed Steel • Ground Thread • Bright Finish

- Plug style shown
- Morse List #7500
- OSG List #141

							Bottoming, Morse Cutting Tools, 1 to 2 Threads			Bottoming, Morse Cutting Tools, 3 to 5 Threads			Plug, Morse Cutting Tools, 3 to 5 Threads			Taper, Morse Cutting Tools, 7 to 10 Threads			Bottoming, OSG USA, Inc., 1.5P-2P			Plug, OSG USA, Inc., 4P-4.5P		
Thread Diameter Size (TDZ)	Thread Pitch (TP)	Thread Tolerance Class (TCTR)	Flute Count (NOF)	Thread Cutting Part Length (THL)	Overall Length (OAL)		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
M1.6	0.35 mm	D3	2	5/16"	1-5/8"		MT3838116	30.00	21.90	-	-	-	MT3838016	30.00	19.80	MT3838141	30.00	19.80	-	-	-	-	-	-
M1.8	0.35 mm	D3	2	3/8"	1-11/16"		MT3838117	30.00	21.90	-	-	-	MT3838017	30.00	21.90	MT3838142	30.00	21.90	-	-	-	-	-	-
M2	0.4 mm	D3	3	7/16"	1-3/4"		MT3838118	30.00	19.80	-	-	-	MT3838018	30.00	19.80	MT3838143	30.00	19.80	TP121977400	57.02	41.05	TP121977300	57.02	41.05
M2.2	0.45 mm	D3	3	7/16"	1-3/4"		MT3838119	18.65	13.61	-	-	-	MT3838019	18.65	13.55	MT3838144	16.83	11.11	-	-	-	-	-	-
M2.5	0.45 mm	D3	3	1/2"	1-13/16"		MT3838101	18.56	13.55	-	-	-	MT3838001	18.56	13.55	MT3838145	18.56	13.55	TP121972300	34.45	24.80	TP121972200	34.45	24.80
M3	0.5 mm	D3	3	5/8"	1-15/16"		MT3838102	15.54	11.34	-	-	-	MT3838002	15.54	11.34	MT3838146	15.54	11.34	TP121970200	29.16	21.00	TP121970100	29.16	21.00
M3.5	0.6 mm	D4	3	11/16"	2"		MT3838103	12.84	9.37	-	-	-	MT3838003	12.84	9.37	MT3838147	12.84	9.37	TP121972600	24.07	17.33	TP121972500	24.07	17.33
M4	0.7 mm	D4	4	3/4"	2-1/8"		MT3838104	12.84	9.37	-	-	-	MT3838004	12.84	9.37	MT3838148	12.84	9.37	TP121970500	24.07	17.33	TP121970400	24.07	17.33
M4.5	0.75 mm	D4	4	7/8"	2-3/8"		MT3838105	12.84	9.37	-	-	-	MT3838005	12.84	9.37	MT3838149	12.84	9.37	TP121972900	24.07	17.33	TP121972800	24.07	17.33
M5	0.8 mm	D4	4	7/8"	2-3/8"		MT3838106	12.84	9.37	-	-	-	MT3838006	12.84	9.37	MT3838150	12.84	9.37	TP121970800	24.07	17.33	TP121970700	24.07	17.33
M6	1 mm	D5	4	1"	2-1/2"		MT3838107	13.48	9.84	-	-	-	MT3838007	13.48	9.84	MT3838151	13.48	9.84	TP121971100	25.49	18.35	TP121971000	25.49	18.35
M7	1 mm	D5	4	1-1/8"	2-23/32"		MT3838108	14.71	10.74	-	-	-	MT3838008	14.71	10.74	MT3838152	14.71	10.74	TP121973200	27.82	20.03	TP121973100	27.82	20.03
M8	1 mm	D5	4	1-1/8"	2-23/32"		MT3838120	14.49	10.58	-	-	-	MT3838020	14.49	10.58	MT3838153	14.49	10.58	TP121973500	27.82	20.03	TP121973400	27.82	20.03
M8	1.25 mm	D5	4	1-1/8"	2-23/32"		MT3838109	14.71	10.74	-	-	-	MT3838009	14.71	10.74	MT3838154	14.71	10.74	TP121971400	27.82	20.03	TP121971300	27.82	20.03
M10	1 mm	D5	4	1-1/4"	2-15/16"		-	-	-	-	-	-	-	-	-	-	-	-	TP121973800	52.39	37.72	TP121973700	52.39	37.72
M10	1.25 mm	D5	4	1-1/4"	2-15/16"		MT3838121	27.55	20.11	-	-	-	MT3838021	27.55	18.18	MT3838155	27.55	18.18	TP121974100	52.39	37.72	TP121974000	52.39	37.72
M10	1.5 mm	D6	4	1-1/4"	2-15/16"		MT3838110	27.55	20.11	-	-	-	MT3838010	27.55	18.18	MT3838156	27.55	18.18	TP121971700	52.39	37.72	TP121971600	52.39	37.72
M12	1.25 mm	D5	4	1-21/32"	3-3/8"		-	-	-	MT3838122	33.05	24.13	MT3838022	33.05	24.13	MT3838157	33.05	24.13	TP121974400	61.60	44.35	TP121974300	61.60	44.35
M12	1.5 mm	D6	4	1-21/32"	3-3/8"		-	-	-	-	-	-	-	-	-	-	-	-	TP121974700	61.60	44.35	TP121974600	61.60	44.35
M12	1.75 mm	D6	4	1-21/32"	3-3/8"		MT3838111	32.80	23.94	-	-	-	MT3838011	32.80	23.94	MT3838158	32.80	23.94	TP121972000	61.60	44.35	TP121971900	61.60	44.35
M14	1.25 mm	D5	4	1-21/32"	3-19/32"		-	-	-	-	-	-	-	-	-	-	-	-	TP121975000	91.80	66.10	TP121974900	91.80	66.10
M14	1.5 mm	D6	4	1-21/32"	3-19/32"		MT3838123	49.00	35.77	-	-	-	MT3838023	49.00	35.77	MT3838159	49.00	35.77	TP121977700	91.80	66.10	TP121977600	91.80	66.10
M14	2 mm	D7	4	1-21/32"	3-19/32"		MT3838112	49.00	35.77	-	-	-	MT3838012	49.00	35.77	MT3838160	49.00	35.77	TP121975300	91.80	66.10	TP121975200	91.80	66.10
M16	1.5 mm	D6	4	1-13/16"	3-13/16"		-	-	-	MT3838124	60.16	43.92	MT3838024	60.16	43.92	MT3838161	60.16	43.92	TP121975600	112.36	80.90	TP121975500	112.36	80.90
M16	2 mm	D7	4	1-13/16"	3-13/16"		MT3838113	60.16	43.92	-	-	-	MT3838013	60.16	43.92	MT3838162	60.16	43.92	TP121975900	112.36	80.90	TP121975800	112.36	80.90
M18	1.5 mm	D6	4	1-13/16"	4-1/32"		-	-	-	-	-	-	-	-	-	-	-	-	TP121976200	150.92	108.66	TP121976100	150.92	108.66
M18	1.5 mm	D6	4	1-13/16"	4-1/32"		MT3838125	80.60	58.84	-	-	-	MT3838025	80.60	58.84	MT3838163	80.60	58.84	-	-	-	-	-	-
M18	2.5 mm	D7	4	1-13/16"	4-1/32"		-	-	-	-	-	-	-	-	-	-	-	-	TP121976500	150.92	108.66	TP121976400	150.92	108.66
M18	2.5 mm	D7	4	1-13/16"	4-1/32"		MT3838114	80.60	58.84	-	-	-	MT3838014	80.60	58.84	MT3838164	80.60	58.84	-	-	-	-	-	-
M20	1.5 mm	D6	4	2"	4-15/32"		-	-	-	MT3838126	109.68	80.07	MT3838026	109.68	80.07	MT3838165	109.68	80.07	TP121976800	205.48	147.95	TP121976700	205.48	147.95
M20	2.5 mm	D7	4	2"	4-15/32"		MT3838115	109.68	80.07	-	-	-	MT3838015	109.68	80.07	MT3838166	109.68	80.07	TP121977100	205.48	147.95	TP121977000	205.48	147.95
M22	1.5 mm	D6	4	2-7/32"	4-11/16"		MT3838127	114.10	83.29	-	-	-	MT3838027	114.10	83.29	MT3838167	114.10	83.29	-	-	-	-	-	-
M22	2.5 mm	D7	4	2-7/32"	4-11/16"		MT3838128	114.10	83.29	-	-	-	MT3838028	114.10	83.29	MT3838168	114.10	83.29	-	-	-	-	-	-
M24	2 mm	D7	4	2-7/32"	4-29/32"		MT3838129	146.41	106.88	-	-	-	MT3838029	146.41	106.88	MT3838169	146.41	106.88	-	-	-	-	-	-
M24	3 mm	D8	4	2-7/32"	4-29/32"		MT3838130	187.15	136.62	-	-	-	MT3838030	146.41	106.88	MT3838170	146.41	106.88	-	-	-	-	-	-
M27	2 mm	D7	4	2-1/4"	5-1/8"		MT3838131	266.24	194.36	-	-	-	MT3838031	266.24	194.36	MT3838171	266.24	194.36	-	-	-	-	-	-
M27	3 mm	D8	4	2-1/4"	5-1/8"		MT3838132	266.24	194.36	-	-	-	MT3838032	266.24	194.36	MT3838172	266.24	194.36	-	-	-	-	-	-
M30	2 mm	D7	4	2-9/16"	5-7/16"		MT3838133	309.20	225.72	-	-	-	MT3838033	309.20	225.72	MT3838173	309.20	225.72	-	-	-	-	-	-
M30	3.5 mm	D9	4	2-9/16"	5-7/16"		MT3838134	309.20	225.72	-	-	-	MT3838034	309.20	225.72	MT3838174	309.20	225.72	-	-	-	-	-	-
M33	2 mm	D7	4	2-9/16"	5-3/4"		MT3838135	365.22	266.61	-	-	-	MT3838035	365.22	266.61	MT3838175	365.22	266.61	-	-	-	-	-	-
M33	3.5 mm	D9	4	2-9/16"	5-3/4"		-	-	-	-	-	-	MT3838035	365.22	266.61	-	-	-	-	-	-	-	-	-
M36	3 mm	D8	4	3"	6-1/16"		MT3838136	421.22	307.49	-	-	-	MT3838036	421.22	307.49	MT3838176	421.22	307.49	-	-	-	-	-	-
M36	4 mm	D9	4	3"	6-1/16"		MT3838137	421.26	307.52	-	-	-	MT3838037	421.26	307.52	MT3838177	421.26	307.52	-	-	-	-	-	-

Note: OSG steam oxide available

PRO CUT Metric Tap and Drill Set

High Speed Steel with Metal Index

- All the popular taps and necessary drills plus metal index.
- Set Includes: M2.5x0.45, drill 2.05mm, M3x0.50, drill 2.50mm, M3.5x0.60, drill 2.90mm, M4x0.70, drill 3.30mm, M5x0.80, drill 4.20mm, M6x1.00, drill 5.00mm, M8x1.25, drill 6.70mm, M10x1.5, drill 8.50mm, M12x1.75, drill 10.20mm



FamilyName	Order No.	Regular Price	SALE
PCUET504099TDS-I ProCut	ET504099TDS	173.05	126.50

10350



Metric Spiral Point Plug Taps



High Speed Steel • Ground Thread

- Morse List #7501
- OSG List #142

				Morse Cutting Tools, Bright			OSG USA, Inc., Bright			OSG USA, Inc., Black Oxide			ProCut, TiN			ProCut, Bright		
Thread Diameter Size (TDZ)	Thread Pitch (TP)	Thread Tolerance Class (TCTR)	Flute Count (NOF)	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
M1.6	0.35 mm	D3	2	MT3838516	30.39	22.18	-	-	-	-	-	-	-	-	-	EP5037703	30.23	18.98
M1.8	0.35 mm	D3	2	MT3838517	29.36	21.43	-	-	-	-	-	-	-	-	-	EP5037707	30.23	18.98
M2	0.4 mm	D3	2	MT3838518	29.36	19.38	TP121982000	57.97	41.74	TP121982001	57.97	41.74	EP5137711TN	44.11	29.95	EP5037711	30.54	19.18
M2.2	0.45 mm	D3	2	MT3838519	22.18	16.19	-	-	-	-	-	-	-	-	-	-	-	-
M2.5	0.45 mm	D3	2	MT3838501	21.13	13.95	TP121982100	41.80	30.10	TP121982101	41.80	30.10	EP5137719TN	28.67	19.47	EP5037719	20.12	12.64
M3	0.5 mm	D3	2	MT3838502	16.84	12.29	TP121980100	33.88	24.39	-	-	-	EP5137723TN	24.00	16.30	EP5037723	16.91	10.62
M3.5	0.6 mm	D3	2	-	-	-	-	-	-	-	-	-	EP5137727TN	22.72	15.43	EP5037727	15.79	9.92
M3.5	0.6 mm	D4	2	MT3838503	14.59	10.65	TP121982200	29.16	21.00	TP121982201	29.16	21.00	-	-	-	-	-	-
M4	0.7 mm	D2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M4	0.7 mm	D4	2	MT3838504	14.59	10.65	TP121980400	29.16	21.00	TP121980401	29.16	21.00	EP5137731TN	22.72	15.43	EP5037731	15.79	9.92
M4.5	0.75 mm	D4	2	MT3838505	14.59	10.65	TP121982300	29.16	21.00	TP121982301	29.16	21.00	EP5137735TN	22.90	15.55	EP5037735	15.79	9.92
M5	0.8 mm	D2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M5	0.8 mm	D4	2	MT3838506	14.59	10.65	TP121980700	29.16	21.00	TP121980701	29.16	21.00	EP5137739TN	20.72	14.07	EP5037739	14.62	9.18
M6	1 mm	D3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M6	1 mm	D5	2	MT3838507	14.59	10.65	TP121981000	29.16	21.00	TP121981001	29.16	21.00	EP5137743TN	20.87	14.17	EP5037743	14.62	9.18
M7	1 mm	D5	2	MT3838508	16.84	12.29	TP121982400	33.88	24.39	TP121982401	33.88	24.39	-	-	-	EP5037747	20.04	12.59
M8	1 mm	D3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M8	1 mm	D5	2	MT3838520	16.84	12.29	-	-	-	-	-	-	EP5137755TN	23.39	15.88	EP5037755	16.48	10.35
M8	1 mm	D5	3	-	-	-	TP121982500	33.88	24.39	TP121982501	33.88	24.39	-	-	-	-	-	-
M8	1.25 mm	D3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M8	1.25 mm	D5	2	MT3838509	16.84	12.29	TP121981300	33.88	24.39	TP121981301	33.88	24.39	EP5137751TN	23.39	15.88	EP5037751	16.63	10.44
M8	1.25 mm	D5	3	-	-	-	TP121981400	33.88	24.39	TP121981401	33.88	24.39	-	-	-	-	-	-
M10	1 mm	D5	3	-	-	-	TP121982600	56.17	40.44	TP121982601	56.17	40.44	-	-	-	-	-	-
M10	1.25 mm	D5	3	MT3838521	27.86	20.34	TP121982700	56.17	40.44	TP121982701	56.17	40.44	EP5137763TN	42.74	29.02	EP5037763	29.78	18.70
M10	1.5 mm	D3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M10	1.5 mm	D6	3	MT3838510	27.86	18.39	TP121981600	56.17	40.44	TP121981601	56.17	40.44	EP5137759TN	42.74	29.02	EP5037759	39.91	25.06
M12	1.25 mm	D5	3	MT3838522	34.06	22.48	TP121982800	68.38	49.23	TP121982801	68.38	49.23	EP5137771TN	50.09	34.01	EP5037771	35.22	22.12
M12	1.5 mm	D6	3	-	-	-	TP121982900	68.38	49.23	-	-	-	-	-	-	-	-	-
M12	1.75 mm	D3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M12	1.75 mm	D6	3	MT3838511	34.06	22.48	TP121981900	68.38	49.23	TP121981901	68.38	49.23	EP5137767TN	50.09	34.01	EP5037767	34.95	21.95
M14	1.25 mm	D5	3	-	-	-	TP121983000	101.86	73.34	TP121983001	101.86	73.34	-	-	-	-	-	-
M14	1.5 mm	D3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M14	1.5 mm	D6	3	MT3838523	51.09	37.30	-	-	-	-	-	-	EP5137779TN	74.75	50.76	EP5037779	52.86	33.20
M14	2 mm	D7	3	MT3838512	51.13	37.32	TP121983100	101.86	73.34	TP121983101	101.86	73.34	EP5137775TN	74.75	50.76	EP5037775	50.33	31.61
M16	1.5 mm	D6	3	MT3838524	59.96	43.77	TP121983200	119.08	85.74	TP121983201	119.08	85.74	EP5137787TN	91.95	62.43	EP5037787	64.56	40.54
M16	2 mm	D7	3	MT3838513	60.00	43.80	TP121983300	119.08	85.74	-	-	-	EP5137783TN	91.95	62.43	EP5037783	64.56	40.54
M18	1.5 mm	D6	3	-	-	-	TP121983400	172.73	124.37	TP121983401	172.73	124.37	-	-	-	-	-	-
M18	2.5 mm	D7	3	MT3838514	86.67	63.27	TP121983500	172.73	124.37	-	-	-	-	-	-	EP5037791	87.60	55.01
M20	1.5 mm	D6	3	-	-	-	TP121983600	224.27	161.47	-	-	-	-	-	-	-	-	-
M20	2.5 mm	D7	3	MT3838515	100.87	73.64	TP121983700	224.27	161.47	-	-	-	EP5137798TN	168.91	114.69	EP5037798	119.44	75.01

Note: OSG steam oxide available

10005



Uniflute® Countersinks

High Speed Steel

- Designed for general purpose countersinking, chamfering or deburring
- Self piloting and completely chatterless
- No secondary burrs formed
- Steam homogeneous surface treatment (blackening) to prolong tool life and prevent galling
- M A Ford Series #61



			60 Degrees			82 Degrees			90 Degrees			100 Degrees			120 Degrees		
Cutting Diameter (DC)	Connection Diameter Machine Side (DCONMS)	Overall Length (OAL)	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
1/8"	1/8"	1-1/2"	BC7061001	17.09	12.77	BC7061006	17.09	12.77	BC7061011	17.09	12.77	BC7061016	17.09	12.77	BC7061021	17.09	12.77
3/16"	3/16"	1-1/2"	BC7061026	17.63	13.17	BC7061031	17.63	13.17	BC7061036	17.63	13.17	BC7061041	17.63	13.17	BC7061046	17.63	13.17
1/4"	1/4"	2"	BC7061051	18.38	13.73	BC7061056	18.38	13.73	BC7061061	18.38	13.73	BC7061066	18.38	13.73	BC7061071	18.38	13.73
3/8"	1/4"	2"	BC7061076	20.87	15.59	BC7061081	20.87	15.59	BC7061086	20.87	15.59	BC7061091	20.87	15.59	BC7061096	20.87	15.59
1/2"	1/4"	2"	BC7061101	25.45	19.01	BC7061106	25.45	19.01	BC7061111	25.45	19.01	BC7061116	25.45	19.01	BC7061121	25.45	19.01
5/8"	1/4"	2-1/4"	BC7061126	33.98	25.38	BC7061131	33.98	25.38	BC7061136	33.98	25.38	BC7061141	33.98	25.38	BC7061146	33.98	25.38
3/4"	1/2"	2-3/4"	BC7061151	49.60	37.05	BC7061156	49.60	37.05	BC7061161	49.60	37.05	BC7061166	49.60	37.05	BC7061171	49.60	37.05
1"	1/2"	2-3/4"	BC7061176	82.63	61.72	BC7061181	82.63	61.72	BC7061186	82.63	61.72	BC7061191	82.63	61.72	BC7061196	82.63	61.72
1-1/4"	1/2"	3"	BC7061201	161.64	120.75	BC7061206	161.64	120.75	BC7061211	161.64	120.75	-	-	-	-	-	-
1-1/2"	3/4"	3-1/2"	BC7061216	218.85	163.48	BC7061221	218.85	163.48	BC7061226	218.85	163.48	-	-	-	-	-	-
2"	3/4"	3-3/4"	BC7061231	392.90	293.50	BC7061236	392.90	293.50	BC7061241	392.90	293.50	-	-	-	-	-	-
2-1/2"	3/4"	5"	BC7061246	1047.66	782.60	BC7061251	1047.66	782.60	BC7061256	1047.66	782.60	-	-	-	-	-	-
3"	3/4"	5-1/4"	BC7061261	1221.43	912.41	BC7061266	1221.43	912.41	BC7061271	1221.43	912.41	-	-	-	-	-	-

†Straight shank with tang drive. Standard angles may be modified from 55° to 119°.

9956

CUTTING TOOLS

Hi-Roc® Solid Carbide Drills

Screw Machine Length • 135° Point • Uncoated

- Straight flute
- Designed to drill hardened steel in the 42-65 Rockwell "C" range
- Produces chips without generating excessive heat
- Accurately sized holes are produced without annealing or softening the workpiece
- Reamer type finishes are easily produced
- Both a production drill and a salvage or reclaim tool
- M.A. Ford Series #200

Drill Bit Size / Cutting Diameter (DC)	Decimal Equivalent	Connection Diameter Machine Side (DCONMS)	Length Chip Flute (LCF)	Overall Length (OAL)	Order No.	Regular Price	SALE
#68	0.031"	#68	3/16"	1-1/2"	AX3020001	36.05	26.93
#67	0.032"	#67	7/32"	1-1/2"	AX3020010	36.05	26.93
#66	0.033"	#66	7/32"	1-1/2"	AX3020013	36.05	26.93
1/32"	0.03125"	1/32"	3/16"	1-1/2"	AX3020004	36.05	26.93
#64	0.036"	#64	0.22"	1-1/2"	AX3020025	34.03	25.42
#63	0.037"	#63	1/4"	1-1/2"	AX3020028	34.03	25.42
#62	0.038"	#62	1/4"	1-1/2"	AX3020034	34.03	25.42
#61	0.039"	#61	1/4"	1-1/2"	AX3020037	34.03	25.42
3/64"	0.046875"	3/64"	1/4"	1-1/2"	AX3020067	31.75	23.72
#5	0.2055"	#5	1/4"	1-1/2"	AX3020046	31.75	23.72
#5	0.2055"	#5	1/4"	1-1/2"	AX3020052	31.75	23.72
#5	0.2055"	#5	1/4"	1-1/2"	AX3020055	31.75	23.72
#5	0.2055"	#5	1/4"	1-1/2"	AX3020064	31.75	23.72
1/16"	0.0625"	1/16"	5/16"	1-1/2"	AX3020100	31.75	23.72
#5	0.2055"	#5	5/16"	1-1/2"	AX3020079	31.75	23.72
#5	0.2055"	#5	5/16"	1-1/2"	AX3020085	31.75	23.72
#5	0.2055"	#5	5/16"	1-1/2"	AX3020097	31.75	23.72
5/64"	0.078125"	5/64"	3/8"	1-1/2"	AX3020130	31.75	23.72
#5	0.2055"	#5	3/8"	1-1/2"	AX3020112	31.75	23.72
#5	0.2055"	#5	3/8"	1-1/2"	AX3020115	31.75	23.72
#49	0.073"	#49	3/8"	1-1/2"	AX3020121	31.75	23.72
#48	0.076"	#48	3/8"	1-1/2"	AX3020127	31.75	23.72
3/32"	0.09375"	3/32"	1/2"	1-1/2"	AX3020163	31.75	23.72
#47	0.0785"	#47	3/8"	1-1/2"	AX3020133	31.75	23.72
#46	0.081"	#46	1/2"	1-1/2"	AX3020139	31.75	23.72
#5	0.2055"	#5	1/2"	1-1/2"	AX3020142	31.75	23.72
#44	0.086"	#44	1/2"	1-1/2"	AX3020148	31.75	23.72
7/64"	0.109375"	7/64"	5/8"	1-1/2"	AX3020199	37.30	27.86
#42	0.0935"	#42	1/2"	1-1/2"	AX3020160	31.75	23.72
#41	0.096"	#41	1/2"	1-1/2"	AX3020169	36.32	27.13
#40	0.098"	#40	1/2"	1-1/2"	AX3020172	36.32	27.13
1/8"	0.125"	1/8"	5/8"	1-1/2"	AX3020229	38.32	28.63
#38	0.1015"	#38	1/2"	1-1/2"	AX3020184	36.32	27.13
#37	0.104"	#37	5/8"	1-1/2"	AX3020190	36.81	27.50
#36	0.1065"	#36	5/8"	1-1/2"	AX3020196	36.81	27.50
9/64"	0.140625"	9/64"	5/8"	2"	AX3020253	41.09	30.69
#34	0.111"	#34	5/8"	1-1/2"	AX3020208	37.30	27.86
#33	0.113"	#33	5/8"	1-1/2"	AX3020211	37.59	28.08
#32	0.116"	#32	5/8"	1-1/2"	AX3020217	37.59	28.08
#31	0.12"	#31	5/8"	1-1/2"	AX3020223	38.32	28.63
5/32"	0.15625"	5/32"	5/8"	2"	AX3020283	47.89	35.77
#30	0.1285"	#30	5/8"	2"	AX3020235	38.32	28.63
#29	0.136"	#29	5/8"	2"	AX3020244	41.09	30.69
#28	0.1405"	#28	5/8"	2"	AX3020250	41.09	30.69
11/64"	0.171875"	11/64"	5/8"	2"	AX3020313	51.18	38.23
#26	0.147"	#26	5/8"	2"	AX3020265	45.16	33.73
#25	0.1495"	#25	5/8"	2"	AX3020268	45.65	34.10
#24	0.152"	#24	5/8"	2"	AX3020274	46.33	34.61
#23	0.154"	#23	5/8"	2"	AX3020280	47.17	35.24
3/16"	0.1875"	3/16"	5/8"	2"	AX3020340	55.48	41.44
#22	0.157"	#22	5/8"	2"	AX3020286	47.89	35.77
#21	0.159"	#21	5/8"	2"	AX3020292	49.39	36.89
#20	0.161"	#20	5/8"	2"	AX3020295	49.90	37.28
#19	0.166"	#19	5/8"	2"	AX3020304	50.41	37.66
13/64"	0.203125"	13/64"	3/4"	2"	AX3020376	59.28	44.28
#17	0.173"	#17	5/8"	2"	AX3020316	51.18	38.23
#16	0.177"	#16	5/8"	2"	AX3020322	51.39	38.39
#15	0.18"	#15	5/8"	2"	AX3020328	51.67	38.60
7/32"	0.21875"	7/32"	3/4"	2"	AX3020403	62.30	46.54
#13	0.185"	#13	5/8"	2"	AX3020337	53.70	40.11
#12	0.189"	#12	5/8"	2"	AX3020346	56.69	42.35
#11	0.191"	#11	5/8"	2"	AX3020349	56.95	42.54
15/64"	0.234375"	15/64"	3/4"	2"	AX3020427	64.76	48.38
#9	0.196"	#9	3/4"	2"	AX3020358	57.69	43.09
#8	0.199"	#8	3/4"	2"	AX3020364	57.99	43.32
#7	0.201"	#7	3/4"	2"	AX3020373	57.99	43.32
1/4"	0.25"	1/4"	3/4"	2"	AX3020451	77.43	57.84
#5	0.2055"	#5	3/4"	2"	AX3020385	59.78	44.66



Drill Bit Size / Cutting Diameter (DC)	Decimal Equivalent	Connection Diameter Machine Side (DCONMS)	Length Chip Flute (LCF)	Overall Length (OAL)	Order No.	Regular Price	SALE
#4	0.209"	#4	3/4"	2"	AX3020391	60.51	45.20
#3	0.213"	#3	3/4"	2"	AX3020397	60.51	45.20
17/64"	0.265625"	17/64"	3/4"	2-1/2"	AX3020472	83.71	62.53
#1	0.228"	#1	3/4"	2"	AX3020415	63.28	47.27
A	0.234"	A	3/4"	2"	AX3020424	63.28	47.27
B	0.238"	B	3/4"	2"	AX3020433	69.03	51.57
9/32"	0.28125"	9/32"	3/4"	2-1/2"	AX3020499	88.97	66.46
D	0.246"	D	3/4"	2"	AX3020445	74.35	55.54
F	0.257"	F	3/4"	2"	AX3020460	83.16	62.12
G	0.261"	G	3/4"	2-1/2"	AX3020466	83.16	62.12
19/64"	0.296875"	19/64"	3/4"	2-1/2"	AX3020520	93.25	69.66
H	0.266"	H	3/4"	2-1/2"	AX3020475	84.97	63.47
I	0.272"	I	3/4"	2-1/2"	AX3020484	85.18	63.63
J	0.277"	J	3/4"	2-1/2"	AX3020490	87.47	65.34
K	0.281"	K	3/4"	2-1/2"	AX3020496	87.99	65.73
5/16"	0.3125"	5/16"	3/4"	2-1/2"	AX3020541	96.81	72.32
L	0.29"	L	3/4"	2-1/2"	AX3020508	90.50	67.60
M	0.295"	M	3/4"	2-1/2"	AX3020514	92.75	69.28
N	0.302"	N	3/4"	2-1/2"	AX3020529	95.06	71.01
21/64"	0.328125"	21/64"	1"	2-1/2"	AX3020562	109.16	81.54
O	0.316"	O	3/4"	2-1/2"	AX3020547	100.10	74.77
P	0.323"	P	1"	2-1/2"	AX3020556	105.32	78.67
Q	0.332"	Q	1"	2-1/2"	AX3020568	110.40	82.47
11/32"	0.34375"	11/32"	1"	2-1/2"	AX3020583	113.20	84.56
S	0.348"	S	1"	2-1/2"	AX3020589	115.22	86.07
T	0.358"	T	1"	2-1/2"	AX3020598	116.48	87.01
23/64"	0.359375"	23/64"	1"	2-1/2"	AX3020604	116.97	87.38
V	0.377"	V	1"	2-1/2"	AX3020625	125.52	93.76
W	0.386"	W	1"	2-3/4"	AX3020637	128.79	96.21
3/8"	0.375"	3/8"	1"	2-1/2"	AX3020622	120.23	89.81
Y	0.404"	Y	1"	2-3/4"	AX3020658	157.56	117.70
Z	0.413"	Z	1"	2-3/4"	AX3020670	165.37	123.53
25/64"	0.390625"	25/64"	1"	2-3/4"	AX3020643	133.07	99.40
13/32"	0.40625"	13/32"	1"	2-3/4"	AX3020664	157.56	117.70
27/64"	0.421875"	27/64"	1"	2-3/4"	AX3020682	178.22	133.13
7/16"	0.4375"	7/16"	1"	2-3/4"	AX3020697	187.29	139.91
29/64"	0.453125"	29/64"	1"	3"	AX3020712	192.37	143.70
15/32"	0.46875"	15/32"	1"	3"	AX3020727	195.08	145.72
31/64"	0.484375"	31/64"	1"	3"	AX3020733	203.92	152.33
1/2"	0.5"	1/2"	1"	3"	AX3020739	203.92	152.33
33/64"	0.515625"	33/64"	1-1/8"	3-1/2"	AX3020745	274.72	205.22
17/32"	0.53125"	17/32"	1-1/8"	3-1/2"	AX3020748	279.78	209.00
9/16"	0.5625"	9/16"	1-1/8"	3-1/2"	AX3020760	292.39	218.42
5/8"	0.625"	5/8"	1-1/4"	3-1/2"	AX3020781	327.68	244.78
11/16"	0.6875"	11/16"	1-1/2"	4"	AX3020802	541.94	404.83
3/4"	0.75"	3/4"	1-1/2"	4"	AX3020826	602.46	450.04

Also available in wire gage, letter, and metric sizes

9920

TuffCut® DM 2 Flute High Performance End Mills



Fractional Sizes

- Designed for high productivity milling of hard and difficult to cut materials Rc 45-60
- Coated with AlTiN® 52 for materials Rc 52 and above
- 12° Helix, ball end
- M. A. Ford Series #156

Cutting Diameter (DC)	Connection Diameter Machine Side (DCONMS)	Usable Length (LU)	Overall Length (OAL)	Neck Length (LN)	Order No.	Regular Price	SALE
1/64"	1/4"	1/64"	2-1/2"	1/64"	DD1515600	126.90	94.79
1/32"	1/4"	1/32"	2-1/2"	1/32"	DD1515604	119.46	89.24
1/32"	1/4"	1/32"	2-1/2"	1/32"	DD1515606	149.65	111.79
1/32"	1/4"	1/32"	2-1/2"	1/32"	DD1515608	149.65	111.79
1/32"	1/4"	1/32"	2-1/2"	1/32"	DD1515610	149.65	111.79
1/32"	1/4"	1/32"	2-1/2"	1/32"	DD1515612	149.65	111.79
1/32"	1/4"	1/32"	2-1/2"	1/32"	DD1515614	149.65	111.79
1/16"	1/4"	1/16"	2-1/2"	1/16"	DD1515630	136.58	102.03
3/32"	1/4"	3/32"	2-1/2"	3/32"	DD1515640	109.98	82.16
3/32"	1/4"	3/32"	2-1/2"	3/32"	DD1515642	140.17	104.71
3/32"	1/4"	3/32"	2-1/2"	3/32"	DD1515644	140.17	104.71
3/32"	1/4"	3/32"	2-1/2"	3/32"	DD1515646	140.17	104.71
1/8"	1/4"	1/8"	3"	1/8"	DD1515652	121.21	90.54
1/8"	1/4"	1/8"	3"	1/8"	DD1515654	151.42	113.11
5/32"	1/4"	5/32"	3"	5/32"	DD1515656	132.24	98.78
1/4"	1/4"	1/4"	3"	1/4"	DD1515662	167.02	124.76
5/16"	5/16"	5/16"	3-1/8"	5/16"	DD1515664	241.74	180.58
3/8"	3/8"	3/8"	3-1/4"	3/8"	DD1515668	314.62	235.02
1/2"	1/2"	1/2"	4"	1/2"	DD1515674	424.63	317.20

9926

**007 Deburring Set**

- Deburring, cleaning, finishing and countersinking
- Includes: RB handle, o-ring blade, RD16.5 RotoDrive countersink, EX18 External RotoDrive countersink, thread cleaner blade, S100 blade, S150 blade

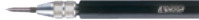


Order No.	Regular Price	SALE
FN55007	90.71	69.30

10065

**Adjustable Scraper**

- Ideal for scraping, trimming and deburring almost all materials
- Includes: 12mm anodized handle and T80 double ended triangular scraper



Application	Order No.	Regular Price	SALE
Scraping, Trimming, Deburring	FN55SC8000	32.41	24.76

10067

**Countersink, Holders and Blades**

Included	Order No.	Regular Price	SALE
NogaGrip 3 Handle / C Holder / C20 Countersink Blade (20 mm)	FN55NG3100	49.34	37.70

22470

**Ceramic Convexed Cera-Cut & Blades**

- Ideal for all plastic materials, soft metals, surface scraping and parting line deflashing
- Blade can be replaced
- Includes: Cera-Cut handle and 250mm convexed radius blade



Included	Order No.	Regular Price	SALE
Cera-Cut Handle / 250 mm Convex Blade	FN55CR2000	56.84	43.43

10069

**Universal Handy Chuck Holder****Model PV1000**

- Aluminum handle with non-slip covering
- 3-Jaw chuck helps with the quick and secure clamping of a wide variety of tools, blades and blade holders such as scrapers, countersinks, files, etc.
- Hardness 58 HRC



Order No.	Regular Price	SALE
FN55PV1000	87.12	66.56

10120

**Set B - Deburring Sets****The Workhorse**

- Popular set for holes, slots & edges
- Supports all B blades
- Blades can be inserted axially or perpendicular to holder
- Deburrs steel, aluminum copper, brass, cast iron and plastics



Included	Order No.	Regular Price	SALE
Plastic Handle / B10, B20 Blades	FN50B	21.04	16.56
Aluminum Handle / B10, B20 Blades	FN50BAL	26.22	20.64
Mango II Handle / B10, B20	FN50BMAN2	21.04	16.56

10601

**Replacement Blades - Style B**

Noga Equivalent	Blade Type	Application	Order No.	Regular Price	SALE
N1	B10	The basic HSS blade used for steel & Aluminum with special nose for the worker's protection	FN50B10	3.22	1.93
N1C	B10C	Solid carbide blade similar to B10, for extra hard applications	FN50B10C	11.37	8.75
N1TiN	B10P	Same as B10 blade with TiN coating for extended life when deburring exotic & abrasive materials	FN50B10P	4.87	3.17
None	B11	Can deburr a minimum hole diameter of 2 mm	FN50B11	3.36	2.02
N1	B12	The basic HSS blade used for plastics	FN50B12	3.15	1.89
N2	B20	This HSS blade is used for brass & cast iron, it can rotate clockwise & counter-clockwise	FN50B20	3.15	1.89
N2C	B20C	Solid carbide blade similar to B20, for extra hard applications	FN50B20C	11.37	8.75
None	B20P	Same as B20 blade with TiN coating for extended life when deburring exotic and abrasive materials	FN50B20P	4.87	3.17
N2	B25	Same as B20 blade, used for Plastics	FN50B25	3.15	1.89
N3	B30	Removes external & internal burrs simultaneously from holes drilled into tubing & sheet metal	FN50B30	3.81	2.48
None	B32	Same as B30 except for Brass and Cast Iron	FN50B32	3.81	2.48
None	B50	Scriber, carbide tipped. Can be reground many times. To remove from holder, just pull out	FN50B50	8.23	6.34
N6	B60	HSS internal deburring blade. Facilitates deburring in the most inaccessible locations	FN50B60	5.54	3.60
None	B70	Carbide tipped deburring blade for sheet-metal up to 3 mm (1/8") thickness	FN50B70	12.39	9.54

10596

**Set E - Deburring Sets****Heavy DeBurr**

- Rugged deburring set for heavy-duty deburring of holes, slots and edges
- Supports all E blades
- Deburrs steel, aluminum copper, brass, cast iron and plastics



Included	Order No.	Regular Price	SALE
Mango II Handle / E100, E200, E300	FN50EMAN2	24.08	18.95
Plastic Handle / E100, E200, E300 Blades	FN50E	24.08	18.95

22420

ABRASIVES



Reinforced Cut-Off Wheels

For Hand Held Grinders

- Ideal for cutting off ferrous metals, alloy steels and cast iron.
- Aluminum oxide abrasive - fast cutting action.
- Resinoid bond - long life - burn free cutting.
- High strength reinforcement - resists break-age



Aluminum Oxide								
Diameter	Thick-ness	Arbor Hole	Specifica-tion	Maximum RPM	Standard Pack	Order No.	Regular Price	SALE
1 1/2"	1/32"	1/4"	A60-RBF	45,000	50	MG9035687	2.81	2.11
1 1/2"	1/16"	1/4"	A60-RBF	45,000	50	MG9035688	2.81	2.11
2"	1/32"	3/8"	A60-RBF	30,000	50	MG9035689	2.81	2.11
2"	1/16"	1/4"	A36-TBF	30,000	50	MG9045066	2.81	2.11
2"	1/16"	3/8"	A36-RBF	30,000	50	MG9035690	2.81	2.11
2"	1/8"	3/8"	A24-RBF	30,000	50	MG9035691	3.09	2.32
3"	1/32"	1/4"	A60-RBF	25,000	50	MG9035500	2.81	2.11
3"	1/32"	3/8"	A60-RBF	25,000	50	MG9035501	2.81	2.11
3"	1/16"	1/4"	A36-RBF	25,000	50	MG9035502	2.84	2.13
3"	1/16"	1/4"	A60-RBF	25,000	50	MG9045085	2.84	2.13
3"	1/16"	3/8"	A36-RBF	25,000	50	MG9035503	2.84	2.13
3"	1/16"	3/8"	A60-RBF	25,000	50	MG9045086	2.84	2.13
3"	1/8"	1/4"	A24-RBF	25,000	50	MG9035504	3.22	2.42
3"	1/8"	3/8"	A24-RBF	25,000	50	MG9035505	3.22	2.42
4"	1/32"	1/4"	A60-RBF	19,100	50	MG9035506	3.63	2.72
4"	1/32"	3/8"	A60-RBF	19,100	50	MG9035507	3.63	2.72
4"	1/16"	1/4"	A36-RBF	19,100	50	MG9035508	3.98	2.99
4"	1/16"	1/4"	A60-RBF	19,100	50	MG9045088	3.98	2.99
4"	1/16"	3/8"	A36-RBF	19,100	50	MG9035509	3.98	2.99
4"	1/16"	3/8"	A60-RBF	19,100	50	MG9045087	3.98	2.99
4"	1/16"	5/8"	A36-RBF	19,100	50	MG9035510	3.98	2.99
4"	1/8"	1/4"	A24-RBF	19,100	50	MG9035511	4.48	3.36
4"	1/8"	3/8"	A24-RBF	19,100	50	MG9035512	4.48	3.36

236

DIEMOND Huntington Pattern Hooded Grinding Wheel Dressers

- For fast dressing on all types of grinding wheels
- Designed for dressing, truing, sharpening, and removing glaze from solid abrasive wheels
- Cutters have star-shaped teeth that expose new grains and provide a fresh unloaded surface on wheels
- Made of hardened high carbon steel
- Fulfill most general dressing needs where fast dressing is the primary requirement



Wheel Diameter	Face Width	Order No.	Regular Price	SALE
Up to 10"	2"	LG500	45.50	41.86
10"-16"	3"	LG501	48.75	44.85
16"-36"	3 1/2"	LG502	66.68	61.35

343



3-in-1 Cut-Grind-Finish Depressed Center Wheels - Type 27

- Cuts quickly, grinds easily and finishes work surfaces
- Contaminant free: less than 0.1 percent iron, sulfur or chlorine
- Fiberglass net reinforcement provides added strength and flexibility
- Ideal for stainless steel and a wide variety of metals and cutting metal profiles and thin pipes, and removing weld slag
- Use instead of a flap disc to complete the job with an excellent finish



Diameter	Arbor Hole	Width	Grit	Maximum RPM	Order No.	Regular Price	SALE
4 1/2"	7/8"	3/32"	36	13,300	MG9045218	4.23	3.17
4 1/2"	5/8"-11	3/32"	36	13,300	MG9045219	8.11	6.08
5"	7/8"	3/32"	36	12,250	MG9045220	5.11	3.83
5"	5/8"-11	3/32"	36	12,250	MG9045221	9.17	6.88
6"	7/8"	3/32"	36	10,200	MG9045222	7.53	5.65
6"	5/8"-11	3/32"	36	10,200	MG9045223	11.44	8.58

187



Chop Saw Blades - Type 1

- A: Aluminum Oxide - Metal & Steel. 14" available in single and double fiberglass reinforced
- ALU: Aluminum Oxide - Special non-loading formulation for cutting aluminum
- WA: White Aluminum Oxide - Excellent on stainless steel, ferrous metals. Single reinforced
- ZA: Zirconia Aluminum Oxide - Metal & Stainless; High performance cutting, recommended on thicker stock applications such as angle iron, angle bars



Diameter	Thick-ness	Arbor Hole	Specification	Maximum RPM	Standard Pack	Order No.	Regular Price	SALE
12"	3/32"	1"	A36-PBF Double	5,100	10	MG9035575	14.25	10.69
14"	3/32"	1"	A30-N-BF	4,400	10	MG9036122	19.47	14.60
14"	3/32"	1"	A30-PBF Single	4,400	10	MG9035670	14.92	11.19
14"	3/32"	1"	A36-PBF Double	4,400	10	MG9035576	14.11	10.58
14"	3/32"	1"	WA30-P	4,400	10	MG9036123	19.73	14.80
14"	3/32"	1"	ZA24-S Double	4,400	10	MG9036125	18.41	13.81
16"	3/32"	1"	A36-PBF Double	3,820	10	MG9036133	37.31	27.98

203



Hex-Drive Abrasive Disc Brushes

- Designed for use in semi and fully automatic machinery, including NC, CNC and robotic machine tools
- Unique Hex-Drive™ system allows the tools to be turned in both directions for 360 finishing
- Applications include deburring, edge radiusing and general surface finishing



Diameter	Trim Length	Bristle Diameter	Maximum RPM	Order No.	Regular Price	SALE
2"	1"	0.028"	10,000	MJ73GD21120SN	81.52	61.14
2"	1"	0.035"	10,000	MJ73GD21180SN	81.52	61.14
2"	1"	0.040"	10,000	MJ73GD21080SN	79.84	59.88
2"	1"	0.045"	10,000	MJ73GD21060SN	81.52	61.14
3"	1"	0.028"	10,000	MJ73GD31120SN	124.80	106.08
3"	1"	0.035"	10,000	MJ73GD31180SN	107.17	80.38
3"	1"	0.040"	10,000	MJ73GD3180SN	91.46	68.60
4"	1"	0.040"	10,000	MJ73GD41080SN	199.92	149.94
4"	1"	0.045"	10,000	MJ73GD41060SN	153.83	115.37

177

CRATEX® Blocks & Sticks

- Excellent for cleaning and polishing metal surfaces, for breaking edges, smoothing away high spots, removing rust, heat marks, tarnish and stain
- Designed for either manual or mechanical application
- Can be mounted in tool holding fixtures, chucks or cradles
- Used for polishing commutators, damaskeening, cleaning and dressing diamond wheels, highlighting steel rules, calibrations and reference points, and for removing feather edges and "toughing up" cutting tools, dies, chisels and other edged tools



Oblong														
			Coarse			Fine			Medium			Extra Fine		
Overall Length	Width	Thickness	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE
3"	1"	1 1/4"	MG643802C	16.51	14.93	MG643802F	16.51	14.93	MG643802M	16.51	14.93	MG643802XF	16.51	14.93
4"	2"	3/8"	MG644163C	37.09	33.53	MG644163F	37.09	33.53	MG644163M	37.09	33.53	MG644163XF	37.09	33.53
6"	1"	1/4"	MG646802C	28.41	25.68	MG646802F	28.41	25.68	MG646802M	28.41	25.68	MG646802XF	28.41	25.68
6"	1"	1/8"	MG646801C	23.91	21.61	MG646801F	23.91	21.61	MG646801M	23.91	21.61	MG646801XF	23.91	21.61
6"	1"	3/8"	MG646803C	32.61	29.48	MG646803F	32.61	29.48	MG646803M	32.61	29.48	MG646803XF	32.61	29.48
6"	2"	1"	MG646168C	125.82	113.74	MG646168F	125.82	113.74	MG646168M	125.82	113.74	MG646168XF	125.82	113.74
6"	2"	1/4"	MG646162C	54.91	49.64	MG646162F	54.91	49.64	MG646162M	54.91	49.64	MG646162XF	54.91	49.64
8"	1"	1/2"	MG648804C	84.06	75.99	MG648804F	84.06	75.99	MG648804M	84.06	75.99	MG648804XF	84.06	75.99

Round													
		Coarse			Fine			Medium			Extra Fine		
Overall Length	Diameter	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE
6"	1"	MG640166C	79.14	71.54	MG640166F	79.14	71.54	MG640166M	79.14	71.54	MG640166XF	79.14	71.54
6"	1/2"	MG64086C	23.53	21.27	MG64086F	23.53	21.27	MG64086M	23.53	21.27	MG64086XF	23.53	21.27
6"	1/4"	MG64046C	14.83	13.41	MG64046F	14.83	13.41	MG64046M	14.83	13.41	MG64046XF	14.83	13.41
6"	3/16"	MG64036C	13.19	11.92	MG64036F	13.19	11.92	MG64036M	13.19	11.92	MG64036XF	13.19	11.92
6"	3/4"	MG640126C	44.52	40.25	MG640126F	44.52	40.25	MG640126M	44.52	40.25	MG640126XF	44.52	40.25
6"	3/8"	MG64066C	16.91	15.29	MG64066F	16.91	15.29	MG64066M	16.91	15.29	MG64066XF	16.91	15.29
6"	5/16"	MG64056C	16.48	14.90	MG64056F	16.48	14.90	MG64056M	16.48	14.90	MG64056XF	16.48	14.90
6"	5/8"	MG640106C	35.81	32.37	MG640106F	35.81	32.37	MG640106M	35.81	32.37	MG640106XF	35.81	32.37
6"	7/8"	MG640146C	63.97	57.83	MG640146F	63.97	57.83	MG640146M	63.97	57.83	MG640146XF	63.97	57.83

Square														
			Coarse			Fine			Medium			Extra Fine		
Overall Length	Width	Thickness	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE
6"	1"	1"	MG646808C	67.65	61.16	MG646808F	67.65	61.16	MG646808M	67.65	61.16	MG646808XF	67.65	61.16
6"	1/2"	1/2"	MG646404C	28.41	25.68	MG646404F	28.41	25.68	MG646404M	28.41	25.68	MG646404XF	28.41	25.68
6"	1/4"	1/4"	MG646202C	16.52	14.93	MG646202F	16.52	14.93	MG646202M	16.52	14.93	MG646202XF	16.52	14.93
6"	3/4"	3/4"	MG646606C	49.90	45.11	MG646606F	49.90	45.11	MG646606M	49.90	45.11	MG646606XF	49.90	45.11

BRM Standard Duty Brush Research Flex-Hone®

Resilient, Flexible Honing Tool For Small Internal Honing - 8" Overall Length

Features:

- Soft cutting action
- Self-centering aligning
- Self compensating for wear
- Silicon carbide abrasive

Applications:

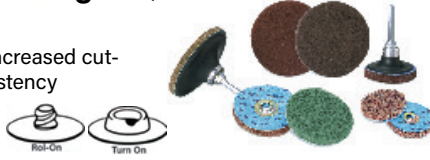
- Hydraulic ram cylinders
- Pneumatic cylinders
- Hydraulic valve bodies & guides
- Brake and clutch cylinders
- Compressed air tool bodies
- Fine surface finishing of stainless tubing



		120			180			240			320		
Specification	Bore Diameter	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE
BC 1	1"	MJ731120	30.20	27.18	MJ731180	30.20	27.18	MJ731240	32.07	28.86	MJ731320	45.32	40.79
BC 1/2	1/2"	MJ7350120	25.10	22.59	MJ7350180	25.10	22.59	MJ7350240	26.54	23.89	MJ7350320	37.52	33.77
BC 10mm	0.394"	MJ7310120	23.62	21.26	MJ7310180	23.62	21.26	MJ7310240	24.96	22.46	MJ7310320	35.36	31.82
BC 1-1/2	1 1/2"	MJ73150120	37.83	34.05	MJ73150180	37.83	34.05	MJ73150240	40.03	36.03	MJ73150320	56.64	50.98
BC 1-1/4	1 1/4"	MJ73125120	34.27	30.84	MJ73125180	34.27	30.84	MJ73125240	36.32	32.69	MJ73125320	51.46	46.31
BC 11mm	0.433"	MJ7311120	24.08	21.67	MJ7311180	24.08	21.67	MJ7311240	25.54	22.99	MJ7311320	36.09	32.48
BC 1-3/4	1 3/4"	MJ73175120	39.48	35.53	MJ73175180	39.48	35.53	MJ73175240	41.85	37.67	MJ73175320	59.29	53.36
BC 2	2"	MJ732120	40.94	36.85	MJ732180	40.94	36.85	MJ732240	43.46	39.11	MJ732320	61.47	55.32
BC 2-1/2	2 1/2"	MJ73250120	47.78	43.00	MJ73250180	47.78	43.00	MJ73250240	50.64	45.58	MJ73250320	71.64	64.48
BC 2-1/4	2 1/4"	MJ73225120	44.37	39.93	MJ73225180	44.37	39.93	MJ73225240	47.00	42.30	MJ73225320	63.36	57.02
BC 2-3/4	2 3/4"	MJ73275120	52.74	47.47	MJ73275180	52.74	47.47	MJ73275240	55.90	50.31	MJ73275320	79.10	71.19
BC 3	3"	MJ733120	61.18	55.06	MJ733180	61.18	55.06	MJ733240	64.95	58.46	MJ733320	91.85	82.67
BC 3/4	3/4"	MJ7375120	28.03	25.23	MJ7375180	28.03	25.23	MJ7375240	29.67	26.70	MJ7375320	42.03	37.83
BC 5/8	5/8"	MJ73625120	26.60	23.94	MJ73625180	26.60	23.94	MJ73625240	28.18	25.36	MJ73625320	39.90	35.91
BC 7mm	0.276"	MJ737120	19.36	17.42	MJ737180	19.36	17.42	MJ737240	20.51	18.46	MJ737320	28.94	26.05
BC 8mm	0.315"	MJ738120	20.27	18.24	MJ738180	20.27	18.24	MJ738240	21.52	19.37	MJ738320	30.38	27.34
BC 9mm	0.354"	MJ739120	21.10	18.99	MJ739180	21.10	18.99	MJ739240	22.40	20.16	MJ739320	31.65	28.49

STANDARD ABRASIVES High Strength Quick Change Buff & Blend™ Discs

- High strength provides increased cut-rate, durability and consistency



Roll-On				
Grade	Diameter	Order No.	Regular Price	SALE
High Strength Coarse	2"	MM75840319	3.95	3.43
High Strength Medium	2"	MM75840358	3.51	2.45
High Strength Medium	3"	MM75840458	6.66	5.17
High Strength Coarse	3"	MM75840419	7.35	5.13

Turn-On				
Grade	Diameter	Order No.	Regular Price	SALE
High Strength Medium	2"	MM75840357	3.51	2.70
High Strength Very Fine	2"	MM75840322	3.23	2.48
High Strength Coarse	2"	MM75840314	3.95	3.07
High Strength Coarse	3"	MM75840414	7.35	6.39
High Strength Medium	3"	MM75840457	6.66	5.79

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STANDARD ABRASIVES Buff & Blend Cross Buffs - 2 Plv Aluminum Oxide

- Removing surface oxidation and rust
- Surface preparation prior to coating
- Remove surface coatings for part inspection
- Corrosion removal on steel rule and Kirksite dies
- Mold and die polishing
- Polishing valve spools, and round and square tubing
- Polish inside diameters of lifter bores, valve bodies and brake cylinders



Width	Diameter	Thread Size	Grade	Standard Pack	Order No.	Regular Price	SALE
3/8"	3/4"	#8-32	Medium	50	MM75725019	5.77	4.48
3/8"	3/4"	#8-32	Very Fine	50	MM75725011	6.73	5.17
1/2"	1 1/2"	#8-32	Medium	50	MM75725012	8.50	6.53
1/2"	1 1/2"	#8-32	Very Fine	50	MM75725013	8.50	6.53
3/8"	1"	#8-32	Coarse	50	MM75727334	6.20	4.81
3/8"	1"	#8-32	Medium	50	MM75725007	5.63	4.32
3/8"	1"	#8-32	Very Fine	50	MM75725008	5.63	4.32
1/2"	2"	#8-32	Coarse	25	MM75727395	10.89	8.36
1/2"	2"	#8-32	Medium	25	MM75727396	10.89	9.46
1/2"	2"	#8-32	Very Fine	25	MM75727397	10.89	8.36
3/4"	2"	1/4"-20	Coarse	25	MM75727398	12.61	8.80
3/4"	2"	1/4"-20	Medium	25	MM75727399	12.61	10.96
3/4"	2"	1/4"-20	Very Fine	25	MM75727400	12.61	10.96
3/4"	3"	1/4"-20	Coarse	25	MM75727401	14.25	12.38
3/4"	3"	1/4"-20	Medium	25	MM75727402	14.25	12.38
3/4"	3"	1/4"-20	Very Fine	25	MM75727403	11.65	10.12

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Grier Mounted Point Tool Room Assortment - Common Sizes and Shapes

- All common sizes and shapes in a convenient storage box
- Use on die or in-line/straight shaft grinders
- Blending contours, deburring molded parts and mold finishing
- ID grinding, offhand bench grinding, tool and die



Shank Size	Number of Pieces	Order No.	Regular Price	SALE
1/8" x 1 1/2"	100 Piece Assortment	ML50MP100	139.24	111.39
1/4" x 1 1/2"	50 Piece Assortment	ML50MP50	139.24	111.39

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MERIT SURF-PRO Spiral Bands

- Cloth spiral bands to be used with sanding drums, for deburring and polishing
- MM52 series sold in packages of 50 except where noted
- Merit sold in packages of 100
- † Indicates packages of 25



			Merit			Surf-Pro		
Diameter	Length	Grit	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE
1/2"	1/2"	50	MM5996228	1.30	1.23	MM521950950	1.05	0.75
1/2"	1/2"	80	MM5996179	1.33	1.13	-	-	-
1/2"	1/2"	120	MM5996069	1.33	1.13	MM521977750	55.09	39.28
1/2"	3/4"	80	MM5996573	1.20	1.02	-	-	-
1/2"	3/4"	120	-	-	-	-	-	-
1/2"	1"	80	MM5996215	1.30	1.10	MM521951550	60.62	43.22
1/2"	1"	120	MM5996210	1.30	1.10	MM521951650	58.02	41.37
1/2"	1 1/2"	50	MM5997111	1.60	1.35	-	-	-
1/2"	1 1/2"	80	-	-	-	MM521025350	62.33	44.44
1/2"	1 1/2"	120	-	-	-	-	-	-
1/2"	2"	80	MM5996669	1.90	1.80	MM521951850	1.44	1.03
1/2"	2"	120	MM5996736	3.43	2.90	-	-	-
3/4"	1 1/2"	80	MM5996255	2.24	1.90	MM521958050	64.08	45.69
3/4"	1 1/2"	120	-	-	-	-	-	-
3/4"	3/4"	50	MM5996183	1.30	1.23	-	-	-
3/4"	3/4"	80	MM5996161	1.37	1.30	MM521952680	117.74	83.95
3/4"	3/4"	120	MM5996226	2.30	1.95	MM521952750	69.33	48.05
3/4"	1"	80	MM5996071	1.33	1.13	MM521952950	63.63	45.37
3/4"	1"	120	MM5996219	1.33	1.13	-	-	-
3/4"	1 1/2"	50	MM5996500	2.97	2.51	MM521043350	160.52	111.24
3/4"	1 1/2"	80	MM5996249	1.64	1.39	MM521046350	81.58	56.53
3/4"	1 1/2"	120	MM5996057	1.64	1.55	MM521047350	79.72	55.25
3/4"	2"	80	MM5996756	2.20	2.08	-	-	-
3/4"	2"	120	MM5996746	3.70	3.13	MM521953350	107.45	74.46
1"	1 1/2"	50	-	-	-	-	-	-
1"	1 1/2"	80	MM5996647	2.30	1.95	-	-	-
1"	1 1/2"	120	MM5997592	2.30	1.95	-	-	-
1"	3/4"	50	-	-	-	-	-	-
1"	3/4"	80	MM5990213	0.84	0.71	-	-	-
1"	3/4"	120	-	-	-	-	-	-
1"	1"	50	MM5996184	1.50	1.42	MM521953550	0.57	0.37
1"	1"	80	MM5996074	1.43	1.21	MM521953650	1.23	0.88
1"	1"	120	MM5996177	1.43	1.21	-	-	-
1"	1 1/2"	80	MM5996162	1.93	1.63	MM521953950	1.69	1.17
1"	1 1/2"	120	MM5996677	2.06	1.74	MM521954050	177.66	123.12
1"	2"	80	MM5996268	2.27	2.15	-	-	-
1"	2"	120	MM5996507	2.27	2.15	-	-	-
1"	3"	50	MM5997688	6.20	5.25	-	-	-
1"	3"	80	-	-	-	-	-	-
1"	3"	120	MM5996197	5.87	4.97	-	-	-
1 1/4"	1"	50	-	-	-	MM521063050	59.14	42.17
1 1/4"	1"	80	-	-	-	-	-	-
1 1/4"	1"	120	-	-	-	-	-	-
1 1/4"	2"	50	MM5995570	2.20	1.86	-	-	-
1 1/4"	2"	80	-	-	-	-	-	-
1 1/4"	2"	120	MM5990217	1.41	1.19	-	-	-
1 1/2"	1"	50	-	-	-	MM521954450	42.08	27.18
1 1/2"	1"	80	MM5996254	2.66	2.25	MM521954550	104.13	72.16
1 1/2"	1"	120	MM5996707	2.66	2.25	MM521954750	92.65	64.21
1 1/2"	1 1/2"	50	MM5996176	1.90	1.80	-	-	-
1 1/2"	1 1/2"	80	MM5996165	1.90	1.74	-	-	-
1 1/2"	1 1/2"	120	MM5996066	1.83	1.55	-	-	-
1 1/2"	2"	80	MM5996533	1.93	1.63	-	-	-
1 1/2"	2"	120	MM5996079	4.13	3.49	-	-	-
2"	1"	80	MM5996166	1.81	1.53	MM521955650	1.39	0.90
2"	1"	120	-	-	-	MM521955750	1.39	0.90
2"	1 1/2"	50	MM5996527	2.37	2.24	MM521955850	1.71	1.10
2"	1 1/2"	80	MM5996259	2.87	2.43	MM521955950	1.71	1.10
2"	1 1/2"	120	MM5996586	3.36	2.84	-	-	-
2"	2"	50	MM5996187	3.04	2.78	MM521956125	277.35	192.20
2"	2"	80	MM5996181	3.00	2.54	MM521956225	216	1.40
2"	2"	120	-	-	-	MM521956325	213	1.38
3"	1"	80	MM5996524	3.26	2.76	-	-	-
3"	1"	120	-	-	-	-	-	-
3"	2"	80	MM5996265	5.31	4.49	-	-	-
3"	2"	120	-	-	-	MM521958725	68.78	44.43
3"	3"	80	MM5996159	5.36	4.53	MM521957425	500.50	356.86

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ABRASIVES

STRAUSS & CO.
INDUSTRIAL DIAMONDS LTD.

NF - Diamond Needle Files

Round Handle

- NF - Needle Files are our most popular files
- Used on hard materials such as: Tungsten Carbide, steels of 40Hrc and harder, ceramic materials, glass, etc.
- Shank has a round shaft of 3mm

Shape	Thickness	Diamond Length	Overall Length	Coarse		SALE	Fine		SALE	Medium		SALE
				Order No.	Regular Price		Order No.	Regular Price		Order No.	Regular Price	
Three Square	3.6 mm	2 3/4"	5 1/2"	MN51C2132	52.42	40.89	MN51F2132	52.42	40.89	MN51M2132	52.42	40.89
Equalling	1.4 mm	2 3/4"	5 1/2"	MN51C2112	47.92	37.38	MN51F2112	47.92	37.38	MN51M2112	47.92	37.38
Half Round	1.8 mm	2 3/4"	5 1/2"	MN51C2152	52.42	40.89	MN51F2152	52.42	40.89	MN51M2152	52.42	40.89
Round	3.1 mm	2 3/4"	5 1/2"	MN51C2162	47.92	37.38	MN51F2162	47.92	37.38	MN51M2162	47.92	37.38
Warding	1.4 mm	2 3/4"	5 1/2"	MN51C2122	47.92	37.38	MN51F2122	47.92	37.38	MN51M2122	47.92	37.38

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Diamond Hones

- Order Nos. FT65EZE have plastic handles
- Exclusive patented Eze-Lap manufacturing process embeds an engineered blend of poly-crystalline industrial diamonds in a stainless steel matrix on steel bases
- Products are heat treated, producing ideal hardness in the matrix for surface durability and diamond retention-yielding an abrasive surface that is harder than any metal or knife blade



Grade	Overall Length	Width	Order No.	Regular Price	SALE
Coarse	2"	3/4"	FT65EZEELC	17.63	13.40
Fine	2"	3/4"	FT65EZEELF	11.74	8.92
Medium	2"	3/4"	FT65EZEELM	14.68	11.16

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STANDARD ABRASIVES Non-Woven Abrasive Flap Brushes



- Ideal for producing uniform finishes on Aluminum, Brass and Stainless Steel
- They produce long line brushed finishes
- Density, pressure and angle determine the ability of the Flap Brush to remove burrs, oxidation and handling marks
- The finish produced will be a direct result of the density and grade

FINISHING:

- Grain finish on brass strike plates for door hardware
- Antique finish on builders hardware (cabinet handles, door knobs and more)
- Satin finishes on soft metals
- Highlighting and finishing Aluminum extrusion. (Used as a quality control tool to identify defects)
- Inline brushed finish on Aluminum and Stainless cookware (pots and pans)
- Produce fine scratch pattern on utensils and cutlery prior to cotton buff and compound polishing

CLEANING:

- Remove oxide from precious metals
- BLENDING:
- Blending flash and parting lines on Aluminum die cast

TOOLS:

- Straight Shaft Portable Grinder
- Bench Motor
- Backstand
- Floor Lathe
- Rotary
- Straight Line
- Robotic

CHARACTERISTICS:

- Flexible face, capable of conforming to concave, convex, flat and irregular surfaces
- Consistent face, capable of creating matte and satin finishes, leaving no lines on work piece
- Cool running
- Smooth running

SURF PRO Economy Diamond Wheel Dressers

Dressers

- For dressing vitrified grinding wheels



Diamond Carat Size	Shank Diameter - 3/8" Shank Length - 3"			Shank Diameter - 7/16" Shank Length - 3"		
	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE
1/4"	MN45ED025A	10.09	6.05	MN45ED025B	10.09	6.05
1/2"	MN45ED050A	16.55	9.93	MN45ED050B	16.55	9.93
1"	MN45ED100A	32.41	19.45	MN45ED100B	32.41	19.45
1-1/2"	MN45ED150A	50.86	30.52	MN45ED150B	50.86	30.52
2"	MN45ED200A	62.83	37.70	MN45ED200B	62.83	37.70

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Diameter	Face Width	Center Hole Size	Density	Grade	Order No.	Regular Price	SALE
6"	1"	2"	Hard	Medium	MM75875139	177.91	154.60
6"	1"	2"	Medium	Medium	MM75875143	120.39	104.62
6"	1"	2"	Hard	Medium	MM75875009	136.01	118.19
6"	1"	2"	Medium	Medium	MM75875001	123.12	106.99
6"	1"	2"	Hard	Very Fine	MM75875008	136.01	118.19
6"	1"	2"	Medium	Very Fine	MM75875000	123.12	106.99
8"	1"	3"	Hard	Medium	MM75875011	155.92	135.49
8"	1"	3"	Medium	Medium	MM75875176	181.86	158.04
8"	1"	3"	Medium	Medium	MM75875003	141.18	122.69
8"	1"	3"	Hard	Very Fine	MM75875010	155.92	135.49
8"	1"	3"	Medium	Very Fine	MM75875002	141.18	122.69
12"	1"	5"	Hard	Medium	MM75875013	218.08	189.51
12"	1"	5"	Hard	Medium	MM75875205	280.99	244.18
12"	1"	5"	Medium	Medium	MM75875005	197.43	171.57
12"	1"	5"	Hard	Very Fine	MM75875012	218.08	189.51
12"	2"	5"	Hard	Medium	MM75875015	356.05	309.41
12"	2"	5"	Hard	Medium	MM75875140	459.55	399.35
12"	2"	5"	Medium	Medium	MM75875007	322.31	280.09
12"	2"	5"	Hard	Very Fine	MM75875014	356.05	273.45
12"	2"	5"	Medium	Very Fine	MM75875006	322.31	280.09

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5SG Vitrified Grinding Wheels

Norton 5SG - Highest productivity and lowest total per-part grinding cost

Features:

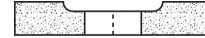
- High-performance proprietary seeded gel ceramic aluminum oxide abrasive
- Self-sharpening abrasive
- High performance VS bond
- Provide sharp edge on tools & dies

Benefits:

- Fast stock removal, cool superior cutting
- 3x-5x more life than aluminum oxide wheels
- Double rough stock removal rate versus conventional abrasives
- Less burn, less dressing, most consistent performing wheel

- Versatile exceptional form holding
- Longer life on tools and dies in production
- 8" Type 01 and Type 05 Vitrified Toolroom Wheels' Maximum Operating Speeds:**

- Stock NorPor VP2 wheels = 3600 RPMs
- All other 46 grit, J grade and harder = 3600 RPMs
- All other 54 grit, I grade and harder = 3600 RPMs
- All other 60 grit and finer, H grade and harder = 3600 RPMs
- All other specifications = 3105 RPMs
- *It is the user's responsibility to refer to and comply with ANSI B7.1



Type 1 (Recess 1 Side)

Type 1 (No Recess)

Diameter - 7", Width - 1/4", Arbor Hole - 1 1/4"						
Grit	Hardness	Specification	Maximum RPM	Order No.	Regular Price	SALE
100	J	5SG100-JVS	3,600	MH60070039467	249.03	203.21
100	K	5SG100-KVS	3,600	MH60070039468	199.30	162.63
46	I	5SG46-IVS	3,600	MH60070040207	199.30	162.63
60	I	5SG60-IVS	3,600	MH60070039459	199.30	162.63
60	J	5SG60-JVS	3,600	MH60070039460	199.30	162.63
60	K	5SG60-KVS	3,600	MH60070039461	238.14	194.32
80	I	5SG80-IVS	3,600	MH60070039462	249.03	203.21
80	J	5SG80-JVS	3,600	MH60070039463	199.30	162.63
80	K	5SG80-KVS	3,600	MH60070039464	199.30	162.63
80	L	5SG80-LVS	3,600	MH60070039465	194.18	158.45

Diameter - 7", Width - 1/2", Arbor Hole - 1 1/4"						
Grit	Hardness	Specification	Maximum RPM	Order No.	Regular Price	SALE
100	J	5SG100-JVS	3,600	MH60070040204	248.53	202.80
100	K	5SG100-KVS	3,600	MH60070040205	248.53	202.80
46	I	5SG46-IVS	3,600	MH60070040193	248.53	202.80
46	J	5SG46-JVS	3,600	MH60070040194	296.87	212.56
46	K	5SG46-KVS	3,600	MH60070040195	248.53	202.80
60	I	5SG60-IVS	3,600	MH60070040196	296.87	212.56
60	J	5SG60-JVS	3,600	MH60070040197	248.53	202.80
60	K	5SG60-KVS	3,600	MH60070040198	310.30	222.17
60	L	5SG60-LVS	3,600	MH60070040199	310.30	253.20
80	I	5SG80-IVS	3,600	MH60070040200	319.47	260.69
80	J	5SG80-JVS	3,600	MH60070040201	296.87	212.56
80	K	5SG80-KVS	3,600	MH60070040202	248.53	202.80
80	L	5SG80-LVS	3,600	MH60070040203	310.30	253.20

Diameter - 7", Width - 3/4", Arbor Hole - 1 1/4"						
Grit	Hardness	Specification	Maximum RPM	Order No.	Regular Price	SALE
46	I	5SG46-IVS	3,600	MH60070042304	371.60	303.23
46	K	5SG46-KVS	3,600	MH60070042305	371.60	303.23
60	J	5SG60-JVS	3,600	MH60070042307	271.70	221.71
60	K	5SG60-KVS	3,600	MH60070042308	271.70	221.71

Diameter - 7", Width - 3/4", Arbor Hole - 1 1/4", Recess Diameter - 2 3/4", Recess Depth - 1/4"						
Grit	Hardness	Specification	Maximum RPM	Order No.	Regular Price	SALE
46	I	5SG46-IVS	3,600	MH60070041976	300.10	244.88

Diameter - 7", Width - 1", Arbor Hole - 1 1/4"						
Grit	Hardness	Specification	Maximum RPM	Order No.	Regular Price	SALE
60	J	5SG60-JVS	3,600	MH60070042429	426.50	348.02
60	K	5SG60-KVS	3,600	MH60070042430	426.50	348.02

Diameter - 8", Width - 1/4", Arbor Hole - 1 1/4"						
Grit	Hardness	Specification	Maximum RPM	Order No.	Regular Price	SALE
60	K	5SG60-KVS	3,600	MH60080043351	240.37	196.14
80	K	5SG80-KVS	3,600	MH60080043353	239.06	195.07

Diameter - 8", Width - 1/2", Arbor Hole - 1 1/4"						
Grit	Hardness	Specification	Maximum RPM	Order No.	Regular Price	SALE
46	I	5SG46-IVS	3,105	MH60080044089	271.70	221.71
46	J	5SG46-JVS	3,600	MH60080044090	271.70	221.71
46	K	5SG46-KVS	3,600	MH60080044091	271.70	221.71
60	I	5SG60-IVS	3,600	MH60080044092	271.70	221.71
60	J	5SG60-JVS	3,600	MH60080044093	271.70	221.71
60	K	5SG60-KVS	3,600	MH60080044094	271.70	221.71
80	J	5SG80-JVS	3,600	MH60080044096	371.60	303.23
80	K	5SG80-KVS	3,600	MH60080044097	371.60	303.23

Diameter - 8", Width - 3/4", Arbor Hole - 1 1/4"						
Grit	Hardness	Specification	Maximum RPM	Order No.	Regular Price	SALE
46	I	5SG46-IVS	3,105	MH60080044098	354.70	289.44
46	J	5SG46-JVS	3,600	MH60080044099	354.70	289.44
46	I	5SG60-IVS	3,600	MH60080044101	442.93	361.43
60	J	5SG60-JVS	3,600	MH60080044102	354.70	289.44
60	K	5SG60-KVS	3,600	MH60080044103	354.70	289.44

Diameter - 8", Width - 1", Arbor Hole - 1 1/4"						
Grit	Hardness	Specification	Maximum RPM	Order No.	Regular Price	SALE
46	K	5SG46-KVS	3,600	MH60080002588	418.36	341.38

Diameter - 8", Width - 1", Arbor Hole - 1 1/4", Recess Diameter - 3 1/4", Recess Depth - 1/2"						
Grit	Hardness	Specification	Maximum RPM	Order No.	Regular Price	SALE
46	I	5SG46-IVS	3,105	MH60080013543	450.39	367.52
46	J	5SG46-JVS	3,600	MH60080003301	450.39	367.52

Diameter - 10", Width - 1", Arbor Hole - 3"						
Grit	Hardness	Specification	Maximum RPM	Order No.	Regular Price	SALE
46	I	5SG46-IVS	2,485	MH60100060400	597.44	487.51
46	J	5SG46-JVS	2,485	MH60100060401	597.44	487.51
46	K	5SG46-KVS	2,485	MH60100060402	597.44	487.51
60	I	5SG60-IVS	2,485	MH60100060403	632.56	516.17
60	K	5SG60-KVS	2,485	MH60100060405	632.56	516.17

Diameter - 12", Width - 1", Arbor Hole - 3"						
Grit	Hardness	Specification	Maximum RPM	Order No.	Regular Price	SALE
46	I	5SG46-IVS	2,070	MH60120062500	814.24	664.42
46	J	5SG46-JVS	2,070	MH60120062501	814.24	664.42
46	K	5SG46-KVS	2,070	MH60120062502	814.24	664.42
60	I	5SG60-IVS	2,070	MH60120062503	987.07	805.45
60	J	5SG60-JVS	2,070	MH60120062504	987.07	805.45
60	K	5SG60-KVS	2,070	MH60120062505	987.07	805.45

Diameter - 12", Width - 3/4", Arbor Hole - 3"						
Grit	Hardness	Specification	Maximum RPM	Order No.	Regular Price	SALE
46	I	5SG46-IVS	2,070	MH60120062204	841.96	687.04

Diameter - 12", Width - 1", Arbor Hole - 5"						
Grit	Hardness	Specification	Maximum RPM	Order No.	Regular Price	SALE
46	I	5SG46-IVS	2,070	MH60120062508	987.07	805.45
46	J	5SG46-JVS	2,070	MH60120062509	814.24	664.42
46	K	5SG46-KVS	2,070	MH60120062510	987.07	805.45

Diameter - 12", Width - 1 1/2", Arbor Hole - 5"						
Grit	Hardness	Specification	Maximum RPM	Order No.	Regular Price	SALE
46	I	5SG46-IVS	2,070	MH60120002842	1129.66	921.80

Diameter - 14", Width - 1", Arbor Hole - 3"						
Grit	Hardness	Specification	Maximum RPM	Order No.	Regular Price	SALE
46	I	5SG46-IVS	1,800	MH60140063960	1321.40	1078.26

Diameter - 14", Width - 1", Arbor Hole - 5"						
Grit	Hardness	Specification	Maximum RPM	Order No.	Regular Price	SALE
46	I	5SG46-IVS	1,800	MH60140063970	1090.04	889.47
60	I	5SG60-IVS	1,800	MH60140063974	1090.04	889.47
60	J	5SG60-JVS	1,800	MH60140063975	1090.04	889.47
60	K	5SG60-KVS	1,800	MH60140063976	1090.04	889.47

Diameter - 14", Width - 1 1/2", Arbor Hole - 5"						
Grit	Hardness	Specification	Maximum RPM	Order No.	Regular Price	SALE
46	I	5SG46-IVS	1,800	MH60140064097	1508.16	1230.66
46	J	5SG46-JVS	1,800	MH60140064098	1508.16	1230.66
60	I	5SG60-IVS	1,800	MH60140064100	1508.16	1230.66
60	J	5SG60-JVS	1,800	MH60140064101	1508.16	1230.66

Diameter - 14", Width - 1 1/2", Arbor Hole - 5", Recess Diameter - 8", Recess Depth - 1/2"						
Grit	Hardness	Specification	Maximum RPM	Order No.	Regular Price	SALE
46	J	5SG46-JVS	1,800	MH60140064103	1542.77	1258.90

Diameter - 14", Width - 2", Arbor Hole - 5"						
Grit	Hardness	Specification	Maximum RPM	Order No.	Regular Price	SALE
60	J	5SG60-JVS	1,800	MH60140064414	1925.24	1571.00

ABRASIVES



Flexible Diamond Hand Pads

- Lightweight and durable conformable backing adapts to a variety of surfaces
- Precision dot pattern allows aggressive consistent cut rate, uniform finish and reduced loading
- Can be used wet or dry, no dressing required
- Color coded for easy identification
- For shaping and rapid stock removal, touchup and repairs on ceramic, stone, marble, glass, composite and hard materials
- Also used for polished dies and molds



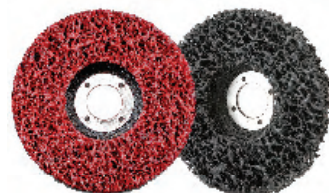
Width	Length	Grit	Color	Order No.	Regular Price	SALE
2 1/8"	3 1/2"	60	Green	MH63HP06360	87.96	71.78
2 1/8"	3 1/2"	120	Black	MH63HP06361	71.83	58.61
2 1/8"	3 1/2"	200	Red	MH63HP06362	60.83	49.64
2 1/8"	3 1/2"	400	Yellow	MH63HP05852	47.96	39.14
2 1/8"	3 1/2"	800	White	MH63HP06363	47.96	39.14
2 1/8"	3 1/2"	1800	Blue	MH63HP06364	47.96	39.14

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EZ Red Heavy Duty Strip Wheels

- Cleans welds and removes rust, paints, sealants and other clogging materials
- Can be used on stainless steel, steel, aluminum, titanium, non-ferrous metals, fiberglass, stone and wood
- Red: faster removal
- Black: cleans, and can provide a satin finish



Diameter	Color	Maximum RPM	Standard Pack	Order No.	Regular Price	SALE
4 1/2"	Black	11,000	10	MG9059200	17.51	13.13
4 1/2"	Red	11,000	10	MG9059204	19.43	14.57
4 1/2"	Black	11,000	10	MG9059201	20.47	15.35
4 1/2"	Red	11,000	10	MG9059205	22.50	16.88
7"	Black	7,000	10	MG9059203	30.42	22.82

213



Z3 Premium Zirconia Flap Discs

Z3:

- Fastest grain removal in the marketplace for carbon based steels and second best after CGW Z-Stainless discs on stainless steels, while offering excellent life
- Recommended for aggressive use and heavy duty applications
- Active grinding agent provides cool cutting with light pressure
- Special optimized resin bond offers maximum cutting capacity, strong edge stability and long life
- Premium Zirconia alumina grain with a poly/cotton heat treated backing
- The poly/cotton combination provides low stretch and strength for the high zirconia concentration that Z3 contains

T-27 APPLICATIONS: Use when working on flat grinding surfaces

T-29 APPLICATIONS: Conical Type has an angle excellent for contour and edge work



				Type 27			Type 29			Type 29 XL			Type 27 XL		
Diameter	Arbor Hole	Grit	Maximum RPM	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE
4"	5/8"	24	15,300	-	-	-	MG9042120	9.88	7.41	-	-	-	-	-	-
4"	5/8"	36	15,300	MG9042102	9.88	7.41	MG9042121	9.88	7.41	-	-	-	-	-	-
4"	5/8"	40	15,300	-	-	-	-	-	-	MG9042132	13.36	10.02	-	-	-
4"	5/8"	40	15,300	MG9042103	9.88	7.41	MG9042122	9.88	7.41	-	-	-	MG9042142	12.75	9.56
4"	5/8"	60	15,300	MG9042104	9.88	7.41	MG9042124	9.88	7.41	MG9042164	12.75	9.56	MG9042144	12.75	9.56
4"	5/8"	80	15,300	MG9042105	9.88	7.41	MG9042125	9.88	7.41	MG9042165	12.75	9.56	MG9042145	12.75	9.56
4"	5/8"	120	15,300	MG9042106	9.88	7.41	MG9042126	9.88	7.41	-	-	-	MG9042146	12.75	9.56
4 1/2"	7/8"	24	13,300	MG9042300	10.51	7.88	MG9042320	10.51	7.88	-	-	-	-	-	-
4 1/2"	7/8"	36	13,300	MG9042301	10.12	7.59	MG9042321	10.12	7.59	MG9042361	12.73	9.55	MG9042341	12.73	9.55
4 1/2"	7/8"	40	13,300	MG9042302	10.12	7.59	MG9042322	10.12	7.59	MG9042362	12.73	9.55	MG9042342	12.73	9.55
4 1/2"	7/8"	60	13,300	MG9042304	10.12	7.59	MG9042324	10.12	7.59	MG9042364	12.73	9.55	MG9042344	12.73	9.55
4 1/2"	7/8"	80	13,300	MG9042305	10.12	7.59	MG9042325	10.12	7.59	MG9042365	12.73	9.55	MG9042345	12.73	9.55
4 1/2"	7/8"	120	13,300	MG9042306	10.12	7.59	MG9042326	10.12	7.59	MG9042366	12.73	9.55	-	-	-
4 1/2"	5/8"-11	36	13,300	MG9042311	13.08	9.81	MG9042331	13.08	9.81	MG9042371	15.71	11.78	MG9042351	15.71	11.78
4 1/2"	5/8"-11	40	13,300	MG9042312	13.08	9.81	MG9042332	13.08	9.81	MG9042372	15.71	11.78	MG9042352	15.71	11.78
4 1/2"	5/8"-11	60	13,300	MG9042314	13.08	9.81	MG9042334	13.08	9.81	MG9042374	15.71	11.78	MG9042354	15.71	11.78
4 1/2"	5/8"-11	80	13,300	MG9042315	13.08	9.81	MG9042335	13.08	9.81	MG9042375	15.71	11.78	MG9042355	15.71	11.78
4-1/2"	5/8"-11	120	13,300	MG9042316	13.08	9.81	MG9042336	13.08	9.81	MG9042376	15.71	11.78	MG9042356	15.71	11.78
4 1/2"	7/8"	120	13,300	-	-	-	-	-	-	-	-	-	MG9042346	12.73	9.55

254



Diamond X Depressed Center Grinding Wheels - Type 29

- Minimum of 25 times the life of standard resin depressed center grinding wheel
- Extremely aggressive 24 grit diamond is uniquely brazed on extends working life



Diameter	Arbor Hole	Standard Pack	Order No.	Regular Price	SALE
4 1/2"	5/8"-11	1	MG9070401	191.73	143.80

212



Ultra-Grit Abrasive Nylon Wheel Brushes Wide Face

- Wide-face construction which is highly effective on both metallic and non-metallic materials
- Used singly or mounted in multiple for a wider face
- Silicon Carbide abrasive material



Diameter	Grit	Arbor Hole	Width	Trim Length	Maximum RPM	Order No.	Regular Price	SALE
3"	180	5/8"	1/2"	5/8"	20,000	MK6022250	57.96	43.47
4"	80	5/8"	7/8"	1 1/8"	18,000	MK6022244	121.14	90.86
6"	120	2"	7/8"	1 1/16"	6,000	MK6022286	126.07	94.55
6"	180	2"	7/8"	1 1/16"	6,000	MK6022287	122.09	91.57
6"	500	2"	7/8"	1 1/16"	6,000	MK6022289	140.22	105.17
8"	120	2"	7/8"	1 1/2"	4,500	MK6022297	193.65	145.24
8"	320	2"	7/8"	1 1/2"	4,500	MK6022299	193.65	145.24
10"	80	2"	1"	2 1/16"	3,600	MK6022312	254.44	190.83
12"	80	2"	1"	2 1/8"	3,000	MK6022325	313.01	234.76
14"	320	2"	1"	2 1/8"	2,400	MK6022336	410.41	307.81

523



1/4" Stem-Mounted End Brushes

Solid End - Carbon Cleaning

- ID pipe cleaning
- Flash removal



Diameter	Bristle Diameter	Trim Length	Maximum RPM	Order No.	Steel		Stainless Steel		
					Regular Price	SALE	Order No.	Regular Price	SALE
1/2"	0.006"	7/8"	25,000	MK5110001	23.27	16.31	MK5110013	29.97	21.01
1/2"	0.0104"	7/8"	25,000	MK5110002	21.66	15.18	MK5110014	27.66	19.39
1/2"	0.014"	7/8"	25,000	MK5110003	20.51	14.38	MK5110015	26.43	18.53
1/2"	0.020"	7/8"	25,000	MK5110004	19.89	13.94	MK5110016	26.19	18.36
3/4"	0.006"	7/8"	22,000	MK5110005	35.91	25.17	MK5110017	43.44	30.45
3/4"	0.0104"	7/8"	22,000	MK5110006	27.30	19.14	MK5110018	39.07	27.39
3/4"	0.014"	7/8"	22,000	MK5110007	21.04	14.75	MK5110019	38.75	27.16
3/4"	0.020"	7/8"	22,000	MK5110008	26.03	18.25	MK5110020	37.55	26.32
1"	0.006"	7/8"	22,000	MK5110009	42.91	30.08	MK5110021	60.41	42.35
1"	0.0104"	7/8"	22,000	MK5110010	31.84	22.32	MK5110022	55.64	39.00
1"	0.014"	7/8"	22,000	MK5110011	31.84	22.32	MK5110023	55.34	38.79
1"	0.020"	7/8"	22,000	MK5110012	27.96	19.60	MK5110024	52.71	36.95

716



6" Narrow Face Wheels - Crimped Brass Wire

Non-sparking bushes are made with high quality brass or bronze wire for non-sparking and metal finishing applications.

- Cleaning molds and dies for extrusion and injection-molding equipment
- Maintenance and fabrication in areas where flammable substances are present
- Deburring component parts machined from soft non-ferrous metals
- Used in petroleum production and refining; chemical production and processing; manufacturing of plastics, synthetics and rubber
- Decorative finishing



Width	Arbor Hole	Maximum RPM	Bristle Diameter	Order No.	Regular Price	SALE
1/2"	5/8"-1/2"	6,000	0.005"	MK5101415	188.92	132.43
1/2"	5/8"-1/2"	6,000	0.0118"	MK5101475	156.46	109.68

720

POWER TOOLS



Automotive (Trueflate) Series Couplers and Connectors

- This series of couplers and connectors is designed to interchange with the automotive (Tru-Flate) interchange series of other manufacturers
- All Coilhose (Tru-Flate) Series 16 couplers will accept any Coilhose Series 16 connectors
- All Coilhose (Tru-Flate) Series 59 couplers will accept any Coilhose Type 59 connectors
- All 1/4" body couplers are brass and all 3/8" body couplers are steel



Couplers



1/2", 12 Series				
Thread Size	Thread Type	Order No.	Regular Price	SALE
1/2"	FNPT	LX50120	35.52	26.64
3/8"	MNPT	LX50121	38.22	28.67
1/2"	MNPT	LX50122	35.92	26.94
3/8"	FNPT	LX50123	38.22	28.67
1/2"	Hose Barb	LX50128	46.28	37.02

1/4", 15 Series				
Thread Size	Thread Type	Order No.	Regular Price	SALE
1/4"	FNPT	LX50150	12.96	9.72
3/8"	FNPT	LX50151	16.31	13.05
1/4"	MNPT	LX50152	13.62	10.90
1/4"	Hose Barb	LX50153	17.78	14.22
5/16"	Hose Barb	LX50154	19.74	14.81
3/8"	MNPT	LX50155	17.95	14.36
3/8"	Hose Barb	LX50156	18.94	15.15
1/8"	FNPT	LX50158	16.98	12.74
1/8"	MNPT	LX50159	18.58	13.94

3/8", 58 Series				
Thread Size	Thread Type	Order No.	Regular Price	SALE
3/8"	FNPT	LX50580	28.64	21.48
3/8"	MNPT	LX50581	28.80	21.60
1/4"	FNPT	LX50582	29.57	22.18
1/4"	MNPT	LX50583	29.51	22.13
1/2"	FNPT	LX50584	35.99	26.99
3/8"	Hose Barb	LX50586	31.56	23.67
1/2"	MNPT	LX50587	36.53	27.40
1/2"	Hose Barb	LX50588	34.36	25.77

2041



Connectors



1/2", 12 Series				
Thread Size	Thread Type	Order No.	Regular Price	SALE
1/2"	MPT	LX501201	10.82	8.66
1/2"	FPT	LX501202	12.11	9.69
3/8"	MPT	LX501203	10.12	7.59
3/8"	FPT	LX501204	10.64	7.98
3/8"	Hose Barb	LX501207	13.48	10.11
1/2"	Hose Barb	LX501208	12.17	9.13

1/4", 15 Series				
Thread Size	Thread Type	Order No.	Regular Price	SALE
1/4"	MPT	LX501501	3.08	2.46
1/4"	FPT	LX501502	3.53	2.82
3/8"	MPT	LX501503	6.12	4.90
1/8"	MPT	LX501504	4.13	3.10
3/8"	FPT	LX501505	6.73	5.38
1/4"	Hose Barb	LX501506	6.66	5.33
5/16"	Hose Barb	LX501507	7.62	5.72
3/8"	Hose Barb	LX501508	7.00	5.25
1/8"	FPT	LX501509	4.17	3.13

3/8", 58 Series				
Thread Size	Thread Type	Order No.	Regular Price	SALE
3/8"	MPT	LX505801	6.38	5.10
3/8"	FPT	LX505802	6.73	5.05
1/4"	MPT	LX505803	6.19	4.95
1/4"	FPT	LX505804	6.99	5.24
1/2"	FPT	LX505805	51.79	38.84
3/8"	Hose Barb	LX505806	8.55	6.84
1/2"	Hose Barb	LX505808	10.64	7.98
1/2"	MPT	LX505809	11.40	8.55

2040



(PG S-Flex) Belts - R980 Y Weight Back

- Resists wear - cooler, faster cut rate
- Longer belt life lowers cost per unit
- Better grain adhesion - edge fray resistance
- More consistent grind throughout extended belt life
- Lasts 50% to 200% longer on mild and carbon steel, stainless, cobalt, chrome, inconel, and titanium.



- Cuts cooler and 20% faster than current generation belts
- Lowers total grinding cost

Width	Length	Grit	Order No.	Regular Price	SALE
1/2"	12"	40	MH61B0098018	5.53	4.51
1/2"	12"	60	MH61B0098019	5.27	4.30
1/2"	12"	80	MH61B0098020	5.09	4.15
1/2"	18"	40	MH61B0098021	5.89	4.81
1/2"	18"	60	MH61B0098022	5.56	4.54
1/2"	18"	80	MH61B0098023	5.35	4.37
1/2"	24"	40	MH61B0098024	6.46	5.27
1/2"	24"	60	MH61B0098025	6.02	4.91
1/2"	24"	80	MH61B0098026	5.56	4.54
3/4"	18"	40	MH61B0098027	6.59	5.38
3/4"	18"	60	MH61B0098028	6.14	5.01
3/4"	18"	80	MH61B0098029	5.78	4.72
3/4"	20 1/2"	40	MH61B0098030	6.74	5.50
3/4"	20 1/2"	60	MH61B0098031	6.46	5.27
3/4"	20 1/2"	80	MH61B0098032	6.07	4.95

444



Mini Dynaflex® II Abrasive Belt Machine

Model 15003

- Tool includes 15026 Contact Arm for 1/2" W x 12" L abrasive belts

Specifications:

- Weight: 1.8 lbs, 87 dBA
- .3 HP @ 25,000 RPM
- Maximum SFPM 4,890
- Hose size: 3/8"



Order No.	Regular Price	SALE
PF3015003	1120.78	1010.94

2186



Locking Air Tool Holder

Organize air tools with the lockable tool holder

- Hold up to five pneumatic tools in a 10" space
- Fits all popular quick connect fittings
- Locking feature protects your air tools from theft (lock not included)
- Durable powder-coated finish



Order No.	Regular Price	SALE
KN6549960	47.98	43.18

2274

3M Stikit™ Disc Rolls 236U

- Aluminum Oxide - C weight paper backing
- Discs for paint, primer, wood, metal, plastic and fiberglass
- Strong paper backing provides durability and increased cut rates
- Open coat and stearate coating minimizes loading
- 100 Discs per roll, 4 rolls per case**



Diameter - 6"			
Grit	Order No.	Regular Price	SALE
P80	TM1155560	139.90	125.35
P120	TM1155562	129.14	115.71
P320	TM1155567	129.14	115.71

Diameter - 5"			
Grit	Order No.	Regular Price	SALE
P150	TM1155543	91.45	81.94
120	TM1186490	91.45	81.94
180	TM1186492	91.45	81.94
320	TM1186495	91.45	81.94

149

Legacy FLEXZILLA Air Hoses

- Extreme flexibility
- Temperature range: (-40° F to 150° F)
- 300 PSI working pressure
- Reinforced bend restricter
- Excellent abrasion resistance
- Superior bend radius
- Lightweight and easy to handle



Hose Inside Diameter	Length	End Connections	Order No.	Regular Price	SALE
1/4"	25 feet	MNPT	LX55HFZ1425YW2	44.63	33.47
1/4"	50 feet	MNPT	LX55HFZ1450YW2	66.51	49.88
1/4"	100 feet	MNPT	LX55HFZ14100YW2	110.00	82.50
3/8"	25 feet	MNPT	LX55HFZ3825YW2	58.95	44.21
3/8"	50 feet	MNPT	LX55HFZ3850YW2	96.66	72.50
3/8"	100 feet	MNPT	LX55HFZ38100YW2	176.57	132.43

2243

Hougen RotaBroach™ Hole Cutters

2" Depth of Cut

- Designed for fast, efficient hole making with portable magnetic drills
- Universal cutters cut only the material necessary to produce a quality hole - the rest pops out as a slug

		1"			2"		
Tool Diameter	Decimal Equivalent	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE
7/16"	0.4375"	FZ8012114	48.52	43.67	FZ8012214	61.49	55.34
1/2"	0.5000"	FZ8012116	50.06	45.05	FZ8012216	66.58	59.92
9/16"	0.5625"	FZ8012118	57.09	51.38	FZ8012218	74.76	67.28
5/8"	0.6250"	FZ8012120	59.78	53.80	FZ8012220	80.92	72.83
11/16"	0.6875"	FZ8012122	62.17	55.95	FZ8012222	89.33	80.40
3/4"	0.7500"	FZ8012124	65.49	58.94	FZ8012224	98.13	88.32
13/16"	0.8125"	FZ8012126	70.06	63.05	FZ8012226	103.99	93.59
7/8"	0.8750"	FZ8012128	75.07	67.56	FZ8012228	110.17	99.15
15/16"	0.9375"	FZ8012130	80.08	72.07	FZ8012230	118.58	106.72
1"	1.0000"	FZ8012132	85.88	77.29	FZ8012232	128.69	115.82
1-1/16"	1.0625"	FZ8012134	88.10	79.29	FZ8012234	132.30	119.07
1-1/8"	1.1250"	FZ8012136	101.44	91.30	FZ8012236	139.72	125.75
1-3/16"	1.1875"	FZ8012138	105.70	95.13	FZ8012238	146.27	131.64
1-1/4"	1.2500"	FZ8012140	109.70	98.73	FZ8012240	152.82	137.54
1-5/16"	1.3125"	FZ8012142	115.56	104.00	FZ8012242	161.08	144.97
1-3/8"	1.3750"	FZ8012144	136.08	122.47	FZ8012244	168.34	151.51
1-7/16"	1.4375"	FZ8012146	144.12	129.71	FZ8012246	183.39	165.05
1-1/2"	1.5000"	FZ8012148	149.74	134.77	FZ8012248	194.07	174.66
1-9/16"	1.5625"	FZ8012150	154.69	139.22	FZ8012250	197.65	177.89
1-5/8"	1.6250"	FZ8012152	172.97	155.67	FZ8012252	216.17	194.55
1-11/16"	1.6875"	FZ8012154	188.62	169.76	FZ8012254	225.96	203.36
1-3/4"	1.7500"	FZ8012156	195.33	175.80	FZ8012256	239.16	215.24
1-13/16"	1.8125"	FZ8012158	200.82	180.74	FZ8012258	248.11	223.30
1-7/8"	1.8750"	FZ8012160	210.99	189.89	FZ8012260	265.78	239.20
1-15/16"	1.9375"	FZ8012162	217.17	195.45	FZ8012262	315.22	283.70
2"	2.0000"	FZ8012164	239.93	215.94	FZ8012264	320.47	288.42

Also available in 1" depth of cut and carbide for abrasive and tough to cut material.

2233



Silver Supreme Random Orbital Sander Non-Vacuum Type-Model 56815

- The most durable random orbital sander ever built - the ultimate combination of supreme power and lightweight comfort!
- Innovations include all-steel components and new compact Ergo Grip
- Easily replaceable drop-in motor



Tool Specs:

- Weight: 1.8 lbs, 77 dB(A)
- .26 HP @ 12,000 RPM
- 3/16" Diameter orbit
- Hose size: 1/4"
- Includes low-profile, premium urethane, weight-mated sanding pad

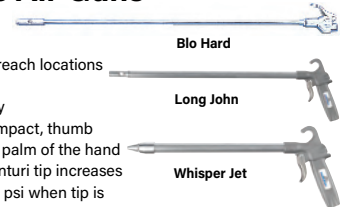
Order No.	Regular Price	SALE
PF3356815	421.26	379.98

2190



Long Series Air Guns

- 1/4" NPT inlet
- Maximum operating pressure 120 PSI
- Ideal for reaching inaccessible or difficult to reach locations
- Meets OSHA standards
- UPS dimensional weight shipping rates apply
- Blo-Hard Safety Air Gun - Model 900LJ** compact, thumb lever operated air gun fits comfortably in the palm of the hand
- Long John® Safety Air Gun - Model 75LJ** venturi tip increases thrust & limits static pressure to less than 30 psi when tip is blocked
- Whisper Jet® Air Gun - Model 80LJ** operates 6-20 dB quieter than conventional air guns



Extension Size	Long John®			Whisper Jet®			Blo-Hard Air Blow Gun		
	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE
6"	LW5575LJ6	55.49	48.83	LW5580LJ6	60.25	53.02	LW55900LJ6	45.97	40.45
12"	LW5575LJ12	58.66	51.62	LW5580LJ12	63.41	55.80	LW55900LJ12	49.15	43.25
18"	LW5575LJ18	61.82	54.40	LW5580LJ18	66.59	58.60	LW55900LJ18	52.33	46.05
24"	LW5575LJ24	65.00	57.20	LW5580LJ24	69.76	61.39	LW55900LJ24	55.49	48.83
36"	LW5575LJ36	71.35	62.79	LW5580LJ36	76.10	66.97	LW55900LJ36	61.82	54.40
48"	LW5575LJ48	77.69	68.37	LW5580LJ48	82.43	72.54	LW55900LJ48	68.17	59.59
60"	LW5575LJ60	84.02	73.94	LW5580LJ60	88.79	78.14	LW55900LJ60	74.51	65.97
72"	LW5575LJ72	90.37	79.53	LW5580LJ72	95.12	83.71	LW55900LJ72	80.85	71.15

2218



HAND TOOLS



Balldrivers & Hex Key Sets

- Sets come in plastic holder that firmly retains the keys in size marked holes
- Balldriver provides a 25° angle entry
- Heat treated steel-fractional & metric
- Wiha brand has Magic Ring has spring hardened steel ring in key that holds the screw on the tool for an exact fit and is hard chrome plated, all other brands are black oxide treated
- Available in long & short arm



KP4227010

Imperial								
Number of Pieces	Driver Style	Arm Type	Set Includes	COO	BrandName	Order No.	Regular Price	SALE
11	Ball End Hex	Long	11pcs: .050-1/4"	USA	Eklind	KM5013211	30.66	20.63
12	Ball End Hex	Long	.050", 1/16", 5/64", 3/32", 7/64", 1/8", 9/64", 5/32", 3/16", 7/32", 1/4", 5/16"	USA	Bondhus	KN5310936	29.92	20.97
13	Ball End Hex	Long	13pcs: .050-3/8"	USA	Eklind	KM5013213	47.15	26.92
13	Ball End Hex	Long	.050", 1/16", 5/64", 3/32", 7/64", 1/8", 9/64", 5/32", 3/16", 7/32", 1/4", 5/16", 3/8"	USA	Bondhus	KN5310937	38.35	26.88
13	Ball End Hex	L-key	.050", 1/16", 5/64", 3/32", 7/64", 1/8", 9/64", 5/32", 3/16", 7/32", 1/4", 5/16", 3/8"	USA	Bondhus	KN5369637	71.75	50.30
13	Ball End Hex	Long	MagicRing and Standard Ball End	DE	Wiha	KN5466991	90.73	71.68
16	Ball End Hex	Long	16pcs: .050-5/8"	USA	Eklind	KM5013216	160.72	99.81
13	Double Ball	Long	.050", 1/16", 5/64", 3/32", 7/64", 1/8", 9/64", 5/32", 3/16", 7/32", 1/4", 5/16", 3/8"	USA	Bondhus	KN5367037	58.69	41.14
7	Hex	Long	7pcs: 5/64-1/4"	USA	Eklind	KM5010207	11.97	9.23
7	Hex	Standard	5/64", 3/32", 1/8", 5/32", 3/16", 7/32", 1/4"	USA	Proto	KP4227015	9.04	5.88
11	Hex	Short	11pcs: .050-1/4"	USA	Eklind	KM5010111	12.11	9.34
11	Hex	Long	11pcs: .050-1/4"	USA	Eklind	KM5010211	18.20	14.03
11	Hex	Standard	.050", 1/16", 5/64", 3/32", 7/64", 1/8", 9/64", 5/32", 3/16", 7/32", 1/4", Molded plastic holder	USA	Proto	KP4227010	13.36	8.68
12	Hex	Long	.050", 1/16", 5/64", 3/32", 7/64", 1/8", 9/64", 5/32", 3/16", 7/32", 1/4", 5/16"	USA	Bondhus	KN5312136	17.48	12.25
13	Hex	Short	13pcs: .050-3/8"	USA	Eklind	KM5010113	17.82	13.74
13	Hex	Long	13pcs: .050-3/8"	USA	Eklind	KM5010213	27.76	21.40
13	Hex	Long	.050", 1/16", 5/64", 3/32", 7/64", 1/8", 9/64", 5/32", 3/16", 7/32", 1/4", 5/16", 3/8"	USA	Bondhus	KN5312137	21.99	15.41
13	Hex	Standard	Short Arm .050", 1/16", 5/64", 3/32", 7/64", 1/8", 9/64", 5/32", 3/16", 7/32", 1/4", 5/16", 3/8", Molded plastic holder	USA	Proto	KP4227000	23.39	15.20
13	Hex	Balldriver	.050", 1/16", 5/64", 3/32", 7/64", 1/8", 9/64", 5/32", 3/16", 7/32", 1/4", 5/16", 3/8"	USA	Proto	KP4227025	52.64	34.22
13	Hex	Long	.050", 1/16", 5/64", 3/32", 7/64", 1/8", 9/64", 5/32", 3/16", 7/32", 1/4", 5/16", 3/8"	USA	Proto	KP4227030	34.03	22.12
14	Hex	Long	Long arm, .050", 1/16", 5/64", 3/32", 7/64", 1/8", 9/64", 5/32", 3/16", 7/32", 1/4", 5/16", 3/8", 1/2", Metal storage box	USA	Proto	KP4227035	58.04	37.73
18	Hex	Short&Long	18pcs: .050-5/16"	USA	Eklind	KM5010018	18.31	14.12
18	Hex	Standard	.028", .035", .050", 1/16", 5/64", 3/32", 7/64", 1/8", 9/64", 5/32", 3/16", 7/32", 1/4", 5/16", 3/8", 1/2", 9/16", 5/8"	USA	Proto	KP4227005	104.08	67.65

Imperial/Metric								
Number of Pieces	Driver Style	Arm Type	Set Includes	COO	BrandName	Order No.	Regular Price	SALE
18	Ball End Hex	Long	Contains: KM50-13607 & KM50-13211	USA	Eklind	KM5013218	52.26	38.83
22	Ball End Hex	Long	Contains: KM50-13609 & KM50-13213	USA	Eklind	KM5013222	86.41	49.34
22	Ball End Hex	Long	Contains KN53-10937 & KN53-10999	USA	Bondhus	KN5320199	65.42	45.86
22	Ball End Hex	L-key	.050", 1/16", 5/64", 3/32", 7/64", 1/8", 9/64", 5/32", 3/16", 7/32", 1/4", 5/16", 3/8" and 1.5 mm, 2 mm, 2.5 mm, 3 mm, 4 mm, 5 mm, 6 mm, 8 mm, 10 mm	USA	Bondhus	KN5369600	123.35	86.47
22	Hex	Short&Long	Contains: KM50-10509 & KM50-10213	USA	Eklind	KM5010022	46.24	34.45
22	Hex	Long	Contains: KM50-10609 & KM50-10213	USA	Eklind	KM5010222	51.24	38.17
22	Hex	Long	Contains KN53-12137 & KN53-12199	USA	Bondhus	KN5322199	40.64	28.49
25	Hex	Short Long	25 pc Hex Key Set Includes SAE Sizes: 1/16", 5/64", 3/32", 7/64", 1/8", 9/64", 5/32", 3/16", 7/32", 1/4", 5/16", 3/8" Long Arm and Metric 1.27 mm, 1.5 mm, 2 mm, 2.5 mm, 3 mm, 4 mm, 4.5 mm, 5 mm, 5.5 mm, 6 mm, 7 mm, 8 mm, 10 mm Short Arm and Storage Holder	CHINA	Titan	KP8212712	23.53	17.65



Metric Balldrivers & Hex Key Sets

- Sets come in plastic holder that firmly retains the keys in size marked holes
- Balldriver provides a 25° angle entry
- Heat treated steel- metric
- Wiha brand has Magic Ring has spring hardened steel ring in key that holds the screw on the tool for an exact fit and is hard chrome plated, all other brands are black oxide treated
- Available in long & short arm



Number of Pieces	Driver Style	Arm Type	Sizes Included	COO	BrandName	Order No.	Regular Price	SALE
6	Ball End Hex	Long	1.5 mm, 2 mm, 2.5 mm, 3 mm, 4 mm, 5 mm	USA	Bondhus	KN5310946	14.20	9.95
7	Hex	Long	1.5 mm, 2 mm, 2.5 mm, 3 mm, 4 mm, 5 mm, 6 mm	USA	Eklind	KM5010607	16.45	12.68
7	Ball End Hex	Long	1.5 mm, 2 mm, 2.5 mm, 3 mm, 4 mm, 5 mm, 6 mm	USA	Eklind	KM5013607	21.66	17.18
9	Hex	Short	1.5 mm, 2 mm, 2.5 mm, 3 mm, 4 mm, 5 mm, 6 mm, 8 mm, 10 mm	USA	Eklind	KM5010509	21.28	16.41
9	Hex	Long	1.5 mm, 2 mm, 2.5 mm, 3 mm, 4 mm, 5 mm, 6 mm, 8 mm, 10 mm	USA	Eklind	KM5010609	26.64	20.54
9	Hex	Long	1.5 mm, 2 mm, 2.5 mm, 3 mm, 4 mm, 5 mm, 6 mm, 8 mm, 10 mm	USA	Bondhus	KN5312199	20.88	14.64
9	Ball End Hex	Long	1.5 mm, 2 mm, 2.5 mm, 3 mm, 4 mm, 5 mm, 6 mm, 8 mm, 10 mm	USA	Eklind	KM5013609	39.28	30.28
9	Hex	Balldriver	1.5 mm, 2 mm, 2.5 mm, 3 mm, 4 mm, 5 mm, 6 mm, 8 mm, 10 mm	USA	Proto	KP4227020	38.08	24.75
9	Ball End Hex	Long	1.5 mm, 2 mm, 2.5 mm, 3 mm, 4 mm, 5 mm, 6 mm, 8 mm, 10 mm	USA	Bondhus	KN5310999	31.16	21.84
9	Ball End Hex	L-key	1.5 mm, 2 mm, 2.5 mm, 3 mm, 4 mm, 5 mm, 6 mm, 8 mm, 10 mm	USA	Bondhus	KN5369699	58.15	40.76
9	Ball End Hex	Long	1.5 mm, 2 mm, 2.5 mm, 3 mm, 4 mm, 5 mm, 6 mm, 8 mm, 10 mm	Germany	Wiha	KN5466990	73.28	57.89
9	Double Ball	Long	1.5 mm, 2 mm, 2.5 mm, 3 mm, 4 mm, 5 mm, 6 mm, 8 mm, 10 mm	USA	Bondhus	KN5367099	47.53	33.32
15	Hex	Standard	.7 mm, .9 mm, 1.3 mm, 1.5 mm, 2 mm, 2.5 mm, 3 mm, 4 mm, 5 mm, 6 mm, 8 mm, 10 mm, 12 mm, 14 mm, 17 mm	USA	Proto	KP4227045	111.24	72.31
13	Ball End Hex	Long	1.3 mm, 1.5 mm, 2 mm, 2.5 mm, 3 mm, 4 mm, 5 mm, 6 mm, 8 mm, 10 mm, 12 mm, 14 mm, 17 mm	USA	Eklind	KM5013613	152.21	102.13

6526



Mill Files

Excellent for a wide range of applications such as sharpening, draw filing, lathe work and general shop use. Mill Files are single cut on the sides and edges, and taper towards the point in width

- Bastard file, a coarse file designed for fast removal of stock material
- 2nd cut file, a medium file designed for moderate stock removal
- Smooth file, a fine file designed for making an almost smooth surface



Bastard									
Bahco				Nicholson			Simonds		
Overall Length	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE
4"	KL3011430410	10.99	6.55	FR5008243	13.02	9.09	FT407314050	11.25	9.56
6"	KL3011430610	12.07	7.19	FR5008354	12.87	8.98	FT407314300	10.25	8.71
8"	KL3011430810	13.36	7.96	FR5008497	15.46	10.79	FT407314550	12.37	10.51
10"	KL3011431010	16.63	9.91	FR5008642	20.09	14.02	FT407314750	15.88	13.50
12"	-	-	-	FR5008737	32.76	22.87	FT407314950	25.75	21.89
14"	-	-	-	FR5008832	43.48	30.35	FT407315150	34.77	29.55

2-nd Cut															
		Bahco					Nicholson						Simonds		
Overall Length	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE						
6"	KL3011430620	15.99	9.53	FR5008385	18.37	12.82	FT407314350	14.88	12.65						
8"	KL3011430820	16.63	9.91	FR5008529	20.62	14.39	FT407314600	16.78	14.26						
10"	KL3011431020	21.63	12.89	FR5008673	26.35	18.39	FT407314800	21.36	18.16						
12"	KL3011431220	30.70	18.30	FR5008768	34.64	24.18	FT407315000	27.97	23.77						

Smooth									
Bahco				Nicholson			Simonds		
Overall Length	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE
4"	KL3011430430	16.28	9.70	FR5008306	19.26	13.44	FT407314150	15.59	13.25
6"	KL3011430630	16.86	10.05	FR5008416	19.81	13.83	FT407314400	15.88	13.50
8"	KL3011430830	19.56	11.66	FR5008560	23.31	16.27	FT407314650	18.58	15.79
10"	KL3011431030	23.42	13.96	FR5008704	27.51	19.20	FT407314850	22.77	19.35
12"	KL3011431230	34.71	20.69	FR5008799	38.72	27.03	FT407315050	30.86	26.23
14"	-	-	-	FR5008894	54.22	37.85	FT407315250	42.62	36.23

7661

PRM PRO 9 Pc. Maintenance File Set with Ergo Handles

- Set contains a complete file collection for the professional maintenance person
- Includes: 10" & 12" Mill Bastard, 8" & 10" Flat Bastard, 8" & 10" Half-Rnd Bastard, 10" Round Bastard, 6" Slim 2nd cut, & 6" xx Slim
- Sturdy pouch that protects and organize file placement
- PRM Pro files are made for industrial use



Order No.	Regular Price	SALE
PR0450009	207.94	141.40

28818



Split Head Hammers

Rawhide

- Will strike heavy, controlled blows without harm to materials or finishes
- The split head construction makes it especially easy to change faces. Just loosen nut under head.



Head Diameter	Head Weight	Order No.	Regular Price	SALE
1 1/4"	1.5 lbs	KY50R1	107.08	94.23
1 1/2"	2 lbs	KY50R2	114.49	100.75
1 3/4"	2.75 lbs	KY50R3	137.64	121.12
2"	4 lbs	KY50R4	157.23	138.36
2 3/4"	6.5 lbs	KY50R5	237.61	209.10

6630

HAND TOOLS

TEKTON Snap-on INDUSTRIAL BRANDS **WILLIAMS** **No-Mar®** **PRM PRO.**

Brass Hammers with Fiberglass Handle

- Brass safety hammers for non-sparking applications
- Fiberglass handle: Provides exceptional breaking resistance to overstrikes and are ergonomically designed to help prevent injury from repeated use
- Meets Government specifications
- Non-slip grips
- Lifetime warranty against mfg. defect



KY401004



KP30HSB15



SE64750F

			TEKTON			No-Mar			Williams			PRM Pro		
Head Weight	Head Diameter	Handle Length	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE
1/2 lbs	7/8"	11"	-	-	-	SE64750F	54.11	45.99	-	-	-	-	-	-
1 lbs	1"	12"	KP8530903	66.66	56.66	SE64751F	65.93	56.04	-	-	-	-	-	-
1-1/2 lbs	1-1/4"	13"	KP8530904	91.65	77.90	-	-	-	-	-	-	-	-	-
2 lbs	1 1/4"	13"	KP8530905	106.31	90.36	SE64752F	84.76	72.05	-	-	-	KY401002	122.42	85.69
2 1/2 lbs	1 1/4"	10"	-	-	-	-	-	-	KP30HSB26A	225.75	148.09	-	-	-
3 lbs	1 1/2"	13"	-	-	-	SE64753F	126.93	107.89	-	-	-	KY401003	149.27	104.49
4 lbs	1 3/4"	14"	-	-	-	SE64754F	136.68	116.18	KP30HSB38A	270.83	230.21	KY401004	179.87	125.91
5 lbs	1 3/4"	14"	-	-	-	SE64755F	171.37	154.23	-	-	-	KY401005	199.51	139.66
8 lbs	2 3/8"	32"	-	-	-	-	-	-	-	-	-	KY401008	298.00	208.60
10 lbs	2"	21"	-	-	-	SE647510F	373.54	317.51	-	-	-	KY401010	362.52	253.76

7877

wiha® Dead Blow Recoilless Hammers

- All steel rugged body
- Steel or wood handle
- Cushion grip handle on steel
- Replaceable press on tips
- Med hard poly urethane
- Recoilless rugged design
- Steel shot filled



Face Diameter	Head Length	Overall Length	Handle Material	Order No.	Regular Price	SALE
1"	4 1/4"	12 25/32"	Hickory	KN5480025	63.74	50.35
1 1/4"	4 1/2"	14"	Hickory	KN5480030	63.74	50.35
1 7/16"	4 5/8"	14 13/64"	Hickory	KN5480035	64.01	50.57
1 5/8"	5"	15"	Hickory	KN5480040	73.57	58.12
1 3/4"	5"	15 13/64"	Hickory	KN5480045	85.50	67.55
2"	5"	15 25/64"	Hickory	KN5480050	96.91	76.56
1"	4 1/4"	11.3"	Steel	KN5480225	73.57	58.12
1 1/4"	4 1/2"	11.4"	Steel	KN5480230	73.75	58.26
1 7/16"	4 5/8"	11.8"	Steel	KN5480235	77.38	61.13
1 5/8"	5"	12"	Steel	KN5480240	87.71	69.29
1 3/4"	5"	12.2"	Steel	KN5480245	97.83	77.29
2"	5"	14.4"	Steel	KN5480250	123.14	97.28
2 1/4"	6"	14.7"	Steel	KN5480260	157.77	124.64

7969

OLFA® SK-4 Safety Knife

- Features self-retracting blade, stainless steel blade channel, right or left-handed use
- Uses Olfa® SKB or RSKB replacement blades



Overall Length	Order No.	Regular Price	SALE
5 1/4"	FS6040062	23.93	19.38

6924

WILSON 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	KX504WR	32.78	27.99
5"	1 1/8"	1/4"	Yes	KX505WR	45.81	39.12
7"	1 1/2"	5/16"	Yes	KX507WR	47.07	40.20
7"	1 5/8"	5/16"	-	KX507CR	47.07	40.20
10"	1 7/8"	3/8"	Yes	KX5010WR	47.86	40.87
10"	1 7/8"	3/8"	-	KX5010CR	47.94	40.94

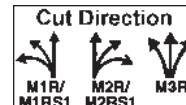
Straight						
Overall Length	Jaw Capacity	Jaw Thickness	Wire Cutter	Order No.	Regular Price	SALE
7"	1 5/16"	5/16"	No	KX507R	47.07	40.20
10"	1 3/4"	7/16"	No	KX5010R	47.86	40.87

6796

WISS Snips

Metalmaster® Compound Action Snips

- M1R cuts left from tight curves to straight, and has red vinyl grips
- M2R cuts right from tight curves to straight, and has green vinyl grips
- M3R cuts straight, and has yellow vinyl grips



Metalmaster® Special Series Snips

- Specially hardened for unusual industrial requirements
- Up to 18 Gauge capacity

Metalmaster Compound Action Snip					
Left/Right Hand	Blade Length	Overall Length	Order No.	Regular Price	SALE
Left	1 3/8"	9 3/4"	LA50M1R	43.02	33.86
Right	1 3/8"	9 3/4"	LA50M2R	43.02	33.86
Left/Right	1 1/2"	9 3/4"	LA50M3R	43.02	33.86

25565

CHANNEL LOCK Tongue & Groove Pliers

- Straight jaw
- Patented undercut tongue and groove design assures no slip jaw action
- Channellock Blue® comfort grips



Overall Length	Round Capacity	Order No.	Regular Price	SALE
4 1/2"	1/2"	LB50424	31.26	27.51
6 1/2"	7/8"	LB50426	27.01	23.77
9 1/2"	1 1/2"	LB50420	32.58	28.67
10"	2"	LB50430	33.90	29.83
12"	2 1/4"	LB50440	38.45	33.84
16 1/2"	4 1/4"	LB50460	66.32	58.36

22939

CHANNEL LOCK Wire Stripper Cutters

- Strips insulation fast with no damage to wire
- Cuts copper wire clean
- Blades are especially heat treated for long life
- Channellock Blue® comfort grips
- Non Insulated



Overall Length	Order No.	Regular Price	SALE
8 1/2"	LB50908	39.28	34.57
7"	LB50957	38.36	33.76
6"	LB50958	29.11	25.62

6566

IRWIN 10 Pc. Screw Extractor & Cobalt Drill Set

- Removes bolts & screws from 3/32 thru 5/8 and 2-5mm thru 16mm
- Comes with 5 left hand drill bits
- Sturdy metal case



Number of Pieces	Set Includes	Case Type	Order No.	Regular Price	SALE
10	Right Hand Cobalt Drills	Blister Pack	EW511117	90.94	77.30
10	Left Hand Cobalt Drills	Blister Pack	EW511119	241.42	205.21

6715

CRESCENT Spud Wrenches

- Heavy duty drop forged steel
- Chrome plated to resist corrosion
- Precision machined surfaces
- Tapered tang for aligning bolt holes or other matching parts
- Measurement scale on head conveniently shows fastener size

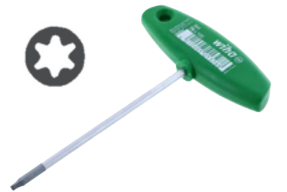


Overall Length	Jaw Capacity	BrandName	Order No.	Regular Price	SALE
10"	1 1/8"	Crescent	KW50AT10SPUD	74.30	54.76
15"	1 1/2"	Crescent	KW50AT115SPUD	123.84	91.27

7613

wiha PRM PRO Torx® T-Handle Drivers

- Handle molded on tool for maximum grip
- Exact fit tips
- High quality hardened steel
- Thru the handle side driver (KN70 gener-ic series only)



		Wiha			PRM Pro		
Torx Size	Blade Length	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE
T9	100 mm	KN5436409	10.47	8.27	-	-	-
T10	100 mm	KN5436410	10.71	8.46	KN7010010	9.93	7.94
T15	100 mm	KN5436415	12.63	9.98	KN7010015	10.53	8.42
T15	200 mm	KN5436417	12.85	10.15	-	-	-
T20	100 mm	KN5436420	14.31	11.30	KN7010020	10.53	8.42
T20	200 mm	KN5436422	14.31	11.30	-	-	-
T25	200 mm	KN5436427	15.06	11.90	KN7010025	11.63	9.30
T27	200 mm	KN5436432	17.16	13.56	-	-	-
T30	200 mm	KN5436437	17.05	13.47	-	-	-

8037

STANLEY Folding Utility Knife

- One-handed open/close
- Tool-free blade changes
- Aluminum design for durability and light weight
- Stainless-steel belt clip for convenience
- Accepts standard utility and hook blades



Overall Length	Blade Length	ManufacturerNo	Order No.	Regular Price	SALE
5 3/4"	2 7/16"	10-855	KP431950	35.10	28.64

7745

PLANT & SAFETY

TaskBrand P41 9"X12 White Premium Series Wipers

- Hydrospun is one of the most versatile nonwoven materials
- Durable, light duty
- Absorbent, excellent wipe dry
- Most economical for spray and wipe applications
- Resistant to many solvents
- Applications: lubricants, graphics and printing, patient hygiene, cleaning glass and mirrors, wiping hands, small spill cleanup, auto interior detailing



Description	Order No.	Regular Price	SALE
Interfold Dispenser Box	AD01NP041IDW2	14.59	10.13

40004

TaskBrand P70 12" x 12" White Premium Series Wipers

- Hydrospun is one of the most versatile nonwoven materials
- Durable, cloth-like feel
- Good alternative to rags and shop towels
- Heavy duty, low lint
- Highly absorbent, excellent wipe dry
- Resistant to many solvents
- Meets FDA 21 CFR 176.170 and 21 CFR 176.80 for use on food contact surfaces, including food processing surfaces, and in contact with food.
- Applications: surface prep, grease & oil, cleaning equipment & tools, solvent application, great alternative to shop towels



Description	Order No.	Regular Price	SALE
Jumbo Roll, Poly No Box	AD01NP070JPW	217.60	151.01

40007

TaskBrand P60 8.26" x 16.75" White Premium Series Wipers

- Hydrospun is one of the most versatile nonwoven materials
- Durable, cloth-like feel
- Medium duty, low lint
- Absorbent, excellent wipe dry
- Resistant to many solvents
- Meets FDA 21 CFR 176.170 and 21 CFR 176.80 for use on food contact surfaces, including food processing surfaces, and in contact with food.
- Applications: lubricants, glass & mirror cleaning, general hand wiping, cleaning parts & tools



Description	Order No.	Regular Price	SALE
Interfold Dispenser Box	AD01NP060IDW	29.16	20.24

40005

TaskBrand P50 9" x 13" White Premium Series Wipers

- Hydrospun is one of the most versatile nonwoven materials
- Durable, light duty, low lint
- Absorbent, excellent wipe dry
- Resistant to many solvents
- Meets FDA 21 CFR 176.170 and 21 CFR 176.80 for use on food contact surfaces, including food processing surfaces, and in contact with food.
- Applications: lubricants, graphics & printing, patient hygiene, cleaning glass & mirrors, wiping hands, small spill cleanup, auto interior detailing, spray & wipe



Description	Order No.	Regular Price	SALE
Jumbo Roll, Poly No Box	AD01NP050JPW	156.00	108.26

40008

TaskBrand P80 11" x 16.75" Blue Premium Series Wipers

- Hydrospun is one of the most versatile nonwoven materials
- Very durable, cloth-like feel
- Excellent alternative to shop towels
- Premium duty, low lint
- Absorbent, excellent wipe dry
- Resistant to most solvents
- Meets FDA 21 CFR 176.170 and 21 CFR 176.80 for use on food contact surfaces, including food processing surfaces, and in contact with food.
- Applications: rough surfaces & wiping/removing metal shavings, heavy grease & oil, cleaning equipment & tools, solvent application, great alternative to shop towels



Description	Order No.	Regular Price	SALE
Interfold TwinTote	AD01NP080ITB	97.59	67.73

40006

Touch Point® Scrubbing Wipes

- Dual textured wipe-textured side and a smooth side
- Extra large size (12"x10")
- Multi-purpose-use on hands, tools and surfaces
- Heavy duty to cut through dirt, grease, oil, tar, paint, caulk, adhesives, and more
- No water needed; contains no harsh chemicals
- Leaves hands feeling clean and refreshed



Description	Size	Order No.	Regular Price	SALE
White, Canister	12" x 10"	AD0136072	168.00	116.59

40009

MOLDEX Softies® Foam Earplugs

- Radiant orange color for easy compliance checks
- Tapered shape for easy insertion and removal



Display Quantity	Case Quantity	Order No.	Regular Price	SALE
200 Pairs	10 Boxes	MN296600	62.40	53.66
100 Pairs	20 Boxes	MN296650	64.58	55.54
40 Pairs	36 Canisters	MN296683	20.78	17.87
500 Pairs	4 Dispensers	MN296701	159.71	137.35
500 Pairs	4 Dispensers	MN296831	259.25	222.96
500 Pairs	4 Snap-in Refills	MN296702	147.21	126.60

40013

MOLDEX Pura-Fit Disposable Earplugs

- An Industry favorite
- Longer length for easy fitting and removal
- Extra soft foam for maximum comfort



Display Quantity	Case Quantity	Order No.	Regular Price	SALE
200 Pairs	10 Boxes	MN296800	78.01	67.09
100 Pairs	20 Boxes	MN296900	75.80	65.19
500 Pairs	4 Dispensers	MN296845	203.62	175.11
250 Pairs	6 Dispensers	MN296844	104.68	90.02
150 Pairs	4 Dispensers	MN296882	121.46	104.46
500 Pairs	4 Starter Packs	MN296705	198.65	170.84
500 Pairs	4 Starter Packs	MN296835	300.27	258.23
500 Pairs	4 Snap-in Refills	MN296706	189.03	162.57

40014

MOLDEX Glide Trio Twist-in Reusable Earplugs

- Unique multi-curved stem rotates for a custom fit
- Large handle on curved stem for easy insertion and removal
- Cord can be attached at any desired length



Display Quantity	Case Quantity	Order No.	Regular Price	SALE
50 Pairs	4 Boxes	MN296445	139.23	119.74

40015

MOLDEX Sparkplugs® Disposable Earplugs

- Extra-soft, low-pressure foam for comfort and fit
- Non-irritating smooth surface
- Metal detectable earplugs and cord for food processing applications

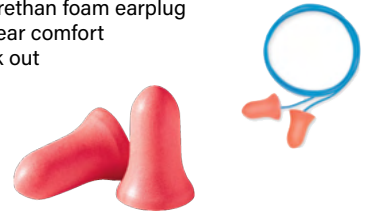


Display Quantity	Case Quantity	Order No.	Regular Price	SALE
49.07	39.75	ML1010100	68.70	59.08
50.20	40.65	MN296654	70.28	60.44
81.32	65.85	MN296615	113.85	97.91
15.84	12.85	MN296684	22.18	19.07
127.41	103.20	MN296645	178.37	153.40
66.25	53.65	MN296644	92.75	79.77
67.12	54.35	MN296605	93.97	80.81
80.85	65.50	MN296880	113.19	97.34
127.45	103.25	MN296881	178.43	153.45
124.30	100.70	MN296703	174.02	149.66
197.24	159.75	MN296833	276.14	237.48
117.43	95.10	MN296704	164.40	141.38

40002

Honeywell Max® Disposable Foam Earplugs

- The world's most used polyurethane foam earplug
- Bell shaped for maximum in ear comfort
- Improved design resists back out

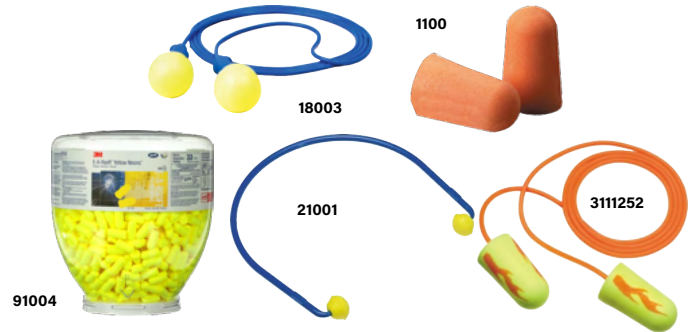


Noise Reduction Rating	Style	Standard Pack	Order No.	Regular Price	SALE
33 dB	Uncorded	200	LF50MAX1	0.45	0.37
33 dB	Corded	100	LF50MAX30	0.87	0.72

2710

3M Earplugs

- Soft foam seals the ear canal comfortably
- Fits wide range of ear canals
- Can be used with other hearing protection devices
- Disposable and reusable
- Technical Information: Class AL (CSA Z94.2-94), Grade 4 (CSA Z94.2-02)
- Test compatible with 3M™ E-A-Rfit™ Validation System



Noise Reduction Rating	Style	Standard Pack	Order No.	Regular Price	SALE
29 dB	Disposable / Foam	200	KB351100	0.25	0.22
33 dB	Disposable	200	KB3511033	0.46	0.42
29 dB	Disposable / Corded	100	KB351110	0.59	0.53
33 dB	Disposable Soft Foam	200	KB3512063	0.25	0.22
28 dB	Corded;Electrically Insulated;Not Moisture Resistant;Slow Recovery Foam	200	KB3518003	1.06	0.95
17 dB	Banded Hearing Caps	1	KB3521001	12.24	10.95
25 dB	Corded	100	KB3531115	2.21	2.00
33 dB	Corded	2000	KB35311252	0.67	0.60
29 dB	Corded	200	KB353121201	0.31	0.28
33 dB	Uncorded	2000	KB353121252	0.35	0.31
25 dB	UltraFit	200	KB353404002	3.67	3.28
25 dB	Reuseables	100	KB3540002	2.21	1.98
25 dB	Reusables	100	KB3540001	4.16	3.72
33 dB	Disposable / Foam	500	KB3591004	0.22	0.20
32 dB	Corded	120	KB3592952	1.55	1.39
29 dB	Corded	100	KB3593402	2.09	1.87

2392

PLANT & SAFETY

PT14 Blue Painters Tape with Bloc-It™ Clean Line Technology

- Prevents paint from seeping under the tape
- Superior paint lines
- Conformability and tear strength
- Indoor and outdoor 14 day clean removal
- Excellent cornering
- Resistant to UV rays up to 14 days
- Strong enough to hang plastic sheeting and masking paper
- Can be used on hardwood floors, lacquer and laminated surfaces



Width	Length	Order No.	Regular Price	SALE
1"	60 yard	LF52PT1436	16.78	13.42
2"	60 yard	LF52PT1438	33.71	26.97

2730

Expresswrap with Hand Rollers

- Lightweight rolls reduce the stress in applying the film
- Excellent puncture and tear resistance
- Aggressive cling
- 2 Sided cling
- Crystal clear, silent film application



Width	Length	Color	Standard Pack	Order No.	Regular Price	SALE
3"	1,000 feet	Clear	18 rolls	LF5230300	11.83	9.46
20"	1,000 feet	Clear	4 rolls	LF5232000	61.66	49.33

2726

Lens Cleaning

Towelettes

For plastic, glass and polycarbonate lenses

- Anti-fog, anti-static formula
- Perfect for safety goggles and glasses
- 100 Individually packaged towelettes

Lens Cleaning Station

- Includes 16oz. bottle, anti-fog/static cleaning solution and 1200 tissues
- Can be attached to a wall



KB54LCT100



KB54LCS20

Type	Order No.	Regular Price	SALE
Lens Cleaning Towelettes	KB54LCT100	19.74	12.83
Lens Cleaning Station	KB54LCS20	41.44	26.94

30901

PMXSLIM®

Slim Fit For Smaller Facial Features

- Dual injected temple design includes soft rubber tips for a non-slip fit
- Soft, adjustable nose piece generates a cushion for all day comfort
- Wrap-around, single lens design performs with an incredible 10-base curve*



Lens Color	Lens Coating	Frame Color	Order No.	Regular Price	SALE
Clear	Scratch Resistant	Clear	KB54SB7110S	7.41	4.82
Clear	Scratch Resistant & Anti-fog	Black Temples	KB54SB7110ST	9.03	5.87

* 99.9% UV Ray protection

2990

PRM PRO 12-Volt Cordless LED Work Light

- 8" 30-LED Light Head focuses light directly into work area
- 2-Position Switch (30-LED/10-LED) for longer battery life
- Up to 3 Hrs. (30-LED) or 5 Hrs. (10 LED) continuous operation before recharging
- LED bulbs never need replacing-each lasts over 100,000 hours
- Powerful nickel-metal Hydride batteries can be recharged over 500 times
- Stand-up Magnetic Base and back, Top Hook, and two Side Hooks make it easy to secure work light in any position in work area
- All-purpose work light is ideal for use in the garage, on construction sites, camp sites, and for roadside or household emergencies
- 25' Cord
- Flex head to direct light where needed
- **Contents:** 1 Pc. Work Light, 1 Pc. AC Charging Adapter, 1 Pc. DC Charging Adapter/Power Cord, 2 Pcs. Removable Hanging Hooks



Overall Length	Order No.	Regular Price	SALE
8"	KP8349812	64.89	47.37

2918

DURACELL PROCELL Alkaline Industrial Batteries

- Reliable long-lasting power for years
- Manufactured using superior cell design to ensure high-quality cell construction.
- Each battery comes with a 'quality guarantee'.
- Individually date-coded for effective inventory management.
- Procell Alkaline batteries have been designed in collaboration with manufacturers to work best in professional devices
- Operating in temperatures from -4°F to 129.2°F.
- Sold in min box carton qty only



Battery Size	Number of Batteries	ManufacturerNo	Order No.	Regular Price	SALE
AAA	24	4133353648	DU0310000	1.19	0.87
AA	24	4133352148	DU0310050	1.19	0.87
9V	12	4133352748	DU0310200	5.12	3.74
C	12	4133311440	DU0310070	2.88	2.10
D	12	4133311340	DU0310090	3.43	2.50

PRICED PER EACH BATTERY

28639

ProTac® 2 AA Flashlight

- **Bulb:** C4® LED
- **Run time:** High - 2 hrs, 155 lumens, 3,300 candela peak beam intensity Low - 36 hrs 11 lumens, 200 candela peak beam intensity
- **Strobe** - 4 hrs
- **Body:** Durable, anodized aluminum construction with impact resistant tempered glass lens
- **Size:** 6.14"
- **Battery:** 2 AA alkaline (included)
- **Features:** Ten-Tap® programming: three selectable programs high/strobe/low; high only; low/high, IPX7 waterproof to 1 meter for 30 minutes, 2 meter impact resistance, nylon holster included



Order No.	Regular Price	SALE
KA5788033	142.70	117.01

3155

Energizer Energizer Max® Coin/Cell



Manufacturer No	Battery Size	Number of Batteries	Order No.	Regular Price	SALE
357BPZ-3	1.5V	3	KA56357BP3	2.97	2.38
A76BZ	1.5V	1	KA56A76BP	2.20	1.83
ECR2016BP	3V	1	KA56ECR2016BP	3.29	2.73
ECR2025BP	3V	1	KA56ECR2025BP	3.89	3.23
EC12450BP	3V	1	KA56ECR2450BP	5.36	4.45
EL1CR2BP	3V	1	KA56EL1CR2BP	13.99	11.61

2593

STREAMLIGHT MicroStream® Flashlight

- Bulb:** C4 LED Technology
- Run time:** 2 hrs. 15 min.
- Lumens:** 28 Lumens
- Body:** Type II MIL-SPEC aircraft aluminum
- Battery:** 1 AAA (included)
- Size:** 3.5" Long
- Features:** Tailcap switch for momentary on/off. O-ring sealed, shock proof and drop-tested construction. Water resistant per IPX4; in accordance with specification EN 60529:1992. High Strength "Break Away" safety lanyard. Unbreakable pocket / hat clip



Order No.	Regular Price	SALE
KA5766318	60.01	49.21

3152

STREAMLIGHT Stylus® LED Penlights

- Style, convenience and a 100,000-hour bulb
- Bulb:** high intensity 5mm LED, 11 lumens
- Run time:** max. up to 60 hours of continuous use
- Body:** anodized machined aluminum housing
- Battery:** 3-AAAA (included)
- Size:** 6-1/4"
- Features:** non-slip grip, waterproof, individually serialized, pocket clip, and glare guard protector



LED Color	Order No.	Regular Price	SALE
White	KA5765018	49.99	40.99
Blue	KA5765022	49.99	40.99

25101

MCR 16010 Heavy Duty Side Split

- Full feature gunn
- 2" Safety cuff
- Heavy side split cow leather
- Rich chrome tanned for durability
- Sewn with DuPont™ KEVLAR®
- Protective rubberized cuff
- 100% Cotton palm lined



Size	Order No.	Regular Price	SALE
Medium	KB5116010M	17.49	13.48
Large	KB5116010L	17.49	13.48
X-Large	KB5116010XL	17.49	13.48

2814

MCR 9178NFO Memphis® Orange Kevlar

- Patent-protected, high visibility orange DuPont™ Kevlar® engineered yarn
- High Visibility orange enhances safety awareness
- Light weight seamless shell provides dexterity and comfort
- Orange nitrile foam coating allows for tacky grip and sense of touch
- Touch screen friendly



Size	Order No.	Regular Price	SALE
Medium	KB519178NFOM	33.26	25.64
Large	KB519178NFOL	33.26	25.64
X-Large	KB519178NFOXL	33.26	25.64

2831

MCR Nitrishield® 6015 Disposable Nitrile

- Chlorinated
- Textured finish for better grip
- Latex free
- Resistance to a wide variety of chemicals
- 4 Mil Thickness**
- 6015 Powder free nitrile
- 100 Gloves per box
- 10 Boxes per case



Powder Free, 4 mil			
Size	Order No.	Regular Price	SALE
Medium	KB516015M	16.97	13.08
Large	KB516015L	16.97	13.08
X-Large	KB516015XL	16.97	13.08

2865

WESTCHESTER 715SNFTP Nitrile Micro Foam

- 15 Gauge lightweight nylon shell
- Black foam nitrile coating
- Micro capillaries channel oil from glove surface
- Excellent abrasion with superior gripping ability
- Anti bacterial, silicone free



Size	Order No.	Regular Price	SALE
Medium	KP8872020	5.96	4.35
Large	KP8872025	5.96	4.35
X-Large	KP8872030	5.96	4.35
2X-Large	KP8872035	5.96	4.35

3274

LTD MAXIFLEX® CUT™ Seamless Knit Nitrile Gloves

- Form Fit and Feel 360° breathability
- Premium Black Micro-Foam Nitrile coated palm
- Green Engineered Yarn Shell
- Reinforced Thumb Crotch
- ANSI Cut Level 2, EN Cut Level 3
- Sold by the dozen priced by the pair



Size	Color	CE Cut Rating	Order No.	Regular Price	SALE
Small	Green	A2	PP10222205	18.52	13.89
Medium	Green	A2	PP10222200	18.52	13.89
Large	Green	A2	PP10222195	18.52	13.89
X-Large	Green	A2	PP10222210	18.52	13.89
2X-Large	Green	A2	PP10222220	18.52	13.89

28642

PLANT & SAFETY

PRM^{PRO} Acti-Seal Disposable Nitrile

- Ambidextrous design fits right or left hand
- Loose fit around wrist for comfort
- Textured finish for wet or dry conditions
- 4 Mil blue industrial grade - 100 per box
- 5 Mil black industrial grade - 100 per box
- 8 Mil blue medical grade - 50 per box
- Made from materials that comply with FDA regulations



	4 mil, Blue, Powder Free				4 mil, Blue, Powdered				5 mil, Black, Powder Free				8 mil, Blue, Powder Free			
Size	Order No.	Regular Price	SALE		Order No.	Regular Price	SALE		Order No.	Regular Price	SALE		Order No.	Regular Price	SALE	
Small	KB389021S	15.30	9.95		-	-	-		KB389012S	19.22	12.49		-	-	-	
Medium	KB389026M	22.18	14.42		-	-	-		KB389012M	19.22	12.49		KB389008M	27.90	18.14	
Large	KB389031L	22.18	14.42		KB389011L	43.99	28.59		KB389012L	19.22	12.49		KB389008L	22.96	14.92	
X-Large	KB389036XL	22.18	14.42		-	-	-		KB389012XL	19.22	12.49		KB389008XL	28.84	18.75	
2X-Large	KB389011XXL	19.38	12.60		-	-	-		KB389012XXL	19.52	12.69		-	-	-	

2936

PRM^{PRO} Economy Workmen's

- Gray split cowhide leather palm glove with canvas back
- Clute pattern and knit cuff
- Fleece palm lining
- Color: gray



Size	Order No.	Regular Price	SALE
Large	KB38250L	5.39	3.50

2938

AERO⁺ Surefill™ 4 Shelf Metal Cabinet 150 Series Class B (w/ Meds)

Surefill™ First Aid 150 Series 4-Shelf Cabinet is stocked with a large variety of quality first aid products catering to all common workplace injuries for medium American workplaces. Featuring clearly labeled packs for injuries to minimize treatment time and filled with the highest quality first aid items, including the SUPABOND™ adhesive 'world's stickiest bandage'.



SUPA-BOND

AERO⁺ AeroWash™ Eyewash Bottle 16oz

Sterile Buffered AeroWash™ Eyewash removes loose foreign material, air pollutants or chlorinated water. Helps to relieve irritation, discomfort, burning, stinging and itching.



Model No.	Description	Order No.	Regular Price	SALE
AW16OZUS	AEROWASH™ Eye-wash 16oz Refill Bottle	AH01AW16OZUS	18.52	14.26

40010

AERO⁺ Surefill™ ALL PURPOSE 10 Series First Aid Kit - Weatherproof Plastic Case

Surefill™ 10 Series All Purpose Weatherproof First Aid Kit contains 72 essential first aid supplies for treating minor wounds and injuries. Ideal for home, travel and on the go use. These durable cases ensure contents are protected from the day to day exposure to dust and damage.



Model No.	Description	Order No.	Regular Price	SALE
AK10W	SUREFILL™ 10 Series First Aid Kit - Weatherproof Plastic Case	AH01AK10W	35.42	27.27

40003

AERO⁺ Surefill™ 3 Shelf Food Metal Cabinet 100 Series Class A (w/ Meds)

Surefill™ First Aid 100 Series 3-Shelf Food Cabinet is stocked with a large variety of quality first aid products catering to all common workplace injuries for medium American workplaces. Featuring clearly labeled packs for injuries to minimize treatment time and filled with the highest quality first aid items, including the SUPABOND™ adhesive 'world's stickiest bandage' — this kit is what every workplace has been waiting for!



SUPA-BOND

Model No.	Description	Order No.	Regular Price	SALE
SF100AMT	SUREFILL™ 3 Shelf Metal Cabinet 100 Series ANSI 2021 A - Meds	AH01SF100AMT	369.33	284.38

40012

TORK Advanced Intuition / Matic Towel Rolls

- Developed for easy maintenance in high traffic washrooms
- This towel saves time and controls consumption by one-at-a-time sheet dispensing
- Embossing enhances hand feel and maximum absorbency, allowing fewer towels used per hand dry
- Provides 884 towels/roll for the Tork Matic, 1,050 towels/roll with Intuition 8" setting to meet high capacity needs
- Single ply
- Dispenser part # **LM485510282** or **LM485511281**



Color	Sheet Size	Order No.	Regular Price	SALE
Natural	7.8" x 9" x 7.7"	LM48290088	116.97	99.42
White	7.8" x 9" x 7.7"	LM48290089	139.47	118.55

3195

MEDI FIRST 120 Pc. Multi-Purpose First Aid Kit

Packed in a sturdy polypropylene carrying case with convenient carry handle. Organized tray keeps contents neat and organized.

- (20) 3/8" x 1-1/2" Plastic bandages
- (1) 2" x 4.1yd Gauze roll
- (30) 1" x 3" Plastic bandages
- (4) Vinyl latex-free gloves
- (1) 0.5" x 5 yd Tape
- (1) Instant cold pack
- (1) Triangular bandage with 2 pins
- (5) 1gm Burn cream ointment
- (2) 5 Pack 3" cotton tips
- (6) 0.9gm Antibiotic ointment
- (2) Finger splints
- (12) Alcohol prep pads
- (1) First Aid Guide - Bilingual
- (3) Sting relief prep pads
- (4) 2" x 2" Sterile gauze pads
- (12) Antiseptic prep pads
- (4) 4" x 4" Sterile gauze pads
- (1) 4.5" Pointed scissors
- (1) 5" x 9" Sterile trauma pad
- (1) Slant edge 3" metal tweezers



Order No.	Regular Price	SALE
KB7840120	52.32	42.38

2807

MEDI FIRST Tapes & Bandages

- For cuts & wounds



ProductName	Quantity	Length	Width	Order No.	Regular Price	SALE
Flexible Bandage	50	3"	7/8"	KB7861450	8.90	7.21
Strip Bandages	100	3"	1"	KB7860033	7.73	6.26
Tri-Cut Adhesive Tape	1	5 yard	3/8"[5/8"]1"	KB7861101	9.49	7.69
Fingertip Bandage	40	-	-	KB7861578	10.40	8.42
Knuckle Bandage	40	-	-	KB7861678	9.62	7.79
Triangle Bandage, Non-Sterile	1	56"	40"	KB7865001	1.72	1.39

28800

Wrist, Elbow, and Knee Supports

ProFlex® 300 Round Cap Knee Pads

- Rounded cap allows for swiveling and pivoting
- 840D nylon fabric
- Wicked™ treated
- 1/2" EVA padding
- Woven elastic straps
- Velcro or buckle closure



Wrist Support

Knee Pads

ProFlex® 500 Elbow Support

- Durable construction for tough environments
- Provides wide base of support
- Effective relief from pain and discomfort

ProFlex® 4000 Wrist Support

- Fully-adjustable for an exact fit
- Patented open-center stay™ reduces pressure on the median nerve
- Anti microbial interior fabric
- Sold individually; specify left or right



Elbow Support

Empire® Caution Tape

- CAUTION printed in black on yellow tape
- Non-pressure sensitive
- Durable 3 Mil plastic
- Yellow tape and Black Lettering



Width	Length	Order No.	Regular Price	SALE
3"	200 feet	LF52770201	8.36	7.52
3"	1,000 feet	LF52771001	19.70	17.71

2519

Knee Pads				
Size	Hand	Order No.	Regular Price	SALE
One Size	-	LF65300B	45.50	36.40
One Size	-	LF65300V	43.05	34.44

Wrist Support				
Size	Hand	Order No.	Regular Price	SALE
Large	Left	LF654000LL	25.16	20.13
Medium	Left	LF654000LM	25.16	20.13
Large	Right	LF654000RL	25.16	20.13
Medium	Right	LF654000RM	25.16	20.13

Elbow Support				
Size	Hand	Order No.	Regular Price	SALE
Large	-	LF65500L	21.27	17.02
Medium	-	LF65500M	21.27	17.02
X-Large	-	LF65500XL	21.27	17.02

23185

PLANT & SAFETY

MAG-MATE PowerLift® Rare Earth Lift Magnets

For Lifting Thick Non-Flexing Steel Items

- Lightweight On/Off Rare Earth Design
- Easy release, no moving parts contact the load
- Heat resistant up to 180°F (82°C)
- 3:1 Design Factor
- Conforms to ASME B30.20 Standards
- Lifts flat or round loads
- RFID Enabled
- Handle locks in both "On" or "Off" position
- †Maximum sheet length for specified material thicknesses are selected due to the sag characteristics of the specified length
- Hazard Code: 05



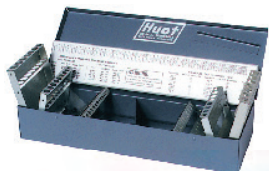
Rare Earth Lift Magnet						
Load Capacity	Magnet Length	Magnet Width	Weight	Order No.	Regular Price	SALE
250 lbs Sheet / 125 lbs Round	3 5/8"	2 1/2"	6.7	NE700250	502.70	412.21
800 lbs Sheet / 400 lbs Round	6 3/8"	3 5/8"	21.75	NE700800	1154.58	946.76
1,600 lbs Sheet / 800 lbs Round	9 1/16"	4 7/8"	52.05	NE701600	1908.45	1564.93
2,500 lbs Sheet / 1,250 lbs Round	10 5/8"	7 1/8"	132	NE702500	3705.35	3038.39

Handle for Model 1600		
Order No.	Regular Price	SALE
NE701600HDL	237.17	194.48

1360

Huot 3-in-1 Combination Drill Indexes

- Ideal for keeping all the most commonly used drills handy
- Indexed for size and decimal equivalents
- Inch and metric



Description	Holds	Order No.	Regular Price	SALE
Holds 115 Jobber Drills	Letter A - Z, 1/16"-1/2" x 64ths, #1-60	AP53115	88.97	62.28
Holds 115 Screw Machine Drills	Letter A - Z, 1/16"-1/2" x 64ths, #1-60	AP5311550	111.22	77.85
Holds 118 Metric Jobber Drills	1-13 mm	AP53118	300.72	210.50
Holds 134 Jobber Drills	1/16"-1/2" x 64ths, #1-80, 1.0 mm-13.0 mm x 0.5 mm	AP53134	101.95	71.37
Holds 135 Jobber Drills	Letter A - Z, 1/16"-1/2" x 64ths, #1-80	AP53135	101.95	71.37

5358



Metal Detectable Cable Ties

- Specifically designed for use in the food, beverage, and pharmaceutical processing industries
- Manufactured with metal impregnated material that allows for identification by metal detectors, x-ray inspections, and magnets
- Teal color per common industry practices for easy visual detection



Bundle Diameter	Overall Length	Width	Color	PricePer	Order No.	Regular Price	SALE
3"	11.1000"	0.1800"	Teal	100	KL651150DTN100	64.40	45.08
4"	15.0000"	0.2980"	Teal	100	KL6514120DTN100	147.00	102.90
4"	14.5000"	0.1800"	Teal	100	KL651450DTN100	0.83	0.58
.75"	4.1000"	0.0960"	Teal	100	KL65418DTN100	8.40	5.88

989

PRM PRO Shop Stool with Cushion Seat

- Vinyl black padded seat swivels 360°
- Chrome plated legs
- Seat diameter 13.7"
- Great for shop, warehouse, office, etc.
- Limited lifetime warranty against manufacturer defects
- Ships UPS



Height	Order No.	Regular Price	SALE
29"	RZ456000	98.00	78.40

5481

PRM PRO Mechanics Shop Stool Seat

- 14" Seat adjusts from 15-3/4" to 20"
- Cushion seat swivels 360°
- 2-1/2" diameter nonmarring nylon casters
- 300 lb maximum seat capacity
- Limited lifetime warranty
- Ships UPS



Order No.	Regular Price	SALE
RZ453000	103.60	80.81

5480

PRM PRO 9/16" Diamond Comfort Mats

- Industrial grade anti-fatigue mat
- Economical solution for improving workers' comfort and productivity
- Surface resists common fluids
- Manufacturer's 4 year limited warranty against wear and delamination
- Beveled edges on all mats



		Black/Yellow			Black		
Length	Width	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE
3 feet	2 feet	RV6610205	78.06	60.89	RV6610200	65.59	51.16
5 feet	3 feet	RV6610235	298.16	232.56	RV6610230	163.93	127.87
10 feet	3 feet	RV6610225	390.26	304.40	RV6610220	327.87	255.74
75 feet	2 feet	RV6610215	1950.16	1521.12	RV6610210	1638.34	1277.91
75 feet	3 feet	RV6610245	2925.24	2281.69	RV6610240	2457.50	1916.85
75 feet	4 feet	RV6610255	3900.33	3042.26	RV6610250	3276.67	2555.80

2927

STANLEY 2 Pk. 2 Way Adjustable Saw Horse

- Holds 1000 lbs. capacity per pair
- 2 ways adjustable, folding saw horse
- Smooth slide mechanism for width adjustment
- Anti-slip rubber on feet and top for safety
- Innovative ergonomic mechanism for height adjustment



Height	Width	Overall Length	Model No.	Order No.	Regular Price	SALE
31"	27/8"	28 1/8"	STST60626	KP438112	277.76	222.21

5545

Master Lock Steel Lockout Hasps

421 & 420

- Lockout by multiple workers at each lockout point
- Keeps equipment inoperative while repairs or adjustments are being made
- Control cannot be turned on until last worker's safety padlock is removed from hasp
- Heavy gauge steel jaw with red vinyl coated handle



427

- Red lockout hasp with tagout identification for multiple workers
- Features an easy-to-apply 'snap-on' advantage with its spring-loaded locking arm
- Fits more lockout points than alternative rivet-hinge labeled lockout hasps
- Anodized aluminum and stainless steel construction for combined corrosion-resistance and strength
- Complete with high visibility, write-on safety labels (English, French & Spanish)

Length	Width	Order No.	Regular Price	SALE
4 1/2"	1 3/4"	KP90420	11.06	9.95
5"	2 3/8"	KP90421	12.93	11.64
7"	3"	KP90427	37.30	33.57

28805

Master Lock Pro Series® All Weather

High Visibility Aluminum

- Safeguard lives and satisfy OSHA, Master Lock® high visibility aluminum padlocks provide safety color recognition plus high security
- Exclusive cover protects lock from water, ice, dirt and grime
- Heavy steel bodies withstand forcible attacks
- Hardened steel alloy shackles provide superior cut resistance
- Greatest key security available
- 5-Pin tumbler Pro Series cylinders provide tens of thousands of key changes
- Special spool pin tumblers are virtually impossible to pick
- Proprietary and chrome rustproofing provides longer life
- Rekeyable - replaceable cylinder and shackle



			Alike			Different		
Body Width	Shackle Diameter	Shackle Clearance	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE
2 1/4"	5/16"	1 1/8"	KP906121KA	47.97	43.17	KP906121	46.51	41.86
2 3/8"	3/8"	1 3/8"	KP906125KA	54.47	49.02	KP906125	53.00	47.70
2 5/8"	7/16"	1 3/8"	KP906127KA	60.22	54.20	KP906127	58.75	52.88

2803

MEASURING TOOLS

ACU-RITE® Precision Glass Scales

SENC 150 PRECISION GLASS SCALES:

- The SENC 150 precision glass scale, designed to satisfy a wide range of application needs, incorporates the latest innovation in roller bearing technology for reduced backlash and greater scale travel life
- It also features a highly integrated scanning sensor that provides superior contamination resistance
- Scales 65" and over include Backup Spars
- Scales over 42" may require Extension Cables
- Note total overall scale length equals measuring length plus 6.375" (161.9mm). Actual Travel is 1-3/4" Longer than the Measuring Length. Except the 32" scale which has a total travel of only 31.125"

Features:

- Resolutions of .00005" (1µm) and .0002" (5µm)
- Travel lengths from 2" - 120"
- Reader Head and Armor Cable
- Vinyl cable available
- Flexible mounting features
- Position-Trac™ Home Reference System
- 2 Year Warranty



Maximum Measuring Range	Scale Length	0.00005"			0.0002"		
		Order No.	Regular Price	SALE	Order No.	Regular Price	SALE
5.75"	10.375"	-	-	-	MS3155811504	840	768.60
7.75"	12.375"	MS3155811106	1260	1152.90	MS3155811506	840	768.60
9.75"	14.375"	MS3155811108	1260	1152.90	MS3155811508	840	768.60
11.75"	16.375"	MS3155811110	1260	1152.90	MS3155811510	840	768.60
13.75"	18.375"	MS3155811112	1260	1152.90	MS3155811512	840	768.60
14.75"	19.375"	MS3155811113	1260	1152.90	MS3155811513	840	768.60
15.75"	20.375"	MS3155811114	1260	1152.90	MS3155811514	840	768.60
17.75"	22.375"	MS3155811116	1260	1152.90	MS3155811516	840	768.60
19.75"	24.375"	MS3155811118	1428	1306.62	MS3155811518	1008	922.32
21.75"	26.375"	MS3155811120	1540	1409.10	MS3155811520	1008	922.32
25.75"	30.375"	MS3155811124	1792	1639.68	MS3155811524	1092	999.18
27.75"	32.375"	MS3155811126	1792	1639.68	MS3155811526	1092	999.18
29.75"	34.375"	MS3155811128	1792	1639.68	MS3155811528	1092	999.18
31.75"	36.375"	MS3155811130	1792	1639.68	MS3155811530	1204	1101.66
33.25"	37.875"	MS31558111315	1763.9	1375.84	MS31558115315	1204	1101.66
33.75"	38.375"	MS3155811132	1792	1639.68	MS3155811532	1204	1101.66
36.75"	41.375"	MS3155811135	2268	2075.22	MS3155811535	1344	1229.76
37.75"	42.375"	MS3155811136	2268	2075.22	MS3155811536	1344	1229.76
39.75"	44.375"	MS3155811138	2352	2152.08	MS3155811538	1344	1229.76
41.75"	46.375"	MS3155811140	2492	2280.18	MS3155811540	1764	1614.06
43.75"	48.375"	MS3155811142	2744	2510.76	MS3155811542	1764	1614.06
49.75"	54.375"	MS3155812148	3080	2818.20	MS3155812548	2044	1870.26
53.75"	58.375"	MS3155812152	3164	2895.06	MS3155812552	2184	1998.36
55.75"	60.375"	MS3155812154	3220	2946.30	MS3155812554	2184	1998.36
61.75"	66.375"	MS3155812160	3584	3279.36	MS3155812560	2464	2254.56
66.75"	71.375"	MS3155812165	4312	3945.48	MS3155812565	2604	2382.66
73.75"	78.375"	MS3155812172	4844	4432.26	MS3155812572	3304	3023.16
79.75"	84.375"	MS3155812178	5208	4765.32	MS3155812578	3304	3023.16
85.75"	90.375"	MS3155812184	5628	5149.62	-	-	-
91.75"	96.375"	MS3155812190	6020	5508.30	MS3155812590	3864	3535.56
92.75"	97.375"	MS3155812191	6804	6225.66	MS3155812591	4424	4047.96
93.75"	98.375"	MS3155812192	7532	6891.78	MS3155812592	4844	4432.26

5656

ACU-RITE® DRO102, DR203, DR303 Grinding, Milling, Turning Readout Boxes



Display Type - 100			
Machine Compatibility	Order No.	Regular Price	SALE
Grinding Applications	HC01119725201	1155	1056.83
Milling, Turning, Grinding Applications	HC01119725202	1295	1184.93
Milling, Turning, Grinding Applications	HC01119725203	1435	1313.03
Display Type - 203			
Machine Compatibility	Order No.	Regular Price	SALE
Milling, Turning, Grinding Applications	HC02119725001	1575	1441.13
Display Type - 300			
Machine Compatibility	Order No.	Regular Price	SALE
Milling, Turning, Grinding Applications	HC02119725101	2135	1953.53
Milling, Turning, Grinding Applications	HC02119725102	2275	2081.63

5649



Flexible & Wide Rigid Rules

- Made of the finest quality steel
- Hardened and tempered
- Satin chrome finish



Type - Flexible Rule					
Length	Graduation Type	Width	Order No.	Regular Price	SALE
6"	16R	1/2"	MZ80006161	21.76	18.50
6"	English / Metric	1/2"	MZ80006261	21.76	18.50
6"	3R	1/2"	MZ80006301	21.76	18.50
6"	4R	1/2"	MZ80006401	21.76	18.50
6"	5R	1/2"	MZ80006501	21.76	18.50
6"	Decimal / Metric	1/2"	MZ80006561	21.76	18.50
12"	16R	1/2"	MZ80012161	42.22	35.89
12"	English / Metric	1/2"	MZ80012261	42.22	35.89
12"	3R	1/2"	MZ80012301	42.22	35.89
12"	4R	1/2"	MZ80012401	42.22	35.89
12"	5R	1/2"	MZ80012501	42.22	35.89
12"	Decimal / Metric	1/2"	MZ80012561	42.22	35.89
18"	16R	3/4"	MZ80018161	63.42	53.91
18"	English / Metric	3/4"	MZ80018261	63.42	53.91
18"	3R	3/4"	MZ80018301	63.42	53.91
18"	4R	3/4"	MZ80018401	63.42	53.91
18"	5R	3/4"	MZ80018501	63.42	53.91
18"	Decimal / Metric	3/4"	MZ80018561	63.42	53.91
24"	16R	3/4"	MZ80024161	96.31	81.86
24"	English / Metric	3/4"	MZ80024261	96.31	81.86
24"	3R	3/4"	MZ80024301	96.31	81.86
24"	4R	3/4"	MZ80024401	96.31	81.86
24"	5R	3/4"	MZ80024501	96.31	81.86
24"	Decimal / Metric	3/4"	MZ80024561	96.31	81.86
6"	Metric	1/2"	MZ80150751	21.76	18.50
12"	Metric	1/2"	MZ80300751	42.22	35.89
18"	Metric	3/4"	MZ80450751	63.42	53.91
24"	Metric	3/4"	MZ80600751	96.31	81.86

Type - Rigid Steel Rule					
Length	Graduation Type	Width	Order No.	Regular Price	SALE
6"	16R	3/4"	MZ80006162	22.95	19.51
6"	English / Metric	3/4"	MZ80006262	22.95	19.51
6"	3R	3/4"	MZ80006302	22.95	19.51
6"	4R	3/4"	MZ80006402	22.95	19.51
6"	5R	3/4"	MZ80006502	22.95	19.51
6"	Decimal / Metric	3/4"	MZ80006562	22.95	19.51
12"	16R	1"	MZ80012162	46.49	39.52
12"	English / Metric	1"	MZ80012262	46.49	39.52
12"	3R	1"	MZ80012302	46.49	39.52
12"	4R	1"	MZ80012402	46.49	39.52
12"	5R	1"	MZ80012502	46.49	39.52
12"	Decimal / Metric	1"	MZ80012562	46.49	39.52
18"	16R	1.125"	MZ80018162	72.24	61.40
18"	English / Metric	1.125"	MZ80018262	72.24	61.40
18"	3R	1.125"	MZ80018302	72.24	61.40
18"	4R	1.125"	MZ80018402	72.24	61.40
18"	5R	1.125"	MZ80018502	72.24	61.40
18"	Decimal / Metric	1.125"	MZ80018562	72.24	61.40
24"	16R	1.125"	MZ80024162	99.19	84.31
24"	English / Metric	1.125"	MZ80024262	99.19	84.31
24"	3R	1.125"	MZ80024302	99.19	84.31
24"	4R	1.125"	MZ80024402	99.19	84.31
24"	5R	1.125"	MZ80024502	99.19	84.31
24"	Decimal / Metric	1.125"	MZ80024562	99.19	84.31
6"	Metric	3/4"	MZ80150752	22.95	19.51

Type - Rigid Rule					
Length	Graduation Type	Width	Order No.	Regular Price	SALE
12"	Metric	1"	MZ80300752	46.49	39.52
18"	Metric	1.125"	MZ80450752	72.24	61.40
24"	Metric	1.125"	MZ80600752	99.19	84.31

4314



Extra Long Steel Scales



Length	Graduation Type	Width	Thickness	Order No.	Regular Price	SALE
36"	4R	1.25"	0.040"	MZ80300032	226.46	203.81
36"	5R	1.25"	0.040"	MZ80300034	226.46	203.81
36"	16R	1.25"	0.040"	MZ80300036	226.46	192.49
48"	4R	1.25"	0.040"	MZ80300038	409.93	368.94
48"	5R	1.25"	0.040"	MZ80300040	409.93	368.94
48"	16R	1.25"	0.040"	MZ80300042	409.93	368.94

4312

E-Z Read Flexible Scale					
Length	Graduation Type	Width	Order No.	Regular Price	SALE
12"	16R	1/2"	NB35EZ1216F	34.62	29.43
12"	4R	1/2"	NB35EZ124F	34.62	29.43
12"	5R	1/2"	NB35EZ125F	34.62	29.43
12"	English / Metric	1/2"	NB35EZ12EMF	34.62	29.43
18"	16R	3/4"	NB35EZ1816F	77.84	66.16
18"	4R	3/4"	NB35EZ184F	77.84	66.16
18"	5R	3/4"	NB35EZ185F	77.84	66.16
24"	16R	3/4"	NB35EZ2416F	94.81	80.59
24"	4R	3/4"	NB35EZ244F	94.81	80.59
24"	5R	3/4"	NB35EZ245F	94.81	80.59
6"	16R	1/2"	NB35EZ616F	18.32	14.66
6"	3R	1/2"	NB35EZ63F	18.32	14.66
6"	4R	1/2"	NB35EZ64F	18.32	14.66
6"	5R	1/2"	NB35EZ65F	18.32	14.66
6"	English / Metric	1/2"	NB35EZ6EMF	18.32	14.66

4327



Tapered Bore Gages

Tapered Bore Gages

- 1 to 15mm Range
- Handy gage for measuring cylindrical bores, bearing work and for gaging slots
- Made from matte finished stainless steel
- Clearly etched graduations for precise measurement



Tapered Bore Gage With Rule

- Stainless steel
- Fully heat treated with photo-graphically etched graduations
- 1-15mm Tapered gage with 130mm rule



BrandName	Order No.	Regular Price	SALE
Procheck	NE60MGB0359	12.95	9.60
Shinwa	MZ75700A	29.13	22.14
Shinwa	MZ75700S	35.98	27.34

4335

MEASURING TOOLS



Double End Thread Plug Gages With handle & Short Form Certification - Metric

Gage Class: 6H



Thread Size	Pitch	Order No.	Regular Price	SALE
M1.6	.35"	EY52163506H	220.15	203.64
M2	.4"	EY52204006H	220.15	203.64
M2.5	.45"	EY52254506H	203.35	188.10
M3	.5"	EY52305006H	201.6	186.48
M3.5	.6"	EY52356006H	184.8	170.94
M4	.7"	EY52407006H	184.8	170.94
M4.5	.75"	EY52457006H	184.8	170.94
M5	.8"	EY52508006H	184.8	170.94
M6	1"	EY52601006H	145.6	134.68
M7	1"	EY52701006H	145.6	134.68
M8	1"	EY52801006H	145.6	134.68
M8	1.25"	EY52801256H	145.6	134.68
M10	1.25"	EY52101256H	165.2	152.81
M10	1.5"	EY52101506H	165.2	152.81
M12	1.25"	EY52121256H	170.8	157.99
M12	1.75"	EY52121756H	170.8	157.99
M14	1.5"	EY52141506H	187.6	173.53
M14	2"	EY52142006H	187.6	173.53
M16	1.5"	EY52161506H	190.4	176.12
M16	2"	EY52162006H	190.4	176.12
M18	1.5"	EY52181506H	212.8	196.84
M18	2.5"	EY52182506H	212.8	196.84
M20	1.5"	EY52201506H	238	220.15
M20	2.5"	EY52202506H	238	220.15

29767



Double End Thread Plug Gages With Handle & Short Form Certification

Gage Class: 2B

- Other sizes, pitches and classes available. Call for price and delivery
- Finest wear resistant steel - lapped finish
- Short form certification included with each gage at no additional charge
- Add 20.00 per member for long form



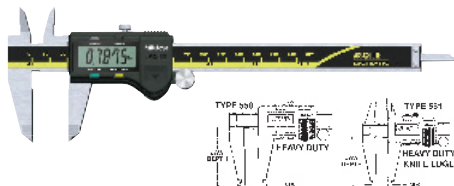
Thread Size	Order No.	Regular Price	SALE
#0-80	EY52000802B	193.55	179.03
#1-64	EY52001642B	193.55	179.03
#2-56	EY52002562B	193.55	179.03
#3-48	EY52003482B	172.55	159.61
#4-40	EY52004402B	170.8	157.99
#5-40	EY52005402B	145.6	134.68
#6-32	EY52006322B	145.6	134.68
#8-32	EY52008322B	145.6	134.68
#10-24	EY52010242B	145.6	134.68
#12-24	EY52012242B	145.6	134.68
1/4"-20	EY52040202B	140	129.50
5/16"-18	EY52050182B	140	129.50

Thread Size	Order No.	Regular Price	SALE
3/8"-16	EY52060162B	142.8	132.09
7/16"-14	EY52070142B	142.8	132.09
1/2"-13	EY52080132B	145.6	134.68
9/16"-12	EY52090122B	187.6	173.53
5/8"-11	EY52100112B	190.4	176.12
3/4"-10	EY52120102B	201.6	186.48
7/8"-9	EY52140092B	220.15	203.64
#1-8	EY52160082B	253.75	234.72
1-1/8"-7	EY52180072B	306.95	283.93
1-1/4"-7	EY52200072B	322.7	298.50
1-3/8"-6	EY52220062B	350.7	324.40
1-1/2"-6	EY52240062B	403.9	373.61

29766

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	MT80500-150-30	390.6	351.54
0-4" / 0-100 mm	.075" Round depth bar	+/-0.001"	MT80500-170-30	284.2	255.78
0-150 mm	Standard	+/-0.02 mm	MT80500-151-30	459.2	413.28
0-150 mm	Car-bide-Tipped Outside Jaw	+/-0.02 mm	MT80500-154-30	649.6	584.64
0-6" / 0-150 mm	Electronic Caliper - SPC Output	+/-0.001"	MT80500-171-30	331.8	298.62
0-6" / 0-150 mm	OD, ID Car-bide Jaw	+/-0.001"	MT80500-175-30	680.4	612.36
0-6" / 0-150 mm	With OD Car-bide Jaw	+/-0.001"	MT80500-174-30	637	573.3
0-6" / 0-150 mm	Car-bide-Tipped Inside & Outside Jaw	+/-0.02 mm	MT80500-155-30	679	611.1
0-200 mm	Car-bide-Tipped Outside Jaw	+/-0.02 mm	MT80500-156-30	726.6	653.94
0-8" / 0-200mm	Standard	+/-0.001"	MT80500-172-30	436.8	393.12
0-8" / 0-200 mm	With OD Car-bide Jaw	+/-0.001"	MT80500-176-30	708.4	637.56
0-8" / 0-200 mm	OD, ID Car-bide Jaw	+/-0.001"	MT80500-177-30	749	674.1
0-12" / 0-300 mm	IP67 Model, With Output	+/-0.0015"	MT80500-764-20	975.8	878.22
0-24" / 0-600 mm	Without Thumb Roller	+/-0.002"	MT80500-506-10	1638	1474.2
0-40" / 0-1000 mm	Without Thumb Roller	+/-0.003"	MT80500-507-10	3164	2847.6

Without Output					
Measuring Range	Description	Accuracy	Order No.	Regular Price	SALE
0-4" / 0-100 mm	Standard, Round .075" Depth Bar	+/-0.001"	MT80500-195-30	261.8	222.53
0-6" / 0-150 mm	OD, ID Car-bide Tipped Jaw	+/-0.001"	MT80500-160-30	567	481.95
0-6" / 0-150 mm	Standard	+/-0.001"	MT80500-196-30	282.8	240.38
0-6" / 0-150 mm	Solar Power	+/-0.001"	MT80500-474	281.4	239.19
0-200 mm	Standard	+/-0.02 mm	MT80500-152-30	550.2	495.18

4118

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 KA56357BP3



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"	MT80293-180-30	434	390.6
1" / 25.4 mm	0.00005" / 0.001 mm	Ratchet	±0.00005"	MT80293-330-30	435.4	391.86
1" / 25.4 mm	0.00005" / 0.001 mm	Ratchet	±0.00005"	MT80293-334-30	425.6	383.04
1" / 25.4 mm	0.00005" / 0.001 mm	Friction	±0.00005"	MT80293-335-30	413.63	372.27
2"	0.00005" / 0.001 mm	Ratchet	±0.00005"	MT80293-331-30	512.4	461.16
2"	0.00005" / 0.001 mm	Friction	±0.00005"	MT80293-336-30	466.2	419.58
4" / 101.6 mm	0.00005" / 0.001 mm	Ratchet	±0.00005"	MT80293-183-30	638.4	574.56
4" / 101.6 mm	0.00005" / 0.001 mm	Ratchet	± 0.0001"	MT80293-333-30	683.2	614.88
5"	0.00005" / 0.001 mm	Ratchet	± 0.0001"	MT80293-350-30	841.4	757.26

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"	MT80293-340-30	400.4	340.34
1" / 25.4 mm	0.00005" / 0.001 mm	Ratchet	±0.00005"	MT80293-344-30	400.4	340.34
1" / 25.4 mm	0.00005" / 0.001 mm	Friction	±0.00005"	MT80293-348-30	400.4	340.34
1" / 25.4 mm	0.00005" / 0.001 mm	Friction	± 0.0001"	MT80293-349-30	400.4	340.34
2"	0.00005" / 0.001 mm	Ratchet	±0.00005"	MT80293-341-30	441	374.85
2"	0.00005" / 0.001 mm	Ratchet	±0.00005"	MT80293-345-30	441	374.85
3" / 76.2 mm	0.00005" / 0.001 mm	Ratchet	±0.00005"	MT80293-346-30	525	446.25
4" / 101.6 mm	0.00005" / 0.001 mm	Ratchet	±0.00005"	MT80293-188-30	614.6	522.41
4" / 101.6 mm	0.00005" / 0.001 mm	Ratchet	± 0.0001"	MT80293-347-30	624.4	530.74

4153

MEASURING TOOLS

TESA brown & sharpe

0-6" Dial-Cal Calipers

- Graduation .001"
- Range per revolution .100"
- Stainless steel construction
- Adjustable zero set
- 1.25" Diameter rotating dial with lock
- Anti-backlash, shockproof design
- Measure four ways: inside, outside, depth and step



Model No	Dial Face Color	Order No.	Regular Price	SALE
599-579-4	White	MV4551774	309.12	260.28
599-579-5	Black	MV4551879	309.12	260.28

3346

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



Measuring Range	Order No.	Regular Price	SALE
0-6" / 0-150 mm	NA55541011501	98	93.10
0-8" / 0-200 mm	NA5554101200	168	159.60
0-12" / 0-300 mm	NA55541013001	280	266.00
0-6" / 0-150 mm	NA55541016001	112	106.40
0-12" / 0-300 mm	NA55541019001	257.6	244.72

3781

PRO-CHECK PREMIUM Electronic Indicators with Output

- Absolute/incremental reading and floating zero
- Direct inch/metric conversion and auto-off feature
- Lug and, flat back, 3/8" stem diameter and carbide tipped point
- Tolerance indicators
- Optional USB data kit (PC26DCBS4PIN) available
- 1 Year Warranty



Total Range	Resolution	Indicator Style	Order No.	Regular Price	SALE
0 - 1" / 0 - 25mm	.0005" / 0.01mm	Drop Indicator	PC20EI1025005EM	105.25	77.99

4583

Mitutoyo 1" Travel AGD 2 Dial Indicator

- 2-1/4" Dial
- .001" Graduation
- Lug back
- Revolution counter
- 3/8" Diameter stem



Order No.	Regular Price	SALE
MT802416S	215.6	170.32

4078

PRO-CHECK IP54 Dial Indicator - 1" Travel, .001" Graduation

- IP54 protection, shockproof design
- Rubber bellow on stem and o-ring seal safety cap
- O-ring protection for bezel and dial
- Sealed back plate (lug back)
- Tolerance markers
- AGD Group 2
- Lug back and carbide point
- 1 Year Warranty



Range per Revolution	Dial Reading	Dial Face Diameter	Dial Color	Order No.	Regular Price	SALE
.100"	0-100	2-1/4	White	PC21DI211IP5SP	73.6	54.54

4626

Fowler Shockproof Dial Indicators

- Rubber bellows on stem
- O-ring seal on safety cap
- O-ring protection for bezel and rotating dial
- Sealed back plate
- 1" Travel
- .001" Reading
- 0-100 Continuous reading
- Tolerance markers
- AGD Group 2, 2-1/4" diameter dial
- Lugback
- Carbide point



X-PROOF



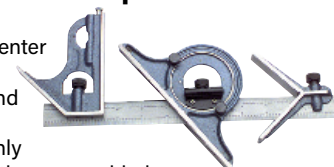
Dial Color	Order No.	Regular Price	SALE
White	NA5552520450	112	100.8

3508

PRO-CHECK 12" Combination Square Sets

Sets Consist Of:

- 4 Pc set: 12" blade, square head, center head and protractor head
- 3 Pc set: 12" blade, square head and center head
- 2 Pc set: 12" blade, square head only
- All sets supplied with 12" combination square blade, graduated in 8ths, 16ths, 32nds and 64ths.



Number of Pieces	Order No.	Regular Price	SALE
2	NB60CS122	50.41	34.23
3	NB60CS123	63.56	47.1
4	NB60CS124	115.98	85.94

4366



Magnetic Base Indicator Holder

Model NF6160

- New double fine adjustment - Bottom: unique single direction; Top: universal swivel clamp
- Powerful ON/OFF magnetic base with 70 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 56mm
- Top arm measures 51mm
- Indicator NOT included



Order No.	Regular Price	SALE
FN60NF6160	182.53	137.08

4280



Economy Dial Gage Holders with Magnetic Base

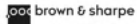
Fine Adjustment At Base

- 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	FN60PH2040	93.21	70
4.89"	4.49"	PH3100	FN60PH3100	76.09	57.14
10.23"	8.85"	PH4016	FN60PH4016	163.04	122.44

4266



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	Brown & Sharpe			PEC Tools			Procheck		
				Order No.	Regular Price	SALE	Order No.	Regular Price	SALE	Order No.	Regular Price	SALE
Center	Single End	3/8"	Point	-	-	-	-	-	-	NE60089	8.48	6.28
Center	Single End	1/2"	Point	-	-	-	-	-	-	NE60090	10.23	7.58
Single End	Single End	1/2"	0.5	-	-	-	NB40420041	26.54	22.56	-	-	-
Single End	Single End	1/2"	0.2	MV4527031	30.8	28.40	NB404200039	23.17	19.69	NE60088	8.99	6.66
Edge	Single End	1/2"	0.500"	MV4544595	30.8	28.40	NB404200077	23.17	19.69	NE60083	8.27	6.13
Single End	Single End	3/8"	0.2	MV4527030	30.8	28.40	NB404200038	23.17	19.69	NE60085	8.53	6.32
Edge	Double End	1/2"	0.200" x 0.500"	MV4544596	43.4	40.01	NB404200076	26.54	22.56	NE60084	8.97	6.65
Double End	Double End	3/8"	.200 x Point	-	-	-	NB404200073	26.54	22.56	NE60087	10.35	7.67
Double End	Double End	1/2"	.200 x Point	-	-	-	NB404200074	26.54	22.56	NE60086	12.71	9.42
Edge	Single End	10 mm	6 mm	-	-	-	-	-	-	-	-	-
Edge	Single End	10 mm	10 mm	MV4527037	36.4	33.56	-	-	-	-	-	-
Edge	Single End	9.5 mm (.375)	10 mm	MV4527036	36.4	33.56	-	-	-	-	-	-
Edge	Double End	3/8"	.200 x .375	MV4527032	42	38.72	-	-	-	-	-	-
Edge	Double End Long	1/2"	.200 x .500	MV4527033	43.4	40.01	-	-	-	-	-	-
Edge	Audible	3/8"	0.2	MV4527038	36.4	33.56	-	-	-	-	-	-
Edge	Audible	1/2"	0.2	MV4527039	36.4	33.56	-	-	-	-	-	-
Edge	Audible	1/2"	0.5	MV4527042	36.4	33.56	-	-	-	-	-	-
Edge	Audible	9.5 mm (.375)	10 mm	MV4527040	42	38.72	-	-	-	-	-	-
Edge	Audible	10 mm	10 mm	MV4527041	42	38.72	-	-	-	-	-	-

3906

WORKHOLDING



Align Power Feeds

- Easily mounts to almost any Bridgeport type knee mill, no modification necessary
- Circuit panel is designed to accept replaceable insert type connectors
- Nylon clutch has built-in torque release to prevent damage in the case of too much resistance

Standard Equipment:

- On/off switch, forward, reverse, rapid traverse, jog button, 8' line cord, plug & mounting hardware

AL500 Features:

- Speed range: 0 to 160 RPM
- Bevel Drive Gear Rate: 4.8:1
- Torque rating: 780 IN-LB (900Kgf/cm)
- Power: 1 Amp/1 Phase/110 Volt
- Weight: 15 lbs.



ManufacturerNo	Axis	Order No.	Regular Price	SALE
AL-500PX	X	JD30AL500SX	1124.76	837.95
AL-500PY	Y	JD30AL500SY	972.59	729.44
AL-500PZ	Z	JD30AL500SZ	995.12	746.34

5659



3-Jaw Semi Steel Plain Back Chucks

Features:

- 1 Set of hard master jaws
- 1 Set of hard top reversible jaws
- 1 Chuck wrench
- 1 Set of mounting bolts
- 2 Hex keys
- Eye bolts for chuck sizes 16" diameter and larger
- Scroll and jaws hardened and precision ground
- Accuracy varies with size: 0.0006-0.003



Chuck Size	Operation Type	Order No.	Regular Price	SALE
5"	1.260"	HK308000500	1331.4	1198.26
6"	1.653"	HK308000600	1421	1278.90
8"	2.170"	HK308000800	1730.4	1557.36
10"	2.992"	HK308001000	2326.8	2094.12
12"	4.060"	HK308001200	3248	2923.20
16"	5.354"	HK308001600	6235.6	5612.04
20"	7.480"	HK308002000	10225.6	9203.04
25"	9.920"	HK308002500	15815.8	14234.22
32"	10.500"	HK308003200	30284.8	27256.32

1529



"World Famous" Grind-All No. 1

Fixture

- Grinds various shaped punches up to 1-1/4" diameter
- Built for high precision work within $\pm .0001$
- Radii generated with sliding V-block
- Multi-sides produced with 24 division index
- Constructed of hardened tool steel, with critical internal parts protected from grinding dust for long-lasting, accurate performance
- Complete with carrying case, work-holding V-block and 24 division indexing plate

Specifications:

- V-Block Capacity: 1-1/4"
- Center height: 3.00"
- Index divisions: 24
- Accuracy: $\pm .0001$ "
- Graduation: 360°
- Net weight: 12 lbs.



Order No.	Regular Price	SALE
NJ60010100	6494.04	6169.34

1171



52 Pc. Clamping Set

For Bridgeport Type Machines For 5/8 Table Slot with 1/2-13 T-Nuts Studs

Set Contains:

- 4 Coupling nuts
- 6 Flange nuts
- 6 T-slot nuts
- 24 Studs, 4 each: 3, 4, 5, 6, 7 & 8" long
- 6 Step blocks
- 6 Serrated end clamps
- 1 All plastic holder



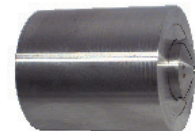
Order No.	Regular Price	SALE
SG6012625CK	153.82	120.29

1405



5C Collet Chuck

- For short runs using a 5C Collet
- Lock and release at the front
- Heavy-duty
- All steel - hardened and ground
- Drilled and tapped holes at rear of collet chuck for mounting to a plate



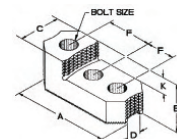
Diameter	Length	Weight	Order No.	Regular Price	SALE
3"	4"	6 lbs	JM501CC	757.05	719.20

1274



Metric Serrated Single Step Reversible Hard Jaws 1.5mm (.0591) @ 60° Serration

- For Chucks Made by Kitagawa, Matsumoto, Howa & Seike, PBA, Autoblok, Schunk, Strong
- All Jaws are made from 1018 mild steel
- PRICED EACH SOLD ONLY IN MATCHED SETS OF 3



Compatible Chuck Size	Jaw Length	Overall Height	Jaw Width	Dimension D	Dimension F	Dimension K	Bolt Size	Order No.	Regular Price	SALE
6" Matsumoto	3"	2"	1 3/4"	.433"	.969"	1.000"	8 mm	HF70HR6BRJSS	207.69	186.92
8" Kitagawa (208)	3 1/2"	2"	1 1/4"	.551"	1"	1.030"	12 mm	HF70HR149RJSS	228.45	205.61
B 10 Kitagawa	4 1/4"	2 1/2"	1 3/4"	.630"	1.181"	1.250"	12 mm	HF70HR82RJSS	280.38	262.34
12" (B 12)	4 7/8"	2 1/2"	2"	.710"	1.181"	1.300"	14 mm	HF70HR108RJSS	321.94	289.75
12" (B 212)	4 7/8"	2 1/2"	2"	.827"	1.181"	1.300"	16 mm	HF70HR112RJSS	321.94	289.75
15" (B 15)	5 1/2"	3 1/2"	2 1/2"	.866"	1.690"	1.900"	20 mm	HF70HR155RJSS	425.78	383.20
15" (B 215)	5 1/2"	3 1/2"	2 1/2"	1"	1.690"	1.900"	20 mm	HF70HR151RJSS	425.78	383.20

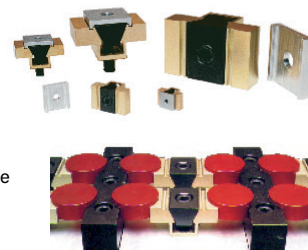
1155

WORKHOLDING



Machinable Uniforce Clamps

- The compact Uniforce® clamp is available with extra material on the clamping jaws so it can be machined to conform to the shape of your workpiece - enabling you to fixture unusual applications easily
- The specially designed steel wedge spreads the clamping force uniformly on both sides of the 7075-T6 aluminum channel
- *A: The distance needed between workpieces for clamp clearance, drill and tap mounting holes on the center of "A" dimension
- *F: The amount of machinable stock on jaws
- **H: Mounting screws included
- NOTE: Locking plate properly expands the clamp, while making it rigid for machining - Machine to a slip fit on workpiece - Remove locking plate before clamping workpiece



Inch												
Thread Size	Clamp Height	Overall Length	Base Width	Contact Depth	Machineable Stock	Centerline Distance	Outer Edge Screw	Overall Width	Holding Force	Order No.	Regular Price	SALE
#8-32	1/2"	.620"	.420"	0.250"	0.180"	.400"	#2-56	1.125"	500 lbs	SG7060050	35.96	33.84
#8-32	.500"	.920"	.420"	0.2500"	0.1800"	.180"	#2-56	1.125"	500 lbs	SG7060055	28.25	26.58
1/4"-20	3/4"	.940"	.632"	0.370"	0.260"	0.625"	#6-32	1 1/2"	1,500 lbs	SG7060075	38	35.76
1/4"-20	.750"	.940"	.632"	0.3700"	0.2600"	.260"	#6-32	1.500"	1,500 lbs	SG7060080	29.34	27.61
5/16"-18	1"	1 1/4"	.820"	0.500"	0.390"	0.812"	#6-32	2"	2,000 lbs	SG7060100	52.49	49.39
5/16"-18	1"	1.250"	.820"	0.5000"	0.3900"	.390"	#6-32	2"	2,000 lbs	SG7060105	42.08	39.60
1/2"-13	1 1/2"	1.870"	1.215"	0.750"	0.620"	1.200"	#10-32	3"	3,500 lbs	SG7060150	145.38	136.80
1/2"-13	1.500"	1.870"	1.215"	0.7500"	0.6200"	.620"	#10-32	3"	3,500 lbs	SG7060153	131.84	124.06
5/8"-11	2"	2.500"	1.625"	1"	0.800"	1.625"	1/4"-20	4"	6,000 lbs	SG7060200	238.13	224.08
5/8"-11	2"	2.500"	1.625"	1.0000"	0.8000"	.800"	1/4"-20	4"	6,000 lbs	SG7060203	214.98	202.30

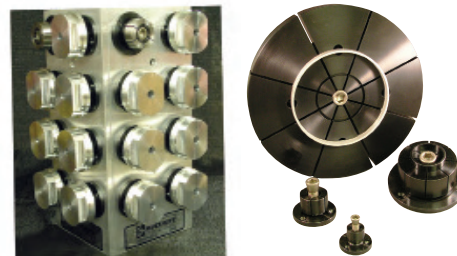
Metric												
Thread Size	Clamp Height	Overall Length	Base Width	Contact Depth	Machineable Stock	Centerline Distance	Outer Edge Screw	Overall Width	Holding Force	Order No.	Regular Price	SALE
M4	12.7 mm	15.7 mm	10.67 mm	6.3mm	4.6mm	4.6 mm	M2	28.6 mm	1,640 lbs	SG7080050	35.96	33.84
M4	12.7 mm	15.7 mm	10.67 mm	6.3mm	4.6mm	4.6 mm	M2	28.6 mm	1,640 lbs	SG7080055	28.25	26.58
M6	19.1 mm	23.9 mm	16.05 mm	9.4mm	6.6mm	6.6 mm	M4	38.1 mm	4,930 lbs	SG7080075	38	35.76
M6	19.1 mm	23.9 mm	16.05 mm	9.4mm	6.6mm	6.6 mm	M4	38.1 mm	4,930 lbs	SG7080080	29.34	27.61
M8	25.4 mm	31.8 mm	20.83 mm	12.7mm	9.9mm	9.9 mm	M4	50.8 mm	8,230 lbs	SG7080100	52.49	49.39
M8	25.4 mm	31.8 mm	20.83 mm	12.7mm	9.9mm	9.9 mm	M4	50.8 mm	8,230 lbs	SG7080105	42.08	39.60
M16	50.8 mm	63.5 mm	41.28 mm	25.4mm	20.3mm	20.3 mm	M6	50.8 mm	19,750 lbs	SG7080200	238.13	224.08
M16	50.8 mm	63.5 mm	41.28 mm	25.4mm	20.3mm	20.3 mm	M6	50.8 mm	19,750 lbs	SG7080205	214.98	202.30
M12	38.1 mm	47.5 mm	30.86 mm	19.1mm	15.7mm	15.7 mm	M5	76.2 mm	11,520 lbs	SG7080150	145.38	136.80
M12	38.1 mm	47.5 mm	30.86 mm	19.1mm	15.7mm	15.7 mm	M5	76.2 mm	11,520 lbs	SG7080155	131.84	124.06

1393



ID Xpansion Clamps

- Ideal way to hold parts on an inside diameter for multiple machining on vertical or horizontal machining centers
- Can also be used as an expanding mandrel on a lathe
- Produced in 12L14 steel with black oxide coating
- Can hold interal diameters from under 3/16 to amlomst 10" (4.0 to 254mm)
- No. 10 manufactured using 7076-T6 aluminum
- Flange diameter of the clamp is held to a close tolerance for precision locating in a machined pocket on work cubes and fixture plates
- Wuickly tightened with a hex key, torque driver or can be mated to hydraulic pull cylinders for automation
- Gt- Minimum diameter the "F" dimension be machined or turned down to
- H*- (3) Mounting screws included



Inch														
Model No	Overall Height	Clamp Height	Contact Length	Flange Thickness	Flange Diameter	Diameter	Minimum Diameter	Outer Edge Screw	Thread Size	Thread Length	Holding Force	Order No.	Regular Price	SALE
#10	1.790"	1.480"	1.2700"	0.3100"	6.0000"	9.8500"	1.1500"	1/4"-20 on 5.250 BHC	5/8"-11	0.7900"	6,000 lbs	SG7031550	1432.78	1348.25
#9	1.790"	1.480"	1.2700"	0.3100"	5.2320"	6.8900"	1.1500"	1/4"-20 on 4.648 BHC	5/8"-11	0.7900"	10,000 lbs	SG7031500	816.09	787.94
31050	0.860"	.630"	0.590"	0.230"	1.170"	0.490"	0.280"	6-32 on .825 BHC	#8-32	0.300"	950 lbs	SG7031050	61.95	58.29
31000	0.420"	.300"	0.240"	0.120"	0.787"	0.290"	0.160"	2-56 on .540 BHC	#2-56	0.160"	250 lbs	SG7031000	61.95	58.29
31100	0.980"	3/4"	0.590"	0.230"	1.240"	0.560"	0.480"	6-32 on .910 BHC	1/4"-20	0.500"	1,900 lbs	SG7031100	61.95	58.29
31150	0.980"	3/4"	0.590"	0.230"	1.476"	0.790"	0.530"	6-32 on 1.140 BHC	5/16"-18	0.560"	2,500 lbs	SG7031150	66.03	62.13
31200	1.130"	.880"	0.690"	0.250"	1.968"	1.060"	0.710"	8-32 on 1.550 BHC	3/8"-16	0.710"	4,500 lbs	SG7031200	85.76	80.70
31250	1.250"	1"	0.810"	0.250"	2.205"	1.390"	0.900"	8-32 on 1.790 BHC	1/2"-13	0.710"	5,900 lbs	SG7031250	105.71	99.47
31300	1.560"	1 1/4"	1.060"	0.310"	2.736"	1.650"	1.150"	10-32 on 2.200 BHC	5/8"-11	0.790"	10,000 lbs	SG7031300	135.48	127.49
31350	1.560"	1 1/4"	1.060"	0.310"	2.972"	2.030"	1.150"	10-32 on 2.515 BHC	5/8"-11	0.790"	10,000 lbs	SG7031350	148.66	139.89
31400	1.790"	1.480"	1.270"	0.310"	4.232"	3.060"	1.150"	1/4-20 on 3.648 BHC	5/8"-11	0.790"	10,000 lbs	SG7031400	256.11	241.00
31450	1.790"	1.480"	1.270"	0.310"	5.232"	4.060"	1.150"	1/4-20 on 4.648 BHC	5/8"-11	0.790"	10,000 lbs	SG7031450	359.27	338.07

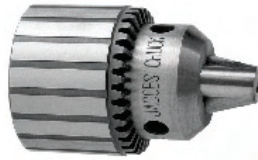
Metric														
Model No	Overall Height	Clamp Height	Contact Length	Flange Thickness	Flange Diameter	Diameter	Minimum Diameter	Outer Edge Screw	Thread Size	Thread Length	Holding Force	Order No.	Regular Price	SALE
#0	21.8 mm	16 mm	15mm	5.9mm	29.72mm	12.4mm	7.1mm	M3 on 20.95 mm BHD	M4	7.2mm	3,125 lbs	SG7038050	61.95	58.29
#00	10.7 mm	7.6 mm	6.1mm	3mm	20mm	7.4mm	4.1mm	M2 on 13.7 mm BHC	M2	4.1mm	823 lbs	SG7038000	61.95	58.29
#1	24.9 mm	19 mm	15mm	5.9mm	31.5mm	14.2mm	12.2mm	M3 on 23.1 mm BHC	M4	11.2mm	6,256 lbs	SG7038100	61.95	58.29
#10	45.5 mm	37.6 mm	32.3mm	7.9mm	152.4mm	250.2mm	29.3mm	M6 on 133.35 mm BHC	M16	19.3mm	19,240 lbs	SG7038550	1432.78	1348.25
#2	24.9 mm	19 mm	15mm	5.9mm	37.5mm	20mm	13.5mm	M3 on 29.0 mm BHC	M8	13.2mm	8,232 lbs	SG7038150	66.03	62.13
#3	28.6 mm	22.2 mm	17.5mm	6.4mm	50mm	27mm	18mm	M4 on 39.4 mm BHC	M10	16.3mm	14,818 lbs	SG7038200	85.76	80.70
#4	31.8 mm	25.4 mm	20.6mm	6.4mm	56mm	35.3mm	23mm	M4 on 45.5 mm BHC	M12	20.3mm	19,425 lbs	SG7038250	105.71	99.47
#5	39.6 mm	31.8 mm	27mm	7.9mm	69.5mm	42mm	29.3mm	M5 on 55.9 mm BHC	M16	21.4mm	32,930 lbs	SG7038300	135.48	127.49
#6	39.6 mm	31.8 mm	27mm	7.9mm	72.5mm	51.5mm	29.3mm	M5 on 63.9 mm BHC	M16	21.4mm	32,930 lbs	SG7038350	148.66	139.89
#7	45.5 mm	37.6 mm	32.3mm	7.9mm	107.5mm	77.7mm	29.3mm	M6 on 92.6 mm BHC	M16	19.3mm	32,930 lbs	SG7038400	256.11	241.00
#9	45.5 mm	37.6 mm	32.3mm	7.9mm	132.9mm	175mm	29.3mm	M6 on 118.06 mm BHC	M16	19.3mm	32,930 lbs	SG7038500	816.09	787.94
38	45.5 mm	37.6 mm	32.3mm	7.9mm	132.9mm	103mm	29.3mm	M6 on 118.06 mm BHC	M16	19.3mm	32,930 lbs	SG7038450	359.27	338.07

1391

JACOBS Heavy Duty Plain Bearing Chucks

Taper Mounted

- Jaws center ground for absolute straightness and alignment
- One piece sleeve eliminates crack between driving teeth, often found in other designs
- Through hardened sleeve teeth, plus hardened nose and keyholes provide outstanding wear resistance
- Each chuck 100% inspected for performance and precision
- T.I.R .004" maximum at half capacity
- Fluted sleeve standard except Model 34-33C, which is smooth and ground
- (2) Equipped with positive drive slot
- (3) Equipped with pin type positive drive
- (4) Equipped with locking collar - 1-1/16-20 thread, smooth sleeve



Model No	Minimum Capacity	Maximum Capacity	Mount Type	Key Style	Order No.	Regular Price	SALE
34-02	0.040"	1/2"	2JT	K3	HK5014442	374.98	282.36
34-06	0.040"	1/2"	6JT	K3	HK506295	497.97	374.97
34-33	0.040"	1/2"	33JT	K3	HK5014445	423.88	319.18
3326A	0.080"	1/2"	0.6250	K32	HK506291	518.29	390.27
34-33C(4)	0.040"	1/2"	33JT	K3C	HK5014451	391.66	294.92
33	0.080"	1/2"	33JT	K32	HK506279	479.68	361.20
3A	1/8"	5/8"	3JT	K3	HK506223	597.09	449.61
33KD(3)	0.080"	1/2"	33JT	K32	HK506281	454.62	342.33
3KD(2)	1/8"	5/8"	3JT	K3	HK506228	793.84	597.76
3PD(3)	1/8"	5/8"	3JT	K3	HK506230	927.78	698.62
36	0.180"	0.800"	3JT	K4	HK506309	753.51	567.39
36KD(2)	0.180"	0.800"	3JT	K4	HK5014865	722.04	543.70

22155

RAPIDHOLD 4" & 6" Drill Press Vise

- Versatile vises machined on four sides
- May be used on base, either side or end
- Made of high grade gray iron and are precision ground
- Ground steel jaw plates are removable



Model No	Jaw Opening Capacity	Jaw Width	Jaw Depth	Weight	Order No.	Regular Price	SALE
7406	4"	4"	1 1/2"	9 lbs	HT967406	92.12	72.04
7407	6"	6"	2"	24 lbs	HT967407	231.83	181.29

1530

F.O.B. Novi, MI

TECO 52 Pc. Machinist Clamping Set

For 5/8" Table Slot with 1/2" -13

T-Nuts & Studs

Set Contains:

- 4 Coupling nuts
- 6 Flange nuts
- 6 T-slot nuts
- 24 Studs, 4 each: 3, 4, 5, 6, 7 & 8" long
- 6 Step blocks
- 6 Serrated end clamps
- 1 All plastic holder



Order No.	Regular Price	SALE
SG6012625CKUS	264.18	202.89

25209

F.O.B. Novi, MI • Purolator Dimensional Weight • Shipping Rates May Apply

FLEXBAR VISORGUARD Shields

- Flexbar permits setting of Visorguard at the correct height and angle for each setup
- Flip shield up to load part and down for machining
- Special spring-loaded shaft makes shield stay put - no springback
- Wing-shaped shield protects workers at adjacent machines
- Flexbar locks rigid; has stainless aircraft grade tension cable
- Can be installed in minutes on CNC mills, conventional milling machines, drill chucks, etc.



Style	Shield Width	Shield Height	10"			40"		
			Order No.	Regular Price	SALE	Order No.	Regular Price	SALE
Square	6"	4"	GG4513032	283.78	227.02	GG4513032L	423.95	339.16
Winged	16"	8"	GG4513055	293.3	234.64	GG4513050	431.73	345.38

2627

WORLD CLASS QUALITY 6 Pc. Milling T-Slot Cover Set - 5/8"

- Anodized Aluminum T-Slot table guard inserts
- Save time from cleaning, speedy and convenient to enhance working efficiency
- Drilled for coolant drainage
- 6 Per package approximately 16" long each



Model No	Compatible With	Order No.	Regular Price	SALE
MSCSET	5/8" T-Slot Milling Tables	JF70MSCSET	66.6	56.61

5622

PALMGREN INC L-Clamps

- Just slide the clamping arm to the work piece and tighten
- When the job is complete, simply loosen the spindle and slide the clamping arm back
- L-Clamps handle a wide variety of work sizes and shapes allowing you to clamp the work piece quicker while using fewer clamps on each job
- Lifetime Warranty



Total Capacity	Throat Depth	Spindle Diameter	Clamping Pressure	Order No.	Regular Price	SALE
4	2 3/8"	1/2"	600 lbs	JB509629304	46.14	36.91
6	3 5/32"	9/16"	700 lbs	JB509629306	57.68	46.14
8	3 15/16"	5/8"	1,000 lbs	JB509629308	85.08	68.06
10	3 15/16"	5/8"	1,200 lbs	JB509629310	106.71	85.37
12	3 15/16"	3/4"	1,200 lbs	JB509629312	121.13	96.90
16	3 15/16"	3/4"	1,650 lbs	JB509629316	121.13	96.90

1437



Portable Bandsaw Blades

Bi-Metal M-42 Wavy Tooth

- M42 material ensures longer life on all materials
- 44-7/8 Length
- Wavy tooth design provides smoother cutting and better harmonics
- 5-Pack sleeve provides better efficiencies, saves time, improves productivity (priced each sold in multiples of 5)



Width (W)	Thickness (H)	Teeth per Inch (TPI)	Order No.	Regular Price	SALE
1/2"	0.02"	10/14 VT	FX848230357	16.94	10.1

2327



Precision Air Grinders with 1/8" Collet

Collet

- Designed for high speed hand grinding, deburring, drilling, polishing, burring and sanding
- An in-line filter and oiler should be used to provide adequate lubrication to the air motor
- Air Pressure must be kept below 85 lb/in - High air pressure increases speed which causes damage to the wheels and grinder



BrandName	Maximum RPM	Order No.	Regular Price	SALE
Chicago Pneumatic	60,000	PF50CP9104QB	375.14	273.10

2316



Crimped Wire Cup Brushes

- Light to medium duty, general purpose applications



					Crimped Wire, Stainless Steel			Crimped Wire, Steel		
Diameter	Bristle Diameter	Arbor Hole	Trim Length	Maximum RPM	Order No.	Price	SALE	Order No.	Price	SALE
3"	0.014"	1/2"-13	1"	14,000	-	-		MK5113244	57.15	40.06
3"	0.014"	5/8"-11	1"	14,000	-	-		MK5113245	56.78	39.80
3"	0.014"	M10-1.25	1"	14,000	-	-		MK5113240	57.15	40.06
3 1/2"	0.014"	5/8"-11	7/8"	12,000	MK5113188	132.09	92.60	-	-	
4"	0.0118"	5/8"-11	1 3/8"	9,000	-	-		MK5114016	88.98	62.37
4"	0.014"	5/8"-11	1 3/8"	9,000	-	-		MK5114026	82.96	58.15
4"	0.020"	5/8"-11	1 3/8"	9,000	MK5114126	206.33	144.64	MK5114036	77.83	54.56
5"	0.014"	5/8"-11	1 1/4"	8,000	-	-		MK5114206	113.44	79.52
5"	0.020"	5/8"-11	1 1/4"	8,000	MK5114256	282.1	197.75	MK5114216	105.57	74.00
6"	0.014"	5/8"-11	1 1/4"	6,600	-	-		MK5114066	141.32	99.07
6"	0.020"	5/8"-11	1 1/4"	6,600	MK5114166	321.13	225.11	MK5114076	127.11	89.10

† Internal nut

733

PRICES EFFECTIVE JANUARY 1ST THROUGH MARCH 31ST, 2026

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