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## ABRASIVES

### ACCESSORY

#### CUT-OFF WHEEL



#### Type 1 Cut-Off Wheel Reducing Bushings

- For use with Type 1 Cut-Off wheels
- Reduces wheel arbor size

ITEM	TYPE	DESCRIPTION	SIZE
SA95031	1	CUT-OFF WHEEL REDUCING BUSHING	1-20mm

### BENCH WHEEL

#### A36 ALUMINUM OXIDE WHEEL

Reduction bushings enclosed with each wheel



<u>Wheel Size</u>	<u>Bushing</u>
6"	¾, 5/8, ½
7"	¾, 5/8, ½
8"	¾, 5/8
10"	1, ¾
12"	1-1/4, 1
14"	1-1/4, 1

- Aluminum oxide grain
- General purpose
- For sharpening tools and light stock removal

**Metal** Ferrous metals (Carbon steel, steel, iron, forgings, etc.)

ITEM	DESCRIPTION	DIA	BORE	MAX RPM	STD QTY
SA28000	BENCH WHEEL A36	6	1	4138	2

## TYPE 1 CHOP SAW WHEELS

### HIGH PERFORMANCE/SPECIALTY



- Specially formulated for use on low horsepower chop saw machines for fast cutting with minimal pressure

#### Iron Worker

- Aluminum oxide grain
  - Fast cutting
  - Excellent for use on angle iron, channel iron, heavy rebar, and other ferrous metals
- METAL** Structural metal applications

#### Stud King

- Aluminum oxide grain
  - General purpose cool cutting on thin metals
  - Burr-free finish
- METAL** Metal studding, thin rebar, light gauge metals

ITEM	TYPE	DESCRIPTION	DIA	BORE	MAX RPM	STD QTY
SA24031	1	IRON WORKER	12	1	5100	10
SA24051	1	IRON WORKER	14	1	4400	10
SA24035	1	STUD KING	10	5/8	6100	25
SA24050	1	STUD KING	14	1	4400	10

## COATED ABRASIVES

### PSA DISCS - CLOTH



#### Premium Zirconium Grain

- Specially formulated X-weight Egyptian cotton cloth backing
- Closed coat structure

**METAL** Ferrous and/or non-ferrous metals (iron, steel, aluminum, copper, etc.)

**STAINLESS** steel, high tensile steel

- Strong resin over resin bond construction is resistant to heat and moisture
- Hot melt adhesive back allows for quick change and less downtime

ITEM	SIZE	GRIT	STD QTY
SA35082	5"	40	50
SA35123	8"	36	25

## COTTON FIBER

### A24M BLENDING/FINISHING DISCS



**STAINLESS** Blending on stainless steel, high tensile alloys

**ALUMINUM** Non-ferrous metals

**METAL** Ferrous metals

SAIT-LOK-R™ discs are made of multiple layers of cotton fiber abrasive impregnated material. These quick change discs produce a smooth finish in one step.

- Multi-layer disc configuration provides longer life than coated abrasive discs.
- Cotton fiber abrasive material will not smear on titanium and stainless steel.
- Outlasts coated discs 10 to 1 for less downtime and increased productivity.

**FINISHING DISCS** – Aluminum Oxide Grain

**A24M** - Coarse grit with medium flexibility for aggressive action

**A36F** - Medium grit with higher flexibility for smoother action

**A54F** - Fine grit with higher flexibility for finishing

ITEM	DIA	MAX RPM	STD QTY
SA50308	3	20000	25
SA50301	2	30000	25
SA50300	2	30000	25

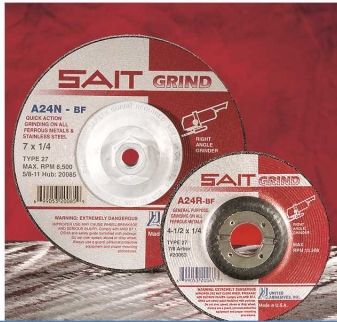
### A36F BLENDING/FINISHING DISCS

ITEM	DIA	MAX RPM	STD QTY
SA50309	3	20000	25
SA50302	2	30000	25

### A54F BLENDING/FINISHING DISCS

ITEM	DIA	MAX RPM	STD QTY
SA50310	3	20000	25
SA50303	2	30000	25

## A24N GENERAL PURPOSE



Grinding – ¼”

- Virgin aluminum oxide grain assures consistent high stock removal for tough applications
- All sizes are made with uniform grain throughout, no filler grain used in the backing
- All wheels internally reinforced with the highest quality fiberglass for maximum safety
- The unique Super-Lock™ Hub combines both a mechanical locking system and chemical bond providing one of the safest, vibration-free designs in the industry

**TIP :** The “softer” a grinding wheel (A24N) the faster it will remove metal.

### A24N – Fast Grinding

- Aluminum oxide grain
- Soft bond for fast stock removal

**METAL** Ferrous Metals (iron, steel, welds, etc)

**STAINLESS** Low grade stainless steel

### A24R – Long Life

- Aluminum oxide grain – our most popular wheel
- For general purpose grinding
- Longer life for fewer wheel changes

**METAL** Ferrous Metals (iron, steel, welds, etc)

ITEM	TYPE	DIA	BORE	MAX RPM	STD QTY
SA20060	27	4 1/2	7/8	13300	10

## A24R GENERAL PURPOSE

ITEM	TYPE	DIA	BORE	MAX RPM	STD QTY
SA20013	27	4	5/8	13500	25
SA20063	27	4 1/2	7/8	13300	25
SA20073	27	5	7/8	12200	25
SA20086	27	7	5/8-11	8500	10
SA20096	27	9	5/8-11	6600	10
SA20163	27	4 1/2	5/8-11	13300	10
SA20173	27	5	5/8-11	12200	10
SA20185	27	7	5/8-11	8500	10

## A46N ALUMINUM

ITEM	TYPE	DIA	BORE	MAX RPM	STD QTY
SA20018	27	4	5/8	13500	25
SA20162	27	4 1/2	5/8-11	13300	10

## A60S GENERAL PURPOSE



### A60S- General Purpose

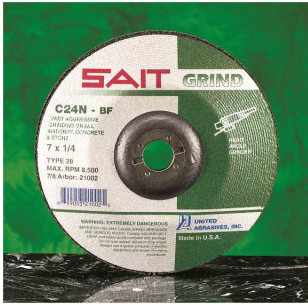
- Thin .045 width
- Special aluminum oxide grain
- Hard bond for extremely long life
- Fast, burr-free cutting

**METAL** Ferrous and /or non-ferrous metals (iron, steel, welds, etc.)

- Unique, thin Type 27 shape can be used on all angle grinders in accordance with ANSI B7.1
- Special aluminum oxide formulation offers the fastest cutting, longest lasting thin wheels
- Externally reinforced with fiberglass layers to provide ultimate safety in a thin wheel

ITEM	TYPE	DIA	BORE	MAX RPM	STD QTY
SA22011	27	4	5/8	19000	50
SA22021	27	4 1/2	7/8	13300	50
SA22047	27	6	7/8	10200	50

## C24R CONCRETE



### C24R – Concrete

- Silicon carbide grain
- General purpose cutting, hard bond for long life

### Cutting – 1/8”

- Special silicon carbide grain formula is excellent for cutting masonry, concrete, stone, and aggregate (C24R)
- All sizes reinforced with the highest quality fiberglass for maximum safety and performance
- Our unique Super-Lock™ Hub combines both a mechanical locking system and chemical bond providing one of the safest, vibration-free designs in the industry

**CONCRETE** Masonry, concrete, stone  
**METAL** Cast iron and other ferrous metals

ITEM	TYPE	DIA	BORE	MAX RPM	STD QTY
SA22025	27	4 1/2	7/8	13300	25
SA22125	27	4 1/2	5/8-11	13300	10

## Z24R HIGH PERFORMANCE



### Grinding 1/4” Z24R – Zirconium

- Tough zirconium grain
- High performance grinding for the toughest applications

**METAL** Ferrous metals (iron, steel, welds)  
**STAINLESS** Stainless steel, high tensile alloys \

- The highest quality zirconium grain
- All sizes made with uniform grain throughout, no filler grain used
- The unique Super-Lock™ Hub combines both a mechanical locking system and chemical bond providing one of the safest,

ITEM	TYPE	DIA	BORE	MAX RPM	STD QTY
SA22616	27	9	5/8-11	6600	10



## Z-TECH SPECIALTY

Cutting .090"



### Z-tech High Performance

- Tough zirconium grain
- High performance cutting and notching for the toughest applications

**METAL** Ferrous metals (iron, steel, welds, etc.)

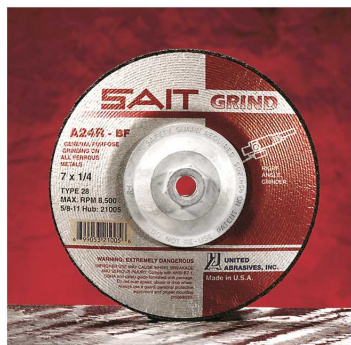
**STAINLESS** Stainless steel, high tensile alloys

- Unique, thin Type 27 shape can be used on all angle grinders in accordance with ANSI B7.1
- Special bond formulation offers the fastest cutting, longest lasting thin wheels
- Externally reinforced with fiberglass layers to provide ultimate safety in a thin wheel
- Saitech™ is manufactured with patented 3M™ ceramic abrasive grain to outlast standard aluminum oxide wheels

ITEM	TYPE	DESCRIPTION	DIA	BORE	MAX RPM	STD QTY
SA20944	27	Z-TECH HIGH PERFORMANCE	5	7/8	12200	25

## TYPE 28 DEPRESSED CENTER WHEELS

### A24R GENERAL PURPOSE



Grinding 1/4"

### A24R- Long life

- Aluminum oxide grain
- Medium bond for longer life and fewer wheel changes

**METAL** Ferrous metals (iron, steel, welds, etc.)

### INFO:

- Type 28 saucer shape allows greater surface area coverage and provides the operator with greater grind visibility
- Additional fiberglass reinforcement for maximum safety in high lateral pressure applications
- The unique Super-Lock™ Hub combines both a mechanical locking system and chemical bond providing one of the safest, vibration-free

**TIP: Use this saucer shape for uniform grinding of large flat surfaces.**

ITEM	TYPE	DIA	BORE	MAX RPM	STD QTY
SA21015	28	9	5/8-11	6600	10

## COATED ABRASIVES

### ALUMINUM OXIDE



#### FIBER DISCS- Aluminum Oxide

- Resin over resin construction for a strong bond that is resistant to heat and moisture
- Vulcanized fiber backing for heavy duty sanding

**METAL** Ferrous and /or non-ferrous metals

**WOOD** wood

**STAINLESS** Steel, high tensile steel, titanium, aluminum

ITEM	DESCRIPTION	SIZE	GRIT	STD QTY
SA50000	FIBER DISCS	4 X 5/8	24	20
SA50003	FIBER DISCS	4 X 5/8	60	25
SA50005	FIBER DISCS	4 X 5/8	100	25
SA50065	FIBER DISCS	4 1/2 X 7/8	120	25

### HIGH DENSITY



#### High Density on Fiberglass Backing Plate

- High pressure is ideal for removing deeper scratches from the work surface
- Heavy duty/long life for tough applications
- Premium zirconium grain on a tough, full polyester backing
- Will not contaminate stainless steel

**METAL** Ferrous and/or non-ferrous metals

**STAINLESS** steel, high tensile steel, titanium

ITEM	GRIT	DIA	MATERIAL	ARBOR	MAX RPM	STD QTY
SA78008	60	4 1/2	PREMIUM ZIRCONIUM	7/8	13300	10

## REGULAR DENSITY



**APPLICATIONS:** Weld grinding and blending, deburring, finishing and blending, and contour finishing

- General Purpose Specification – however, contains larger and more flaps than the competition providing longer life
- Premium zirconium grain on cotton backing which provides long life and high stock removal
- Will not contaminate stainless steel
- Resists loading on aluminum

**METAL** Ferrous and/or non-ferrous metals

**STAINLESS** steel, high tensile steel, titanium

**ALUMINUM** Non-ferrous metals (aluminum, copper, brass, etc.)

ITEM	TYPE	DESCRIPTION	GRIT	DIA	MATERIAL	ARBOR	STD QTY
SA71206	27	FLAP DISCS	40	4 1/2	PREMIUM ZIRCONIUM	7/8	10
SA71208	27	FLAP DISCS	60	4 1/2	PREMIUM ZIRCONIUM	7/8	10
SA71216	27	FLAP DISCS	40	4 1/2	PREMIUM ZIRCONIUM	5/8-11	10
SA71218	27	FLAP DISCS	60	4 1/2	PREMIUM ZIRCONIUM	5/8-11	10

## REGULAR DENSITY HIGH PERFORMANCE



Aluminum Oxide w/ Grinding Aid to help reduce heat and loading on heat sensitive materials and non-ferrous metals on a cotton backing for **METAL STAINLESS ALUMINUM**

**Regular Density on Fiberglass Backing Plate**

**APPLICATIONS:** Weld grinding and blending, deburring, finishing and blending, and contour finishing

ITEM	TYPE	DESCRIPTION	GRIT	DIA	MATERIAL	ARBO R	MAX RPM	STD QTY
SA74341	29	CONICAL SHAPE	40	4 1/2	3A	5/8-11	13300	10

## GRINDING

## HIGH PERFORMANCE/STAINLESS STEEL



### Grinding 1/4"

- High performance, ceramic aluminum oxide grain
- Very uniform, high density grain structure is extremely durable and self sharpening for long life and cooler cut
- Extremely fast stock removal on hard metals with minimal pressure

**STAINLESS** steel and other high tensile alloys  
**METAL** Ferrous metals (iron, steel, welds, etc.)

ITEM	TYPE	DIA	BORE	MAX RPM	STD QTY
SA20146	27	4 1/2	5/8-11	13300	10

## COATED ABRASIVES

### LAMINATED DISCS



**STAINLESS** steel, high tensile steel, titanium  
**METAL** Ferrous and/or non-ferrous metals

#### GENERAL PURPOSE – ALUMINUM OXIDE

**SAIT-LOK™** - All-metal attachment on disc ensures a secure fit to the backing pad



**SAIT-LOK-R™** - Nylon screw threaded hub for easy mounting to the backing pad



- 2-ply construction is rugged enough for contoured or flat surfaces
- Quick-change backings make for fast, easy disc changes
- Universal backings fit most major backing pad brands on the market

ITEM	SIZE	GRIT	SAIT-LOK	SAIT-LOK-R	STD QTY
SA50229	3"	36	Y		50
SA50232	3"	60	Y		50
SA50271	2"	36		Y	100
SA50272	2"	40		Y	100
SA50275	2"	80		Y	100
SA50276	2"	100		Y	100
SA50277	2"	120		Y	100
SA50279	3"	40		Y	50
SA50284	3"	120		Y	50

## GRINDING

### MOUNTED POINTS

ITEM	TYPE	DESCRIPTION	DIA	LENGTH	SHANK DIA#	O = 1_2 MAX RPM	STD QTY
SA27401	A1	FOR OFFHAND APPLICATIONS	3/4	2 1/2	1/4	19800	10
SA27402	A3	FOR OFFHAND APPLICATIONS	1	2 3/4	1/4	16100	10
SA27403	A4	FOR OFFHAND APPLICATIONS	1 1/4	1 1/4	1/4	30560	10
SA27404	A5	FOR OFFHAND APPLICATIONS	3/4	1 1/8	1/4	45000	10
SA27405	A11	FOR OFFHAND APPLICATIONS	7/8	2	1/4	19860	10
SA27406	A38	FOR OFFHAND APPLICATIONS	1	1	1/4	34500	10
SA27408	W179	FOR MEDIUM TO HEAVY STOCK REMOVAL	3/8	1 1/4	1/4	45750	10
SA27409	W189	FOR MEDIUM TO HEAVY STOCK REMOVAL	1/2	2	1/4	24000	10
SA27410	W204	FOR MEDIUM TO HEAVY STOCK REMOVAL	3/4	3/4	1/4	42750	10
SA27411	W208	FOR MEDIUM TO HEAVY STOCK REMOVAL	3/4	2	1/4	18750	10
SA27412	W220	FOR MEDIUM TO HEAVY STOCK REMOVAL	1	1	1/4	25500	10
SA27414	W236	FOR MEDIUM TO HEAVY STOCK REMOVAL	1 1/2	1/2	1/4	25470	10

## PORTABLE SAW CUT-OFF WHEEL

### CONCRETE



Use with portable saw

#### BIG M.A.C.™ - Very Long Life

Special silicon carbide grain with superior cutting action  
40% longer life than general purpose concrete wheels

**CONCRETE** Masonry, Asphalt, Concrete

#### C24R – Concrete

Silicon carbide grain with long life

**CONCRETE** Stone, brick, soft aggregate, masonry, concrete, schedule 40 and 80 PVC pipe

ITEM	TYPE	DIA	BORE	MAX RPM	STD QTY
SA23460	1	12	1	6300	10
SA23462	1	12	20mm	6300	10
SA23463	1	14	1	5400	10
SA23464	1	14	20mm	5460	10
SA23451	1	14	1	5400	10

### GENERAL PURPOSE



#### Portable Saw Cut-off Wheels

TYPE 1 shape for square, burr-free cutting

#### General Purpose/Durability

- Special aluminum oxide grain
- Provides consistent performance with long life
- Eternally reinforced with the highest quality fiberglass to withstand the toughest applications

**METAL** Ferrous metals (steel, angle iron, rebar)

ITEM	TYPE	DIA	BORE	MAX RPM	STD QTY
SA23455	1	14	20mm	5460	10

## NON-WOVEN ABRASIVES

### DEBURRING & CLEANING

DISCS for portable grinder



Excellent for deburring, removing weld spatter and blending tool / mill marks, rust removal

- BROWN – Heavy Duty
- MAROON – General Purpose
- BLUE – Very Fine

<b>STAINLESS</b>	steel
<b>METAL</b>	Ferrous and/or non-ferrous materials
<b>WOOD</b>	Fiberglass, gaskets



SAIT-LOK™ All-metal attachment



SAIT-LOK-R™ Nylon screw threaded hub

ITEM	SIZE	GRADE	COLOR	SAIT-LOK	SAIT-LOK-R	STD QTY
SA77206	2"	COARSE	BROWN	ü		50
SA77306	2"	COARSE	BROWN		ü	50
SA77308	2"	MEDIUM	MAROON		ü	50
SA77309		VERY FINE	BLUE		ü	50
SA77312	3"	COARSE	BROWN		ü	25
SA77314	3"	MEDIUM	MAROON		ü	25

## WIRE BRUSHES

### SMALL CUP BRUSH



For use on small grinders

Wire types:

- Knot wire for low to medium flexibility and aggressive cutting action
- Crimped carbon steel wire for light cleaning and where greater flexibility is required

ITEM	DIA	WIRE	ARBOR	WIRE STYLE	MAX RPM	STD QTY
SA01402	2 3/4	.014	1/2-13	CRIMPED	14000	6
SA03414	2 3/4	.014	M14 X 2	KNOT	14000	6
SA03416	2 3/4	.014	M10 X 1.25	KNOT	14000	6
SA03417	2 3/4	.014	M10 X 1.5	KNOT	14000	6
SA03501	2 3/4	.020	5/8-11	KNOT	14000	6



**THIN HIGH SPEED CUT-OFF WHEEL**

**A24R GENERAL PURPOSE**

**A24R – General Purpose, long life**  
Aluminum oxide grain  
**METAL** Ferrous metals (iron, steel, welds, etc.)

**TIP: Try .045 sizes for longer life**



**A36T – Fast Cutting**  
Aluminum oxide grain  
Hard bond for aggressive cutting on rough applications  
**METAL** Ferrous metals (iron, steel, welds, etc.)  
**STAINLESS** steel

**A60S – General Purpose**  
Thin .045 width  
Use with reusable 5/8-11 a adaptor to fit angle grinders  
Extremely fast cutting with long life  
**METAL** Ferrous and/or non-ferrous metals (iron, steel, welds, etc.)



**A60T – Burr Free**  
Hard bond for smooth cutting  
For use in nuclear, aerospace, automotive, foundry industries, and plant maintenance  
**METAL** Ferrous metals (iron, steel, welds, etc.)  
**STAINLESS** High tensile metals

ITEM	TYPE	DIA	BORE	MAX RPM	STD QTY
SA23075	1	4	3/8	15278	25
<b>A36T FAST CUTTING</b>					
ITEM	TYPE	DIA	BORE	MAX RPM	STD QTY
SA23050	1	3	3/8	25000	100
SA23069	1	4	3/8	19000	100
<b>A60S GENERAL PURPOSE</b>					
ITEM	TYPE	DIA	BORE	MAX RPM	STD QTY
SA23106	1	6	7/8	10200	50
<b>A60T BURR FREE</b>					
ITEM	TYPE	DIA	BORE	MAX RPM	STD QTY
SA23041	1	3	3/8	25000	50
SA23043	1	3	1/4	25000	50
SA23053	1	3	1/4	25000	100
SA23070	1	4	3/8	19000	100
SA23072	1	4	1/4	19000	100
SA23205	1	6	5/8	10189	50

## HIGH PERFORMANCE



- High performance, ceramic aluminum oxide grain
- Very uniform, high density grain structure is extremely durable and self sharpening for long life and cooler cut
- Use with reusable 5/8-11 adaptor to fit angle grinders
- Combines fast cutting with extremely long life

**STAINLESS** steel, high tensile alloys

**METAL** Ferrous and/or non-ferrous metals

ITEM	TYPE	DIA	BORE	MAX RPM	STD QTY
SA23174	1	4 1/2	7/8	13300	50

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**TUNGSTEN CARBIDE BURS**

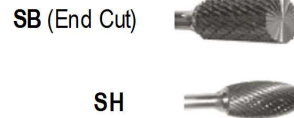
**DOUBLE CUT**



**Double Cut** (Alternate Cut) is a popular bur in ferrous applications. Produces a finer finish on material with smaller chips and slivers.



**Non-Ferrous** (Aluminum Cut) burs have a more open, aggressive cut to avoid loading on softer materials. Outstanding stock removal on aluminum, magnesium, copper, soft steel, brass, zinc alloys, hard rubber, most plastics and non-ferrous metals.



MAXIMUM RECOMMENDED RPMs FOR CARBIDE BURS		
FILE DIA.	RPM (1)	RPM (2)
1/4"	22,000	33,000
3/8"	18,000	27,000
1/2"	16,000	24,000

Use RPM (1) for iron, steel welds, cast iron, tool steels, die steels, bronze, brass and aluminum.  
Use RPM (2) for stainless steel.

**Applications:**

- Excellent for confined or hard-to-reach areas
- Use for deburring & finishing on ferrous & non-ferrous metals
- Shaping & enlarging holes in steel
- Removing welds
- Smoothing castings

ITEM	TYPE	DIA	LENGTH	SHANK DIA#	STD QTY
SA45000	SA1	1/4	5/8	1/4	1
SA45001	SA3	3/8	3/4	1/4	1

SA45005	SC1	1/4	5/8	1/4	1
SA45006	SC3	3/8	3/4	1/4	1
SA45010	SD1	1/4	7/32	1/4	1
SA45011	SD3	3/8	5/16	1/4	1
SA45012	SD5	1/2	7/16	1/4	1
SA45015	SE1	1/4	3/8	1/4	1
SA45016	SE5	1/2	7/8	1/4	1
SA45020	SF1	1/4	5/8	1/4	1
SA45021	SF3	3/8	3/4	1/4	1
SA45022	SF5	1/2	1	1/4	1
SA45025	SL1	1/4	5/8	1/4	1
SA45026	SL3	3/8	1 1/16	1/4	1
SA45027	SL4	1/2	1 1/4	1/4	1
SA45035	SM1	1/4	1/2	1/4	1
SA45037	SM4	3/8	3/4	1/4	1
SA45038	SM5	1/2	1	1/4	1
SA45115	SH1	1/4	5/8	1/4	1
SA45117	SH5	1/2	1 1/4	1/4	1

**NON-FERROUS - ALUMINUM**

ITEM	TYPE	DIA	LENGTH	SHANK DIA#	STD QTY
SA45050	SA3NF	3/8	3/4	1/4	1
SA45052	SC3NF	3/8	3/4	1/4	1
SA45053	SF3NF	3/8	3/4	1/4	1

## FLAP WHEELS

### MOUNTED FLAP WHEELS

ITEM	SIZE	GRIT	MAX RPM	STD QTY
FA26012	1 X 5/8 X 1/4	60	30000	10
FA26021	1 X 5/8 X 1/4	120	30000	
FA26102	1 X 1 X 1/4	40	30000	
FA26108	1 X 1 X 1/4	60	30000	
FA26111	1 X 1 X 1/4	80	30000	
FA26117	1 X 1 X 1/4	120	30000	
FA26150	1 1/2 X 1/2 X 1/4	40	30000	
FA26156	1 1/2 X 1/2 X 1/4	60	30000	
FA26252	1 1/2 X 1 1/4	60	23000	
FA26279	1 1/2 X 1 1/4	320	23000	
FA26294	2 X 1/2 X 1/4	40	23000	
FA26300	2 X 1/2 X 1/4	60	23000	
FA26303	2 X 1/2 X 1/4	80	23000	
FA26309	2 X 1/2 X 1/4	120	23000	
FA26390	2 X 1 X 1/4	40	23000	
FA26396	2 X 1 X 1/4	60	23000	
FA26399	2 X 1 X 1/4	80	23000	
FA26405	2 X 1 X 1/4	120	23000	
FA26540	2 1/2 X 1 X 1/4	60	23000	
FA26726	3 X 1 X 1/4	40	20000	
FA26729	3 X 1 X 1/4	50	20000	
FA26732	3 X 1 X 1/4	60	20000	
FA26735	3 X 1 X 1/4	80	20000	
FA26741	3 X 1 X 1/4	120	20000	
FA26753	3 X 1 X 1/4	240	20000	

## SPECIALTIES

### NO LAP BANDS

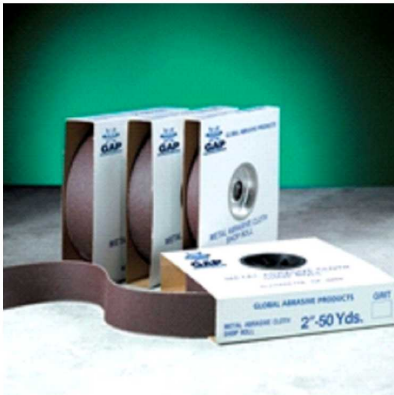


**Aluminum Oxide** – used for finishing curved or contoured surfaces.  
Generates a smooth and even cutting action

ITEM	SIZE	GRIT
FA36251	3/4 X 1	36
FA36257	3/4 X 1	50
FA36827	1 X 1	36

## SHOP/UTILITY CLOTH ROLLS

### ALUMINUM OXIDE

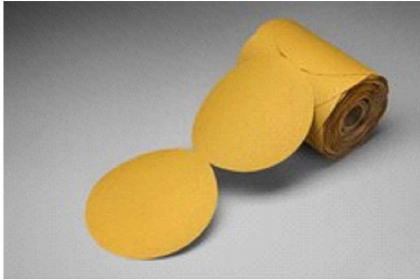


**ALUMINUM OXIDE** - Rolls are made with a flexible Aluminum Oxide cloth.

ITEM	SIZE	GRIT	STD QTY
SR2-40	2"	40	50 YARDS
SR2-60	2"	60	50 YARDS
SR2-80	2"	80	50 YARDS
SR2-100	2"	100	50 YARDS
SR2-120	2"	120	50 YARDS
SR2-150	2"	150	50 YARDS
SR2-180	2"	180	50 YARDS
SR2-220	2"	220	50 YARDS
SR2-240	2"	240	50 YARDS
SR2-280	2"	280	50 YARDS
SR2-320	2"	320	50 YARDS
SR2-400	2"	4000	50 YARDS

## PSA DISC ROLLS

### GOLD A/O STEARATED DISC ROLLS



PSA – C Weight

Aluminum Oxide

**Applications:** sanding paint, primer, metal, wood, fiberglass and plastic.

ITEM	SIZE	GRIT
HC135SK-6X180	6"	180
HC135SK-6X80	6"	80

## ROLOC HOLDER

### ROLOC HOLDER



2" or 3" Arbor Roloc Type Holder

ITEM	SIZE
MI20	3"
MI200	2"

## SURFACE CONDITIONING DISC

### RESIN FIBER



Excellent for deburring, removing weld spatter and blending tool / mill marks, rust removal

- BROWN – Heavy Duty
- MAROON – General Purpose
- BLUE – Very Fine

ITEM	SIZE	GRADE	COLOR
MI37	3"	FINE	BLUE
MI17	3"	COARSE	BROWN
MI197	2"	COARSE	BROWN
MI297	2"	MEDIUM	MAROON
MI397	2"	FINE	BLUE



## DRILL BITS

### JOBBER LENGTH FRACTIONAL BRIGHT



Straight Shank – High Speed Steel  
118° Point – General Purpose

Jobber Length Drills Bright Finish has polished flutes which enhances chip ejection especially for aluminum and other non-ferrous materials.

ITEM	DEC	FLUTE	OAL
JL1/64	.0156	3/16	7/8
JL1/32	.0312	1/2	1 3/8
JL3/64	.0469	3/4	1 3/4
JL1/16	.0625	7/8	1 7/8
JL5/64	.0781	1	2
JL3/32	.0937	1 1/4	2 1/4
JL7/64	.1094	1 1/2	2 5/8
JL1/8	.1250	1 5/8	2 3/4
JL9/64	.1406	1 3/4	2 7/8
JL5/32	.1562	2	3 1/8
JL11/64	.1719	2 1/8	3 1/4
JL3/16	.1875	2 5/16	3 1/2
JL13/64	.2031	2 7/16	3 5/8
JL7/32	.2187	2 1/2	3 3/4
JL15/64	.2344	2 5/8	3 7/8
JL1/4	.2500	2 3/4	4
JL17/64	.2656	2 7/8	4 1/8
JL9/32	.2812	2 15/16	4 1/4
JL19/64	.2969	3 1/16	4 3/8
JL5/16	.3125	3 3/16	4 1/2
JL21/64	.3281	3 5/16	4 5/8
JL11/32	.3437	3 7/16	4 3/4
JL23/64	.3594	3 1/2	4 7/8
JL3/8	.3750	3 5/8	5
JL25/64	.3906	3 3/4	5 1/8
JL13/32	.4062	3 7/8	5 1/4
JL27/64	.4219	3 15/16	5 3/8
JL7/16	.4375	4 1/16	5 1/2
JL29/64	.4531	4 3/16	5 5/8
JL15/32	.4687	4 5/16	5 3/4
JL31/64	.4844	4 3/8	5 7/8
JL1/2	.5000	4 1/2	6

### JOBBER LENGTH LETTER SIZE BRIGHT

ITEM	DEC	FLUTE	OAL
JLA	.2340	2 5/8	3 7/8
JLB	.2380	2 3/4	4
JLC	.2420	2 3/4	4
JLD	.2460	2 3/4	4
JLE	.2500	2 3/4	4
JLF	.2570	2 7/8	4 1/8
JLG	.2610	2 7/8	4 1/8
JLH	.2660	2 7/8	4 1/8
JLI	.2720	2 7/8	4 1/8
JLJ	.2770	2 7/8	4 1/8
JLK	.2810	2 15/16	4 1/4
JLL	.2900	2 15/16	4 1/4
JLM	.2950	3 1/16	4 3/8
JLN	.3020	3 1/16	4 3/8
JLO	.3160	3 3/16	4 1/2
JLP	.3230	3 5/16	4 5/8
JLQ	.3320	3 7/16	4 3/4
JLR	.3390	3 7/16	4 3/4
JLS	.3480	3 1/2	4 7/8
JLT	.3580	3 1/2	4 7/8
JLU	.3680	3 5/8	5
JLV	.3770	3 5/8	5
JLW	.3860	3 3/4	5 1/8
JLX	.3970	3 3/4	5 1/8
JLY	.4040	3 7/8	5 1/4
JLZ	.4130	3 7/8	5 1/4

# Abrasives

JOBBER LENGTH WIRE GAGE BRIGHT				JOBBER LENGTH WIRE GAGE BRIGHT			
ITEM	DEC	FLUTE	OAL	ITEM	DEC	FLUTE	OAL
JL80	.0135	1/8	3/4	JL52	.0635	7/8	1 7/8
JL79	.0145	1/8	3/4	JL51	.0670	1	2
JL78	.0160	3/16	7/8	JL50	.0700	1	2
JL77	.0180	3/16	7/8	JL49	.0730	1	2
JL76	.0200	3/16	7/8	JL48	.0760	1	2
JL75	.0210	1/4	1	JL47	.0785	1	2
JL74	.0225	1/4	1	JL46	.0810	1 1/8	2 1/8
JL73	.0240	5/16	1 1/8	JL45	.0820	1 1/8	2 1/8
JL72	.0250	5/16	1 1/8	JL44	.0860	1 1/8	2 1/8
JL71	.0260	3/8	1 1/4	JL43	.0890	1 1/4	2 1/4
JL70	.0280	3/8	1 1/4	JL42	.0935	1 1/4	2 1/4
JL69	.0292	1/2	1 3/8	JL41	.0960	1 3/8	2 3/8
JL68	.0310	1/2	1 3/8	JL40	.0980	1 3/8	2 3/8
JL67	.0320	1/2	1 3/8	JL39	.0995	1 3/8	2 3/8
JL66	.0330	1/2	1 3/8	JL38	.1015	1 7/16	2 1/2
JL65	.0350	5/8	1 1/2	JL37	.1040	1 7/16	2 1/2
JL64	.0360	5/8	1 1/2	JL36	.1065	1 7/16	2 1/2
JL63	.0370	5/8	1 1/2	JL35	.1100	1 1/2	2 5/8
JL62	.0380	5/8	1 1/2	JL34	.1110	1 1/2	2 5/8
JL61	.0390	11/16	1 5/8	JL33	.1130	1 1/2	2 5/8
JL60	.0400	11/16	1 5/8	JL32	.1160	1 5/8	2 3/4
JL59	.0410	11/16	1 5/8	JL31	.1200	1 5/8	2 3/4
JL58	.0420	11/16	1 5/8	JL30	.1285	1 5/8	2 3/4
JL57	.0430	3/4	1 3/4	JL29	.1360	1 3/4	2 7/8
JL56	.0465	3/4	1 3/4	JL28	.1405	1 3/4	2 7/8
JL55	.0520	7/8	1 7/8	JL27	.1440	1 7/8	3
JL54	.0550	7/8	1 7/8	JL26	.1470	1 7/8	3
JL53	.0595	7/8	1 7/8	JL25	.1495	1 7/8	3
				JL24	.1520	2	3 1/8
				JL23	.1540	2	3 1/8
				JL22	.1570	2	3 1/8
				JL21	.1590	2 1/8	3 1/4
				JL20	.1610	2 1/8	3 1/4
				JL19	.1660	2 1/8	3 1/4
				JL18	.1695	2 1/8	3 1/4
				JL17	.1730	2 3/16	3 3/8
				JL16	.1770	2 3/16	3 3/8
				JL15	.1800	2 3/16	3 3/8
				JL14	.1820	2 3/16	3 3/8
				JL13	.1850	2 5/16	3 1/2
				JL12	.1890	2 5/16	3 1/2
				JL11	.1910	2 5/16	3 1/2
				JL10	.1935	2 7/16	3 5/8
				JL9	.1960	2 7/16	3 5/8
				JL8	.1990	2 7/16	3 5/8
				JL7	.2010	2 7/16	3 5/8
				JL6	.2040	2 1/2	3 3/4
				JL5	.2055	2 1/2	3 3/4
				JL4	.2090	2 1/2	3 3/4
				JL3	.2130	2 1/2	3 3/4

JL2	.2210	2 5/8	3 7/8
JL1	.2280	2 5/8	3 7/8

**JOBBER LENGTH FRACTIONAL COBALT**

Cobalt steel offers increased hardness, toughness, wear resistance and heat resistance. Recommended for drilling tough, high tensile strength materials that generate cutting temperatures including high alloy steels, ferrous castings, titanium, inconel, stainless steel and other difficult to drill materials.



Straight Shank - Cobalt  
135° Split Point - Heavy Duty

ITEM	DEC	FLUTE	OAL
JL3/64-CO	.0469	3/4	1 3/4
JL1/16-CO	.0625	7/8	1 7/8
JL5/64-CO	.0781	1	2
JL3/32-CO	.0937	1 1/4	2 1/4
JL7/64-CO	.1094	1 1/2	2 5/8
JL1/8-CO	.1250	1 5/8	2 3/4
JL9/64-CO	.1406	1 3/4	2 7/8
JL5/32-CO	.1562	2	3 1/8
JL11/64-CO	.1719	2 1/8	3 1/4
JL3/16-CO	.1875	2 5/16	3 1/2
JL13/64-CO	.2031	2 7/16	3 5/8
JL7/32-CO	.2187	2 1/2	3 3/4
JL15/64-CO	.2344	2 5/8	3 7/8
JL1/4-CO	.2500	2 3/4	4
JL17/64-CO	.2656	2 7/8	4 1/8
JL9/32-CO	.2812	2 15/16	4 1/4
JL19/64-CO	.2969	3 1/16	4 3/8
JL5/16-CO	.3125	3 3/16	4 1/2
JL21/64-CO	.3281	3 5/16	4 5/8
JL11/32-CO	.3437	3 7/16	4 3/4
JL23/64-CO	.3594	3 1/2	4 7/8
JL3/8-CO	.3750	3 5/8	5
JL25/64-CO	.3906	3 3/4	5 1/8
JL13/32-CO	.4062	3 7/8	5 1/4
JL27/64-CO	.4219	3 15/16	5 3/8
JL7/16-CO	.4375	4 1/16	5 1/2
JL29/64-CO	.4531	4 3/16	5 5/8
JL15/32-CO	.4687	4 5/16	5 3/4
JL31/64-CO	.4844	4 3/8	5 7/8
JL1/2-CO	.5000	4 1/2	6

JOBBER LENGTH LETTER COBALT				JOBBER LENGTH WIRE GAGE COBALT			
ITEM	DEC	FLUTE	OAL	ITEM	DEC	FLUTE	OAL
JLA-CO	.2340	2 5/8	3 7/8	JL60-CO	.0400	11/16	1 5/8
JLB-CO	.2380	2 3/4	4	JL59-CO	.0410	11/16	1 5/8
JLC-CO	.2420	2 3/4	4	JL58-CO	.0420	11/16	1 5/8
JLD-CO	.2460	2 3/4	4	JL57-CO	.0430	3/4	1 3/4
JLE-CO	.2500	2 3/4	4	JL56-CO	.0465	3/4	1 3/4
JLF-CO	.2570	2 7/8	4 1/8	JL55-CO	.0520	7/8	1 7/8
JLG-CO	.2610	2 7/8	4 1/8	JL54-CO	.0550	7/8	1 7/8
JLH-CO	.2660	2 7/8	4 1/8	JL53-CO	.0595	7/8	1 7/8
JLI-CO	.2720	2 7/8	4 1/8	JL52-CO	.0635	7/8	1 7/8
JLJ-CO	.2770	2 7/8	4 1/8	JL51-CO	.0670	1	2
JLK-CO	.2810	2 15/16	4 1/4	JL50-CO	.0700	1	2
JLL-CO	.2900	2 15/16	4 1/4	JL49-CO	.0730	1	2
JLM-CO	.2950	3 1/16	4 3/8	JL48-CO	.0760	1	2
JLN-CO	.3020	3 1/16	4 3/8	JL47-CO	.0785	1	2
JLO-CO	.3160	3 3/16	4 1/2	JL46-CO	.0810	1 1/8	2 1/8
JLP-CO	.3230	3 5/16	4 5/8	JL45-CO	.0820	1 1/8	2 1/8
JLQ-CO	.3320	3 7/16	4 3/4	JL44-CO	.0860	1 1/8	2 1/8
JLR-CO	.3390	3 7/16	4 3/4	JL43-CO	.0890	1 1/4	2 1/4
JLS-CO	.3480	3 1/2	4 7/8	JL42-CO	.0935	1 1/4	2 1/4
JLT-CO	.3580	3 1/2	4 7/8	JL41-CO	.0960	1 3/8	2 3/8
JLU-CO	.3680	3 5/8	5	JL40-CO	.0980	1 3/8	2 3/8
JLV-CO	.3770	3 5/8	5	JL39-CO	.0995	1 3/8	2 3/8
JLW-CO	.3860	3 3/4	5 1/8	JL38-CO	.1015	1 7/16	2 1/2
JLX-CO	.3970	3 3/4	5 1/8	JL37-CO	.1040	1 7/16	2 1/2
JLY-CO	.4040	3 7/8	5 1/4	JL36-CO	.1065	1 7/16	2 1/2
JLZ-CO	.4130	3 7/8	5 1/4	JL35-CO	.1100	1 1/2	2 5/8
				JL34-CO	.1110	1 1/2	2 5/8
				JL33-CO	.1130	1 1/2	2 5/8
				JL32-CO	.1160	1 5/8	2 3/4
				JL31-CO	.1200	1 5/8	2 3/4
				JL30-CO	.1285	1 5/8	2 3/4
				JL29-CO	.1360	1 3/4	2 7/8
				JL28-CO	.1405	1 3/4	2 7/8
				JL27-CO	.1440	1 7/8	3
				JL26-CO	.1470	1 7/8	3
				JL25-CO	.1495	1 7/8	3
				JL24-CO	.1520	2	3 1/8
				JL23-CO	.1540	2	3 1/8
				JL22-CO	.1570	2	3 1/8
				JL21-CO	.1590	2 1/8	3 1/4
				JL20-CO	.1610	2 1/8	3 1/4
				JL19-CO	.1660	2 1/8	3 1/4
				JL18-CO	.1695	2 1/8	3 1/4
				JL17-CO	.1730	2 3/16	3 3/8
				JL16-CO	.1770	2 3/16	3 3/8
				JL15-CO	.1800	2 3/16	3 3/8
				JL14-CO	.1820	2 3/16	3 3/8
				JL13-CO	.1850	2 5/16	3 1/2

				<b>JOBBER LENGTH METRIC COBALT</b>			
				<b>ITEM</b>	<b>DEC</b>	<b>FLUTE MM</b>	<b>OAL mm</b>
JL12-CO	.1890	2 5/16	3 1/2	JLM.90-CO	.0354	16	38
JL11-CO	.1910	2 5/16	3 1/2	JLM.95-CO	.0374	16	38
JL10-CO	.1935	2 7/16	3 5/8	JLM1.00-CO	.0394	17	41
JL9-CO	.1960	2 7/16	3 5/8	JLM1.05-CO	.0413	17	41
JL8-CO	.1990	2 7/16	3 5/8	JLM1.10-CO	.0433	19	44
JL7-CO	.2010	2 7/16	3 5/8	JLM1.20-CO	.0472	22	48
JL6-CO	.2040	2 1/2	3 3/4	JLM1.30-CO	.0512	22	48
JL5-CO	.2055	2 1/2	3 3/4	JLM1.40-CO	.0551	22	48
JL4-CO	.2090	2 1/2	3 3/4				
JL3-CO	.2130	2 1/2	3 3/4				
JL2-CO	.2210	2 5/8	3 7/8				
JL1-CO	.2280	2 5/8	3 7/8				

JOBBER LENGTH METRIC COBALT				JLM6.30-CO	.2480	70	102
ITEM	DEC	FLUTE MM	OAL mm	JLM6.40-CO	.2520	73	105
JLM1.50-CO	.0591	22	48	JLM6.50-CO	.2559	73	105
JLM1.60-CO	.0630	22	48	JLM6.60-CO	.2598	73	105
JLM1.70-CO	.0669	25	51	JLM6.70-CO	.2638	73	105
JLM1.80-CO	.0709	25	51	JLM6.80-CO	.2677	73	105
JLM1.90-CO	.0748	25	51	JLM6.90-CO	.2717	73	105
JLM2.00-CO	.0787	25	51	JLM7.00-CO	.2756	73	105
JLM2.05-CO	.0807	29	54	JLM7.10-CO	.2795	75	108
JLM2.10-CO	.0827	29	54	JLM7.20-CO	.2835	75	108
JLM2.20-CO	.0866	32	57	JLM7.30-CO	.2874	75	108
JLM2.30-CO	.0906	32	57	JLM7.40-CO	.2913	78	111
JLM2.40-CO	.0945	35	60	JLM7.50-CO	.2953	78	111
JLM2.50-CO	.0984	35	60	JLM7.60-CO	.2992	78	111
JLM2.60-CO	.1024	37	64	JLM7.70-CO	.3031	81	114
JLM2.70-CO	.1063	37	64	JLM7.80-CO	.3071	81	114
JLM2.80-CO	.1102	38	67	JLM7.90-CO	.3110	81	114
JLM2.90-CO	.1142	41	70	JLM8.00-CO	.3150	81	114
JLM3.00-CO	.1181	41	70	JLM8.10-CO	.3189	84	117
JLM3.10-CO	.1220	41	70	JLM8.20-CO	.3228	84	117
JLM3.20-CO	.1260	41	70	JLM8.30-CO	.3268	84	117
JLM3.30-CO	.1299	45	73	JLM8.40-CO	.3307	87	121
JLM3.40-CO	.1339	45	73	JLM8.50-CO	.3346	87	121
JLM3.50-CO	.1378	45	73	JLM8.60-CO	.3386	87	121
JLM3.60-CO	.1417	48	76	JLM8.70-CO	.3425	87	121
JLM3.70-CO	.1457	48	76	JLM8.80-CO	.3465	89	124
JLM3.80-CO	.1496	48	76	JLM8.90-CO	.3504	89	124
JLM3.90-CO	.1535	51	79	JLM9.00-CO	.3543	89	124
JLM4.00-CO	.1575	54	83	JLM9.10-CO	.3583	89	124
JLM4.10-CO	.1614	54	83	JLM9.20-CO	.3622	92	127
JLM4.20-CO	.1654	54	83	JLM9.30-CO	.3661	92	127
JLM4.30-CO	.1693	54	83	JLM9.40-CO	.3701	92	127
JLM4.40-CO	.1732	56	86	JLM9.50-CO	.3740	92	127
JLM4.50-CO	.1772	56	86	JLM9.60-CO	.3780	95	130
JLM4.60-CO	.1811	56	86	JLM9.70-CO	.3819	95	130
JLM4.70-CO	.1850	59	89	JLM9.80-CO	.3858	95	130
JLM4.80-CO	.1890	59	89	JLM10.00-CO	.3937	95	130
JLM4.90-CO	.1929	62	92	JLM10.20-CO	.4016	98	133
JLM5.00-CO	.1969	62	92	JLM10.50-CO	.4134	98	133
JLM5.10-CO	.2008	62	92	JLM10.80-CO	.4252	103	140
JLM5.20-CO	.2047	64	95	JLM11.00-CO	.4331	103	140
JLM5.30-CO	.2087	64	95	JLM11.20-CO	.4409	106	143
JLM5.40-CO	.2126	64	95	JLM11.50-CO	.4528	106	143
JLM5.50-CO	.2165	64	95	JLM11.80-CO	.4646	110	146
JLM5.60-CO	.2205	67	98	JLM12.00-CO	.4724	111	149
JLM5.70-CO	.2244	67	98	JLM12.20-CO	.4803	111	149
JLM5.80-CO	.2283	67	98	JLM12.50-CO	.4921	114	152
JLM5.90-CO	.2323	67	98	JLM13.00-CO	.5118	114	152
JLM6.00-CO	.2362	70	102				
JLM6.10-CO	.2402	70	102				
JLM6.20-CO	.2441	70	102				

## JOBBER LENGTH BLACK & GOLD



Heavy Duty Jobber Length Drills  
Straight Shank - High Speed Steel  
135° Split Point - Heavy Duty  
Black & Gold

135° Self-centering split point eliminates "walking" and reduces thrust. It is recommended for a wide variety of low to medium tensile strength materials.

ITEM	DEC	FLUTE	OAL
JL1/16BG	.0625	7/8	
JL5/64BG	.0781	1	2
JL3/32BG	.0937	1 1/4	2 1/4
JL7/64BG	.1094	1 1/2	2 5/8
JL1/8BG	.1250	1 5/8	2 3/4
JL9/64BG	.1406	1 3/4	2 7/8
JL5/32BG	.1562	2	3 1/8
JL11/64BG	.1719	2 1/8	3 1/4
JL3/16BG	.1875	2 5/16	3 1/2
JL13/64BG	.2031	2 7/16	3 5/8
JL7/32BG	.2187	2 1/2	3 3/4
JL15/64BG	.2344	2 5/8	3 7/8
JL1/4BG	.2500	2 3/4	4
JL17/64BG	.2656	2 7/8	4 1/8
JL9/32BG	.2812	2 15/16	4 1/4
JL19/64BG	.2969	3 1/16	4 3/8
JL5/16BG	.3125	3 3/16	4 1/2
JL21/64BG	.3281	3 5/16	4 5/8
JL11/32BG	.3437	3 7/16	4 3/4
JL23/64BG	.3594	3 1/2	4 7/8
JL3/8BG	.3750	3 5/8	5
JL25/64BG	.3906	3 3/4	5 1/8
JL13/32BG	.4062	3 7/8	5 1/4
JL27/64BG	.4219	3 15/16	5 3/8
JL7/16BG	.4375	4 1/16	5 1/2
JL29/64BG	.4531	4 3/16	5 5/8
JL15/32BG	.4687	4 5/16	5 3/4
JL31/64BG	.4844	4 3/8	5 7/8
JL1/2BG	.5000	4 1/2	6

## JOBBER LENGTH METRIC BLACK OXIDE



The Black Oxide high 118° point bit for use in wood, metal, and plastic. Constructed of M-2 speed steel for the best combination of strength, heat and wear resistance. The Black Oxide coating resists corrosion.

ITEM	DEC	FLUTE MM	OAL mm
JLM.48-BO	.0181	5	20
JLM.50-BO	.0197	6	22
JLM.55-BO	.0217	7	24
JLM.60-BO	.0236	7	24
JLM.65-BO	.0265	8	26
JLM.70-BO	.0276	9	28
JLM.75-BO	.0295	9	28
JLM.80-BO	.0315	10	30
JLM.85-BO	.0335	10	30
JLM.90-BO	.0354	11	32
JLM.95-BO	.0374	11	32
JLM1.00-BO	.0394	12	34
JLM1.05-BO	.0413	12	34
JLM1.10-BO	.0433	14	36
JLM1.15-BO	.0453	14	36
JLM1.20-BO	.0472	16	38
JLM1.25-BO	.0492	16	38
JLM1.30-BO	.0512	16	38
JLM1.35-BO	.0531	18	40
JLM1.40-BO	.0551	18	40
JLM1.45-BO	.0571	18	40
JLM1.50-BO	.0591	18	40
JLM1.55-BO	.0610	20	43
JLM1.60-BO	.0630	20	43
JLM1.65-BO	.0650	20	43
JLM1.70-BO	.0669	20	43
JLM1.75-BO	.0689	22	46
JLM1.80-BO	.0709	22	46
JLM1.85-BO	.0728	22	46
JLM1.90-BO	.0748	22	46
JLM1.95-BO	.0768	24	49
JLM2.00-BO	.0787	24	49
JLM2.05-BO	.0808	24	49
JLM2.10-BO	.0827	24	49
JLM2.15-BO	.0846	27	53
JLM2.20-BO	.0866	27	53
JLM2.25-BO	.0886	27	53

				<b>JOBBER LENGTH METRIC BLACK OXIDE</b>			
				<b>ITEM</b>	<b>DEC</b>	<b>FLUTE MM</b>	<b>OAL mm</b>
JLM2.30-BO	.0906	27	53	JLM3.20-BO	.1260	36	65
JLM2.35-BO	.0925	27	53	JLM3.25-BO	.1280	36	65
JLM2.40-BO	.0945	30	57	JLM3.30-BO	.1299	36	65
JLM2.45-BO	.0965	30	57	JLM3.40-BO	.1339	39	70
JLM2.50-BO	.0984	30	57	JLM3.50-BO	.1378	39	70
JLM2.60-BO	.1024	30	57	JLM3.60-BO	.1417	39	70
JLM2.70-BO	.1063	33	61	JLM3.70-BO	.1457	39	70
JLM2.75-BO	.1083	33	61	JLM3.75-BO	.1476	39	70
JLM2.80-BO	.1102	33	61	JLM3.80-BO	.1496	43	75
JLM2.90-BO	.1142	33	61	JLM3.90-BO	.1535	43	75
JLM3.00-BO	.1181	33	61	JLM4.00-BO	.1575	43	75
JLM3.10-BO	.1220	36	65	JLM4.10-BO	.1614	43	75
				JLM4.20-BO	.1654	43	75
				JLM4.25-BO	.1673	43	75
				JLM4.30-BO	.1693	47	80
				JLM4.40-BO	.1732	47	80
				JLM4.50-BO	.1772	47	80
				JLM4.60-BO	.1811	47	80
				JLM4.70-BO	.1850	47	80
				JLM4.75-BO	.1870	47	80
				JLM4.80-BO	.189	52	86
				JLM4.90-BO	.1929	52	86
				JLM5.00-BO	.1968	52	86
				JLM5.10-BO	.2008	52	86
				JLM5.20-BO	.2047	52	86
				JLM5.25-BO	.2067	52	86
				JLM5.30-BO	.2087	52	86
				JLM5.40-BO	.2126	57	93
				JLM5.50-BO	.2165	57	93
				JLM5.60-BO	.2205	57	93
				JLM5.70-BO	.2244	57	93
				JLM5.75-BO	.2264	57	93
				JLM5.80-BO	.2283	57	93
				JLM5.90-BO	.2323	57	93
				JLM6.00-BO	.2362	57	93
				JLM6.10-BO	.2402	63	101
				JLM6.20-BO	.2441	63	101
				JLM6.25-BO	.2461	63	101
				JLM6.30-BO	.2480	63	101
				JLM6.40-BO	.2520	63	101
				JLM6.50-BO	.2559	63	101
				JLM6.60-BO	.2598	63	101
				JLM6.70-BO	.2638	63	101
				JLM6.75-BO	.2657	69	109
				JLM6.80-BO	.2677	69	109
				JLM6.90-BO	.2717	69	109
				JLM7.00-BO	.2756	69	109
				JLM7.10-BO	.2795	69	109



JLM7.20-BO	.2835	69	109
JLM7.25-BO	.2854	69	109
JLM7.30-BO	.2874	69	109
JLM7.40-BO	.2913	69	109
JLM7.50-BO	.2953	75	117
JLM7.60-BO	.2992	75	117
JLM7.70-BO	.3031	75	117
JLM7.75-BO	.3051	75	117
JLM7.80-BO	.3071	75	117
JLM7.90-BO	.3110	75	117
JLM8.00-BO	.3150	75	117
JLM8.10-BO	.3189	75	117
JLM8.20-BO	.3228	75	117
JLM8.25-BO	.3248	75	117
JLM8.30-BO	.3268	75	117
JLM8.40-BO	.3307	75	117
JLM8.50-BO	.3346	75	117
JLM8.60-BO	.3386	81	125
JLM8.70-BO	.3425	81	125
JLM8.75-BO	.3445	81	125
JLM8.80-BO	.3465	81	125
JLM8.90-BO	.3504	81	125
JLM9.00-BO	.3543	81	125
JLM9.10-BO	.3583	81	125
JLM9.20-BO	.3622	81	125
JLM9.25-BO	.3642	81	125
JLM9.30-BO	.3661	81	125
JLM9.40-BO	.3701	81	125
JLM9.50-BO	.3740	81	125
JLM9.60-BO	.3780	87	133
JLM9.70-BO	.3819	87	133
JLM9.75-BO	.3839	87	133
JLM9.80-BO	.3898	87	133
JLM9.90-BO	.3998	87	133
JLM10.00-BO	.3937	87	133
JLM10.20-BO	.4016	87	133
JLM10.30-BO	.4055	87	133
JLM10.50-BO	.4134	87	133
JLM10.80-BO	.4252	94	142
JLM11.00-BO	.4331	94	142
JLM11.20-BO	.4409	94	142
JLM11.50-BO	.4528	94	142
JLM11.80-BO	.4646	94	142
JLM12.00-BO	.4724	101	151
JLM12.20-BO	.4803	101	151
JLM12.50-BO	.4921	101	151
JLM13.00-BO	.5118	101	151
JLM13.50-BO	.5315	108	160
JLM14.00-BO	.5512	108	160
JLM14.50-BO	.5709	114	169

<b>JOBBER LENGTH METRIC BLACK OXIDE</b>			
<b>ITEM</b>	<b>DEC</b>	<b>FLUTE MM</b>	<b>OAL mm</b>
JLM15.00-BO	.5906	114	169
JLM15.50-BO	.6102	120	178
JLM16.00-BO	.6299	120	178
JLM16.50-BO	.6496	125	184
JLM17.00-BO	.6693	125	184
JLM17.50-BO	.6890	130	191

## SILVER & DEMING 1/2" ROUND SHANKS



1/2" Reduced Shank Silver & Deming Drills  
118° Point – High Speed Steel  
ROUND SHANKS

Expand the size range capacity of 1/2" drill chucks, recommended for drilling a wide range of materials of low to medium tensile strength.

ITEM	DEC	FLUTE	OAL
SD33/64	.5156	3 1/8	6
SD17/32	.5312	3 1/8	6
SD35/64	.5469	3 1/8	6
SD9/16	.5625	3 1/8	6
SD37/64	.5781	3 1/8	6
SD19/32	.5938	3 1/8	6
SD39/64	.6094	3 1/8	6
SD5/8	.6250	3 1/8	6
SD41/64	.6406	3 1/8	6
SD21/32	.6562	3 1/8	6
SD43/64	.6719	3 1/8	6
SD11/16	.6875	3 1/8	6
SD45/64	.7031	3 1/8	6
SD23/32	.7188	3 1/8	6
SD47/64	.7344	3 1/8	6
SD3/4	.7500	3 1/8	6
SD49/64	.7656	3 1/8	6
SD25/32	.7812	3 1/8	6
SD51/64	.7969	3 1/8	6
SD13/16	.8125	3 1/8	6
SD53/64	.8281	3 1/8	6
SD27/32	.8438	3 1/8	6
SD55/64	.8594	3 1/8	6
SD7/8	.8750	3 1/8	6
SD57/64	.8902	3 1/8	6
SD29/32	.9062	3 1/8	6
SD59/64	.9219	3 1/8	6
SD15/16	.9378	3 1/8	6
SD61/64	.9531	3 1/8	6
SD31/32	.9688	3 1/8	6
SD63/64	.9844	3 1/8	6
SD1	1.0000	3 1/8	6
SD1-1/32	1.0312	3 1/8	6
SD1-1/16	1.0625	3 1/8	6
SD1-3/32	1.0937	3 1/8	6
SD1-1/8	1.1250	3 1/8	6
SD1-5/32	1.1562	3 1/8	6
SD1-3/16	1.1875	3 1/8	6
SD1-7/32	1.2188	3 1/8	6
SD1-1/4	1.2500	3 1/8	6
SD1-9/32	1.2812	3 1/8	6
SD1-5/16	1.3125	3 1/8	6

<b>SILVER &amp; DEMING 1/2" ROUND SHANKS</b>			
<b>ITEM</b>	<b>DEC</b>	<b>FLUTE</b>	<b>OAL</b>
SD1-11/32	1.3438	3 1/8	6
SD1-3/8	1.3750	3 1/8	6
SD1-13/32	1.4062	3 1/8	6
SD1-7/16	1.4375	3 1/8	6
SD1-15/32	1.4687	3 1/8	6
SD1-1/2	1.5000	3 1/8	6

## SILVER & DEMING 1/2" 3-FLAT SHANKS BLACK & GOLD



1/2" Reduced Shank Silver & Deming Drills  
118° Self-Centering Split Point reduces "wandering" & thrust.  
3-FLAT SHANKS for positive hold

Expand the size range capacity of 1/2" drill chucks, recommended for drilling a wide range of materials of low to medium tensile strength.

ITEM	DEC	FLUTE	OAL
SD33/64BG	.5156	3 1/8	6
SD17/32BG	.5312	3 1/8	6
SD35/64BG	.5469	3 1/8	6
SD9/16BG	.5625	3 1/8	6
SD37/64BG	.5781	3 1/8	6
SD19/32BG	.5938	3 1/8	6
SD39/64BG	.6094	3 1/8	6
SD5/8BG	.6250	3 1/8	6
SD41/64BG	.6406	3 1/8	6
SD21/32BG	.6562	3 1/8	6
SD43/64BG	.6719	3 1/8	6
SD11/16BG	.6875	3 1/8	6
SD45/64BG	.7031	3 1/8	6
SD23/32BG	.7188	3 1/8	6
SD47/64BG	.7344	3 1/8	6
SD3/4BG	.7500	3 1/8	6
SD49/64BG	.7656	3 1/8	6
SD25/32BG	.7812	3 1/8	6
SD51/64BG	.7969	3 1/8	6
SD13/16BG	.8125	3 1/8	6
SD53/64BG	.8281	3 1/8	6
SD27/32BG	.8438	3 1/8	6
SD55/64BG	.8594	3 1/8	6
SD7/8BG	.8750	3 1/8	6
SD57/64BG	.8902	3 1/8	6
SD29/32BG	.9062	3 1/8	6
SD59/64BG	.9219	3 1/8	6
SD15/16BG	.9378	3 1/8	6
SD61/64BG	.9531	3 1/8	6
SD31/32BG	.9688	3 1/8	6
SD63/64BG	.9844	3 1/8	6
SD1BG	1.0000	3 1/8	6
SD1-1/32BG	1.0312	3 1/8	6

<b>SILVER &amp; DEMING 1/2" 3-FLAT SHANKS BLACK &amp; GOLD</b>			
<b>ITEM</b>	<b>DEC</b>	<b>FLUTE</b>	<b>OAL</b>
SD1-1/16BG	1.0625	3 1/8	6
SD1-3/32BG	1.0937	3 1/8	6
SD1-1/8BG	1.1250	3 1/8	6
SD1-5/32BG	1.1562	3 1/8	6
SD1-3/16BG	1.1875	3 1/8	6
SD1-7/32BG	1.2188	3 1/8	6
SD1-1/4BG	1.2500	3 1/8	6
SD1-9/32BG	1.2812	3 1/8	6
SD1-5/16BG	1.3125	3 1/8	6
SD1-11/32BG	1.3438	3 1/8	6
SD1-3/8BG	1.3750	3 1/8	6
SD1-13/32BG	1.4062	3 1/8	6
SD1-7/16BG	1.4375	3 1/8	6
SD1-15/32BG	1.4687	3 1/8	6
SD1-1/2BG	1.5000	3 1/8	6

## METRIC STRAIGHT FLUTE HAND TAPS - BOTTOM



Bottom Plug Taper

### Ground Thread – High Speed Steel

Straight Flute hand taps are used for hand tapping and machine tapping in through holes or blind holes in a wide variety of materials.

ITEM	SIZE	NO OF FLUTES	PITCH DIA LIMIT	THREAD LENGTH	OAL
1.6MM-.35B2FD3	M1.6 X 0.35	2	D3	5/16	1 5/8
1.8-.35B2FD3	M1.8 X 0.35	2	D3	3/8	1 11/16
2MM-.4B3FD3	M2 X 0.4	3	D3	7/16	1 3/4
2.2MM-.45B3FD3	M2.2 X 0.45	3	D3	7/16	1 3/4
2.5MM-.45B3FD3	M2.5 X 0.45	3	D3	1/2	1 13/16
3MM-.5B3FD3	M3 X 0.5	3	D3	5/8	1 15/16
3.5MM-.6B3FD4	M3.5 X 0.6	3	D4	11/16	2
4MM-.7B4FD4	M4 X 0.7	4	D4	3/4	2 1/8
4.5MM-.75B4FD4	M4.5 X 0.75	4	D4	7/8	2 3/8
5MM-.8B4FD4	M5 X 0.8	4	D4	7/8	2 3/8
6MM-1B4FD5	M6 X 1	4	D5	1	2 1/2
7MM-1B4FD5	M7 X 1	4	D5	1 1/8	2 23/32
8MM-1B4FD5	M8 X 1	4	D5	1 1/8	2 23/32
8MM-1.25B4FD5	M8 X 1.25	4	D5	1 1/8	2 23/32
10MM-1.25B4FD5	M10 X 1.25	4	D5	1 1/4	2 15/16
10MM-1.5B4FD6	M10 X 1.5	4	D6	1 1/4	2 15/16
12MM-1.25B4FD5	M12 X 1.25	4	D5	1 21/32	3 3/8
12MM-1.75B4FD6	M12 X 1.75	4	D6	1 21/32	3 3/8
14MM-1.5B4FD6	M14 X 1.5	4	D6	1 21/32	3 19/32

## TAPS

### METRIC STRAIGHT FLUTE HAND TAPS - BOTTOM

ITEM	SIZE	NO OF FLUTES	PITCH DIA LIMIT	THREAD LENGTH	OAL
14MM-2B4FD7	M14 X 2	4	D7	1 21/32	3 19/32
16MM-1.5B4FD6	M16 X 1.5	4	D6	1 13/16	3 13/16
16MM-2B4FD7	M16 X 2	4	D7	1 13/16	3 13/16
18MM-1.5B4FD6	M18 X 1.5	4	D6	1 13/16	4 1/32
18MM-2.5B4FD7	M18 X 2.5	4	D7	1 13/16	4 1/32
20MM-1.5B4FD6	M20 X 1.5	4	D6	2	4 15/32
20MM-2.5B4FD7	M20 X 2.5	4	D7	2	4 15/32
22MM-1.5B4FD6	M22 X 1.5	4	D6	2 7/32	4 11/16
22MM-2.5B4FD7	M22 X 2.5	4	D7	2 7/32	4 11/16
24MM-2B4FD7	M24 X 2	4	D7	2 7/32	4 29/32
24MM-3B4FD8	M24 X 3	4	D8	2 7/32	4 29/32
27MM-2B4FD7	M27 X 2	4	D7	2 1/2	5 1/8
27MM-3B4FD8	M27 X 3	4	D8	2 1/2	5 1/8
30MM-2B4FD7	M30 X 2	4	D7	2 9/16	5 7/16
30MM-3.5B4FD9	M30 X 3.5	4	D9	2 9/16	5 7/16
33MM-2B6FD7	M33 X 2	6	D7	2 9/16	5 3/4
33MM-3.5B4FD9	M33 X 3.5	4	D9	2 9/16	5 3/4
36MM-3B4FD8	M36 X 3	4	D8	3	6 1/16
36MM-4B4FD9	M36 X 4	4	D9	3	6 1/16
39MM-3B6FD8	M39 X 3	6	D8	3 3/16	6 11/16
39MM-4B6FD9	M39 X 4	6	D9	3 3/16	6 11/16

<b>METRIC STRAIGHT FLUTE HAND TAPS - PLUG</b>					
<b>ITEM</b>	<b>SIZE</b>	<b>NO OF FLUTES</b>	<b>PITCH DIA LIMIT</b>	<b>THREAD LENGTH</b>	<b>OAL</b>
1.6MM-.35P2FD3	M1.6 X 0.35	2	D3	5/16	1 5/8
1.8MM-.35P2FD3	M1.8 X 0.35	2	D3	3/8	1 11/16
2MM-.4P3FD3	M2 X 0.4	3	D3	7/16	1 3/4
2.2MM-.45P3FD3	M2.2 X 0.45	3	D3	7/16	1 3/4
2.5MM-.45P3FD3	M2.5 X 0.45	3	D3	1/2	1 13/16
3MM-.5P3FD3	M3 X 0.5	3	D3	5/8	1 15/16
3.5MM-.6P3FD4	M3.5 X 0.6	3	D4	11/16	2
4MM-.7P4FD4	M4 X 0.7	4	D4	3/4	2 1/8
4.5MM-.75P4FD4	M4.5 X 0.75	4	D4	7/8	2 3/8
5MM-.8P4FD4	M5 X 0.8	4	D4	7/8	2 3/8
6MM-1P4FD5	M6 X 1	4	D5	1	2 1/2
7MM-1P4FD5	M7 X 1	4	D5	1 1/8	2 23/32
8MM-1P4FD5	M8 X 1	4	D5	1 1/8	2 23/32
8MM-1.25P4FD5	M8 X 1.25	4	D5	1 1/8	2 23/32
10MM-1.25P4FD5	M10 X 1.25	4	D5	1 1/4	2 15/16
10MM-1.5P4FD6	M10 X 1.5	4	D6	1 1/4	2 15/16
12MM-1.25P4FD5	M12 X 1.25	4	D5	1 21/32	3 3/8
12MM-1.75P4FD6	M12 X 1.75	4	D6	1 21/32	3 3/8
14MM-1.5P4FD6	M14 X 1.5	4	D6	1 21/32	3 19/32
14MM-2P4FD7	M14 X 2	4	D7	1 21/32	3 19/32
16MM-1.5P4FD6	M16 X 1.5	4	D6	1 13/16	3 13/16
16MM-2P4FD7	M16 X 2	4	D7	1 13/16	3 13/16
18MM-1.5P4FD6	M18 X 1.5	4	D6	1 13/16	4 1/32
18MM-2.5P4FD7	M18 X 2.5	4	D7	1 13/16	4 1/32
20MM-1.5P4FD6	M20 X 1.5	4	D6	2	4 15/32
20MM-2.5P4FD7	M20 X 2.5	4	D7	2	4 15/32
22MM-1.5P4FD6	M22 X 1.5	4	D6	2 7/32	4 11/16
22MM-2.5P4FD7	M22 X 2.5	4	D7	2 7/32	4 11/16
24MM-2P4FD7	M24 X 2	4	D7	2 7/32	4 29/32
24MM-3P4FD8	M24 X 3	4	D8	2 7/32	4 29/32
27MM-2P4FD7	M27 X 2	4	D7	2 1/2	5 1/8
27MM-3P4FD8	M27 X 3	4	D8	2 1/2	5 1/8
30MM-2P4FD7	M30 X 2	4	D7	2 9/16	5 7/16
30MM-3.5P4FD9	M30 X 3.5	4	D9	2 9/16	5 7/16
33MM-2P6FD7	M33 X 2	6	D7	2 9/16	5 3/4
33MM-3.5P4FD9	M33 X 3.5	4	D9	2 9/16	5 3/4
36MM-3P4FD8	M36 X 3	4	D8	3	6 1/16
36MM-4P4FD9	M36 X 4	4	D9	3	6 1/16
39MM-3P6FD8	M39 X 3	6	D8	3 3/16	6 11/16
39MM-4P6FD9	M39 X 4	6	D9	3 3/16	6 11/16



<b>METRIC STRAIGHT FLUTE HAND TAPS - TAPER</b>					
<b>ITEM</b>	<b>SIZE</b>	<b>NO OF FLUTES</b>	<b>PITCH DIA LIMIT</b>	<b>THREAD LENGTH</b>	<b>OAL</b>
1.6MM-.35T2FD3	M1.6 X 0.35	2	D3	5/16	1 5/8
1.8MM-.35T2FD3	M1.8 X 0.35	2	D3	3/8	1 11/16
2MM-.4T3FD3	M2 X 0.4	3	D3	7/16	1 3/4
2.2MM-.45T3FD3	M2.2 X 0.45	3	D3	7/16	1 3/4
2.5MM-.45T3FD3	M2.5 X 0.45	3	D3	1/2	1 13/16
3MM-.5T3FD3	M3 X 0.5	3	D3	5/8	1 15/16
3.5MM-.6T3FD4	M3.5 X 0.6	3	D4	11/16	2
4MM-.7T4FD4	M4 X 0.7	4	D4	3/4	2 1/8
4.5MM-.75T4FD4	M4.5 X 0.75	4	D4	7/8	2 3/8
5MM-.8T4FD4	M5 X 0.8	4	D4	7/8	2 3/8
6MM-1T4FD5	M6 X 1	4	D5	1	2 1/2
7MM-1T4FD5	M7 X 1	4	D5	1 1/8	2 23/32
8MM-1T4FD5	M8 X 1	4	D5	1 1/8	2 23/32
8MM-1.25T4FD5	M8 X 1.25	4	D5	1 1/8	2 23/32
10MM-1.25T4FD5	M10 X 1.25	4	D5	1 1/4	2 15/16
10MM-1.5T4FD6	M10 X 1.5	4	D6	1 1/4	2 15/16
12MM-1.25T4FD5	M12 X 1.25	4	D5	1 21/32	3 3/8
12MM-1.75T4FD6	M12 X 1.75	4	D6	1 21/32	3 3/8
14MM-1.5T4FD6	M14 X 1.5	4	D6	1 21/32	3 19/32
14MM-2T4FD7	M14 X 2	4	D7	1 21/32	3 19/32
16MM-1.5T4FD6	M16 X 1.5	4	D6	1 13/16	3 13/16
16MM-2T4FD7	M16 X 2	4	D7	1 13/16	3 13/16
18MM-1.5T4FD6	M18 X 1.5	4	D6	1 13/16	4 1/32
18MM-2.5T4FD7	M18 X 2.5	4	D7	1 13/16	4 1/32
20MM-1.5T4FD6	M20 X 1.5	4	D6	2	4 15/32
20MM-2.5T4FD7	M20 X 2.5	4	D7	2	4 15/32
22MM-1.5T4FD6	M22 X 1.5	4	D6	2 7/32	4 11/16
22MM-2.5T4FD7	M22 X 2.5	4	D7	2 7/32	4 11/16
24MM-2T4FD7	M24 X 2	4	D7	2 7/32	4 29/32
24MM-3T4FD8	M24 X 3	4	D8	2 7/32	4 29/32
27MM-2T4FD7	M27 X 2	4	D7	2 1/2	5 1/8
27MM-3T4FD8	M27 X 3	4	D8	2 1/2	5 1/8
30MM-2T4FD7	M30 X 2	4	D7	2 9/16	5 7/16
30MM-3.5T4FD9	M30 X 3.5	4	D9	2 9/16	5 7/16
33MM-2T6FD7	M33 X 2	6	D7	2 9/16	5 3/4
33MM-3.5T4FD9	M33 X 3.5	4	D9	2 9/16	5 3/4
36MM-3T4FD8	M36 X 3	4	D8	3	6 1/16
36MM-4T4FD9	M36 X 4	4	D9	3	6 1/16
39MM-3T6FD8	M39 X 3	6	D8	3 3/16	6 11/16
39MM-4T6FD9	M39 X 4	6	D9	3 3/16	6 11/16

## STRAIGHT FLUTE HAND TAPS FRACTIONAL - BOTTOM



Bottom

Plug

Taper

**Ground Thread – High Speed Steel** Straight Flute hand taps are used for hand tapping and machine tapping in through holes or blind holes in a wide variety of materials.

ITEM	SIZE	USS	SAE	UNS	NO OF FLUTES	PITCH DIA LIMIT	THREAD LENGTH	OAL
1/4-20B4FH3	1/4	20			4	H3	1	2 1/2
1/4-28B4FH3	1/4		28		4	H3	1	2 1/2
5/16-18B4FH3	5/16	18			4	H3	1 1/8	2 23/32
5/16-24B4FH3	5/16		24		4	H3	1 1/8	2 23/32
3/8-16B4FH3	3/8	16			4	H3	1 1/4	2 15/16
3/8-24B4FH3	3/8		24		4	H3	1 1/4	2 15/16
7/16-14B4FH3	7/16	14			4	H3	1 7/16	3 5/32
7/16-20B4FH3	7/16		20		4	H3	1 7/16	3 5/32
1/2-13B4FH3	1/2	13			4	H3	1 21/32	3 3/8
1/2-20B4FH3	1/2		20		4	H3	1 21/32	3 3/8
9/16-12B4FH3	9/16	12			4	H3	1 21/32	3 19/32
9/16-18B4FH3	9/16		18		4	H3	1 21/32	3 19/32
5/8-11B4FH3	5/8	11			4	H3	1 13/16	3 13/16
5/8-18B4FH3	5/8		18		4	H3	1 13/16	3 13/16
11/16-16B4FH3	11/16			16	4	H3	1 13/16	4 1/32
3/4-10B4FH3	3/4	10			4	H3	2	4 1/4
3/4-16B4FH3	3/4		16		4	H3	2	4 1/4
7/8-9B4FH4	7/8	9			4	H4	2 7/32	4 11/16
7/8-14B4FH4	7/8		14		4	H4	2 7/32	4 11/16
1-8B4FH4	1	8			4	H4	2 1/2	5 1/8
1-12B4FH4	1		12		4	H4	2 1/2	5 1/8
1-14B4FH4	1			14	4	H4	2 1/2	5 1/8
1-1/8-7B4FH4	1 1/8	7			4	H4	2 9/16	5 7/16
1-1/8-12B4FH4	1 1/8		12		4	H4	2 9/16	5 7/16
1-1/4-7B4FH4	1 1/4	7			4	H4	2 9/16	5 3/4
1-1/4-12B6FH4	1 1/4		12		6	H4	2 9/16	5 3/4
1-3/8-6B4FH4	1 3/8	6			4	H4	3	6 1/16
1-3/8-12B6FH4	1 3/8		12		6	H4	3	6 1/16
1-1/2-6B4FH4	1 1/2	6			4	H4	3	6 3/8
1-1/2-12B6FH4	1 1/2		12		6	H4	3	6 3/8

STRAIGHT FLUTE HAND TAPS FRACTIONAL - PLUG								
ITEM	SIZE	USS	SAE	UNS	NO OF FLUTES	PITCH DIA LIMIT	THREAD LENGTH	OAL
1/4-20P4FH3	1/4	20			4	H3	1	2 1/2
1/4-28P4FH3	1/4		28		4	H3	1	2 1/2
5/16-18P4FH3	5/16	18			4	H3	1 1/8	2 23/32
5/16-24P4FH3	5/16		24		4	H3	1 1/8	2 23/32
3/8-16P4FH3	3/8	16			4	H3	1 1/4	2 15/16
3/8-24P4FH3	3/8		24		4	H3	1 1/4	2 15/16
7/16-14P4FH3	7/16	14			4	H3	1 7/16	3 5/32
7/16-20P4FH3	7/16		20		4	H3	1 7/16	3 5/32
1/2-13P4FH3	1/2	13			4	H3	1 21/32	3 3/8
1/2-20P4FH3	1/2		20		4	H3	1 21/32	3 3/8
9/16-12P4FH3	9/16	12			4	H3	1 21/32	3 19/32
9/16-18P4FH3	9/16		18		4	H3	1 21/32	3 19/32
5/8-11P4FH3	5/8	11			4	H3	1 13/16	3 13/16
5/8-18P4FH3	5/8		18		4	H3	1 13/16	3 13/16
11/16-16P4FH3	11/16			16	4	H3	1 13/16	4 1/32
3/4-10P4FH3	3/4	10			4	H3	2	4 1/4
3/4-16P4FH3	3/4		16		4	H3	2	4 1/4
7/8-9P4FH4	7/8	9			4	H4	2 7/32	4 11/16
7/8-14P4FH4	7/8		14		4	H4	2 7/32	4 11/16
1-8P4FH4	1	8			4	H4	2 1/2	5 1/8
1-12P4FH4	1		12		4	H4	2 1/2	5 1/8
1-14P4FH4	1			14	4	H4	2 1/2	5 1/8
1-1/8-7P4FH4	1 1/8	7			4	H4	2 9/16	5 7/16
1-1/8-12P4FH4	1 1/8		12		4	H4	2 9/16	5 7/16
1-1/4-7P4FH4	1 1/4	7			4	H4	2 9/16	5 3/4
1-1/4-12P6FH4	1 1/4		12		6	H4	2 9/16	5 3/4
1-3/8-6P4FH4	1 3/8	6			4	H4	3	6 1/16
1-3/8-12P6FH4	1 3/8		12		6	H4	3	6 1/16
1-1/2-6P4FH4	1 1/2	6			4	H4	3	6 3/8
1-1/2-12P6FH4	1 1/2		12		6	H4	3	6 3/8

STRAIGHT FLUTE HAND TAPS FRACTIONAL - TAPER								
ITEM	SIZE	USS	SAE	UNS	NO OF FLUTES	PITCH DIA LIMIT	THREAD LENGTH	OAL
1/4-20T4FH3	1/4	20			4	H3	1	2 1/2
1/4-28T4FH3	1/4		28		4	H3	1	2 1/2
5/16-18T4FH3	5/16	18			4	H3	1 1/8	2 23/32
5/16-24T4FH3	5/16		24		4	H3	1 1/8	2 23/32
3/8-16T4FH3	3/8	16			4	H3	1 1/4	2 15/16
3/8-24T4FH3	3/8		24		4	H3	1 1/4	2 15/16
7/16-14T4FH3	7/16	14			4	H3	1 7/16	3 5/32
7/16-20T4FH3	7/16		20		4	H3	1 7/16	3 5/32
1/2-13T4FH3	1/2	13			4	H3	1 21/32	3 3/8
1/2-20T4FH3	1/2		20		4	H3	1 21/32	3 3/8
9/16-12T4FH3	9/16	12			4	H3	1 21/32	3 19/32
9/16-18T4FH3	9/16		18		4	H3	1 21/32	3 19/32
5/8-11T4FH3	5/8	11			4	H3	1 13/16	3 13/16
5/8-18T4FH3	5/8		18		4	H3	1 13/16	3 13/16
11/16-16T4FH3	11/16			16	4	H3	1 13/16	4 1/32
3/4-10T4FH3	3/4	10			4	H3	2	4 1/4
3/4-16T4FH3	3/4		16		4	H3	2	4 1/4
7/8-9T4FH4	7/8	9			4	H4	2 7/32	4 11/16
7/8-14T4FH4	7/8		14		4	H4	2 7/32	4 11/16
1-8T4FH4	1	8			4	H4	2 1/2	5 1/8
1-12T4FH4	1		12		4	H4	2 1/2	5 1/8
1-14T4FH4	1			14	4	H4	2 1/2	5 1/8
1-1/8-7T4FH4	1 1/8	7			4	H4	2 9/16	5 7/16
1-1/8-12T4FH4	1 1/8		12		4	H4	2 9/16	5 7/16
1-1/4-7T4FH4	1 1/4	7			4	H4	2 9/16	5 3/4
1-1/4-12T6FH4	1 1/4		12		6	H4	2 9/16	5 3/4
1-3/8-6T4FH4	1 3/8	6			4	H4	3	6 1/16
1-3/8-12T6FH4	1 3/8		12		6	H4	3	6 1/16
1-1/2-6T4FH4	1 1/2	6			4	H4	3	6 3/8
1-1/2-12T6FH4	1 1/2		12		6	H4	3	6 3/8

## STRAIGHT FLUTE HAND TAPS MACHINE SCREW - BOTTOM

ITEM	SIZE	USS	SAE	NO OF FLUTES	PITCH DIA LIMIT	THREAD LENGTH	OAL
#0-80B2FH1	0		80	2	H1	5/16	1 5/8
#1-72B2FH2	1		72	2	H2	3/8	1 11/16
#2-56B3FH2	2	56		3	H2	7/16	1 3/4
#2-64B3FH2	2		64	3	H2	7/16	1 3/4
#3-48B3FH2	3	48		3	H2	1/2	1 13/16
#3-56B3FH2	3		56	3	H2	1/2	1 13/16
#4-40B3FH2	4	40		3	H2	9/16	1 7/8
#4-48B3FH2	4		48	3	H2	9/16	1 7/8
#6-32B3FH2	6	32		3	H2	11/16	2
#6-32B3FH3	6	32		3	H3	11/16	2
#6-40B3FH2	6		40	3	H2	11/16	2
#8-32B4FH3	8	32		4	H3	3/4	2 1/8
#8-36B4FH2	8		36	4	H2	3/4	2 1/8
#10-24B4FH3	10	24		4	H3	7/8	2 3/8
#10-32B4FH2	10		32	4	H2	7/8	2 3/8
#12-24B4FH3	12	24		4	H3	15/16	2 3/8
#12-28B4FH3	12		28	4	H3	15/16	2 3/8

## STRAIGHT FLUTE HAND TAPS MACHINE SCREW - PLUG

ITEM	SIZE	USS	SAE	NO OF FLUTES	PITCH DIA LIMIT	THREAD LENGTH	OAL
#0-80P2FH1	0		80	2	H1	5/16	1 5/8
#1-72P2FH2	1		72	2	H2	3/8	1 11/16
#2-56P3FH2	2	56		3	H2	7/16	1 3/4
#2-64P3FH2	2		64	3	H2	7/16	1 3/4
#3-48P3FH2	3	48		3	H2	1/2	1 13/16
#3-56P3FH2	3		56	3	H2	1/2	1 13/16
#4-40P3FH2	4	40		3	H2	9/16	1 7/8
#4-48P3FH2	4		48	3	H2	9/16	1 7/8
#6-32P3FH2	6	32		3	H2	11/16	2
#6-32P3FH3	6	32		3	H3	11/16	2
#6-40P3FH2	6		40	3	H2	11/16	2
#8-32P4FH3	8	32		4	H3	3/4	2 1/8
#8-36P4FH2	8		36	4	H2	3/4	2 1/8
#10-24P4FH3	10	24		4	H3	7/8	2 3/8
#10-32P4FH2	10		32	4	H2	7/8	2 3/8
#12-24P4FH3	12	24		4	H3	15/16	2 3/8
#12-28P4FH3	12		28	4	H3	15/16	2 3/8

## STRAIGHT FLUTE HAND TAPS MACHINE SCREW - TAPER

ITEM	SIZE	USS	SAE	NO OF FLUTES	PITCH DIA LIMIT	THREAD LENGTH	OAL
#0-80T2FH1	0		80	2	H1	5/16	1 5/8
#1-72T2FH2	1		72	2	H2	3/8	1 11/16
#2-56T3FH2	2	56		3	H2	7/16	1 3/4
#2-64T3FH2	2		64	3	H2	7/16	1 3/4
#3-48T3FH2	3	48		3	H2	1/2	1 13/16
#3-56T3FH2	3		56	3	H2	1/2	1 13/16
#4-40T3FH2	4	40		3	H2	9/16	1 7/8
#4-48T3FH2	4		48	3	H2	9/16	1 7/8
#6-32T3FH2	6	32		3	H2	11/16	2
#6-32T3FH3	6	32		3	H3	11/16	2
#6-40T3FH2	6		40	3	H2	11/16	2
#8-32T4FH3	8	32		4	H3	3/4	2 1/8
#8-36T4FH2	8		36	4	H2	3/4	2 1/8
#10-24T4FH3	10	24		4	H3	7/8	2 3/8
#10-32T4FH2	10		32	4	H2	7/8	2 3/8
#12-24T4FH3	12	24		4	H3	15/16	2 3/8
#12-28T4FH3	12		28	4	H3	15/16	2 3/8

## TAPER PIPE TAPS



Regular Thread NPT taper pipe taps are commonly used for tapping pipe fittings and couplings in a wide variety of materials. Assembly requires the use of a thread sealant to ensure a tight seal.

ITEM	SIZE	NO OF FLUTES	THREAD LENGTH	OAL
TAPNPT1/16	1/16-27	4	11/16	2 1/8
TAPNPT1/8	1/8-27 (LG. SK.)	4	3/4	2 1/8
TAPNPT1/4	1/4-18	4	1 1/16	2 7/16
TAPNPT3/8	3/8-18	4	1 1/16	2 7/16
TAPNPT1/2	1/2-14	4	1 3/8	3 1/8
TAPNPT3/4	3/4-14	5	1 3/8	3 1/4

## DIES

### HEXAGON RETHREADING DIES

ITEM	SIZE	USS	SAE
1/4-20HEXDIE	1/4	20	
1/4-28HEXDIE	1/4		28
5/16-18HEXDIE	5/16	18	
5/16-24HEXDIE	5/16		24
3/8-16HEXDIE	3/8	16	
3/8-24HEXDIE	3/8		24
7/16-14HEXDIE	7/16	14	
7/16-20HEXDIE	7/16		20
1/2-13HEXDIE	1/2	13	
1/2-20HEXDIE	1/2		20
9/16-12HEXDIE	9/16	12	
9/16-18HEXDIE	9/16		18
5/8-11HEXDIE	5/8	11	
5/8-18HEXDIE	5/8		18
3/4-10HEXDIE	3/4	10	
3/4-16HEXDIE	3/4		16
7/8-9HEXDIE	7/8	9	
7/8-14HEXDIE	7/8		14
1-8HEXDIE	1	8	
1-12HEXDIE	1		12
1-1/8-7HEXDIE	1 1/8	7	
1-1/8-12HEXDIE	1 1/8		12
1-1/4-7HEXDIE	1 1/4	7	
1-1/4-12HEXDIE	1 1/4		12
1-3/8-6HEXDIE	1 3/8	6	
1-3/8-12HEXDIE	1 3/8		12
1-1/2-6HEXDIE	1 1/2	6	
1-1/2-12HEXDIE	1 1/2		12