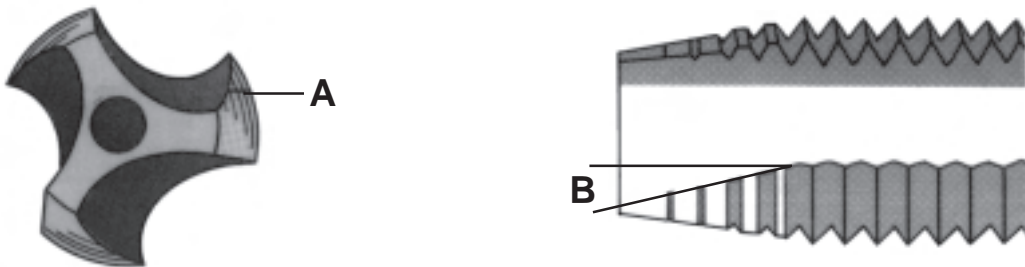


CHROMATE CIC 200™ "SHOOTER" TAPS

It used to be said that 90% of all taps broke before they wore out. Chromate's CIC 200 "Shooter" Tap literally "shoots" the chips out ahead of the tap. This is most important in tapping stringy materials, where the flutes become loaded, causing the tap to break. It makes it possible to use shallower flutes, which means a stronger tap. "Shooter" Taps require less power to drive and are much more economical to use than ordinary hand taps.

SUPERIOR "SHOOTER" TAP DESIGN

The cutting edges **A** at the point of the tap are ground at an angle **B** to the axis for a distance of four or five threads. This angle, in conjunction with the hook on the cutting edge of the land and the special flute form, produces the long curling chips. These chips, instead of passing out or backing in the flutes, are "shot" out ahead of the tap.



THE CHROMATE CIC 200 "SHOOTER" TAPS OFFER THESE THREE ADVANTAGES FOR BETTER THREADING

1. STRONGER: Does not require deep flutes for elimination of chips. Therefore, fewer and shallower flutes are possible, insuring a large cross sectional area. This gives extra strength.

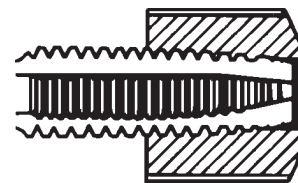
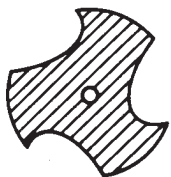
2. LESS POWER NEEDED: The angular cutting edge with hook on the land shears the metal instead of tearing or pulling it off with a scraping action. This shearing action requires much less drive power than is needed for hand taps.

3. ACCURACY: The first few teeth of the "Shooter" Tap do all the cutting. The rest of the threaded section acts as a lead screw, steadying the tap, and ensuring a more accurately tapped hole.

"SHOOTER" TAP

4 FLUTED
HAND TAP

SHEARS INSTEAD
OF SCRAPES



CHROMATE CIC 200™ HI-SPEED STEEL "SHOOTER" TAPS

*A Professional Quality Cutting Tool for
Maintenance and Repair Applications*

- Made of the same quality alloys as our drills.
Contains:
 - Vanadium
 - Chromium
 - Molybdenum
 - Cobalt

For faster cutting and longer tap life.



- Requires 30% less torque for faster cutting.
- 30% heavier web for faster cutting.
- Cuts materials up to 55 Rockwell "C".
A true maintenance tap for all shops.
- Thread tolerances are to .0005 – perfect threads every time.
- Special point allows you to tap straight through, without backing out – saving time and labor.
- Ground threads – triple heat treated – special alloys – give you a 200% higher breaking torque over ordinary taps.
- Chromate 200 Shooter Taps will reduce your "tapped hole" cost tremendously – saving you time, labor and money.

WILL OUTLAST ORDINARY TAPS 3 TO 1

Let Me Show You How It Works

CIC 200™ PRO™ SHOOTER TAP & DRILL ORGANIZER

SIZES EMBOSSED
ON FRONT OF EACH
COMPARTMENT



STORAGE CABINET:
14-1/2" W x 7-1/4" H x 7-1/4" D

- Contains 26 CIC 200 Pro Shooter Taps and Drills
- 13 of the most popular fractional sizes
- Stores hundreds of taps and drills in one place
- Eliminates misplaced taps and drills

P/N 61603

- ONE CONVENIENT LOCATION FOR ALL YOUR TAPS AND DRILLS
- THE RIGHT SIZE ALWAYS AVAILABLE
- CONTROLS YOUR DRILL INVENTORY

QTY.	SIZE	QTY.	SIZE	QTY.	SIZE	QTY.	SIZE
1	4-40 Tap	1	#24 Drill	1	5/16-18 Tap	1	"R" Drill
1	#43 Drill	1	10-32 Tap	1	"H" Drill	1	1/2-13 Tap
1	6-32 Tap	1	#20 Drill	1	5/16-24 Tap	1	7/16 Drill
1	#35 Drill	1	1/4-20 Tap	1	"J" Drill	1	1/2-20 Tap
1	8-32 Tap	1	#6 Drill	1	3/8-16 Tap	1	29/64 Drill
1	#29 Drill	1	1/4-28 Tap	1	"P" Drill		
1	10-24 Tap	1	7/32 Drill	1	3/8-24 Tap		

SAVES TIME, MONEY AND LABOR

CIC 200™ PRO™ SHOOTER TAP AND DRILL ORGANIZER

P/N 7805

INCLUDES:

TAP AND DRILL ORGANIZER (61603)

- 3-drawer steel cabinet
- 13 Pro Shooter Taps
- 13 Pro Drills

TAP AND REAM ALIGNER (8585)

- Eliminates up to 85% unnecessary tap breakage
- Perfectly aligns taps and reamers
- Large T-handle for extra leverage
- Precision made



**THE CIC 200™ PRO™ SHOOTER TAPS AND DRILLS,
ALONG WITH THE TAP AND REAM ALIGNER WILL GIVE
YOU A TEAM FOR TAPPING THAT CAN'T BE BEAT!**



QUALITY BUILDS CONFIDENCE, SERVICE EARNS TRUST.

5250-A Naiman Parkway . Solon . OH 44139

100114

1-800-BUY-BOLT . Fax: 631-567-2418 . www.chromate.com



**PERFECT
Thread Fit!**



CIC 200™ PRO SHOOTER TAPS

**STRENGTH AND VERSATILITY THAT
OUTPERFORMS THE REST**



CIC 200™ PRO SHOOTER TAPS

FASTER, MORE ACCURATE TAPPING OF THE TOUGHEST MATERIALS

- Chromium, vanadium, molybdenum and cobalt alloy construction for high stress resistance
- Triple tempered for superior strength and durability
- Cuts materials up to 55 Rockwell "C" scale
- Requires less torque for faster cutting
- Unique design actually "shoots" chips out ahead of the tap
- Outlasts ordinary taps up to 10 to 1

TAPS MORE HOLES . . . MORE ACCURATELY

PRO SHOOTER TAP

IT CUTS:

- Stainless Steels
- Tool Steels
- Exotic Steels
- Standard Steels



THE ONE TAP FOR ALL MAINTENANCE JOBS



5250-A Naiman Parkway, Solon, OH 44139
1-800-BUY-BOLT • Fax: 877-233-3377 • www.chromate.com

TAPS AND DIES



- **CIC 200™ Hex Shank Combo Drill and Taps Provide Quick, Superior Cutting**
- **"Pro Shooter" Taps Provide Perfect Class 2B Fit**
- **CIC 200™ Taps Cut With Less Power, Are Stronger And More Accurate Than Conventional Taps**
- **High Carbon Steel Dies Are Heat-Treated For Strength And Durability**
- **Premium Quality Tap And Die Tools**

CHROMATE TAPS AND DIES PROVIDE SUPERIOR, PRECISION THREAD CUTTING AND DURABILITY. Manufactured from the finest alloys and heat-treated for strength and long life, Chromate Taps and Dies will satisfy all your thread cutting needs.



CHROMATE INDUSTRIAL CORP.

EXCEPTIONAL PRODUCTS, SERVICE AND INNOVATIVE SOLUTIONS

CIC 200™ HEX SHANK COMBO DRILL & TAPS

CIC 200™ HEX SHANK COMBINATION DRILL AND TAPS



APPLICATIONS:

- Construction
- Electrical
- Maintenance
- Industrial
- Automotive
- Farm Implement Equipment

- Create holes and tap in a single operation. No center drilling or punching required.
- Quick change hex shank makes it ideal for use in portable power drills.
- Its taper neck design significantly reduces drill & tap breakage.
- A 135° split point permits holes and threads to be cut at high speeds.
- Available in standard (inch) and metric machine screw tap sizes.
- Durability provided by high molybdenum content high speed steel.
- More holes per drill than ordinary twist drills, especially in cordless power tools.
- Functional black and gold surface treatment holds lubricant for smoother drilling.

SIZE / TPI	HEX SHANK	OVERALL LENGTH	DRILL DIA.	DRILL LENGTH	THREAD LENGTH	PART
6-32	1/4"	2.17"	0.11"	0.31"	0.43"	A 12735
8-32	1/4"	2.45"	0.14"	0.37"	0.50"	A 12736
10-24	1/4"	2.61"	0.15"	0.41"	0.63"	A 12737
10-32	1/4"	2.61"	0.16"	0.41"	0.93"	A 12738
12-24	1/4"	2.70"	0.18"	0.47"	0.66"	A 12739
1/4-20	1/4"	2.89"	0.21"	0.53"	0.78"	A 12740
1/4-28	1/4"	2.89"	0.22"	0.53"	0.78"	A 12741
5/16-18	1/4"	3.20"	0.27"	0.69"	0.94"	A 12742
5/16-24	1/4"	3.20"	0.28"	0.69"	0.94"	A 12743
3/8-16	11/32"	3.45"	0.32"	0.81"	1.06"	A 12744
3/8-24	11/32"	3.45"	0.34"	0.81"	1.06"	A 12745
7/16-14	11/32"	3.83"	0.38"	1.00"	1.25"	A 12746
7/16-20	11/32"	3.83"	0.40"	1.00"	1.25"	A 12747
1/2-13	11/32"	4.07"	0.44"	1.13"	1.38"	A 12748
1/2-20	11/32"	4.07"	0.46"	1.13"	1.38"	A 12749

24

ACCESSORIES – QUICK CHANGE ADAPTER

- Dual 1/4" and 3/8" drill and drive chuck
- Industrial quality with minimal runout (wobble)
- Fits all accessory types, all brands
- Fits old and new hex shanks with or without power groove



DESCRIPTION	PART
Quick Change Adapter – For 1/4" and 3/8" Hex Shank Tools	A 51166

CIC 200™ HEX SHANK COMBO DRILL & TAPS

CIC 200™ HEX SHANK COMBINATION DRILL AND TAP SETS

Machine Screw

P/N 8844

5 piece set contains these tap diameters:

- 6-32
- 8-32
- 10-24
- 10-32
- 12-24

Packed in a rugged plastic case.



USS

P/N 8845

5 piece set contains these tap diameters:

- 1/4-20
- 5/16-18
- 3/8-16
- 7/16-14
- 1/2-13

Packed in a rugged plastic case.



SAE

P/N 8846

5 piece set contains these tap diameters:

- 1/4-28
- 5/16-24
- 3/8-24
- 7/16-20
- 1/2-20

Packed in a rugged plastic case.



SAE & USS

P/N 8848

10 piece set contains these tap diameters:

- 6-32
- 8-32
- 10-24
- 10-32
- 12-24
- 1/4-20
- 5/16-18
- 3/8-16
- 7/16-14
- 1/2-13

Packed in a rugged plastic case.



- Create holes and tap in a single operation. No center drilling or punching required.
- Quick change hex shank makes it ideal for use in portable power drills.
- Its taper neck design significantly reduces drill & tap breakage.
- A 135° split point permits holes and threads to be cut at high speeds.
- Available in standard (inch) and metric machine screw tap sizes.
- Durability provided by high molybdenum content high speed steel.
- More holes per drill than ordinary twist drills, especially in cordless power tools.
- Functional black and gold surface treatment holds lubricant for smoother drilling.

PRO COMBO DRILL & TAPS

PRO COMBO DRILL AND TAPS



APPLICATIONS:

Construction, Electrical, Maintenance, Industrial, Automotive and Farm Implement Equipment

MATERIALS:

Aluminum, Brass, Bronze, Cast Iron, Steel and Zinc

- TWO OPERATIONS IN ONE SETUP
- PERFORM AT HIGH RPM IN ANY MATERIAL WHERE HIGH SPEED STEEL CUTTING TOOLS ARE USED
- 118° DRILL PILOT IS SPECIFICALLY DESIGNED AND MANUFACTURED TO CLOSE TOLERANCES TO PRODUCE THE PROPER SIZE HOLE FOR TAPPING
- DESIGNED TO OPERATE AT SPEEDS BETWEEN THE NORMAL TAPPING SPEED AND DRILLING SPEED FOR THE SPECIFIED MATERIALS
- CLASS 2B FIT
- H3 TOLERANCES
- **NOTE:** TO ACCOMMODATE TAPPING OPERATION, THE MACHINE MUST BE CAPABLE OF REVERSING TO WITHDRAW THE TAP

SIZE/ TPI	# OF FLUTES	DRILL DIA.	OVERALL LENGTH	DRILL LENGTH	THREAD LENGTH	PART	SIZE/ TPI	# OF FLUTES	DRILL DIA.	OVERALL LENGTH	DRILL LENGTH	THREAD LENGTH	PART
6-32	2	.1085	3-1/4	.250	.716	A 12780	5/16-18	2	.2559	3.7008	.6299	.8268	A 12785
8-32	2	.1378	2.5197	.3150	.4724	A 12781	5/16-24	2	.2717	3.7008	.6299	.8661	A 12772
8-36	2	.1378	2.5197	.3150	.5118	A 12769	3/8-16	2	.3150	4.0945	.7480	.8661	A 12786
10-24	2	.1535	2.8346	.3937	.5906	A 12782	3/8-24	2	.3346	4.0945	.7480	.9449	A 12773
10-32	2	.1535	2.8346	.3937	.5906	A 12783	7/16-14	2	.3622	4.2126	.8661	.9843	A 12777
12-24	2	.1772	3.0315	.4331	.6299	A 12789	7/16-20	2	.3898	4.2126	.8661	.9843	A 12774
12-28	2	.1850	3.0315	.4331	.6693	A 12770	1/2-13	2	.4252	4.4882	.9843	1.1417	A 12788
1/4-20	2	.2008	3.2677	.5118	.7087	A 12784	1/2-20	2	.4527	4.4882	.9843	1.1417	A 12775
1/4-28	2	.2165	3.2677	.5118	.7480	A 12771	5/8-11	2	.5315	5.2756	1.2598	1.2598	A 12778
							5/8-18	2	.5709	5.2756	1.2598	1.2598	A 12776
Small Set: 8-32, 10-24, 10-32 and 12-24						A 61613	SAE Small Set: 8-36, 10-32 and 12-28						A 61667
USS Large Set: 1/4-20, 5/16-18, 3/8-16 and 1/2-13						A 61614	SAE Large Set: 1/4-28, 5/16-24, 3/8-24 and 1/2-20						A 61668
Pro Combo Drill and Tap Pouch Assortment Contains 8 Drills – 8-32, 10-24, 10-32, 12-24, 1/4-20, 5/16-18, 3/8-16 and 1/2-13						A 61662	SAE Pro Combo Drill and Tap Pouch Assortment Contains 8 Drills – 8-36, 10-32, 12-28, 1/4-28, 5/16-24, 3/8-24, 7/16-20 and 1/2-20						A 61669



TITANIUM NITRIDE COATED COMBO DRILL & TAPS

ENGINEERED FOR HIGH PRODUCTION



Features

- Drilling and tapping in one application.
- Ideal for use in multi-spindle heads with reversing capability and in variable speed/reverse magnetic drills when used with tapping heads.
- Tapered neck design reduces drill & tap breakage.
- 118° split point permits holes and threads to be cut at high speeds.
- Produces a class 2B fit. No special holders or collets required.

Application

- Create holes and tap in a single operation
- No center drilling or punching required

Uses

- Food industry plants where stainless is prevalent
- Automotive
- Industrial applications

6 Piece Set P/N 61666

Includes the following:

- 8-32 P/N 12706
- 10-24 P/N 12708
- 12-24 P/N 12710
- 1/4-20 P/N 12712
- 5/16-18 P/N 12714
- 3/8-16 P/N 12716



P/N		Size TPI	No. of Flutes	Drill Dia.	Overall Length	Drill Length	Tap Length
12700	A	4-40	2	.0910	1-7/8	1/4	3/8
12701	A	4-48	2	.0945	1-7/8	1/4	3/8
12702	A	5-40	2	.1040	1-15/16	9/32	13/32
12703	A	5-44	2	.1060	1-15/16	9/32	13/32
12704	A	6-32	2	.1115	2	5/16	7/16
12705	A	6-40	2	.1170	2	5/16	7/16
12706	A	8-32	2	.1375	2-1/8	3/8	1/2
12707	A	8-36	2	.1405	2-1/8	3/8	1/2
12708	A	10-24	2	.1545	2-3/8	13/32	5/8
12709	A	10-32	2	.1635	2-3/8	13/32	5/8
12710	A	12-24	2	.1805	2-3/8	15/32	21/32
12711	A	12-28	2	.1860	2-3/8	15/32	21/32
12712	A	1/4-20	2	.2080	2-1/2	17/32	25/32
12713	A	1/4-28	2	.2220	2-1/2	17/32	25/32
12714	A	5/16-18	2	.2660	2-27/32	11/16	15/16
12715	A	5/16-24	2	.2770	2-27/32	11/16	15/16
12716	A	3/8-16	2	.3225	3-3/8	13/16	1-1/16
12717	A	3/8-24	2	.3395	3-3/8	13/16	1-1/16
12718	A	7/16-14	2	.3770	3-3/4	1	1-1/4
12719	A	7/16-20	2	.3955	3-3/4	1	1-1/4
12720	A	1/2-13	2	.4350	4-1/16	1-1/8	1-3/8
12721	A	1/2-20	2	.4580	4-1/16	1-1/8	1-3/8

Benefits of Titanium Nitride Coating (TiN)

Thermal and Chemical Diffusion Barrier

Titanium Nitride (TiN) is an extremely fine and dense compound. This non-porosity lends to TiN to act as a chemical and thermal barrier to diffusion and fusion, which prevents the transfer of molecules from the cutting tool to the work-piece, and vice versa. This phenomena is often referred to as "work hardening" and is eliminated by TiN coating.

High Lubricity

The coefficient of friction of TiN is lower than that of hard chrome. This provides free chip flow, reduced heat build-up, reduced adhesion and reduced built-up edge formation and cratering. In addition, the lubricious finish of TiN creates a superior work-piece finish.

Increased Surface Hardness

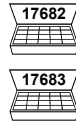
TiN coating measures a hardness in excess of 80 Rockwell C. This hardness protects the cutting edge from abrasion and provides a protective shield against the damaging effects of heat generated at the cutting edge.

Increased Durability

Applying a hard, heat resistant TiN coating to tough impact resistant high-speed steel tools prolongs sharpness. As a result, cutting tools can be run at substantially higher speeds and feed rates, thus increasing productivity

TITANIUM NITRIDE COATED SPIRAL POINT TAPS

THE SPIRAL POINT EJECTS CHIPS FORWARD



Features

• Spiral Point

The spiral point ejects the chips forward. This provides cleaner threads, higher quality threads than standard hand taps. The spiral point enables faster tapping, higher speeds, and thus, higher productivity.

• Necked Design

The recess or “neck” enables cutting fluids to reach the cutting edges and point of the tool, where the hard work is being done. The neck enables deeper tapping.

• Three flutes

These taps all have 3-flutes instead of two flutes on many spiral point taps. This provides for easier starting, and straighter tapping. Misalignment is a common problem with taps and these taps minimize this problem. They are also excellent for tapping stainless steel.

Application

- Permits tapping of high tensile martensitic stainless steels and titanium alloys at high speeds.

Uses

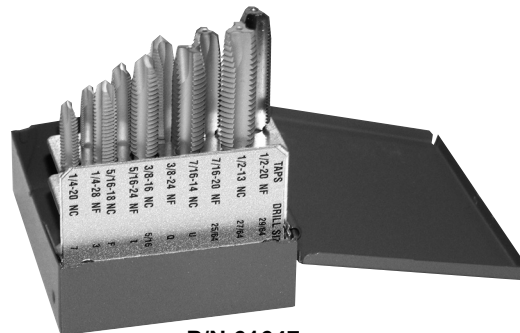
- Food industry plants where stainless is prevalent
- Automotive
- Industrial applications

P/N		Size TPI	Number of Flutes	Number of Threads	Overall Length
12600	A	4-40	3	9/16	2
12601	A	6-32	3	11/16	2
12602	A	6-40	3	11/16	2
12603	A	8-32	3	3/4	2-1/8
12604	A	8-36	3	3/4	2-1/8
12605	A	10-24	3	7/8	2-3/8
12606	A	10-32	3	7/8	2-3/8
12607	A	12-24	3	15/16	2-3/8
12608	A	12-28	3	15/16	2-3/8
12609	A	1/4-20	3	1	2-1/2
12610	A	1/4-28	3	1-1/8	2-3/4
12611	A	5/16-18	3	1-1/8	2-3/4
12612	A	5/16-24	3	1-1/8	2-3/4
12613	A	3/8-16	3	1-1/4	2-15/16
12614	A	3/8-24	3	3/4	2-15/16
12615	A	7/16-14	3	1-7/16	3-5/32
12616	A	7/16-20	3	1-7/16	3-5/32
12617	A	1/2-13	3	1-21/32	3-3/8
12618	A	1/2-20	3	1-21/32	3-3/8
12619	A	5/8-11	3	1-13/16	3-13/16
12620	A	5/8-18	3	3-13/16	3-13/16
12621	A	3/4-10	3	2	4-1/4
12622	A	3/4-16	3	2	4-1/4

10 PIECE SET - METAL INDEX

Includes the following:

- 1/4-20 P/N 12609
- 1/4-28 P/N 12610
- 5/16-18 P/N 12611
- 5/16-24 P/N 12612
- 3/8-16 P/N 12613
- 3/8-24 P/N 12614
- 7/16-14 P/N 12615
- 7/16-20 P/N 12616
- 1/2-13 P/N 12617
- 1/2-20 P/N 12618



P/N 61647

CIC 200™ HI-SPEED STEEL TAPS

"PRO SHOOTER" TAPS

"Pro Shooter" Taps provide the ultimate versatility, precision and durability for tapping mild steel, stainless steel, medium carbon steel and aluminum. Designed to run at higher tapping speeds up to 60 fpm for aluminum and 50 fpm for steel.

- CONSTRUCTED OF CHROMIUM, VANADIUM, MOLYBDENUM AND COBALT ALLOYS
- CUTS MATERIALS UP TO 55 ROCKWELL "C"
- SUPERIOR DESIGN ACTUALLY "SHOOTS" CHIPS OUT AHEAD OF THE TAP



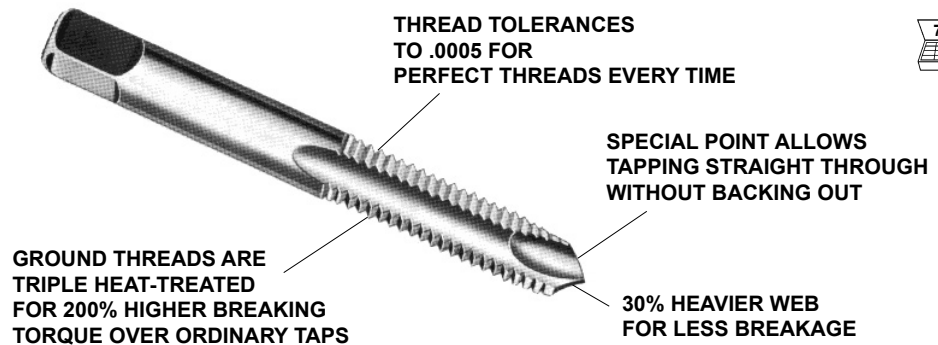
NOTE: See page 24.14 for recommended drill sizes.

CLASS 2B FIT DESIGNED WITH IDEAL PITCH DIAMETER FOR PERFECT CLASS 2B FIT, ELIMINATING CONFUSION OF SELECTING PROPER "H" LIMIT

SIZE	# FLUTES	PART	SIZE	# FLUTES	PART	SIZE	# FLUTES	PART	SIZE	# FLUTES	PART
4-40	2	A 12950	1/4-20	2	A 12960	7/16-14	3	A 12969	5/8-18	3	A 12976
6-32	2	A 12952	1/4-28	2	A 12962	7/16-20	3	A 12971	3/4-10	3	A 12977
8-32	2	A 12954	5/16-18	2	A 12964	1/2-13	3	A 12972	3/4-16	3	A 12978
10-24	2	A 12956	5/16-24	3	A 12966	1/2-20	3	A 12974	7/8-9	3	A 12979
10-32	2	A 12958	3/8-16	3	A 12968	5/8-11	3	A 12975	7/8-14	3	A 12980
12-24	2	A 12959	3/8-24	3	A 12970	-	-	-	-	-	-

STANDARD "SHOOTER" TAPS

- CONSTRUCTED OF CHROMIUM, VANADIUM, MOLYBDENUM AND COBALT ALLOYS.
- CUTS MATERIALS UP TO 55 ROCKWELL "C".
- SUPERIOR DESIGN ACTUALLY "SHOOTS" CHIPS OUT AHEAD OF THE TAP.



SIZE	# FLUTES	PART	SIZE	# FLUTES	PART
2-56	2	A 1574	5/16-24	2	A 1591
4-40	2	A 1582	3/8-16	3	A 1592
5/40	2	A 1581	3/8-24	3	A 1593
6-32	2	A 1583	7/16-14	3	A 1594
8-32	2	A 1584	7/16-20	3	A 1595
10-24	2	A 1585	1/2-13	3	A 1596
10-32	2	A 1586	1/2-20	3	A 1597
12-24	2	A 1587	5/8-11	3	A 1598
1/4-20	2	A 1588	5/8-18	3	A 1600
1/4-28	2	A 1589	3/4-10	3	A 1599
5/16-18	2	A 1590	3/4-16	3	A 1601

CIC 200™ HI-SPEED STEEL TAPS

PLUG, TAPER AND BOTTOMING TAPS



SIZE	PLUG		TAPER		BOTTOMING	
	PART	# FLUTES	PART	# FLUTES	PART	# FLUTES
2-56NC	A 12791	3	A 12790	3	A 12792	3
4-40NC	A 12800	3	A 12801	3	A 12802	3
5-40NC	A 12803	3	A 12804	3	A 12805	3
6-32NC	A 12806	3	A 12807	3	A 12808	3
8-32NC	A 12809	4	A 12810	4	A 12811	4
10-24NC	A 12812	4	A 12813	4	A 12814	4
10-32NF	A 12815	4	A 12816	4	A 12817	4
12-24NC	A 12818	4	A 12819	4	A 12820	4
1/4-20NC	A 12821	4	A 12822	4	A 12823	4
1/4-28NF	A 12824	4	A 12825	4	A 12826	4
5/16-18NC	A 12827	4	A 12828	4	A 12829	4
5/16-24NF	A 12830	4	A 12831	4	A 12832	4
3/8-16NC	A 12833	4	A 12834	4	A 12835	4
3/8-24NF	A 12836	4	A 12837	4	A 12838	4
7/16-14NC	A 12839	4	A 12840	4	A 12841	4
7/16-20NF	A 12842	4	A 12843	4	A 12844	4
1/2-13NC	A 12845	4	A 12846	4	A 12847	4
1/2-20NF	A 12848	4	A 12849	4	A 12850	4
9/16-12NC	A 12851	4	A 12852	4	A 12853	4
9/16-18NF	A 12854	4	A 12855	4	A 12856	4
5/8-11NC	A 12857	4	A 12858	4	A 12859	4
5/8-18NF	A 12860	4	A 12861	4	A 12862	4
3/4-10NC	A 12863	4	A 12864	4	A 12865	4
3/4-16NF	A 12866	4	A 12867	4	A 12868	4
7/8-9NC	A 12869	4	A 12870	4	A 12871	4
7/8-14NF	A 12872	4	A 12873	4	A 12874	4
1-8NC	A 12875	4	A 12876	4	A 12877	4
1-14NF	A 12878	4	A 12879	4	A 12880	4
1-1/8 - 7	A 12750	4	A 12751	4	A 12752	4
1-1/8 - 12	A 12881	4	A 12882	4	A 12883	4
1-1/4 - 7	A 12753	6	A 12754	6	A 12755	6
1-1/4 - 12	A 12793	6	A 12794	6	A 12795	6
1-3/8 - 7	A 12756	6	A 12757	6	A 12758	6
1-3/8 - 12	A 12796	6	A 12797	6	A 12798	6

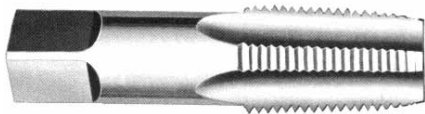
NOTE: See page 24.14 for recommended drill sizes.

NOTE: NUMBERS IN ITALIC ARE NON-STOCK ITEMS. PLEASE ALLOW 2-3 WEEKS FOR DELIVERY.

CIC 200™ HI-SPEED STEEL TAPS

TAPER PIPE TAPS

HIGH SPEED STEEL

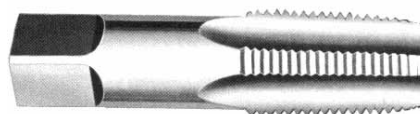


4 FLUTE TO 1/2"; 5 FLUTE 3/4" TO 1-1/4"; 7 FLUTE 1-1/2" TO 2"

SIZE	DRILL	PART	SIZE	DRILL	PART
1/8-27	11/32	A 5091	1-11.5	1-5/32	A 5096
1/4-18	7/16	A 5092	1-1/4-11.5	1-1/2	A 5097
3/8-18	37/64	A 5093	1-1/2-11.5	1-47/64	A 5098
1/2-14	23/32	A 5094	2-11.5	2-7/32	A 5099
3/4-14	59/64	A 5095	-	-	-

NOTE: See page 24.14 for recommended drill sizes.

HIGH CARBON STEEL



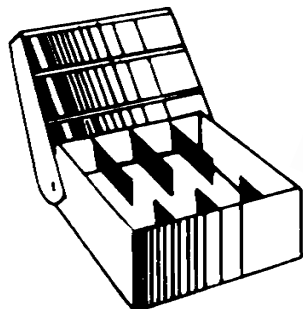
4 FLUTE TO 1/2"; 5 FLUTE 3/4" TO 1-1/4"; 7 FLUTE 1-1/2" TO 2"

SIZE	DRILL	PART	SIZE	DRILL	PART
1/8-27	11/32	A 800	1-11.5	1-5/32	A 805
1/4-18	7/16	A 801	1-1/4-11.5	1-1/2	A 806
3/8-18	37/64	A 802	1-1/2-11.5	1-47/64	A 807
1/2-14	23/32	A 803	2-11.5	2-7/32	A 808
3/4-14	59/64	A 804	-	-	-

CIC 200™ HI-SPEED STEEL TAP SETS

TAPER, PLUG AND BOTTOMING TAP SETS

Sturdy, convenient plastic cases keep taps clean and organized while protecting thread cutting edges from damage.



TAPER



PLUG



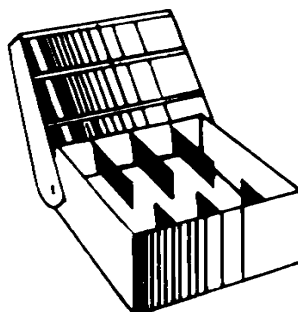
BOTTOMING

EACH SET INCLUDES ONE OF EACH TAPER, PLUG AND BOTTOMING TAPS

SIZE	PART	SIZE	PART
2-56	A 12885	7/16-14	A 12900
4-40	A 12887	7/16-20	A 12901
5-40	A 12888	1/2-13	A 12902
6-32	A 12889	1/2-20	A 12903
8-32	A 12890	9/16-12	A 12904
10-24	A 12891	9/16-18	A 12905
10-32	A 12892	5/8-11	A 12906
12-24	A 12893	5/8-18	A 12907
1/4-20	A 12894	3/4-10	A 12908
1/4-28	A 12895	3/4-16	A 12909
5/16-18	A 12896	7/8-9	A 12910
5/16-24	A 12897	7/8-14	A 12911
3/8-16	A 12898	1-8	A 12912
3/8-24	A 12899	1-14	A 12913

24

BOTTOMING TAP SET



SET CONTENTS

8 TAPS — 6-32, 8-32, 10-24, 10-32, 1/4-20, 5/16-18, 3/8-16 and 1/2-13

PART

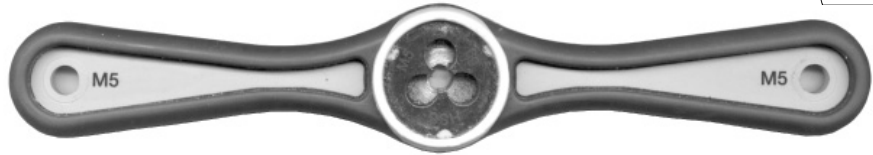
7787

NOTE: See page 24.14 for recommended drill sizes.

QUICK-CUT DIE & HANDLE

ROUND DIE

- READY TO USE HSS DIE AND HANDLE FOR QUICK REPAIR AND THREADING
- BUILT-IN GUIDE ASSURES ACCURATE STARTING AND NO CROSS THREADING
- CONVENIENT – ONE TOOL DOES IT ALL
- ERGONOMICALLY DESIGNED HANDLE IS COMFORTABLE TO USE
- OVERALL LENGTH IS 8-3/4" WIDE

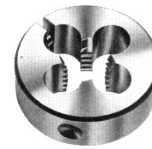
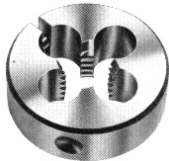


MACHINE SCREW SIZES			FRACTIONAL SIZES					
SIZE		1" O.D.	SIZE		1" O.D.	SIZE		1" O.D.
6-32 NC	A	30426	1/4-20 NC	A	30421	1/4-28 NF	A	30431
8-32 NC	A	30427	5/16-18 NC	A	30422	5/16-24 NF	A	30432
10-24 NC	A	30428	3/8-16 NC	A	30423	3/8-24 NF	A	30433
10-32 NF	A	30429	7/16-14 NC	A	30424	7/16-20 NF	A	30434
12-24 NC	A	30430	1/2-13 NC	A	30425	1/2-20 NF	A	30435

HIGH CARBON STEEL DIES

ROUND DIES — SPLIT ADJUSTING TYPE

Heat-treated to resist breakage and thread wear. Precise threads are accurately formed for longer tool life. Right-hand threads. Marked with starting side and size.



MACHINE SCREW SIZES			
SIZE	5/8" O.D.	13/16" O.D.	1" O.D.
0-80 NC	-	A 30300	A -
2-56 NC	-	A 30302	A -
4-40 NC	A 30201	A 30301	A 30401
5-40 NC	A 30203	A 30303	A 30403
6-32 NC	-	A 30305	A 30405
8-32 NC	-	A 30307	A 30407
10-24 NC	-	A 30309	A 30409
10-32 NF	-	A 30311	A 30411
12-24 NC	-	-	A 30413

PIPE SIZES			
SIZE	1" O.D.	1-1/2" O.D.	2" O.D.
1/8-27	A 4942	A 4951	-
1/4-18	A 4943	A 4952	-
3/8-18	-	A 4953	-
1/2-14	-	-	A 4901
3/4-14	-	-	A 4902

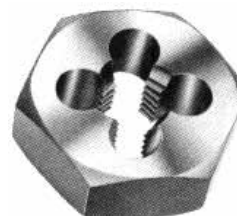
FRACTIONAL SIZES				
SIZE		1" O.D.	1-1/2" O.D.	2" O.D.
1/4-20 NC	A	20115	A 20215	A 20315
1/4-28 NF	A	20117	A 20217	A 20317
5/16-18 NC	A	20119	A 20219	A 20319
5/16-24 NF	A	20121	A 20221	A 20321
3/8-16 NC	A	20123	A 20223	A 20323
3/8-24 NF	A	20125	A 20225	A 20325
7/16-14 NC	A	20127	A 20227	A 20327
7/16-20 NF	A	20129	A 20229	A 20329
1/2-13 NC	A	20131	A 20231	A 20331
1/2-20 NF	A	20133	A 20233	A 20333
9/16-12 NC		-	A 20235	A 20335
9/16-18 NF		-	A 20237	A 20337
5/8-11 NC		-	A 20239	-
5/8-18 NF		-	A 20241	A 20341
3/4-10 NC		-	A 20243	-
3/4-16 NF		-	A 20245	A 20345
7/8-9 NC		-	-	A 20347
7/8-14 NF		-	-	A 20349
1-8 NC		-	-	A 20351

HIGH CARBON STEEL DIES

HEX DIES — SOLID TYPE

Heat-treated to resist breakage and thread wear. Precise threads are accurately formed for longer tool life. Right-hand threads. Marked with starting side and size.

- HIGH CARBON STEEL – IDEAL FOR HAND THREADING APPLICATIONS WHEN CUTTING NEW THREADS OR REPAIRING RUSTED OR DAMAGED THREADS.
- HEX DIE CAN BE USED WITH DIE STOCKS AS WELL AS OPEN-END, SOCKET OR ADJUSTABLE WRENCHES.



MACHINE SCREW SIZES

SIZE		5/8" HEX		1" HEX
4-40 NC	A	40101	A	40201
5-40 NC	A	40103	A	40203
6-32 NC	A	40105	A	40205
8-32 NC	A	40107	A	40207
10-24 NC	A	40109	A	40209
10-32 NF	A	40111	A	40211
12-24 NC	A	40113	A	40213

FRACTIONAL SIZES

SIZE		1" HEX		1-7/16" HEX		1-13/16" HEX
1/4-20 NC	A	50101		-		-
1/4-28 NF	A	50103		-		-
5/16-18 NC	A	50105		-		-
5/16-24 NF	A	50107		-		-
3/8-16 NC	A	50109		-		-
3/8-24 NF	A	50111		-		-
7/16-14 NC	A	50113		-		-
7/16-20 NF	A	50115		-		-
1/2-13 NC	A	50117		-		-
1/2-20 NF	A	50119	A	50219		-
9/16-12 NC		-	A	50221		-
9/16-18 NF		-	A	50223		-
5/8-11 NC		-	A	50225		-
5/8-18 NF		-	A	50227		-
3/4-10 NC		-	A	50229		-
3/4-16 NF		-	A	50231		-
7/8-9		-		-	A	50233
7/8-14		-		-	A	50235
1"-8		-		-	A	50237
1"-14		-		-	A	50239

SOLID HEX PIPE DIES

SIZE		1" HEX		1-7/16" HEX
1/8-27	A	4966	A	4991
1/4-18	A	4967	A	4992

FRACTIONAL RETHREADING DIES

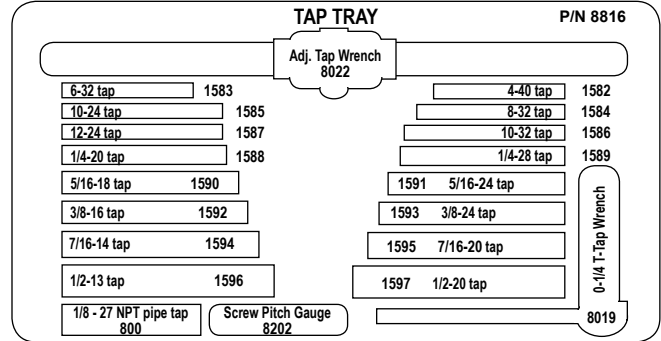
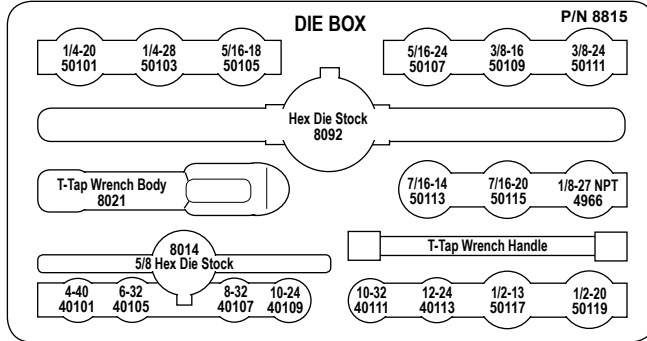
**FRACTIONAL RETHREADING DIES ARE DESIGNED
FOR REPAIRING DAMAGED BOLTS AND STUDS**

SIZE	W.A.F	PART	SIZE	W.A.F	PART
1/4-20 NC	19/32	A 60101	9/16-12 NC	1-1/16	A 60121
1/4-28 NF	19/32	A 60103	9/16-18 NF	1-1/16	A 60123
5/16-18 NC	11/16	A 60105	5/8-11 NC	1-1/4	A 60125
5/16-24 NF	11/16	A 60107	5/8-18 NF	1-1/4	A 60127
3/8-16 NC	25/32	A 60109	3/4-10 NC	1-7/16	A 60129
3/8-24 NF	25/32	A 60111	3/4-16 NF	1-7/16	A 60131
7/16-14 NC	7/8	A 60113	7/8-9 NC	1-5/8	A 60133
7/16-20 NF	7/8	A 60115	7/8-14 NF	1-5/8	A 60135
1/2-13 NC	1-1/16	A 60117	1-8 NC	1-13/16	A 60137
1/2-20 NF	1-1/16	A 60119	1-14 NF	1-13/16	A 60139

CIC 200™ SHOOTER TAP AND DIE SETS

CIC 200™ SHOOTER TAP AND HEX DIE SET

Forty-one piece set (17 taps and 17 dies) combines the most popular sizes of CIC 200 Shooter Taps and Dies in a sturdy polyethylene case.



CIC 200™ SHOOTER TAP AND HEX DIE SETS		PART
<p>COMPLETE SET CONTAINS: TAPS: 4-40, 6-32, 8-32, 10-24, 10-32, 12-24, 1/4-20, 1/4-28, 5/16-18, 5/16-24, 3/8-16, 3/8-24, 7/16-14, 7/16-20, 1/2-13 and 1/2-20 Shooter Taps DIES: 4-40, 6-32, 8-32, 10-24, 10-32 and 12-24 Hex Dies (5/8") 1/4-20, 1/4-28, 5/16-18, 5/16-24, 3/8-16, 3/8-24, 7/16-14, 7/16-20, 1/2-13 and 1/2-20 Hex Dies (1") 1/8-27 Pipe Die 1", 1" and 5/8" Hex Die Stocks, 1/8-27 Pipe Tap, 0-1/4 Tap Wrench, 1/4 to 1/2 Tap Wrench, 0-1/2 Adjustable Tap Wrench and Screw Pitch Gauge</p>		A 8822
<p>DIE BOX SET CONTAINS: DIES: 4-40, 6-32, 8-32, 10-24, 10-32 and 12-24 Hex Dies (5/8") 1/4-20, 1/4-28, 5/16-18, 5/16-24, 3/8-16, 3/8-24, 7/16-14, 7/16-20, 1/2-13 and 1/2-20 Hex Dies (1") 1/8-27 Pipe Die 1", 1" and 5/8" Hex Die Stocks</p>		A 8815
<p>TAP TRAY SET CONTAINS: TAPS: 4-40, 6-32, 8-32, 10-24, 10-32, 12-24, 1/4-20, 1/4-28, 5/16-18, 5/16-24, 3/8-16, 3/8-24, 7/16-14, 7/16-20, 1/2-13 and 1/2-20 Shooter Taps 1/8-27 Pipe Tap, 0-1/4 Tap Wrench, 1/4 to 1/2 Tap Wrench, 0-1/2 Adjustable Tap Wrench and Screw Pitch Gauge</p>		A 8816

IMPORTANT: Use Red Lion Tool Cool II P/N 74185 for maximum cooling, smoother cutting and extended tool life.

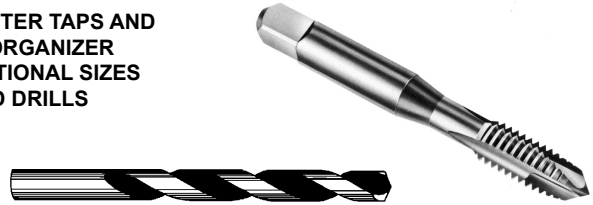
NOTE: See page 24.14 for recommended drill sizes.

CIC 200™ TAP SETS & DRILL SETS

PRO SHOOTER TAP AND DRILL ORGANIZER



- CONTAINS 26 CIC 200™ PRO SHOOTER TAPS AND DRILLS IN A STURDY 3-DRAWER ORGANIZER
- 13 OF THE MOST POPULAR FRACTIONAL SIZES
- STORES HUNDREDS OF TAPS AND DRILLS
- 29 COMPARTMENTS
- 14-1/2"W x 7-1/4"H x 7-1/4"D



CONTENTS

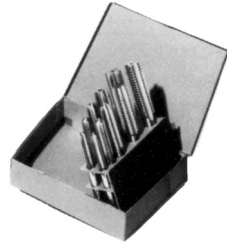
Pro Shooter Taps – 4-40, 6-32, 8-32, 10-24, 10-32, 1/4-20, 1/4-28, 5/16-18, 5/16-24, 3/8-16, 3/8-24, 1/2-13 and 1/2-20
 Drills – #43, #35, #29, #24, #20, #6, 7/32, "H", "J", "P", "R", 7/16 and 29/64

PART

61603

PRO SHOOTER TAP INDEX

- TEN OF THE MOST POPULAR SIZES OF OUR CIC 200™ PRO SHOOTER TAPS IN A HANDY STEEL INDEX
- IDEAL FOR ALL MAINTENANCE PERSONNEL.
- STURDY STEEL CASE PROVIDES PROTECTION FOR LONGER LIFE AND PROPER ORGANIZATION.
- 10 PIECE INDEX
3-3/8" x 4-5/8" x 1-1/8"



SHOOTER TAP AND DRILL ORGANIZER

- THIRTY-TWO PIECE SET (15 TAPS AND 17 DRILLS) IN A STURDY STEEL 3-DRAWER ORGANIZER
- STORES HUNDREDS OF TAPS AND DRILLS
- 26 COMPARTMENTS
- 14-1/2" x 7-1/4" x 7-1/4"



CONTENTS

PRO SHOOTER TAP INDEX
 10 TAPS – 1/4-20, 1/4-28, 5/16-18, 5/16-24, 3/8-16, 3/8-24, 7/16-14, 7/16-20, 1/2-13 and 1/2-20

PART

61602

CONTENTS

SHOOTER TAP ORGANIZER
 TAPS – 2 ea. of 6-32, 8-32, 10-24, 10-32 & 5/16-18
 3 ea. of 1/4-20
 1 ea. of 3/8-16 and 1/2-13
 DRILLS – 3 ea. of #35, #29, #23 and #20
 2 ea. of #5
 1 ea. of G, O and 7/16

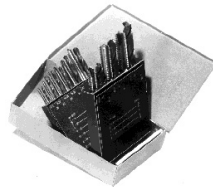
PART

7786

HIGH SPEED SHOOTER TAP AND DRILL INDEXES

The perfect match – CIC 200™ High Speed Shooter Taps and CIC 200™ Quad Point Drills.

- IDEAL FOR ALL MAINTENANCE PERSONNEL
- STURDY STEEL CASE PROVIDES PROTECTION FOR LONGER LIFE AND PROPER ORGANIZATION
- 18 PIECE INDEX 6-32 TO 1/2-13



- IDEAL FOR ALL MAINTENANCE PERSONNEL
- STURDY STEEL CASE PROVIDES PROTECTION FOR LONGER LIFE AND PROPER ORGANIZATION
- 12 PIECE INDEX 4-40 TO 12-24
- AVAILABLE IN CIC 200™ OR PRO SHOOTER CONFIGURATIONS



DESCRIPTION

PART

HIGH SPEED SHOOTER TAP AND DRILL INDEX 9 TAPS – 6-32, 8-32, 10-24, 10-32, 1/4-20, 5/16-18, 3/8-16, 7/16-14 and 1/2-13 9 DRILLS – 35, 29, 23, 20, 5, G, O, 3/8 and 7/16	61601
PRO SHOOTER TAP AND DRILL INDEX 9 TAPS – 6-32, 8-32, 10-24, 10-32, 1/4-20, 5/16-18, 3/8-16, 7/16-14 and 1/2-13 9 DRILLS – 35, 29, 24, 20, 6, H, P, 3/8 and 7/16	61621

DESCRIPTION

PART

CIC 200™ SHOOTER TAP AND DRILL INDEX	61688
PRO SHOOTER TAP AND DRILL INDEX	61687
CONTENTS: 6 TAPS – 4-40, 6-32, 8-32, 10-24, 10-32 and 12-24 6 DRILLS – 43, 36, 29, 25, 21 and 16	

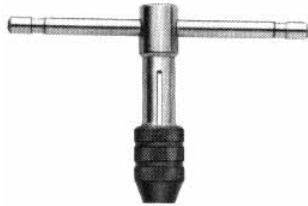
NOTE: See page 24.14 for recommended drill sizes.

TAP AND DIE TOOLS

TAP WRENCHES AND DIE STOCKS

Tap wrenches and die stocks securely hold taps and dies for precise tapping and thread forming.

"T" TAP WRENCHES



SLIDING HANDLE WITH SPRING TENSION

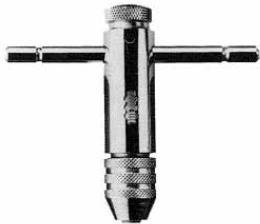
SIZE	PART
0 to 1/4	A 8019
1/4 to 1/2	A 8021

TAP WRENCHES



SIZE	PART
0 to 1/2	A 8022
3/8 to 1	A 8024

RATCHETING TAP WRENCHES



- REVERSIBLE RATCHET TAP WRENCH MAKES ALL TAPPING PROJECTS EASY
- POSITIVE GRIP KNURLED NUT FOR EASY TIGHTENING
- SPRING TENSION SLIDING HANDLE IDEAL FOR TIGHT PLACES AND EXTRA LEVERAGE

SIZE	PART
0 to 1/4	A 8013
1/4 to 1/2	A 8018

DIE STOCKS

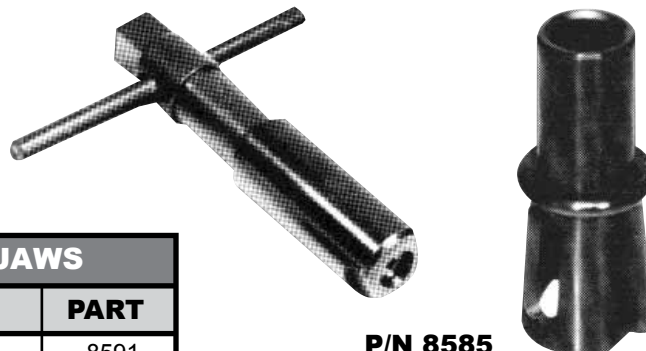


POLISHED HANDLES WITH NON-SLIP GRIP

SIZE	DIE	PART
1	ROUND	A 8015
1-1/2	ROUND	A 8016
2	ROUND	A 8017
5/8"	HEX	A 8014
1	HEX	A 8092

TAP AND REAM ALIGNER (FITS 0-80 TO 1/2" TAPS)

Eliminates up to 85% of unnecessary tap breakage. Fits taps from 0-80 to 1/2".



EXTRA JAWS	
SIZE	PART
A (0-80 / 1/4")	8591
B (1/4" to 1/2")	8593

P/N 8585

FEATURES:

- PERFECT ALIGNMENT — GUIDE AUTOMATICALLY SQUARES UP THE TAP OR REAMER WITH THE SURFACE ON WHICH IT IS SET.
- EASY TO CHANGE — A SLIGHT TURN OF THE T-HANDLE IS SUFFICIENT TO LOOSEN THE TAP OR TO CLAMP IT.
- T-HANDLE — SLIDING ARM PROVIDES EXTRA LEVERAGE FOR LARGE TAPS AND REAMERS.
- ACCURATELY MADE.
- GUIDE — BASE OF GUIDE HAS TWO 120° VEES WHICH ALSO ACCEPTS ROUND PARTS.

TAP DRILL CHART – DRILL SIZES

DESIGNED FOR MAINTENANCE

The following table shows the Theoretical Percentage of Thread obtained from stock sizes of drills. A 60% thread is adequate for most tapped hole requirements. Greater percentages of thread do not materially increase the strength of the tapped hole, except in the case of very short thread engagement or soft materials. When increasing the percentage of thread, you substantially increase the force required to drive the tap with very little increase in holding power.



TAP	DRILL	DEC. EQUIV.	% OF THREAD	TAP	DRILL	DEC. EQUIV.	% OF THREAD
2-56	50	.0700	62	3/8-16	5/16	.3125	72
4-40	43	.0890	65	3/8-16	O	.3160	68
5-40	38	.1015	65	3/8-24	Q	.3320	71
6-32	36	.1065	71	3/8-24	R	.3390	58
6-32	7/64	.1094	64	7/16-14	U	.3680	70
6-32	35	.1100	63	7/16-14	3/8	.3750	62
8-32	29	.1360	62	7/16-20	25/64	.3906	65
10-24	25	.1495	69	1/2-13	27/64	.4219	73
10-24	24	.1520	64	1/2-13	7/16	.4375	58
10-24	23	.1540	61	1/2-20	29/64	.4531	65
10-32	21	.1590	68	9/16-12	31/64	.4844	68
10-32	20	.1610	64	9/16-18	33/64	.5156	58
12-24	16	.1770	66	5/8-11	17/32	.5313	75
12-24	15	.1800	60	5/8-11	35/64	.5469	62
1/4-20	7	.2010	70	5/8-18	37/64	.5781	58
1/4-20	6	.2040	65	3/4-10	21/32	.6563	68
1/4-20	5	.2055	63	3/4-16	11/16	.6875	71
1/4-28	3	.2130	72	7/8-9	49/64	.7656	72
1/4-28	7/32	.2188	59	7/8-9	25/32	.7812	61
5/16-18	F	.2570	72	7/8-14	13/16	.8125	62
5/16-18	G	.2610	66	1-8	7/8	.8750	73
5/16-24	I	.2720	67	1-8	57/64	.8906	64
5/16-24	J	.2770	58	1-14	15/16	.9375	61

METRIC HEX SHANK COMBO DRILL & TAPS

CIC 200™ METRIC HEX SHANK COMBINATION DRILL AND TAPS



- Create holes and tap in a single operation. No center drilling or punching.
- Quick change hex shank makes it ideal for use in portable power drills.
- Its taper neck design significantly reduces drill & tap breakage.
- A 135° split point permits holes and threads to be cut at high speeds.
- Durability provided by high molybdenum content high speed steel.
- More holes per drill than ordinary twist drills, especially in cordless power tools.
- Functional black & gold surface treatment holds lubricant for smoother drilling.

Applications:

- Construction
- Electrical
- Maintenance
- Industrial
- Automotive
- Farm Implement Equipment

6 PIECE METRIC SET

Contains these tap diameters:

- M4x.7
- M5x.8
- M6x1
- M8x1.25
- M10x1.5
- M12x1.75

Packed in a rugged plastic case.



P/N 8847

SIZE / TPI	HEX SHANK	OVERALL LENGTH	DRILL DIA.	DRILL LENGTH	THREAD LENGTH		PART
M4x.7	1/4"	61 mm	3.42 mm	8 mm	13 mm	A	12914
M5x.8	1/4"	65 mm	4.34 mm	10 mm	15 mm	A	12915
M6x1	1/4"	69 mm	5.17 mm	12 mm	17 mm	A	12916
M8x1.25	1/4"	78 mm	6.96 mm	16 mm	22 mm	A	12917
M10x1.5	11/32"	84 mm	8.75 mm	20 mm	24 mm	A	12918
M12x1.75	11/32"	91 mm	10.54 mm	24 mm	27 mm	A	12919

METRIC PRO COMBO DRILL & TAPS

METRIC PRO COMBO DRILL AND TAPS



APPLICATIONS:

Construction, Electrical, Maintenance, Industrial, Automotive and Farm Implement Equipment

MATERIALS:

Aluminum, Brass, Bronze, Cast Iron, Steel and Zinc

- TWO OPERATIONS IN ONE SETUP
- PERFORM AT HIGH RPM IN ANY MATERIAL WHERE HIGH SPEED STEEL CUTTING TOOLS ARE USED
- 118° DRILL PILOT IS SPECIFICALLY DESIGNED AND MANUFACTURED TO CLOSE TOLERANCES TO PRODUCE THE PROPER SIZE HOLE FOR TAPPING
- DESIGNED TO OPERATE AT SPEEDS BETWEEN THE NORMAL TAPPING SPEED AND DRILLING SPEED FOR THE SPECIFIED MATERIALS
- CLASS 2B FIT & H3 TOLERANCES
- **NOTE:** TO ACCOMMODATE TAPPING OPERATION, THE MACHINE MUST BE CAPABLE OF REVERSING TO WITHDRAW THE TAP

SIZE / TPI	NO. OF FLUTES	DRILL DIA.	OVERALL LENGTH	DRILL LENGTH	THREAD LENGTH		PART
4 x 0.7	2	3.3 mm	64.0 mm	8.0 mm	12.0 mm	A	12930
5 x 0.8	2	4.2 mm	68.0 mm	10.0 mm	15.0 mm	A	12931
6 x 1.0	2	5.0 mm	82.0 mm	12.0 mm	18.0 mm	A	12932
8 x 1.25	2	6.8 mm	94.0 mm	16.0 mm	21.0 mm	A	12933
10 x 1.5	2	8.5 mm	105.0 mm	20.0 mm	22.0 mm	A	12934
12 x 1.75	2	10.2 mm	113.0 mm	24.0 mm	29.0 mm	A	12935
14 x 2.0	2	12.0 mm	123.0 mm	28.0 mm	30.0 mm	A	12936
16 x 2.0	2	14.0 mm	134.0 mm	32.0 mm	32.0 mm	A	12937



METRIC PRO COMBO DRILL AND TAP POUCH ASSORTMENT
Contains 5 Drills/Taps – 4mm x 0.7mm, 5mm x 0.8mm, 6mm x 1.0mm, 8mm x 1.25mm and 10mm x 1.5mm

A 61663

CIC 200™ METRIC HI-SPEED STEEL TAPS

METRIC PRO "SHOOTER" TAPS

Metric Pro "Shooter" Taps provide the ultimate versatility, precision and durability for tapping mild steel, stainless steel, medium carbon steel and aluminum. Designed to run at higher tapping speeds up to 60 fpm for aluminum and 50 fpm for steel.

- CONSTRUCTED OF CHROMIUM, VANADIUM, MOLYBDENUM AND COBALT ALLOYS
- CUTS MATERIALS UP TO 55 ROCKWELL "C"
- SUPERIOR DESIGN ACTUALLY "SHOOTS" CHIPS OUT AHEAD OF THE TAP

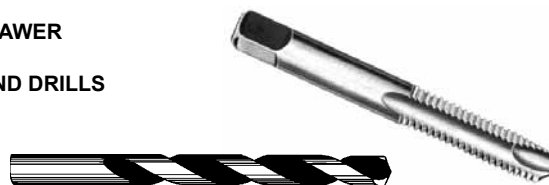


SIZE	# FLUTES	PART	SIZE	# FLUTES	PART	SIZE	# FLUTES	PART
M3 x 0.5	2	A 12941	M6 x 1.0	2	A 12944	M10 x 1.50	3	A 12946
M4 x 0.7	2	A 12942	M8 x 1.25	2	A 12945	M12 x 1.75	3	A 12947
M5 x 0.8	2	A 12943	—	—	—	—	—	—

METRIC SHOOTER TAP AND DRILL ORGANIZER



- 20-PIECE SET IN A STURDY 3-DRAWER ORGANIZER
- STORES HUNDREDS OF TAPS AND DRILLS
- 28 COMPARTMENTS
- 14-1/2" x 7-1/4" x 7-1/4"



CONTENTS

SHOOTER TAPS

2.5mm x 0.45, 3mm x 0.5, 3.5mm x 0.60, 4mm x 0.7, 5mm x 0.8, 6mm x 1.0, 7 x 1.00, 8mm x 1.25, 10mm x 1.5, & 12mm x 1.75

METRIC DRILLS

2.05mm, 2.5mm, 2.9mm, 3.3mm, 4.2mm, 5.0mm, 6.0mm, 6.7mm, 8.5mm and 10.2mm

ORGANIZER ALSO HAS COMPARTMENTS FOR THE FOLLOWING ADDITIONAL SIZES:

SHOOTER TAPS

9 x 1.25, 11 x 1.50, 16mm x 2 and 20mm x 2.5

METRIC DRILLS

8.0mm, 9.5mm, 14.0mm & 17.5mm

PART

7788

CIC 200™ METRIC HI-SPEED STEEL TAPS

SHOOTER AND BOTTOMING TAPS

SHOOTER



SIZE mm	FLUTES	TAP PART	DRILL SIZE	DRILL PART
2.5mm x 0.45	2	A 69001	2.05mm (#46)	J 68521 (10046)
3mm x 0.50	2	A 69002	2.5mm (#38)	J 68525 (10038)
3.5mm x 0.60	2	A 69056	2.90mm (#32)	J 68529 (10032)
4mm x 0.70	2	A 69003	3.3mm (#29)	J 68533 (10029)
4mm x 0.75	2	A 69050	3.3mm (#30)	J 68533 (10030)
5mm x 0.80	2	A 69004	4.2mm (#18)	J 68542 (10018)
5mm x 0.90	2	A 69051	4.0mm (#20)	J 68540 (10020)
6mm x 1.00	2	A 69005	5.0mm (#7)	F 68550 (10007)
7mm x 1.00	2	A 69052	6.0mm (B)	C 68560 (10202)
8mm x 1.00	2	A 69006	7.0mm (J)	C 68570 (10210)
8mm x 1.25	2	A 69007	6.8mm (I)	C 68568 (10209)
9mm x 1.00	3	A 69053	8.0mm (5/16)	F 68580 (91020)
9mm x 1.25	3	A 69054	8.0mm (5/16)	F 68580 (91020)
10mm x 1.25	3	A 69008	8.75mm (S)	C — (10219)
10mm x 1.50	3	A 69009	8.5mm (R)	C 68585 (10218)
11mm x 1.50	3	A 69055	9.5mm (3/8)	D 68595 (91024)
12mm x 1.50	3	A 69010	10.5mm (Z)	C 68605 (10226)
12mm x 1.75	3	A 69011	10.5mm (13/32)	D 68605 (91026)
16mm x 2.00	3	A 69015	14.0mm (9/16)	A — (91238)
20mm x 2.50	3	A 69019	17.5mm (45/64)	A — (91247)

BOTTOMING



SIZE mm	FLUTES	TAP PART	DRILL SIZE	DRILL PART
3mm x 0.50	3	A 69028	2.5mm or #38	J 10038
4mm x 0.70	4	A 69029	3.3mm or #29	J 10029
5mm x 0.80	4	A 69030	4.2mm or #18	J 10018
6mm x 1.00	4	A 69031	5.0mm or #7	F 10007
8mm x 1.25	4	A 69033	6.8mm or I	C 68570
10mm x 1.50	4	A 69035	8.5mm or "R"	C 10218
12mm x 1.75	4	A 69037	10.5mm or 13/32	D 68605
14mm x 1.25	4	A 69039	31/64	—
16mm x 2.00	4	A 69041	9/16	A 91238
18mm x 1.50*	4	A 69043	21/32	—
20mm x 2.50	4	A 69045	45/64	A 91247

*For spark plugs.

PIPE TAP

SIZE	DRILL	PART
1/8 - 28 BSP	8.8mm or 11/32	A 810

METRIC TAPS AND DRILLS

CIC 200™ HIGH SPEED SHOOTER TAP & QUAD POINT DRILL INDEX

The most popular sizes of our CIC 200™ Metric Shooter Taps and Quad Point Drills organized in a sturdy steel case.

18 PIECE INDEX

- IDEAL FOR ALL MAINTENANCE PERSONNEL
- 18-PIECE INDEX 2.5mm - 12mm
- STURDY STEEL CASE PROVIDES FOR LONGER LIFE AND PROPER ORGANIZATION



CONTENTS	PART
9 TAPS — 2.5mm x .45, 3mm x .5, 3.5mm x .6, 4mm x .7, 5mm x .8, 6mm x 1, 8mm x 1.25, 10mm x 1.5 and 12mm x 1.75	A 61684
9 DRILLS — 2.05mm, 2.5mm, 2.9mm, 3.3mm, 4.2mm, 5.0mm, 6.7mm, 8.5mm and 10.2mm	

METRIC QUICK-CUT DIE AND HANDLE

METRIC ROUND DIES

- READY TO USE HSS DIE AND HANDLE FOR QUICK REPAIR AND THREADING
- BUILT-IN GUIDE ASSURES ACCURATE STARTING AND NO CROSS THREADING
- CONVENIENT – ONE TOOL DOES IT ALL
- ERGONOMICALLY DESIGNED HANDLE IS COMFORTABLE TO USE
- OVERALL LENGTH IS 8-3/4" WIDE WITH THE EXCEPTION OF 3MM x 0.50, 4MM x 0.70 AND 5MM x 0.80 WHICH ARE 7" WIDE



METRIC SCREW SIZES

SIZE	1" HEX	SIZE	1" HEX
3mm x 0.50	A 30414	8mm x 1.25	A 30418
4mm x 0.70	A 30415	10mm x 1.50	A 30419
5mm x 0.80	A 30416	12mm x 1.75	A 30420
6mm x 1.00	A 30417	-	-

METRIC HIGH CARBON STEEL DIES

METRIC HEX DIES — SOLID TYPE

Heat-treated to resist breakage and thread wear. Precise threads are accurately formed for longer tool life. Right-hand threads. Marked with starting side and size.

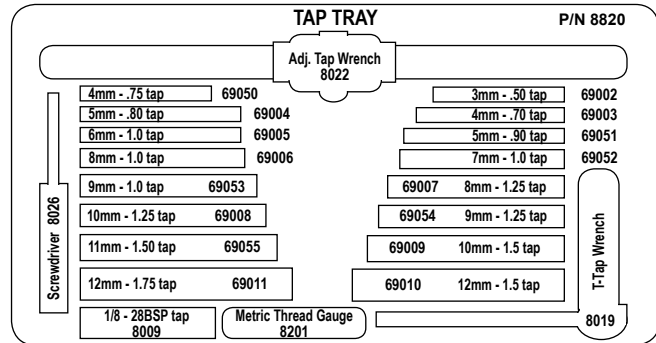
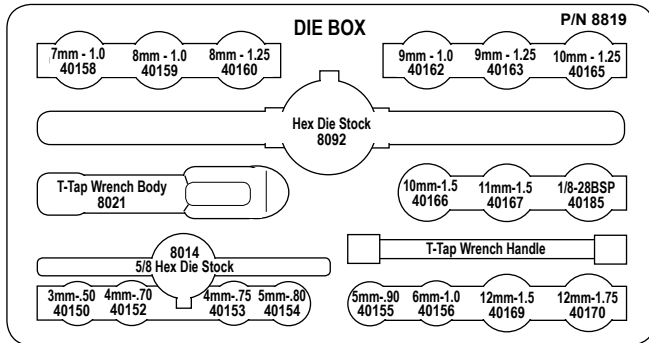


METRIC SCREW SIZES				
SIZE		5/8" HEX	SIZE	1" HEX
3mm x 0.50	A	40150	7mm x 1.00	A 40158
4mm x 0.70	A	40152	8mm x 1.00	A 40159
4mm x 0.75	A	40153	8mm x 1.25	A 40160
5mm x 0.80	A	40154	9mm x 1.00	A 40162
5mm x 0.90	A	40155	9mm x 1.25	A 40163
6mm x 1.00	A	40156	10mm x 1.25	A 40165
—		—	10mm x 1.50	A 40166
—		—	11mm x 1.50	A 40167
—		—	12mm x 1.50	A 40169
—		—	12mm x 1.75	A 40170
PIPE DIES				
SIZE		1" HEX		
1/8 - 28 BSP		A	40185	

CIC 200™ METRIC SHOOTER TAP & DIE SET

METRIC SHOOTER TAP AND HEX DIE SET

Forty-one piece set (17 taps and 17 dies) combines the most popular sizes of CIC 200™ Metric Taps and Dies in a sturdy polyethylene case.



METRIC SHOOTER TAP AND HEX DIE SET

PART

CONTENTS:

TAPS: 3mm-.50, 4mm-.70, 4mm-.75, 5mm-.80, 5mm-.90, 6mm-1.0, 7mm-1.0, 8mm-1.0, 8mm-1.25, 9mm-1.0, 9mm-1.25, 10mm-1.25, 10mm-1.50, 11mm-1.50, 12mm-1.50 and 12mm-1.75

DIES: 3mm-.50, 4mm-.70, 4mm-.75, 5mm-.80, 5mm-.90, 6mm-1.0, 7mm-1.0, 8mm-1.0, 8mm-1.25, 9mm-1.0, 9mm-1.25, 10mm-1.25, 10mm-1.50, 11mm-1.50, 12mm-1.50 and 12mm-1.75

1/8-28 Pipe Tap and Hex Die, 1" and 5/8" Hex Die Stocks, 0-1/4 and 1/4 - 1/2 T-Taps, 0-1/2 Adjustable Tap Wrench, Metric Screw Pitch Gage, 1 Screwdriver

A 8821