

Extractors

Screw / Bolt / Pipe / Tap



Superior Tools



Spiral Screw Extractors

- High carbon steel construction for strength and durability
- Sharp spiral flutes bite quickly into broken stud or bolt for solid grip
- Removes broken studs or bolts without damaging threads in the hole

Size	Screw Size	Drill Size	P/N
#1	#8 to 1/4"	5/64"	13060
#2	#12 to 5/16"	7/64"	13061
#3	5/16" to 7/16"	5/32"	13062
#4	7/16" to 9/16"	1/4"	13063
#5	9/16" to 3/4"	19/64"	13064
#6	3/4" to 1"	13/32"	13065
#7	1" to 1-3/8"	17/32"	13066
#8	1-3/8" to 1-3/4"	13/16"	13067
#9	1-3/4" to 2-1/8"	1-1/16"	13068

3-Piece Set Boxed P/N 13073

- Contains Sizes (#4 - #6)



5-Piece Set In Plastic Case P/N 13070

- Contains Sizes (#1 - #5)



4-Piece Set Boxed P/N 13072

- Contains Sizes (#6 - #9)



6-Piece Set Boxed P/N 13071

- Contains Sizes (#1 - #6)



Square Screw Extractors

- Made from rugged, high carbon steel to handle the stress of removing broken bolts
- Ideal for soft materials or thin-walled pieces such as pipe and fittings
- Will not expand soft material being removed, resulting in easier removal
- Grips into sides of drill hole and removes broken part without damaging the threaded hole

Size	Screw Size	Drill Size	P/N
#1	3/16" to 5/16"	9/64"	13074
#2	3/8"	3/16"	13075
#3	7/16" and 1/8" NPT	15/64"	13076
#4	1/2-9/16" & 1/4" NPT	5/16"	13077
#5	5/8" and 3/8" NPT	3/8"	13078

How It Works

1. Drill hole with either right or left handed drill bit, left is recommended.
2. Insert extractor, turn counter clockwise.

5-Piece Set In Clear Plastic Case P/N 13069

- Contains All Sizes (#1 - #5)



Double Edge Screw Extractors

- Removes damaged screws and bolts without damaging threads
- Double edge can be used for both right and left hand drills
- Superior non-slip engagement with screw or bolt to be removed

Size	For Use On Bolt Size	Chromate Pilot Drill	P/N
#1	#10 - 1/4"	11005	12061
#2	5/16" - 3/8"	11007	12062
#3	7/16" - 1/2"	11009	12063
#4	1/2" - 9/16"	11012	12064
#5	5/8" - 3/4"	11015	12065
#6	7/8" - 1"	9/16"	12066
#7	1" - > 1"	3/4"	12067



CHROMATE INDUSTRIAL CORP.

DOUBLE EDGE/SPIRAL SCREW EXTRACTOR ASSORTMENT

DOUBLE EDGE EXTRACTORS:

- Removes damaged screws and bolts without damaging threads
- Double edge can be used for both right and left hand drills
- Superior non-slip engagement with screw or bolt to be removed

SPIRAL SCREW EXTRACTORS:

- High carbon steel construction for strength and durability
- Sharp spiral flutes bite quickly into broken stud or bolt for solid grip
- Removes broken studs or bolts without damaging threads in hole

LEFT HAND DRILLS:

- Reverse drilling actually assists threading out broken studs or bolts
- Special tool steel alloy for superior strength, faster heat dissipation and longer life
- Extended flutes for fast chip removal and cooler running
- Cuts standard, stainless, tool and exotic steels

P/N 17934

#1 DOUBLE EDGED SCREW EXTRACTORS P/N 12061 1/8" LEFT HAND DRILL P/N 11005	#4 DOUBLE EDGED SCREW EXTRACTORS P/N 12064 11/32" LEFT HAND DRILL P/N 11012	#1 SPIRAL SCREW EXTRACTOR P/N 13060 5/64" LEFT HAND DRILL P/N 11002	#4 SPIRAL SCREW EXTRACTOR P/N 13063 1/4" LEFT HAND DRILL P/N 11009
#2 DOUBLE EDGED SCREW EXTRACTORS P/N 12062 3/16" LEFT HAND DRILL P/N 11007	#5 DOUBLE EDGED SCREW EXTRACTORS P/N 12065 7/16" LEFT HAND DRILL P/N 11015	#2 SPIRAL SCREW EXTRACTOR P/N 13061 7/64" LEFT HAND DRILL P/N 11004	#5 SPIRAL SCREW EXTRACTOR P/N 13064 19/64" LEFT HAND DRILL P/N 11010
#3 DOUBLE EDGED SCREW EXTRACTORS P/N 12063 1/4" LEFT HAND DRILL P/N 11009		#3 SPIRAL SCREW EXTRACTOR P/N 13062 5/32" LEFT HAND DRILL P/N 11006	

TRAY ASSORTMENT

CHROMATE INDUSTRIAL CORP. • 5250-A NAIMAN PARKWAY, SOLON, OH 44139 • 1-800-BUY-BOLT • FAX: 631-567-2418 • www.chromate.com 050104

Tray Assortment P/N 17934

Extractor Sizes (#1 - #5)
Drill Sizes (1/8" - 7/16")

- Double Edge Screw Extractors
- Spiral Screw Extractors
- Left Hand Drills
- 20 pieces total

7-Piece Set In Metal Index P/N 61624

- Contains All Sizes (#1 - #7)



5-Piece Set In Pouch P/N 12060

- Contains Sizes (#1 - #5)



Micro Power-Out™ Extractors

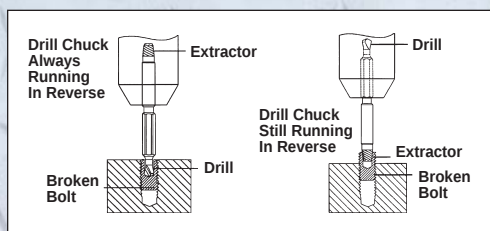
- Quickly and easily removes broken bolts
- Drills Grade 8 bolts
- Drill bit and extractor in one
- Self-centering drill tip
- Short, tough drill body
- Left hand cutting edge
- Easy, time saving operation

Size	Drilling Speed	Extracting Speed	P/N
#5 and #6 (M3)	700-800 RPM	350 RPM (1/4 speed)	13084
#8 (M4)	650-750 RPM	470 RPM (1/3 speed)	13085
#10 (M5)	600-700 RPM	840 RPM (3/5 speed)	13086
1/4" (M6)	475-575 RPM	1400 RPM (full speed)	13087



How It Works

1. Put the micro tool into your reversible electric or battery powered drill, extractor side in, set it for reverse and drill your hole.
2. Take the tool out, turn it around so that the drill side is inserted into the chuck and you have your extractor.
3. Insert the extractor tip into the hole you just drilled and remove your broken screw. That's it! Fast, easy and dependable.



4-Piece Set In Plastic Case P/N 61616

- Contains All Sizes



Power-Out™ Extractors

- Quickly and easily removes broken bolts
- Easy, time saving operation
- Fast and reusable
- Self-centering tip
- Left hand drill bit and extractor in one
- Heat treated high quality tool steel
- Use in a variable speed reversible hand drill

Size	Drilling Speed	Extracting Speed	P/N
1/4" (M6)	700-800 RPM	350 RPM (1/4 speed)	13080
5/16" (M8)	650-750 RPM	470 RPM (1/3 speed)	13081
3/8" (M10)	600-700 RPM	840 RPM (3/5 speed)	13082
1/2" (M12)	475-575 RPM	1400 RPM (full speed)	13083



4-Piece Set In Plastic Case P/N 61609

- Contains All Sizes



Micro & Power-Out™ Extractor Set

- Drill bit and extractor in one
- Self-centering drill tip
- Short, tough drill body
- Left hand cutting edge
- Requires a very shallow drill depth
- 1/4" - 1/2" / 6 mm - 12 mm
- Extracts standard and metric sizes
- Drills up to and including
Grade 8 bolts or 10.9 class
- Warms the bolt up, easing
the extraction process
- Uses the power of the drill
to extract the bolt

7-Piece Set In Plastic Case P/N 61617

Contains Sizes

- Micro Power-Out™ Extractors
 - #5 and #6 (M3)
 - #8 (M4)
 - #10 (M5)
 - 1/4" (M6)
- Power-Out™ Extractors
 - 5/16" (M8)
 - 3/8" (M10)
 - 1/2" (M12)



X-Out™ Damaged Screw Removers

- Removes stripped phillips, TORX, and Hex Socket Screws
- Can also be used on a variety of screw heads
- Quick change shank for fast, easy tool changes

Screw Dia.	Drilling Speed	Extracting Speed	P/N
#6 - #8	650-750 RPM	470 RPM (1/3 speed)	13096 (#1)
#8 - #10	600-700 RPM	840 RPM (3/5 speed)	13097 (#2)
#10 - #14	475-575 RPM	1400 RPM (full speed)	13098 (#3)

3-Piece Set In Plastic Case P/N 61623

- Contains All Sizes



CIC 200™ Broken Stud Removal Kit

Quickly and easily removes broken screws, studs, cap screws, pipe fittings, etc. Packed in a sturdy, metal index.

Spiral Screw Extractors

- High carbon steel construction for strength and durability
- Sharp spiral flutes bite quickly into broken stud or bolt for solid grip
- Removes broken studs or bolts without damaging threads in hole
- Saves time, money and labor

Left Hand Drills

- Reverse drilling actually threads out broken studs or bolts
- Special tool steel alloy for superior strength, faster heat dissipation, and longer life
- Extended flutes for fast chip removal and cooler running
- Cuts standard, stainless, tool and exotic steels



10-Piece Set In Metal Case P/N 61676

Contains Sizes

- Spiral Screw Extractors
#1, #2, #3, #4, #5
- Left hand Drills
5/64", 7/64", 5/32", 1/4", 19/64"



Use tap and ream aligner P/N 8585

Pipe & Stud Extractors

- Four-point grip, assures strong bite
- Instant release from bite after job is complete
- Rust-resistant black oxide finish

Extractor Size	Broken Pipe Size	Broken Stud/Screw Size	P/N
#1	1/8"	3/8"	12041
#2	1/4"	1/2"	12042
#3	3/8"	5/8" or 3/4"	12043
#4	1/2"	—	12044
#5	3/4"	1-1/8" or 1-1/4"	12045
#6	1"	1-1/2" or 1-3/4"	12046
#7	1-1/4"	2"	12047
#8	1-1/2"	2-1/4" or 2-1/2"	12048
#9	2"	3" or 3-1/2"	12049
#10	—	7/8" or 1"	12040



5-Piece Set In Plastic Case P/N 61628

Contains Sizes

- #1, #2, #3, #4, #5



7-Piece Set In Plastic Case P/N 61641

Contains Sizes

- #1, #2, #3, #4, #5, #6, #10



Tap Extractors

- For machine screw and hand taps
- Removes broken taps without damaging the threads or requiring a larger hole to be drilled
- Tap extractors are made to match the flutes of the taps – Fingers fit into flutes to remove the broken tap safely and effectively
- Square shank fits standard tap handles

How It Works

1. Thoroughly remove all chips of the broken tap.
Insert extractor fingers into the flutes of broken tap, pushing gently but firmly into position.
2. Push the holder down until it touches the broken tap.
Slide the sleeve down until it touches the work.
3. Apply a tap wrench to the square end of the holder.
Twist forward and backward a few times to loosen, then back out the broken tap.

Size	# Flutes	P/N
#4	3	12034
#5	3	12035
#6	3	12036
#8	4	12015
#10	4	12016
#12	4	12017
1/4"	4	12018
5/16"	4	12019
3/8"	4	12020
7/16"	4	12021
1/2"	4	12022
5/8"	4	12023
3/4"	4	12024

Replacement Fingers	P/N
For 12034	12034F
For 12035	12035F
For 12036	12036F
For 12015	12015F
For 12016	12016F
For 12017	12017F
For 12018	12018F
For 12019	12019F
For 12020	12020F
For 12021	12021F
For 12022	12022F
For 12023	12023F
For 12024	12024F



6-Piece Set In Plastic Case P/N 61637

Contains Sizes

- #10, 1/4", 5/16", 3/8", 7/16", 1/2"



13-Piece Set In Plastic Case P/N 61639

Contains Sizes

- #4, #5, #6, #8, #10, #12, 1/4", 5/16", 3/8", 7/16", 1/2", 5/8", 3/4"



Internal Pipe Wrenches

- For removal of broken threaded ends of pipe, pipe plugs and fittings
- Hex body can be used with a wrench
- Pipe sizes are marked on each wrench
- Heat treated alloy steel
- Plated to prevent rust
- Conforms to government specifications GGG-W643B

Size	Length	P/N
3/8" (9.7mm)	3-3/4" (95.25mm)	54481
1/2" (12mm)	3-3/4" (95.25mm)	54482
3/4" (20mm)	3-3/4" (95.25mm)	54483
1" (25mm)	3-3/4" (95.25mm)	54484

4-Piece Set In Pouch P/N 54480

Contains All Sizes

- 3/8", 1/2", 3/4", 1"



RED LIONTM CUTTING LUBRICANTS



Cutting Fluid III

P/N 74172

An oil based aerosol lubricant for drilling, tapping, cutting and threading operations.

- Cutting oil lubricates tool and material to provide a clear, smoother, faster cut.
- Authorized by the USDA for use in federally inspected meat and poultry plants.
- Effective on most metals (not for use on aluminum).



Tool Cool II Cutting Fluid

P/N 74185

A solvent based aerosol tool coolant for drilling, tapping, cutting and threading operations.

- Clear tool coolant for drilling, tapping, threading and cutting.
- Fast evaporation provides clean, cool cuts with no clean up.
- Effective on most metals (not for use on aluminum).
- Non-flammable for increased safety.



Toolube Cutting Fluid

P/N 74523

A non-oil based, non-aerosol lubricant for drilling, tapping, cutting and threading operations.

- Specialized lubricant lubricates tool and material to provide a cleaner, smoother, faster & cooler cut.
- Contains no oil and has no strong noxious fumes.
- Easy clean-up and environmentally safe.



Cutting Wax

P/N 74559 – 2 oz.

P/N 74560 – 16 oz.

Specially formulated multi-purpose cutting wax. For faster, smoother cutting operations and longer tool life. Use for all drilling, cutting and tapping applications.



- Continuous shield against friction and heat
- Especially effective on stainless steel, aluminum and many exotic alloys
- Extends tool life and reduces chip welding
- Reduces tool costs and work piece scrap
- Provides a precision finish with closer tolerances on your finished work
- Nonflammable – for increased safety