## **Serious Solutions for Stuck Fasteners**

Professionals all say the same thing. It's tough to get a good grip on a stuck fastener, a rounded or broken head, a snapped stud, or a stripped screw or fitting. IRWIN<sup>®</sup> Industrial Tools has the solution to deal with any of them. Five different styles of extractors give you extra gripping power to remove problem fasteners without damaging workpieces. For example, our innovative IRWIN BOLT-GRIP™ extractors make quick work of nightmare bolt and nut removal, whatever their condition.

### Remove the Guesswork in Fastener Extraction

Fasteners vary widely in composition and hardness. That's why IRWIN has many different products for removing damaged fasteners and parts. Each extraction tool is specifically designed to take into account the material involved and make removal easier. The guidelines below will help you choose the tool that will deliver the optimal results for your particular situation.

# **Guide for Using Screw Extractors**

Drill a hole in the threaded part or fastener to be removed. Drill deep enough for the extractor to grip without bottoming out. For best results, use a left-handed drill bit. Insert the extractor and turn with a wrench or drive tool.

Extactor Type	Benefits	Fastener Size Range	Drive Tool
Straight Screw	<ul> <li>Extracts without expanding material</li> <li>Ideal for pipes and fittings</li> <li>Works on Left-hand or Right-hand threads</li> </ul>	3/16" - 7/8"	Tap Wrench Wrench Socket Wrench VISE-GRIP® Locking Pliers IRWIN Tap Adaptors
Spiral Screw	<ul> <li>Spiral bites into harder materials with increasing torque</li> <li>Flutes embed deeper with each turn</li> </ul>	3/32" - 2-1/2"	Tap Wrench Wrench Socket Wrench VISE-GRIP Locking Pliers IRWIN Tap Adaptors
Multi-Spline Screw	<ul> <li>Low profile enables use in confined areas</li> <li>Provides most torque of internal extractors</li> <li>Engages fastener without a deep hole</li> </ul>	1/8" - 7/8"	Flat Wrench Socket Wrench VISE-GRIP Locking Pliers
Bolt Extractor	<ul> <li>Engages rusted-over, painted-on, and stripped-out bolts</li> <li>Grips broken, worn, or stubborn fasteners</li> <li>Drive with a variety of tools</li> </ul>	1/4" - 1"	Socket Wrench Wrench VISE-GRIP Locking Pliers
Power-Grip Screw & Bolt Extractors	<ul> <li>Grips rusted, painted, stripped, and even round-head fasteners and screws</li> <li>Easily fits into drill or power driver with Quick Change Shank</li> </ul>	3/16" - 1/2"	Power Drill VISE-GRIP Locking Pliers

# EXTRACTORS SPIRAL FLUTE

# HANSON® Spiral Flute 534/524 Series



#### 52405

- Designed to remove broken studs, bolts, socket screws and fittings
- Aggressive left hand spiral design for extra gripping power

Description	Recommended Tap Wrench	Use Drill Size	Removes Bolts & Screws	Carded Stock #	Bulk Stock #
EX-1	TR-88	5/64"	3/32" - 5/32", 2.5 mm - 4 mm, No. 3 - No. 6	53401	52401
EX-2	TR-88	7/64"	5/32" - 7/32", 4 mm - 6 mm, No. 6 - No. 12	53402	52402
EX-3	TR-88	5/32"	7/32" - 9/32", 6 mm - 8 mm, No. 12	53403	52403
EX-4	TR-88	1/4"	9/32" - 3/8", 1/8" NPT, 1/8" BSP, 8 mm - 10 mm	53404	52404
EX-5	TR-98	19/64"	3/8" - 5/8", 1/4" NPT, 1/4" BSP, 10 mm - 16 mm	53405	52405
EX-6	TR-98	13/32"	5/8" - 7/8", 3/8" NPT, 3/8" BSP, 16 mm - 22 mm	53406	52406
EX-7	TR-98	17/32"	7/8" - 1-1/8", 1/2" NPT, 1/2" BSP, 22 mm - 27 mm	53407	52407
EX-8	-	13/16"	1-1/8" - 1-3/8", 3/4" NPT, 3/4" BSP, 27 mm - 36 mm	-	52408
EX-9	_	1-1/16"	1-3/8" - 2", 1" NPT, 1" BSP, 36 mm - 52 mm	_	52409
EX-10	-	1-15/16"	2-1/8" - 2-1/2", 1-1/4" NPT, 1-1/4" BSP, 52 mm - 68 mm	_	52410

#### **Carded Bulk Description Contents** Stock # Stock # 4-pc Set EX-2 - EX-5 52425 5-pc Set EX-1 - EX-5 53535 52435 6-pc Set EX-1 - EX-6 53545 52445 EX-1 - EX-9 9-pc Set 52490

# HANSON Spiral Flute Extractor Sets 535/524 Series



53535

# HANSON Spiral Extractor & Drill Bit Combo Packs 537 Series



### 53704

 High speed steel drill bit ensures fast, clean drilling

Description	Carded Stock #
EX-1 + 5/64" Drill Bit	53701
EX-2 + 7/64" Drill Bit	53702
EX-3 + 5/32" Drill Bit	53703
EX-4 + 1/4" Drill Bit	53704
EX-5 + 19/64" Drill Bit	53705
EX-6 + 13/32" Drill Bit	53706

Description		Carded Stock #	
6-pc	Extractor & HS	SS Drill Bit Set in Vinyl Pour	ch 53700
Spiral Flute Extractors			Drill Bits
EX-1	52401	5/64	." 60105
EX-2	52402	7/64	." 60107
EX-3	52403	5/32	60110