

DRILLS

Performance, Serviceability, Ergonomics and Value...



Light weight aluminum housing



Ergonomic, handle with soft textured grip



Available in 1 hp and .6 hp motor



3 planet gear system for increased life and load capacity



Teasing throttle, conveniently located reverse

Industry Leader

Regarded as the Number 1 choice in the industry, Sioux Tools' pneumatic drills are known around the world for their exceptional engineering and construction. A wide range of configurations, speeds, and options ensure a perfect match for any application. Through next generation ergonomics and the continued focus on productivity and operator safety comes the development of the Sioux Tools Signature Series Drill line.

Signature Series Drills are used in applications ranging from manufactured housing and wood working to light assembly. With free speeds from 300 to 16,000 rpm we have the right drill for any application, for use with any type of material. The powerful five vane motor makes these drills great for drilling applications that contain ferrous and non-ferrous metals, wood and composite materials. The Signature Series Drills offer great value with a 3 planet gear system for increased life and load capacity. The Sioux tools Signature Series Drill line reduces operator fatigue by offering a low sound level and low vibration solution! Operator comfort is achieved through the implementation of a light weight aluminum housing and a comfort grip. Drills are available in both reverse and non-reverse models and are available in pistol grip, straight, Z-handle and D and T-handles, and offer a variety of chuck and collet size.

Innovative Design

Our exclusive Z-handle models are often the only drills that will get you into those tough, hard to reach spaces, and our miniature aircraft angle drills are designed with small, compact 45° and 90° heads and internal threaded spindles that accept a variety of aircraft precision drill bits.

360° Rotation

The SDR10S40N360 has a unique 360° rotating head for applications in hard to reach places or difficult angles.

T-Handles

Our exceptional T-handle drills help reduce stress on the operators back and arms while making short work of any decking application.

Ergonomics

All Sioux Drills offer ergonomic features to provide maximum comfort during operation. Many models include comfortable insulating grips to reduce cold and vibration. We also offer optional support handles for most models.

Drill Maintenance



- 1 Tipper valve and valve seat is easily accessible for service
- 2 Slip fit of front end plate bearing allows easy service of the air motor without disturbing the rotor spacing
- 3 Drop in motor. No alignment necessary (applies to non-reversing drills only)
- 4 Rotor pinion is case hardened to resist wear
- 5 Grease zerk makes it easy to grease the gears without disassembly
- 6 Planetary reduction can be serviced without removing the chuck
- 7 Planet gear pins are slip fit for ease of assembly and disassembly
- 8 Ring gear is machined into the motor retainer for ease of assembly and disassembly
- 9 Interchangeable rotor, cylinder, bearings and end plates. This reduces the number of spare parts tool cribs need to stock

Accessories

Sioux carries an extensive selection of drill accessories, including hole saws and wire brushes.

See the drill accessory section in this catalog for a comprehensive listing.

Drill Safety

Chips can cause eye injury.

Drilling creates chips. Proper eye protection must be worn at all times by tool user and bystanders.

Broken drill bits can cause eye injury.

Proper eye protection must be worn at all times by tool user and bystanders.

Sudden and unexpected tool movement can cause injury.

Be sure your body position allows you to have control of the tool at all times. Make sure your footing is secure.

Tools starting unexpectedly can cause injury.

Always remove tool from air supply and activate trigger to bleed air line before making any adjustments, changing accessories, or doing any maintenance or service on the tool.

Drill Principles of Operation

An air motor and reduction gearing are used to drive a spindle / drill chuck, which holds accessories for drilling, reaming, tapping, and hole sawing. Motor size (horsepower), gear ratio, handle style and drive spindle determine the type of tool needed to handle an application.

Drill Uses

Pneumatic drills may first be thought of for drilling holes in wood, metal, or plastic. Drills are used in a wide variety of applications. Each of these applications require the proper tool with the proper horsepower and speed to get the best results. Drilling – cutting a hole in material using a fluted bit. Reaming – opening up or sizing a previously drilled hole or aligning offset holes. Tapping – cutting threads in a drilled hole to accept threaded fasteners.

Where Used

- Continuous-duty production drilling
- For initial tap operations and thread chasing
- Wire brushing and deburring
- Screwdriving
- Hole sawing
- General Maintenance

Considerations for Selecting Drills

- What type of material is being drilled?
- What size of hole will need to be drilled?
- What are your horsepower requirements?
- What speed requirements do you have?

Drill Speed Guide

Drill Speed Guide

Material	Surface Ft/Min	Size of Hole to be Drilled							
		1/16 in 1.5 mm	1/8 in 3.0 mm	3/16 in 5.0	1/4 in 6.0 mm	5/16 in 8.0 mm	3/8 in 9.5 mm	7/16 in 11.0 mm	1/2 in 13.0 mm
Recommended Cutting Speed Range (rpm)									
Steel Alloy, 300-400 Brinell	20-30	1250-1800	600-900	400-600	300-450	250-350	200-300	175-250	150-225
Stainless Steel, Cast Iron, Hard	30-40	1800-2500	900-1200	600-800	450-600	350-500	300-400	250-350	225-300
Steel Forgings	40-50	2500-3100	1200-1500	800-1000	600-750	500-600	400-500	350-425	300-400
Steel, Tool Annealed, .90-1.20 Carbon	50-60	3100-3700	1500-1800	100-1200	750-900	600-700	500-600	425-525	400-450
Steel, .40-.50 Carbon	70-80	4300-5000	2100-2500	1400-1600	1000-1200	850-1000	700-800	600-700	500-600
Cast Iron, Medium Hard	70-100	4300-6000	2100-3000	1400-2000	1000-1500	850-1200	700-1000	600-900	500-800
Bronze, High Tensile Strength	70-150	4300-9000	2100-4500	1400-3000	1000-2300	850-1200	700-1530	600-1300	500-1200
Malleable Iron	80-90	5000-5500	2500-2800	1600-1800	1200-1400	950-1100	800-900	700-800	600-700
Steel, Mild .20-.30 Carbon	80-110	5000-6700	2500-3400	1600-2300	1200-1700	950-1350	800-1150	700-1000	600-850
Cast Iron, Soft Plastic	100-150	6000-9000	3000-4500	2000-3000	1500-2300	1200-1800	1000-1530	900-1300	800-1200
Aluminum, Brass, Bronze	200-300	12,000-18,000	6000-9000	4000-6000	3000-4500	2400-3700	2000-3000	1700-2600	1500-2300
Magnesium	250-400	15,500-25,000	7500-12,000	5000-8200	3800-6100	3000-4900	2500-4000	2200-3500	1900-3000
Fiberglass, Wood	300-400	18,000-25,000	9000-12,000	6000-8200	4600-6100	3700-4900	3000-4000	2600-3500	2300-3000

Actual drilling or cutting RPM will be approximately 70% of rated spindle speed of tool. Surface Feet Per Minute = .26 x RPM x Drill Diameter in Inches.