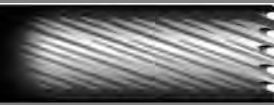
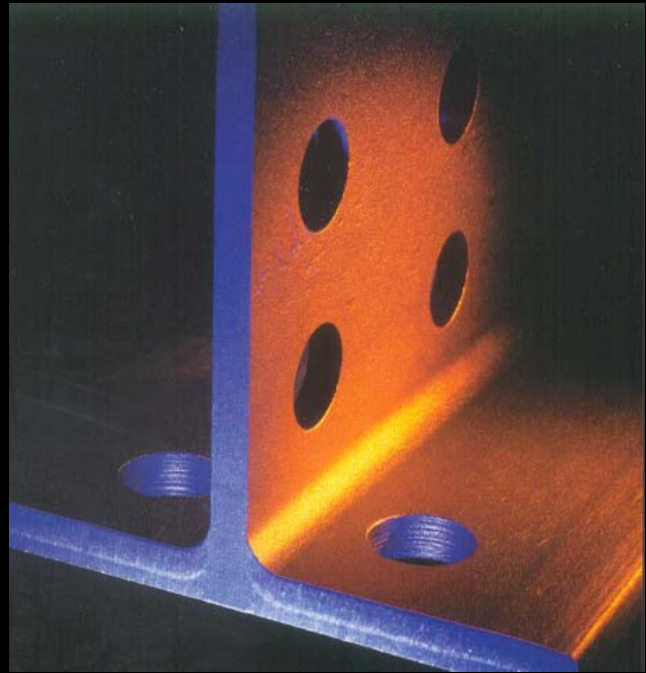


**HOLE CUTTERS**



**SIMONDS**<sup>®</sup>



**Simonds Hole Cutters**



**Cut Time.  
Cut Costs.  
Cut Smart.**

**SIMONDS**<sup>®</sup>



**HOLE CUTTERS**

When the job demands drilling large diameter holes through structural steel, plate steel, or pipe as quickly and easily as possible there is only one way to get it done — with Simonds Hole Cutters.



**Built to perform on the job site or in the shop, Simonds Hole Cutters have a wide range of applications.**

- Industrial Applications • Steel Erection & Fabrication • Bridge & Highway Maintenance
- Automotive Manufacturing • Truck & Trailer Manufacturing • Refineries & Offshore Rigs
- Welding • Mining & Construction • Ship Building • Railroads • HVAC & Elevator Repair





## Trepanning Makes The Difference

Simonds Hole Cutters rely on the proven success and value of trepanning, or broaching, cutters to make cuts accurately, use less energy and extend tool life. The cutters are annular, which means they are round and hollow — all the cutting takes place on the outer edge of the cutter. By cutting only the outer diameter of the hole and ejecting the remaining center as a slug, Simonds Hole Cutters save time and reduce the cost per hole cut by saving tools, energy and man hours.

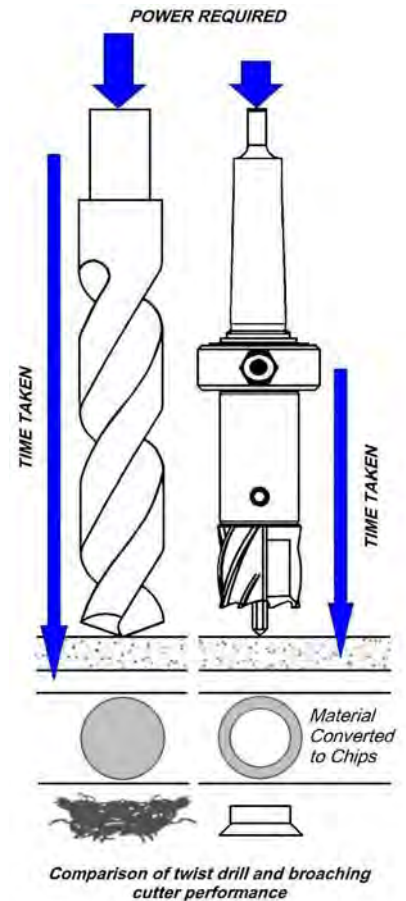
Designed for use on magnetic drill bases, drill presses and milling machines, Simonds Hole Cutters are much more efficient than conventional twist drills or spade bits. And they can be used on curved surfaces and for interrupted cuts. The results are reamed quality burr-free holes in one operation without the time consuming processes of drilling pilot holes and step drilling. All cutters have a fully ground finish.

## Unique Geometry

Simonds Hole Cutters feature a unique geometry for faster feed, lower cutting resistance, greater accuracy, longer tool life and better finish. They are manufactured from M2 high-speed steel on the very latest CNC machinery for consistent quality and offer up to 12 cutting edges on each cutter (vs. two on a typical drill bit). All Simonds Hole Cutters are available in long reach or short reach in imperial sizes from 7/16" to 2-1/16".

Our Tungsten Carbide models are made from EN24 hardened steel with a unique design providing full tooth support to the fine grain carbide inserts and generous side clearance. Available in long or short reach sizes from 18 — 50mm (3/4" — 2").

Simonds Hole Cutters are compatible with virtually all makes and models — they are manufactured with two flats, ninety degrees apart on a 19mm (3/4") diameter shank.



# Imperial Hole Cutters



Simonds precision Hole Cutters are manufactured to the tightest tolerances so that you get the same high quality performance with every cut.

Simonds Hole Cutters are made of tough M2 steel with a standard 3/4" shank which makes them interchangeable with all brands of Magnetic Drill Stands as well as being able to be used with drill presses, milling machines and CNC machining centers. Simonds Hole Cutters are able to be reground, giving extended life to each cutter.

There is one pilot pin for the 7/16" diameter cutter and a separate pin for the remainder of the line, based on the depth of cut of the cutter. The Simonds pilot pin is interchangeable with most other manufacturers' pilot pins.

Simonds Hole Cutters are offered as "standard" in 1" and 2" depths of cut, and can be "special ordered" in 3" and 4" depths of cut. The standard diameter range is 7/16" to 2", and larger diameters may be "special ordered". Simonds also offers special grinds for stack cutting and sheet metal work.

Imperial Diameter	Short Reach - 1" Depth		Long Reach - 2" Depth	
	P/N	EDP No.	P/N	EDP No.
7/16"	ACS7	49121051	ACL7	49121052
1/2"	ACS8	49121001	ACL8	49121026
9/16"	ACS9	49121002	ACL9	49121027
5/8"	ACS10	49121003	ACL10	49121028
11/16"	ACS11	49121004	ACL11	49121029
3/4"	ACS12	49121005	ACL12	49121030
13/16"	ACS13	49121006	ACL13	49121031
7/8"	ACS14	49121007	ACL14	49121032
15/16"	ACS15	49121008	ACL15	49121033
1"	ACS16	49121009	ACL16	49121034
1-1/16"	ACS17	49121010	ACL17	49121035
1-1/8"	ACS18	49121011	ACL18	49121036
1-3/16"	ACS19	49121012	ACL19	49121037
1-1/4"	ACS20	49121013	ACL20	49121038
1-5/16"	ACS21	49121014	ACL21	49121039
1-3/8"	ACS22	49121015	ACL22	49121040
1-7/16"	ACS23	49121016	ACL23	49121041
1-1/2"	ACS24	49121017	ACL24	49121042
1-9/16"	ACS25	49121018	ACL25	49121043
1-5/8"	ACS26	49121019	ACL26	49121044
1-11/16"	ACS27	49121020	ACL27	49121045
1-3/4"	ACS28	49121021	ACL28	49121046
1-13/16"	ACS29	49121022	ACL29	49121047
1-7/8"	ACS30	49121023	ACL30	49121048
1-15/16"	ACS31	49121024	ACL31	49121049
2"	ACS32	49121025	ACL32	49121050



## Metric Hole Cutters

Simonds Metric Hole Cutters are manufactured to the same exacting standards as our imperial cutters. They are made on state-of-the-art CNC machines for the tightest of tolerances, ensuring each Simonds Hole Cutter provides the same consistent performance from one cutter to the next.

Simonds Hole Cutters are made of tough M2 steel with a standard 3/4" shank which makes them interchangeable with all brands of magnetic drill stands as well as being able to be used with drill presses, milling machines and CNC machining centers. Simonds Hole Cutters are able to be reground, giving extended life to each cutter.

Simonds Hole Cutters are offered as "standard" in 25mm and 50mm depths of cut, and can be "special ordered" in 75mm or 100mm depth of cut. The standard diameter range is 12mm to 51mm, and larger diameters may be "special ordered". Simonds also offers special grinds for stack cutting and sheet metal work.



Metric Diameter	Short Reach - 1" Depth		Long Reach - 2" Depth	
	P/N	EDP No.	P/N	EDP No.
12mm	ACS12M	432-22012	ACL12M	432-23012
13mm	ACS13M	432-22013	ACL13M	432-23013
14mm	ACS14M	432-22014	ACL14M	432-23014
15mm	ACS15M	432-22015	ACL15M	432-23015
16mm	ACS16M	432-22016	ACL16M	432-23016
17mm	ACS17M	432-22017	ACL17M	432-23017
18mm	ACS18M	432-22018	ACL18M	432-23018
19mm	ACS19M	432-22019	ACL19M	432-23019
20mm	ACS20M	432-22020	ACL20M	432-23020
21mm	ACS21M	432-22021	ACL21M	432-23021
22mm	ACS22M	432-22022	ACL22M	432-23022
23mm	ACS23M	432-22023	ACL23M	432-23023
24mm	ACS24M	432-22024	ACL24M	432-23024
25mm	ACS25M	432-22025	ACL25M	432-23025
26mm	ACS26M	432-22026	ACL26M	432-23026
27mm	ACS27M	432-22027	ACL27M	432-23027
28mm	ACS28M	432-22028	ACL28M	432-23028
29mm	ACS29M	432-22029	ACL29M	432-23029
30mm	ACS30M	432-22030	ACL30M	432-23030
31mm	ACS31M	432-22031	ACL31M	432-23031
32mm	ACS32M	432-22032	ACL32M	432-23032
33mm	ACS33M	432-22033	ACL33M	432-23033
34mm	ACS34M	432-22034	ACL34M	432-23034
35mm	ACS35M	432-22035	ACL35M	432-23035
36mm	ACS36M	432-22036	ACL36M	432-23036
37mm	ACS37M	432-22037	ACL37M	432-23037
38mm	ACS38M	432-22038	ACL38M	432-23038
39mm	ACS39M	432-22039	ACL39M	432-23039
40mm	ACS40M	432-22040	ACL40M	432-23040
41mm	ACS41M	432-22041	ACL41M	432-23041
42mm	ACS42M	432-22042	ACL42M	432-23042
43mm	ACS43M	432-22043	ACL43M	432-23043
44mm	ACS44M	432-22044	ACL44M	432-23044
45mm	ACS45M	432-22045	ACL45M	432-23045
46mm	ACS46M	432-22046	ACL46M	432-23046
47mm	ACS47M	432-22047	ACL47M	432-23047
48mm	ACS48M	432-22048	ACL48M	432-23048
49mm	ACS49M	432-22049	ACL49M	432-23049
50mm	ACS50M	432-22050	ACL50M	432-23050
51mm	ACS51M	432-22051	ACL51M	432-23051

## Hole Cutter Accessories

Simonds offers a range of Pilot Pins for the range of Hole Cutters. There is one Pilot Pin for the 7/16" diameter cutter in each depth of cut range (1" depth of cut and 2" depth of cut) and an additional Pilot Pin that fits all the other diameters in each range.

Simonds Hole Cutters use a Pilot Pin which is interchangeable with most manufacturers. We will do a pilot pin exchange program for any manufacturer whose pin does not fit in a Simonds Hole Cutter.

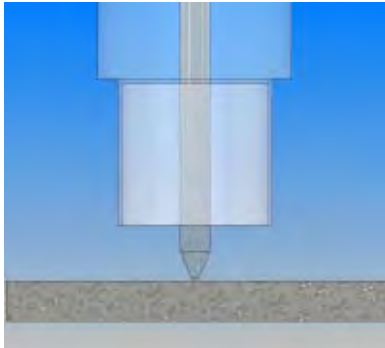
Simonds also offers #2 and #3 Morse Taper Adapters and other adapters as pictured, allowing Simonds Hole Cutters to be used on Milling Machines, CNC Machining Centers, Drills or Lathes, as special order products. A countersink is also available for clean and accurate countersinking and deburring.



Description	EDP No.
Pilot - Short (1" Cutter)	49121000
Pilot - Long (2" Cutter)	49121100
Pilot - Extra Long (3" Cutter)	49130210
Pilot - 7/16" Cutter (1" depth of cut)	49116100
Pilot - 7/16" Cutter (2" depth of cut)	49116200
Countersink	49133505
3/4" Adapter with 1/2" Chuck - fits all machines but limits stroke	49130611
3/4" Adapter to accept 1/2" Chuck - fits all machines but limits stroke	49130610
S35 Quick Change Arbor	49130418
S35 Arbor fits directly to spindle and accepts std 3/4" shank cutters	49130414
S35 Direct Spindle Adapter - accepts 1/2" Chuck - does not limit stroke	49130416
1/2" Chuck and Key	49130415
S50 Quick Change Arbor	49130419
#2 Morse Taper Adapter - accepts std 3/4" shank cutter	49130410
#2 Morse Taper Oil Feed Adapter - accepts std 3/4" shank cutter	49130413
#2 Morse Taper Adapter - accepts 5/8" Chuck - does not limit stroke	49130412
S100 Quick Change Arbor	49130420
#3 Morse Taper Adapter - accepts std 3/4" shank cutter	49133500
#3 Morse Taper Oil Feed Adapter - accepts std 3/4" shank cutter	49133501
#3 Morse Taper Adapter - accepts 5/8" Chuck - does not limit stroke	49133502
5/8" Chuck and Key	49130417

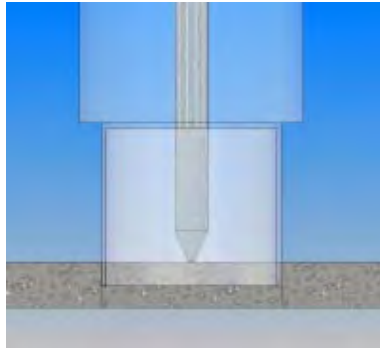
## Function of the Pilot Pin

Step 1



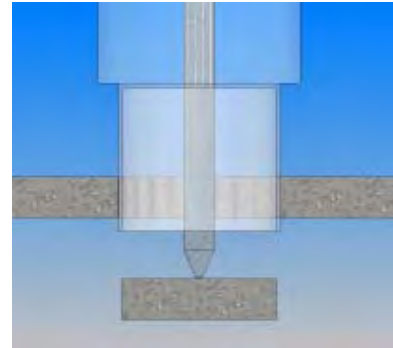
Center pilot pin accurately centers cutter over area to be drilled.

Step 2



During drilling, the pilot pin retracts, allowing internal coolant to reach the cutting teeth.

Step 3



When hole is complete, the slug is automatically ejected from the cutter.

Simonds Hole Cutters offer 6 to 12 cutting teeth, depending on the cutter diameter. Our Hole Cutters cut over 3 times faster and more accurately than conventional drills with 2 cutting edges. Hole Cutters eliminate the need for step drilling or pilot hole drilling, as conventional machining requires. This translates into a saving of time and money. Hole Cutters also cut more accurately and with less pressure, which leads to extended tool life and machine life.

The unique pilot pin centers the cutter when starting the cut, retracts during the cut for coolant flow, and ejects the slug at the end of the cut as shown above. Since the cutter only cuts on the periphery and leaves a slug, this means less metal removal which again translates to faster, less expensive machining.

Always wear safety glasses and be sure to chain your Magnetic Drill Stands when operating them in suspended mode, as shown below.

Remember, Simonds Hole Cutters are made on the finest CNC Machines and can be re-sharpened to further extend their tool life.



### Carbide Tipped Hole Cutters

Simonds offers a full line of Carbide Tipped Hole Cutters as special order items. These Hole Cutters use fine grain carbide inserts on a hardened body, making them very durable for difficult to machine materials.

### Special Hole Cutters and Special Grinds

Hole Cutters can be ordered in 3" or 4" depth of cut. Additionally, non-standard diameters can be ordered, such as in 1/32" increments or diameters larger than 2". All our Hole Cutters may be ordered with a variety of special grinds such as stack cut grind, pipe grind or for sheet metal work. Please contact us for information and a quotation.

## Magnetic Drill Stands



### Simonds S35 Magnetic Drill Stand - EDP #49121249

- Quick-change arbor (accepts any 3/4" shank cutter w/ one or more flats)
- Cutter capacity to 1-3/8" - 35mm
- Chuck capacity 1/2"
- No-Load speed 580 RPM
- Dual coil magnetic base for added safety in use (1,380 lbs. clamping force)
- Lubrication system
- Carrying case
- 23 lbs net weight
- Available in 110 volt or 230 volt



### Simonds S50 Magnetic Drill Stand - EDP #49121250

- Quick-change arbor (accepts any 3/4" shank cutter w/ one or more flats)
- Cutter capacity to 2" - 50mm
- Chuck capacity 5/8"
- Speed range 280 to 500 RPM
- Dual coil magnetic base for added safety in use (1,380 lbs. clamping force)
- Lubrication system
- Carrying case
- 44 lbs net weight
- Available in 110 volt or 230 volt



### Simonds S100 Magnetic Drill Stand - EDP #49121251

- Quick-change arbor (accepts any 3/4" shank cutter w/ one or more flats)
- Cutter capacity to 4" - 100mm
- Chuck capacity 3/4"
- Speed range 40 - 130 / 145 - 430 RPM
- Dual coil magnetic base for added safety in use (4,275 lbs. clamping force)
- Lubrication system
- Carrying case
- 60 lbs net weight
- Available in 110 volt or 230 volt