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# SONIC TOOLING CATALOG

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[www.holePRODUCTS.com](http://www.holePRODUCTS.com)

 **hole PRODUCTS<sup>®</sup>**



## OUR LOCATIONS

### Arizona

1825 East Germann Rd. Unit 10  
Chandler, AZ 85286  
Toll free (844) 836-6225  
Phone (480) 626-0099  
Fax (480) 626-2822

### California

1413 E. Philadelphia St.  
Ontario, CA 91761  
Toll free (844) 573-0854  
Phone (909) 939-2581  
Fax (909) 891-0434

### Florida

6448 Pinecastle Blvd., Suite 105  
Orlando, FL 32809  
Toll free (877) 544-4211  
Phone (407) 792-2670  
Fax (407) 286-2956

### Georgia

1725 Corporate Dr., Suite 340  
Norcross, GA 30093  
Toll free (888) 448-4430  
Phone (770) 279-8755  
Fax (770) 279-8499

### Minnesota

205 16th St. NE., Suite A  
Little Falls, MN 56345  
Phone (320) 616-0701  
Fax (320) 631-0064

### Missouri

4061 Wedgeway Ct.  
Earth City, MO 63045  
Toll free (877) 699-2159  
Phone (314) 282-2740  
Fax (314) 770-0687

### New Jersey

9 Astro Place, Unit #3  
Rockaway, NJ 07866  
Toll free (888) 379-0371  
Phone (862) 254-8000  
Fax (862) 210-6000

### Wisconsin

7575 Bombardier Ct., Suite 300  
Wausau, WI 54401  
Toll free (888) 465-3704  
Phone (715) 842-0000  
Fax (715) 842-5999

### Canada

6665 Tomken Road, Unit 8  
Mississauga, ON L5T 2C4  
Toll free (877) 377-8257  
Phone (647) 241-6971  
Fax (320) 396-6916

### Global Sales

(888) 465-1569

[www.holePRODUCTS.com](http://www.holePRODUCTS.com)

## INDUSTRIES & MARKETS

### CONSTRUCTION

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We provide tooling & supplies for sub-surface investigation, utility installation, Geothermal and Water Well projects, and geotechnical and environmental needs.

### GEOTHERMAL

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Our experienced staff can provide quality products and solutions for both geothermal installations and geothermal drilling.

### ROTARY

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A vast inventory of tooling and accessories to service air, mud, and reverse circulation rotary drilling operations.

### DIRECT PUSH - PROBE

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A full line of Geoprobe® compatible direct push tooling and accessories innovatively designed and manufactured to provide consistency, durability, and longevity.

### HDD

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A full line of Ditch Witch® and Vermeer® compatible HDD drilling tools and accessories, backed by second to none service and support.

### SONIC

---

World class tooling, designed and manufactured specifically to withstand the rigors unique to sonic drilling. On-site solutions you just can't find anywhere else.

### ENVIRONMENTAL & GEOTECHNICAL

---

Auger tools, rods and subs, bits, sampling equipment, well completion products, and more. One call for all of your environmental and geotechnical product needs.

### MINERAL EXPLORATION

---

Quality, innovative tooling, and accessories to support all methods of exploratory drilling. Large on-hand inventory and worldwide shipping capabilities.

### WATER WELL

---

A complete line of water well products from the world's leading manufacturers. Unmatched supply network and large on-hand inventory for all your water well drilling needs.



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LI  
PH

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## **SONIC DRILLING**

Sonic drilling utilizes high-frequency vibration to generate resonant energy in the drill head, that during drilling is transferred through the drill string to the bit/shoe face. Sonic Drilling is a highly specialized drilling method requiring highly specialized tooling and support.

To service the sonic drilling industry, Hole Products brings you the Sonix brand of premium sonic tools. Sonix tooling is proudly manufactured by Hole Products in the USA using premium alloys, precision heat treating, and advanced welding techniques, to ensure superior performance and longevity. The Sonix line of tooling includes complete systems ranging from 3 ½" – 12", and comes standard with the Boart Longyear® compatible HPS thread. Additional thread options are available on request.

Hole Products has deep rooted sonic lineage with years of hands-on sonic drilling, sales, service, and support experience. Combining that with state of the art manufacturing equipment, highly skilled machinists, and experienced engineers, gives Sonix the unparalleled advantage successful sonic drilling companies demand. We are actively developing innovative products to make sonic drilling safer and more productive for our valued clients. Our quality and un-matched commitment to service and support make Hole Products the world's leading sonic tooling supplier.

Please contact a Hole Products representative for additional product details, availability, and ordering assistance.



**HPS**

**DRILL RODS  
CORE BARRELS  
CASING**

Hole Products' Sonix rods, core barrels, and casing are manufactured using premium alloys, precision heat treating, and advanced welding techniques, to ensure superior performance and longevity.

**SONIX**  
*Xtreme sonic tooling.*



## HPS DRILL ROD DIMENSIONS

HPS DRILL ROD DIMENSIONS								
SIZE	MID BODY				TOOL JOINT			
	O.D. U.S.	O.D. METRIC	I.D. U.S.	I.D. METRIC	O.D. U.S.	O.D. METRIC	I.D. U.S.	I.D. METRIC
3 1/2"	3.5"	88.9 mm	3.0"	76.2 mm	3.5"	88.9 mm	2.5"	63.5 mm

*\*HPS drill rods feature right hand threads.*

## HPS DRILL ROD

HPS DRILL ROD				
DESCRIPTION	1'	2'	5'	10'
HP PART #	6360300	6360301	6360302	6360304
BLY PART #	21020530	21011375	21011187	21011186

# HPS CORE BARREL DIMENSIONS

HPS CORE BARREL DIMENSIONS								
SIZE	MID BODY				TOOL JOINT			
	O.D. U.S.	O.D. METRIC	I.D. U.S.	I.D. METRIC	O.D. U.S.	O.D. METRIC	I.D. U.S.	I.D. METRIC
3 3/4"	3.75"	95.25 mm	3.25"	82.55 mm	3.82"	97.03 mm	3.22"	81.79 mm
4 3/4"	4.75"	120.65 mm	4.25"	107.95 mm	4.87"	123.83 mm	4.19"	106.43 mm
6"	6.0"	152.4 mm	5.5"	139.7 mm	6.0"	152.40 mm	5.4"	137.16 mm
7"	7.0"	177.8 mm	6.5"	165.1 mm	7.05"	179.07 mm	6.42"	163.07 mm
8"	8.0"	203.2 mm	7.5"	190.5 mm	8.051"	204.5 mm	7.4"	188.01 mm
9 1/4"	9.25"	234.95 mm	8.75"	222.25 mm	9.251"	235 mm	8.40"	213.51 mm
10 1/2"	10.5"	266.7 mm	10"	254.0 mm	10.51"	267 mm	9.64"	245 mm

\*HPS core barrels feature right hand threads.

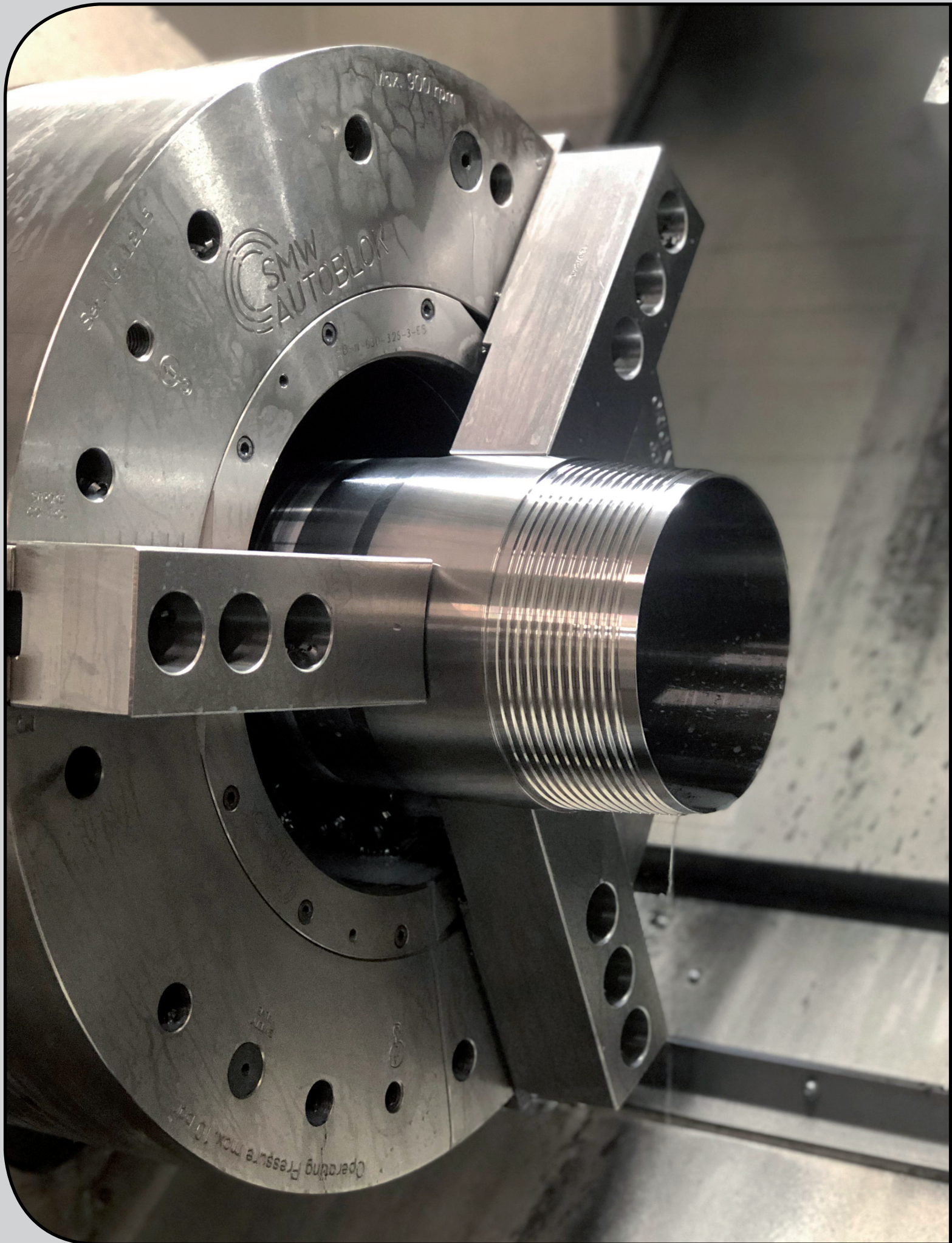
## HPS CORE BARRELS

2' CORE BARRELS					
DESCRIPTION	3 3/4"	4 3/4"	6"	7"	8"
HP PART #	6340437	6340440	6340443	6340446	6340449
BLY PART #	21011398	21011399	21011402	21011400	21011401

5' CORE BARRELS							
DESCRIPTION	3 3/4"	4 3/4"	6"	7"	8"	9 1/4"	10 1/2"
HP PART #	6340438	6340441	6340444	6340447	6340453	6340455	6340456
BLY PART #	21011194	21011198	21011201	21011203	21011310	21011464	21011445

10' CORE BARRELS							
DESCRIPTION	3 3/4"	4 3/4"	6"	7"	8"	9 1/4"	10 1/2"
HP PART #	6340439	6340442	6340445	6340448	6340454	6340466	6340467
BLY PART #	21011193	21011197	21011200	21011202	21011304	---	---





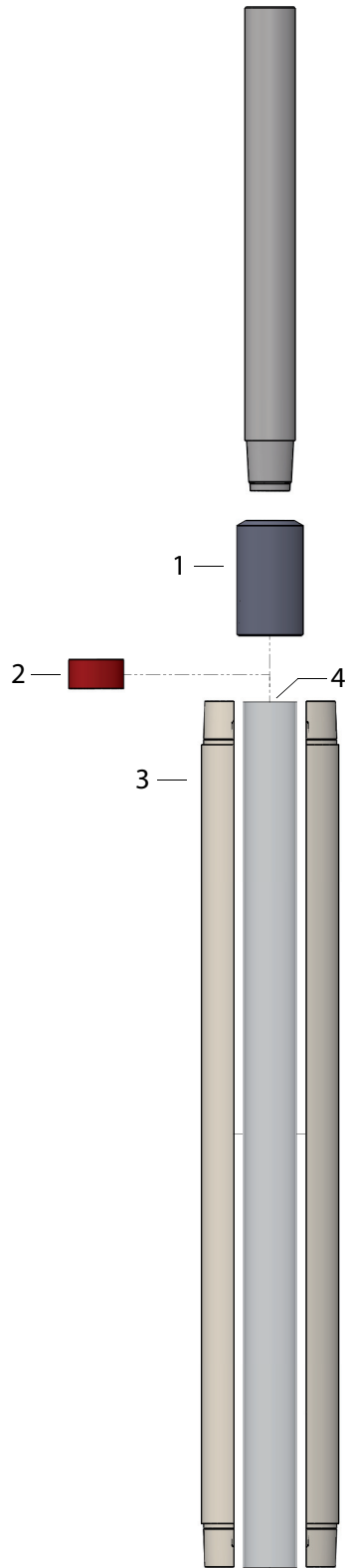
max. 3000 rpm

SMW  
AUTOBLOK

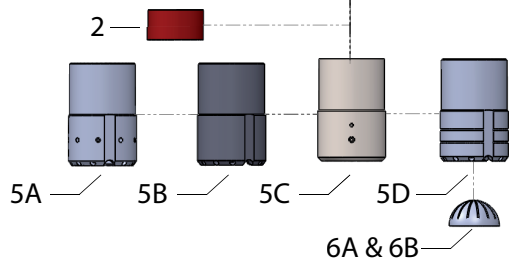
B-N 630-325-3-ES

Operating Pressure max. 10 bar

# HPS SPLIT CORE BARREL SYSTEM



HPS SPLIT CORE BARREL SYSTEM			
1		2	
3		4	
5A		5B	
5C		5D	
6A		6B	



## HPS SPLIT CORE BARREL SYSTEM

HPS split core barrels feature H90 threads. H90 threads are not compatible with HPS threads. H90 driver sub and H90 core barrel bit(s) shown below are required for compatibility.

The HPS split core barrel system is suggested for use in non-rotation drilling operations.

HPS SPLIT CORE BARREL SYSTEM		
ITEM	PART #	DESCRIPTION
1*	6340024	3 1/2" HPS RH BOX X 4 1/2" H90 RH BOX DRIVER SUB
2	4020051	POLYCARBONITE LINER CAP
3	6340002	4 1/2" H90 RH X 4 1/2" H90 RH SPLIT CORE BARREL
4	6350018	3 1/2" (I.D.) X 3 3/4" (O.D.) X 60" LENGTH LEXAN LINER
5A*	6340063	4 1/2" H90 RH CORE BARREL BIT INTERNAL BUTTONS
5B*	6340048	4 1/2" H90 RH CORE BARREL BIT STANDARD
5C*	6340164	4 1/2" H90 RH CORE BARREL BIT DUAL FLAPPER
5D*	6340062	4 1/2" H90 RH CORE BARREL BIT RETAINER BASKET
6A	1250071	PLASTIC 4 1/2" RETAINER BASKET
6B	6340250	STEEL 4 1/2" RETAINER BASKET

*\*Required for HPS compatibility.*



# HPS CASING DIMENSIONS

HPS SONIC CASING DIMENSIONS								
SIZE	MID BODY				TOOL JOINT			
	O.D. U.S.	O.D. METRIC	I.D. U.S.	I.D. METRIC	O.D. U.S.	O.D. METRIC	I.D. U.S.	I.D. METRIC
4 3/4"	4.75"	120.65 mm	4.25"	107.95 mm	4.83"	122.68 mm	3.94"	100.08 mm
6"	6.0"	152.4 mm	5.5"	139.7 mm	6.0"	152.4 mm	5.0"	127 mm
7"	7.0"	177.8 mm	6.5"	165.1 mm	7.0"	179.07 mm	6.23"	158.24 mm
8"	8.0"	203.2 mm	7.5"	190.5 mm	8.1"	205.74 mm	7.28"	184.91 mm
9 1/4"	9.25"	234.95 mm	8.75"	222.25 mm	9.25"	234.95 mm	8.4"	213.36 mm
10 1/2"	10.5"	266.7 mm	10.0"	254 mm	10.5"	266.7 mm	9.65"	245.11 mm
12"	12"	304.8 mm	11.5"	292.1 mm	12"	304.8 mm	10.88"	276.35 mm

\*HPS casing feature LH threads.

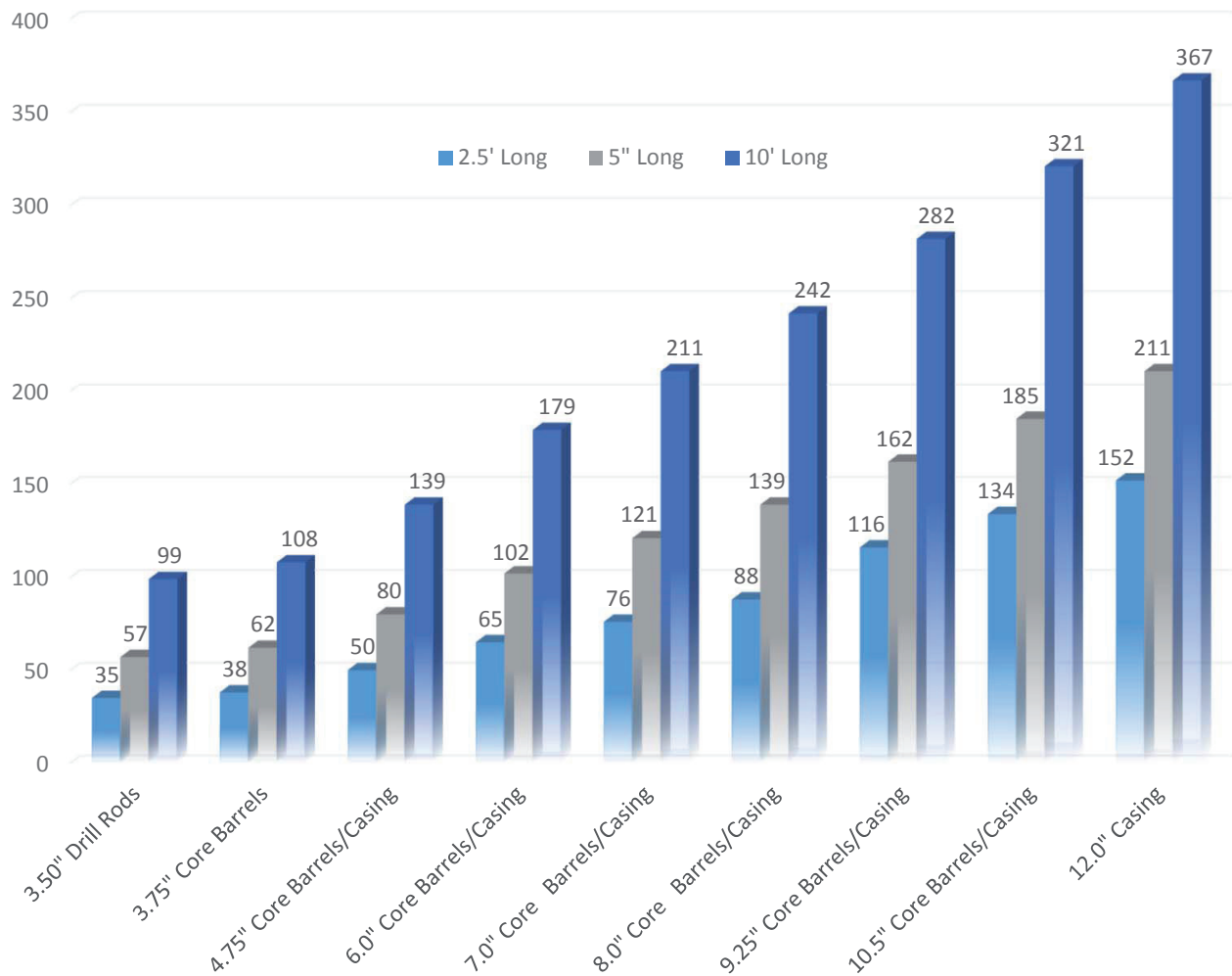
## HPS CASING

2' CASING							
DESCRIPTION	4 3/4"	6"	7"	8"	9 1/4"	10 1/2"	12"
HP PART #	6360320	6360323	6360326	6360329	6360332	6360335	6360338
BLY PART #	21011189	21011256	21011185	21011192	21011219	21011225	21011228

5' CASING							
DESCRIPTION	4 3/4"	6"	7"	8"	9 1/4"	10 1/2"	12"
HP PART #	6360321	6360324	6360327	6360330	6360333	6360336	6360339
BLY PART #	21011180	21011182	21011184	21011191	21011220	21011226	21011229

10' CASING							
DESCRIPTION	4 3/4"	6"	7"	8"	9 1/4"	10 1/2"	12"
HP PART #	6360322	6360325	6360328	6360331	6360334	6360337	6360340
BLY PART #	21011179	21011181	21011183	21011190	21011221	21011224	21011227

# HPS TUBULARS WEIGHTS (IN POUNDS)



HPS TUBULAR WEIGHTS



**HPS**

**CORE BARREL BITS  
CASING SHOES**

Hole Products' Sonix core barrel bits and casing shoes are manufactured from premium quality materials and field tested under a variety of conditions to ensure excellent performance and resistance to wear.

**SONIX**  
*Xtreme sonic tooling.*

## HPS CORE BARREL BIT DIMENSIONS

HPS CORE BARREL BIT DIMENSIONS				
SIZE*	O.D. U.S.	O.D. METRIC	I.D. U.S.	I.D. METRIC
3 3/4"	3.89"	98.86 mm	3.01"	76.4 mm
4 3/4"	4.91"	124.77 mm	3.85"	97.87 mm
6"	6.1"	154.94 mm	4.94"	125.48 mm
7"	7.13"	181.15 mm	5.99"	152.15 mm
8"	8.19"	208 mm	6.98"	177.19 mm
9 1/4"	9.4"	238.79 mm	8.39"	213 mm
10 1/2"	10.67"	271.02 mm	9.45"	240.03 mm

\*Core size is determined by the core barrel bit ID.

## HPS CASING SHOE DIMENSIONS

HPS CASING SHOE DIMENSIONS				
SIZE	O.D. U.S.	O.D. METRIC	I.D. U.S.	I.D. METRIC
4 3/4"	4.9"	124.38 mm	3.93"	99.77 mm
6"	6.17"	156.64 mm	4.99"	126.75 mm
7"	7.23"	183.69 mm	6.23"	158.19 mm
8"	8.3"	210.87 mm	7.28"	184.86 mm
9 1/4"	9.45"	240.08 mm	8.4"	213.31 mm
10 1/2"	10.75"	273.1 mm	9.65"	245.06 mm
12"	12.25"	311.2 mm	10.87"	276.17 mm

## STANDARD CORE BARREL BITS

All purpose bit for use in a variety of formations.

HPS STANDARD BITS							
DESCRIPTION	3 3/4"	4 3/4"	6"	7"	8"	9 1/4"	10 1/2"
HP PART #	6340404	6340405	6340407	6340408	6340409	6340410	6340411
BLY PART #	22010819	22010807	22010818	22010806	22010890	22011251	22011222



## STANDARD CORE BARREL BITS WITH WEAR PAD

Used for severely abrasive formation.

HPS STANDARD BITS WITH WEAR PAD					
DESCRIPTION	3 3/4"	4 3/4"	6"	7"	8"
HP PART #	6340412	6340406	6340413	6340414	6340415
BLY PART #	22011176	22010866	22010867	22010878	22011177



## FULL FACE CORE BARREL BITS

Used to speed hole advancement when sampling is not required.

HPS FULL FACE BUTTON BITS			
DESCRIPTION	3 3/4"	4 3/4"	6"
HP PART #	6340434	6340435	6340436
BLY PART #	22130594	22130568	22130578



## FLAPPER CORE BARREL BITS

Used for hole clean-out in slurry conditions.

HPS FLAPPER BITS					
DESCRIPTION	3 3/4"	4 3/4"	6"	7"	8"
HP PART #	6340416	6340417	6340418	6340419	6340420
BLY PART #	22010863	22010821	22010824	22010827	22010892

\* Rotation is not recommended with flapper bits.



## AUGER CORE BARREL BITS

Used in hard, dry, layered conditions.

HPS AUGER BITS					
DESCRIPTION	3 3/4"	4 3/4"	6"	7"	8"
HP PART #	6340421	6340424	6340425	6340426	6340427
BLY PART #	22010862	22010822	22010825	22010828	22010891





## PLASTIC CORE BARREL BITS

Used in conjunction with plastic retainer baskets to improve sample recovery in loose formations.

HPS PLASTIC BASKET COREBARREL BITS			
DESCRIPTION	4 3/4"	6"	
HP PART #	6340432	6340433	
BLY PART #	22011162	22011184	



## PLASTIC RETAINER BASKETS

HPS PLASTIC RETAINER BASKET			
DESCRIPTION	4 3/4"	6"	
HP PART #	6340257	6340258	
BLY PART #	4031159	4032758	



## STEEL BASKET CORE BARREL BITS

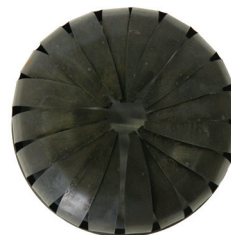
Used in conjunction with steel retainer baskets to improve sample recovery in loose formations.

HPS STEEL BASKET BITS				
DESCRIPTION	3 3/4"	4 3/4"	6"	7"
HP PART #	6340428	6340429	6340430	6340431
BLY PART #	22010861	22010823	22010826	22011180



## STEEL RETAINER BASKETS

HPS STEEL RETAINER BASKET				
DESCRIPTION	3 3/4"	4 3/4"	6"	7"
HP PART #	6340253	6340252	6340254	6340255
BLY PART #	24690139	24690134	24690135	24690140



## STANDARD CASING SHOES

All purpose bit for use in a variety of formations.

HPS STANDARD DUTY CASING SHOES				
DESCRIPTION	4 3/4"	6"	7"	8"
HP PART #	6360200	6360194	6360195	6360196
BLY PART #	22010848	22010855	22010854	22010808

DESCRIPTION	9 1/4"	10 1/2"	12"
HP PART #	6360197	6360198	6360199
BLY PART #	22010849	22010850	22010851



## HEAVY DUTY CASING SHOES WITH WEAR PAD

Used for severely abrasive formations.

HPS HEAVY DUTY CASING SHOE WITH WEAR PAD			
DESCRIPTION	6"	7"	8"
HP PART #	6360201	6360202	6360203
BLY PART #	22010856	22010876	22010877

DESCRIPTION	9 1/4"	10 1/2"	12"
HP PART #	6360204	6360205	6360206
BLY PART #	22011181	22011182	22011183







**HPS**

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**SUBS AND ADAPTERS**

Hole Products offers subs and adapters in a variety of sizes and styles for adapting between multiple tooling sizes and thread profiles. All adapters are manufactured from the highest quality materials using the industry's most advanced manufacturing techniques.

## BOLT-ON SUB SAVER

HPS BOLT-ON SUB SAVER	
DESCRIPTION	3 1/2" HPS RH PIN X 6" HPS LH PIN
HP PART #	6340231
BLY PART #	24030362



## HPS FLANGE ADAPTERS

HPS FLANGE ADAPTERS				
DESCRIPTION	PART #	UPPER	LOWER	LENGTH
FLANGE ADAPTER	6340220	BLY 150/TERRASONIC	HPS 16 BOLT	13.5 INCH
FLANGE ADAPTER	6340219	ROUSSY 12 BOLT	HPS 16 BOLT	20.0 INCH
FLANGE ADAPTER	6340224	ROUSSY 12 BOLT	HPS 16 BOLT	11.5 INCH
FLANGE ADAPTER	6340217	ROUSSY 12 BOLT	HPS 16 BOLT	7.25 INCH



GP 8140 GROOVED      GP 8140 OEM

GEOPROBE FLANGE ADAPTERS		
PART #	DESCRIPTION	OVERALL LENGTH
6340215	GP 8140 GROOVED HPS 6" LH PIN X 3 1/2" HPS RH BOX	7.0 INCHES
6340201	GP 8140 OEM HPS 6" LH PIN X 3 1/2" HPS RH BOX	6.25 INCHES
6340044	GP 8150 OEM HPS 6" LH PIN X 3 1/2" HPS RH BOX	7.35 INCHES



GP 8150 OEM

\* Flange adapters can be ordered with any outer and inner thread configuration and manufactured to fit any sonic head.

## HPS CORE BARREL ADAPTERS

CORE BARREL ADAPTERS 3.5" RH HPS BOX x RH PIN				
DESCRIPTION	3 3/4" CB	4 3/4" CB	6" CB	7" CB
HP PART #	6340399	6340400	6340460	6340461
BLY PART #	24021311	24021310	24021307	24021277

DESCRIPTION	8" CB	9 1/4" CB	10 1/2" CB
HP PART #	6340462	6340463	6340464
BLY PART #	24021416	24021574	24021515



## HPS CASING ADAPTERS

HPS CASING ADAPTERS 6" LH HPS BOX x LH PIN				
DESCRIPTION	4 3/4" PIN	6" PIN	7" PIN	8" PIN
HP PART #	6340470	6340471	6340472	6340473
BLY PART #	24021309	24021276	24021303	24021304

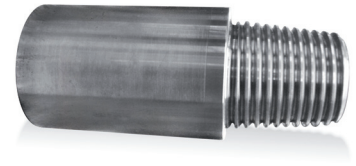
DESCRIPTION	9 1/4" PIN	10 1/2" PIN	12" PIN	12" PIN (1 PIECE ADAPTER)
HP PART #	6340474	6340475	6340476	6340477
BLY PART #	24021305	24021306	24021313	24021480



## THREADED SUB SAVERS (DRILL ROD)

3 1/2" HPS RH BOX X PIN			
LENGTH	9.5" LONG S-S	12" LONG S-S (ACE)	18" LONG S-S
HP PART #	6350770	6360300	6350772
BLY PART #	24021314	21020530	24021464

\*S-S = Shoulder to Shoulder measurement



3 1/2" HPS RH PIN X PIN		
LENGTH	18" LONG S-S	15" LONG S-S
HP PART #	6350771	6350776
BLY PART #	24021354	24021365

\*S-S = Shoulder to Shoulder measurement



## THREADED SUB SAVERS (CASING)

6" HPS LH BOX X PIN			
LENGTH	8" LONG S-S	12" LONG S-S	14" LONG S-S
HP PART #	6340478	6340471	6340480
BLY PART #	24021302	24021276	21020572

LENGTH	18" LONG S-S	24" LONG S-S	30" LONG S-S (DUECE)
HP PART #	6340479	6340481	6360323
BLY PART #	21020564	21020529	21011256

\*S-S = Shoulder to Shoulder measurement







**HPS**

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**FISHING TOOLS  
TAPER TAPS  
OVERSHOTS**



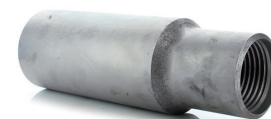
## HPS TAPER TAPS - DRILL ROD

HPS DRILL ROD TAPER TAPS - WITH 3 1/2" HPS RH BOX					
HP PART #	BLY PART #	FISHING USE	MINOR OD	MAJOR OD	WICKER LENGTH
6340601	24720179	3 1/2"	1.5"	3.5"	7.8"



## HPS OVERSHOTS - DRILL ROD

HPS DRILL ROD OVERSHOT - WITH 3 1/2" HPS RH BOX						
HP PART #	BLY PART #	FISHING USE	MINOR ID	MAJOR ID	WICKER LENGTH	OD
6340600	24720186	3 1/2"	3.06"	3.80"	7.43"	4.625"



## HPS TAPER TAPS - CORE BARREL

HPS CORE BARREL TAPER TAPS - WITH 3 1/2" HPS RH BOX					
HP PART #	BLY PART #	FISHING USE	MINOR OD	MAJOR OD	WICKER LENGTH
6340602	24720187	3 3/4"	2.41"	3.81"	7.5"
6340603	24720184	4 3/4"	3.46"	4.86"	7.5"
6340604	24720178	6"	4.59"	5.99"	7.5"
6340605	24720185	7"	5.64"	7.04"	7.5"
6340606	24720203	8"	6.64"	8.04"	7.5"
6340607	24720219	9 1/4"	8.74"	9.24"	7.5"
6340608	24720220	10 1/2"	9.10"	10.5"	7.5"



## HPS TAPER TAPS - CASING

HPS CASING TAPER TAPS - WITH HPS LH BOX*					
HP PART #	BLY PART #	FISHING USE	MINOR OD	MAJOR OD	WICKER LENGTH
6340609	24720183	4 3/4"	3.55"	4.83"	7.553"
6340610	24720175	6"	4.72"	6.00"	7.553"
6340611	24720176	7"	5.77"	7.05"	7.553"
6340612	24720181	8"	6.82"	8.10"	7.553"
6340613	24720182	9 1/4"	7.97"	9.25"	7.553"
6340614	24720180	10 1/2"	9.22"	10.50"	7.553"



\*Box connection is equal to casing being retrieved.

# HPS SONIC CASING DIMENSIONS

12" HPS SONIC CASING - OD: 12.00"/ID: 10.88"  
WEIGHT: 5': 211 lbs./10': 367 lbs.

**12"**

10.5" HPS SONIC CASING - OD: 10.50"/ID: 9.65"  
WEIGHT: 5': 185 lbs./10': 321 lbs.

**10.5"**

9.25" HPS SONIC CASING - OD: 9.25"/ID: 8.40"  
WEIGHT: 5': 162 lbs./10': 282 lbs.

**9.25"**

8" HPS SONIC CASING - OD: 8.10"/ID: 7.28"  
WEIGHT: 5': 139 lbs./10': 242 lbs.

**8"**

7" HPS SONIC CASING - OD: 7.05"/ID: 6.23"  
WEIGHT: 5': 121 lbs./10': 211 lbs.

**7"**

6" HPS SONIC CASING - OD: 6.00"/ID: 5.00"  
WEIGHT: 5': 102 lbs./10': 179 lbs.

**6"**

4.75" HPS SONIC CASING - OD: 4.83"/ID: 3.95"  
WEIGHT: 5': 80 lbs./10': 139 lbs.

**4.75"**



**SONIX**  
*Xtreme sonic tooling.*





**HPS**

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**ADDITIONAL TOOLING**

**PIPE TONGS**

**ROD GRAPPLE**

**BREAKOUT JAWS**

# HPS PIPE TONGS

PIPE TONGS					
DESCRIPTION	3 1/2"	3 3/4"	4 3/4"	6"	7"
HP PART #	6340290	6340291	6340292	6340293	6340294
BLY PART #	350-4000	375-4000	475-4000	600-4000	700-4000
DESCRIPTION	8"	9"	10 1/2"	12"	
HP PART #	6340295	6340296	6340297	6340298	
BLY PART #	800-4000	900-4000	1050-4000	1200-4000	



# HPS DRILL ROD GRAPPLE

DRILL ROD GRAPPLE			
DESCRIPTION	3 1/2" PIPE GRAPPLE	PIPE GRAPPLE TACKLE	3 1/2" OD ROD CUP
HP PART #	6340630	6340631	6340632
BLY PART #	8400030	8400004	350-0100



PIPE TONGS & ROD GRAPPLE



## BOART LONGYEAR® CLAMP JAW TEETH

BOART LONGYEAR® CLAMP JAW TEETH - BLJCS TYPE 1 H/T				
HP PART #	BLY PART #	LENGTH	WIDTH	HEIGHT
6340144	20185-04	3.00"	1.48"	.63"



## TERRASONIC® CLAMP JAW TEETH

TERRASONIC® CLAMP JAW TEETH			
HP PART #	LENGTH	WIDTH	HEIGHT
6351050	3.00"	2.00"	.63"



## GEOPROBE® CLAMP JAW TEETH

GEOPROBE® CLAMP JAW TEETH			
HP PART #	LENGTH	WIDTH	HEIGHT
6340139	3.95"	2.23"	.70"



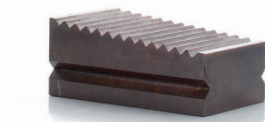
## BLACKDOG® CLAMP JAW TEETH

BLACKDOG® CLAMP JAW TEETH					
HP PART #	LENGTH	WIDTH	OVERALL HEIGHT	JAW HEIGHT	KEY HEIGHT
6360242	2.74"	1.87"	1.71"	1.11"	.60"



## GUS PECH® BREAKOUT JAW

GUS PECH® CLAMP JAW TEETH				
HP PART #	LENGTH	WIDTH	HEIGHT - 1	HEIGHT - 2
6340140	3 1/2"	2"	1 7/15"	1 3/32"



## ROUSSY BREAKOUT JAW

ROUSSY BREAKOUT JAW				
HP PART #	LENGTH - 1	LENGTH - 2	WIDTH	HEIGHT
6340143	2 7/8"	2 15/16"	2"	1"







**HPS**

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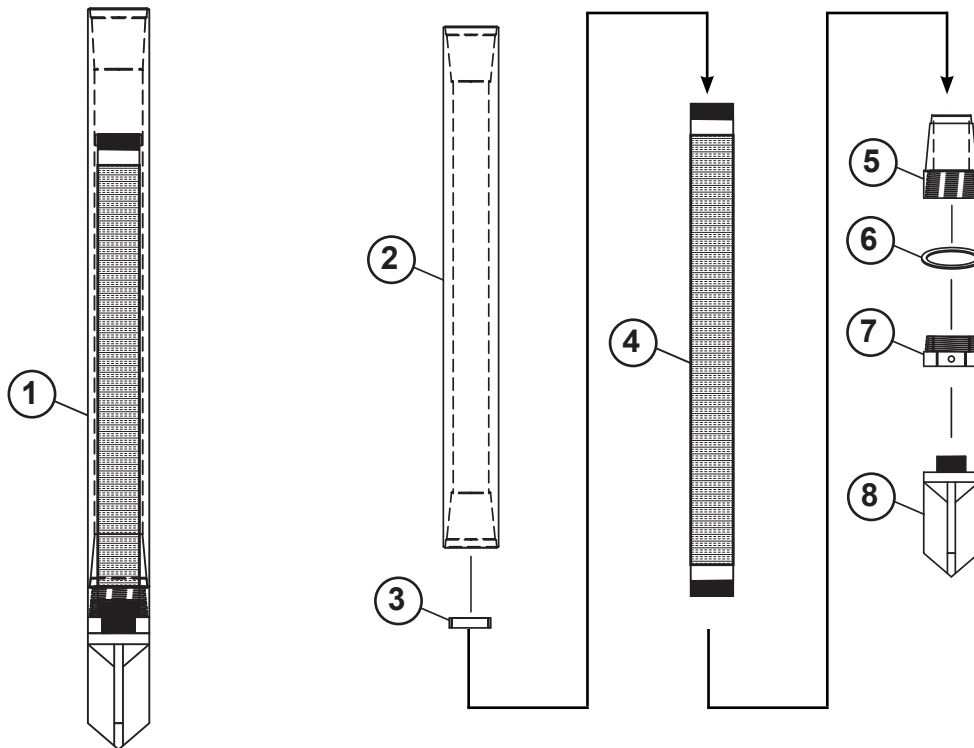
**SONIC WATER SAMPLER**

Hole Products uniquely designed water sampler allows for discrete water sampling from the formation at desired depth. The sampler is sealed from any water or drilling fluids inside or outside of the casing. The sealed sampler is pushed into the target formation, opened with a right hand turn and pull back of the drill string, exposing the sampling screen to the discrete zone allowing water to enter. Water samples can then be obtained inside the sealed drill string via pump or bailer. Once samples are collected the samplers is brought to the surface and reset for deployment in the next target zone. Samplers are reusable and field rebuildable.



# HPS SONIC WATER SAMPLER

WATER SAMPLER		
ITEM	PART #	DESCRIPTION
1	6350090	COMPLETE WATER SAMPLER
2	6350050	MAIN BODY HOUSING (HP90 BOX)
3	6350051	SCREEN RETAINER RING
4	6350056	SCREEN (2" X 24", .010 SLOT)
5	6350052	UPPER LH RELEASING SUB
6	6350048	O-RING
7	6350053	LOWER LH RELEASING SUB
8	6350054	DART POINT



## DISCRETE POINT SAMPLER

DISCRETE WATER SAMPLER POINT*	
DESCRIPTION	SAMPLER POINT
HP PART #	6340030
BLY PART #	3503010

\* Accepts C23 or C21 HD bullet teeth, must be purchased separately.



## DISCRETE WATER SAMPLER ROD BODY

DISCRETE WATER SAMPLER ROD BODY	
DESCRIPTION	WATER PORT OD .375" X 4 PORTS
HP PART #	6340025
BLY PART #	3503020





# HPS

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**ACCESSORIES**  
**CORE BOXES**  
**SAMPLE BAGS**  
**THREAD COMPOUNDS**  
**DOPE BRUSHES**  
**STEEL DOT DRUMS**

## SONIC CORE BOXES

Made from specialized extra heavy duty corrugated plastic, these boxes will support the heavy weight of large diameter sonic cores, without folding, creasing, or collapsing.

SONIC CORE BOXES - 61" LENGTH/ 2 ROWS	
ROW WIDTH	4.25"
HP PART #	6350200



## SONIC SAMPLE BAGS - 500' ROLL

SAMPLE BAGS - NON-PERFORATED - 500' ROLL			
WIDTH	6"	8"	11"
HP PART #	6350004	6350005	6350010
FOR USE WITH	3 3/4" CORE BARRELS	4 - 4 3/4" CORE BARRELS	5" - 6" CORE BARRELS

WIDTH	12"	14"	14.75"	17.5"
HP PART #	6350013	6350011	6350012	6350117
FOR USE WITH	7" CORE BARRELS	8" CORE BARRELS	9 1/4" CORE BARRELS	10 1/2" CORE BARRELS



## VISQUEEN® - CLEAR POLY SHEETING

VISQUEEN® 6 MIL CLEAR POLY SHEETING	
20" X 100" ROLL	
HP PART #	6100002



## VISQUEEN® - BLACK POLY SHEETING

VISQUEEN® 6 MIL BLACK POLY SHEETING	
20" X 100" ROLL	
HP PART #	6100003



## THREAD COMPOUNDS

THREAD ARMOUR TJC			
PART #	UNIT SIZE	PRODUCT	PRODUCT DESCRIPTION
3100026	1 GAL.	THREAD ARMOUR TJC	Thread Armour TJC is a Bio-Degradable, Environmentally Safe thread grease compound. API tests have shown that Thread Armour's anti-gall and anti-sieze properties are superior to many of the hydrocarbon-copper based thread greases often used in the drilling industry. <ul style="list-style-type: none"> <li>• NSF approved</li> <li>• Hydrocarbon Free</li> <li>• Metal Free (such as copper often added to grease)</li> <li>• Teflon Free (PTFE),</li> <li>• Perfluorinated Compound Free (PFC)</li> <li>• PFAS Free</li> <li>• PFOS Free</li> </ul>
3100027	2.5 GAL.		
3100068	5 GAL.		
3100033	1 GAL.	THREAD ARMOUR TJC - ARCTIC GRADE	Thread Armour TJC - Arctic Grade is a low pour point oil that insures brushability at low temperatures while maintaining a high resistance to water washout and corrosion. <ul style="list-style-type: none"> <li>• NSF approved</li> <li>• Hydrocarbon Free</li> <li>• Metal Free (such as copper often added to grease)</li> <li>• Teflon Free (PTFE),</li> <li>• Perfluorinated Compound Free (PFC)</li> <li>• PFAS Free</li> <li>• PFOS Free</li> </ul>
3100034	2.5 GAL.		
3100029	5 GAL.		

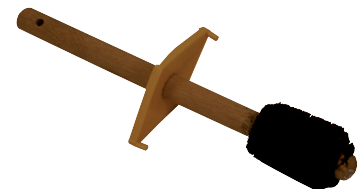


OTHER THREAD COMPOUNDS			
PART #	UNIT SIZE	PRODUCT	PRODUCT DESCRIPTION
3100040	1 GAL.	BULLSEYE™	BULLSEYE™ provides protection against galling, seizing, and thread damage while maintaining well integrity.
3100080	1 GAL.	KING STUFF	KING STUFF is a hydrocarbon free thread protection compound for environmental monitoring well drilling, which contains no lead and is fortified with Teflon®.
3100050*	1 GAL.	KOPR-KOTE®	KOPR-KOTE® is formulated to help prevent downhole joint make-up. It has a very high static friction factor that helps prevent downhole joint make-up when excessive drilling torques are encountered.
3100055*	2 GAL.		
3100060	1 GAL.	WELL-GUARD®	WELL-GUARD® is designed for critical monitor well and other environmentally sensitive drilling applications requiring the use of a petroleum hydrocarbon-free product.

\* Not designed for environmental applications.

## DOPE BRUSHES

DOPE BRUSHES			
PART #	DESCRIPTION	TRIM LENGTH	OVERALL LENGTH
6100020	STRAIGHT W/ GUARD	2 1/2"	16"
3100025	BEVELED W/ GUARD	2 1/2"	16"



## GROUT MIXER

Hole Products variable speed, high-efficiency grout mixer is designed to provide rapid mixing of drilling fluids and grouts. Handle(s) provide for easy handling and/or resting the mixer on the mixing tank during the mixing cycle.



GROUT MIXER	
PART #	DESCRIPTION
3710025	GROUT MIXER

## WATER LEVEL INDICATORS

Hole Products offers a complete line of water level indicators from DGSI™, Heron Instruments™, Solinst™, and many more. Contact Hole Products for more information and to speak to one of our representatives.



## PROACTIVE PUMPS

Hole Products offers a full line of Proactive pumps, the world's premier manufacturer of 12-volt groundwater monitoring sampling pumps and equipment. Proactive pumps are designed to operate under harsh conditions with higher turbidity.



## STEEL DOT DRUMS

Hole Products offers a variety of sizes and styles of new and reconditioned steel drums, ideal for containing, storing, and transporting hazardous or non-hazardous materials. All drums comply with Title 49 CFR, and are UN approved.

Open Head Drums feature a removable top, gasket, and a 12 gauge bolt ring. Closed Head Drums feature two bung openings; one for filling and one for venting.

Additional sizes, styles, and speciality drums are available on request.

STEEL DOT DRUMS		
PART #	SIZE	DESCRIPTION
4170001	55 GAL	NEW - OPEN HEAD
4170016	55 GAL	NEW - CLOSED HEAD
4170015	55 GAL	RECONDITIONED - OPEN HEAD
4170033	55 GAL	RECONDITIONED - CLOSED HEAD





## **HPS**

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### **MISCELLANEOUS PUMPS AND SPARES HOSES AND FITTINGS**

Hole Products offers a full range of pumps and spares for use within the sonic drilling market. Our product offering includes: centrifugal pumps, American Manufacturing piston pumps, FMC Technologies® "Bean" piston pumps, American Manufacturing duplex power pumps, Gardner Denver® duplex power pumps, Moyno® progressive cavity pumps, SPX hose pumps, Proactive sampler pumps, and more.

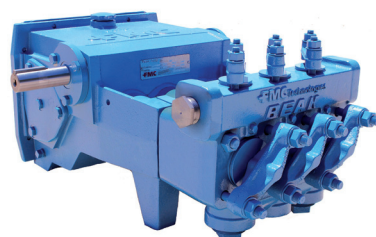
## SPX HOSE PUMPS

Hole Products offers Bredel® pumps, the world's leading manufacturer of peristaltic pumps with the largest range of pump and pump element materials. Bredel® pumps are ideal for high viscosity or shear sensitive products, and can pump abrasive slurries, corrosive acids, large solids and gaseous liquids with ease.



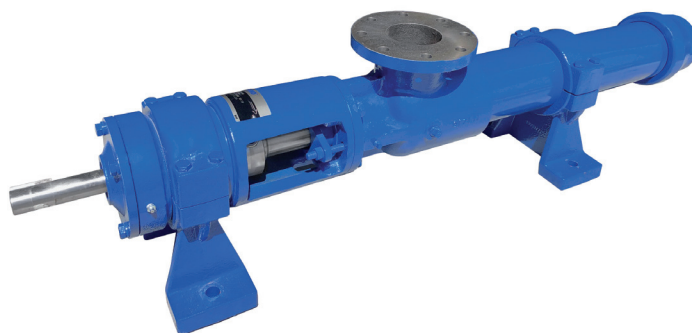
## FMC® PISTON PUMPS

Hole Products offers a complete line of FMC Technologies® piston pumps and interchangeable pump parts for use in a variety of mud pumping and drilling applications.

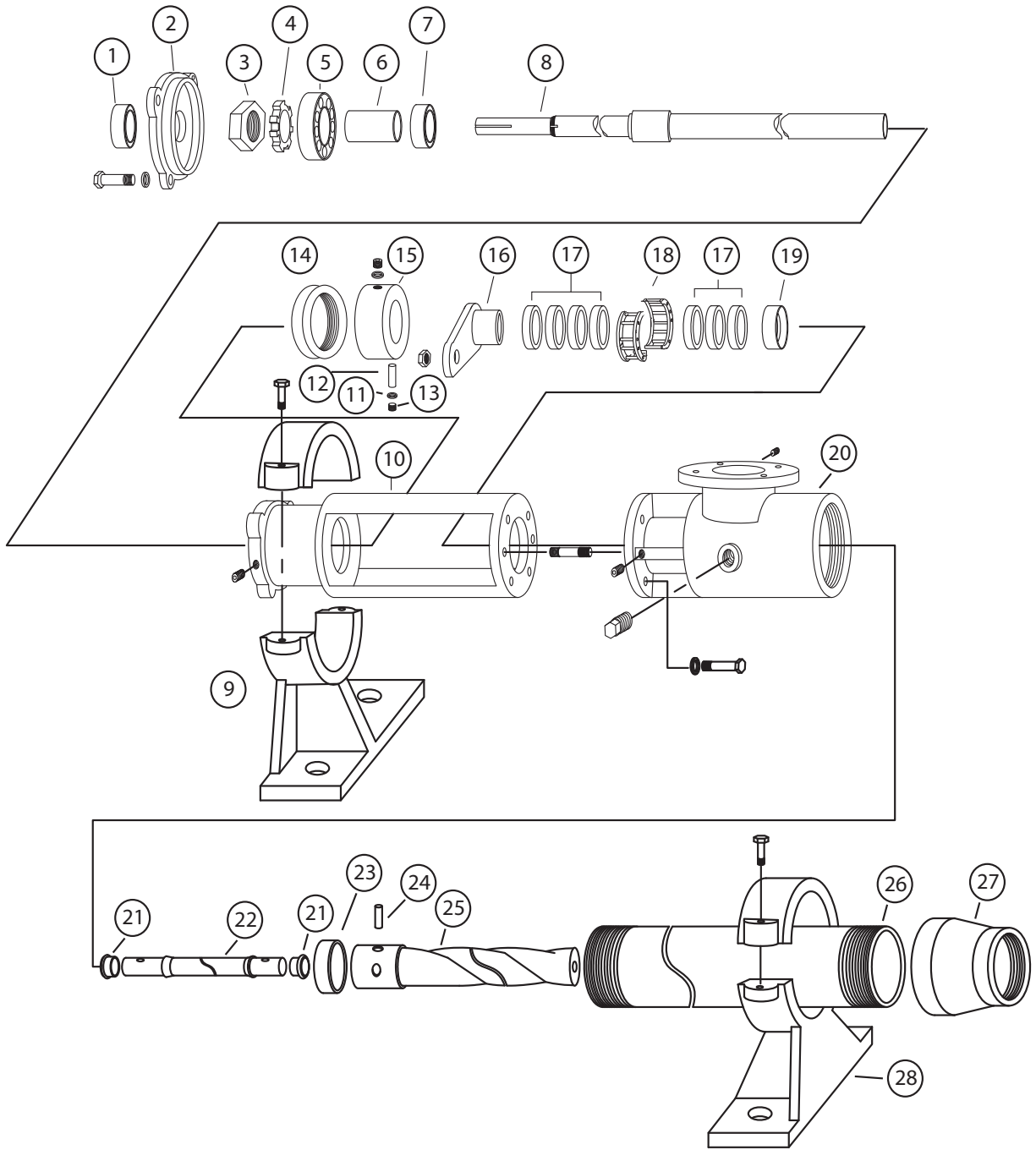


## MOYNO® PROGRESSIVE CAVITY

Progressive cavity pumps are suitable for a wide variety of drilling applications, and when properly applied, offer cost effective, long life performance. Designed for maximum performance, value and application versatility with minimal maintenance.



# PROGRESSIVE CAVITY PUMP PARTS DIAGRAM 2L4, 2L6, 2L8, 3L4, 3L6, AND 3L8





# PROGRESSIVE CAVITY PUMP PARTS

PROGRESSIVE CAVITY PUMP PARTS							
ITEM #	DESCRIPTION	2L4	2L6	2L8	3L4	3L6	3L8
----	COMPLETE PUMP GROUP	5450040	5450046	5450080	5450041	5450015	5450020
----	CONNECTING ROD KIT INCLUDES: 11, 12, 13, 21, 22 & 24	5450002	5450025	5450058	5450002	5450025	5450058
1	GREASE SEAL (THRUST)	5450058	5450034	5450055	5450058	5450034	5450055
2	BEARING COVER PLATE	5450135	5450140	5450145	5450135	5450140	5450145
3	BEARING LOCK NUT	5450165	5450170	5450175	5450165	5450170	5450175
4	BEARING LOCK WASHER	5450195	5450185	5450190	5450195	5450185	5450190
5	BALL BEARING (THRUST)	5450094	5450099	5450215	5450094	5450099	5450215
6	BEARING SPACERS	5450092	5450097	5450225	5450092	5450097	5450225
7	BALL BEARING (RADIAL)	5400093	5450098	5450235	5400093	5450098	5450235
8	DRIVE SHAFT	5450057	5450052	5450016	5450057	5450052	5450016
9	BODY SUPPORT	5450245	5450250	5450255	5450245	5450250	5450255
10	BEARING HOUSING	5450275	5450049	5450280	5450275	5450049	5450280
11	RETAINING SCREW WASHER	5450295	5450007	5450010	5450295	5450007	5450010
12	SHAFT PIN	5450037	5450023	5450024	5450037	5450023	5450024
13	DRIVE PIN RETAINING SCREW	5450305	5450013	5450011	5450305	5450013	5450011
14	GREASE SEAL (RADIAL)	5450059	5450032	5450056	5450059	5450032	5450056
15	SHAFT COLLAR	5451023	5451020	5451021	5451023	5451020	5451021
16	PACKING GLAND	5450335	5450340	5450200	5450335	5450340	5450200
17	PACKING	5450004	5450026	5450029	5450004	5450026	5450029
18	LANTERN RING	5450067	5450061	5450064	5450067	5450061	5450064
19	PACKING WASHER	5450100	5450062	5450018	5450100	5450062	5450018
20	SUCTION HOUSING (STATOR)	5450355	5450047	5450065	5450355	5450047	5450065
21	CONNECTING ROD WASHER	5450102	5450001	5450000	5450102	5450001	5450000
22	CONNECTING ROD	5450365	5450019	5450370	5450365	5450019	5450370
23	RETAINER, PIN (ROTOR BAND)	5450003	5450039	5450006	5450003	5450039	5450006
24	ROTOR PIN	5450012	5450022	5450024	5450012	5450022	5450024
25	ROTOR	5450045	5450070	5450048	5450042	5450030	5450031
26	STATOR	5450050	5450071	5450038	5450043	5450035	5450036
27	REDUCER	5450390	5450027	5450081	5450390	5450027	5450081
28	STATOR SUPPORT	5450395	5450400	5450068	5450395	5450400	5450068

## HOSES & FITTINGS

Hole Products offers a complete line of high pressure air hose, multi-purpose driller's hose, EPDM suction hose, PVC layflat hose, fittings, and accessories for a variety of suction, discharge, and transfer applications.

Hoses are available in a wide range of sizes, psi ratings, and lengths to meet the requirements of any drilling operation.

Pre-coupled hose assemblies are available in custom lengths and with a variety of Boss™ and Cam Lock fitting options.

Please contact your Hole Products representative for additional product offerings and pre-coupled assembly ordering details.





**THREAD INTRODUCTION,  
OPERATING AND CARE MANUAL**

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## THREAD INTRODUCTION

When using new drill pipe for the first time, introducing new threads is necessary to remove imperfections, thus preventing problems when making or breaking pipe during drilling. To remove any imperfections, introduce newly machines threads to each other multiple times.

## THREAD INTRODUCTION PROCEDURE

- 1 Apply a quality thread compound to the pin end of the new thread. \*Hole Products recommends Thread Armour TJC or Thread Armour TJC AG.
- 2 Thread the new pin end into the new box end of the mating pipe. (keep rotation pressure below 1,000 PSI)
- 3 Fully Thread-UP and Un-Thread the pipe connections 5 times.
- 4 Remove all thread compound from both the pin and box end of the pipe. Any imperfections or burrs will be removed while wiping thread compound free. Once cleaned and visually checked, re-apply thread compound to the threads.

You are now ready to resume normal drilling procedures.

THREAD INTRODUCTION PROCEDURE

## MISALIGNMENT

Always make sure rods and casing are properly aligned when making a connection. Misalignment/stabbing of the pin end into the box end shoulder can compromise joint integrity, potentially causing fluid loss and shortened tool joint life.

MISALIGNMENT

## MAKE AND BREAK

### MAKE AND BREAK

Rod and core barrel connections are made up with Right Hand rotation Male to Female threads. Casing connections are made up with Left Hand rotation Male to Female threads. Excessive or non-existent standoff gaps could indicate worn out, end of life tool joints, or possibly damaged or interfered threads. Additional make up torque is needed to 'pre-load' the joint before the drilling process starts. Rods and casing will not properly make up in the drilling process, so the initial 'pre-load' process is critical to proper joint connection. Break out of the threaded connections should take less torque than the amount used to make up the joint.

If the connections become problematic to break free, a slight percussive blow to the joint with a rubber mallet may be necessary, use care as not to damage/deform the drill pipe integrity. Liberal and regular use of thread compound will help with the break out process.

## **FLUID SEAL**

The fluid seal between the Male & Female threaded connections is made possible by a contact/interference design. When proper make up torque is applied to the connection, the trailing shoulder of the pin contacts the leading shoulder of the box. This interference between the two shoulders is how the seal is achieved. Proper care and avoidance of 'stabbing' joints must be taken to keep these shoulders intact and smooth.

**FLUID SEAL**

## **THREAD CLEANING AND LUBRICATION**

Each time the corebarrels or casings are made up, clean and re-lubricate the threads with recommended compound. Use enough grease to cover both thread and shoulder surfaces. Adherence to regular application of thread grease will extend the life of the threads. Hole Products recommends Thread Armour TJC or Thread Armour TJC AG

**THREAD CLEANING AND LUBRICATION**

## **INSPECTION AND CARE**

Routine inspection should be conducted for rods, casing, core barrels and adapters. Discard bent and/or damaged rods and casing. Threads should always be cleaned and lubricated with thread compound before storage. If stored outside, rods and casing should be stored on a horizontal rack up off the ground. Always inspect rods and casing before each use.

**INSPECTION AND CARE**

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Auger Tools



Direct Push Tools



Drill Rods & Subs



DTH Hammers  
& Bits



Geothermal  
Products



Grouting Equipment  
& Accessories



Hole Sampling & Monitoring



Low Carbon Steel Casing  
& Accessories



Pipe Handling & Hoisting



PVC Well Screen, Casing  
& Accessories



Safety Equipment



Sonic Drilling Tools



Water Swivels & Spares



Diamond Core Tools



Drill Bits



Drilling Fluid Additives & Grouts



Fishing Tools



Ground Cover Protection



HDD Tools



Hoses & Fittings



Overburden Drilling Systems



Pumps & Spares



Reverse Circulation Drilling Tools



Sand, Cement & Asphalt



Stainless Steel Well Screen,  
Casing & Accessories



Well Completion & Protection



# *hole* **PRODUCTS** *Drill with us.*

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Hole Products is a leading manufacturer and supplier of high performance drilling supplies, tooling, and equipment to the Construction, Direct Push - Probe, Environmental, Geotechnical, Geothermal, HDD, Mineral Exploration, Rotary, Sonic, and Water Well drilling industries.

We combine hundreds of years of manufacturing, drilling supply and service experience, a vast inventory, multiple stocking locations, and a worldwide distribution network. Our drilling tools are preceded by extensive R&D, field tested, and backed by our unmatched commitment to service and support.

In addition, our diverse team offers industry leading inventory management, sourcing, logistics, troubleshooting, engineering, and product innovation solutions.

Call now, to discover the Hole Products advantage!

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