

# Drill Rods & Subs

MINERAL EXPLORATION
ENVIRONMENTAL
GEOTECHNICAL
GEOTHERMAL
ROTARY
SONIC

HDD



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## **DRILL RODS & SUBS**



Hole Products offers a complete line of quality rotary, conventional (W, WJ, & N), sonic, wireline and reverse circulation drill rods, and a vast range of subs. In addition, we offer a variety of components and accessories including stabilizers, float valves, rod wipers, rod grease, and more.

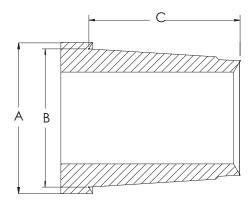
All products are quality manufactured using premium materials and advanced manufacturing techniques reliability, ensuring superior performance, and longevity in even the most demanding drilling conditions.

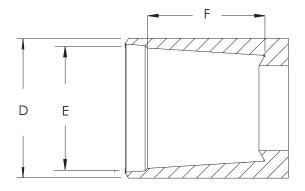
Drill rods and subs listed in the catalog are representative of the drilling industry's most common sizes and styles. If you do not see the product you are looking for, give us a call. Custom rods and subs are available on request.

Please contact your Hole Products representative for additional details.

Products listed in the catalog are representative of the most common industry sizes and styles. Please contact your Hole Products representative for additional product offerings.

# **API THREAD GUIDE**





| THREAD          | O.D.<br>(A) | MAJOR<br>THREAD<br>DIAMETER<br>PIN<br>(B) | LENGTH<br>OF<br>PIN<br>(C) | O.D.<br>(D) | MAJOR<br>THREAD<br>DIAMETER<br>BOX<br>(E) | LENGTH<br>OF<br>BOX<br>(F) |
|-----------------|-------------|---|----------------------------|-------------|---|----------------------------|
| 2 3/8" API Reg. | 3 3/8"      | 2 1/2"                                    | 2 7/8"                     | 3 3/8"      | 2 11/16"                                  | 3 1/8"                     |
| 2 7/8" API Reg. | 3 7/8"      | 2 7/8"                                    | 3 3/8"                     | 3 7/8"      | 3 1/16"                                   | 3 5/8"                     |
| 3 1/2" API Reg. | 4 3/8"      | 3 3/8"                                    | 3 5/8"                     | 4 3/8"      | 3 9/16"                                   | 3 7/8"                     |
| 4 1/2" API Reg. | 5 3/4"      | 4 1/2"                                    | 4 1/8"                     | 5 3/4"      | 4 3/8"                                    | 4 11/26                    |
| 2 3/8" API IF   | 3 5/8"      | 2 3/4"                                    | 2 7/8"                     | 3 5/8"      | 2 15/16"                                  | 3 1/8"                     |
| 2 7/8" API IF   | 4 1/4"      | 3 1/4"                                    | 3 3/8"                     | 4 1/4"      | 3 1/2"                                    | 3 5/8"                     |
| 3 1/2" API IF   | 5"          | 3 7/8"                                    | 3 7/8"                     | 5"          | 4 1/8"                                    | 4 1/8"                     |
| 4 1/2" API IF   | 6 3/4"      | 5 1/8"                                    | 4 3/8"                     | 6 3/4"      | 5 5/16"                                   | 4 5/8"                     |
| 2 3/8" MHJR     | 2 3/4"      | 2 21/64"                                  | 2 1/4"                     | 4"          | 2"  | 1 1/2"                     |

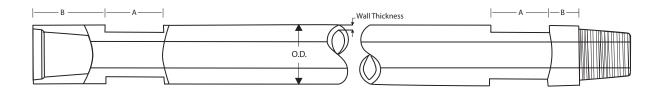
## ROTARY DRILL ROD ORDERING GUIDE

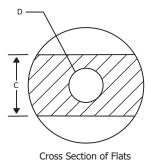
Hole Products offers a complete line of premium rotary drill rods for use on rigs from a variety of rig manufacturers including Atlas Copco, CP/Reichdrill, Driltech, Foremost, Ingersoll-Rand, Schramm, and more. All rotary rods are manufactured using high quality alloy materials ensuring excellent performance and durability.

Rotary rods are offered with a variety of custom options including multiple thread profiles, lengths, O.D.s, wall thicknesses, wrench flat options, and more.

Please contact your Hole Products representative for assistance ordering the rotary drill rods best suited for your specific drilling application.

| ROTARY DRILL RO      | OD ORDERING GUIDE |         |
|----------------------|-------------------|---------|
| O.D.:                |                   |         |
| Wall Thickness:      |                   |         |
| Length:              |                   |         |
| Threads:             |                   |         |
| Rod Style:           |                   |         |
|                      |                   |         |
| Flats:               | Box End           | Pin End |
| Flats: A: (Long)     | Box End           | Pin End |
|                      | Box End           | Pin End |
| A: (Long)            | Box End           | Pin End |
| A: (Long)<br>B: (Up) | Box End           | Pin End |





## **ROTARY DRILL ROD**

Hole Products offers a wide range of rotary drill rods. Rotary rods are available in any size, length, and wall thickness, and with all thread connections and any custom flat configurations.

Due to the vast number of rotary drill rod options, we have listed only a sample of our standard offering in the table below.

Please contact your Hole Products representative for additional details.

| ROTAR   | ROTARY DRILL ROD |                   |        |                   |                        |  |  |  |
|---------|------------------|-------------------|--------|-------------------|------------------------|--|--|--|
| PART #  | O.D.             | WALL<br>THICKNESS | LENGTH | THREAD            | FLATS                  |  |  |  |
| 3200091 | 2 3/8"           | .254"             | 20'    | 2 3/8" IF         | N/A                    |  |  |  |
| 3200069 | 2 7/8"           | .308"             | 5'     | 2 3/8" MAYHEW JR. | N/A                    |  |  |  |
| 3201007 | 2 7/8"           | .362"             | 5'     | 2 3/8" MAYHEW JR. | N/A                    |  |  |  |
| 3200100 | 2 7/8"           | .308"             | 10'    | 2 3/8" MAYHEW JR. | N/A                    |  |  |  |
| 3201008 | 2 7/8"           | .362"             | 10'    | 2 3/8" MAYHEW JR. | N/A                    |  |  |  |
| 3200032 | 3 1/2"           | .250"             | 20'    | 2 3/8" IF         | FLATS ON BOX END       |  |  |  |
| 3200026 | 3 1/2"           | .368"             | 20'    | 2 3/8" IF         | SCHRAMM BOTTLENECK     |  |  |  |
| 3200029 | 3 1/2"           | .368"             | 20'    | 2 3/8" IF         | INGERSOLL-RAND CYCLONE |  |  |  |
| 3201019 | 4 1/2"           | .337"             | 5'     | 3 1/2" API        | СР                     |  |  |  |
| 3200105 | 4 1/2"           | .337"             | 10'    | 3 1/2" API        | СР                     |  |  |  |
| 3200071 | 4 1/2"           | .337"             | 20'    | 2 7/8" IF         | DRILTECH               |  |  |  |
| 3200070 | 4 1/2"           | .337"             | 20'    | 2 7/8" IF         | INGERSOLL-RAND CYCLONE |  |  |  |
| 3200009 | 4 1/2"           | .337"             | 20'    | 2 7/8" IF         | SCHRAMM BOTTLENECK     |  |  |  |
| 3200010 | 4 1/2"           | .337"             | 20'    | 3 1/2" API        | SCHRAMM BOTTLENECK     |  |  |  |
| 3200110 | 4 1/2"           | .337"             | 20'    | 3 1/2" API        | STANDARD SCHRAMM       |  |  |  |



## **CONVENTIONAL DRILL RODS**

Hole Products conventional drill rods are manufactured using high quality alloy tubing ensuring excellent performance and durability in even the most demanding drilling conditions. All rods are compatible with other rods manufactured to DCDMA standards, available in 1', 2', 5', 10', and 20' lengths, and offered with or without wrench flats.

AW, BW, NW, N3, and N4 rods come standard with pin x pin couplings. All couplings are made of 4140 alloy steel and heat treated.

Additional conventional drill rods including custom and metric lengths, rods with break out flats, and lightweight



| CONVENTIONAL DRILL ROD SPECIFICATIONS |        |       |        |          |          |           |       |  |
|---------------------------------------|--------|-------|--------|----------|----------|-----------|-------|--|
| SIZE                                  | 0.     | .D.   | MID BO | DDY I.D. | THREADS  | WEI       | GHT   |  |
| SIZE                                  | IN     | MM    | IN     | MM       | PER INCH | LBS/10 FT | KG/3M |  |
| AW                                    | 1.750" | 44.50 | 1.250  | 31.80    | 3.0      | 44.00     | 19.60 |  |
| BW                                    | 2.125" | 54.00 | 1.750" | 44.50    | 3.0      | 40.00     | 18.20 |  |
| NW                                    | 2.625" | 66.70 | 2.250" | 57.10    | 3.0      | 51.00     | 23.30 |  |
| AWJ                                   | 1.750" | 44.50 | 1.374" | 34.90    | 5.0      | 33.00     | 14.70 |  |
| BWJ                                   | 2.130" | 54.50 | 1.750" | 44.50    | 5.0      | 40.00     | 18.20 |  |
| NWJ                                   | 2.625" | 66.70 | 2.250" | 57.10    | 4.0      | 55.00     | 24.60 |  |
| N3                                    | 2.380" | 60.45 | 1.130" | 28.70    | 3.0      | 80.10     | 36.33 |  |
| N4                                    | 2.130" | 54.10 | 1.000" | 25.40    | 4.0      | 80.10     | 36.33 |  |



W DRILL ROD



**WJ DRILL ROD** 



**N DRILL ROD** 

# **CONVENTIONAL DRILL RODS**

| WJ THREADED ROD |         |        |  |  |  |  |
|-----------------|---------|--------|--|--|--|--|
| SIZE            | PART #  | LENGTH |  |  |  |  |
| AWJ             | 3050035 | 1'     |  |  |  |  |
|                 | 3050040 | 2'     |  |  |  |  |
|                 | 3050042 | 3'     |  |  |  |  |
|                 | 3050000 | 5'     |  |  |  |  |
|                 | 3050005 | 10'    |  |  |  |  |
| BWJ             | 3050115 | 1'     |  |  |  |  |
|                 | 3050120 | 2'     |  |  |  |  |
|                 | 3050125 | 3'     |  |  |  |  |
|                 | 3050130 | 5'     |  |  |  |  |
|                 | 3050019 | 10'    |  |  |  |  |
|                 | 3050021 | 1'     |  |  |  |  |
|                 | 3050030 | 2'     |  |  |  |  |
| NWJ             | 3050022 | 3'     |  |  |  |  |
|                 | 3050020 | 5'     |  |  |  |  |
|                 | 3050025 | 10'    |  |  |  |  |

|                | 3050025 | 10.    |  |  |  |  |
|----------------|---------|--------|--|--|--|--|
|                |         |        |  |  |  |  |
| W THREADED ROD |         |        |  |  |  |  |
| SIZE           | PART #  | LENGTH |  |  |  |  |
|                | 3050011 | 1'     |  |  |  |  |
|                | 3050009 | 2'     |  |  |  |  |
| AW*            | 3050135 | 3'     |  |  |  |  |
|                | 3050010 | 5'     |  |  |  |  |
|                | 3050015 | 10'    |  |  |  |  |
|                | 3050140 | 1'     |  |  |  |  |
|                | 3050145 | 2'     |  |  |  |  |
| BW*            | 3050150 | 3'     |  |  |  |  |
|                | 3050017 | 5'     |  |  |  |  |
|                | 3050155 | 10'    |  |  |  |  |
|                | 3050050 | 1'     |  |  |  |  |
|                | 3050045 | 2'     |  |  |  |  |
| NW*            | 3050046 | 3'     |  |  |  |  |
|                | 2150020 | 5'     |  |  |  |  |
|                |         |        |  |  |  |  |

<sup>\*</sup>AW, BW, and NW come standard with pin x pin coupling.

10'

2150025



| N THREADED ROD |         |        |  |  |  |  |
|----------------|---------|--------|--|--|--|--|
| SIZE           | PART #  | LENGTH |  |  |  |  |
| N3*            | 3050160 | 1'     |  |  |  |  |
|                | 2150024 | 2'     |  |  |  |  |
|                | 3050165 | 3'     |  |  |  |  |
|                | 2150021 | 5'     |  |  |  |  |
|                | 2150023 | 10'    |  |  |  |  |
|                | 3050170 | 1'     |  |  |  |  |
|                | 3050175 | 2'     |  |  |  |  |
| N4*            | 3050180 | 3'     |  |  |  |  |
|                | 3050003 | 5'     |  |  |  |  |
|                | 3050185 | 10'    |  |  |  |  |

<sup>\*</sup>N3 and N4 come standard with pin x pin coupling.

## **COUPLINGS**

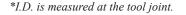
| PIN X PIN COUPLINGS |               |      |  |  |  |  |
|---------------------|---------------|------|--|--|--|--|
| SIZE                | WEIGHT (LBS.) |      |  |  |  |  |
| AW                  | 3301095       | 2    |  |  |  |  |
| BW                  | 3301395       | 3.65 |  |  |  |  |
| NW                  | 3301096       | 5.25 |  |  |  |  |
| N3                  | 3301400       | 4    |  |  |  |  |
| N4                  | 3301405       | 4    |  |  |  |  |

## SONIC DRILL RODS

Hole Products' sonic rods are specifically designed and manufactured to withstand the rigorous demands unique to sonic drilling. Rods are heat treated, inertia welded, and field tested under a variety of conditions, ensuring performance and durability in the most demanding applications.

In addition, Hole Products' sonic rods are internally upset. Internally upsetting rods lowers their weight while maintaining the outside diameter and the overall strength of the rods. A lighter rod means greater depth capabilities and less wear and tear on equipment and personnel.

| HD DRI  | LL ROD |        |        |           |
|---------|--------|--------|--------|-----------|
| PART #  | O.D.   | I.D.*  | LENGTH | THREAD    |
| 6360093 | 3 1/2" | 2 1/4" | 1'     | HP90      |
| 6360063 | 3 1/2" | 2 1/4" | 2'     | HP90      |
| 6360069 | 3 1/2" | 2 1/4" | 5'     | HP90      |
| 6360096 | 3 1/2" | 2 1/4" | 10'    | HP90      |
| 6360211 | 3 1/2" | 2 1/4" | 20'    | HP90      |
| 6360212 | 3 1/2" | 1 3/4" | 1'     | 2 3/8" IF |
| 6360213 | 3 1/2" | 1 3/4" | 2'     | 2 3/8" IF |
| 6360070 | 3 1/2" | 1 3/4" | 5'     | 2 3/8" IF |
| 6360040 | 3 1/2" | 1 3/4" | 10'    | 2 3/8" IF |
| 6360214 | 3 1/2" | 1 3/4" | 20'    | 2 3/8" IF |
| 6360215 | 4 1/2" | 3 1/4" | 1'     | HP90      |
| 6360216 | 4 1/2" | 3 1/4" | 2'     | HP90      |
| 6360217 | 4 1/2" | 3 1/4" | 5'     | HP90      |
| 6360218 | 4 1/2" | 3 1/4" | 10'    | HP90      |
| 6360219 | 4 1/2" | 3 1/4" | 20'    | HP90      |
| 6360220 | 4 1/2" | 2 1/8" | 1'     | 2 7/8" IF |
| 6360221 | 4 1/2" | 2 1/8" | 2'     | 2 7/8" IF |
| 6360222 | 4 1/2" | 2 1/8" | 5'     | 2 7/8" IF |
| 6360223 | 4 1/2" | 2 1/8" | 10'    | 2 7/8" IF |
| 6360224 | 4 1/2" | 2 1/8" | 20'    | 2 7/8" IF |
| 6360225 | 4 1/2" | 3"     | 1'     | ROUSSY    |
| 6360226 | 4 1/2" | 3"     | 2'     | ROUSSY    |
| 6360227 | 4 1/2" | 3"     | 5'     | ROUSSY    |
| 6360228 | 4 1/2" | 3"     | 10'    | ROUSSY    |
| 6360229 | 4 1/2" | 3"     | 20'    | ROUSSY    |





| PART # 6360230 6360231 | O.D.<br>3 1/2"<br>3 1/2" | I.D.*<br>2 1/4" | LENGTH    | THREAD    |
|------------------------|--------------------------|-----------------|-----------|-----------|
|                        |                          | 2 1/4"          |           |           |
| 6360231                | 3 1/2"                   |                 | 1'        | HP90      |
|                        |                          | 2 1/4"          | 2'        | HP90      |
| 6360232                | 3 1/2"                   | 2 1/4"          | 2 1/4" 5' |           |
| 6360233                | 3 1/2"                   | 2 1/4"          | 10'       | HP90      |
| 6360234                | 3 1/2"                   | 2 1/4"          | 20'       | HP90      |
| 6360235                | 3 1/2"                   | 1 3/4"          | 1'        | 2 3/8" IF |
| 6360236                | 3 1/2"                   | 1 3/4"          | 2'        | 2 3/8" IF |
| 6360238                | 3 1/2"                   | 1 3/4"          | 5'        | 2 3/8" IF |
| 6360239                | 3 1/2"                   | 1 3/4"          | 10'       | 2 3/8" IF |
| 6360240                | 3 1/2"                   | 1 3/4"          | 20'       | 2 3/8" IF |
| 6360241                | 4 1/2"                   | 3 1/4"          | 1'        | HP90      |
| 6360242                | 4 1/2"                   | 3 1/4"          | 2'        | HP90      |
| 6360243                | 4 1/2"                   | 3 1/4"          | 5'        | HP90      |
| 6360244                | 4 1/2"                   | 3 1/4"          | 10'       | HP90      |
| 6360245                | 4 1/2"                   | 3 1/4"          | 20'       | HP90      |
| 6360246                | 4 1/2"                   | 2 1/8"          | 1'        | 2 7/8" IF |
| 6360247                | 4 1/2"                   | 2 1/8"          | 2'        | 2 7/8" IF |
| 6360248                | 4 1/2"                   | 2 1/8"          | 5'        | 2 7/8" IF |
| 6360249                | 4 1/2"                   | 2 1/8"          | 10'       | 2 7/8" IF |
| 6360250                | 4 1/2"                   | 2 1/8"          | 20'       | 2 7/8" IF |
| 6360251                | 4 1/2"                   | 3"              | 1'        | ROUSSY    |
| 6360252                | 4 1/2"                   | 3"              | 2'        | ROUSSY    |
| 6360253                | 4 1/2"                   | 3"              | 5'        | ROUSSY    |
| 6360254                | 4 1/2"                   | 3"              | 10'       | ROUSSY    |
| 6360255                | 4 1/2"                   | 3"              | 20'       | ROUSSY    |

<sup>\*</sup>I.D. is measured at the tool joint.

## **WIRELINE DRILL RODS**

Hole Products wireline (WL) drill rods are designed and manufactured to deliver excellent results and withstand the many different stresses placed on the drill string in coring operations.

All rods are compatible with other DCDMA standard rods and available in all standard industry sizes.



| WIRELINE DRILL ROD SPECIFICATIONS |           |       |        |            |          |          |       |  |
|-----------------------------------|-----------|-------|--------|------------|----------|----------|-------|--|
| SIZE                              | O.D. I.D. |       | D.     | D. THREADS | WEIGHT   |          |       |  |
| SIZE                              | IN        | MM    | IN     | MM         | PER INCH | LB/10 FT | KG/3M |  |
| BWL                               | 2.188"    | 55.6  | 1.813" | 46.0       | 3.0      | 42       | 18    |  |
| NWL                               | 2.750"    | 69.9  | 2.375" | 60.3       | 3.0      | 52       | 23    |  |
| HWL                               | 3.500"    | 88.9  | 3.063" | 77.8       | 3.0      | 77       | 34    |  |
| HWT                               | 4.500"    | 114.3 | 4.000" | 101.6      | 2.5      | 117      | 52    |  |

| SIZE PART # LENGTH  2150051 1' 2150052 2' 2150055 5' 2150050 10'  2150002 1' 2150000 5' 2150000 5' 2150005 10'  2150008 1' 2150010 5' 2150010 5' 2150015 10'  HWL  HWT*  2100008 1' 2100008 1' 2100008 1' 2100008 1' 2100008 1' 2100007 2' 2100011 5' 2100011 5' | WIRELINE DRILL ROD (Imperial Sizes) |         |        |  |  |
|--|-------------------------------------|---------|--------|--|--|
| BWL 2150052 2' 2150055 5' 2150050 10'  2150002 1' 2150001 2' 2150000 5' 2150005 10'  2150008 1' 2150010 5' 2150010 5' 2150010 5' 2150010 5' 2150015 10' 2100008 1' 2100008 1' 2100007 2' 2100011 5'  | SIZE                                | PART #  | LENGTH |  |  |
| BWL 2150055 5' 2150050 10'  2150002 1' 2150001 2' 2150000 5' 2150005 10'  2150008 1' 2150010 5' 2150015 10'  2100008 1' 2100008 1' 2100007 2' 2100011 5'   |                                     | 2150051 | 1'     |  |  |
| 2150055 5' 2150050 10'  2150002 1' 2150001 2' 2150000 5' 2150005 10'  2150008 1' 2150010 5' 2150015 10'  2100008 1' 2100008 1' 2100007 2' 2100011 5'   | D\A/I                               | 2150052 | 2'     |  |  |
| NWL 2150002 1' 2150001 2' 2150000 5' 2150005 10' 2150008 1' 2150009 2' 2150010 5' 2150015 10' 2100008 1' 2100007 2' 2100011 5'   | DVVL                                | 2150055 | 5'     |  |  |
| NWL 2150001 2' 2150000 5' 2150005 10'  2150008 1' 2150010 5' 2150010 5' 2150015 10'  2100008 1' 2100007 2' 2100011 5'  |                                     | 2150050 | 10'    |  |  |
| NWL 2150000 5' 2150005 10'  2150008 1'  2150009 2' 2150010 5' 2150015 10'  2100008 1'  2100007 2' 2100011 5'   |                                     | 2150002 | 1'     |  |  |
| HWL 2150000 5' 2150005 10' 2150008 1' 2150009 2' 2150010 5' 2150015 10' 2100008 1' 2100007 2' 2100011 5'   | N1\A/I                              | 2150001 | 2'     |  |  |
| HWL 2150008 1' 2150009 2' 2150010 5' 2150015 10' 2100008 1' 2100007 2' 2100011 5'  | INVVL                               | 2150000 | 5'     |  |  |
| HWL 2150009 2' 2150010 5' 2150015 10' 2100008 1' 2100007 2' 2100011 5'   |                                     | 2150005 | 10'    |  |  |
| HWL 2150010 5' 2150015 10' 2100008 1' 2100007 2' 2100011 5'  |                                     | 2150008 | 1'     |  |  |
| 2150010 5' 2150015 10' 2100008 1' 2100007 2' 2100011 5'  | 1.15471                             | 2150009 | 2'     |  |  |
| HWT* 2100008 1' 2100007 2' 2100011 5'  | ΠVVL                                | 2150010 | 5'     |  |  |
| HWT* 2100007 2' 2100011 5'   |                                     | 2150015 | 10'    |  |  |
| HWT* 2100011 5'  |                                     | 2100008 | 1'     |  |  |
| 2100011 5'   | LDACTY                              | 2100007 | 2'     |  |  |
| 2100034 10'  |                                     | 2100011 | 5'     |  |  |
|  | _                                   | 2100034 | 10'    |  |  |

<sup>\*</sup>HWT made from 4130 grade material.

| WIRELINE DRILL ROD<br>(Metric Sizes) |         |        |  |  |  |
|--------------------------------------|---------|--------|--|--|--|
| SIZE                                 | PART #  | LENGTH |  |  |  |
| BWL                                  | 2150060 | 1.5 M  |  |  |  |
| DVVL                                 | 2150065 | 3 M    |  |  |  |
| NWL                                  | 2150070 | 1.5 M  |  |  |  |
| INVVL                                | 2150016 | 3 M    |  |  |  |
| HWL                                  | 2150018 | 1.5 M  |  |  |  |
| ПVVL                                 | 2150017 | 3 M    |  |  |  |
| HWT *                                | 2100145 | 1.5 M  |  |  |  |
|                                      | 2100150 | 3 M    |  |  |  |

<sup>\*</sup>HWT made from 4130 grade material.

<sup>\*</sup>HWT casing is the recommended drill rod for PWL coring systems.

<sup>\*</sup>HWT casing is the recommended drill rod for PWL coring systems.

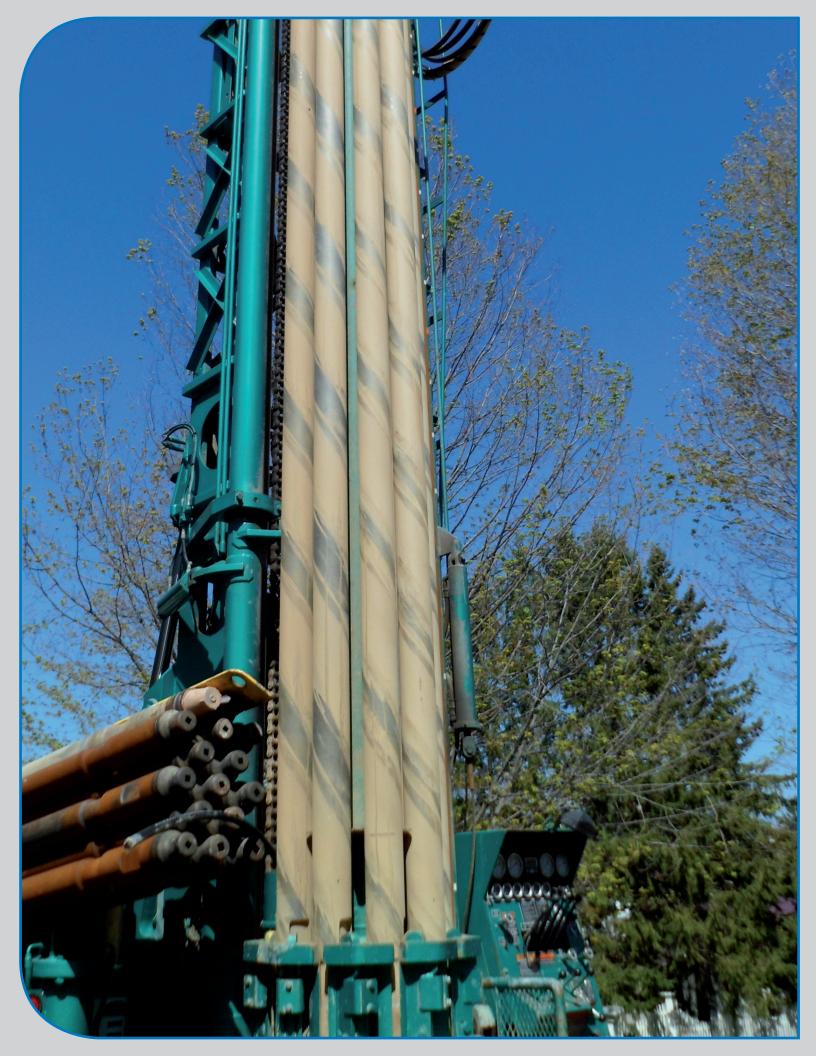
## REVERSE CIRCULATION DRILL RODS

Hole Products offers a complete line of premium quality reverse circulation, dual wall drill rods, in a wide range of sizes, and with a number of thread connections. All RC rods are manufactured using the most advanced technologies and specifically engineered to provide high strength, excellent wear resistance and long life.

Reverse Circulation, dual wall drill rods are manufactured with an outer drill rod and an inner tube located inside the rod. When the drill rods are threaded together, the inner tubes seal together to provide a continuous route for cuttings to travel from the bit face to the surface for collection.

Please contact your Hole Products representative for additional details and ordering assistance.

| REVERSE CIR     | REVERSE CIRCULATION DRILL ROD SPECIFICATIONS |         |         |         |         |         |         |
|-----------------|--|---------|---------|---------|---------|---------|---------|
| Thread Type     | Remet  | Remet   | Remet   | Metzke  | Metzke  | Matrix  | Matrix  |
| Rod O.D.        | 3 1/2"                                       | 4"      | 4 1/2"  | 4"      | 4 1/2"  | 4"      | 4 1/2"  |
| Outer tube O.D. | 88.9mm                                       | 101.7mm | 114.3mm | 101.7mm | 114.3mm | 101.7mm | 114.3mm |
| Outer tube I.D. | 81.8mm                                       | 94.6mm  | 107.2mm | 94.6mm  | 107.2mm | 94.6mm  | 107.2mm |
| Outer tube WT   | 5.3mm  | 7.1mm   | 7.1mm   | 7.1mm   | 7.1mm   | 7.1mm   | 7.1mm   |
| Inner tube O.D. | 38.1mm                                       | 50.8mm  | 63.5mm  | 50.8mm  | 63.5mm  | 50.8mm  | 63.5mm  |
| Inner tube I.D. | 32.6mm                                       | 45.3mm  | 58mm    | 45.3mm  | 58mm    | 45.3mm  | 58mm    |
| Inner tube WT   | 5.5mm  | 5.5mm   | 5.5mm   | 5.5mm   | 5.5mm   | 5.5mm   | 5.5mm   |
| Spanner Flat    | 90mm   | 90mm    | 90mm    | 90mm    | 90mm    | 90mm    | 90mm    |
| Weight 3.0 m    | 75 kg.                                       | 75 kg.  | 95 kg.  | 75 kg.  | 95 kg.  | 75 kg.  | 95 kg.  |
| Weight 6.0 m    | 120 kg.                                      | 150 kg. | 168 kg. | 150 kg. | 168 kg. | 150 kg. | 168 kg. |



## **ROD WIPERS**

Hole Products provides high quality rod wipers to remove soil, mud, and water from drill rods.

Rods are drawn through the wipers allowing them to act as a squeegee while removing tooling from the hole.

Additional sizes and styles including rubber crown profile and dual split are available on request.

Please refer to the guidelines below when ordering wipers.



| ROD WIPER ORDERIN  | ROD WIPER ORDERING GUIDELINES |  |  |  |
|--------------------|-------------------------------|--|--|--|
| I.D.:*             |                               |  |  |  |
| O.D.:              |                               |  |  |  |
| Rod Size:          |                               |  |  |  |
| Steel or No Steel: |                               |  |  |  |

<sup>\*</sup>Recommended 1/4" smaller than rod O.D.

| ROD WIPER WI | ROD WIPER WITH STEEL* - FLAT PROFILE |        |           |                         |  |  |  |
|--------------|--------------------------------------|--------|-----------|-------------------------|--|--|--|
| PART #       | O.D.                                 | I.D.   | THICKNESS | RECOMMENDED<br>ROD O.D. |  |  |  |
| 3151041      | 9"                                   | 1 1/2" | 3/4"      | 1 3/4"                  |  |  |  |
| 3150045      | 9"                                   | 2"     | 3/4"      | 2 1/4"                  |  |  |  |
| 3150012      | 9"                                   | 2 1/8" | 3/4"      | 2 1/2"                  |  |  |  |
| 3151042      | 9"                                   | 2 1/4" | 3/4"      | 2 1/2"                  |  |  |  |
| 3150165      | 8"                                   | 2 1/2" | 1"        | 2 3/4"                  |  |  |  |
| 3151024      | 9"                                   | 2 1/2" | 3/4"      | 2 3/4"                  |  |  |  |
| 3150170      | 8"                                   | 3 1/4" | 1"        | 3 1/2"                  |  |  |  |
| 3150010      | 9"                                   | 3 1/4" | 3/4"      | 3 1/2"                  |  |  |  |
| 3150020      | 12"                                  | 3 1/4" | 3/4"      | 3 1/2"                  |  |  |  |
| 3150175      | 8"                                   | 3 1/2" | 1"        | 3 3/4"                  |  |  |  |
| 3150180      | 8"                                   | 3 3/4" | 1"        | 4"                      |  |  |  |
| 3150185      | 5"                                   | 4 1/4" | 3/4"      | 4 1/2"                  |  |  |  |
| 3150190      | 6"                                   | 4 1/4" | 3/4"      | 4 1/2"                  |  |  |  |
| 3150195      | 8"                                   | 4 1/4" | 1"        | 4 1/2"                  |  |  |  |
| 3150015      | 9"                                   | 4 1/4" | 3/4"      | 4 1/2"                  |  |  |  |
| 3151001      | 11"                                  | 4 1/4" | 3/4"      | 4 1/2"                  |  |  |  |
| 3150025      | 12"                                  | 4 1/4" | 3/4"      | 4 1/2"                  |  |  |  |
| 3151039      | 14"                                  | 4 1/4" | 3/4"      | 4 1/2"                  |  |  |  |
| 3150028      | 19"                                  | 4 1/4" | 3/4"      | 4 1/2"                  |  |  |  |
| 3150200      | 8"                                   | 4 1/2" | 1"        | 4 3/4"                  |  |  |  |

<sup>\*</sup>More rigid less flexible wiper.

# **ROD WIPERS**

| ROD WIPER N | O STEEL* - FLAT P | ROFILE |           |                         |
|-------------|-------------------|--------|-----------|-------------------------|
| PART #      | O.D.              | I.D.   | THICKNESS | RECOMMENDED<br>ROD O.D. |
| 3150035     | 9"                | 1 1/2" | 3/4"      | 1 3/4"                  |
| 3150040     | 9"                | 2"     | 3/4"      | 2 1/4"                  |
| 3150133     | 9"                | 2 1/4" | 3/4"      | 2 1/2"                  |
| 3151008     | 8"                | 2 1/2" | 1"        | 2 3/4"                  |
| 3151025     | 9"                | 2 1/2" | 3/4"      | 2 3/4"                  |
| 3151012     | 8"                | 3 1/4" | 1"        | 3 1/2"                  |
| 3150011     | 9"                | 3 1/4" | 3/4"      | 3 1/2"                  |
| 3150021     | 12"               | 3 1/4" | 3/4"      | 3 1/2"                  |
| 3151013     | 8"                | 3 3/4" | 1"        | 4"                      |
| 3151009     | 8"                | 3 1/2" | 1"        | 3 3/4"                  |
| 3151031     | 5"                | 4 1/4" | 3/4"      | 4 1/2"                  |
| 3151030     | 6"                | 4 1/4" | 3/4"      | 4 1/2"                  |
| 3151011     | 8"                | 4 1/4" | 1"        | 4 1/2"                  |
| 3150016     | 9"                | 4 1/4" | 3/4"      | 4 1/2"                  |
| 3150135     | 11"               | 4 1/4" | 3/4"      | 4 1/2"                  |
| 3150140     | 14"               | 4 1/4" | 3/4"      | 4 1/2"                  |
| 3150145     | 19"               | 4 1/4" | 3/4"      | 4 1/2"                  |
| 3151010     | 8"                | 4 1/2" | 1"        | 4 3/4"                  |
| 3150031     | 12"               | 5"     | 3/4"      | 5 1/2"                  |
| 3150041     | 12"               | 7"     | 3/4"      | 7 1/4"                  |
| 3150029     | 12"               | 8 5/8" | 3/4"      | 9"                      |

<sup>\*</sup>A more flexible wiper.



#### **COMPOUNDS & GREASES**

Hole Products offers a variety of high quality thread compounds, locking compounds, and rod grease, from the industry's leading manufacturers. Products are available to meet any criteria from environmental concerns, high or low temperatures, extreme exposure to the elements, high pressures and more.



Please contact your Hole Products representative for additional information and assistance selecting the product(s) best suited for your drilling application.

| THREA     | THREAD COMPOUNDS |                                 |  |  |  |  |  |  |
|-----------|------------------|---------------------------------|--|--|--|--|--|--|
| PART<br># | UNIT<br>SIZE     | PRODUCT                         | PRODUCT DESCRIPTION  |  |  |  |  |  |
| 3100040   | 1 GAL.           | BULLSEYE®                       | BULLSEYE® provides protection against galling, seizing, and thread damage while maintaining well integrity.  |  |  |  |  |  |
| 3100005   | 1 GAL.           |                                 |  |  |  |  |  |  |
| 3100010   | 2 GAL.           | COPR PLUS                       | COPR PLUS is and environmentally friendly non-lead, non-zinc thread compound, which provides protection against galling and seizing.                                   |  |  |  |  |  |
| 3100011   | 5 GAL.           |                                 |  |  |  |  |  |  |
| 3100013   | 5 GAL.           | JET-LUBE® 21®                   | JET-LUBE $^{\circ}$ 21 $^{\circ}$ is formulated to reduce excessive circumferential make-up of tool joints and protect against galling and high stress.                |  |  |  |  |  |
| 3100050   | 1 GAL.           | KOPR-KOTE®                      | KOPR-KOTE® is formulated to help reduce downhole joint make-up. It has a very high static friction factor that helps reduce downhole joint make-up when                |  |  |  |  |  |
| 3100055   | 2 GAL.           | KOPK-KOTE®                      | excessive drilling torques are encountered.  |  |  |  |  |  |
| 3100070   | 1 GAL.           | KOPR-KOTE®                      | KOPR-KOTE® ARCTIC is designed for extreme cold weather environments where  |  |  |  |  |  |
| 3100071   | 2 GAL.           | ARCTIC                          | fluid film strength is important and grease consistency remains the same.  |  |  |  |  |  |
| 3100059   | 2.5 GAL.         | KOV'R-KOTE®                     | KOV'R-KOTE® is a metal-free formula and is ideal for mineral exploration tooling string. It has additives for rust corrosion and oxidation protection.                 |  |  |  |  |  |
| 3100030   | 1 GAL.           | ORANGE AID                      | ORANGE AID is a hydrocarbon free tool joint compound, which contains no metals, lead / copper and protects and lubricates drill pipe threads.                          |  |  |  |  |  |
| 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. |  |  |  |  |  |
| LOCKI     | NG COM           | POUND                           |  |  |  |  |  |  |
| 3100085   | 8 OZ             | BAKERLOK THREAD<br>COMPOUND KIT | BAKERLOK is a thread locking compound, commonly used for casing, tubing, and drilling joints to reduce accidental detaching of string components during drilling.      |  |  |  |  |  |
| ROD G     | REASE            |                                 |  |  |  |  |  |  |
| 3100036   | 5 GAL.           | IDP-214                         | IDP-214 rod grease is a high quality, easily applied formulation designed to help dampen high frequency vibration created in continuous wireline coring operations.    |  |  |  |  |  |

# **DOPE BRUSHES**

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

## **STABILIZERS**

Hole Products' stabilizers are designed to reduce unintentional sidetracking and vibrations, thus keeping the drill string centered in the borehole. All stabilizers are manufactured from high strength steel and feature heat treated tool joints and hard faced wear surfaces.

Each style can be customized with a variety of options including O.D., length (body and neck), thread connection, flats, and more.

Additional stabilizers including replaceable sleeve and integral blade stabilizers are available on request.

Please refer to the guide below when ordering stabilizers.

| STABILIZER STYLES |   |
|-------------------|---|
|                   | SMOOTH BODY: standard stabilizer with no blades.  |
|                   | STRAIGHT BLADE: feature welded straight blades on the body.   |
|                   | <b>SPIRAL BLADE</b> : spiral blades provide constant wall contact to assist in cutting removal.                   |
|                   | <b>STRAIGHT-SPIRAL BLADE</b> : designed to provide the benefits of the spiral blade stabilizer at a reduced cost. |
|                   | <b>FLOW THROUGH</b> : allows cuttings to pass between the inner and outer barrel.                                 |

| STABILIZER C          | STABILIZER ORDERING REFERENCE GUIDE |  |                        |   |                        |                        |                            |  |
|-----------------------|-------------------------------------|--|------------------------|---|------------------------|------------------------|----------------------------|--|
| STYLE:                | ѕмоотн                              |  | FLOW -<br>THROUGH      |   | STRAIGHT<br>BLADE      | SPIRAL<br>BLADE        | STRAIGHT-<br>SPIRAL RIBBED |  |
| STILE.                | SPECIFY #<br>OF BLADES              |  | SPECIFY #<br>OF BLADES | - | SPECIFY #<br>OF BLADES | SPECIFY #<br>OF BLADES | SPECIFY #<br>OF BLADES     |  |
| BODY O.D.:            |                                     |  |                        |   |                        |                        |                            |  |
| BODY LENGTH:          |                                     |  |                        |   |                        |                        |                            |  |
| NECK LENGTH:          |                                     |  |                        |   |                        |                        |                            |  |
| TOP CONNECTION:       |                                     |  |                        |   |                        |                        |                            |  |
| BOTTOM<br>CONNECTION: |                                     |  |                        |   |                        |                        |                            |  |
| FLATS:                |                                     |  |                        |   |                        |                        |                            |  |
| OTHER INFO:           |                                     |  |                        |   |                        |                        |                            |  |

#### **FLOAT VALVES**

Float valves provide added blowout protection at the bottom of the drill string to reduce flow-back when making connections. They also keep cuttings out of the drill string which reduces bit plugging.

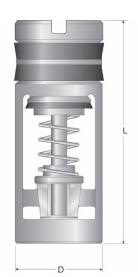
Hole Products offers a complete line of Model "F" plunger type and Model "G" flapper style float valves and repair kits to accommodate a wide range of drilling conditions.

Model "F" float valves offer positive and instant shut-off, economy, and durability.

Model "G" float valves are designed for highly abrasive drilling fluids. The cast flapper is designed to open quickly, providing unrestricted full flow through the valve.

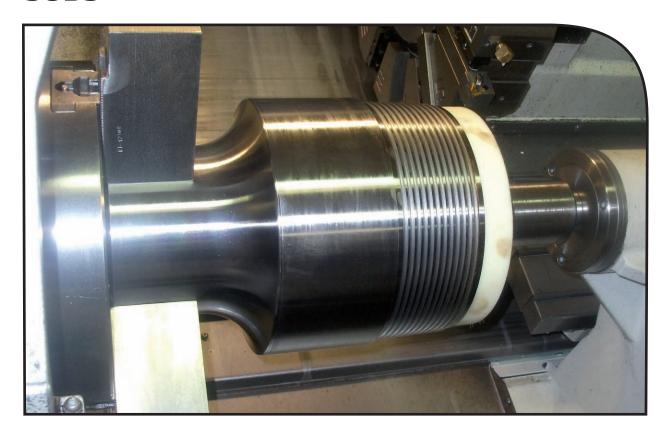
Please contact your Hole Products representative for additional information and assistance selecting the float valve best suited for your drilling needs.





| FLOAT VALV | FLOAT VALVE DIMENSIONAL DATA |                     |          |          |          |  |
|------------|------------------------------|---------------------|----------|----------|----------|--|
|            | DIAMETER OF                  | DIAMETER OF         | LENGTH   | I.D. OF  | VALVE    |  |
| VALVE SIZE | VALVE                        | RECESS FOR<br>VALVE | OF VALVE | MODEL F  | MODEL G  |  |
|            | (D) - IN                     | IN                  | (L) - IN | IN       | IN       |  |
| 1R         | 1 21/32"                     | 1 11/16"            | 5 7/8"   | 1"       | N/A      |  |
| 1F-2R      | 1 29/32"                     | 1 15/16"            | 6 1/4"   | 1 1/4"   | 1"       |  |
| 2F-3R      | 2 13/32"                     | 2 7/16"             | 6 1/2"   | 1 9/16"  | 1 1/4"   |  |
| 3F         | 2 13/16"                     | 2 27/32"            | 10"      | 1 7/8"   | 1 5/8"   |  |
| 3 1/2 IF   | 3 1/8"                       | 3 5/32"             | 10"      | 1 7/8"   | 1 5/8"   |  |
| 4R         | 3 15/32"                     | 3 1/2"              | 8 5/16"  | 2 15/16" | 1 31/32" |  |
| 4F         | 3 21/32"                     | 3 11/16"            | 12"      | 2 1/2"   | 2 3/16"  |  |
| 5R         | 3 7/8"                       | 3 29/32"            | 9 3/4"   | 2 3/4"   | 2 1/4"   |  |
| 5F-6R      | 4 25/32"                     | 4 13/16"            | 11 3/4"  | 3 1/4"   | 2 7/8"   |  |
| 6F         | 5 11/16"                     | 5 23/32"            | 14 5/8"  | 4 1/8"   | N/A      |  |

# **SUBS**



It isn't easy matching multiple tooling sizes and styles and maintaining inventory of accessories that will work on multiple jobs.

To make sure you get the perfect fit every time, Hole Products offers a complete line of quality adapter subs.

Looking for a specialty or hard to find sub? Hole Products can custom manufacture any sub, in any size, with any connection, and with a variety of custom options including: o-ring seals, check valves, breakout flats, and much more.

Adapter subs shown are representative of the most common industry sizes and styles.

Please contact your Hole Products representative for additional product availability or assistance ordering custom subs.

| AW ROD BOX X PIN |         |           |  |  |  |  |
|------------------|---------|-----------|--|--|--|--|
| PART #           | ROD BOX | PIN       |  |  |  |  |
| 3300058          | AW      | BWL ROD   |  |  |  |  |
| 3300300          | AW      | BW CASING |  |  |  |  |
| 3301070          | AW      | NWL ROD   |  |  |  |  |
| 3301192          | AW      | NXB 3 TPI |  |  |  |  |
| 3301080          | AW      | NW CASING |  |  |  |  |
| 3301031          | AW      | HWL ROD   |  |  |  |  |
| 3301068          | AW      | HW CASING |  |  |  |  |

| AWJ ROD BOX X PIN |         |            |
|-------------------|---------|------------|
| PART #            | ROD BOX | PIN        |
| 3300305           | AWJ     | BWL ROD    |
| 3301172           | AWJ     | BW CASING  |
| 3301065           | AWJ     | NWL ROD    |
| 3300311           | AWJ     | NXB 3 TPI  |
| 3301085           | AWJ     | NW CASING  |
| 3301170           | AWJ     | HWL ROD    |
| 3301097           | AWJ     | HW CASING  |
| 3301094           | AWJ     | HWT CASING |
| 3301102           | AWJ     | PW CASING  |

| BW ROD BOX X PIN |         |           |
|------------------|---------|-----------|
| PART #           | ROD BOX | PIN       |
| 3301104          | BW      | NWL ROD   |
| 3301106          | BW      | NW CASING |



| NWJ ROD | BOX X PIN |                   |
|---------|-----------|-------------------|
| PART #  | ROD BOX   | PIN               |
| 3301026 | NWJ       | AW                |
| 3301025 | NWJ       | AWJ               |
| 3301213 | NWJ       | BWJ               |
| 3300320 | NWJ       | BWL ROD           |
| 3300325 | NWJ       | BW CASING         |
| 3301129 | NWJ       | N3 ROD            |
| 3301124 | NWJ       | N4 ROD            |
| 3301128 | NWJ       | NW ROD            |
| 3301199 | NWJ       | NWJ               |
| 3301116 | NWJ       | NWL ROD           |
| 3301115 | NWJ       | NW CASING         |
| 3301204 | NWJ       | NXB 3 TPI         |
| 3301115 | NWJ       | NW CASING         |
| 3301027 | NWJ       | HWL ROD           |
| 3300330 | NWJ       | HWL ROD W/ O-RING |
| 3301117 | NWJ       | HW CASING         |
| 3301028 | NWJ       | HWT CASING        |
| 3300335 | NWJ       | HWT W/ O-RING     |
| 3300150 | NWJ       | PW CASING         |
| 3301119 | NWJ       | PWL ROD           |
| 3300153 | NWJ       | CPWL ROD          |
| 3300150 | NWJ       | PW CASING         |
| 3300151 | NWJ       | PWT ROD           |
| 3301118 | NWJ       | SW CASING         |
| 3301220 | NWJ       | ZW CASING         |
| 3301200 | NWJ       | 1 1/4" 7 TPI      |
| 3301009 | NWJ       | 2 3/8" IF         |
| 3301018 | NWJ       | 2 3/8" API        |
| 3301023 | NWJ       | 2 7/8" API REG    |
| 3301024 | NWJ       | MHJR PIN          |
| 3305060 | NWJ       | 1 1/4" API        |

| BWL ROD BOX X PIN |         |           |
|-------------------|---------|-----------|
| PART #            | ROD BOX | PIN       |
| 3302053           | BWL     | NWL ROD   |
| 3302180           | BWL     | BW CASING |

| NW ROD BOX X PIN |         |                   |
|------------------|---------|-------------------|
| PART #           | ROD BOX | PIN               |
| 3300345          | NW      | BWL ROD           |
| 3300350          | NW      | BW CASING         |
| 3301074          | NW      | NWL ROD           |
| 3300087          | NW      | NWL ROD W/ O-RING |
| 3301079          | NW      | NW CASING         |
| 3301081          | NW      | HWL ROD           |
| 3300088          | NW      | HWL ROD W/ O-RING |
| 3301114          | NW      | HW CASING         |
| 3301207          | NW      | HWT CASING        |
| 3300089          | NW      | HWT W/ O-RING     |
| 3301082          | NW      | PW CASING         |
| 3302098          | NW      | PWT ROD           |



| NWL ROD BOX X PIN |         |               |
|-------------------|---------|---------------|
| PART #            | ROD BOX | PIN           |
| 3301143           | NWL     | EW CASING     |
| 3300008           | NWL     | AW ROD        |
| 3301187           | NWL     | AW CASING     |
| 3300118           | NWL     | BWL ROD       |
| 3300355           | NWL     | BW CASING     |
| 3300017           | NWL     | NW ROD        |
| 3300108           | NWL     | NWJ ROD       |
| 3300104           | NWL     | NWL ROD       |
| 3301195           | NWL     | NXB 3 TPI ROD |
| 3301217           | NWL     | NXE 4 TPI ROD |
| 3300016           | NWL     | NW CASING     |
| 3300006           | NWL     | HWL ROD       |
| 3300113           | NWL     | HW CASING     |
| 3300038           | NWL     | HWT CASING    |

| NXB 3 TPI BOX X PIN |           |         |
|---------------------|-----------|---------|
| PART #              | вох       | PIN     |
| 3300031             | NXB 3 TPI | NWJ ROD |
| 3302003             | NXB 3 TPI | NWL ROD |

| NW CASING BOX X PIN |            |         |
|---------------------|------------|---------|
| PART #              | CASING BOX | PIN     |
| 3301088             | NW         | HWL ROD |



| HWL ROD BOX X PIN |         |            |
|-------------------|---------|------------|
| PART #            | ROD BOX | PIN        |
| 3302004           | HWL     | AW ROD     |
| 3300009           | HWL     | NWJ ROD    |
| 3300360           | HWL     | NWL ROD    |
| 3300073           | HWL     | NW CASING  |
| 3300365           | HWL     | HWL ROD    |
| 3300007           | HWL     | HW CASING  |
| 3300011           | HWL     | HWT CASING |

| HW CASING BOX X PIN |            |                  |
|---------------------|------------|------------------|
| PART #              | CASING BOX | PIN              |
| 3302134             | HW         | HWL ROD          |
| 3300109             | HW         | HWT CASING / ROD |
| 3301133             | HW         | CPWL ROD         |

| HWT ROD BOX X PIN |         |           |
|-------------------|---------|-----------|
| PART #            | ROD BOX | PIN       |
| 3300255           | HWT     | HWL ROD   |
| 3301133           | HWT     | CPWL ROD  |
| 3300014           | HWT     | HW CASING |
| 3300370           | HWT     | HWT       |
| 3300261           | HWT     | PW CASING |
| 3302095           | HWT     | PWT ROD   |
| 3301071           | HWT     | SWT ROD   |

| CPWL ROD BOX X PIN |         |                  |
|--------------------|---------|------------------|
| PART #             | ROD BOX | PIN              |
| 3300152            | CPWL    | HWT CASING / ROD |

| PWT CASING BOX X PIN |            |           |
|----------------------|------------|-----------|
| PART #               | CASING BOX | PIN       |
| 3302097              | PWT        | PW CASING |



| PIN X PIN |           |               |
|-----------|-----------|---------------|
| PART #    | PIN       | PIN           |
| 3301130   | AW ROD    | AWJ ROD       |
| 3302125   | AW ROD    | BWL ROD       |
| 3302140   | AW ROD    | BW CASING     |
| 3301092   | AW ROD    | NWJ ROD       |
| 3302116   | AW ROD    | NWL ROD       |
| 3301169   | AW ROD    | NXB 3 TPI ROD |
| 3302126   | AW ROD    | NW CASING     |
| 3300262   | AW ROD    | HWL ROD       |
| 3301123   | AW ROD    | HWT ROD       |
| 3301057   | AWJ ROD   | AWJ ROD       |
| 3301103   | AWJ ROD   | NW ROD        |
| 3301227   | BW ROD    | BWL ROD       |
| 3301087   | BW ROD    | NWL ROD       |
| 3300256   | BW ROD    | HWL ROD       |
| 3302160   | BW ROD    | BW CASING     |
| 3302165   | BW ROD    | NW CASING     |
| 3302170   | BW ROD    | HW CASING     |
| 3302155   | BW ROD    | HWT CASING    |
| 3301141   | NW ROD    | EW CASING     |
| 3300059   | NW ROD    | BWL ROD       |
| 3301086   | NW ROD    | NWL ROD       |
| 3301144   | NW ROD    | NRWL ROD      |
| 3301168   | NW ROD    | NW ROD        |
| 3301111   | NW ROD    | NWJ ROD       |
| 3302124   | NW ROD    | NW CASING     |
| 3302127   | NW ROD    | HWL ROD       |
| 3302128   | NW ROD    | HW CASING     |
| 3302156   | NW ROD    | HWT CASING    |
| 3301196   | NWJ ROD   | NWL ROD       |
| 3302135   | HW CASING | 4" NPT ROD    |



| BOX X BOX |            |                |
|-----------|------------|----------------|
| PART #    | вох        | ВОХ            |
| 3301060   | AW ROD     | N 4THD         |
| 3301090   | AW ROD     | 2 3/8" API REG |
| 3301260   | AW ROD     | 3 1/2" API REG |
| 3301125   | AWJ ROD    | N 4THD         |
| 3301159   | AWJ ROD    | 2 3/8" API REG |
| 3301132   | AWJ ROD    | 2 7/8" API REG |
| 3302161   | AWJ ROD    | 3 1/2" API REG |
| 3302056   | N 4THD     | BWL ROD        |
| 3301048   | N 4THD     | NWL ROD        |
| 3301046   | N 4THD     | NW ROD         |
| 3301150   | NW ROD     | 2 3/8" API REG |
| 3301210   | NW ROD     | 3 1/2" API REG |
| 3301211   | NW ROD     | NWL ROD        |
| 3301008   | NWJ ROD    | N 4THD         |
| 3301076   | NWJ ROD    | 2 3/8" API REG |
| 3301062   | NWJ ROD    | 2 7/8" API REG |
| 3301140   | NWJ ROD    | 3 1/2" API REG |
| 3301019   | NWJ ROD    | 4 1/2" API REG |
| 3301247   | NWJ ROD    | 6 5/8" API REG |
| 3301203   | NWL ROD    | 2" NPT         |
| 3302011   | NWL ROD    | 2 3/8" API REG |
| 3300028   | NWL ROD    | 2 7/8" API REG |
| 3301154   | HWL ROD    | 2 3/8" API REG |
| 3300079   | HWL ROD    | 2 7/8" API REG |
| 3300057   | HWT CASING | 2 7/8" API REG |
| 3302093   | HWT CASING | 3 1/2" API REG |



# **API ADAPTER SUBS**

| API BOX X PIN |             |             |
|---------------|-------------|-------------|
| PART #        | вох         | PIN         |
| 3305050       | 1 1/4" NPT  | AWJ         |
| 3301184       | 1 1/4" 7    | AWJ         |
| 3301003       | 2 3/8" IF   | 2 3/8" REG  |
| 3301014       | 2 3/8" IF   | 3 1/2" REG  |
| 3301304       | 2 3/8" IF   | NW ROD      |
| 3301016       | 2 3/8" IF   | NWJ         |
| 3301013       | 2 3/8" IF   | NWL         |
| 3302133       | 2 3/8" IF   | HWL         |
| 3302075       | 2 3/8" IF   | HWT CASING  |
| 3301151       | 2 3/8" REG  | 2 7/8" REG  |
| 3301152       | 2 3/8" REG  | HWT CASING  |
| 3301189       | 2 3/8" MHJR | 2 3/8" MHJR |
| 3302026       | 2 3/8" MHJR | 3 1/2" REG  |
| 3302040       | 2 3/8" MHJR | AWJ         |
| 3302047       | 2 3/8" MHJR | NWJ         |
| 3302015       | 2 3/8" MHJR | NWL         |
| 3301250       | 2 3/8" MHJR | HWL         |
| 3302016       | 2 3/8" MHJR | HW CASING   |
| 3302023       | 2 7/8" IF   | 2 3/8" IF   |
| 3305077       | 2 7/8" REG  | 2 3/8" REG  |
| 3300034       | 2 7/8" REG  | NWJ         |
| 3301255       | 2 7/8" IF   | HWL         |
| 3300111       | 3 1/2" REG  | 2 3/8 IF    |
| 3305062       | 3 1/2" REG  | 3 1/2" IF   |
| 3300036       | 4 1/2" REG  | 2 3/8" IF   |
| 3305068       | 4 1/2" REG  | 2 7/8" REG  |
| 3301041       | 7 5/8" REG  | 6 5/8" REG  |

| API PIN X PIN |             |             |
|---------------|-------------|-------------|
| PART #        | вох         | PIN         |
| 3301164       | 2 3/8" IF   | 2 7/8" REG  |
| 3300120       | 2 3/8" REG  | 2 3/8" REG  |
| 3305079       | 2 3/8" MJR  | NWJ         |
| 3302081       | 2 3/8" MHJR | 2 3/8" MHJR |
| 3301036       | 3 1/2" REG  | 3 1/2" REG  |





# **API ADAPTER SUBS**

| API BOX X BOX |             |            |
|---------------|-------------|------------|
| PART #        | ВОХ         | вох        |
| 3300101       | 1 1/4" 7    | AW         |
| 3301120       | 2 3/8" IF   | 2 7/8" REG |
| 3305061       | 2 3/8" IF   | 3 1/2" REG |
| 3301171       | 2 3/8" REG  | 2 3/8" IF  |
| 3302025       | 2 3/8" REG  | 2 3/8" REG |
| 3300115       | 2 3/8" REG  | 2 7/8" REG |
| 3300155       | 2 3/8" REG  | 3 1/2" REG |
| 3301156       | 2 3/8" REG  | 4 1/2" REG |
| 3302030       | 2 3/8" REG  | N4 ROD     |
| 3301153       | 2 3/8" REG  | NWL        |
| 3301154       | 2 3/8" REG  | HWL        |
| 3302207       | 2 3/8" REG  | NW CASING  |
| 3301188       | 2 3/8" MHJR | 2 3/8" REG |
| 3301300       | 2 3/8" MHJR | 3 1/2" REG |
| 3302024       | 2 7/8" IF   | 3 1/2" REG |
| 3300046       | 2 7/8" IF   | 4 1/2" REG |
| 3301190       | 3 1/2" REG  | 3 1/2" REG |
| 3300030       | 3 1/2" REG  | 4 1/2" REG |
| 3300041       | 3 1/2" REG  | 6 5/8" REG |
| 3300042       | 3 1/2" REG  | 7 5/8" REG |
| 3302033       | 4 1/2" REG  | NWJ        |



## SONIC ADAPTER SUBS

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

Custom sizes, breakout profiles, and thread gauges available. Please contact your Hole Products representative for further assistance.



| BOX X BOX |                    |                    |
|-----------|--------------------|--------------------|
| PART #    | вох                | вох                |
| 6340049   | 3 1/2" HP90 RH BOX | 2 3/8" API REG BOX |
| 6340075   | 3 1/2" HP90 RH BOX | 2 7/8" API REG BOX |
| 6340080   | 3 1/2" HP90 RH BOX | 3 1/2" API REG BOX |
| 6340096   | 3 1/2" HP90 RH BOX | 3 1/2" HP90 RH BOX |
| 6340081   | 4 1/2" HP90 RH BOX | 3 1/2" API REG BOX |

| BOX X PIN |                    |                    |
|-----------|--------------------|--------------------|
| PART #    | вох                | PIN                |
| 6340095   | 3 1/2" HP90 RH BOX | 2 3/8" API PIN     |
| 3300053   | 3 1/2" HP90 RH BOX | 3" NPT PIN         |
| 6340082   | AWJ BOX            | 3 1/2" HP90 RH PIN |
| 6340092   | 2 3/8" IF BOX      | 3 1/2" HP90 RH PIN |
| 6340033   | 5 7/8" HP90 LH BOX | 7 5/8" HP90 LH PIN |
| 6340034   | 5 7/8" HP90 LH BOX | 8 5/8" HP90 LH PIN |

# **SONIC SAVER SUBS**

Saver subs are screwed into the bottom of the flange adapter and onto the inner drill string. When rods are added to deepen the hole, the threads are unscrewed between the saver sub and the drill string. The connection between the flange adapter and saver sub is rarely used and suffers minimal wear; whereas the lower connection is commonly used and suffers the most wear. Saver subs are expendable and represent a small investment as compared to the flange adapter.

| PIN X PIN (Saver Subs) |                    |                   |
|------------------------|--------------------|-------------------|
| PART #                 | PIN                | PIN               |
| 6340091                | 3 1/2" HP90 RH PIN | 2 3/8" IF PIN     |
| 6340031                | 3 1/2" HP90 RH PIN | 3 1/2" HP90 PIN   |
| 6360260                | 3 1/2" HP90 RH PIN | 4 1/2" HP90 PIN   |
| 6360265                | 3 1/2" HP90 RH PIN | 4 1/2" ROUSSY PIN |

## **SONIC CORE BARREL DRIVER SUBS**

Core barrel driver subs are designed for attaching drill rods to the core barrel.

Hole Products offers core barrel driver subs in a variety of sizes and styles. All subs are manufactured from the highest quality materials using the industries most advanced manufacturing techniques.

Custom sizes, breakout profiles, and thread gauges available.

Please contact your Hole Products representative for additional details.

| BOX X PIN |               |             |
|-----------|---------------|-------------|
| PART #    | вох           | PIN         |
| 6340159   | 2 3/8" MHJR   | 3 1/2" HP90 |
| 6360400   | 2 3/8" IF     | 3 1/2" HP90 |
| 6340163   | 2 3/8" IF     | 4 1/2" HP90 |
| 6360420   | 2 3/8" IF     | 6" HP90     |
| 6360405   | 2 3/8" IF     | 7 5/8" HP90 |
| 6360410   | 2 3/8" IF     | 8 5/8" HP90 |
| 6340032   | 3 1/2" HP90   | 4 1/2" HP90 |
| 6340061   | 3 1/2" HP90   | 6" HP90     |
| 6360415   | 3 1/2" HP90   | 7 5/8" HP90 |
| 6360290   | 3 1/2" HP90   | 8 5/8" HP90 |
| 6360300   | 4 1/2" ROUSSY | 4 1/2" HP90 |
| 6360305   | 4 1/2" ROUSSY | 6" HP90     |
| 6360425   | 4 1/2" ROUSSY | 7 5/8" HP90 |
| 6360310   | 4 1/2" ROUSSY | 8 5/8" HP90 |

| BOX X BOX (Split Barrel Subs) |               |             |  |
|-------------------------------|---------------|-------------|--|
| PART #                        | вох           | вох         |  |
| 6340161                       | 2 3/8" IF     | 4 1/2" HP90 |  |
| 6340155                       | 3 1/2" HP90   | 4 1/2" HP90 |  |
| 6340156                       | 4 1/2" ROUSSY | 4 1/2" HP90 |  |

## **AUGER ADAPTERS**

Hole Products offers a large selection of quality auger adapters in hex sizes ranging from 13/16" through 2". Additional adapters including hex x round bar and custom designs are available on request.

| HEX PIN X HEX BOX |          |         |              |              |                    |  |  |  |
|-------------------|----------|---------|--------------|--------------|--------------------|--|--|--|
| PIN               |          | вох     |              |              |                    |  |  |  |
| IN                | MM       | 13/16"  | 1 1/8"       | 1 5/8"       | 2"                 |  |  |  |
| 1 1/8"            | 29       | 1250790 | 1250805      | 1250815      | 1250820            |  |  |  |
| 1 5/8"            | 41       | 1250795 | 1250075      | 1250076      | 1250027            |  |  |  |
| 2"                | 51       | 1250800 | 1250810      | 1250166      | 1250825            |  |  |  |
| HEX BOX X HEX BOX |          |         |              |              |                    |  |  |  |
| HEX BOX           | X HEX BO | X       |              |              |                    |  |  |  |
|                   | X HEX BO | X       | B(           | ΟX           |                    |  |  |  |
|                   |          | 13/16"  | B(<br>1 1/8" | OX<br>1 5/8" | 2"                 |  |  |  |
| ВС                | ΟX       |         |              |              | <b>2</b> " 1250870 |  |  |  |
| IN BO             | OX<br>MM | 13/16"  | 1 1/8"       | 1 5/8"       |                    |  |  |  |



| HEX BOX X ROD BOX |     |         |         |         |         |  |  |  |  |
|-------------------|-----|---------|---------|---------|---------|--|--|--|--|
| HEX BOX           |     | ROD BOX |         |         |         |  |  |  |  |
| IN                | MM  | N3      | NW      |         | NWJ     |  |  |  |  |
| 1 1/8"            | 29  | 3301047 | 3300044 |         | 3301410 |  |  |  |  |
| 1 5/8"            | 41  | 3301415 | 3300039 |         | 3301099 |  |  |  |  |
| 2"                | 51  | 3301420 | 3301425 |         | 3301430 |  |  |  |  |
| HEX PIN X ROD PIN |     |         |         |         |         |  |  |  |  |
| HEX               | PIN | ROD PIN |         |         |         |  |  |  |  |
| IN                | MM  | AWJ     |         | NWJ     |         |  |  |  |  |
| 1 1/8"            | 29  | 3301061 |         | 3301435 |         |  |  |  |  |
| 1 5/8"            | 41  | 3300141 |         |         | 3301134 |  |  |  |  |
| 2"                | 51  | 3301440 |         |         | 3301445 |  |  |  |  |



# **REVERSE CIRCULATION SUBS**

Hole Products offers a wide range of reverse circulation subs. All subs are manufactured using premium alloys and the most advanced manufacturing techniques, to maximize performance and durability. Reverse Circulation subs are available in a variety of sizes and with all industry standard thread connections. Our standard sub offering includes saver subs, adapter subs, cross-over subs, and bit subs. Custom subs are also available to meet all reverse circulation system requirements.