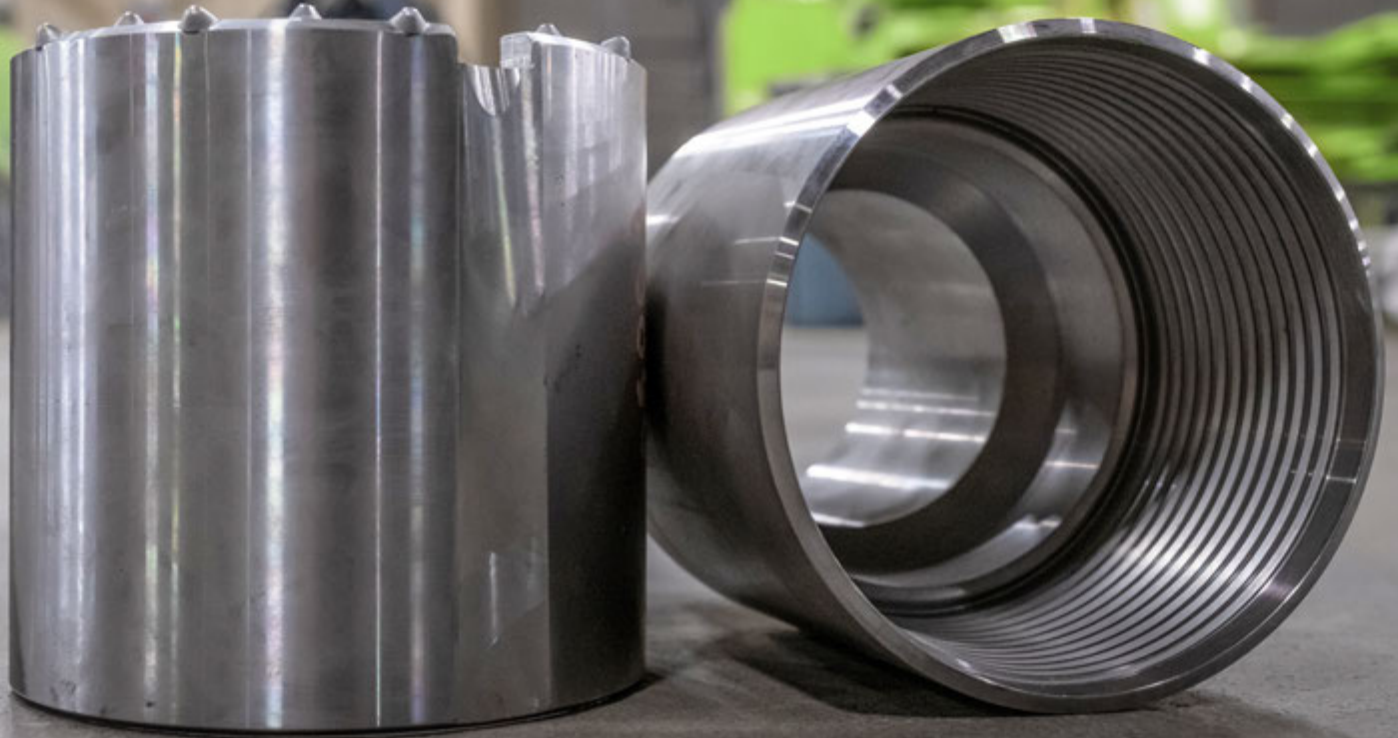




TERRASONIC
INTERNATIONAL



**SONIC DOWN HOLE TOOLING
& ACCESSORIES CATALOG**

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3.5" RODS - RH THREAD

| Part No. | Description | Weight lbs. (KG) | Length* in. (MM) | Outside Diameter in. (MM) | Inside Diameter in. (MM) | End Wall Thickness in. (MM) |
|-----------|--|------------------|------------------|---------------------------|--------------------------|-----------------------------|
| 100-01007 | Rod, Ace, 3.5" O.D., 1' Long, 0.5" Wall, RH | 15.8 (7.2) | 12 (304.8) | 3.5 (88.9) | 2.5 (63.5) | 0.5 (12.7) |
| 100-01012 | Rod, 3.5" O.D., Deuce, 2.5' Length, 0.5" Wall, RH | 39.8 (18.1) | 30 (756) | 3.5 (88.9) | 2.5 (63.5) | 0.5 (12.7) |
| 100-01006 | Rod, 3.5" O.D., 5' Long, 0.25" Wall, RH | 57.5 (26.1) | 60 (1524) | 3.5 (88.9) | 2.5 (63.5) | 0.5 (12.7) |
| 100-01005 | Rod, 3.5" O.D., 10' Long, 0.25" Wall, RH | 101 (45.8) | 120 (3048) | 3.5 (88.9) | 2.5 (63.5) | 0.5 (12.7) |
| 100-01029 | Rod, 3.5" O.D., 10' Long, 0.25" Wall, RH, 0.75" Water Hole | 101 (45.8) | 120 (3048) | 3.5 (88.9) | 2.5 (63.5) | 0.5 (12.7) |
| 100-01011 | Rod, 3.5" O.D., 1.5M Long, 0.25" Wall, RH | 57 (25.9) | 59.1 (1500) | 3.5 (88.9) | 2.5 (63.5) | 0.5 (12.7) |
| 100-01010 | Rod, 3.5" O.D., 3M Long, 0.25" Wall, RH | 99.7 (45.2) | 118.11 (3000) | 3.5 (88.9) | 2.5 (63.5) | 0.5 (12.7) |

4.25" RODS - RH THREAD

| Part No. | Description | Weight lbs. (KG) | Length* in. (MM) | Outside Diameter in. (MM) | Inside Diameter in. (MM) | End Wall Thickness in. (MM) |
|-----------|--|------------------|------------------|---------------------------|--------------------------|-----------------------------|
| 100-01027 | Rod, Ace, 4.25" O.D., 1' Long, 0.5" Wall, RH | 24.5 (11.1) | 12 (304.8) | 4.25 (107.95) | 3 (76.2) | 0.625 (15.87) |
| 100-01023 | Rod, 4.25" O.D., 5' Long, 0.25" Wall, RH | 75.2 (34.1) | 60 (1524) | 4.25 (107.95) | 3 (76.2) | 0.625 (15.87) |
| 100-01022 | Rod, 4.25" O.D., 10' Long, 0.25" Wall, RH | 128.6 (58.3) | 120 (3048) | 4.25 (107.95) | 3 (76.2) | 0.625 (15.87) |
| 100-01025 | Rod, 4.25" O.D., 1.5M Long, 0.25" Wall, RH | 74.4 (33.8) | 59.6 (1500) | 4.25 (107.95) | 3 (76.2) | 0.625 (15.87) |
| 100-01024 | Rod, 4.25" O.D., 3M Long, 0.25" Wall, RH | 126.9 (57.6) | 118.11 (3000) | 4.25 (107.95) | 3 (76.2) | 0.625 (15.87) |

* Length measurement does not include the male thread length.



100-01007



100-01012

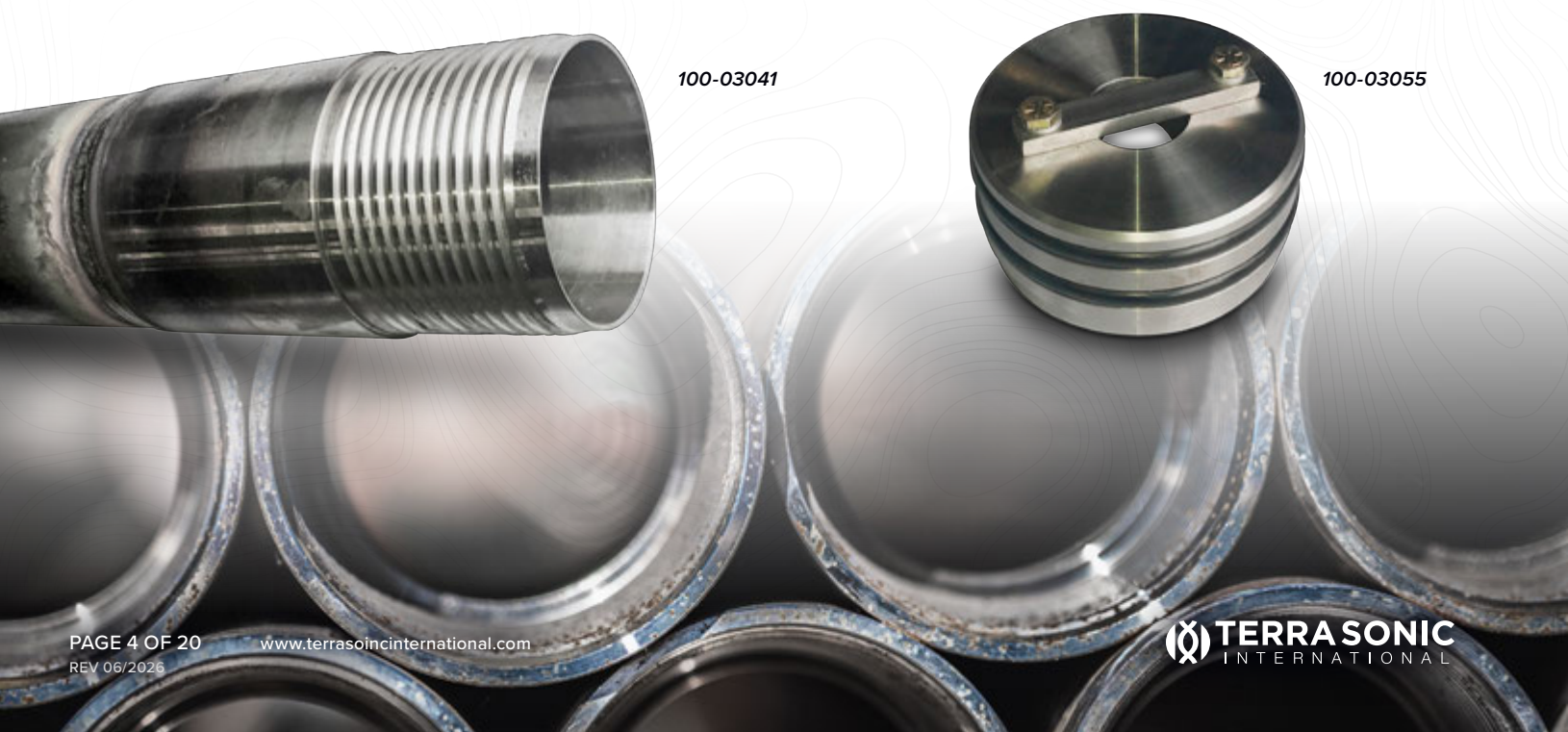
3.75" CORE BARRELS - RH THREAD

| Part No. | Description | Weight lbs. (KG) | Length* in. (MM) | Outside Diameter in. (MM) | Inside Diameter in. (MM) | End Wall Thickness in. (MM) |
|-----------|---|------------------|------------------|---------------------------|--------------------------|-----------------------------|
| 100-03030 | Core Barrel, 3.75" O.D., 5.5' Long, 0.25" Wall, RH | 65 (29.5) | 66 (1676.4) | 3.82 (97.03) | 3.22 (81.79) | 0.3 (7.62) |
| 100-03029 | Core Barrel, 3.75" O.D., 10.5' Long, 0.25" Wall, RH | 109.5 (49.7) | 126 (3200.4) | 3.82 (97.03) | 3.22 (81.79) | 0.3 (7.62) |

4.5" & 4.75" CORE BARRELS - RH THREAD

| Part No. | Description | Weight lbs. (KG) | Length* in. (MM) | Outside Diameter in. (MM) | Inside Diameter in. (MM) | End Wall Thickness in. (MM) |
|-----------|--|------------------|------------------|---------------------------|--------------------------|-----------------------------|
| 100-03041 | Core Barrel, Sample Tube, Assembly, 4.5" Consists of 100-03054 and 100-03055 | 78 (35.4) | 66 (1676.4) | 4.825 (122.55) | 4.1 (104.14) | 0.32 (8.13) |
| 100-03054 | Core Barrel, Sample Tube, 4.5" | - | 66 (1676.4) | 4.825 (122.55) | 4.1 (104.14) | 0.32 (8.13) |
| 100-03055 | Valve, Vent, Sample Tube, Assembly, 4.5" For 0.125" Wall (03-02004) Includes Two (2) 09-00054 | - | - | - | - | - |
| 09-00054 | O-Ring, -417, ¼" CS x 3-½" x 4", Buna-N, for Sample Tube Vent Valve (Note: Two (2) Required for 100-03055 and Two (2) Recommended for Spare) | - | - | - | - | - |
| 03-02004 | Sample Tube, Polycarbonate, Clear, 0.125" Wall | - | 66 (1676.4) | 4 (101.6) | 3.875 (98.42) | - |
| 03-02003 | End Cap, Polyethylene, For 4" O.D. Sample Tubes | - | - | - | 4 (101.6) | - |
| 100-06090 | Bit, Core Barrel, Sample Tube, 4.5" Female, Carbide Tips | - | - | - | - | - |
| 100-06092 | Bit, Core Barrel, Sample Tube and Basket, 4.5" Female, Carbide Tips | - | - | - | - | - |

* Length measurement does not include the male thread length.



100-03041

100-03055

4.75" DOUBLE WALL CORE BARREL AND COMPONENTS - RH THREAD

| Part No. | Description | Weight lbs. (KG) | Length* in. (MM) | Outside Diameter in. (MM) | Inside Diameter in. (MM) | End Wall Thickness in. (MM) |
|-----------|---|------------------|------------------|---------------------------|--------------------------|-----------------------------|
| 100-03051 | Core Barrel, Double Wall, Assembly Consists of 100-03052, 100-03057, 100-04041, 09-00068 and 100-06100 | – | 126 (3200.4) | 4.75 (120.65) | 4.1 (111.38) | 0.32 (8.13) |
| 100-03052 | Core Barrel, Double Wall, 4.75" | – | 126 (3200.4) | 4.75 (120.65) | 4.1 (111.38) | 0.32 (8.13) |
| 100-03057 | Valve, Vent, Double Wall, Assembly, 4.75" | – | – | 4.75 (120.65) | 4.1 (111.38) | 0.32 (8.13) |
| 100-04041 | Adapter, Core Barrel, Double Wall | – | – | – | – | – |
| 09-00068 | O-ring, -242, 1/8" CS x 4" x 4-1/4" Buna-N 70D, for 100-06100 (Note: One (1) Required for 100-06100 and One (1) Recommended for Spare) | – | – | – | – | – |
| 100-06100 | Bit, Core Barrel, Double Wall, 4.75" Female, Carbide Tips | – | – | – | – | – |

4.75" CORE BARRELS - RH THREAD

| Part No. | Description | Weight lbs. (KG) | Length* in. (MM) | Outside Diameter in. (MM) | Inside Diameter in. (MM) | End Wall Thickness in. (MM) |
|-----------|-------------------------------------|------------------|------------------|---------------------------|--------------------------|-----------------------------|
| 100-03006 | Core Barrel, 4.75" O.D., 5.5' Long | 71 (32.2) | 66 (1676.4) | 4.825 (122.55) | 4.18 (106.17) | 0.32 (8.13) |
| 100-03005 | Core Barrel, 4.75" O.D., 10.5' Long | 130.9 (59.4) | 126 (3200.4) | 4.825 (122.55) | 4.18 (106.17) | 0.32 (8.13) |

6" CORE BARRELS - RH THREAD

| Part No. | Description | Weight lbs. (KG) | Length* in. (MM) | Outside Diameter in. (MM) | Inside Diameter in. (MM) | End Wall Thickness in. (MM) |
|-----------|----------------------------------|------------------|------------------|---------------------------|--------------------------|-----------------------------|
| 100-03008 | Core Barrel, 6" O.D., 5.5' Long | 83.3 (37.8) | 66 (1676.4) | 6 (152.4) | 5.4 (137.16) | 0.3 (7.62) |
| 100-03007 | Core Barrel, 6" O.D., 10.5' Long | 160.1 (72.61) | 126 (3200.4) | 6 (152.4) | 5.4 (137.16) | 0.3 (7.62) |

7" CORE BARRELS - RH THREAD

| Part No. | Description | Weight lbs. (KG) | Length* in. (MM) | Outside Diameter in. (MM) | Inside Diameter in. (MM) | End Wall Thickness in. (MM) |
|-----------|----------------------------------|------------------|------------------|---------------------------|--------------------------|-----------------------------|
| 100-03018 | Core Barrel, 7" O.D., 5.5' Long | 108 (49) | 66 (1676.4) | 7.05 (179.07) | 6.42 (163.07) | 0.32 (8.13) |
| 100-03017 | Core Barrel, 7" O.D., 10.5' Long | 198 (89.8) | 126 (3200.4) | 7.05 (179.07) | 6.42 (163.07) | 0.32 (8.13) |

8" CORE BARRELS - RH THREAD

| Part No. | Description | Weight lbs. (KG) | Length* in. (MM) | Outside Diameter in. (MM) | Inside Diameter in. (MM) | End Wall Thickness in. (MM) |
|-----------|----------------------------------|------------------|------------------|---------------------------|--------------------------|-----------------------------|
| 100-03024 | Core Barrel, 8" O.D., 5.5' Long | 126 (57.2) | 66 (1676.4) | 8 (203.2) | 7.42 (188.47) | 0.34 (8.64) |
| 100-03023 | Core Barrel, 8" O.D., 10.5' Long | 229 (103.9) | 126 (3200.4) | 8 (203.2) | 7.42 (188.47) | 0.34 (8.64) |

* Length measurement does not include the male thread length.

4.75" CASING - LH THREAD

| aPart No. | Description | Weight lbs. (KG) | Length* in. (MM) | Outside Diameter in. (MM) | Inside Diameter in. (MM) | End Wall Thickness in. (MM) |
|-----------|------------------------------------|------------------|------------------|---------------------------|--------------------------|-----------------------------|
| 100-02028 | Casing, Deuce, 4.75" O.D., 2' Long | 51.5 (23.4) | 30 (762) | 4.83 (122.68) | 3.94 (100.076) | 0.44 (11.176) |
| 100-02027 | Casing, 4.75" O.D., 5' Long | 74 (33.6) | 60 (1524) | 4.83 (122.68) | 3.94 (100.076) | 0.44 (11.176) |
| 100-02026 | Casing, 4.75" O.D., 10' Long | 134 (60.8) | 120 (3048) | 4.83 (122.68) | 3.94 (100.076) | 0.44 (11.176) |
| 100-02032 | Casing, 4.75" O.D., 1.5M Long | 73 (33.1) | 59.1 (1500.1) | 4.83 (122.68) | 3.94 (100.076) | 0.44 (11.176) |
| 100-02031 | Casing, 4.75" O.D., 3M Long | 132 (59.9) | 118.1 (3000) | 4.83 (122.68) | 3.94 (100.076) | 0.44 (11.176) |

6" CASING - LH THREAD

| Part No. | Description | Weight lbs. (KG) | Length* in. (MM) | Outside Diameter in. (MM) | Inside Diameter in. (MM) | End Wall Thickness in. (MM) |
|-----------|-----------------------------------|------------------|------------------|---------------------------|--------------------------|-----------------------------|
| 100-02019 | Casing, Deuce, 6" O.D., 2.5' Long | 75.4 (34.2) | 30 (762) | 6 (152.4) | 5 (127) | 0.5 (12.7) |
| 100-02006 | Casing, 6" O.D., 5' Long | 100.9 (45.8) | 60 (1524) | 6 (152.4) | 5 (127) | 0.5 (12.7) |
| 100-02005 | Casing, 6" O.D., 10' Long | 177.6 (80.6) | 120 (3048) | 6 (152.4) | 5 (127) | 0.5 (12.7) |
| 100-02037 | Casing, 6" O.D., 1.5M Long | 99.8 (45.3) | 59.1 (1500.1) | 6 (152.4) | 5 (127) | 0.5 (12.7) |
| 100-02036 | Casing, 6" O.D., 3M Long | 175.3 (79.5) | 118.1 (3000) | 6 (152.4) | 5 (127) | 0.5 (12.7) |

* Length measurement does not include the male thread length.



100-02005

7" CASING - LH THREAD

| Part No. | Description | Weight lbs. (KG) | Length* in. (MM) | Outside Diameter in. (MM) | Inside Diameter in. (MM) | End Wall Thickness in. (MM) |
|-----------|---------------------------------|------------------|------------------|---------------------------|--------------------------|-----------------------------|
| 100-02020 | Casing, Deuce, 7" O.D., 2' Long | 57 (25.9) | 24 (609.6) | 7.05 (179.07) | 6.22 (157.99) | 0.42 (10.62) |
| 100-02012 | Casing, 7" O.D., 5' Long | 111 (50.4) | 60 (1524) | 7.05 (179.07) | 6.22 (157.99) | 0.42 (10.62) |
| 100-02011 | Casing, 7" O.D., 10' Long | 201 (91.2) | 120 (3048) | 7.05 (179.07) | 6.22 (157.99) | 0.42 (10.62) |
| 100-02042 | Casing, 7" O.D., 1.5M Long | 110 (49.9) | 59.1 (1500.1) | 7.05 (179.07) | 6.22 (157.99) | 0.42 (10.62) |
| 100-02041 | Casing, 7" O.D., 3M Long | 198 (89.8) | 118.1 (3000) | 7.05 (179.07) | 6.22 (157.99) | 0.42 (10.62) |

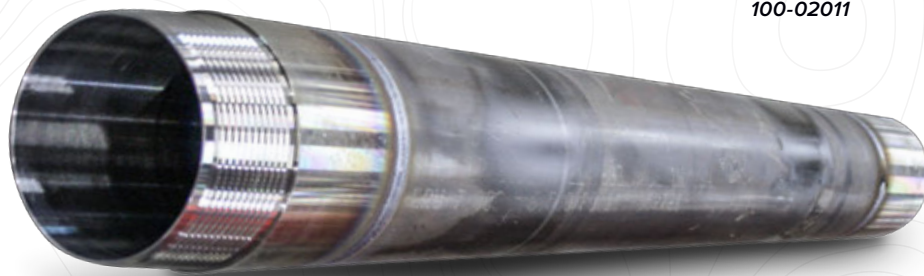
8" CASING - LH THREAD

| Part No. | Description | Weight lbs. (KG) | Length* in. (MM) | Outside Diameter in. (MM) | Inside Diameter in. (MM) | End Wall Thickness in. (MM) |
|-----------|---------------------------------|------------------|------------------|---------------------------|--------------------------|-----------------------------|
| 100-02049 | Casing, Deuce, 8" O.D., 2' Long | 66 (29.9) | 24 (609.6) | 8.1 (205.74) | 7.27 (184.66) | 0.42 (10.67) |
| 100-02018 | Casing, 8" O.D., 5' Long | 128 (58.1) | 60 (1524) | 8.1 (205.74) | 7.27 (184.66) | 0.42 (10.67) |
| 100-02017 | Casing, 8" O.D., 10' Long | 232 (105.2) | 120 (3048) | 8.1 (205.74) | 7.27 (184.66) | 0.42 (10.67) |
| 100-02047 | Casing, 8" O.D., 1.5M Long | 126 (57.2) | 59.1 (1500.1) | 8.1 (205.74) | 7.27 (184.66) | 0.42 (10.67) |
| 100-02046 | Casing, 8" O.D., 3M Long | 228 (103.4) | 118.1 (3000) | 8.1 (205.74) | 7.27 (184.66) | 0.42 (10.67) |

9.25" CASING - LH THREAD

| Part No. | Description | Weight lbs. (KG) | Length* in. (MM) | Outside Diameter in. (MM) | Inside Diameter in. (MM) | End Wall Thickness in. (MM) |
|-----------|------------------------------------|------------------|------------------|---------------------------|--------------------------|-----------------------------|
| 100-02062 | Casing, Deuce, 9.25" O.D., 2' Long | 79.5 (36.1) | 24 (609.6) | 9.25 (234.95) | 8.4 (213.36) | 0.42 (10.67) |
| 100-02056 | Casing, 9.25" O.D., 5' Long | 151.5 (68.7) | 60 (1524) | 9.25 (234.95) | 8.4 (213.36) | 0.42 (10.67) |
| 100-02055 | Casing, 9.25" O.D., 10' Long | 271.5 (123.2) | 120 (3048) | 9.25 (234.95) | 8.4 (213.36) | 0.42 (10.67) |
| 100-02060 | Casing, 9.25" O.D., 1.5M Long | 149.5 (67.8) | 59.1 (1500.1) | 9.25 (234.95) | 8.4 (213.36) | 0.42 (10.67) |
| 100-02059 | Casing, 9.25" O.D., 3M Long | 268 (121.6) | 118.1 (3000) | 9.25 (234.95) | 8.4 (213.36) | 0.42 (10.67) |

* Length measurement does not include the male thread length.



100-02011

10.5" CASING - LH THREAD

| Part No. | Description | Weight lbs. (KG) | Length* in. (MM) | Outside Diameter in. (MM) | Inside Diameter in. (MM) | End Wall Thickness in. (MM) |
|-----------|------------------------------------|------------------|------------------|---------------------------|--------------------------|-----------------------------|
| 100-02075 | Casing, Deuce, 10.5" O.D., 2' Long | 91 (41.3) | 24 (609.6) | 10.5 (266.7) | 9.65 (245.11) | 0.42 (10.67) |
| 100-02069 | Casing, 10.5" O.D., 5' Long | 173 (80.7) | 60 (1524) | 10.5 (266.7) | 9.65 (245.11) | 0.42 (10.67) |
| 100-02068 | Casing, 10.5" O.D., 10' Long | 310 (140.6) | 120 (3048) | 10.5 (266.7) | 9.65 (245.11) | 0.42 (10.67) |
| 100-02073 | Casing, 10.5" O.D., 1.5M Long | 171 (77.6) | 59.1 (1500.1) | 10.5 (266.7) | 9.65 (245.11) | 0.42 (10.67) |
| 100-02072 | Casing, 10.5" O.D., 3M Long | 306 (138.8) | 118.1 (3000) | 10.5 (266.7) | 9.65 (245.11) | 0.42 (10.67) |

12" CASING - LH THREAD

| Part No. | Description | Weight lbs. (KG) | Length* in. (MM) | Outside Diameter in. (MM) | Inside Diameter in. (MM) | End Wall Thickness in. (MM) |
|-----------|----------------------------------|------------------|------------------|---------------------------|--------------------------|-----------------------------|
| 100-02088 | Casing, Deuce, 12" O.D., 2' Long | 130 (59) | 24 (609.6) | 12 (304.8) | 10.88 (276.35) | 0.56 (14.22) |
| 100-02082 | Casing, 12" O.D., 5' Long | 224 (101.6) | 60 (1524) | 12 (304.8) | 10.88 (276.35) | 0.56 (14.22) |
| 100-02081 | Casing, 12" O.D., 10' Long | 381 (172.8) | 120 (3048) | 12 (304.8) | 10.88 (276.35) | 0.56 (14.22) |
| 100-02086 | Casing, 12" O.D., 1.5M Long | 222 (100.7) | 59.1 (1500.1) | 12 (304.8) | 10.88 (276.35) | 0.56 (14.22) |
| 100-02085 | Casing, 12" O.D., 3M Long | 376 (170.6) | 118.1 (3000) | 12 (304.8) | 10.88 (276.35) | 0.56 (14.22) |

* Length measurement does not include the male thread length.



100-02081

CORE BARREL ADAPTERS

| Part No. | Description | Male Connection | Weight lbs. (KG) | Length* in. (MM) |
|-----------|---|-----------------|------------------|------------------|
| 100-04020 | Adapter, Core Barrel, 3.5" | 3.75" | 10.2 (4.6) | 6 (152.4) |
| 100-04041 | Adapter, Core Barrel, 3.5", Double Wall | 4.75" | – | – |
| 100-04001 | Adapter, Core Barrel, 3.5" | 4.75" | 14.5 (6.6) | 6 (152.4) |
| 100-04003 | Adapter, Core Barrel, 3.5" | 6" | 17.5 (7.9) | 6.5 (165.1) |
| 100-04005 | Adapter, Core Barrel, 3.5" | 7" | 24 (10.9) | 7 (177.8) |
| 100-04006 | Adapter, Core Barrel, 3.5" | 8" | 32.8 (14.9) | 7.5 (190.5) |
| 100-04031 | Adapter, Core Barrel, 4.25" | 4.75" | 16.7 (7.6) | 6 (152.4) |
| 100-04029 | Adapter, Core Barrel, 4.25" | 8" | 32.3 (14.7) | 7.5 (190.5) |
| 100-04051 | Adapter, Core Barrel, 4.25" | 6" | 17.8 (8.0) | 10 (254.0) |
| 100-04052 | Adapter, Core Barrel, 4.25" | 7" | 20.7 (9.4) | 10 (254.0) |



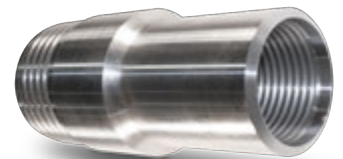
100-04020



100-04003

TSI ROD BOX ADAPTERS

| Part No. | Description | Male Connection | Weight lbs. (KG) | Length* in. (MM) |
|-----------|--|-----------------|------------------|------------------|
| 100-04034 | Adapter, 3.5" TSi Rod Box | NWJ | – | – |
| 100-04048 | Adapter, 3.5" TSi Rod Box x 2-3/8" API Regular Box | N/A | – | – |
| 100-04028 | Adapter, 3.5" TSi Rod Box | 4.25" TSi | 16.2 (7.4) | 6 (152.4) |
| 100-04032 | Adapter, 4.25" TSi Rod Box | 3.5" TSi | – | – |
| 100-04109 | Adapter, 3.5" TSi Rod Box x 2-7/8" API (IF) Box | N/A | 14 (6.4) | 9 (228.6) |
| 100-04110 | Adapter, 4.25" TSi Rod Box x 2-7/8" API (IF) Box | N/A | 13.4 (6.0) | 9 (228.6) |



100-04016



100-04002

CASING ADAPTERS

| Part No. | Description | Male Connection | Weight lbs. (KG) | Length* in. (MM) |
|-----------|---------------------|-----------------|------------------|------------------|
| 100-04008 | Adapter, Casing, 6" | 4.75" | 17.9 (5.4) | 6 (152.4) |
| 100-04002 | Adapter, Casing, 6" | 7" | 23.3 (10.6) | 6.5 (165.1) |
| 100-04009 | Adapter, Casing, 6" | 8" | 29.9 (13.6) | 6.5 (165.1) |
| 100-04010 | Adapter, Casing, 6" | 9.25" | 39.5 (17.9) | 7.5 (190.5) |
| 100-04011 | Adapter, Casing, 6" | 10.5" | 44.6 (20.2) | 7.5 (190.5) |
| 100-04012 | Adapter, Casing, 6" | 12" | 54.8 (24.9) | 7.5 (190.5) |

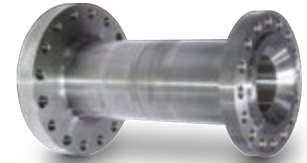


100-04011

* Length measurement does not include the male thread length.

SONIC HEAD FLANGE ADAPTERS

| Part No. | Description | Weight lbs. (KG) | Length* in. (MM) |
|-----------|--|------------------|------------------|
| 100-04004 | Adapter, TSi 150 Head Flange to TSi Spindle Flange | 44.5 (20.2) | 12 (304.8) |
| 100-04040 | Adapter, Sonicor 50K Head Flange to TSi Spindle Flange | 56.4 (25.6) | 17 (431.8) |
| 100-04050 | Adapter, TSi 150E Head Flange to TSi Spindle Flange | 94 (42.6) | 28 (711.2) |



100-04004

TWO-STAGE SPINDLES

| Part No. | Description | Weight lbs. (KG) |
|-----------|--|------------------|
| 100-08001 | Spindle, TSi, 6" Male, LH, 3.5" Male, Rh | 27.4 (12.4) |
| 100-08005 | Spindle, 6" Male, LH, 4.25" Male, Rh | 27.3 (12.4) |
| 04-18912 | Screw, Cap, Socket HD, 1/2"-20 x 1-1/2", GR8, ZP - 16 Needed with 100-08001 or 100-08005 | - |
| 05-33626 | Washer, Lock, 1/2" Helical Spring, 16 Needed with 100-08001 or 100-08005 | - |
| 09-00029 | O-Ring, -047, 70D, EPR, One (1) Needed with 100-08001 or 100-08005 | - |
| 100-08051 | Spindle, Geoprobe, GV4 to TSi, 6" Male, LH, 3.5" Male, RH | 37.9 (17.2) |
| 100-08050 | Spindle, Geoprobe, GV5 to TSi, 6" Male, LH, 3.5" Male, RH | 46.9 (21.3) |



100-04040



100-08001

SUB SAVERS (BOX TO PIN)

| Part No. | Description | Weight lbs. (KG) | Length* in. (MM) | Outside Diameter in. (MM) | Inside Diameter in. (MM) |
|-----------|-------------------------------------|------------------|------------------|---------------------------|--------------------------|
| 100-01013 | Sub-Saver, Rod, 3.5" O.D., 6" Long | 7.8 (3.5) | 6 (152.4) | 3.5 (88.9) | 2.5 (63.5) |
| 100-04024 | Sub-Saver, Rod, 4.25" O.D., 6" Long | 12 (5.4) | 6 (152.4) | 4.25 (107.95) | 3 (76.2) |
| 100-02091 | Sub-Saver, Casing, 6" O.D., 6" Long | 14.6 (6.6) | 6 (152.4) | 6 (152.4) | 5 (127) |
| 100-02102 | Sub-Saver, Casing, 7" O.D., 6" Long | 15.7 (7.1) | 6 (152.4) | 7.08 (179.83) | 6.22 (157.99) |
| 100-10098 | Sub-Saver, Casing, 8" O.D., 6" Long | 17.3 (7.8) | 6 (152.4) | 8.14 (206.76) | 7.27 (184.66) |

* Length measurement does not include the male thread length.



100-01013



100-04015



100-04024

STANDARD CASING SHOES

(with Carbide Tips)

| Part No. | Description | Weight lbs. (KG) |
|-----------|--------------------------------|------------------|
| 100-05008 | Shoe, Casing, 4.75" Female, LH | 7.2 (3.3) |
| 100-05002 | Shoe, Casing, 6" Female, LH | 12 (5.4) |
| 100-05004 | Shoe, Casing, 7" Female, LH | 12.4 (5.6) |
| 100-05006 | Shoe, Casing, 8" Female, LH | 14 (6.4) |
| 100-05010 | Shoe, Casing, 9.25" Female, LH | 17.3 (7.9) |
| 100-05012 | Shoe, Casing, 10.5" Female, LH | 20.6 (9.3) |
| 100-05014 | Shoe, Casing, 12" Female, LH | 30 (13.6) |

100-05004



100-05012



CORE BARREL BITS

(with Carbide Tips)

| Part No. | Description | Weight lbs. (KG) |
|-----------|--|------------------|
| 100-06031 | Bit, Core Barrel, 3.75" Female, RH | 5 (2.3) |
| 100-06005 | Bit, Core Barrel, 3.75" Female, RH, WW | 5 (2.3) |
| 100-06090 | Bit, Core Barrel, Sample Tube, 4.5" Female, RH | 7 (3.2) |
| 100-06100 | Bit, Core Barrel, Double Wall, 4.75" Female | 6.7 (3) |
| 100-06002 | Bit, Core Barrel, 4.75" Female | 7 (3.2) |
| 100-06085 | Bit, Core Barrel, 4.75" Female, WW | 6.7 (3) |
| 100-06013 | Bit, Core Barrel, 6" Female | 8.7 (4) |
| 100-06097 | Bit, Core Barrel, 6" Female, WW | 8.3 (3.8) |
| 100-06033 | Bit, Core Barrel, 7" Female | 10.2 (4.6) |
| 100-06117 | Bit, Core Barrel, 7" Female, WW | 16.2 (7.3) |
| 100-06035 | Bit, Core Barrel, 8" Female | 15.5 (7) |
| 100-06037 | Bit, Core Barrel, 8" Female, WW | 15.5 (7) |

AUGER CORE BARREL BITS

(with Carbide Tips)

| Part No. | Description | Weight lbs. (KG) |
|-----------|--------------------------|------------------|
| 100-06036 | Bit, Auger, 3.75" Female | - |
| 100-06023 | Bit, Auger, 4.75" Female | 7 (3.2) |
| 100-06020 | Bit, Auger, 6" Female | 9.2 (4.2) |
| 100-06039 | Bit, Auger, 7" Female | 10.7 (4.9) |
| 100-06042 | Bit, Auger, 8" Female | 16.4 (7.4) |



100-06085



100-06027



100-06023



100-06014

CORE BARREL SCRAPER BITS

| Part No. | Description | Weight lbs. (KG) |
|-----------|----------------------------------|------------------|
| 100-06086 | Bit, Core Barrel, Scraper, 4.75" | 7.8 (3.5) |
| 100-06099 | Bit, Core Barrel, Scraper, 6" | 12 (5.4) |

All bits add 4" to the length of the core barrels.

CORE CATCHER BITS

(for use of Core Catcher Baskets to retain loose core samples)

| Part No. | Description | Weight lbs. (KG) |
|-----------|---|------------------|
| 100-06092 | Bit, Core Barrel, Sample Tube and Basket, 4.5" Female | 7 (3.2) |
| 100-06027 | Bit, Core Catcher, 4.75" Female HF | 5.9 (2.7) |
| 100-06029 | Bit, Core Catcher, 6" Female, HF | 6.3 (2.9) |

FLAPPER BIT

(Hinged Flap retains loose core samples)

| Part No. | Description | Weight lbs. (KG) |
|-----------|----------------------------|------------------|
| 100-06006 | Bit, Flapper, 4.75" Female | 8.5 (3.9) |
| 100-06014 | Bit, Flapper, 6" Female | 12.6 (5.7) |
| 100-06051 | Bit, Flapper, 7" Female | 15.8 (7.2) |
| 100-06057 | Bit, Flapper, 8" Female | 20.9 (9.5) |

SPM BITS

(with Carbide Tips)

| Part No. | Description | Weight lbs. (KG) |
|-----------|---|------------------|
| 100-06110 | 4 7/8" OD x 2 7/8" API (IF) Dome Btns. | 30.5 (13.8) |
| 100-06111 | 4 7/8" OD x 2 7/8" API (IF) Ballistic Btns. | 30.6 (13.8) |
| 100-06112 | 5 7/8" OD x 2 7/8" API (IF) Pin Dome Btns. | 39.3 (17.8) |
| 100-06113 | 5 7/8" OD x 2 7/8" API (IF) Pin Ballistic Btns. | 39.25 (17.8) |



100-06110



100-06111

FISHING TOOLS

| Part No. | Description | Weight lbs. (KG) |
|-----------|--|------------------|
| 100-07003 | Tap, Fishing Tool, Rod, 3.5" | 16.3 (7.4) |
| 100-07012 | Tap, Fishing Tool, Over-Rod, Over-Shot, 3.5" | 32 (14.5) |
| 100-07017 | Tap, Fishing Tool, Rod, 4.25" | 21 (9.5) |
| 100-07018 | Tap, Fishing Tool, Over-Rod, Over-Shot, 4.25" | 42 (19) |
| 100-07014 | Tap, Fishing Tool, 6" Casing Female x 3.5" Rod Tap | 25 (11.3) |
| 100-07010 | Tap, Fishing Tool, 3.75" Core Barrel | 19.3 (8.8) |
| 100-07002 | Tap, Fishing Tool, 4.75" Core Barrel | 31.7 (14.4) |
| 100-07015 | Tap, Fishing Tool, 6" Core Barrel, 3.5" Female | 61 (27.7) |
| 100-07004 | Tap, Fishing Tool, 7" Core Barrel, 3.5" Female | 52 (23.6) |
| 100-07016 | Tap, Fishing Tool, 8" Core Barrel, 4.25" Female | 117 (53.1) |
| 100-07013 | Tap, Fishing Tool, Casing, 4.75" | 24 (10.9) |
| 100-07001 | Tap, Fishing Tool, Casing, 6" | 43.6 (19.8) |
| 100-07005 | Tap, Fishing Tool, Casing, 7" | 51.3 (23.3) |
| 100-07006 | Tap, Fishing Tool, Casing, 8" | 59.6 (27) |
| 100-07007 | Tap, Fishing Tool, Casing, 9.25" | 71 (32.2) |
| 100-07008 | Tap, Fishing Tool, Casing, 10.5" | 76 (34.5) |
| 100-07009 | Tap, Fishing Tool, Casing, 12" | 110 (50) |



100-07003



100-07012



100-07013



100-07016



100-07007

LIFTING BALES

(For vertical drill pipe handling with male threads)

| Part No. | Description | Weight lbs. (KG) |
|-----------|--|------------------|
| 100-10003 | Lifting Bale, 3.5" Rod, Non-Swivel | 6.3 (2.9) |
| 100-10070 | Lifting Bale, 4.25" Rod, Non-Swivel | 9.3 (4.2) |
| 100-10002 | Lifting Bale, 6" Casing, Non-Swivel | 14.2 (6.4) |
| 100-10001 | Lifting Bale, 7" Casing, Non-Swivel | 16.2 (7.4) |
| 100-10013 | Lifting Bale, 8" Casing, Non-Swivel | - |
| 100-10017 | Lifting Bale, 9.25" Casing, Non-Swivel | - |
| 100-10021 | Lifting Bale, 10.5" Casing, Non-Swivel | - |
| 100-10025 | Lifting Bale, 12" Casing, Non-Swivel | - |
| 100-10031 | Lifting Bale, 3.5" Rod, Swivel | 10.0 (4.5) |
| 100-10030 | Lifting Bale, 6" Rod, Swivel | - |
| 100-10029 | Lifting Bale, 7" Rod, Swivel | - |

LIFTING CUPS

(Rods fit into bottom of Lifting Cup when stacking pipe vertically)

| Part No. | Description | Weight lbs. (KG) |
|-----------|--------------------------|------------------|
| 100-10032 | Cup, Lifting, Rod, 3.5" | 3.5 (1.6) |
| 100-10071 | Cup, Lifting, Rod, 4.25" | - |

ROD & CASING PLUGS

| Part No. | Description | Weight lbs. (KG) |
|-----------|-------------------|------------------|
| 100-10084 | 3.5" Rod Plug | 11.7 (5.3) |
| 100-10099 | 4.25" Rod Plug | 12.4 (5.6) |
| 100-10104 | 4.75" Casing Plug | 13.3 (6.0) |
| 100-10082 | 6" Casing Plug | 14.2 (6.4) |
| 100-10086 | 7" Casing Plug | 15.8 (7.2) |
| 100-10101 | 8" Casing Plug | 17.5 (7.9) |



100-10071



100-10003



100-10002



100-10031

PIPE TONGS

(For horizontal handling, Not Recommended for the TUG system and Support Gantry System.)

| Part No. | Description | Material | Safe Working Load lbs. (KG) | Weight lbs. (KG) |
|----------|----------------------|----------|-----------------------------|------------------|
| 24-00018 | 3.5" for 3.5" Pipe | steel | 3000 (1361) | 15.8 (7.2) |
| 24-00006 | 5" for 4.75" Pipe | aluminum | 2000 (907) | 9.4 (4.3) |
| 24-00004 | 6" for 6" Pipe | aluminum | 2000 (907) | 14.6 (6.6) |
| 24-00005 | 7" for 7" Pipe | aluminum | 2000 (907) | 14.6 (6.6) |
| 24-00009 | 8" for 8" Pipe | steel | 5000 (2268) | 39 (17.7) |
| 24-00014 | 9.75" for 9.25" Pipe | aluminum | 3000 (1361) | 24.6 (11.2) |
| 24-00010 | 10.5" for 10.5" Pipe | steel | 5000 (2268) | 60.6 (27.5) |
| 24-00015 | 12" for 12" Pipe | aluminum | 3000 (1361) | 26.9 (12.2) |



24-00014



24-00010

ROD GRAPPLES

(Closes tightly on rod when lifted by winch cable)

| Part No. | Description | Weight lbs. (KG) |
|-----------|---|------------------|
| 100-10035 | Grapple, Assembly, Rod, 3.5" O.D., Includes Cable and Hook | 16 (7.3) |
| 100-10072 | Grapple, Assembly, Rod, 4.25" O.D., Includes Cable and Hook | 16 (7.3) |



100-10035

TUG SYSTEM

| Part No. | Description | Weight lbs. (KG) |
|----------|--|------------------|
| 180500 | Terra Sonic TUG Pipe Handling Grapple Assembly | 1750 (793.8) |



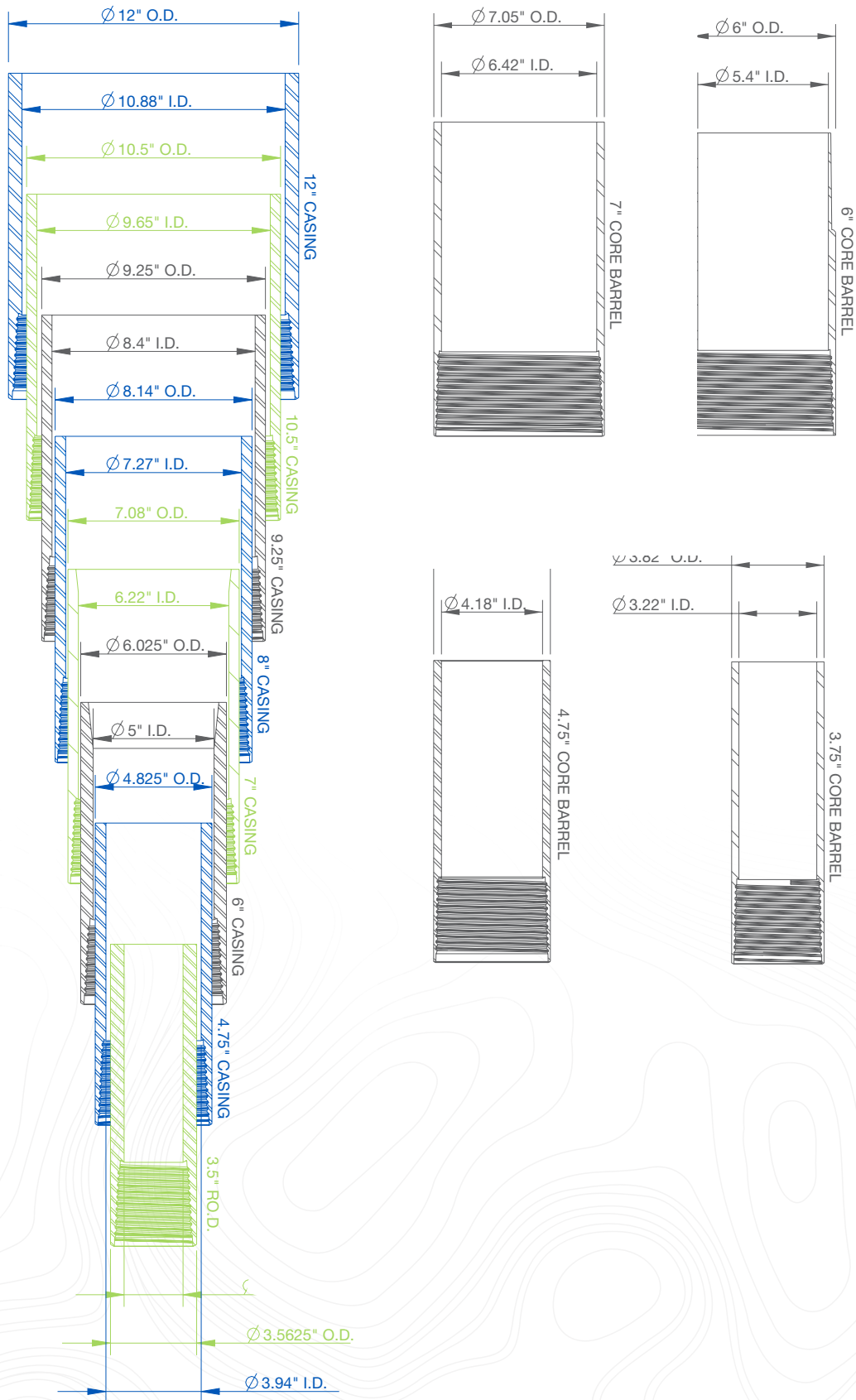
180500

TUG SYSTEM PIPE TONGS

(For horizontal handling, Recommended for the TUG system and Support Gantry System.)

| Part No. | Description | Material | Safe Working Load lbs. (KG) | Weight lbs. (KG) |
|----------|-------------|----------|-----------------------------|------------------|
| 24-35000 | 3.5" | steel | 500 (227) | 7.3 (3.3) |
| 24-42500 | 4.25" | steel | 500 (227) | 8.8 (4.0) |
| 24-47500 | 4.75" | steel | 500 (227) | 9.2 (4.2) |
| 24-60000 | 6" | steel | 500 (227) | 11.4 (5.2) |
| 24-70000 | 7" | steel | 500 (227) | 12.3 (5.6) |
| 24-80000 | 8" | steel | 500 (227) | 16.6 (7.5) |
| 24-92500 | 9.25" | steel | 500 (227) | 20.6 (9.3) |
| 24-10500 | 10.5" | steel | 500 (227) | 23.0 (10.4) |
| 24-12000 | 12" | steel | 500 (227) | 27.9 (12.7) |





ROD AND CASING RACKS

| Part No. | Description |
|-------------|---|
| 180100 | Pipe Rack Assembly, Rod and Casing Divider, 150CC |
| S1-150-5500 | Rod Positioner Rack Assembly |
| S1-150-5600 | Casing Rack Assembly |

GROUT MIXER ASSEMBLY

| Part No. | Description |
|-----------|--------------------------------------|
| 180000-00 | Drum, Hydraulic Grout Mixer Assembly |

DRILL FLUID CONTAINMENT TUB

| Part No. | Description |
|-----------|-----------------------------|
| 500000000 | Drill Fluid Containment Tub |

DIVERTER ASSEMBLY

| Part No. | Description |
|------------|----------------------|
| 100-200000 | 6" Diverter Assembly |



CORE CATCHER RETAINER BASKETS

(Plastic)

| Part No. | Description | Core Barrel Use |
|-----------|---------------------------------------|----------------------------|
| 100-06081 | Basket, Retainer, Core Catcher, 4.75" | 4.75" TSi O.D. Core Barrel |

FLAT WIPERS

| Part No. | Description |
|----------|-------------------------------------|
| 28-01001 | 9" O.D. x 3" I.D., for 3.5" Rod |
| 28-01002 | 12" O.D. x 5.5" I.D., for 6" Casing |
| 28-01009 | 9" O.D. x 4" I.D., for 4 1/4" Rod |
| 28-01005 | 12" O.D. x 6.5" I.D., for 7" Casing |
| 28-01006 | 14" O.D. x 7.5" I.D., for 8" Rod |

LUBRICANT

| Part No. | Description |
|----------|----------------------|
| 15-00010 | King Stuff, 1 Gallon |
| 15-00009 | Jet Lube, 1 Gallon |

LAY-FLAT POLY TUBING ROLLS

| Part No. | Description | Core Barrel Use |
|----------|--------------------------|----------------------------|
| 03-05001 | 6 Mil x 8" Wide x 1000' | TSi 4.75" O.D. Core Barrel |
| 03-05000 | 6 Mil x 10" Wide x 1000' | TSi 6" O.D. Core Barrel |
| 03-05002 | 6 Mil x 12" Wide x 1000' | TSi 7" O.D. Core Barrel |
| 03-05003 | 6 Mil x 14" Wide x 1000' | TSi 8" O.D. Core Barrel |

100-06081









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