



Detail

[APPLICATIONS]

- **Petroleum Production Wells**
- **Injection Wells**
- **Disposal Wells**
- **In-situ Solution Mining**
- **Chemical Disposal Wells**
- **Water Source Wells**
- **Monitor Wells**
- **Corroded Steel Casing Liners**

Centron® filament-wound fiberglass/epoxy casing is available in six basic sizes from 4^{1/2} through 10^{3/4}. Centron uses only the finest quality raw materials combined with modern manufacturing techniques to produce the highest quality composite tubulars available. Centron's quality system is certified to API Specification Q1 and ISO 9001, assuring customers of the highest quality products in the industry.

JOINING SYSTEM >
FEATURES

- Premium Coarse Threads (4 threads per inch) (DHC)—provides superior across the joint thread strength for reliability and fast make-up without crossthreading problems. API LTC 8RD threads also available on some sizes (DHC8).
- O-ring—provides high pressure seal to keep thread lubricant in box and out of perforations with DHC joint.

CEMENTING >

The optional special exterior surface of Centron casing provides for excellent cement bonding that satisfies the most stringent environmental requirements.

ADVANTAGES >

- Excellent corrosion resistance
- Electrically non-conductive
- High temperature capability
- Use conventional packers
- Perforate with shaped charges
- Low installation costs
- Not bacteria nutrient — resistant to SRB's
- Low scale build-up
- Radio transparent
- Light weight



15LR-0007
15HR-0003

Centron International Inc. offers a complete line of cementing components: metallic and all fiberglass centralizers and stop collars, float shoes, cementing plugs and wipers.

Physical Specifications

| Nominal Size Inches (mm) | Series/ Rating | Nominal O.D. Inches (mm) | Nominal I.D. Inches (mm) | Minimum Drift | Nominal Wall Thickness Inches (mm) | Nominal ¹ Box O.D. Inches (mm) | Weight Lbs. / Ft. (Kg/M) | |
|-----------------------------|-------------------|-----------------------------|-----------------------------|------------------|--|---|--------------------------------|--------------|
| 4 1/2 (115) | DHC 150 | 4.28 (108.7) | 3.98 (101.1) | 3.965 (100.7) | 0.150 (3.8) | 5.40 (137) | 1.64 (2.45) | |
| | DHC 200 | 4.38 (111.3) | 3.98 (101.1) | 3.965 (100.7) | 0.200 (5.1) | 5.50 (140) | 2.22 (3.31) | |
| | DHC 250 | 4.48 (113.8) | 3.98 (101.1) | 3.965 (100.7) | 0.250 (6.4) | 5.60 (142) | 2.81 (4.18) | |
| | DHC 300 | 4.58 (116.3) | 3.98 (101.1) | 3.965 (100.7) | 0.300 (7.6) | 5.70 (145) | 3.41 (5.08) | |
| | DHC 350 | 4.68 (118.9) | 3.98 (101.1) | 3.965 (100.7) | 0.350 (8.89) | 5.80 (147) | 4.02 (5.99) | |
| 4 3/4 (121.4) | DHC 400 | 4.78 (121.4) | 3.98 (101.1) | 3.965 (100.7) | 0.400 (10.2) | 5.90 (150) | 4.65 (6.93) | |
| | 5 (125) | DHC 150 | 4.63 (117.6) | 4.33 (110.0) | 4.310 (109.5) | 0.150 (3.8) | 5.25 (133) | 1.78 (2.66) |
| | | DHC 200 | 4.73 (120.1) | 4.33 (110.0) | 4.310 (109.5) | 0.200 (5.1) | 5.50 (140) | 2.40 (3.58) |
| | | DHC 250 | 4.83 (122.7) | 4.33 (110.0) | 4.310 (109.5) | 0.250 (6.4) | 5.60 (142) | 3.04 (4.53) |
| | | 5 1/2 (140) | DHC 150 | 5.15 (130.8) | 4.85 (123.2) | 4.835 (122.8) | 0.150 (3.8) | 6.30 (160) |
| DHC 200 | | | 5.25 (133.4) | 4.85 (123.2) | 4.835 (122.8) | 0.200 (5.1) | 6.40 (163) | 2.68 (3.99) |
| DHC 250 | 5.35 (135.9) | | 4.85 (123.2) | 4.835 (122.8) | 0.250 (6.4) | 6.50 (165) | 3.38 (5.04) | |
| DHC 300 | 5.45 (138.4) | | 4.85 (123.2) | 4.835 (122.8) | 0.300 (7.6) | 6.60 (167) | 4.10 (6.11) | |
| DHC 350 | 5.55 (141.0) | | 4.85 (123.2) | 4.835 (122.8) | 0.350 (8.9) | 6.70 (170) | 4.83 (7.20) | |
| 5 3/4 (143.5) | DHC 400 | 5.65 (143.5) | 4.85 (123.2) | 4.835 (122.8) | 0.400 (10.2) | 6.80 (173) | 5.57 (8.30) | |
| | 6 5/8 (170) | DHC 200 | 6.50 (165.1) | 6.10 (154.9) | 6.085 (154.6) | 0.200 (5.1) | 8.10 (206) | 3.34 (4.98) |
| | | DHC 250 | 6.60 (167.6) | 6.10 (154.9) | 6.085 (154.6) | 0.250 (6.4) | 8.20 (208) | 4.21 (6.28) |
| | | DHC 300 | 6.70 (170.2) | 6.10 (154.9) | 6.085 (154.6) | 0.300 (7.6) | 8.35 (212) | 5.10 (7.59) |
| | | DHC 350 | 6.80 (172.7) | 6.10 (154.9) | 6.085 (154.6) | 0.350 (8.9) | 8.50 (216) | 5.99 (8.93) |
| DHC 400 | | 6.90 (175.3) | 6.10 (154.9) | 6.085 (154.6) | 0.400 (10.2) | 8.65 (220) | 6.90 (10.28) | |
| 6 3/4 (177.8) | DHC 450 | 7.00 (177.8) | 6.10 (154.9) | 6.085 (154.6) | 0.450 (11.4) | 8.80 (223) | 7.82 (11.66) | |
| | DHC 500 | 7.10 (180.3) | 6.10 (154.9) | 6.085 (154.6) | 0.500 (12.7) | 8.95 (227) | 8.76 (13.05) | |
| | 7 (180) | DHC 200 | 6.80 (172.7) | 6.40 (162.6) | 6.380 (162.1) | 0.200 (5.1) | 8.10 (206) | 3.50 (5.22) |
| | | DHC 250 | 6.90 (175.3) | 6.40 (162.6) | 6.380 (162.1) | 0.250 (6.4) | 8.20 (208) | 4.41 (6.57) |
| | | DHC 300 | 7.00 (177.8) | 6.40 (162.6) | 6.380 (162.1) | 0.300 (7.6) | 8.35 (212) | 5.33 (7.95) |
| DHC 350 | | 7.10 (180.3) | 6.40 (162.6) | 6.380 (162.1) | 0.350 (8.9) | 8.40 (213) | 6.27 (9.34) | |
| DHC 400 | | 7.20 (182.9) | 6.40 (162.6) | 6.380 (162.1) | 0.400 (10.2) | 8.45 (214) | 7.22 (10.76) | |
| 7 1/4 (185.4) | DHC 450 | 7.30 (185.4) | 6.40 (162.6) | 6.380 (162.1) | 0.450 (11.4) | 8.55 (217) | 8.18 (12.19) | |
| | DHC 500 | 7.40 (188.0) | 6.40 (162.6) | 6.380 (162.1) | 0.500 (12.7) | 8.65 (220) | 9.16 (13.64) | |
| | 8 5/8 (220) | DHC 250 | 8.25 (209.6) | 7.75 (196.9) | 7.735 (196.5) | 0.250 (6.4) | 10.40 (264) | 5.31 (7.91) |
| | | DHC 300 | 8.35 (212.1) | 7.75 (196.9) | 7.735 (196.5) | 0.300 (7.6) | 10.60 (269) | 6.41 (9.55) |
| | | DHC 350 | 8.45 (214.6) | 7.75 (196.9) | 7.735 (196.5) | 0.350 (8.9) | 10.80 (274) | 7.52 (11.21) |
| DHC 400 | | 8.55 (217.2) | 7.75 (196.9) | 7.735 (196.5) | 0.400 (10.2) | 11.00 (279) | 8.65 (12.89) | |
| DHC 450 | | 8.65 (219.7) | 7.75 (196.9) | 7.735 (196.5) | 0.450 (11.4) | 11.20 (284) | 9.79 (14.59) | |
| 8 3/4 (222.3) | DHC 500 | 8.75 (222.3) | 7.75 (196.9) | 7.735 (196.5) | 0.500 (12.7) | 11.40 (290) | 10.95 (16.31) | |
| | 9 5/8 (250) | DHC 250 | 8.92 (226.6) | 8.42 (213.9) | 8.410 (213.6) | 0.250 (6.4) | 10.10 (257) | 6.10 (9.10) |
| | | DHC 300 | 9.02 (229.1) | 8.42 (213.9) | 8.410 (213.6) | 0.300 (7.6) | 10.25 (260) | 7.45 (11.10) |
| | | DHC 350 | 9.12 (231.6) | 8.42 (213.9) | 8.410 (213.6) | 0.350 (8.9) | 10.40 (264) | 8.70 (13.00) |
| | | DHC 400 | 9.22 (234.2) | 8.42 (213.9) | 8.410 (213.6) | 0.400 (10.2) | 10.55 (268) | 9.95 (14.80) |
| DHC 450 | | 9.32 (236.7) | 8.42 (213.9) | 8.410 (213.6) | 0.450 (11.4) | 10.70 (272) | 11.25 (16.80) | |
| 9 3/4 (239.3) | DHC 500 | 9.42 (239.3) | 8.42 (213.9) | 8.410 (213.6) | 0.500 (12.7) | 10.90 (277) | 12.60 (18.80) | |
| | 10 3/4 (275) | DHC 300 | 10.32 (262.1) | 9.72 (246.9) | 9.705 (246.5) | 0.300 (7.6) | 12.20 (310) | 7.80 (11.70) |
| | | DHC 350 | 10.42 (264.7) | 9.72 (246.9) | 9.705 (246.5) | 0.350 (8.9) | 12.30 (313) | 9.50 (14.30) |
| | | DHC 400 | 10.52 (267.2) | 9.72 (246.9) | 9.705 (246.5) | 0.400 (10.2) | 12.50 (317) | 11.0 (16.50) |
| | | DHC 450 | 10.62 (269.7) | 9.72 (246.9) | 9.705 (246.5) | 0.450 (11.4) | 12.70 (323) | 12.5 (18.70) |
| DHC 500 | | 10.72 (272.3) | 9.72 (246.9) | 9.705 (246.5) | 0.500 (12.7) | 12.90 (327) | 14.0 (21.00) | |

1. Reduced OD boxes available on special order basis.

For size 5 1/2" and less, Centron casing joints are 29.5 (9.0 m) overall with a "make-up" length of 29.125 (8.87 m), except for size 5" which is 30' (9.14 m) overall length with a "make-up" length of 29.67' (9.04 m). All other sizes are 29.16' (8.89 m) overall length with a "make-up" length of 28.66' (8.74 m).

Casing

Performance Properties

| RATED OPERATING VALUES | | | | | TYPICAL ULTIMATE VALUES | | |
|-----------------------------|-------------------|--|---|---|----------------------------|--|--|
| Nominal Size Inches (mm) | Series/ Rating | External Collapse Pressure psi (MPa) | Internal Operating Pressure psi (MPa) | Rated Axial Load x 10 ³ Lbs. (N) | Axial Thread Load | External Collapse Pressure psi (MPa) | Axial Wall Load x 10 ³ Lbs. (N) |
| 4 1/2 (115) | DHC 150 | 190 (1.3) | 1000 (6.90) | 9 (40.0) | 90,000 lbs. (400,000 N) | 350 (2.40) | 23 (102) |
| | DHC 200 | 430 (3.0) | 1300 (8.97) | 12 (53.0) | 90,000 lbs. (400,000 N) | 800 (5.30) | 30 (133) |
| | DHC 250 | 820 (5.7) | 1650 (11.38) | 15 (67.0) | 90,000 lbs. (400,000 N) | 1350 (9.29) | 39 (173) |
| | DHC 300 | 1360 (9.4) | 1950 (13.45) | 18 (80.0) | 90,000 lbs. (400,000 N) | 2200 (15.1) | 48 (214) |
| | DHC 350 | 2090 (14.4) | 2200 (15.17) | 21 (93.0) | 90,000 lbs. (400,000 N) | 3300 (22.6) | 57 (254) |
| | DHC 400 | 3010 (20.8) | 2500 (17.24) | 25 (111) | 90,000 lbs. (400,000 N) | 4600 (31.7) | 65 (289) |
| 5 (125) | DHC 150 | 150 (1.0) | 900 (6.21) | 9.5 (42.0) | 50,000 lbs. (222,000 N) | 275 (1.88) | 25 (111) |
| | DHC 200 | 340 (2.3) | 1200 (8.28) | 13 (57.8) | 50,000 lbs. (222,000 N) | 600 (4.10) | 34 (151) |
| | DHC 250 | 640 (4.4) | 1500 (10.34) | 16 (71.2) | 50,000 lbs. (222,000 N) | 1100 (7.55) | 43 (191) |
| 5 1/2 (140) | DHC 150 | 110 (0.8) | 850 (5.86) | 10 (44.5) | 100,000 lbs. (444,000 N) | 200 (1.37) | 28 (125) |
| | DHC 200 | 250 (1.7) | 1100 (7.59) | 14 (62.3) | 100,000 lbs. (444,000 N) | 440 (3.03) | 38 (169) |
| | DHC 250 | 470 (3.2) | 1350 (9.31) | 18 (80.1) | 100,000 lbs. (444,000 N) | 800 (5.51) | 48 (214) |
| | DHC 300 | 780 (5.4) | 1600 (11.03) | 22 (97.9) | 100,000 lbs. (444,000 N) | 1300 (8.95) | 58 (258) |
| | DHC 350 | 1210 (8.3) | 1850 (12.76) | 26 (116) | 100,000 lbs. (444,000 N) | 2000 (13.8) | 68 (302) |
| | DHC 400 | 1750 (12.1) | 2100 (14.48) | 30 (133) | 100,000 lbs. (444,000 N) | 2800 (19.3) | 78 (347) |
| 6 5/8 (170) | DHC 200 | 130 (0.9) | 850 (5.86) | 18 (80.1) | 150,000 lbs. (667,000 N) | 225 (1.54) | 47 (209) |
| | DHC 250 | 240 (1.7) | 1100 (7.59) | 22 (97.9) | 150,000 lbs. (667,000 N) | 425 (2.93) | 59 (262) |
| | DHC 300 | 410 (2.8) | 1300 (8.97) | 27 (120) | 150,000 lbs. (667,000 N) | 725 (5.00) | 72 (320) |
| | DHC 350 | 630 (4.3) | 1500 (10.34) | 32 (142) | 150,000 lbs. (667,000 N) | 1100 (7.55) | 85 (378) |
| | DHC 400 | 920 (6.3) | 1700 (11.72) | 37 (165) | 150,000 lbs. (667,000 N) | 1550 (10.6) | 95 (423) |
| | DHC 450 | 1280 (8.8) | 1900 (13.10) | 42 (187) | 150,000 lbs. (667,000 N) | 2100 (14.5) | 111 (494) |
| | DHC 500 | 1720 (11.9) | 2100 (14.48) | 48 (214) | 150,000 lbs. (667,000 N) | 2800 (19.3) | 120 (534) |
| 7 (180) | DHC 200 | 110 (0.8) | 850 (5.86) | 19 (84.5) | 130,000 lbs. (580,000 N) | 200 (1.37) | 49 (218) |
| | DHC 250 | 210 (1.4) | 1050 (7.24) | 24 (107) | 130,000 lbs. (580,000 N) | 380 (2.62) | 60 (267) |
| | DHC 300 | 350 (2.4) | 1250 (8.62) | 29 (129) | 130,000 lbs. (580,000 N) | 625 (4.31) | 74 (329) |
| | DHC 350 | 550 (3.8) | 1450 (10.00) | 34 (151) | 130,000 lbs. (580,000 N) | 950 (6.55) | 86 (383) |
| | DHC 400 | 800 (5.5) | 1600 (11.03) | 39 (173) | 130,000 lbs. (580,000 N) | 1350 (9.31) | 100 (445) |
| | DHC 450 | 1120 (7.7) | 1800 (12.41) | 44 (196) | 130,000 lbs. (580,000 N) | 1850 (12.8) | 115 (512) |
| | DHC 500 | 1500 (10.3) | 2000 (13.79) | 50 (222) | 130,000 lbs. (580,000 N) | 2400 (16.6) | 128 (569) |
| 8 5/8 (220) | DHC 250 | 120 (0.8) | 850 (5.86) | 28 (125) | 230,000 lbs. (1,023,000 N) | 250 (1.72) | 70 (311) |
| | DHC 300 | 200 (1.4) | 1000 (6.90) | 34 (151) | 230,000 lbs. (1,023,000 N) | 375 (2.58) | 85 (378) |
| | DHC 350 | 320 (2.2) | 1200 (8.28) | 40 (178) | 230,000 lbs. (1,023,000 N) | 575 (3.97) | 100 (445) |
| | DHC 400 | 470 (3.2) | 1350 (9.31) | 46 (205) | 230,000 lbs. (1,023,000 N) | 825 (5.69) | 115 (511) |
| | DHC 450 | 650 (4.5) | 1500 (10.34) | 52 (231) | 230,000 lbs. (1,023,000 N) | 1125 (7.76) | 132 (587) |
| | DHC 500 | 880 (6.1) | 1650 (11.38) | 58 (258) | 230,000 lbs. (1,023,000 N) | 1500 (10.3) | 145 (695) |
| 9 5/8 (250) | DHC 250 | 90 (0.6) | 800 (5.52) | 30 (133) | 250,000 lbs. (1,110,000 N) | 175 (1.21) | 78 (347) |
| | DHC 300 | 160 (1.1) | 950 (6.55) | 37 (165) | 250,000 lbs. (1,110,000 N) | 300 (2.05) | 95 (423) |
| | DHC 350 | 250 (1.7) | 1100 (7.59) | 44 (196) | 250,000 lbs. (1,110,000 N) | 450 (3.10) | 114 (507) |
| | DHC 400 | 370 (2.6) | 1250 (8.62) | 50 (222) | 250,000 lbs. (1,110,000 N) | 650 (4.48) | 130 (578) |
| | DHC 450 | 520 (3.6) | 1400 (9.66) | 57 (254) | 250,000 lbs. (1,110,000 N) | 900 (6.20) | 148 (658) |
| | DHC 500 | 700 (4.8) | 1550 (10.69) | 64 (285) | 250,000 lbs. (1,110,000 N) | 1200 (8.20) | 165 (734) |
| 10 3/4 (275) | DHC 300 | 110 (0.8) | 800 (5.52) | 35 (156) | 290,000 lbs. (1,300,000 N) | 160 (1.10) | 87 (388) |
| | DHC 350 | 170 (1.2) | 950 (6.55) | 41 (183) | 290,000 lbs. (1,300,000 N) | 250 (1.70) | 102 (457) |
| | DHC 400 | 240 (1.7) | 1100 (7.59) | 48 (214) | 290,000 lbs. (1,300,000 N) | 380 (2.60) | 120 (535) |
| | DHC 450 | 340 (2.3) | 1200 (8.28) | 55 (245) | 290,000 lbs. (1,300,000 N) | 530 (3.60) | 137 (611) |
| | DHC 500 | 460 (3.2) | 1350 (9.31) | 61 (272) | 290,000 lbs. (1,300,000 N) | 720 (4.90) | 152 (678) |

Note: Casing design may be altered to meet specific application requirements.

Chemical compatibility must be determined before use.

Physical Specifications

| Nominal Size Inches (mm) | Series/ Rating | Nominal O.D. Inches (mm) | Nominal I.D. Inches (mm) | Minimum Drift | Nominal Wall Thickness Inches (mm) | Nominal ¹ Box O.D. Inches (mm) | Weight Lbs. / Ft. (Kg/M) |
|-----------------------------|-------------------|-----------------------------|-----------------------------|---------------|---------------------------------------|--|--------------------------------|
| 4 1/2 (115) | DHC8 150 | 4.28 (109) | 3.98 (101.1) | 3.965 (100.7) | 0.150 (3.8) | 5.4 (137) | 1.64 (2.45) |
| | DHC8 200 | 4.38 (111) | 3.98 (101.1) | 3.965 (100.7) | 0.200 (5.1) | 5.5 (140) | 2.22 (3.31) |
| (4 1/2 EUE*) | DHC8 250 | 4.48 (114) | 3.98 (101.1) | 3.965 (100.7) | 0.250 (6.4) | 5.6 (142) | 2.81 (4.18) |
| | DHC8 300 | 4.58 (116) | 3.98 (101.1) | 3.965 (100.7) | 0.300 (7.6) | 5.7 (145) | 3.41 (5.08) |
| | DHC8 350 | 4.68 (119) | 3.98 (101.1) | 3.965 (100.7) | 0.350 (8.9) | 5.8 (147) | 4.02 (5.99) |
| | DHC8 400 | 4.78 (121) | 3.98 (101.1) | 3.965 (100.7) | 0.400 (10.2) | 5.9 (150) | 4.65 (6.93) |
| 6 5/8 (170) | DHC8 200 | 5.90 (150) | 5.50 (139.7) | 5.485 (139.3) | 0.200 (5.1) | 8.5 (216) | 3.03 (4.51) |
| | DHC8 250 | 6.00 (152) | 5.50 (139.7) | 5.485 (139.3) | 0.250 (6.4) | 8.7 (221) | 3.81 (5.68) |
| 6 5/8 (LTC*) | DHC8 300 | 6.10 (155) | 5.50 (139.7) | 5.485 (139.3) | 0.300 (7.6) | 8.9 (226) | 4.62 (6.88) |
| | DHC8 350 | 6.20 (157) | 5.50 (139.7) | 5.485 (139.3) | 0.350 (8.9) | 9.0 (229) | 5.43 (8.10) |
| | DHC8 400 | 6.30 (160) | 5.50 (139.7) | 5.485 (139.3) | 0.400 (10.2) | 9.2 (234) | 6.26 (9.33) |
| | DHC8 450 | 6.40 (163) | 5.50 (139.7) | 5.485 (139.3) | 0.450 (11.4) | 9.4 (239) | 7.11 (10.59) |
| | DHC8 500 | 6.50 (165) | 5.50 (139.7) | 5.485 (139.3) | 0.500 (12.7) | 9.6 (244) | 7.96 (11.86) |
| 7 (180) | DHC8 200 | 6.50 (165) | 6.10 (154.9) | 6.085 (154.6) | 0.200 (5.1) | 8.1 (206) | 3.34 (4.98) |
| | DHC8 250 | 6.60 (168) | 6.10 (154.9) | 6.085 (154.6) | 0.250 (6.4) | 8.2 (208) | 4.21 (6.28) |
| 7 (LTC*) | DHC8 300 | 6.70 (170) | 6.10 (154.9) | 6.085 (154.6) | 0.300 (7.6) | 8.3 (211) | 5.10 (7.59) |
| | DHC8 350 | 6.80 (173) | 6.10 (154.9) | 6.085 (154.6) | 0.350 (8.9) | 8.5 (216) | 5.99 (8.93) |
| | DHC8 400 | 6.90 (175) | 6.10 (154.9) | 6.085 (154.6) | 0.400 (10.2) | 8.6 (218) | 6.90 (10.28) |
| | DHC8 450 | 7.00 (178) | 6.10 (154.9) | 6.085 (154.6) | 0.450 (11.4) | 8.8 (223) | 7.82 (11.66) |
| | DHC8 500 | 7.10 (180) | 6.10 (154.9) | 6.085 (154.6) | 0.500 (12.7) | 8.9 (226) | 8.76 (13.05) |
| 9 5/8 (250) | DHC8 250 | 8.92 (227) | 8.42 (213.9) | 8.405 (213.5) | 0.250 (6.4) | 10.1 (257) | 5.75 (8.57) |
| | DHC8 300 | 9.02 (229) | 8.42 (213.9) | 8.405 (213.5) | 0.300 (7.6) | 10.2 (260) | 6.94 (10.34) |
| 9 5/8 (LTC*) | DHC8 350 | 9.12 (232) | 8.42 (213.9) | 8.405 (213.5) | 0.350 (8.9) | 10.4 (264) | 8.15 (12.14) |
| | DHC8 400 | 9.22 (234) | 8.42 (213.9) | 8.405 (213.5) | 0.400 (10.2) | 10.5 (268) | 9.36 (13.95) |
| | DHC8 450 | 9.32 (237) | 8.42 (213.9) | 8.405 (213.5) | 0.450 (11.4) | 10.7 (272) | 10.59 (15.78) |
| | DHC8 500 | 9.42 (239) | 8.42 (213.9) | 8.405 (213.5) | 0.500 (12.7) | 10.9 (277) | 11.84 (17.64) |

(*) Thread type API 8rd.

1. Reduced OD boxes available on special order basis.

For size 5 1/2" and less, Centron casing joints are 29.5 (9.0 m) overall with a "make-up" length of 29.125 (8.87 m), except for size 5" which is 30' (9.14 m) overall length with a "make-up" length of 29.67' (9.04 m). All other sizes are 29.16' (8.89 m) overall length with a "make-up" length of 28.66' (8.74 m).

| RATED OPERATING VALUES | | | | | TYPICAL ULTIMATE VALUES | | | |
|-----------------------------|--------------------|--|---|---|--------------------------|--|---|----------|
| Nominal Size Inches (mm) | Series/ Rating | External Collapse Pressure psi (MPa) | Internal Operating Pressure psi (MPa) | Rated Axial Load x 10 ³ Lbs. (N) | Axial Thread Load | Ultimate External Collapse Pressure psi (MPa) | Axial Wall Load x 10 ³ Lbs. (N) | |
| 4 1/2 (115) | DHC8 150 | 229 (1.58) | 1000 (6.90) | 9 (41) | 80,000 lbs. (356,000 N) | 344 (2.4) | 23 (103) | |
| | DHC8 200 | 524 (3.61) | 1300 (8.97) | 12 (56) | 80,000 lbs. (356,000 N) | 761 (5.3) | 32 (140) | |
| | DHC8 250 | 987 (6.81) | 1600 (11.03) | 15 (70) | 80,000 lbs. (356,000 N) | 1390 (9.6) | 40 (177) | |
| | DHC8 300 | 1647 (11.36) | 1900 (13.10) | 19 (86) | 80,000 lbs. (356,000 N) | 2248 (15.5) | 48 (215) | |
| | DHC8 350 | 2526 (17.42) | 2200 (15.17) | 22 (101) | 80,000 lbs. (356,000 N) | 3346 (23.1) | 57 (254) | |
| | DHC8 400 | 3643 (25.12) | 2450 (16.90) | 26 (117) | 80,000 lbs. (356,000 N) | 4687 (32.3) | 66 (293) | |
| 6 5/8 (170) | DHC8 200 | 207 (1.42) | 950 (6.55) | 17 (76) | 105,000 lbs. (467,000 N) | 311 (2.1) | 43 (191) | |
| | DHC8 250 | 393 (2.71) | 1150 (7.93) | 21 (96) | 105,000 lbs. (467,000 N) | 579 (4.0) | 54 (241) | |
| | DHC8 300 | 662 (4.56) | 1400 (9.66) | 26 (116) | 105,000 lbs. (467,000 N) | 952 (6.6) | 66 (291) | |
| | DHC8 350 | 1024 (7.06) | 1600 (11.03) | 30 (137) | 105,000 lbs. (467,000 N) | 1439 (9.9) | 77 (343) | |
| | DHC8 400 | 1490 (10.28) | 1850 (12.76) | 35 (158) | 105,000 lbs. (467,000 N) | 2048 (14.1) | 89 (395) | |
| | DHC8 450 | 2069 (14.27) | 2050 (14.14) | 40 (179) | 105,000 lbs. (467,000 N) | 2781 (19.2) | 101 (448) | |
| | DHC8 500 | 2768 (19.09) | 2250 (15.52) | 45 (201) | 105,000 lbs. (467,000 N) | 3641 (25.1) | 113 (503) | |
| 7 (180) | DHC8 200 | 153 (1.06) | 850 (5.86) | 19 (84) | 110,000 lbs. (489,000 N) | 233 (1.6) | 48 (211) | |
| | DHC8 250 | 292 (2.01) | 1050 (7.24) | 24 (106) | 110,000 lbs. (489,000 N) | 435 (3.0) | 60 (266) | |
| | DHC8 300 | 493 (3.40) | 1250 (8.62) | 29 (128) | 110,000 lbs. (489,000 N) | 718 (5.0) | 72 (321) | |
| | DHC8 350 | 764 (5.27) | 1450 (10.00) | 34 (151) | 110,000 lbs. (489,000 N) | 1091 (7.5) | 85 (378) | |
| | DHC8 400 | 1115 (7.69) | 1650 (11.38) | 39 (174) | 110,000 lbs. (489,000 N) | 1559 (10.7) | 98 (435) | |
| | DHC8 450 | 1551 (10.70) | 1850 (12.76) | 44 (197) | 110,000 lbs. (489,000 N) | 2125 (14.7) | 111 (494) | |
| | DHC8 500 | 2079 (14.34) | 2050 (14.14) | 49 (221) | 110,000 lbs. (489,000 N) | 2794 (19.3) | 124 (553) | |
| | 9 5/8 (250) | DHC8 250 | 115 (0.79) | 800 (5.52) | 32 (145) | 155,000 lbs. (690,000 N) | 176 (1.2) | 82 (363) |
| DHC8 300 | | 195 (1.34) | 950 (6.55) | 39 (175) | 155,000 lbs. (690,000 N) | 394 (2.0) | 99 (438) | |
| DHC8 350 | | 304 (2.10) | 1100 (7.59) | 46 (205) | 155,000 lbs. (690,000 N) | 452 (3.1) | 116 (514) | |
| DHC8 400 | | 446 (3.08) | 1200 (8.28) | 53 (236) | 155,000 lbs. (690,000 N) | 653 (4.5) | 133 (591) | |
| DHC8 450 | | 625 (4.31) | 1350 (9.31) | 60 (267) | 155,000 lbs. (690,000 N) | 900 (6.2) | 150 (669) | |
| DHC8 500 | | 842 (5.81) | 1500 (10.34) | 67 (299) | 155,000 lbs. (690,000 N) | 1196 (8.2) | 168 (747) | |

Note: Casing design may be altered to meet specific application requirements.

Chemical compatibility must be determined before use.

| | |
|-----------------------------------|---|
| Mill Test Pressure: | Operating Pressure x 1.25 |
| Axial Modulus of Elasticity: | 2.35 x 10 ⁶ PSI (1.62 x 10 ⁴ MPa) |
| Hoop Modulus of Elasticity: | 3.59 x 10 ⁶ PSI (2.48 x 10 ⁴ MPa) |
| Density: | 0.07 lbs/in ³ (Sp. Gr.= 1.95) |
| Coefficient of Thermal Expansion: | 1.0 x 10 ⁻⁵ in/in/°F (1.8 x 10 ⁻⁵ m/m/°C) |
| Hazen-Williams Flow Factor: | 150 |
| Poissons Ratio (Hoop Tensile): | .60 |
| Poissons Ratio (Axial Tensile): | .45 |

GENERAL FEATURES

Design Flexibility—Each size is available in several pressure ratings which allows for cost effective well design. Lightweight Centron® fiberglass casing weighs about 1/4 that of equivalent steel casing. Smaller rigs and tools can be used.

Electromagnetic Transparency—Centron fiberglass casing is being used in steam flood monitor wells at temperatures up to 325 °F. The non-metallic casing allows for telemetry instruments to monitor temperature changes and flow in this demanding service.

Corrosion Resistance—Centron fiberglass casing is resistant to a wide variety of hostile oil field fluids which results in minimum well maintenance and environmental concerns.

Enhanced Paraffin Resistance—Significantly delays the accumulation of paraffin along the inside pipe wall.

Optional Casing Overwrap—Our special textured overwrap improves the cement adhesion, insuring the most reliable bond in the industry.

**WELL BORE
CONDITIONS**



GENERAL CONSIDERATIONS FOR USE

Temperature—Centron manufactures casing made of three epoxy resin systems with different upper temperature limitations:

| System | Maximum Temperature °F (°C) |
|-------------------|-----------------------------|
| Anhydride | 180 (82) |
| Aromatic Amine | 210 (99) |
| HT Aromatic Amine | 300 (149) |

Fluid Characteristics—The type of resin system selected is also dependent on the fluid chemical make-up. In general, the anhydride is resistant to fluids with a pH of 2 to 9, brine, methane, H2S, and other common fluids within the temperature limitations. The aromatic amine systems are more resistant to higher pHs (to 12) and large amounts of CO2 within the temperature limitations.

Downhole Tools—Common packers, anchors, etc. can be used with Centron casing. Care must be taken to insure the amount of force applied by the slips to the casing wall does not damage the composite. The smooth inside surface of Centron fiberglass casing assures a good sealing surface and high sealing pressure is not required.

Centron casing is ideal for slip (Cup) type packers such as those used in selective injection enhanced recovery schemes.