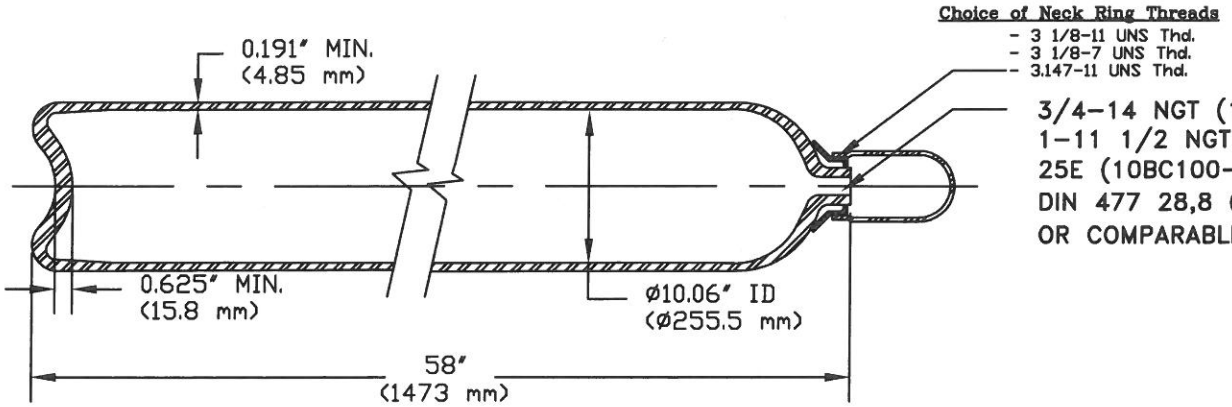
| REV. | ECN - DESCRIP. | DATE | DRWN. | CHKD. | APP. |
|---|---|---|---|---|---|
| 01 | 1099 TC | 3/4/93 | MB | RS | BA |
| 02 | 1247 | 3/27/95 | MB | RS | BA |
| 03 | 1641 | 3/30/98 | TC | RS | BA |
| 04 | 2449 | 12/10/04 | RS | | |
| 05 | 2896 | 9/04/09 | JJM | | |




Choice of Neck Ring Threads
- 3 1/8-11 UNS Thd.
- 3 1/8-7 UNS Thd.
- 3.147-11 UNS Thd.

3/4-14 NGT (10BC100-3),
1-11 1/2 NGT (10BC100-1),
25E (10BC100-25E for TC-SU10088),
DIN 477 28,8 (10BC100-D for TC-SU10088),
OR COMPARABLE REQUEST

# DRAWING FOR REFERENCE ONLY

**SPECIFICATION:** DOT 3AA 1800 /TC3AAM138 or TC-SU10088-138
**MODEL:** 10BC100

**1. Principal Elements:**
- Min. water capacity: 147.1 lbs (66.7 kg)
- Min. water volume: 4079 $in^3$ (66.7 liter)
- Approx. tareweight: 180 lbs (81.6 kg)
- DOT Service pressure: 1800psi (124 bar)
- TC Service pressure: 138 bar
- Test pressure: 3000psi (207 bar)

**2. Material:**
Chrome-Moly steel, (A.I.S.I. 4130X)

**3. Manufacture:**
Hot billet pierce followed by hot drawing.

**4. Heat Treatment:** Q & T

**5. Norris Standard Mechanical Properties:**
- Tensile: ≥ 105,000 psi (724 MPa)
- Elong.: ≥ 20% (on 2" gauge)
- Flattening: to 6xt without cracks

**D.O.T. Wall Stress Calculations:** $S = P(1.3D^2 + 0.4d^2)/(D^2 - d^2)$

S = Maximum wall stress, psi
P = Test pressure, psi
D = Outside diameter, inch
d = Inside diameter, inch

$$S = \frac{3000\ [\,1.3\ (10.442)^2 + 0.4\ (\ 10.06)^2\,]}{(10.442)^2 - (10.06\ )^2}$$

$S = 69{,}803$ psi ( 481.3 MPa)

Required Minimum tensile: $= \frac{69{,}803}{0.67} = 104{,}184$ psi (718.4 MPa)

NORRIS CYLINDER COMPANY
4818 WEST LOOP 281 LONGVIEW, TEXAS 75603 USA

SEAMLESS STEEL CARBON DIOXIDE CYLINDER, MODEL 10BC100/TC

| SCALE | NOT TO SCALE | | DRAWING NO. | REV. |
|---|---|---|---|---|
| DWN. BY | S. JOHNSON | 11/8/91 | 901A-B-9117 | 05 |
| CHK'D BY | R.SHAFKEY | 11/15/91 | | |
| APP'D BY | B. ARNOLD | 11/25/91 | SHEET NO. 1 OF 1 SHEETS | |