



# C194 Copper Ball Valves

## TECHNICAL SPECIFICATIONS SUBMITTAL FORM

|               |                     |             |
|---------------|---------------------|-------------|
| Job Name:     | Submittal Date:     | Wholesaler: |
| Job Location: | Engineer/Architect: | Contractor: |

### Product Use:

Full port ball valve for use in refrigeration, commercial HVAC, VRF, multi-mini split, sub-critical and trans-critical applications. Specifically designed for CO2 refrigeration.

### Design and Features:

- Full port valves with 2030 PSI (140 Bar) working pressure on sizes up to 1-3/8" and 1740 PSI (120 Bar) working pressure on sizes 1-5/8" and 2-1/8"
- Compatible with CO2 (R744), HCFC, HFC, HFO refrigerants, and oils
- Teflon (PTFE) seals
- Rupture-proof encapsulated stem and bi-directional flow
- Stainless steel body
- 100% leak tested
- Stamped with serial number and packaged in poly-bag
- Two-year warranty

### CO2-C Sizes, Ball Port Sizes, Kv/Cv, and Pressure Ratings

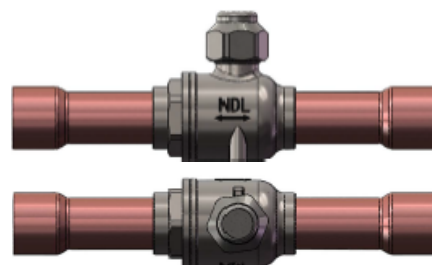
| PART NUMBER | CONNECTION ODS | BALL PORT SIZE | KV   | CV    | MAX. OPERATING PRESSURE |      |
|-------------|----------------|----------------|------|-------|-------------------------|------|
|             | IN             | MM             | M3/H | GPM   | BAR                     | PSI  |
| CO2-02C     | 1/4"           | 10             | 0.8  | 0.9   | 140                     | 2030 |
| CO2-03C     | 3/8"           | 10             | 3    | 3.5   | 140                     | 2030 |
| CO2-04C     | 1/2"           | 10             | 5    | 5.8   | 140                     | 2030 |
| CO2-05C     | 5/8"           | 14             | 17   | 19.7  | 140                     | 2030 |
| CO2-06C     | 3/4"           | 18             | 17   | 19.7  | 140                     | 2030 |
| CO2-07C     | 7/8"           | 19             | 29   | 33.5  | 140                     | 2030 |
| CO2-09C     | 1-1/8"         | 25             | 51   | 59.0  | 140                     | 2030 |
| CO2-11C     | 1-3/8"         | 31             | 81   | 93.6  | 140                     | 2030 |
| CO2-13C     | 1-5/8"         | 37             | 105  | 121.4 | 120                     | 1740 |
| CO2-17C     | 2-1/8"         | 50             | 214  | 247.4 | 120                     | 1740 |

### Operating Specifications:

- Temperature: -40° to 302°F (-40°C to 150°C)
- Burst Pressure: 5 times the working pressure
- Leak Rate: <0.02g/year
- Life Expectancy: >50,000 cycles

### Certifications and Approvals:

- CRN recognized
- CE approved
- UKCA approved
- RoHS compliant



### CO2-C Materials

| PART          | MATERIAL        |
|---------------|-----------------|
| STUBOUTS      | C19400 Copper   |
| SEALS & SEATS | Teflon (PTFE)   |
| CAP           | Stainless Steel |
| STEM          | Stainless Steel |
| LOCK NUT      | Stainless Steel |
| BODY          | Stainless Steel |
| BALL          | Stainless Steel |



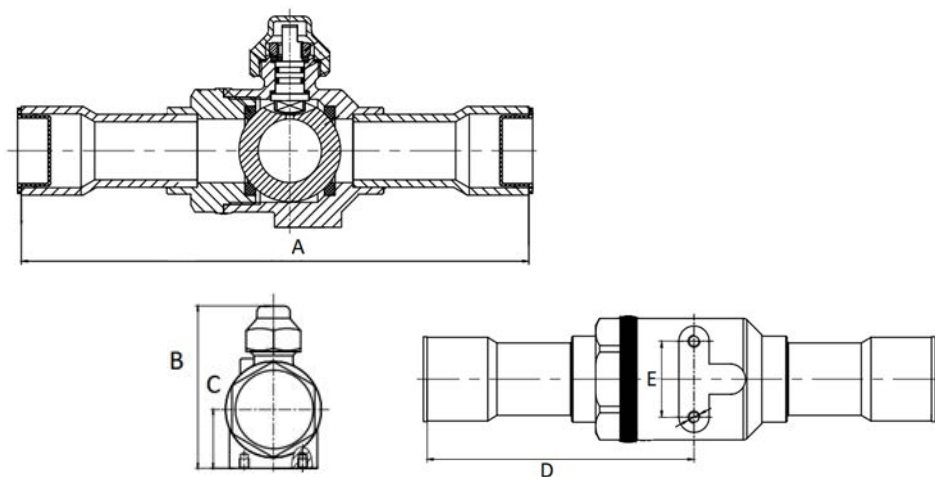
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## CO2-C Dimensions

| Model   | ODS    | A   |       | B     |      | C    |      | D     |      | E  |      |
|---------|--------|-----|-------|-------|------|------|------|-------|------|----|------|
|         | IN     | MM  | IN    | MM    | IN   | MM   | IN   | MM    | IN   | MM | IN   |
| CO2-02C | 1/4"   | 115 | 4.53  | 56.1  | 2.21 | 19   | 0.75 | 59.8  | 2.35 | 16 | 0.63 |
| CO2-03C | 3/8"   | 130 | 5.12  | 56.1  | 2.21 | 19   | 0.75 | 67.3  | 2.65 | 16 | 0.63 |
| CO2-04C | 1/2"   | 140 | 5.51  | 56.1  | 2.21 | 19   | 0.75 | 72.3  | 2.85 | 16 | 0.63 |
| CO2-05C | 5/8"   | 148 | 5.83  | 56.2  | 2.21 | 15   | 0.59 | 78.3  | 3.08 | 22 | 0.87 |
| CO2-06C | 3/4"   | 148 | 5.83  | 63    | 2.48 | 19   | 0.75 | 77.8  | 3.06 | 30 | 1.18 |
| CO2-07C | 7/8"   | 185 | 7.28  | 63    | 2.48 | 19   | 0.75 | 95.8  | 3.77 | 30 | 1.18 |
| CO2-09C | 1-1/8" | 200 | 7.87  | 82.8  | 3.26 | 30   | 1.18 | 105.8 | 4.17 | 30 | 1.18 |
| CO2-11C | 1-3/8" | 210 | 8.27  | 98.7  | 3.89 | 29.8 | 1.17 | 110.7 | 4.36 | 48 | 1.89 |
| CO2-13C | 1-5/8" | 240 | 9.45  | 108.5 | 4.27 | 34   | 1.34 | 124.4 | 4.90 | 55 | 2.17 |
| CO2-17C | 2-1/8" | 275 | 10.83 | 129.9 | 5.11 | 45.5 | 1.79 | 157.5 | 6.20 | 74 | 2.91 |

## Part Selection

|  |         |                        |
|--|---------|------------------------|
|  | CO2-02C | 1/4" C194 Ball Valve   |
|  | CO2-03C | 3/8" C194 Ball Valve   |
|  | CO2-04C | 1/2" C194 Ball Valve   |
|  | CO2-05C | 5/8" C194 Ball Valve   |
|  | CO2-06C | 3/4" C194 Ball Valve   |
|  | CO2-07C | 7/8" C194 Ball Valve   |
|  | CO2-09C | 1-1/8" C194 Ball Valve |
|  | CO2-11C | 1-3/8" C194 Ball Valve |
|  | CO2-13C | 1-5/8" C194 Ball Valve |
|  | CO2-17C | 2-1/8" C194 Ball Valve |



The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of a product.

All installations must completely comply with all NDL Industries warnings and instructions, national state and local codes and all applicable ANSI standards.

NDL Industries product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Customer

Service. NDL Industries reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on NDL products previously or subsequently sold.