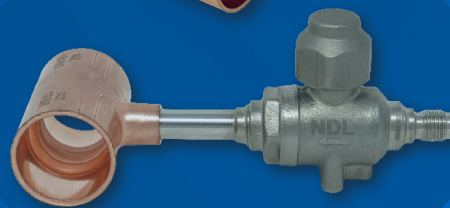




NDL Industries

# CO<sub>2</sub> Refrigeration Product Guide

High-Quality Components for Commercial,  
Industrial, and Residential Applications





**NDL Industries**

# Innovative Cooling Solutions

NDL manufactures transcritical CO<sub>2</sub> ball and check valves with a high safety margin. We also offer high-pressure CO<sub>2</sub> copper fittings for transcritical systems, delivering a complete solution built for long term performance.

## CO<sub>2</sub> Refrigeration

### CO<sub>2</sub> Copper Fittings

The NDL CO<sub>2</sub> Copper Fittings (C19400 high-pressure copper) are specifically designed for use in CO<sub>2</sub> refrigeration systems. NDL's fittings are tested for actual burst pressure with the results exceeding three times the design pressure. These fittings are made from a high-quality copper alloy that provides added strength and durability. The unique design of these fittings allows for a secure and long-lasting connection, making them ideal for use in high-pressure applications. Each fitting is marked with "CO<sub>2</sub> 130 BAR" and its OD size, allowing for quick and accurate identification during installation or in the field. The fittings that are up to and including 2-1/8" size have received UL Certification. Offered with a one-year warranty.

*UL Certified*

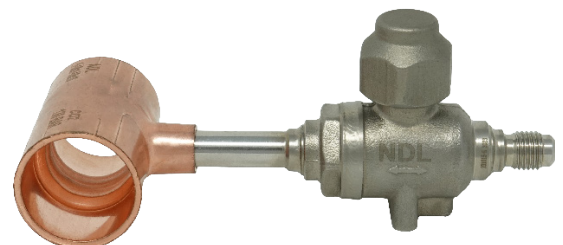


SIZE RANGE	From 3/8" up to 2 1/8"
MATERIAL	Copper alloy CuFe2P C19400
OPERATING TEMPERATURE	-196° C to 150° C / -320° F to 302° F
BURST PRESSURE	>390 bar / >39 MPa / >5656 psi
MAXIMUM OPERATING PRESSURE	130 bar / 13 MPa / 1885 psi at 150° C
APPLICATION	Air conditioning and refrigeration. Designed for high-pressure applications, especially for CO <sub>2</sub> (R744) systems.
TUBE COMPATIBILITY	Compatible with main pipe types manufactured from copper iron alloys available on the market.

### CO<sub>2</sub> Copper Service Tees

When working with CO<sub>2</sub> refrigeration systems, it's important to consider the high-pressure levels involved. Access ports commonly used in regular refrigeration systems may not be suitable for use with CO<sub>2</sub> systems, as the Schrader valve seal can break under pressure, necessitating the venting of the entire line. To avoid this issue, it is recommended to use a service valve that can be closed, enabling workers to easily connect and disconnect equipment as needed. While installing a service valve may require more time upfront, it is generally preferred by workers who regularly service equipment. NDL Tee Fittings are designed specifically for the installation of service valves, streamlining the process, and ensuring a secure, leak-free seal. By using a service valve and the NDL specialized fitting, you can prevent high-pressure problems and make your work more efficient.

*UL Certified*





See a Full List of our  
CO<sub>2</sub> Refrigeration  
Products at  
[ndlindustries.com](http://ndlindustries.com).

## CO<sub>2</sub> Ball Valves

NDL CO<sub>2</sub> ball valves can withstand pressures up to 140 bar and hold five times their maximum working pressure, netting a tremendous safety margin for any ball valve used in CO<sub>2</sub> systems. The CO<sub>2</sub> ball valve lineup includes stainless steel ball valves, stainless steel service ball valves, and C194 copper ball valves. Their robust design meets and exceeds industry standards for holding maximum working pressure, garnering reliability for transcritical CO<sub>2</sub> refrigeration applications. NDL's stainless steel ball valves are available from 6mm up to 42mm and 1/4" up to 2-1/2", our C194 copper ball valves are available from 1/4" up to 2-1/8", and our stainless steel service ball valves are available in 1/4".

*UL Certified; CE; RoHS; CRN Approved*

## DN65 Stainless Steel Ball Valves

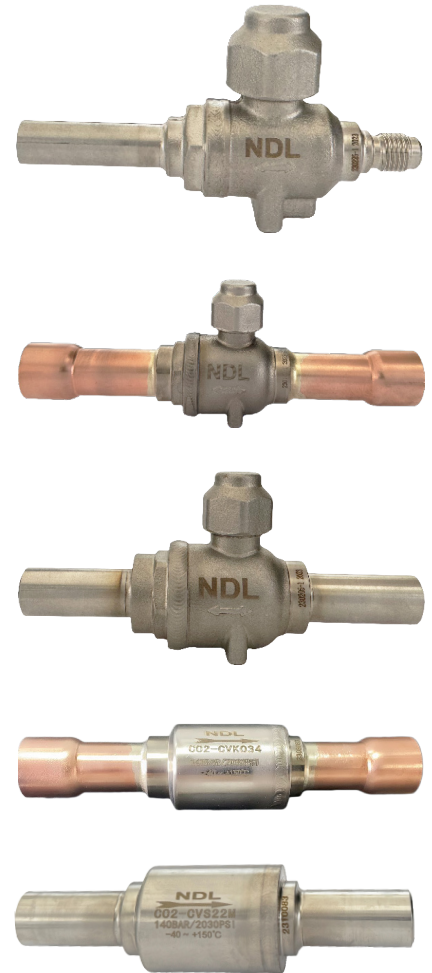
NDL's largest ball valve, designed for industrial refrigeration, handles pressures up to 135 bar, ensuring reliable performance in demanding applications.

*CE*

## CO<sub>2</sub> Check Valves

NDL's CO<sub>2</sub> check valves can withstand pressures up to 140 bar and hold five times their maximum working pressure, netting a tremendous safety margin for any check valve used in CO<sub>2</sub> systems. The CO<sub>2</sub> check valve lineup includes stainless steel check valves, and C194 copper check valves. They feature a compact, streamlined design that minimizes flow resistance, ensuring optimal performance, energy efficiency, and easy installation. NDL's stainless steel check valves are available from 10mm up to 42mm, and our C194 copper check valves are available from 1/4" up to 1-5/8"

*UL Certified; CE; RoHS; CRN Approved*

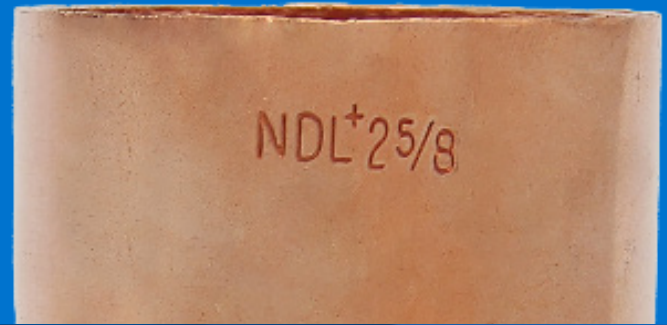


	Stainless Steel Ball Valve	C194 Copper Ball Valve	Stainless Steel Service Ball Valve	Stainless Steel Check Valve	C194 Copper Check Valve
CONTINUOUS OPERATING	-40°C to 150°C (-40°F to 302°F)				
MAXIMUM WORKING PRESSURE	120-140 BAR (1740-2030 PSI)		140 BAR (2030 PSI)		
COMPATIBILITY	CO2 (R744), Ammonia (R717), HCFC, HFC, HFO refrigerants, and oils	CO2 (R744), HCFC, HFC, HFO refrigerants, and oils	CO2 (R744), Ammonia (R717), HCFC, HFC, HFO refrigerants, and oils	CO2 (R744), HCFC, HFC, HFO refrigerants, and oils	
STANDARD SPRING MINIMUM				0.3 BAR (4.35 PSI)	



## QUALITY STAMP

Only after our products pass strict and rigorous quality tests will the NDL name be stamped on them. The NDL Quality Stamp is our seal of approval that our products can be trusted in the field.



## We Focus on Quality and Service So You Can Install with Confidence.

Since 1998, our mission has been to stay ahead of the curve as an industry leader in the HVAC, refrigeration, and plumbing markets. We have achieved this over the years by heavily emphasizing quality and innovation, and maintaining a global team of experienced professionals to deliver top-notch service. We continue to hold ourselves to the highest standards, never sacrificing our commitment to our customers or our products that has made us the company we are today.

*What you can expect from us:*

- Fast order turnaround
- Real-time order communications
- Field-experienced sales and technical support
- Parts packaged in contractor-friendly sized bags
- High-quality control standards for superior fit and finish



## Global Team with Fast Order Turnaround

With distribution centers strategically located worldwide, we ensure fast order fulfillment while maintaining the exceptional customer service that has earned us our trusted reputation.

*Locations:*

- Southaven, Mississippi (United States)
- Vancouver, British Columbia (Canada)
- Milton Keynes, Buckinghamshire (England)



Explore our full line of high-quality HVAC-R, CO<sub>2</sub> Refrigeration, and Hydronic products.

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