NDL Industries

CO_2 Refrigeration
Product Guide

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

NDL Industries

Innovative Cooling Solutions

NDL manufactures the first CRN-approved transcritical CO_2 ball/check valve with a high safety margin. We also offer high-pressure CO_2 copper fittings designed for easy valve installation, meeting all your CO_2 system needs.

CO_2 Refrigeration

CO_2 Copper Fittings

The NDL CO_2 Copper Fittings (C19400 high-pressure copper) are specifically designed for use in CO_2 refrigeration systems. Tested for actual burst pressure, NDL's fittings are tested for actual burst pressure with the results exceeding 3 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 aloows for a secure and long-lasting connection, making them ideal for use in high-pressure applications. Each fitting is marked with "CO2 BAR" and OD size for easy field identification. The fittings that are up to and including 2-1/8" size have received UL Certification. Offered with a one-year warranty.

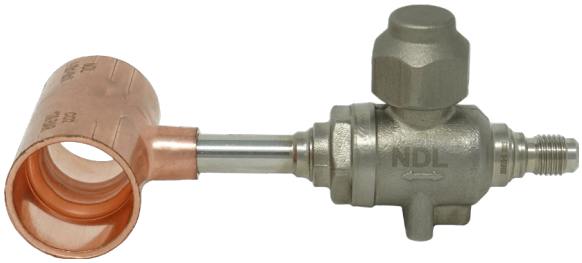
UL Listed

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_2 (R744) systems.
TUBE COMPATIBILITY	Compatible with main pipe types manufactured from copper iron alloys available on the market.

CO_2 Copper Service Tees

When working with CO_2 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_2 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 Listed



See a Full List of our CO_2 Refrigeration Products at ndlindustries.com.

CO_2 Ball Valves

NDL CO_2 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_2 systems. The CO_2 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_2 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 listed 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_2 Check Valves

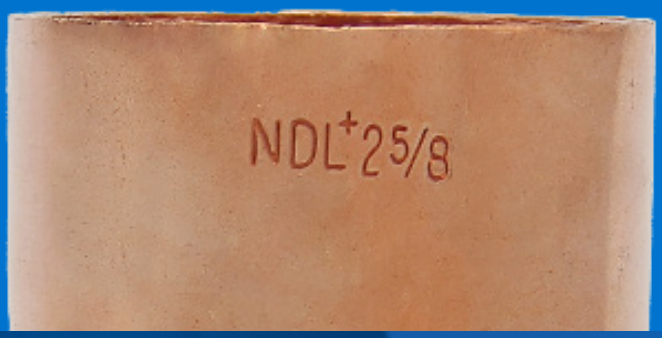
NDL' CO_2 check valves can withstand pressures up to 140 bar and hold five times their maximum working pressure, netting a tremendous safety margin for any check valve used in CO_2 systems. The CO_2 check valve lineup includes stainless steel check valves, and C194 copper check valves. They feature a 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 Listed; 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 product 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_2 Refrigeration, and Hydronic products.

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