

DESIGN FEATURES AND SPECIFICATIONS

NDL is the first manufacturer of the CRN approved ball valve, which can also hold five times their maximum working pressure, netting a tremendous safety margin for any ball valve used in CO₂ systems. These valves feature a versatile bi-flow design, allowing for flexible installation options. Our two-year warranty proves that we have confidence in our valves, and that they can be trusted in the field. Every valve is tested and serial number stamped. Our CO₂ Valves hold these certifications and approvals: *CE; RoHS Compliant; CRN-Approved; UL-Listed.*

Stainless Steel Ball Valves



- Continuous operating temperature (COT): -40° C to 150° C (-40° F to 302° F)
- Maximum working pressure (MWP): 120-140 BAR (1740-2030 PSI)
- Compatible with CO₂ (R744), Ammonia (R717), HCFC, HFC, HFO refrigerants, and oils

Stainless Steel Check Valves



- Continuous operating temperature (COT): -40° C to 150° C (-40° F to 302° F)
- Maximum working pressure: 140 BAR (2030 PSI)
- Standard spring minimum opening pressure differential = 0.3 BAR (4.35 PSI)
- Compatible with CO₂ (R744), HCFC, HFC, HFO refrigerants, and oils

Stainless Steel Service Valves



- Continuous operating temperature (COT): - 40° C to 150° C (-40° F to 302° F).
- Maximum working pressure: 140 BAR (2030 PSI)
- Compatible with CO₂ (R744), Ammonia (R717), HCFC, HFC, HFO refrigerants, and oils

C194 Copper Ball Valves



- Continuous operating temperature (COT): -40° C to 150° C (-40° F to 302° F)
- Maximum working pressure (MWP): 120-140 BAR (1740-2030 PSI)
- Compatible with CO₂ (R744), HCFC, HFC, HFO refrigerants, and oils

C194 Copper Check Valves



- Continuous operating temperature (COT): -40° C to 150° C (-40° F to 302° F)
- Maximum working pressure: 140 BAR (2030 PSI)
- Standard spring minimum opening pressure differential = 0.3 BAR (4.35 PSI)
- Compatible with CO₂ (R744), HCFC, HFC, HFO refrigerants, and oils



Product Numbers and Dimensions

C194 Copper Ball Valves

PART #	CONNECTION ODS	BALL PORT SIZE	KV	CV	MAXIMUM 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

C194 Copper Check Valves

PART #	CONNECTION ODS	MM	KV	CV	MAXIMUM OPERATING PRESSURE	
	IN		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

Stainless Steel Service Valves

PART #	CONNECTIONS		BALL PORT SIZE	KV	CV	MAXIMUM OPERATING PRESSURE	
	W, MM	SAE, IN	MM	M3/H	GPM	BAR	PSI
CO2-HS10	10	1/4"	10	1.1	1.3	140	2030
CO2-HS12	12	1/4"	10	1.1	1.3	140	2030

Stainless Steel Ball Valves

PART #	CONNECTIONS W		BALL PORT SIZE	KV	CV	MAXIMUM OPERATING PRESSURE	
	MM	NPS, IN	MM	M3/H	GPM	BAR	PSI
CO2-02S^	6	-	10	0.8	0.9	140	2030
CO2-03S	10	-	10	3	3.5	140	2030
CO2-04S	12	-	10	5	5.8	140	2030
CO2-05S	16	-	14	17	19.7	140	2030
CO2-06S	18	-	16.5	17	19.7	140	2030
CO2-07S	22	-	18	29	33.5	140	2030
CO2-09S	28	-	25	51	59.0	140	2030
CO2-11S	35	-	31	81	93.6	140	2030
CO2-13S	42	-	37	105	121.4	120	1740
CO2-03D	DN08	1/4	10	3	3.5	140	2030
CO2-04D	DN10	3/8	14	9.8	11.3	140	2030
CO2-05D	DN15	1/2	18	17	19.7	140	2030
CO2-07D	DN20	3/4	25	40	46.2	140	2030
CO2-09D	DN25	1	31	59	68.2	140	2030
CO2-11D	DN32	1-1/4	37	105	121.4	130	1885
CO2-13D	DN40	1-1/2	37	105	121.4	130	1885
CO2-17D	DN50	2	50	214	247.4	125	1813
CO2-21D	DN65	2-1/2"	60	310	358	130	1885

Stainless Steel Check Valves

PART #	CONNECTIONS W		KV	CV	MAXIMUM OPERATING PRESSURE	
	MM	M3/H	GPM	BAR	PSI	
CO2-CVS10M	10	3	3.5	140	2030	
CO2-CVS12M	12	5	5.8	140	2030	
CO2-CVS16M	16	17	19.7	140	2030	
CO2-CVS22M	22	29	33.5	140	2030	
CO2-CVS28M	28	51	59.0	140	2030	
CO2-CVS35M	32	29	33.5	140	2030	
CO2-CVS42M	42	38	43.9	140	2030	

