



Stainless Steel 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.

Certifications and Approvals:

- CE
- RoHS
- CRN approved



CO₂-S/D Sizes, Ball Port Sizes, Kv/Cv, and Pressure Ratings

PART NUMBER	CONNECTIONS W		BALL PORT SIZE MM	KV M3/H	CV GPM	MAX. OPERATING PRESSURE	
	MM	NPS, IN				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	120	1740
CO2-13D	DN40	1-1/2"	37	105	121.4	120	1740
CO2-17D	DN50	2"	50	214	247.4	120	1740
CO2-21D	DN65	2-1/2"	60	310	358	120	1740

[^]C19400 Copper Connections

Design and Features:

- Full port valves with 2030 PSI (140 Bar) working pressure on sizes up to 35 mm / DN25 and 1740 PSI (120 Bar) working pressure on sizes 42 mm, DN32, DN40, and DN50
- 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

Operating Specifications:

- Temperature: -40° to 302°F (-40°C to 150°C)
- Burst Pressure: 5 times the working pressure
- Life Expectancy: >50,000 cycles

CO₂-S/D Materials

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



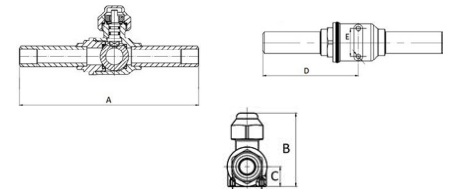
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CO₂-S/D Dimensions

Model	W		A		B		C		D		E	
	MM	NPS, IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN
CO2-02S^	6	-	110	4.33"	56.1	2.21"	19	0.75"	57.3	2.26"	16	0.63"
CO2-03S	10	-	120	4.72"	56.1	2.21"	19	0.75"	62.3	2.45"	16	0.63"
CO2-04S	12	-	120	4.72"	56.1	2.21"	19	0.75"	62.3	2.45"	16	0.63"
CO2-05S	16	-	145	5.71"	55.8	2.20"	15	0.59"	76.8	3.02"	22	0.87"
CO2-06S	18	-	145	5.71"	63	2.48"	19	0.75"	78.3	3.08"	30	1.18"
CO2-07S	22	-	145	5.71"	63	2.48"	19	0.75"	78.3	3.08"	30	1.18"
CO2-09S	28	-	200	7.87"	82.8	3.26"	30	1.18"	105.8	4.17"	30	1.18"
CO2-11S	35	-	210	8.27"	98.7	3.89"	29.8	1.17"	113.7	4.48"	48	1.89"
CO2-13S	42	-	230	9.06"	108.5	4.27"	34	1.34"	119.4	4.70"	55	2.17"
CO2-03D	DN08	1/4"	120	4.72"	56.1	2.21"	19	0.75"	62.3	2.45"	16	0.63"
CO2-04D	DN10	3/8"	145	5.71"	55.8	2.20"	15	0.59"	76.8	3.02"	22	0.87"
CO2-05D	DN15	1/2"	145	5.71"	63	2.48"	19	0.75"	78.3	3.08"	30	1.18"
CO2-07D	DN20	3/4"	200	7.87"	82.8	3.26"	30	1.18"	105.8	4.17"	30	1.18"
CO2-09D	DN25	1"	210	8.27"	98.7	3.89"	29.8	1.17"	113.7	4.48"	48	1.89"
CO2-11D	DN32	1-1/4"	230	9.06"	108.5	4.27"	34	1.34"	119.4	4.70"	55	2.17"
CO2-13D	DN40	1-1/2"	280	11.02"	108.5	4.27"	34	1.34"	144.4	5.69"	55	2.17"
CO2-17D	DN50	2"	304	11.97"	130	5.12"	45.5	1.79"	172	6.77"	74	2.91"
CO2-21D	DN65	2-1/2"	305	12.01"	173	6.81"	59	2.32"	152.5	6.00"	96	3.78"

Part Selection

CO2-02S^	6 mm Stainless Steel Ball Valve (140bar Working Pressure)
CO2-03S	10 mm Stainless Steel Ball Valve (140bar Working Pressure)
CO2-04S	12 mm Stainless Steel Ball Valve (140bar Working Pressure)
CO2-05S	16 mm Stainless Steel Ball Valve (140bar Working Pressure)
CO2-06S	18 mm Stainless Steel Ball Valve (140bar Working Pressure)
CO2-07S	22 mm Stainless Steel Ball Valve (140bar Working Pressure)
CO2-09S	28 mm Stainless Steel Ball Valve (140bar Working Pressure)
CO2-11S	35 mm Stainless Steel Ball Valve (140bar Working Pressure)
CO2-13S	42 mm / DN32 Stainless Steel Ball Valve (120bar Working Pressure)
CO2-03D	DN08 Stainless Steel Ball Valve (140bar Working Pressure)
CO2-04D	DN10 Stainless Steel Ball Valve (140bar Working Pressure)
CO2-05D	DN15 Stainless Steel Ball Valve (140bar Working Pressure)
CO2-07D	DN20 Stainless Steel Ball Valve (140bar Working Pressure)
CO2-09D	DN25 Stainless Steel Ball Valve (140bar Working Pressure)
CO2-11D	42 mm / DN32 Stainless Steel Ball Valve (120bar Working Pressure)
CO2-13D	DN40 Stainless Steel Ball Valve (120bar Working Pressure)
CO2-17D	DN50 Stainless Steel Ball Valve (120bar Working Pressure)
CO2-21D	DN65 Stainless Steel Ball Valve (120bar Working Pressure)



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

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