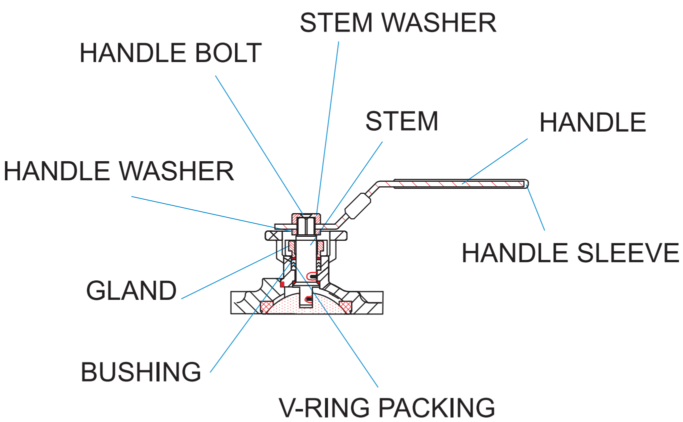
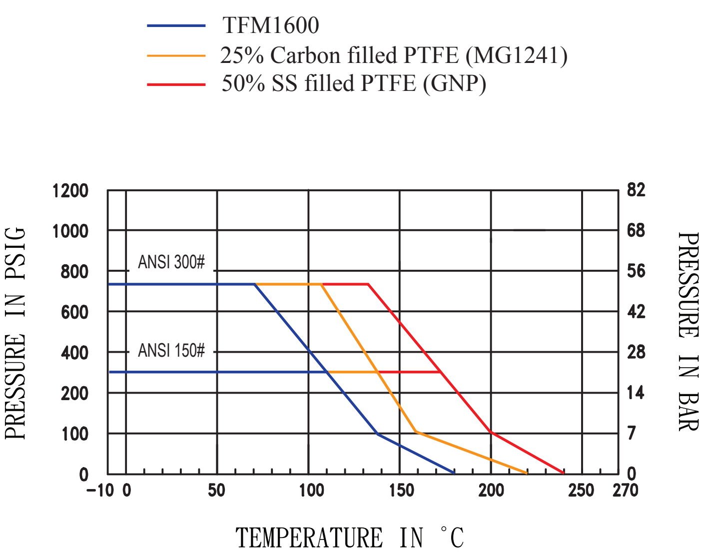
ValveWorks Series 203 Flanged Ball Valves feature a split body design. The high quality investment castings feature a fully machined bore. The superior live-loaded packing system is accomplished with Belleville washers, “V” ring packing and a unique primary pyramidal stem seal. This advanced sealing syatem provides protection against stem leaks experienced by ordinary ball valves.



- **Pressure/Temperature Ratings**



ValveWorks

SERIES 203

2-PIECE BODY DESIGN / SPLIT BODY

Sizes 1/4” - 6”

Full Bore

WCB / SS304 / SS316

203AU - ANSI	(ANSI 150 / ANSI 300)
203AD - DIN	(PN16 / PN40)
203AJ - JIS	(JIS-10K / JIS-20K)

Super Live Load Loaded Packing System

ISO 5211 Direct Mounting Pad

Blowout-Proof Stem

Dual Anti-Static Device (Ball-Stem-Body)

Standard Seat - TFM1600

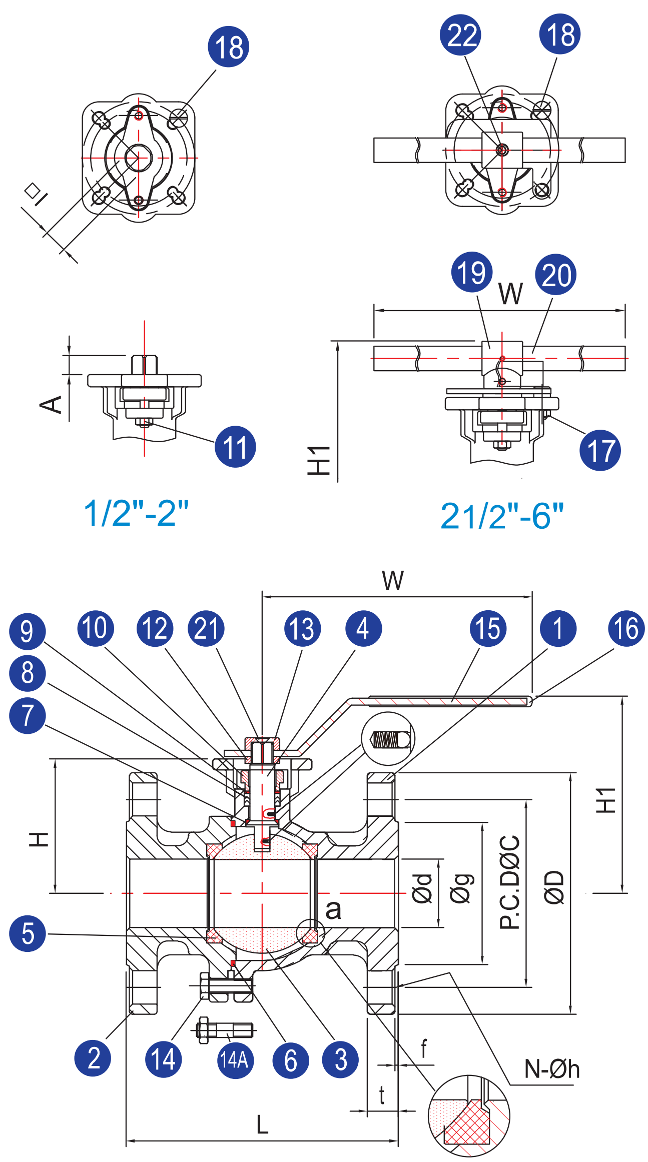
Optional Seat
- 25% Carbon Filled PTFE (MG1241)
- 50% SS Filled PTFE (GNP)

Lockable Handle

Patent Product

Fire Safe Design

Adjustable Hidden Gland
(Stem packing can be tightened to stop the leakage from stem without removing the actuator from the valve)



• MATERIALS LIST

NO.	PART NAME	MATERIAL
1	BODY	WCB / CF8 / CF8M
2	END CAP	WCB / CF8 / CF8M
3	BALL	CF8 / CF8M
4	STEM	SUS316
5	BODY SEAT	TFM1600
6	PACKING	PTFE
7	STEM SEAL	R.PTFE
8	V-RING PACKING	50% SS / 50% PTFE
9	BUSHING	SUS304
10	GLAND	SUS304
11	STUD & NUT	SUS304
12	HANDLE WASHER (1/2" ~ 2")	SUS304
13	STEM WASHER (1/2" ~ 2")	SUS304
14	BOLT (1/2" ~ 2")	SUS304
14A	STUD & NUT (2 1/2" ~ 6")	SUS304
15	HANDLE (1/2" ~ 2")	SUS304
16	HANDLE SLEEVE (1/2" ~ 2")	VINYL
17	STOP PIN NUT	SUS304
18	STOP PIN	SUS304
19	HANDLE ADAPTOR (2 1/2" ~ 6")	CF8
20	PIPE HANDLE (2 1/2" ~ 6")	SUS304
21	HANDLE BOLT (1/2" ~ 2")	SUS304
22	HANDLE BOLT (2 1/2" ~ 6")	SUS304

• DIMENSIONS (mm)

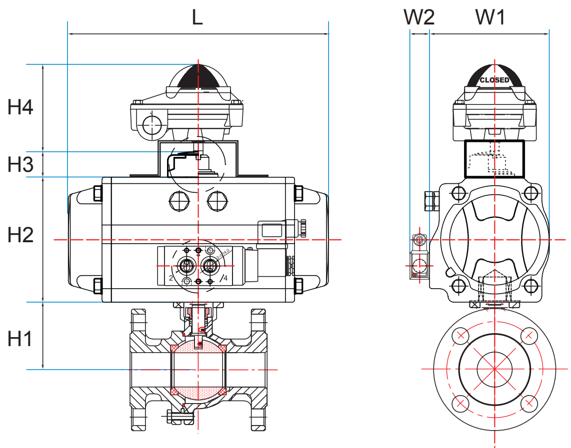
SIZE		A	W	H	H1	□I	L	Ød	Øg	ØC	ØD	t	f	Øh	N	ISO 5211	CV	Weight
1/2"	10K	8	130	50.5	79.5	9	108	15	51	70	95	12.5	1	15	4	F03 F04	15	1.87
	PN16						115		45	65	95	16	2	14				
	150LB						108		35	60.3	89	11.2	1.6	16				
3/4"	10K	8	130	53.8	82.8	9	117	20	56	75	100	14.5	1	15	4	F03 F04	45	2.33
	PN16						120		58	75	105	18	2	14				
	150LB						117		43	69.9	98.4	12.7	1.6	16				
1"	10K	9.5	168	64.5	96.5	11	127	25	67	90	125	14.3	1	19	4	F04 F05	85	3.68
	PN16						125		68	85	115	18	2	14				
	150LB						127		50.8	79.4	108	11.5	1.6	16				
11/4 "	10K	9.5	168	70	102	11	140	32	76	100	135	16	2	19	4	F04 F05	150	4.76
	PN16						130		77	100	140	18	3	18				
	150LB						140		64	88.9	117	13	1.6	16				
11/2 "	10K	14	221	77	110	14	165	40	81	105	140	16.5	2	19	4	F05 F07	275	5.91
	PN16						140		87	110	150	18	3	18				
	150LB						165		73	98.5	127	14.5	1.6	16				
2"	10K	14	221	85.3	118	14	178	50	96	120	155	16.5	2	19	4	F05 F07	460	7.82
	PN16						150		102	125	165	18	3	18				
	150LB						178		92	120.7	152.4	15.9	1.6	19				
21/2"	10K	17	495	111.5	172	17	190	65	116	140	175	18.7	2	19	4	F07 F10	700	13.97
	PN16						170		122	145	185	18	3	18				
	150LB						190		104.8	139.7	177.8	17.6	1.6	19				
3"	10K	17	495	120.5	181	17	203	80	126	150	185	19	2	19	8	F07 F10	1100	17.03
	PN16						180		137	160	200	20	3	18	8			
	150LB						203		127	152.4	190.5	19.5	1.6	19	4			
4"	10K	22	595	145	206	22	229	100	151	175	210	19	2	19	8	F10	2200	25.27
	PN16						190		157	180	220	20	3	18				
	150LB						229		157.2	190.5	228.6	23.9	1.6	19				
5"	10K	27	600	178.5	250	27	356	125	182.7	210	250	20	2	23	8	F12 F14	3500	49.67
	PN16						325		187	210	250	22	3	18				
	150LB						356		185.7	125.9	254	23.9	1.6	22.4				
6"	10K	27	800	196	267	27	394	150	215	240	280	22	2	23	8	F12 F14	5150	70.61
	PN16						350		212	240	285	22	3	22				
	150LB						394		215.9	241.3	279	25.4	1.6	22.4				

Valve Automation with HKC

• Pneumatic Actuator - Double Acting

DN (mm)	Size (inch)	Torques	Actuator	H1	H2	H3	H4	W1	W2	L	Weight (kg)
15	1/2"	3.3	HP-35	50.50	49.00	20.00	90.00	54.00	29.50	126.00	3.49
20	3/4"	5.4	HP-50	53.80	73.00	20.00	90.00	72.00	29.50	144.00	3.95
25	1"	6.6	HP-50	64.50	73.00	20.00	90.00	72.00	29.50	144.00	5.92
32	1 1/4"	13.2	HP-63	70.00	87.00	20.00	90.00	85.00	29.50	163.00	7.00
40	1 1/2"	16.4	HP-63	77.00	87.00	20.00	90.00	85.00	29.50	163.00	8.15
50	2"	19.6	HP-63	85.30	87.00	20.00	90.00	85.00	29.50	163.00	10.58
65	2 1/2"	30.0	HP-75	104.00	104.00	20.00	90.00	96.00	29.50	210.00	17.45
80	3"	36.0	HP-75	104.00	104.00	20.00	90.00	96.00	29.50	210.00	22.41
100	4"	87.0	HP-115	145.00	146.00	20.00	90.00	141.00	29.50	316.00	32.35
125	5"	144.0	HP-145	177.50	179.00	20.00	90.00	172.00	29.50	414.00	59.75
150	6"	150.0	HP-145	196.00	179.00	20.00	90.00	172.00	29.50	414.00	80.69

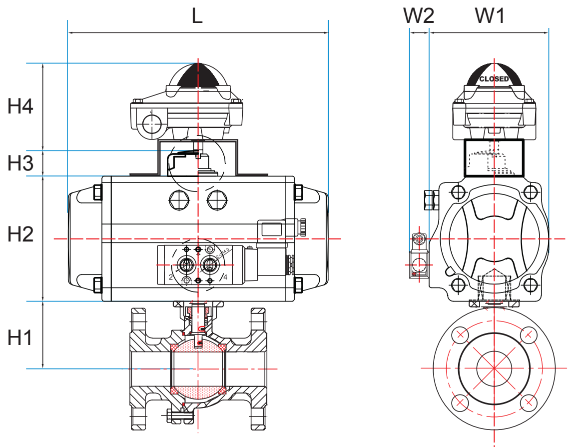
The selection of the actuators are based on below condition:-
- Air Supply Pressure : 5.5 bar
- Operating Pressure : 10 bar
- Safety Factor : 30%



• Pneumatic Actuator - Single Acting

DN (mm)	Size (inch)	Torques	Actuator	H1	H2	H3	H4	W1	W2	L	Weight (kg)
15	1/2"	3.3	HP-50S (S11)	50.50	73.00	20.00	90.00	72.00	29.50	144.00	4.82
20	3/4"	5.4	HP-63S (S11)	53.80	87.00	20.00	90.00	85.00	29.50	163.00	5.28
25	1"	6.6	HP-63S (S11)	64.50	87.00	20.00	90.00	85.00	29.50	163.00	6.63
32	1 1/4"	13.2	HP-75S (S11)	70.00	104.00	20.00	90.00	96.00	29.50	210.00	9.20
40	1 1/2"	16.4	HP-75S (S11)	77.00	104.00	20.00	90.00	96.00	29.50	210.00	10.35
50	2"	19.6	HP-88S (S11)	85.30	116.00	20.00	90.00	108.00	29.50	247.00	13.82
65	2 1/2"	30.0	HP-100S (S11)	111.00	128.00	20.00	90.00	123.00	29.50	268.00	21.91
80	3"	36.0	HP-100S (S11)	120.50	128.00	20.00	90.00	123.00	29.50	268.00	24.97
100	4"	87.0	HP-145S (S11)	145.00	179.00	30.00	90.00	172.00	29.50	414.00	42.67
125	5"	144.0	HP-160S (S11)	177.50	196.00	30.00	90.00	190.00	29.50	467.00	76.70
150	6"	150.0	HP-160S (S11)	196.00	196.00	30.00	90.00	190.00	29.50	467.00	97.64

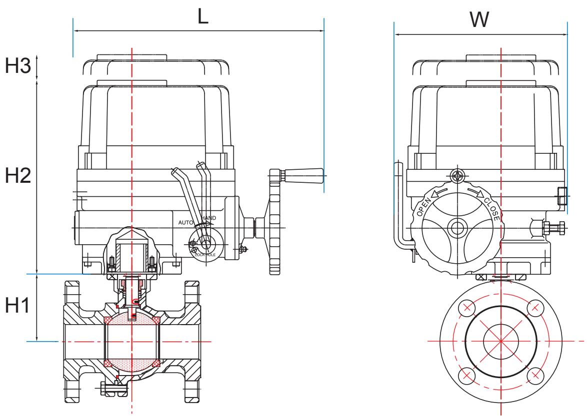
The selection of the actuators are based on below condition:-
- Air Supply Pressure : 5.5 bar
- Operating Pressure : 10 bar
- Safety Factor : 30%



• Electric Actuator

DN (mm)	Size (inch)	Torques	Actuator	H1	H2	H3	W	L	Weight (kg)
15	1/2"	3.3	HQ-004	50.50	124.30		88.60	166.60	4.15
20	3/4"	5.4	HQ-004	53.80	124.30		88.60	166.60	4.61
25	1"	6.6	HQ-004	64.50	124.30		88.60	166.60	5.96
32	1 1/4"	13.2	HQ-004	70.00	124.30		88.60	166.60	7.04
40	1 1/2"	16.4	HQ-004	77.00	124.30		88.60	166.60	8.19
50	2"	19.6	HQ-004	85.30	124.30		88.60	166.60	10.10
65	2 1/2"	30.0	HQ-006	111.00	137.00		105.00	126.00	18.05
80	3"	36.0	HQ-006	120.50	137.00		105.00	126.00	21.11
100	4"	87.0	HQ-015	145.00	268.00	160.00	229.00	338.00	42.95
125	5"	144.0	HQ-030	177.50	304.00	180.00	259.00	368.00	72.75
150	6"	150.0	HQ-030	196.00	304.00	180.00	259.00	368.00	93.69

The selection of the actuators are based on below condition:-
- Operating Pressure : 10 bar
- Safety Factor : 50%



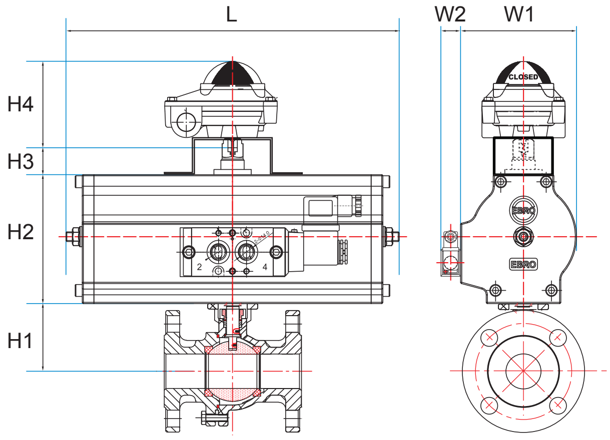
Valve Automation with EBRO Armaturen

EBRO ARMATUREN

• Pneumatic Actuator - Double Acting

DN (mm)	Size (inch)	Torques	Actuator	H1	H2	H3	H4	W1	W2	L	Weight (kg)
15	1/2"	3.3	EB 4.1-SYD	50.50	66.00	30.00	90.00	57.00	29.50	148.00	4.05
20	3/4"	5.4	EB 4.1-SYD	53.80	66.00	30.00	90.00	57.00	29.50	148.00	4.51
25	1"	6.6	EB 4.1-SYD	64.50	66.00	30.00	90.00	57.00	29.50	148.00	5.86
32	1 1/4"	13.2	EB 4.1-SYD	70.00	66.00	30.00	90.00	57.00	29.50	148.00	6.94
40	1 1/2"	16.4	EB 5.1-SYD	77.00	77.00	30.00	90.00	72.00	29.50	174.00	8.09
50	2"	19.6	EB 5.1-SYD	85.30	77.00	30.00	90.00	72.00	29.50	174.00	10.60
65	2 1/2"	30.0	EB 6.1-SYD	111.00	91.00	30.00	90.00	88.00	29.50	224.00	16.75
80	3"	36.0	EB 6.1-SYD	120.50	91.00	30.00	90.00	88.00	29.50	224.00	19.81
100	4"	87.0	EB 8.1-SYD	145.00	108.00	30.00	90.00	100.00	29.50	258.00	29.35
125	5"	144.0	EB 10.1-SYD	177.50	129.00	30.00	90.00	122.00	29.50	334.00	54.85
150	6"	150.0	EB 10.1-SYD	196.00	129.00	30.00	90.00	122.00	29.50	334.00	75.79

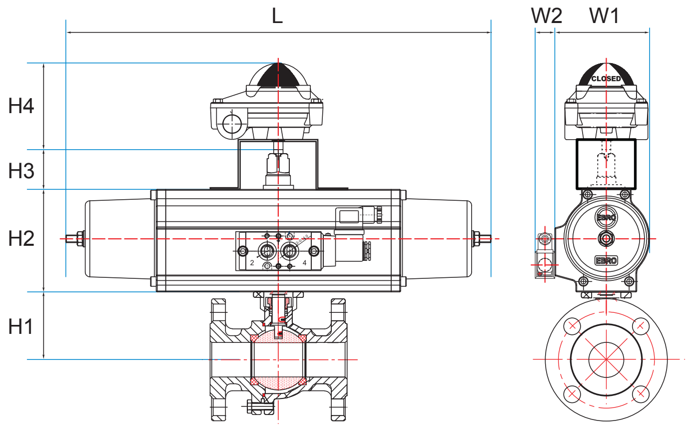
The selection of the actuators are based on below condition:-
- Air Supply Pressure : 5.5 bar
- Operating Pressure : 10 bar
- Safety Factor : 30%



• Pneumatic Actuator - Single Acting

DN (mm)	Size (inch)	Torques	Actuator	H1	H2	H3	H4	W1	W2	L	Weight (kg)
15	1/2"	3.3	EB 5.1-SYS (50)	50.50	77.00	30.00	90.00	72.00	29.50	280.00	5.35
20	3/4"	5.4	EB 5.1-SYS (50)	53.80	77.00	30.00	90.00	72.00	29.50	280.00	5.81
25	1"	6.6	EB 5.1-SYS (50)	64.50	77.00	30.00	90.00	72.00	29.50	280.00	7.16
32	1 1/4"	13.2	EB 5.1-SYS (50)	70.00	77.00	30.00	90.00	72.00	29.50	280.00	8.24
40	1 1/2"	16.4	EB 6.1-SYS (50)	77.00	91.00	30.00	90.00	88.00	29.50	351.00	9.39
50	2"	19.6	EB 6.1-SYS (50)	85.30	91.00	30.00	90.00	88.00	29.50	351.00	11.30
65	2 1/2"	30.0	EB 8.1-SYS (50)	111.00	108.00	30.00	90.00	100.00	29.50	408.00	19.35
80	3"	36.0	EB 8.1-SYS (50)	120.50	108.00	30.00	90.00	100.00	29.50	408.00	22.41
100	4"	87.0	EB 10.1-SYS (50)	145.00	128.00	30.00	90.00	122.00	29.50	557.00	38.85
125	5"	144.0	EB 12.1-SYS (50)	177.50	156.00	30.00	90.00	145.00	29.50	661.00	71.85
150	6"	150.0	EB 12.1-SYS (50)	196.00	156.00	30.00	90.00	145.00	29.50	661.00	92.79

The selection of the actuators are based on below condition:-
- Air Supply Pressure : 5.5 bar
- Operating Pressure : 10 bar
- Safety Factor : 30%



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