

ASME600
SIZE: 1-1/2"-6"



ZIPSON'S 136W (soft seat) & 136M (metal seat) segment control valves are designed for a very wide range of industries and working conditions.

The high performance allows high cycle operation and makes 136M & 136W suitable for different media such as water, steam, gas, pulp & paper, or even slurry. The wafer end connection with Class 600/ 1500 psi pressure rating covers most of the working situations.

The 136 series segment valves can fit both soft & metal seats. The 60 degree V-notch ball is convenient for users to make it flow control valve.

The automation direct mount design helps users to mount the actuators or gear operators directly without any brackets or adapters. Another feature of 136 series is the in-line adjustable gland. With this design, customers can tighten the gland as the valve is in-line for longer operation life-term without dismantling the actuation equipment. The valve is also with sets of Belleville washers on the gland bolts.

SPECIFICATION

- * Design & manufacture according to ANSI B16.34
- * Pressure rating: Class 600 (1500 psi)
- * End connection: wafer type for ANSI/ PN/ JIS flanges
- * Face to face according to ISA-S75.04 (short version)
- * Temperature range
 - Soft seat: -20°F to 450°F
 - Metal seat: -20°F to 750°F

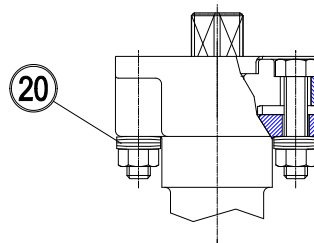
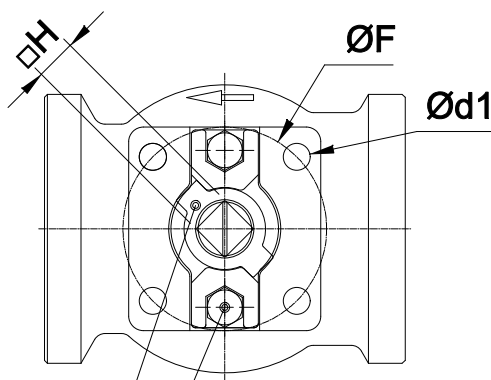
OPTIONS

- * Automation application
- * Duplex & Super Duplex are available

FEATURES

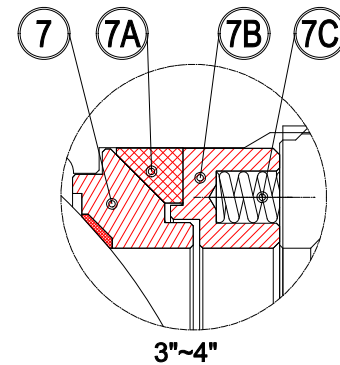
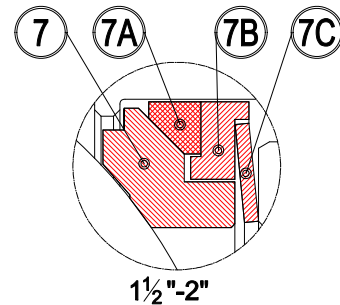
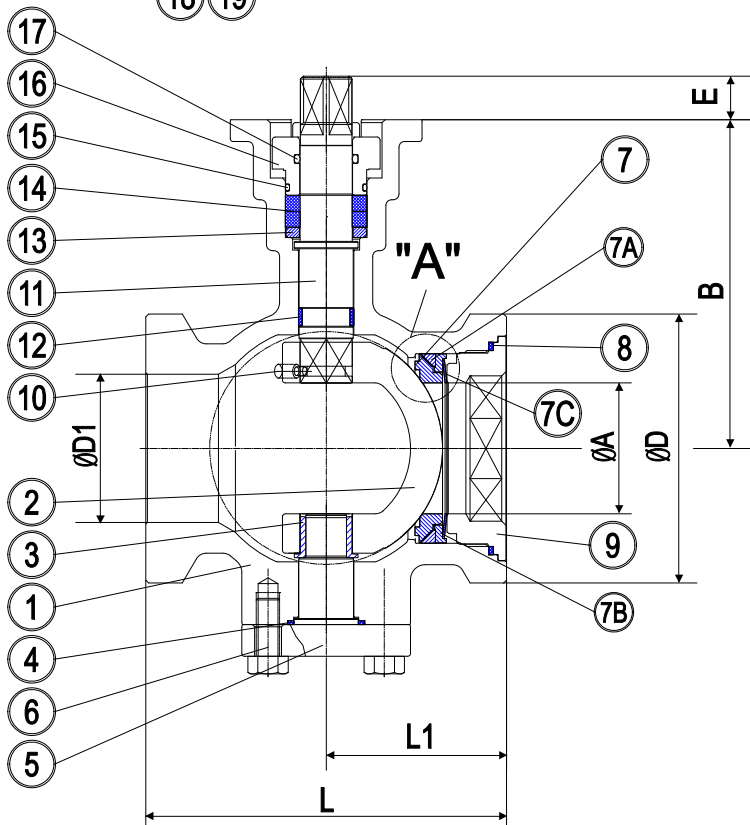
- * Body & end caps quality investment & sand casting
- * Metal seat or soft seat are available
- * Available in stainless steel, carbon steel, and Duplex
- * In-line adjustable gland nut
- * with ISO 5211 direct mounting pad
- * Self-adjustable stem packing
- * Blow-out proof stem design
- * Trunnion and Full bore design
- * High flow Cv ball/ stem design

136M METAL SEATED SEGMENT VALVE



* Belleville washers act as the compensation when stem packing wear down. They reduce the frequency of re-tightening the gland nut and prolong the service life.

* The gland nuts are exposed outside of the valves so users are able to tighten the gland nuts without dismantling the actuators.



DETIAL "A"

MATERIALS LIST

ITEM	PART NAME	MATERIALS
1	BODY	CF8M/ WCB
2	BALL SEGMENT	CF8M(HARD CHROME)
3	BEARING	17-4PH
4	GASKET	GRAPHITE
5	TRUNNION CAP	CF8M/ WCB
6	TRUNNION CAP BOLT	SS 304
7	SEAT	SS 316+STELLITE
7A	SEAT BACK SEAL	GRAPHITE
7B	SEAT HOUSING	SS 316
7C	SPRING DISK	INCONEL
8	INSERT GASKET	GRAPHITE
9	INSERT CAP	CF8M
10	SET SCREW	SS 316
11	STEM	SS 630 (17-4PH)
12	STEM BEARING	SS 316
13	PACKING WASHER	SS 316
14	STEM PACKING	GRAPHITE
15	GLAND SEAL	VITON
16	GLAND	CF8
17	STEM SEAL	VITON
18	STOP PLATE	SS 304
19	GLAND BOLT	SS 304
20	BELLEVILLE WASHER	SS 301



* Cut view of 136M, metal seated valve

DIMENSIONS (MM/ INCH)

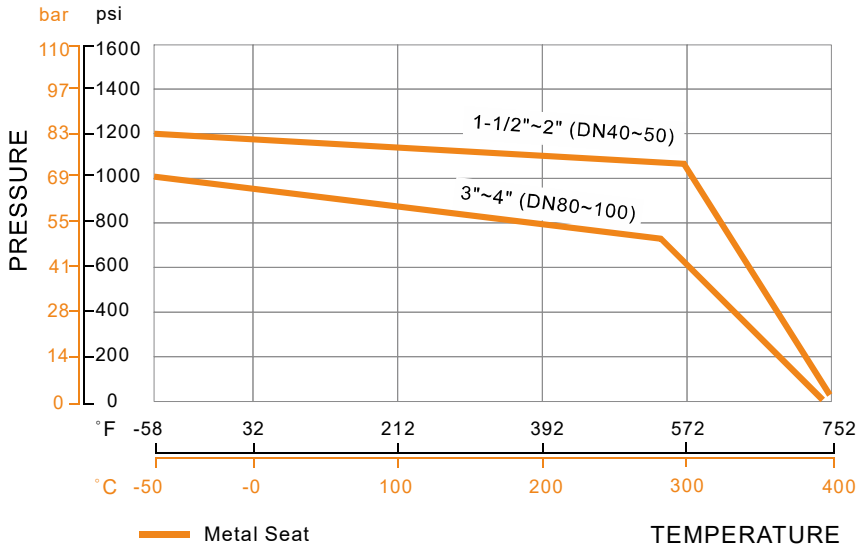
SIZE		A	B	D1	E	F	d1	H	L(ISA)	L1	D
1-1/2"	MM	34	97	40	15	70	9.3	14	114.3	57	73
	INCH	1.339	3.819	1.575	0.59	2.756	0.366	0.551	4.50	2.244	2.87
2"	MM	45	113	51	15	70	9.3	14	124	62	92.5
	INCH	1.772	4.449	2.007	0.59	2.756	0.366	0.551	4.88	2.441	3.64
3"	MM	66	150.2	82.5	18.3	102	11.4	17	165.1	87	127
	INCH	2.598	5.913	3.248	0.72	4.016	0.449	0.669	6.50	0.425	5.00
4"	MM	80.5	172.7	98.5	18.3	102	11.4	17	193.5	102.8	158
	INCH	3.169	6.799	3.878	0.72	4.016	0.449	0.669	7.62	4.047	6.22

BREAK-TORQUE VALUE (Nm)/ at 0 psi

SIZE	1-1/2"	2"	3"	4"
METAL SEAT	18	20	30	42

* Strongly suggest increasing at least 30% as safety factor for mounting actuator.

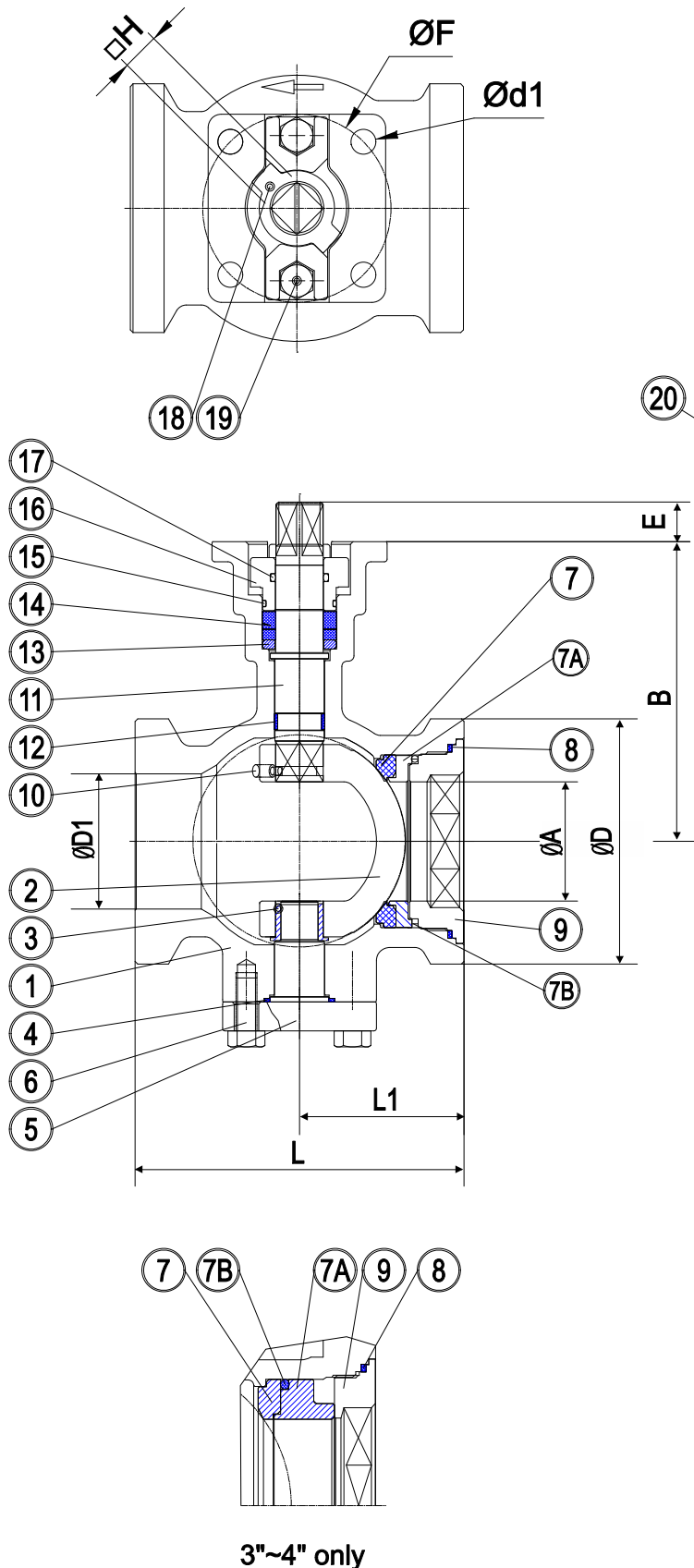
PRESSURE DIFFERENTIAL/ TEMPERATURE



Cv Value

Size Percent	1-1/2"	2"	3"	4"	6"
10	0.00	0.17	0.00	0.00	0.00
20	1.12	2.61	3.01	3.92	10.82
30	3.33	6.60	10.07	14.86	32.23
40	6.75	12.48	23.60	29.61	67.09
50	11.99	20.17	47.78	52.54	124.34
60	19.05	31.18	73.43	87.35	199.65
70	28.59	47.43	111.91	136.05	292.91
80	41.71	73.10	157.02	197.20	411.77
90	61.68	103.84	216.84	279.00	569.98
100	76.38	131.54	288.39	418.48	879.11

136W SOFT SEATED SEGMENT VALVE

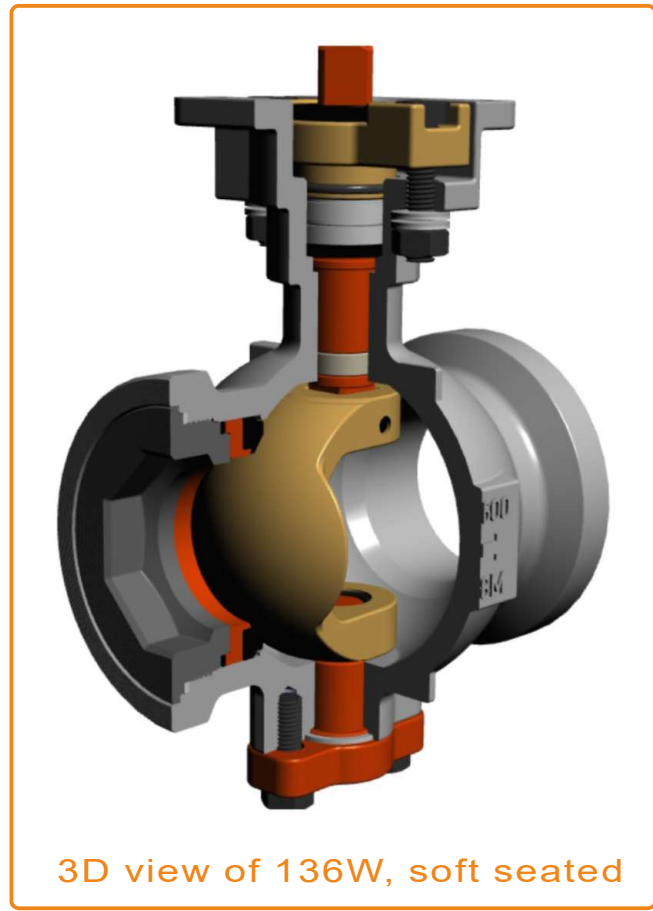


Leakage Class of 136M/ 136W

The leakage standard between soft & metal seats are different. 136W, the soft seated segment valve can achieve bubble tight by air test. Metal seated valves, 136M are Class IV leakage.

* Belleville washers act as the compensation when stem packing wear down. They reduce the frequency of re-tightening the gland nut and prolong the service life.

* The gland nuts are exposed outside of the valves so users are able to tighten the gland nuts without dismantling the actuators.



3D view of 136W, soft seated

MATERIALS LIST

ITEM	PART NAME	MATERIALS
1	BODY	CF8M/ WCB
2	BALL SEGMENT	CF8M
3	BEARING	TFM4215
4	GASKET	TFM1600
5	TRUNNION CAP	CF8M
6	TRUNNION CAP BOLT	SS 304
7	SEAT	TFM1600/TFM4215
7A	SEAT HOUSING	SS 316
7B	BACK-UP SEAL	VITON(O-RING)
8	INSERT GASKET	TFM1600
9	INSERT CAP	CF8M

10	SET SCREW	SS 316
11	STEM	SS 630 (17-4PH)
12	STEM BEARING	PEEK
13	PACKING WASHER	SS 316
14	STEM PACKING	TFM1600
15	GLAND SEAL	VITON
16	GLAND	CF8
17	STEM SEAL	VITON
18	STOP PLATE	SS 304
19	GLAND BOLT	SS 304
20	BELLEVILLE WASHER	SS 301

DIMENSIONS (MM/ INCH)

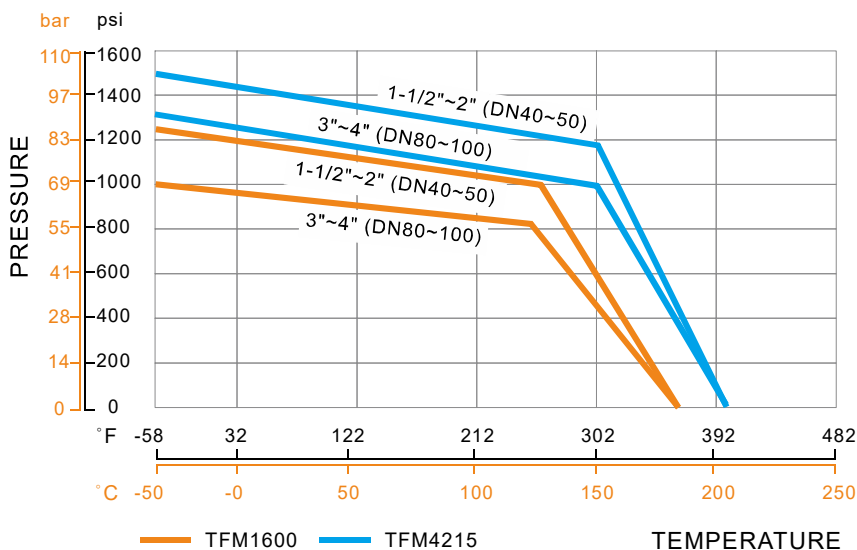
SIZE		A	B	D1	E	F	d1	H	L(ISA)	L1	D
1-1/2"	MM	34	97	40	15	70	9.3	14	114.3	57	73
	INCH	1.339	3.819	1.575	0.59	2.756	0.366	0.551	4.50	2.244	2.87
2"	MM	45	113	51	15	70	9.3	14	124	62	92.5
	INCH	1.772	4.449	2.007	0.59	2.756	0.366	0.551	4.88	2.441	3.64
3"	MM	66	150.2	82.5	18.3	102	11.4	17	165.1	87	127
	INCH	2.598	5.913	3.248	0.72	4.016	0.449	0.669	6.50	0.425	5.00
4"	MM	80.5	172.7	98.5	18.3	102	11.4	17	193.5	102.8	158
	INCH	3.169	6.799	3.878	0.72	4.016	0.449	0.669	7.62	4.047	6.22

BREAK-TORQUE VALUE (Nm)/ at 0 psi

SIZE	1-1/2"	2"	3"	4"
TFM1600	16	18	33	45

* Strongly suggest increasing at least 30% as safety factor for mounting actuator.

PRESSURE/ TEMPERATURE



Cv Value

Size Percent	1-1/2"	2"	3"	4"	6"
10	0.00	0.17	0.00	0.00	0.00
20	1.12	2.61	3.01	3.92	10.82
30	3.33	6.60	10.07	14.86	32.23
40	6.75	12.48	23.60	29.61	67.09
50	11.99	20.17	47.78	52.54	124.34
60	19.05	31.18	73.43	87.35	199.65
70	28.59	47.43	111.91	136.05	292.91
80	41.71	73.10	157.02	197.20	411.77
90	61.68	103.84	216.84	279.00	569.98
100	76.38	131.54	288.39	418.48	879.11