Kingdom
FLOW CONTROL CO., LTD.

KV-010 KV-B010

1000 WOG, Economical type
1-PC Body, Reduced Port, Thread Ends Ball Valve

180720

DESIGN FEATURES

- Blow-out Proof Stem
- Pressure Balance Hole in Ball Slot
- Double Reduced Port
- Various Thread Standards Available
- Locking Device is Available Upon Request
- NACE MR-0175 (Optional)
- Casting Approved by TÜV AD 2000-Merkblatt W0

APPLICABLE STANDARDS

- Design Standard : MSS SP-110
- Wall Thickness : EN12516-3,
- Pipe Thread : ASME B1.20.1, BS21
  DIN 2999/259, ISO 228/1
  JIS B0203 ISO7/1
- Inspection & Testing : MSS SP-110

WEIGHT

DN	NPS	KV-010		KV-B010	
		(kg)	(lb)	(kg)	(lb)
8	1/4	0.07	0.15	0.07	0.15
10	3/8	0.11	0.24	0.11	0.24
15	1/2	0.20	0.44	0.20	0.44
20	3/4	0.30	0.66	0.30	0.66
25	1	0.42	0.93	0.48	1.06
32	1 1/4	0.65	1.43	0.65	1.43
40	1 1/2	0.86	1.90	1.02	2.25
50	2	1.48	3.26	1.60	3.53

CV VALUES

DN	NPS	CV
8	1/4	–
10	3/8	–
15	1/2	12
20	3/4	15
25	1	18
32	1 1/4	36
40	1 1/2	48
50	2	93

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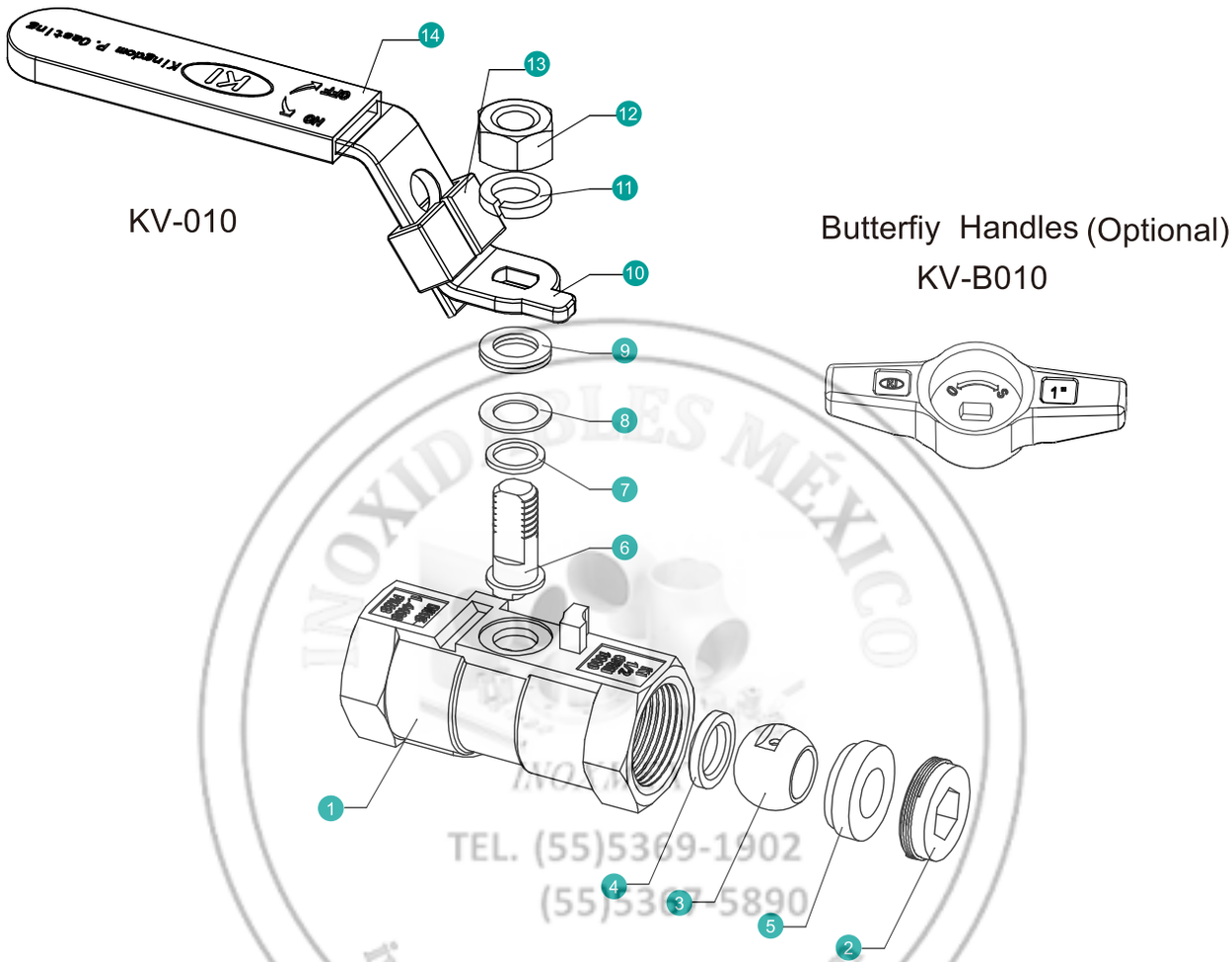

MATERIAL OF CONSTRUCTION

NO.	PART NAME	MATERIALS		
1	Body	CF8M(1.4408)	CF8(1.4308)	WCB(1.0619)
2	End Cap	CF8M(1.4408)	CF8(1.4308)	WCB(1.0619)
3	Ball	CF8M	CF8	
4	Ball Seat (1)	TFM1600/PTFE		
5	Ball Seat (2)	TFM1600/PTFE		
6	Stem	316	304	
7	Thrust Washer	PTFE		
8	Packing	PTFE		
9	Gland	304		
10	Handle	304		
11	Washer	304		
12	Stem Nut	A194-8		
13	Locking Device	304		
14	Handle Sleeve	VINYL PLASTIC		

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TORQUE VALUES

Close to Open Torque at Various Differential Pressure (△P), Standard Seats (TFM1600 & PTFE)

unit : in·lb / N·m

Size\△P		75psig		150psig		300psig		700psig		1000psig	
		5bar		10bar		20bar		50bar		63bar	
NPS	DN	N·m	In·lb	N·m	In·lb	N·m	In·lb	N·m	In·lb	N·m	In·lb
¼	8	4.5	40	4.5	40	4.5	40	4.5	40	4.5	40
⅜	10	4.5	40	4.5	40	4.5	40	4.5	40	4.5	40
½	15	5	44	5	44	5	44	5	44	5	44
¾	20	5	44	5	44	5	44	5	44	5	44
1	25	6	53	6	53	6	53	6	53	6	53
1¼	32	10	88	10	88	11	97	11	97	11	97
1½	40	13	115	13	115	15	133	17	150	19	168
2	50	19	168	19	168	22	195	24	212	26	230

Remark : 1.Torques will increase about 30% if seat materials are Reinforced Fiber-Glass PTFE, Carbon-filled PTFE or EK+PTFE or TFM4215.

2.The torque figures at 5 bar pressure are maximum values to be tested after the valves are placed for 24 hours.

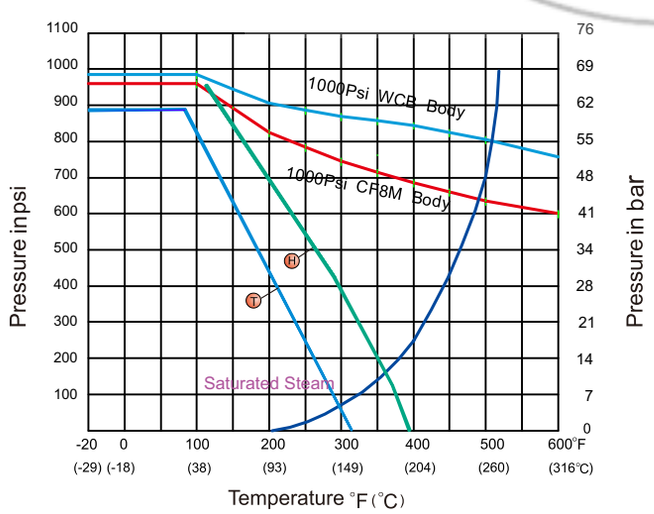
3.For actuator sizing, a safety factor of minimum 30% is recommended.

TECHNICAL INFORMATION

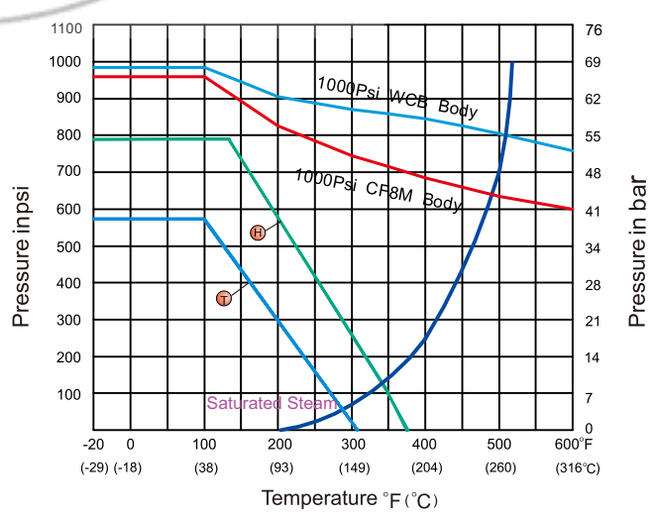
PRESSURE - TEMPERATURE DATA

The pressure-temperature data of ball valves is determined not only by valve shell materials but also by sealing materials used for ball seats, gland packings and flange gaskets.

Reduced Bore : NPS ¼ ~ NPS 1 ¼
DN 8 to DN32



Reduced Bore : NPS 1 ½ ~ NPS 2
DN40 to DN50



Seat Materials : Ⓣ PTFE Ⓗ TFM1600

Body Ratings: Shown above are for ASTM A351 Gr.CF8M and A216 Gr.WCB For ratings of other valve shell materials, please refer to the last edition of ASME B16.34.

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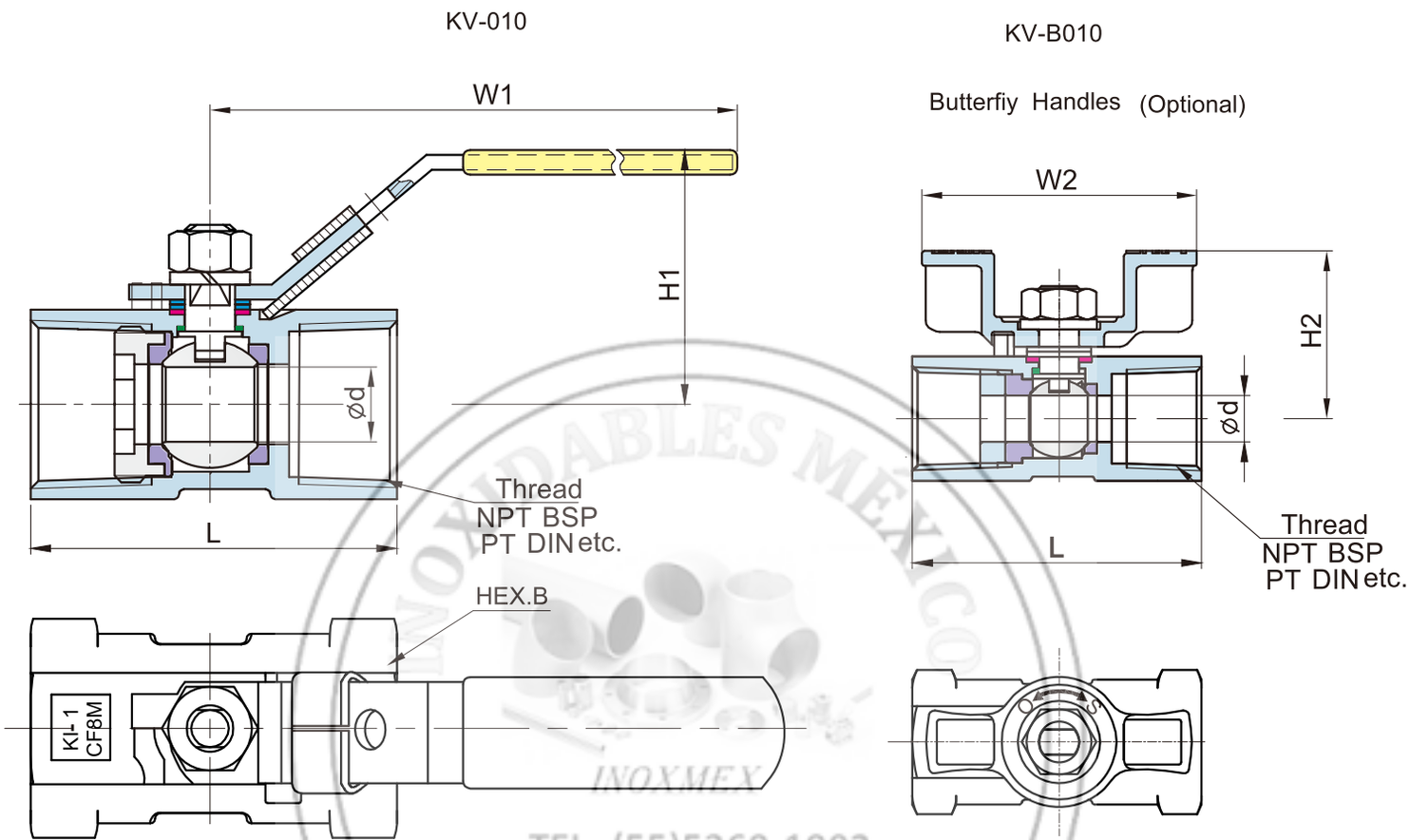

DIMENSION TABLE

ANSI 1000 WOG DIMENSION TABLE

Unit : mm

DN	NPS	Ød	L	HEX.B	KV-010		KV-B010	
					H1	W1	H2	W2
8	1/4	5.0	41.5	17	35	70	27	41
10	3/8	7.0	47.0	21	37	80	30	44
15	1/2	9.1	58.0	25	44	92	35	53
20	3/4	12.5	61.0	32	47	92	38	58
25	1	15.0	73.5	38	52	115	45	90
32	1 1/4	20.0	78.0	48	59	115	49	90
40	1 1/2	25.0	85.0	53	67	127	64	105
50	2	32.0	102.0	66	75	127	71	105

ANSI 1000 WOG DIMENSION TABLE

Unit : inch

DN	NPS	Ød	L	HEX.B	KV-010		KV-B010	
					H1	W1	H2	W2
8	1/4	0.20	1.63	0.67	1.38	2.76	1.06	1.61
10	3/8	0.28	1.85	0.83	1.46	3.15	1.18	1.73
15	1/2	0.36	2.28	0.98	1.73	3.62	1.38	2.09
20	3/4	0.49	2.40	1.26	1.85	3.62	1.50	2.28
25	1	0.59	2.89	1.50	2.05	4.53	1.77	3.54
32	1 1/4	0.79	3.07	1.89	2.32	4.53	1.93	3.54
40	1 1/2	0.98	3.35	2.09	2.64	5.00	2.52	4.13
50	2	1.26	4.02	2.60	2.95	5.00	2.80	4.13