

Series 61
Tank Bottom Valves
ANSI 150
DIN/BS 4504 PN10
JIS 10K

Series 61 Features

General

Series 61 tank bottom flush valves are designed for the convenient and fast draining of metal tanks (with or without steam jackets), Wood, glass or vitreous-lined tanks autoclaves.

Performance

- Fast draining
- Full way area through valve body with minimum pressure drop.
- No pocket or dead area in the body

Design Flexibility

- The valve are made in stainless steel, nickel alloys, carbon steel, iron, bronze, aluminum.
- The valve can be furnished with fabricate steam jackets
- Cleaning connection and plug are option
- Quick-opening disc is standard equal percentage or linear (option)
- Fully range of bonnet and packing design to suit various temperature and fluids

Design Integrity

- Valve size are determined by outlet flange
- The outlet in pleased at an angle approximately 45 to the center line of the valve.
- Dimension "G" and "F", Motoyama standard for outside diameter and height to the seat sleeve will to supplied unless otherwise ordered.
- Large diameter stem

Quality manufacturing

- Rigorously tested to ensure specified performance on site.
- Quality assurance system in accordance with ISO 9001.
- Optional full NACE MR-01-75 certification.



Figure 1. Series 61 Tank Bottom Flush Valve

Scope of design

Outlet flange size 3/4" to 10"(20mm to 250mm)
Outlet flange furnished with 1/16" raised face ANSI B 16.5 (except on bronze, iron, aluminum valves)

Body ratings

ANSI 150 (PN20) as standard other requirement available on request.

Disc design option

Metal to metal seat as standard teflon insert disc are options.

Inherent Characteristics

Quick open standard equal percentage and linear (option)

Material Combinations

Wide ranges of body and trim materials are available.

Bonnet Options

Standard, extension and cryogenic bonnet design option available.

Actuation

Various type of actuation are available including

- 5500 series spring opposed pneumatic diaphragm.
- 1600 series spring opposed pneumatic piston.
- 1700 series double acting pneumatic piston in addition electric, electro-hydraulic and manually operated.

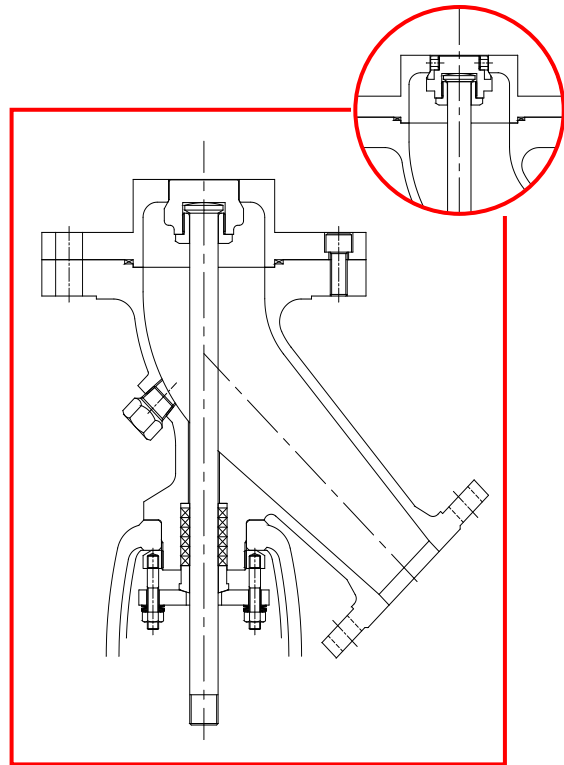


Figure 2. Disc Opens (Lower) Into Valve.

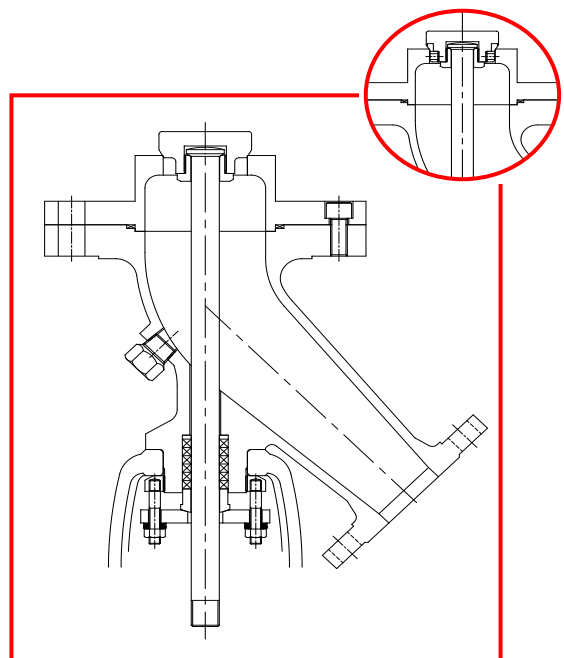


Figure 3. Disc Opens (Rises) Into Tank.

Maximum Leakage Rate

Seating style	Achievable Leakage Class
Metal/metal	IV
Metal/PTFE	VI

Cv Values

size	Quick open	Linear, Eq.%
3/4" X 1 1/2"	11	8
1" X 2"	17	14
1.1/2" X 3"	44	30
2" X 4"	69	50
2.1/2" X 4"	117	85
3" X 5"	177	120
4" X 6"	277	200
6" X 8"	624	440
8" X 10"	1100	700
10" X 12"	1730	1090

Pressure drop limitation

Disc Opens (rises) into Tank

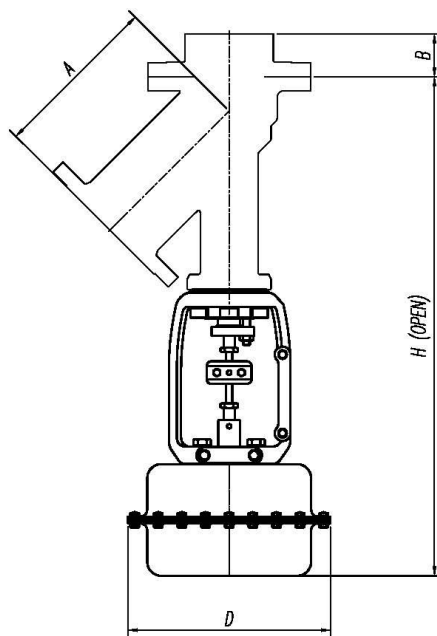
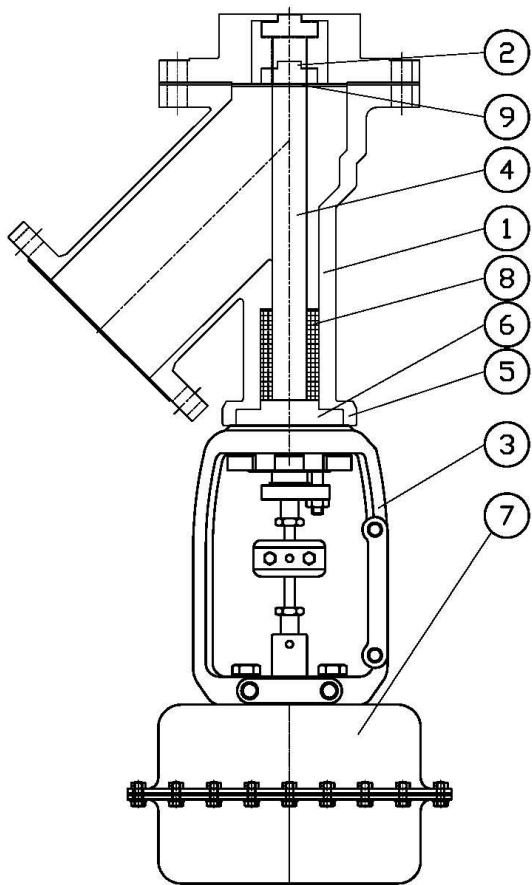
Size	Lift	T-0	T-1	T-2	T-3	T-4	T-5
3/4" x 1.1/2"	20	10 10					
1" x 2"	20	10 10					
1.1/2" x 3"	30		10 10				
2" x 4"	30		7.4 6.5	9.6 8.5			
2.1/2" x 4"	38			7.2 6.4	10 9.4		
3" x 5"	38				7.3 6.7	10 9.4	
4" x 6"	50					6.9 6.4	
6" x 8"	100					3.2 2.9	5.3 4.9
8" x 10"	100						3.1 2.9
10" x 12"	100						2.0 2.0

Metal seat / Teflon seat

Disc Open (lower) into Valve

Size	Lift	T-0	T-1	T-2	T-3	T-4	T-5
3/4" x 1.1/2"	20	10 10					
1" x 2"	20	10 10					
1.1/2" x 3"	30		10 10				
2" x 4"	30		10 7.9	8.4 6.6	10 9.8		
2.1/2" x 4"	38				8.2 6.8		
3" x 5"	38					10 9.6	
4" x 6"	50					7.3 6.5	
6" x 8"	100					3.3 3.1	5.6 5.2
8" x 10"	100						3.2 3.0
10" x 12"	100						2.1 2.0

With Series 3600 Spring Opposed Pneumatic diaphragm Actuator.



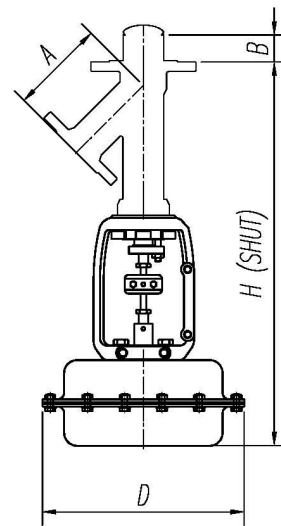
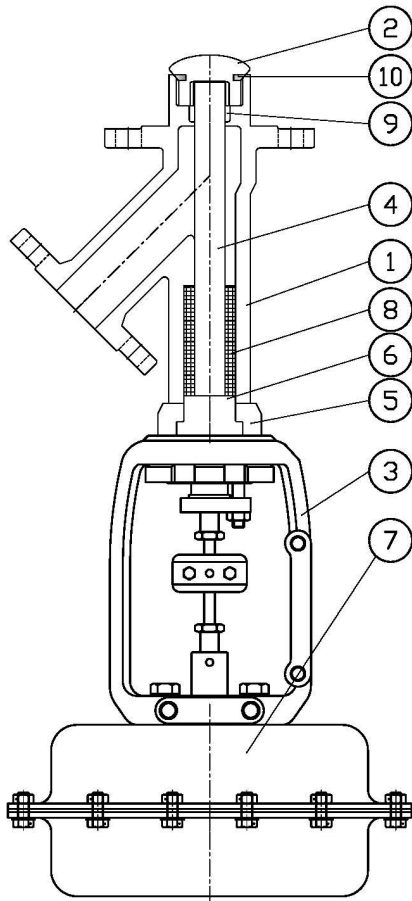
* Lower Type

Disc Opens (Lower) Into Valve

unit : mm

Size	A	B	H	D
1 x 1.1/2	125	30	585	257
1.1/4 x 2	135	35	603	257
1.1/2 x 2	140	38	657	298
2 x 2.1/2	165	45	706	298
2.1/2 x 3	190	50	879	348
3 x 4	215	64	898	348
4 x 5	230	76	947	348
5 x 6	260	90	1136	414
6 x 8	300	100	1285	414
8 x 10	320	115	1406	526
10 x 12	390	120	1466	526

NO.	NO.	
1	BODY	
2	DISC	
3	YOKE	
4	STEM	
5	GLAND FLANGE	
6	GLAND RING	
7	DIAPHRAGM ACTUATOR	
8	PACKING	
9	DISC NUT	
FLANGE DIM'N		ANSI B 16.5
BASIC DESIGN		MAKER STANDARD
TEST		REQUEST



* Upper Type

Disc Opens (Upper) Into Valve

unit : mm

Size	A	B	H	D
1	125	30	567	257
1.1/4	135	35	586	257
1.1/2	140	38	629	298
2	165	45	664	298
2.1/2	190	50	829	348
3	215	64	841	348
4	230	76	925	348
5	260	90	1023	414
6	300	100	1174	414
8	320	115	1326	526
10	390	120	1371	526
12	435	135	1466	526

NO.	NO.	
1	BODY	
2	DISC	
3	YOKE	
4	STEM	
5	GLAND FLANGE	
6	GLAND RING	
7	DIAPHRAGM ACTUATOR	
8	PACKING	
9	DISC NUT	
10	SEAT	
FLANGE DIM'N		ANSI B 16.5
BASIC DESIGN		MAKER STANDARD
TEST		REQUEST

Warranty / Remedy

Korea Motoyama Inc. warrants goods of its manufacture as being free of defective materials and faulty workmanship for 12 months from the date of shipment, unless otherwise specified. In this period, all of our products claimed by original defects may be returned to our factory after notice and authorization by us. If warranted goods are returned to Korea Motoyama Inc. during the period of coverage, it will be repaired or replaced without charge for those items it finds defective. Such defects shall be exclusive of the effects of corrosion, erosion, normal wear or improper handling and storage. In case our engineers have field service, the user shall detach and install valves by his cost. Determination of the suitability of the Products for the use contemplated by the buyer or buyer's customer(s) is the sole responsibility of the buyer in connection therewith. The foregoing is buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose.

Specifications are subject to change without notices.

 **KOMOTO**
VALVES & CONTROLS

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KOREA MOTOYAMA INC.