

# BONETTI



## BONETTI - WVE TRUNNION AND FLOATING BALL VALVES

STANDARD AND SPECIAL VALVES FOR HIGH PRESSURE AND HIGH TEMPERATURE  
SOFT OR METAL TO METAL SEATS  
CRYOGENIC, SUBSEA AND UNDERGROUND APPLICATION

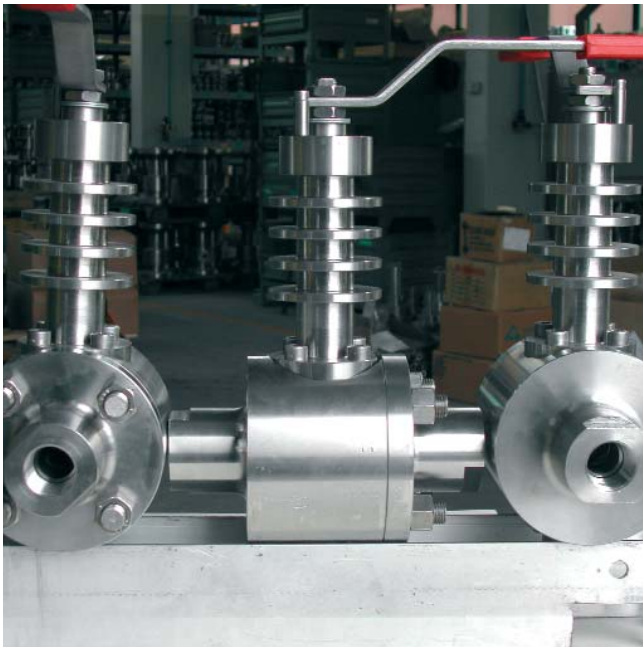


API 6A-0657  
API 6D-0404



Sizes from 1/4" up to DN 32"

Rating:  
from PN 16 up to PN 100  
from ASME Class 150 up to 2500  
from API 2000 psi up to 10000 psi



# BONETTI-WVE - ball valves

## FOREWORD

**BONETTI-WVE** is a trade mark owned by **CESARE BONETTI Company**, used to identify one specific ball valves production line.

In the year 2005 **CESARE BONETTI S.p.A.** purchased all design, know-how, manufacturing lines, sales and business activities concerning WVE (former Williams Valve Engineering) ball valves. All facilities and relate activities have been moved to the Garbagnate Milanese factory, located 15 km North from Milan, Italy.

In said factory now we design, machine, assemble and test **BONETTI-WVE** ball valves, both "trunnion" mounted as well "floating" type.

**BONETTI-WVE** ball valves meet highest technological and qualitative requirements of power industry, of chemical & petrochemical industry, as well of any other kind of industry that manages fluids. **BONETTI-WVE** ball valves fit to a very wide range of application and working operation, on a very wide range of fluids, both liquid as gas, in the most severe working conditions.

**CESARE BONETTI S.p.A.**, to produce **BONETTI-WVE** ball valves, operates and is certified according to EN-ISO 9001:2000 Quality System Standard, and is also entitled for the use of the API monogram according to API 6D and 6A specifications.

**BONETTI-WVE** valves are designed and manufactured to comply with main international standards as ISO, API, ASME, ASTM, B.S., DIN, etc., and particularly BS 5351, API 607, API 6D & API 6A. The whole range is "Fire-safe" tested and certified according to API 6FA, API 607 and B.S. 6755 Part II specifications.

On request CE certification can be released.

## MAIN FEATURES

**BONETTI-WVE** ball valve range includes both "floating" as "trunnion" mounted valves. Valves can be equipped with "soft" seats as well as with metal to metal seats.

**BONETTI-WVE** ball valves are designed to withstand high pressure and both high or low temperature (cryogenic application). Other specialties are valves for submarine application. Finally, we can manufacture special ball valves, according to Customers' specification or requirement.

The standard "trunnion" valves are equipped and supplied with "Self-Relieving" seats (SRE), having "Single Piston Effect" and "Single Block & Bleed", but on request "Double Piston Effect" (DPE) seats can be fit on valves, so granting "Double Block & Bleed" to the valve. Also a combination of both type of seats can be fitted on the valves (SRE one side and DPE the other side).

All **BONETTI-WVE** ball valves incorporate one ore more antistatic device to ensure electrical conductance continuity between all metallic parts.

Other optional features include emergency sealant injection on stem and seats, transition rings or pipe pups (BW ends only), manual gearbox, electric, pneumatic, hydraulic, gas over oil or other means of actuation, locking and interlocking devices and other special accessories on request.

## MANUFACTURING RANGE

**Sizes:** from 1/4" up to 32"

**Classes:** from DIN PN 16 up to PN100  
from ASME Class 150 up to 2500  
from API 2000 psi up to 10000 psi

**Pressures:** from vacuum up to 690 bar

**Temperatures:** from -196°C up to +660°C  
depending on pressure and material.

## Materials:

Forged

Carbon Steels: A105, LF2, 60K.

Forged Stainless

& Duplex Steels: F304, F316(L), F6, 17-4PH, AISI 4140, F321, F347, F44, F51, F53, F55.

Other

Materials: Inconel, Hastelloy, Monel, Alloy 20, Sanycro 28, Titanium.

Soft Seats

& Inserts: PTFE, Nylon, HNBR, VITON, Fluoroloy, PEEK, Vespel, KEL-F, Buna N

Seals &

Gaskets: Viton, HNBR, Graphite, SW316+Graph., Kel-F, Buna, Lip Seals.

Special

Processes: TCC (Tungsten Carbide Coating), C.R.A. overlays & Claddings.

**Other materials are available on request.**

## INDUSTRIAL FIELDS OF APPLICATION

- Oil & Gas shaft hauling - On-shore & Off-shore
- Oil & Gas pipelines
- Chemical & Petrochemical
- Pharmaceutical
- Energy & Power
- Pulp & Paper
- Food & Beverage
- Slurries
- Generic Industrial Processing

## LIST OF MATERIAL FOR TYPICAL EXECUTION (Different materials are available on request)

	Carbon Steel	Stainless steel	F 51
Body & body ends	A 105 N	A 182 F316	A 182 F51
Ball	A 105 N + ENP	A 182 F316	A 182 F51
Stem	A 105 N + ENP	A 182 F316	A 182 F51
Seat ring	A 105 N + ENP + PTFE / Nylon 12	A 182 F316 + PTFE / Nylon 12	A 182 F51 + PTFE / Nylon 12
Bonnet	A 105 N	A 182 F316	A 182 F51
Stud bolts & nuts	A 193 B7 - A 194 2H	193 B8 Cl. 2 - A 194 Gr. 8	A 193 B7 - A 194 2H
O-rings	Viton	Viton	Viton
Gaskets	Graphite	Graphite	Graphite
Injectors	A 105 Zinc plated	S 31600	S 31803
Vent & drain plugs	A 105 N	S 31600	S 31803

# BONETTI WVE TRUNNION ball valves - Bolted Body - Side Entry

ASME Class from 150 up to 2500

Size from 1" up to 24"

Split Body: two pieces from 1" up to 4" - three pieces from 6" and larger

## "TRUNNION" MOUNTED BALL VALVES

In this type of valves the ball rotates without moving on the horizontal axis, where seats are "floating" and free to move on the same axis. The side load generated by fluid pressure on the ball is absorbed by bearings. At low pressure the seat starting sealing is achieved by the thrust action of springs acting on seats. As the fluid pressure increases, the pressure itself pushes the seats against the ball so giving more and more tightness.

## "FLOATING" SEAT RINGS

Floating seats achieve bi-directional tightness of the valve. Seats are designed to minimise the torque required to operate the valve without losing sealing power, which is assured starting from zero differential pressure up to the maximum admitted pressure according to the valve rating.

## ANTISTATIC DESIGN

To avoid any possibility to generate statical electricity when operating the valves, all **BONETTI-WVE** ball valves incorporate one or more antistatic device to ensure electrical conductance continuity between all metallic parts.

## INDEPENDENT BALL AND STEM

The ball and the stem are fully independent. A calculated backlash eliminates any side thrust effect to the stem generated by the fluid pressure acting on the ball.

## "SOFT SEATED" VALVES

In **BONETTI-WVE** ball valves designed for standard service, a special resilient elastomeric material is inserted into the metal seat holder to provide, in addition to the metal to metal seating, a "soft seating" action between the ball and such resilient elastomeric material of the seat.

## "METAL SEATED" VALVES

In this type of ball valves, tightness between the seats and the ball is provided by the "metal to metal" contact. In this case, sealing surfaces of both the seats and the ball are hardfaced using special processes to increase surfaces hardness so granting lower wear and better rotatory slipping of the ball between the seats.

This kind of seats fits applications with abrasive fluids or if a very high temperature does not consent to employ resilient elastomeric materials.

## "SINGLE PISTON EFFECT" SEATS

When it is employed a seat designed to obtain a "Simple Piston Effect", also called "Self-Relieving" type, the upstream or downstream fluid pressure acts on the external side of the seat ring holders and pushes the seat ring against the ball, so increasing the valve tightness. If some overpressure is generated inside the body cavity of the valve, the rings are free to move and to consent discharging of such overpressure inside the piping.

## "DOUBLE PISTON EFFECT" SEATS

Using this type of seats, the fluid pressure, acting both on the external and on the internal side of seat ring holders, thanks to their special design, generates a thrust force pushing the two upstream and downstream seats against the ball. Therefore both seats achieve tightness also when pressure is only inside the valve body.

## "DOUBLE BLOCK & BLEED"

All Bonetti **BONETTI-WVE** "trunnion" type ball valves achieve the "Double Block & Bleed" function, that is the possibility to drain the internal cavity of the valve both in closed as well as in open position, draining without any external leakage of the line, also when there is pressure and flow through the valve.

## FIRE SAFE

All "trunnion" **BONETTI-WVE** ball valves are designed, tested and certified "Fire Safe" according to API 6FA, API 607, BS 6755 Part II Standards.

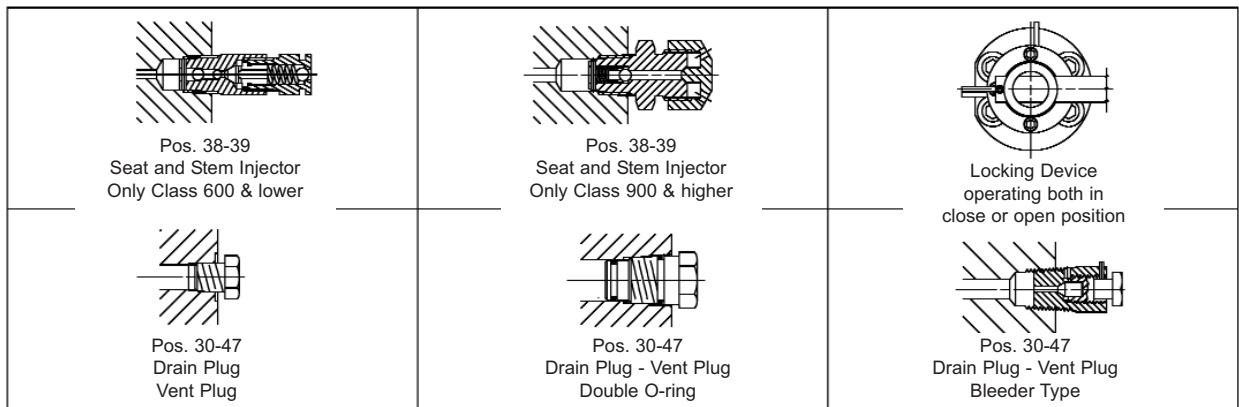
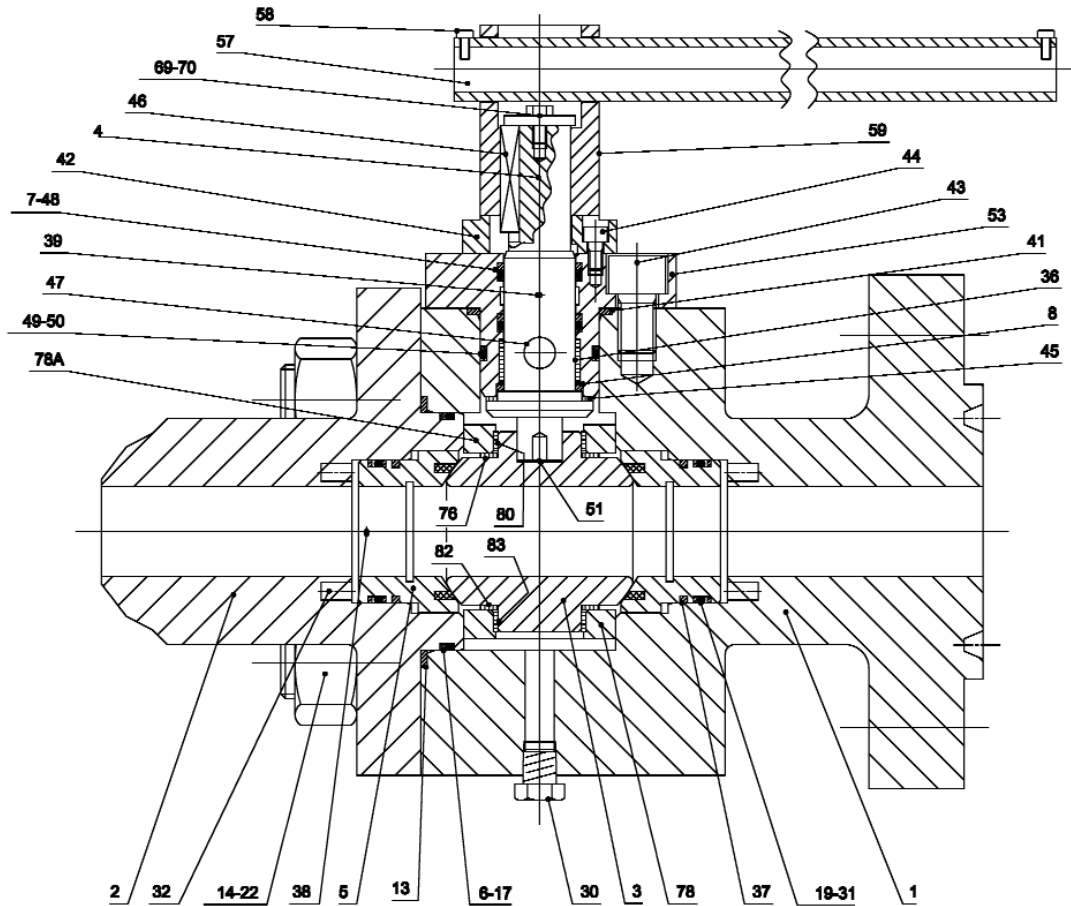
## LOW EMISSION VALVES

Accurate machining of stem, of stem packing housing, and of any sealing surface, together with the best quality of any used sealing material, ensure compliance with the most severe pollution control regulations.

## TRUNNION MOUNTED BALL VALVES ACCESSORIES & FEATURES

API 6D or API 6A Design and Construction	Standard
API Monogram	On Request
Fire Safe Design to API 6FA – API 607 – BS 6755 Pt 2	On Request
Primary Soft Seat – Secondary Metal Seat	Standard
Metal to Metal Seat	On Request
Single Piston Seat Effect	Standard
Double Piston Seat Effect	On Request
Double Block & Bleed	On Request
Valve Ends RF, RTJ, BW ecc.	On Request
Antistatic Design	Standard
Anti-Blow-Out Stem	Standard
Drain Plug	Standard
Vent Plug	Standard (4" & larger)
Emergency Sealant Injection on Stem	On Request
Emergency Sealant Injection on Seat	On Request (4" & larger)
Seat and Stem Pocket Overlay	On Request
Extended Stem for Underground Installation	On Request
Extended Bonnet for Low or High Temperature	On Request
Locking Device	On Request
Manual or Motorized	On Request
In-line Maintenance	N/A
On site Maintenance	Standard

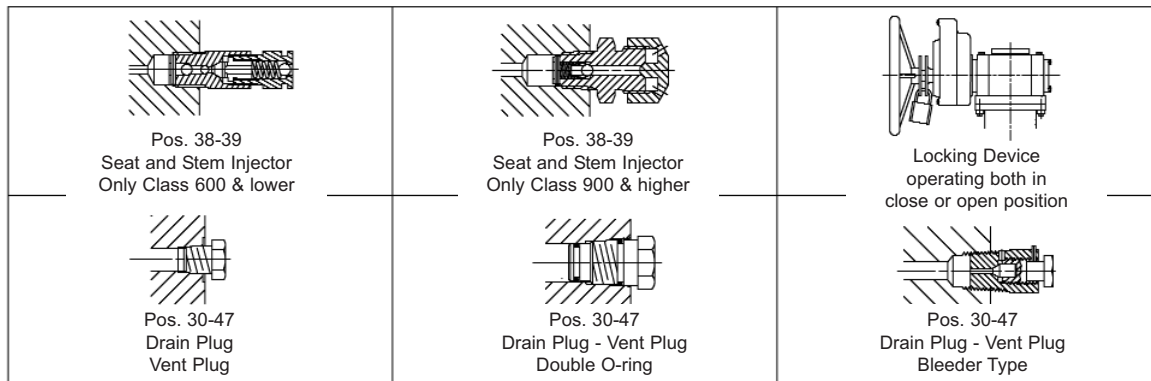
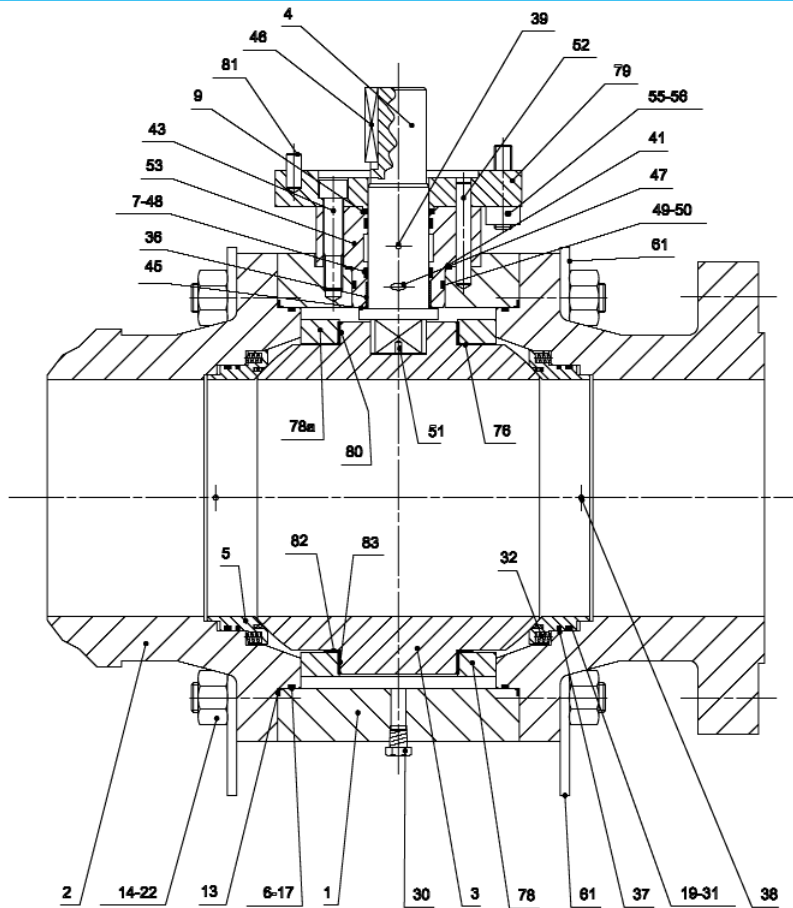




## PARTS ITEM LIST

No.	Item	No.	Item
1	Body	43	Cap screw
2.	Body end	44	Cap screw
3	Ball	45	Thrust bearing
4	Stem	46	Key
5	Seat ring	47	Vent plug
●6	Body O-ring	★●48	Back-up stem O-ring
●7	Stem O-ring	●49	Bonnet O-ring
●8	Fire safe gasket	★●50	Back-up bonnet O-ring
●13	Fire safe gasket	■51	Antistatic device
14	Stud bolt	53	Bonnet
★●17	Back-up body O-ring	57	Control lever
★●19	Back-up seat O-ring	58	Cap screw
22	Stud bolt nut	59	Support lever
30	Drain plug	69	Washer
●31	Seat O-ring	70	Hexagonal screw
32	Spring	76	Upper thrust bearing
36	Stem bearing	78	Spacer
●37	Fire safe gasket	78A	Spacer
■38	Seat injector	80	Upper bearing
■39	Stem injector	82	Lower thrust bearing
●41	Fire safe gasket	83	Lower bearing
42	Adapter plate		

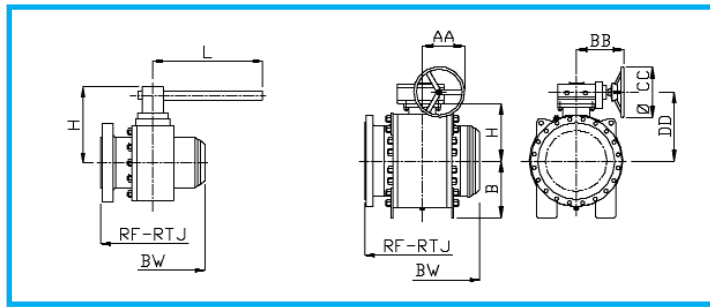
● Recommended spare parts - ■ On request - ★ Class 600 and higher



## PARTS ITEM LIST

No.	Item	No.	Item
1	Body	45	Thrust bearing
2.	Body end	46	Key
3	Ball	❖47	Vent plug
4	Stem	★●48	Back-up stem O-ring
5	Seat ring	●49	Bonnet O-ring
●6	Body O-ring	★●50	Back-up bonnet O-ring
●7	Stem O-ring	■51	Antistatic device
●9	Fire safe gasket	52	Pin
●13	Fire safe gasket	53	Bonnet
14	Stud bolt	55	Stud bolt
★●17	Back-up body O-ring	56	Stud bolt nut
★●19	Back-up seat O-ring	60	Lifting lugs
22	Stud bolt nut	61	Supporting feet
30	Drain plug	76	Upper thrust bearing
●31	Seat O-ring	78	Spacer
32	Spring	78A	Spacer
36	Stem bearing	79	Actuator support plate
●37	Fire safe gasket	80	Upper bearing
■38	Seat injector	81	Pin
■39	Stem injector	82	Lower thrust bearing
●41	Fire safe gasket	83	Lower bearing
43	Cap screw		

● Recommended spare parts - ■ On request - ★ Class 600 and higher - ❖ On request for size ≤ 4", standard for sizes 6" and larger

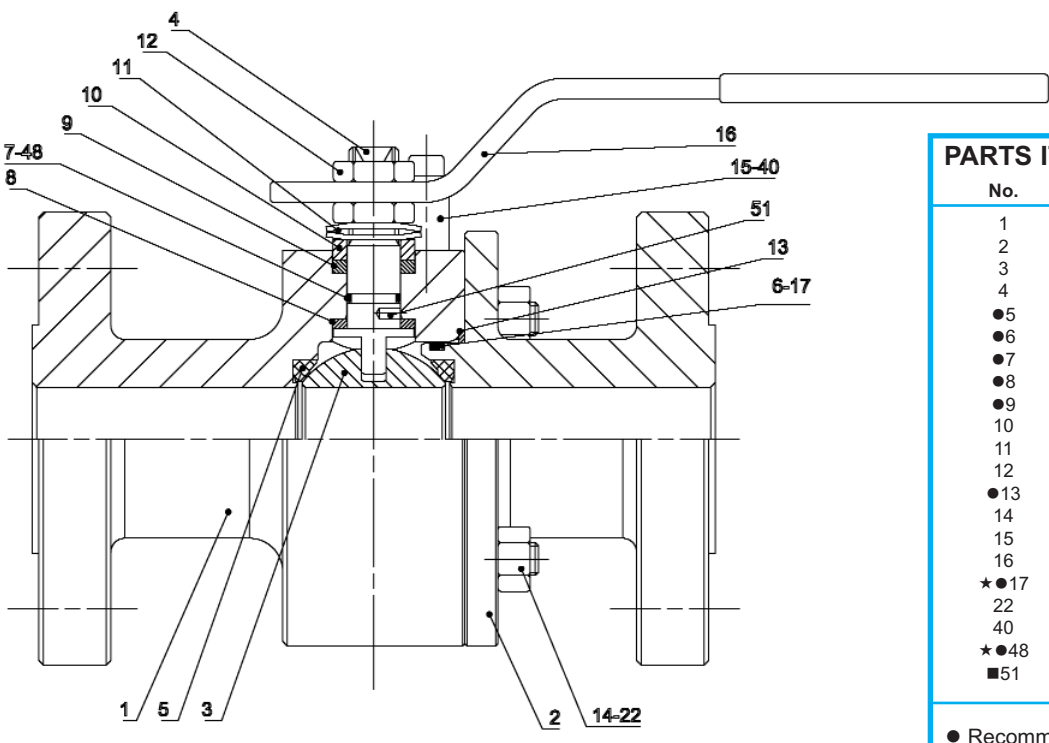


TRUNNION BALL VALVES SPLIT BODY				OVERALL DIMENSIONS (in millimeters)									
DN	Class	Code	TYPE	RF	BW	RTJ	H	B	L	HANDWHEEL OPERATED GEARBOX			
										ØCC	AA	DD	BB
1"	150	251	Two Pieces	165			120		165				
1"	300	252	Two Pieces	190			125		200				
1"	600	254	Two Pieces	254		254	150		300				
1"	900	255	Two Pieces	305		305	190		350				
1"	1500	256	Two Pieces	305		305	196		550				
1"	2500	257	Two Pieces	451	451	454	260		800				
1.1/2"	150	251	Two Pieces	178	216	191	175		320				
1.1/2"	300	252	Two Pieces	216	216	232	175		320				
1.1/2"	600	254	Two Pieces	292	292	295	200		450				
1.1/2"	900	255	Two Pieces	368	368	371	215		550				
1.1/2"	1500	256	Two Pieces	368	368	371	215		650				
1.1/2"	2500	257	Two Pieces	451	451	454	205			250	180	240	200
2"	150	251	Two Pieces	178	216	191	180		320				
2"	300	252	Two Pieces	216	216	232	180		470				
2"	600	254	Two Pieces	292	292	295	198		565				
2"	900	255	Two Pieces	368	368	371	233		900				
2"	1500	256	Two Pieces	368	368	371	241		900				
2"	2500	257	Two Pieces	451	451	454	225			500	230	270	195
3"	150	251	Two Pieces	203	283	216	220		365				
3"	300	252	Two Pieces	283	283	298	220		565				
3"	600	254	Two Pieces	356	356	359	248		715				
3"	900	255	Two Pieces	381	381	384	206			300	215	251	290
3"	1500	256	Two Pieces	470	470	473	223			400	240	262	297
3"	2500	257	Two Pieces	578	578	584	250			500	340	300	200
4"	150	251	Two Pieces	229	305	241	250		600				
4"	300	252	Two Pieces	305	305	321	275		650				
4"	600	254	Two Pieces	432	432	435	215			350	240	265	200
4"	900	255	Two Pieces	457	457	460	238			400	284	286	250
4"	1500	256	Two Pieces	546	546	549	267			500	340	325	250
4"	2500	257	Three Pieces	673	673	683	300	275		500	375	365	260
6"	150	251	Three Pieces	394	457	406	252	220		300	216	297	257
6"	300	252	Three Pieces	403	457	419	252	230		400	284	300	268
6"	600	254	Three Pieces	559	559	562	268	260		500	334	316	320
6"	900	255	Three Pieces	610	610	613	280	250		600	390	336	300
6"	1500	256	Three Pieces	705	705	711	316	275		600	400	381	315
6"	2500	257	Three Pieces	914	914	927	395	340		600	430	475	350
8"	150	251	Three Pieces	457	521	470	290	290		500	340	346	310
8"	300	252	Three Pieces	502	521	518	310	290		600	392	362	297
8"	600	254	Three Pieces	660	660	664	318	290		600	430	366	395
8"	900	255	Three Pieces	737	737	740	335	320		500	305	418	315
8"	1500	256	Three Pieces	832	832	841	349	340		500	364	430	326
10"	150	251	Three Pieces	533	559	546	331	335		500	334	380	313
10"	300	252	Three Pieces	568	559	584	341	335		500	355	397	383
10"	600	254	Three Pieces	787	787	791	363	320		500	355	441	416
10"	900	255	Three Pieces	838	838	841	363	360		600	429	463	348
10"	1500	256	Three Pieces	991	991	1000	405	395		600	434	475	360
12"	150	251	Three Pieces	610	635	622	379	370		600	400	439	363
12"	300	252	Three Pieces	648	635	664	395	370		500	355	473	416
12"	600	254	Three Pieces	838	838	841	418	400		500	402	495	445
12"	900	255	Three Pieces	965	965	968	418	420		600	480	482	365
12"	1500	256	Three Pieces	1130	1130	1146	462	470		700	542	528	384
14"	150	251	Three Pieces	686	762	699	402	400		500	355	458	383
14"	300	252	Three Pieces	762	762	778	420	400		500	379	498	416
14"	600	254	Three Pieces	889	889	892	422	415		600	429	500	448
14"	900	255	Three Pieces	1029	1029	1038	460	440		600	450	570	580
14"	1500	256	Three Pieces	1257	1257	1276	550	575		700	530	650	700
16"	150	251	Three Pieces	762	838	775	455	425		500	355	533	416
16"	300	252	Three Pieces	838	838	854	460	435		600	429	538	448
16"	600	254	Three Pieces	991	991	994	468	460		700	520	548	468
18"	150	251	Three Pieces	864	914	876	490	480		500	430	530	410
18"	300	252	Three Pieces	914	914	930	490	480		600	460	570	420
18"	600	254	Three Pieces	1092	1092	1065	520	500		600	480	590	440
20"	150	251	Three Pieces	914	991	927	540	520		500	400	690	350
20"	300	252	Three Pieces	991	991	1010	530	520		600	490	640	420
20"	600	254	Three Pieces	1194	1194	1200	550	540		700	510	660	440
24"	150	251	Three Pieces	1067	1143	1080	620	600		600	520	710	410
24"	300	252	Three Pieces	1143	1143	1165	620	600		700	540	730	430
24"	600	254	Three Pieces	1295	1295	1305	640	630		700	600	770	580

Note: For dimension in larger sizes, please apply to our sales department

Dimensions H, L, ØCC, AA, DD, BB are subject to change without notice

**BONETTI WVE FLOATING ball valves - Bolted Body - Side Entry**  
**ASME Class from 150 up to 1500**  
**Split body type - Flanged Ends**  
**Size from 1/2" up to 10" X 8" (see table on page 9)**



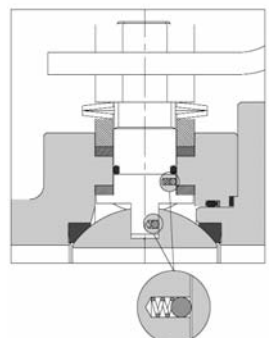
PARTS ITEM LIST	
No.	Item
1	Body
2	Body end
3	Ball
4	Stem
●5	Seat ring
●6	Body O-ring
●7	Stem O-ring
●8	Stem gasket
●9	Fire safe gasket
10	Gland
11	Spring washer
12	Stem nuts
●13	Fire safe gasket
14	Stud bolt
15	Back stop
16	Control lever
★●17	Back-up body O-ring
22	Stud bolt nut
40	Cap screw
★●48	Back-up stem O-ring
■51	Antistatic device

● Recommended spare parts  
 ■ On request

FLOATING BALL VALVES ACCESSORIES & FEATURES			
Fire Safe Design to API 6FA, API 607, BS 6755 Pt 2	Standard	Emergency Sealant Injection on Stem	On Request
Primary Soft Seat – Secondary Metal Seat	Standard	Stem Pocket Overlay	On Request
Metal to Metal Seat	On Request	Seat Pocket Overlay	On Request
Valve Ends RF, RTJ, BW, NPT, SW ecc.	On Request	Extended Bonnet for Low or High Temperature	On Request
Antistatic Design	Standard	Locking Device	On Request
Anti-Blow-Out Stem	Standard	Manual or Motorized	On Request
Drain Plug	On Request	In-line Maintenance	N/A
Vent Plug	On Request	On site Maintenance	Standard

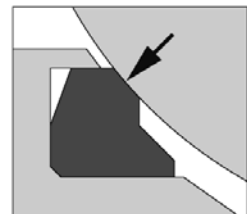
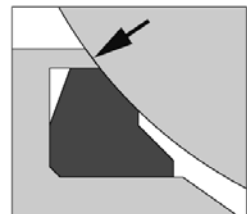
### ANTISTATIC DESIGN

To avoid any possibility to generate statical electricity when operating the valves, all BONETTI-WVE ball valves incorporate one or more antistatic "ball-spring" device to ensure electrical conductance continuity between all metallic parts.

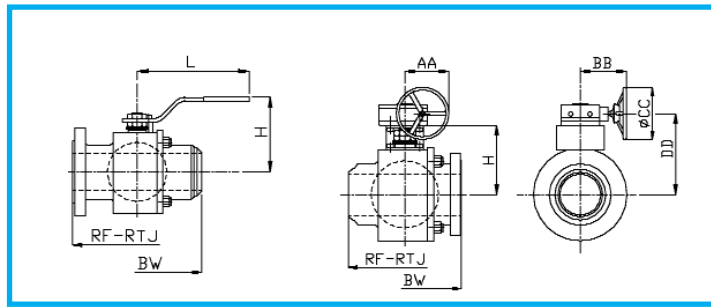


### VALVE SEAT DESIGN

In valves designed for standard service, a special resilient elastomeric material is inserted into the metal seat holder to provide, in addition to the metal to metal seating, a "soft seating" action between the ball and the resilient elastomeric material of the seat. The insert and the insert holder are designed to prevent ingress and entrapment of dirt or contaminant materials.

Primary: soft seal
Secondary: metal seal

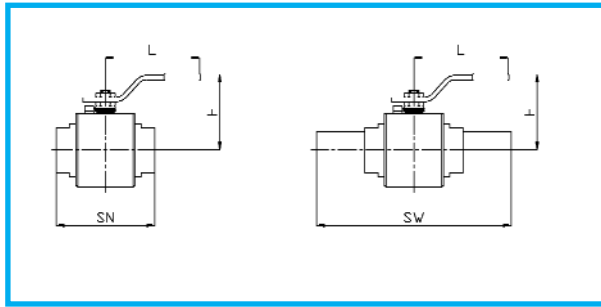
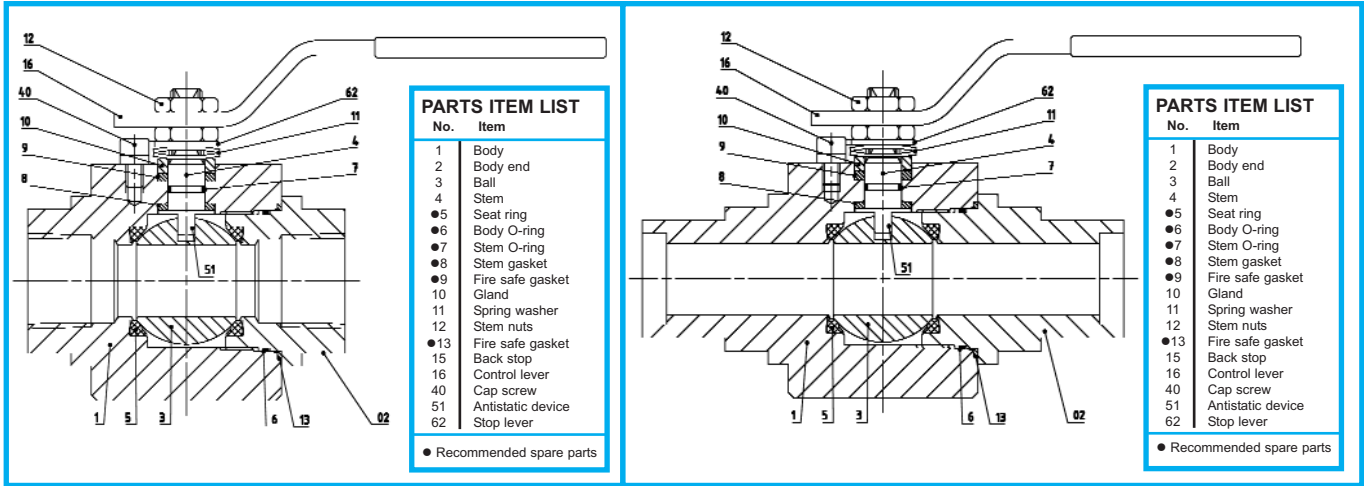


FLOATING BALL VALVES SPLIT BODY			OVERALL DIMENSIONS (in millimeters)													
DN	Class	TYPE	LONG PATTERN				SHORT PATTERN				H	L	HANDWHEEL OPERATED GERBOX			
			Code	RF	BW	RTJ	Code	RF	BW	RTJ			ØCC	AA	DD	BB
1/2"	150	Two Pieces	121	108	140		101	108	108		68	160				
3/4"	150	Two Pieces	121	117	152		101	117	117		72	160				
1"	150	Two Pieces	121	127	165		101	127	127		89	215				
1.1/2"	150	Two Pieces	121	165	190		101	165	165		122	290				
2"	150	Two Pieces	121	178	216		101	178	178		130	290				
3"	150	Two Pieces	121	203	282		101	203	203		160	385				
4"	150	Two Pieces	121	229	305		101	229	229		220	500				
6"	150	Two Pieces	121	394	457		101	267	403		290	700				
8"	150	Three Pieces	121	457	521		101	292	419		290		300	240	340	247
1/2"	300	Two Pieces	122	140	140		102	140	140		68	160				
3/4"	300	Two Pieces	122	152	152		102	152	152		72	160				
1"	300	Two Pieces	122	165	165		102	165	165		89	215				
1.1/2"	300	Two Pieces	122	190	190		102	190	190		122	290				
2"	300	Two Pieces	122	216	216		102	216	216		138	385				
3"	300	Two Pieces	122	282	282		102	282	282		160	385				
4"	300	Two Pieces	122	305	305		102	305	305		220	500				
6"	300	Two Pieces	122	403	457		102	403	403		245		300	210	287	220
8"	300	Three Pieces	122	502	521		102	419	419		290		350	260	340	247
1/2"	600	Two Pieces	124	165	165	165					82	215				
3/4"	600	Two Pieces	124	190	190	190					84	215				
1"	600	Two Pieces	124	216	216	216					115	290				
1.1/2"	600	Two Pieces	124	241	241	241					132	385				
2"	600	Two Pieces	124	292	292	295					138	385				
3"	600	Two Pieces	124	356	356	359					190	500				
4"	600	Two Pieces	124	432	432	435					230	700				
1/2"	900-1500	Two Pieces	126	216	216	216					84	215				
3/4"	900-1500	Two Pieces	126	229	229	229					84	215				
1"	900-1500	Two Pieces	126	254	254	254					115	290				
1.1/2"	900-1500	Two Pieces	126	305	305	305					132	385				
3/4"x1/2"	150	Two Pieces	131	117	152		111	117	117		68	160				
1"x3/4"	150	Two Pieces	131	127	165		111	127	127		72	160				
1.1/2"x1"	150	Two Pieces	131	165	190		111	165	165		89	215				
2"x1.1/2"	150	Two Pieces	131	178	216		111	178	178		122	290				
3"x2"	150	Two Pieces	131	203	282		111	203	203		130	290				
4"x3"	150	Two Pieces	131	229	305		111	229	229		160	385				
6"x4"	150	Two Pieces	131	394	457		111	267	403		220	500				
8"x6"	150	Two Pieces	131	457	521		111	292	419		290	700				
10"x8"	150	Three Pieces	131	533	559		111	330	457		290		300	240	340	247
3/4"x1/2"	300	Two Pieces	132	152	152		112	152	152							
1"x3/4"	300	Two Pieces	132	165	165		112	165	165							
1.1/2"x1"	300	Two Pieces	132	190	190		112	190	190							
2"x1.1/2"	300	Two Pieces	132	216	216		112	216	216							
3"x2"	300	Two Pieces	132	282	282		112	282	282							
4"x3"	300	Two Pieces	132	305	305		112	305	305							
6"x4"	300	Two Pieces	132	403	457		112	403	403							
8"x6"	300	Two Pieces	132	502	521		112	419	419							
10"x8"	300	Three Pieces	132	568	559		112	457	457							
3/4"x1/2"	600	Two Pieces	134	190	190	190					82	215				
1"x3/4"	600	Two Pieces	134	216	216	216					84	215				
1.1/2"x1"	600	Two Pieces	134	241	241	241					115	290				
2"x1.1/2"	600	Two Pieces	134	292	292	295					132	385				
3"x2"	600	Two Pieces	134	356	356	359					138	385				
4"x3"	600	Two Pieces	134	432	432	435					190	500				
6"x4"	600	Two Pieces	134	559	559	561					230	700				
3/4"x1/2"	900-1500	Two Pieces	136	229	229	229					84	215				
1"x3/4"	900-1500	Two Pieces	136	254	254	254					84	215				
1.1/2"x1"	900-1500	Two Pieces	136	305	305	305					115	290				
2"x1.1/2"	900-1500	Two Pieces	136	368	368	371					132	385				

Note: For dimension in larger sizes, please apply to our sales department

Dimensions H, L, ØCC, AA, DD, BB are subject to change without notice

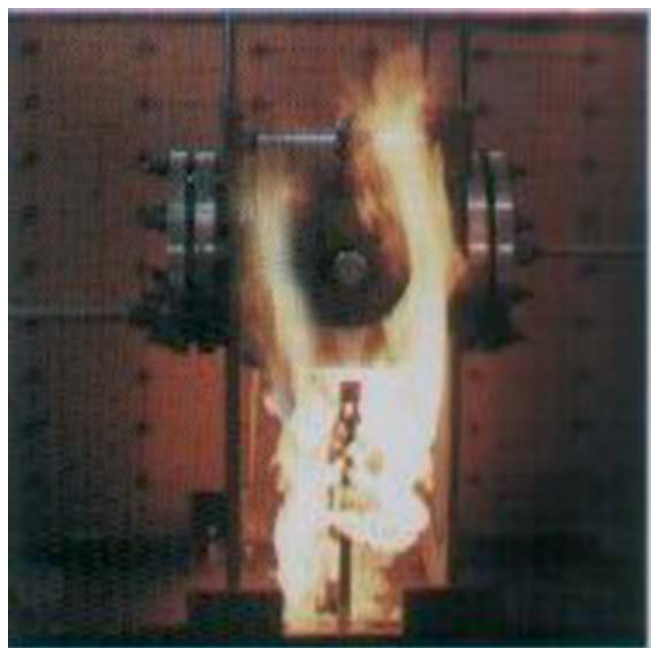
**BONETTI WVE FLOATING ball valves - Screwed Body - Side Entry**  
**Class from 800 up to 3000 psi**  
**Split body type - Threaded Ends, BW Ends, SW Ends**  
**Size From 1/4" up to 2"**



FLOATING BALL VALVES SPLIT SCREWED BODY				OVERALL DIMENSION (in millimeters)					
				DN	Rating	Code	TYPE	SN	SOCKET WELD
L1	L2	L3							
1/4"	800-3000 Psi	17T	Two Pieces	65				55	145
3/8"	800-3000 Psi	17T	Two Pieces	65				55	145
1/2"	800-3000 Psi	17T	Two Pieces	83				66	160
3/4"	800-3000 Psi	17T	Two Pieces	90				78	215
1"	800-3000 Psi	17T	Two Pieces	110				87	215
1.1/2"	800-3000 Psi	17T	Two Pieces	130				128	290
2"	800-3000 Psi	17T	Two Pieces	150				138	385
1/4"	800-3000 Psi	19T	Two Pieces		140			55	145
3/8"	800-3000 Psi	19T	Two Pieces		140			55	145
1/2"	800-3000 Psi	19T	Two Pieces		140			66	160
3/4"	800-3000 Psi	19T	Two Pieces		152			78	215
1"	800-3000 Psi	19T	Two Pieces		165			87	215
1.1/2"	800-3000 Psi	19T	Two Pieces		190			128	290
2"	800-3000 Psi	19T	Two Pieces		216			138	385
1/4"	800-3000 Psi	50T	Two Pieces			203		55	145
3/8"	800-3000 Psi	50T	Two Pieces			203		55	145
1/2"	800-3000 Psi	50T	Two Pieces			254		66	160
3/4"	800-3000 Psi	50T	Two Pieces			279		78	215
1"	800-3000 Psi	50T	Two Pieces			279		87	215
1.1/2"	800-3000 Psi	50T	Two Pieces			305		128	290
2"	800-3000 Psi	50T	Two Pieces			356		138	385
1/4"	800-3000 Psi	50T	Two Pieces				203	55	145
3/8"	800-3000 Psi	50T	Two Pieces				203	55	145
1/2"	800-3000 Psi	50T	Two Pieces				254	66	160
3/4"	800-3000 Psi	50T	Two Pieces				279	78	215
1"	800-3000 Psi	50T	Two Pieces				330	87	215
1.1/2"	800-3000 Psi	50T	Two Pieces				356	128	290
2"	800-3000 Psi	50T	Two Pieces				406	138	385

Note: For dimension in larger sizes, please apply to our sales department

Dimensions H and L are subject to change without notice



In 1905, **Cesare Bonetti** opened a shop in Milan, Italy, to manufacture small hand valves to meet the local demand. In the early 1920s, this small but growing firm, took on a new industrial look and moved into the production and sale of industrial valves.

**BONETTI**<sup>®</sup>, by this time, had become a well known company for the production of piston valves, sleeve-packed cocks, and glass level gauges. Subsequently, the production range, bearing the **BONT**<sup>®</sup> and **CMI**<sup>®</sup> registered trademarks was increased to include new valves for high temperature and high pressure service designed to meet the strictest requirements of the time and using the most advanced design and manufacturing technology. This included double sealing valves, bellows valves, diaphragm valves, and magnetic level gauges.

After two expansions, in 1969, the company moved to its new headquarters and main factory in Garbagnate Milanese, where Bonetti continues its passion for growth through research, development and design accuracy. Such expansion continued with the new factories of Limburg an der Lahn (Germany) and Suzhou (Popular Republic of China).

Production facilities are supported by international joint-ventures and by a sales network serving Customers in the whole world.

In 2005 BONETTI purchased Williams Valve Engineering ball valves business and manufacturing, moving all facilities in its Garbagnate main factory.

**WVE** (former *Williams Valve Engineering*) trademark is now identifying the new **BONETTI**'s ball valve line.

This, in turn, increases its opportunities to continue to grow and expand.

**Facilities:**

Enclosed surface	66,000 sq.m
Offices building (with car parking below) for three stories	2,200 sq.m
Facilities building (mess-hall, locker rooms, sanitary department, etc.) for three stories	2,000 sq.m
Manufacturing shed (including Production Department and general Facilities)	19,000 sq.m



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**A wide international sales network**

**Please apply for more information about our International Technical Sales Organisation**



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