

## HIGH PURITY BALL VALVES M3HP TRUE BORE ( DN 2 1/2" – 4" ASME BPE )

### DESCRIPTION

M3HP three piece body ball valves are isolating valves designed for use on clean steam, condensate and other gases and liquids used in high purity and aseptic processes.

The valve is not designed as a control valve and should be used only as an isolating valve, fully open or fully closed.

The product was mainly designed for the pharmaceutical, biotech, semiconductor, cosmetics, fine chemical, food and beverage industries.

### MAIN FEATURES

- True bore floating ball design
- Completely made from solid bar stock material
- Can be serviced without removal from pipeline
- Bidirectional
- Anti blow out proof stem
- Tube weld with loose body flanges (360° rotation after installation)

### STANDARD SURFACE FINISH

- Internal wetted parts: ≤ 0,5 micron Ra
- External : ≤ 0,8 micron Ra ( 0,25 micron Ra and electro polished as option)
- Ultrasonic cleaning

**OPTIONS:**

- Antistatic device
- Different sealing materials
- ISO 5211 mounting
- Degreased for oxygen use

**USE:** Clean steam, gases and liquids compatible with the construction.

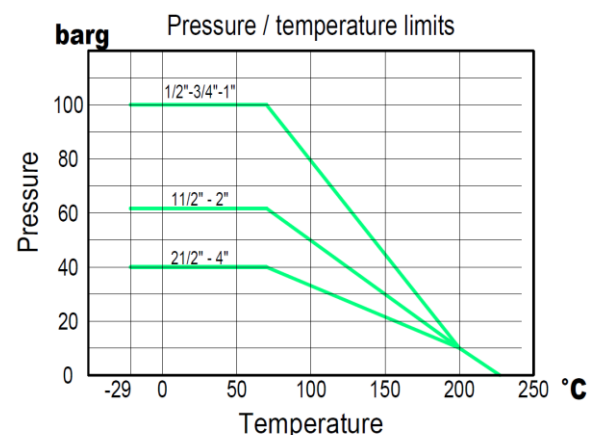
**AVAILABLE MODELS:** M3HP – Complete bar stock construction

**SIZES:** DN2 1/2" to DN 4"

**CONNECTIONS:** According to ASME BPE  
TC – Sanitary clamps  
ETO – Extended tube orbital welding  
TC / ETO – Combination

**PACKAGING:** Assembling and packaging in a clean room certified according to ISO 14644-1. The product is end capped and vacuum sealed with recyclable plastic film to avoid contamination.

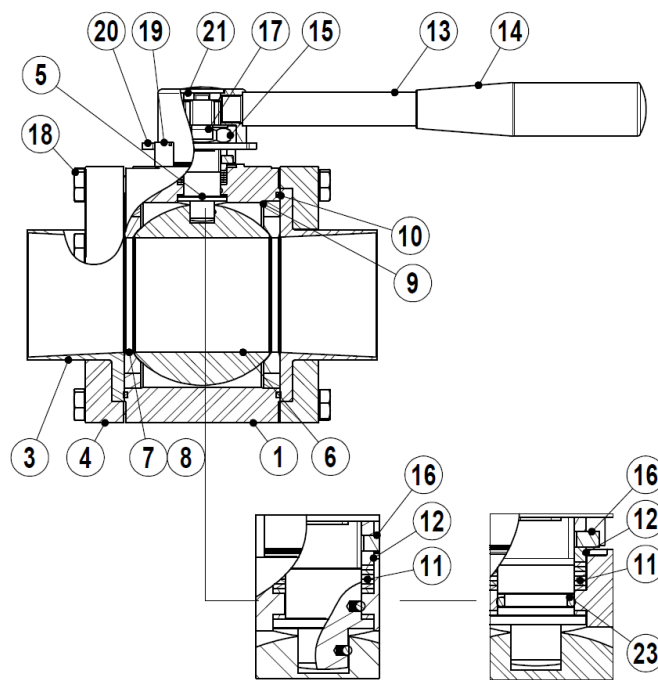
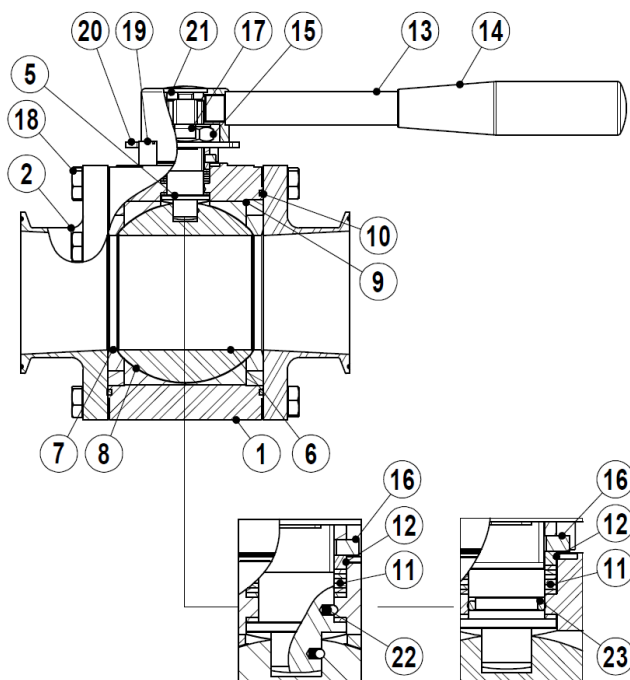
**INSTALLATION:** See IMI, installation and maintenance instructions.



TFM 1600

Working pressure may be limited by the valve connections.

CE MARKING (PED - European Directive 97/23/EC)	
PN 40	Category
DN 2 1/2" - 4"	1 (CE Marked)


**MATERIALS**

POS.	DESIGNATION	MATERIAL
1	Valve body	AISI316L / 1.4404
2	TC end connection	AISI316L / 1.4404
3	Tube weld end conn.	AISI316L / 1.4404
4	Flange	AISI316L / 1.4404
5	Stem	AISI316L / 1.4404
6	* Valve ball	AISI316L / 1.4404
7	* Standard seat	TFM 1600
8	* Cavity filler seat	TFM 1600
9	Body ring	AISI316L / 1.4404
10	* Body seal	PTFE
11	* Stem seals	TFM 1600
12	* Spacer	AISI316 / 1.4401
13	Handle	AISI304 / 1.4301
14	Handle end	Vinyl
15	* Spring washers	AISI304 / 1.4301
16	Compression nut	AISI304 / 1.4301
17	* Lock washers	AISI304 / 1.4301
18	Fixing bolt	AISI304 / 1.4301
19	Stop pin	AISI304 / 1.4301
20	Handle stopper	AISI304 / 1.4301
21	Fixing screw	AISI304 / 1.4301
22	** Antistatic device	AISI316 / 1.4401
23	O-ring	VITON

\* Available spare parts. \*\* On request

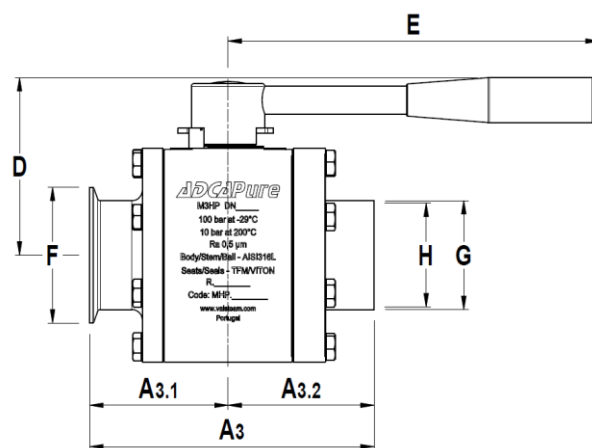
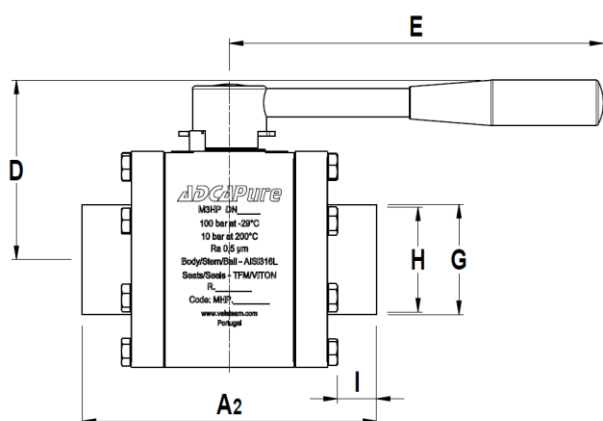
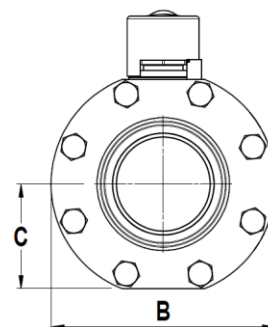
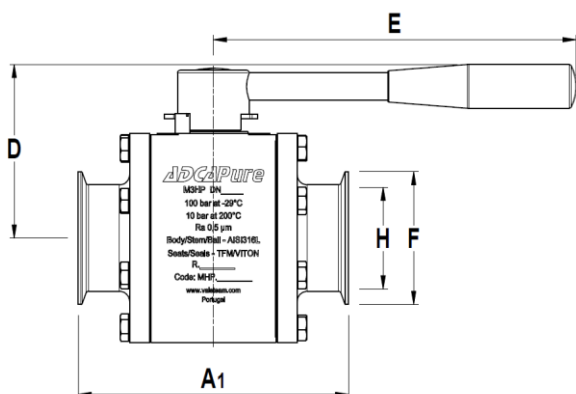
Remarks: FDA/USP Class VI seals certificate on request

All valves have a serial number. In case of non-standard valves this number must be supplied if spare parts are ordered.

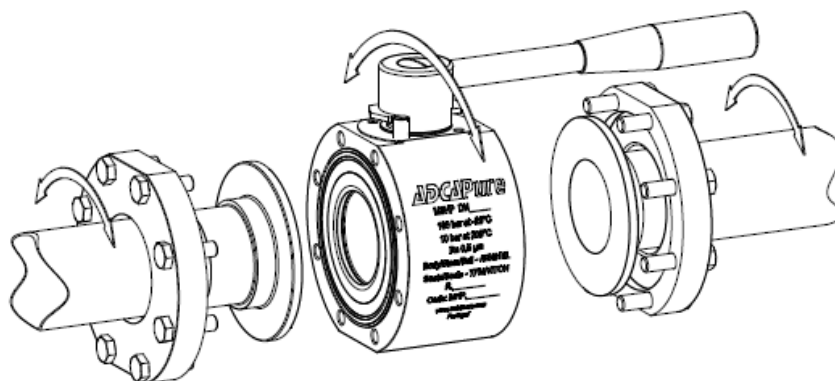


DIMENSIONS (mm)																
SIZE DN	A1	A2	A3	A3.1	A3.2	B	C	D	E	F	G	H	I	BALL PORT	ISO 5211 *	WGT. Kg
2 1/2"	190	203	196,3	95	101,5	160	72,5	130	250	77,4	63,5	60,2	29	60,2	F7	15,3
3"	216	228	222	108	114	180	83,5	140	290	90,9	76,2	72,9	30	72,9	F7	22,1
4"	254	267	260,5	127	133,5	220	101,5	158	290	118,9	101,6	97,4	36	97,4	F10	39,7

\* Available on request.



### Tube weld easy and quick installation - standard



Loose body flanges make it possible to install the valve without aligning of welded end connections. After installation the valve can rotate on 360° for the desired orientation.



ORDERING CODES M3HP											
<b>Valve model</b>		<b>MHP</b>	.		<b>F</b>				<b>CB</b>	.	<b>65</b>
M3HP 3 pieces ball valve AISI 316L		<b>MHP</b>									
<b>Material</b>											
AISI 316L 1.4404											
<b>Seat design</b>											
Standard seats											
Cavity fillers											
<b>Seat material</b>											
TFM 1600											
<b>Special services / Options</b>											
Standard surface finish ( mechanical polishing)											
Electropolishing											
Oxigen cleaning											
<b>Antistatic device</b>											
None											
Antistatic device											
<b>End connections</b>											
TC - Sanitary clamps ASME BPE											
ETO - Extended tube orbital w elding ASME BPE (360° rotation)											
TC / ETO Combination ASME BPE (360° rotation)											
<b>Ball port</b>											
True bore (standard)											
Full bore											
<b>Valve size</b>											
DN 2 1/2"											
DN 3"											
DN 4"											
<b>Special valves / Extras b)</b>											

(\*) Omitted if a standard valve is requested

b) Full description or additional codes have to be added in case of non-standard combination.

NA - Not available