

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 with 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 only be used as an isolating valve, fully open or fully closed.

The product is 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).

ISO 5211 mounting.

STANDARD SURFACE FINISH

Internal wetted parts: ≤ 0,51 micron Ra – SF1.

External : ≤ 0,76 micron Ra – SF3.

Other surface conditions see IS PV20.00-Technical information.

Ultrasonic cleaning.

OPTIONS:

Antistatic device.
Different sealing materials.
Degreased for oxygen use.

USE:

Clean steam, gases and liquids compatible with the construction.

AVAILABLE MODELS:

M3HP – Complete bar stock construction.

SIZES:

2 1/2" to 4".

CONNECTIONS:

According to ASME BPE.
TC – Sanitary clamps.
ETO – Extended tube orbital welding.
TC / ETO – Combination.

PACKAGING:

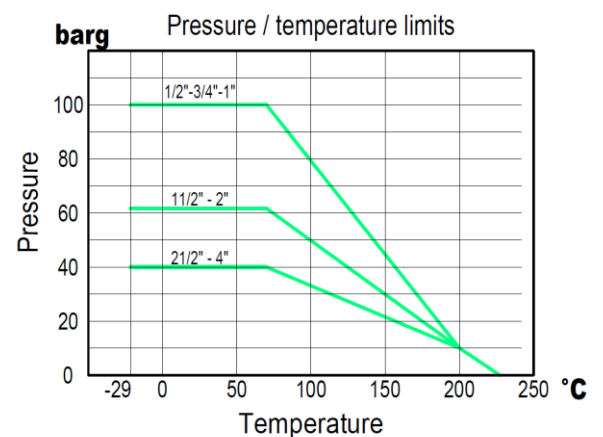
Assembling and packaging in a clean room certified according to ISO 14644-1.
The product is end capped and vacuum sealed with recyclable plastic film to avoid contamination.

INSTALLATION:

See IMI, installation and maintenance instructions.

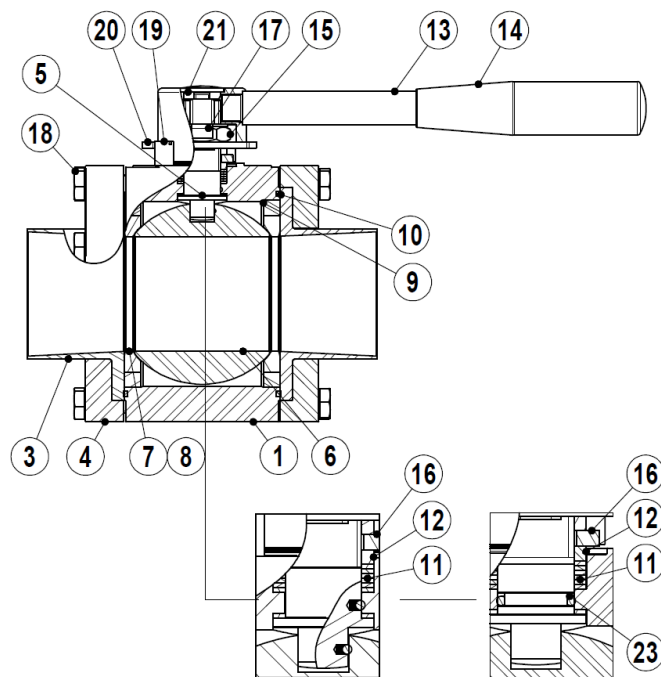
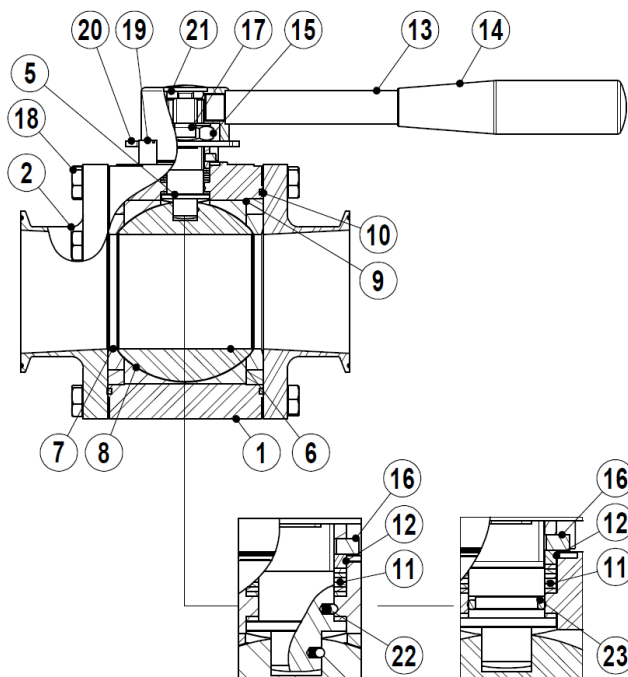


CE MARKING - GROUP 2 (PED - European Directive)	
PN 40	Category
2 1/2" - 4"	1 (CE Marked)



TFM 1600

Working pressure may be limited by the valve connections.

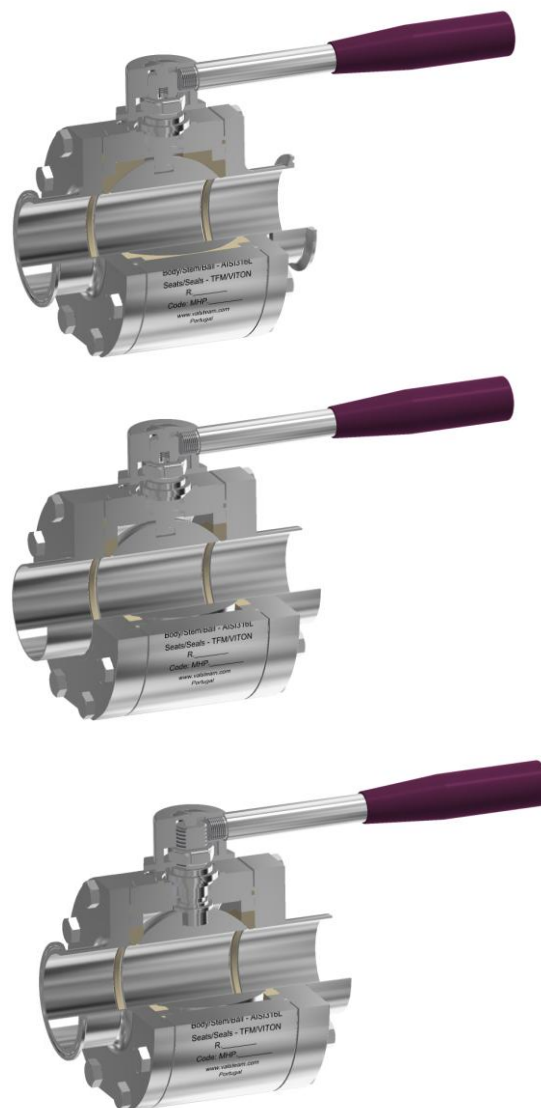


MATERIALS		
POS.	DESIGNATION	MATERIAL
1	Valve body	AISI316L / 1.4404
2	TC end connection	AISI316L / 1.4404
3	Tube weld end conn.	AISI316L / 1.4404
4	Flange	AISI316L / 1.4404
5	Stem	AISI316L / 1.4404
6	* Valve ball	AISI316L / 1.4404
7	* Standard seat	TFM 1600
8	* Cavity filler seat	TFM 1600
9	Body ring	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
14	Handle end (optional)	AISI316L / 1.4404
15	Compression nut	AISI304 / 1.4301
16	* Spring washers	AISI304 / 1.4301
17	* Lock washer	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

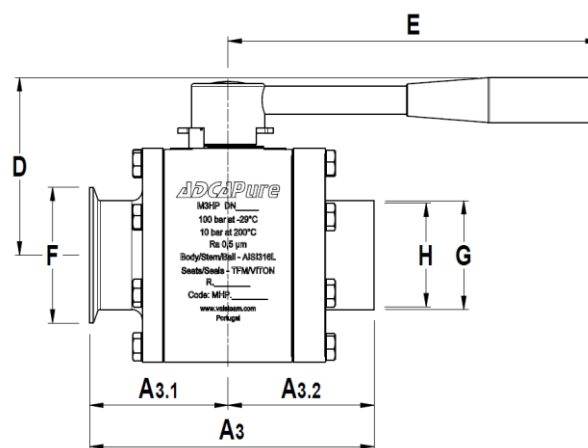
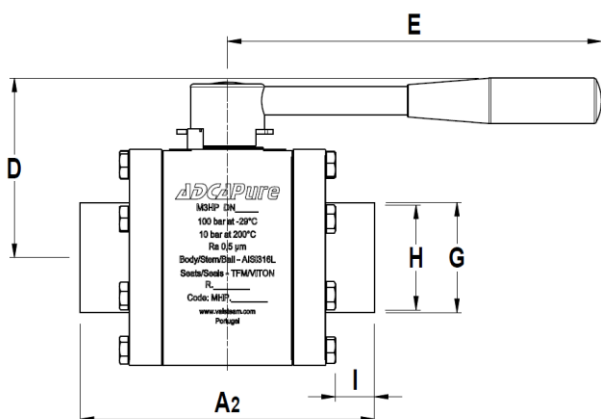
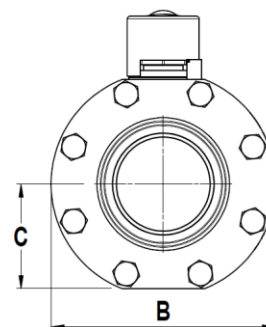
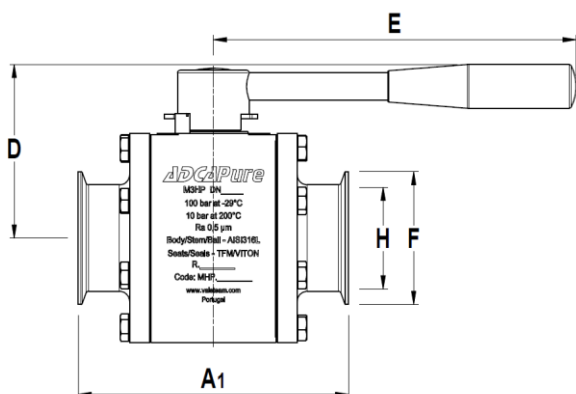
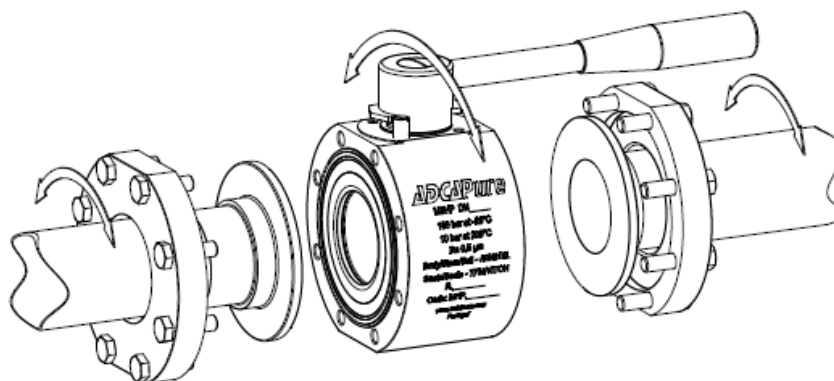
Remarks: FDA/USP Class VI seals certificate on request

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	A1	A2	A3	A3.1	A3.2	B	C	D	E	Ø F	Ø G	Ø 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


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										
Valve model		MHP	.	F	F			CB	.	65
M3HP 3 pieces ball valve AISI 316L		MHP								
Lever handle										
Round lever handle stainless steel / plastic										(*)
Round lever handle complete stainless steel										1
Flat lever handle stainless steel / plastic cover										2
Flat lever handle st. steel / plastic cover w/lockable system										3
Material										
AISI 316L 1.4404										(*)
Seat design										
Standard seats										(*)
Cavity fillers										F
Seat material										
TFM 1600										F
Special services / Options										
Standard surface finish (mechanical polishing)										(*)
Electropolishing										1
Oxygen cleaning										2
Antistatic device										
None										(*)
Antistatic device										A
End connections										
TC - Sanitary clamps ASME BPE										CB
ETO - Extended tube orbital welding ASME BPE (360° rotation)										TB
TC / ETO Combination ASME BPE (360° rotation)										CTB
Ball port										
True bore (standard)										(*)
Full bore										NA
Valve size										
2 1/2"										65
3"										80
4"										100
Special valves / Extras b)										E

(*) 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