

**HYGIENIC BALL VALVES
M3H TRUE BORE
(1/2" – 2" ASME BPE)**

DESCRIPTION

M3H three pieces 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.

A351 CF3M body and ends with ferrite content of less than 2% and low sulphur between 0,005 and 0,017%.

Can be serviced without removal from pipeline.

Tube weld with loose body flanges (360° rotation after installation).

Bidirectional.

Antistatic device.

Anti blow out proof stem.

ISO 5211 mounting.

STANDARD SURFACE FINISH

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

External: as casted.

Ultrasonic cleaning.

OPTIONS: Different sealing materials.
Degreased for oxygen use.
Cavity filler.

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

AVAILABLE MODELS: M3H – Investment casting.

SIZES: 1/2" to 2".

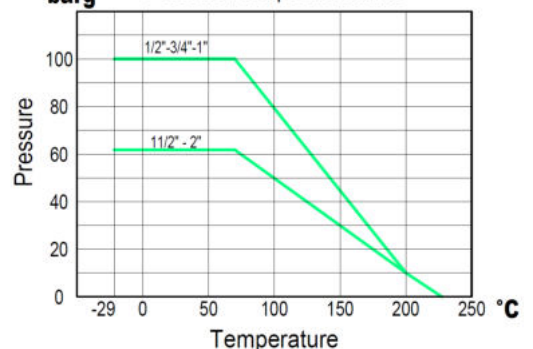
CONNECTIONS: According to ASME BPE.
TC – Sanitary clamps.
ETO – Extended tube orbital welding.
TC / ETO – Combination.

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

INSTALLATION: See IMI - Installation and maintenance instructions.



barg Pressure / temperature limits



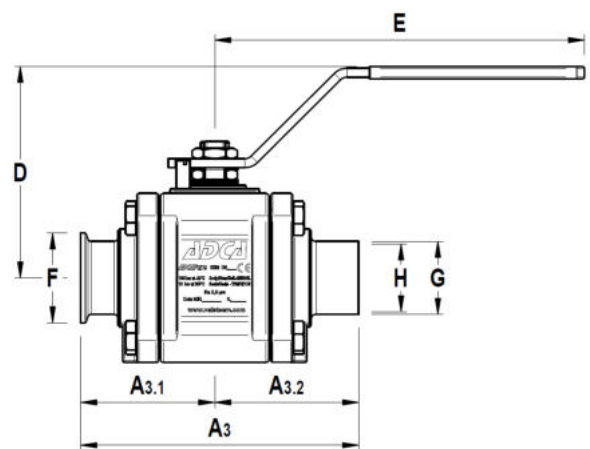
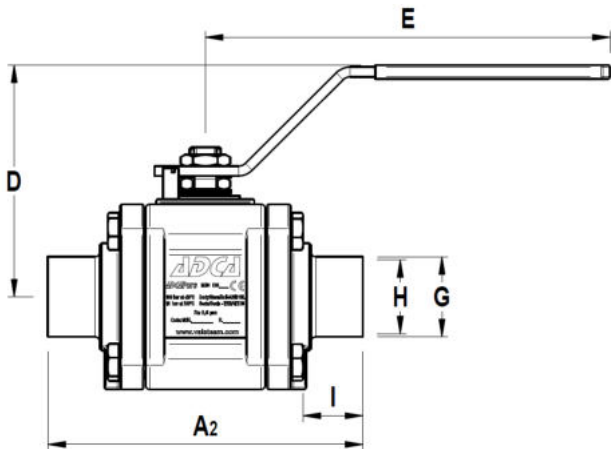
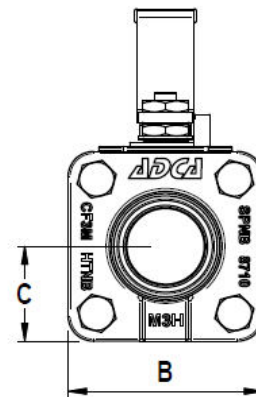
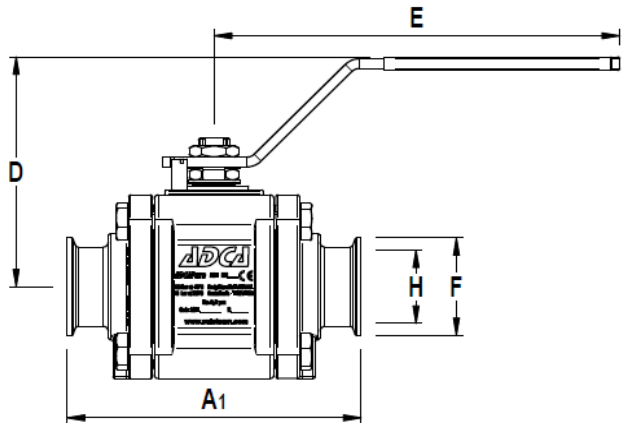
TFM 1600

Note: Working pressure may be limited by the valve connections.

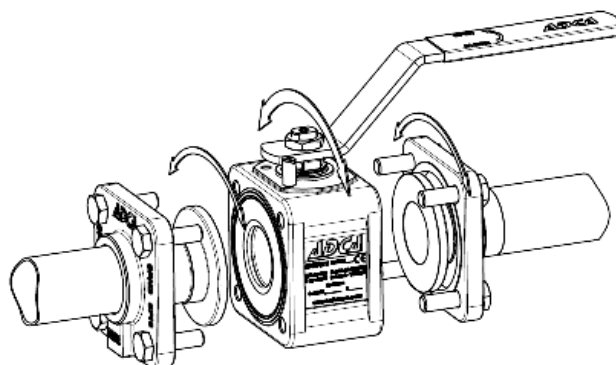
CE MARKING – GROUP 2 (PED – European Directive)		
PN63	PN100	Category
—	1/2" to 1"	SEP
1 1/2" to 2"	—	1 (CE marked)

DIMENSIONS (mm) ASME BPE

SIZE	A ₁	A ₂	A ₃	A _{3.1}	A _{3.2}	B	C	D	E	F	G	H	I	BALL PORT	ISO 5211	WGT. (kg)
1/2"	88,9	101,6	95,5	44	51,5	42	21	65	150	25	12,7	9,4	25	9,4	F03	0,42
3/4"	101,6	114,3	108	51	57	50	25	69	150	25	19,05	15,75	27	15,8	F03	0,99
1"	114,3	127	120,5	57	63,5	62	31	87	175	50,5	25,4	22,1	27	22,1	F04	2,1
1 1/2"	139,7	152,4	146,5	70	76,5	85	42,5	114	207	50,5	38,1	34,8	27	34,8	F05	4,3
2"	165,1	177,8	171,5	82,5	89	105	52,5	124	232	64	50,8	47,5	28	47,5	F05	7,3



Tube weld easy and quick installation - standard



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

MATERIALS

POS. N°	DESIGNATION	MATERIAL
1	Valve body	CF3M / 1.4409
2	TC end connection	CF3M / 1.4409
3	Tube weld end connection	AISI 316L / 1.4404
4	** Flange	CF3M / 1.4409
5	Stem	AISI 316L / 1.4404
6	* Valve ball	AISI 316L / 1.4404
7	* Standard seat	TFM 1600
8	* Cavity filler seat	TFM 1600
9	* Body seal	PTFE
10	* Stem seals	TFM 1600
11	* Spacer	AISI 316 / 1.4401
12	Handle	AISI 304 / 1.4301
13	Handle end	Vinyl
14	* Spring washers	AISI 304 / 1.4301
15	Compression nut	AISI 304 / 1.4301
16	* Lock washer	AISI 304 / 1.4301
17	Fixing bolt	AISI 304 / 1.4301
18	Stop pin	AISI 304 / 1.4301
19	Antistatic device	AISI 316 / 1.4401
20	O-ring	Viton

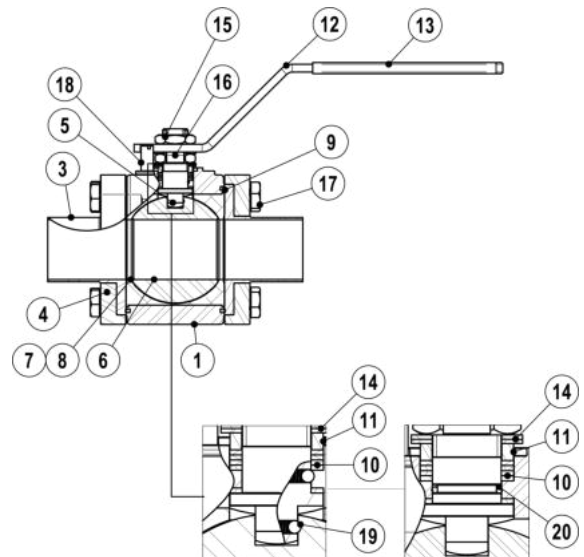
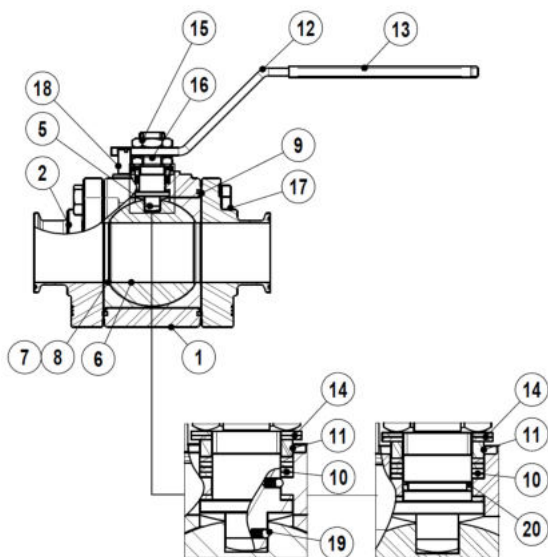


* Available spare parts;

** Loose flange, allows a 360° rotation of the valve when using tube weld connections.

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.



ORDERING CODES M3H

Valve model	MH	X	X	X	F	X	X	CB	X	15	
M3H 3 pieces ball valve CF3M	MH										
Lever handle											
Flat lever handle stainless steel / plastic cover		X									
Flat lever handle stainless steel / plastic cover w/ lockable system		3									
Bare stem		9									
Material											
CF3M / 1.4409			X								
Seat design											
Standard seats					X						
Cavity fillers					F						
Seat material											
TFM 1600						F					
Surface finish (a)											
Standard surface finish							X				
Electropolished internal wetted parts (SF5)							E				
Special features											
None								X			
Oxygen cleaning								O			
End connections											
TC – Sanitary clamps ASME BPE									CB		
ETO – Extended tube orbital welding ASME BPE (360° rotation design)									TB		
TC / ETO – Combination ASME BPE (360° rotation design)									CTB		
Ball port											
True bore (standard)										X	
Full bore										NA	
Size											
1/2"											15
3/4"											20
1"											25
1 1/2"											40
2"											50
Special valves / Extras											
Full description or additional codes have to be added in case of a non standard combination											E

(a) Consult IS PV20.00 (Technical information) for further details and other surface finish options.

NA – Not available.