

## 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.

Bidirectional.

Anti blow out proof stem.

ISO 5211 mounting.

### STANDARD SURFACE FINISH

Internal wetted parts:  $\leq 0,51$  micron Ra – SF1.

External : as casted.

Ultrasonic cleaning.

- OPTIONS:**
- Antistatic device.
  - Different sealing materials.
  - Degreased for oxygen use.
  - Tube weld with loose body flanges (360° rotation after installation).
  - Cavity filler.
- USE:** Clean steam, gases and liquids compatible with the construction.
- AVAILABLE MODELS:** M3H – Investment casting.
- SIZES:** 1/2" to 2".

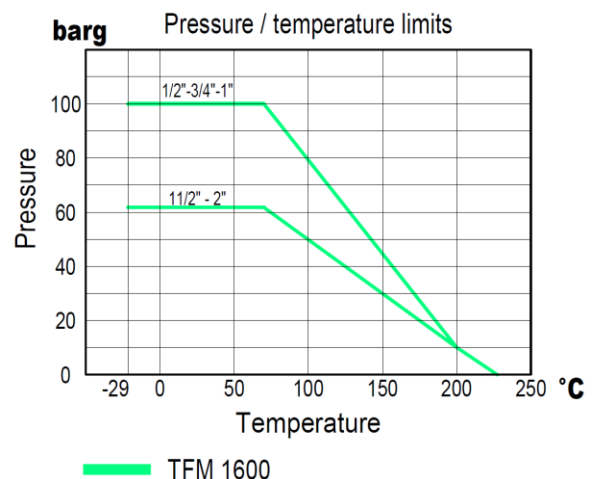
- CONNECTIONS:**
- According to ASME BPE.
  - TC – Sanitary clamps.
  - ETO – Extended tube orbital welding.
  - TC / ETO – Combination.

- 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.



CE MARKING (PED – European Directive)		
PN100	PN64	Category
1/2" to 1"	–	SEP
–	1 1/2" to 2"	1 (CE marked)



Working pressure may be limited by the valve connections.

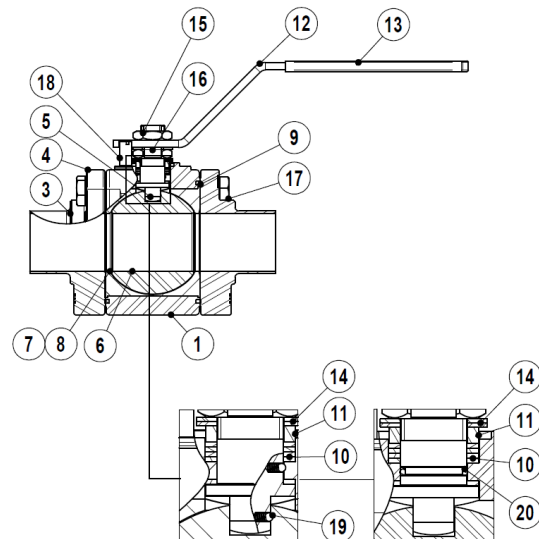
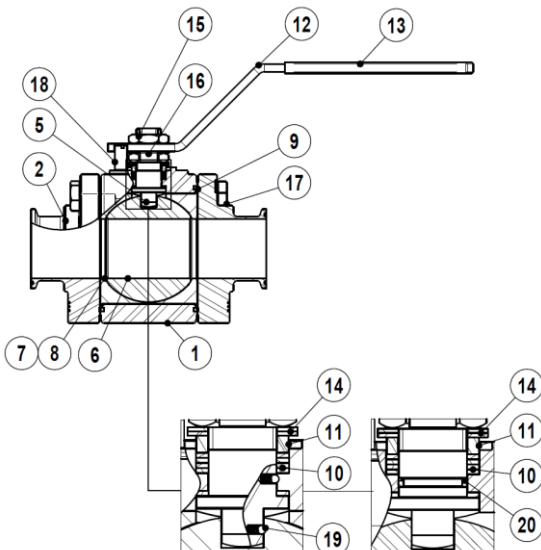
MATERIALS		
POS. Nº	DESIGNATION	MATERIAL
1	Valve body	CF3M / 1.4409
2	TC end connection	CF3M / 1.4409
3	Tube weld end connection	CF3M / 1.4409 (integral)
3	Tube weld end connection	AISI 316L / 1.4404 (360° rotation)
4	*** Flange	CF3M / 1.4409
5	Stem	AISI 316L / 1.4404
6	* Valve ball	AISI 316L / 1.4404
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; \*\* On request.

\*\*\* Loose flange only applied on the 360° rotation optional version.

FDA / USP Class VI seals certificate on request.

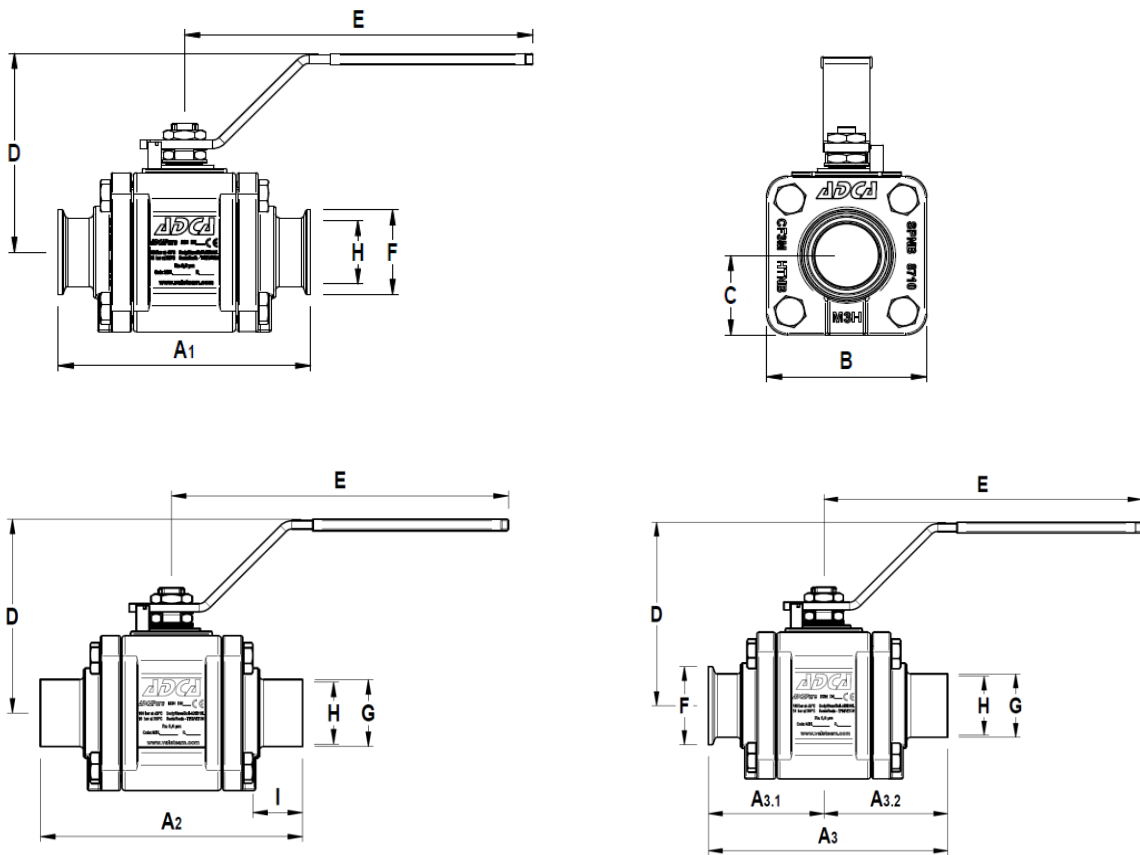
All valves have a serial number. In case of non standard valves this number must be supplied if spare parts are ordered.



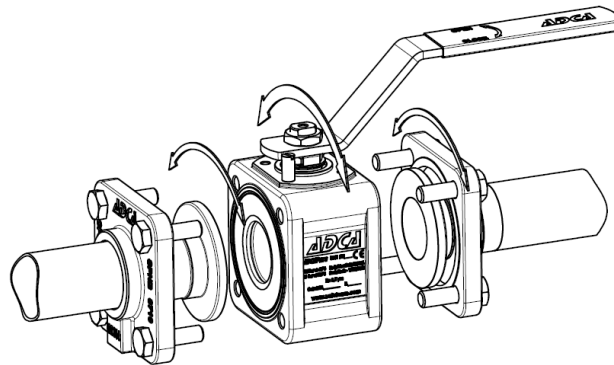
**DIMENSIONS (mm) ASME BPE**

SIZE	A1	A2	A3	A3.1	A3.2	B	C	D	E	ØF	ØG	ØH	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

\* Flange adapter is required, against extra price. See IS M3H.25 E Options and extras.



**Tube weld easy and quick installation - optional**



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 M3H											
<b>Valve model</b>	MH	.			F	F			CB	.	15
M3H 3 pieces ball valve CF3M	MH										
<b>Lever handle</b>											
Flat lever handle stainless steel / plastic cover											(*)
Flat lever handle stainless steel / plastic cover w/ lockable system											3
Bare stem											9
<b>Material</b>											
CF3M / 1.4409											(*)
<b>Seat design</b>											
Standard seats											(*)
Cavity fillers					F						
<b>Seat material</b>											
TFM 1600					F						
<b>Surface finish, special services and options</b>											
Standard surface finish (mechanical polishing)											(*)
Electropolishing											1
Oxygen cleaning											2
<b>Antistatic device</b>											
None											(*)
Antistatic device											A
<b>End connections</b>											
TC – Sanitary clamps ASME BPE									CB		
ETO – Extended tube orbital welding ASME BPE (integral, no rotation design)									ITB		
ETO – Extended tube orbital welding ASME BPE (360° rotation design)									TB		
TC / ETO – Combination ASME BPE (integral, no rotation design)									CITB		
TC / ETO – Combination ASME BPE (360° rotation design)									CTB		
<b>Ball port</b>											
True bore (standard)											(*)
Full bore											NA
<b>Size</b>											
1/2"											15
3/4"											20
1"											25
1 1/2"											40
2"											50
<b>Special valves / Extras</b>											
Full description or additional codes have to be added in case of a non standard combination											E

(\*) Omitted if a standard valve is requested.  
 NA – Not available.