

HYGIENIC BALL VALVES M3H TRUE BORE (DN 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 3% 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.

USE:

Clean steam, gases and liquids compatible with the construction.

AVAILABLE MODELS:

M3H – Complete bar stock construction.

SIZES:

1/2" to 2".

CONNECTIONS:

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

PACKAGING:

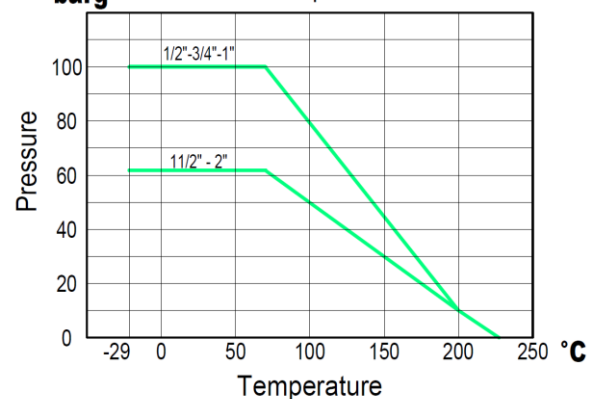
Assembling and packaging in a clean room certified according to ISO 14644-1.
The product is end capped and vacuum sealed with recyclable plastic film to avoid contamination.

INSTALLATION:

See IMI, installation and maintenance instructions.



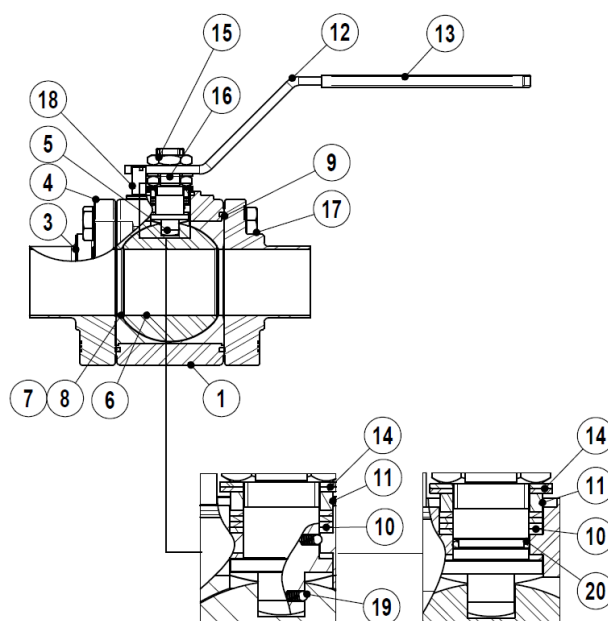
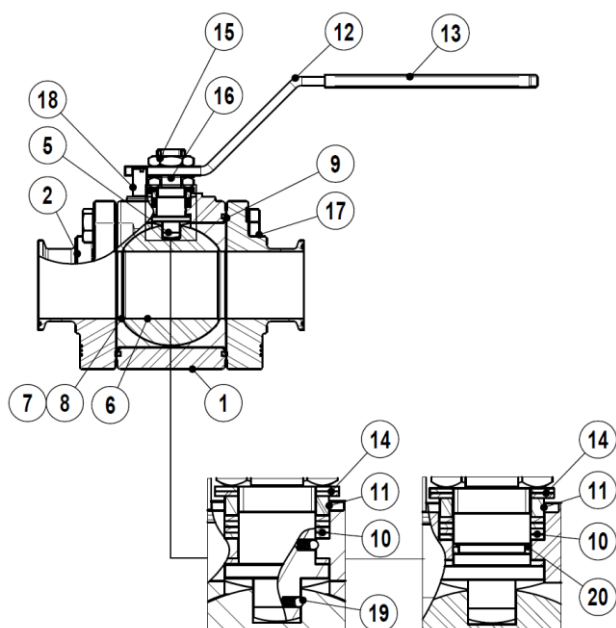
barg Pressure / temperature limits



TFM 1600

Working pressure may be limited by the valve connections.

| CE MARKING - GROUP 2 (PED - European Directive) | | |
|---|-------------|---------------|
| PN 100 | PN 64 | Category |
| 1/2" to 1" | / | SEP |
| / | 1 1/2" - 2" | 1 (CE Marked) |



| MATERIALS | | |
|-----------|----------------------|-----------------------------------|
| POS. | DESIGNATION | MATERIAL |
| 1 | Valve body | CF3M / 1.4409 |
| 2 | TC end connection | CF3M / 1.4409 |
| 3 | Tube weld end conn. | CF3M / 1.4409 (Integral) |
| 3 | Tube weld end conn. | AISI316L / 1.4404 (360° rotation) |
| 4 | *** Flange | CF3M / 1.4409 |
| 5 | Stem | AISI316L / 1.4404 |
| 6 | * Valve ball | AISI316L / 1.4404 |
| 7 | * Standard seat | TFM 1600 |
| 8 | * Cavity filler seat | TFM 1600 |
| 9 | Body seal | PTFE |
| 10 | * Stem seals | TFM 1600 |
| 11 | * Spacer | AISI316 / 1.4401 |
| 12 | Handle | AISI304 / 1.4301 |
| 13 | Handle sleeve | Vinyl |
| 14 | * Spring washers | AISI304 / 1.4301 |
| 15 | Compression nut | AISI304 / 1.4301 |
| 16 | * Lock washer | AISI304 / 1.4301 |
| 17 | Fixing bolt | AISI304 / 1.4301 |
| 18 | Stop pin | AISI304 / 1.4301 |
| 19 | ** Antistatic device | AISI316 / 1.4401 |
| 20 | * O-ring | VITON |

* Available spare parts. ** On request

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

Remarks: FDA/USP Class VI seals certificate on request

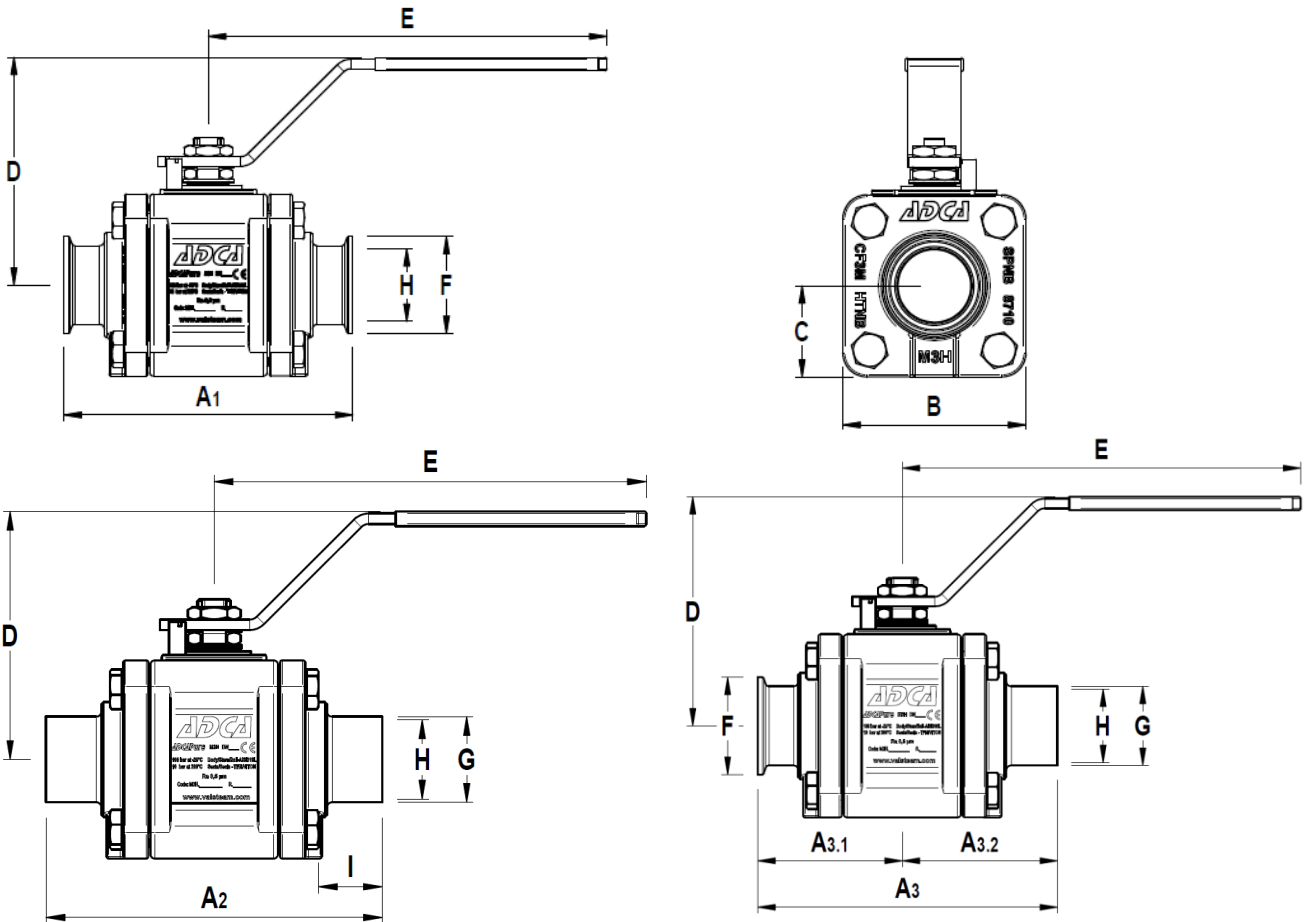
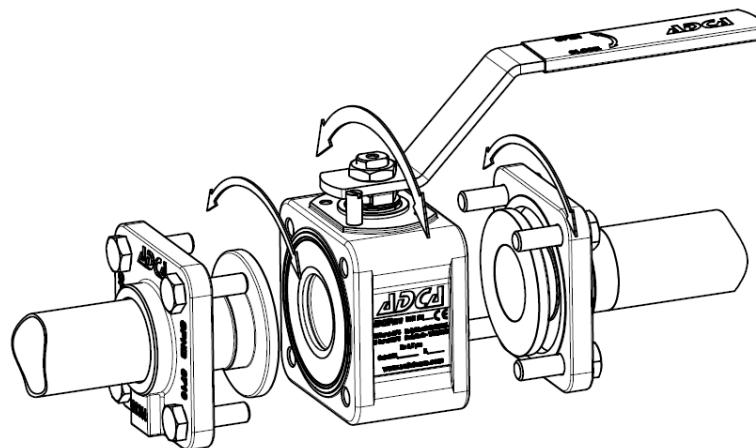
All valves have a serial number. In case of non-standard

valves this number must be supplied if spare parts are ordered.



DIMENSIONS (mm)

| SIZE | A ₁ | A ₂ | A ₃ | A _{3.1} | A _{3.2} | B | C | D | E | Ø F | Ø G | Ø H | I | BALL PORT | ISO 5211 | WGT. Kgs |
|--------|----------------|----------------|----------------|------------------|------------------|-----|------|-----|-----|------|-------|-------|----|-----------|----------|----------|
| 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 - 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 | | | | | | | | | | |
|---|----|---|---|---|--|--|--|----|---|-----|
| Valve model | MH | . | F | F | | | | CB | . | 15 |
| M3H 3 pieces ball valve CF3M | MH | | | | | | | | | |
| Lever handle | | | | | | | | | | |
| Flat lever handle stainless steel / plastic cover | | | | | | | | | | (*) |
| Flat lever handle st. steel / plastic cover w/lockable system | | | | | | | | | | 3 |
| Material | | | | | | | | | | |
| CF3M 1.4409 | | | | | | | | | | (*) |
| 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 w elding ASME BPE (integral non rotation design) | | | | | | | | | | ITB |
| ETO - Extended tube orbital w elding ASME BPE (360° rotation) | | | | | | | | | | TB |
| TC / ETO Combination ASME BPE (360° rotation) | | | | | | | | | | CTB |
| Ball port | | | | | | | | | | |
| True bore (standard) | | | | | | | | | | (*) |
| Full bore | | | | | | | | | | NA |
| Valve size | | | | | | | | | | |
| 1/2" | | | | | | | | | | 15 |
| 3/4" | | | | | | | | | | 20 |
| 1" | | | | | | | | | | 25 |
| 1 1/2" | | | | | | | | | | 40 |
| 2" | | | | | | | | | | 50 |
| 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