

## HIGH PURITY BALL VALVES M3HP TRUE BORE (6")

### DESCRIPTION

The ADCAPure 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 and food & beverage industries.

### MAIN FEATURES

True bore floating ball design.

Completely made from solid bar stock material.

Can be serviced without removal the from the pipeline.

Bidirectional.

Antistatic device.

Anti blow out proof stem.

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

ISO 5211 mounting.

### STANDARD SURFACE FINISH

Internal wetted parts:  $\leq 0,51 \mu\text{m Ra}$  – SF1.

External :  $\leq 0,76 \mu\text{m Ra}$  – SF3.

Other surface conditions see TIS.GIA – General information

ADCAPure.

Ultrasonic cleaning.

**OPTIONS:**

- Degreased for oxygen use.
- Cavity fillers.
- Gearboxes.
- See IS M3H.100 for more options and extras.

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

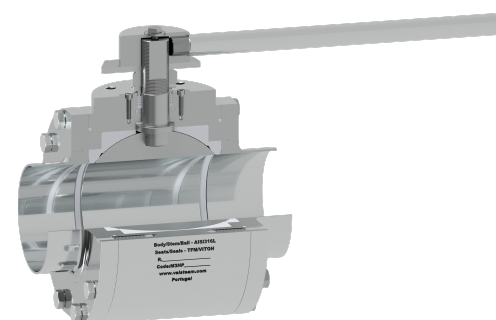
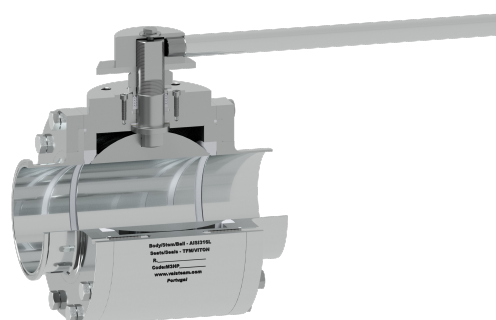
**AVAILABLE MODELS:** M3HP – Complete bar stock construction.

**SIZES:** 6".

**CONNECTIONS:** ASME BPE clamp ferrules, tube weld (ETO) ends or a combination of both.  
Others on request.

**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.

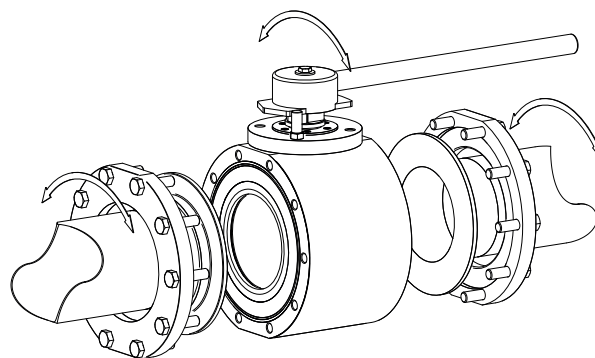
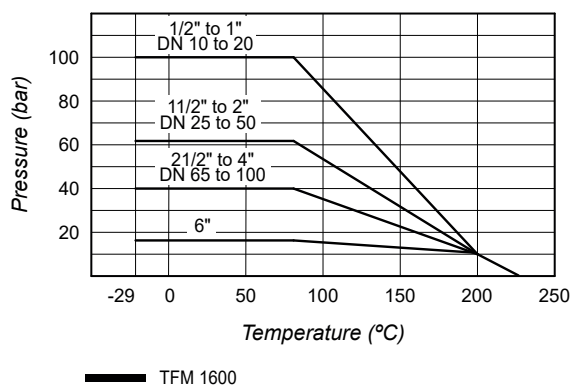
**INSTALLATION:** See IMI – Installation and maintenance instructions.



#### CE MARKING – GROUP 2 (PED – European Directive)

| PN16 | Category      |
|------|---------------|
| 6"   | 1 (CE marked) |

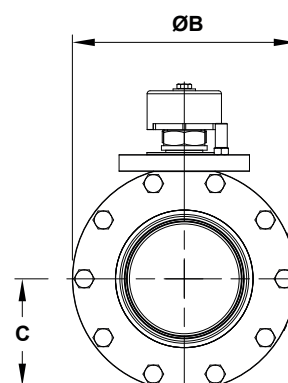
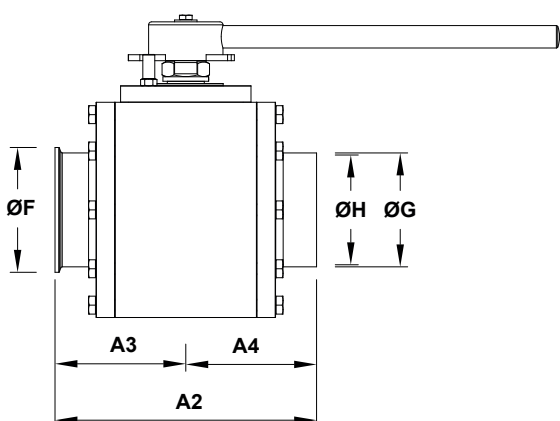
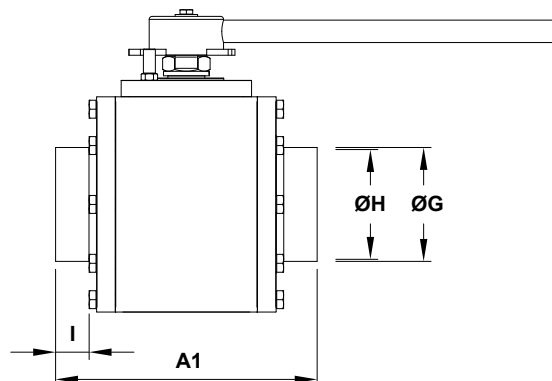
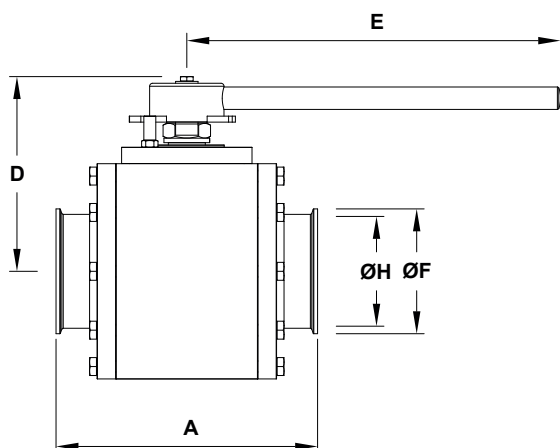
## PRESSURE / TEMPERATURE LIMITS



*Tube weld easy and quick installation*

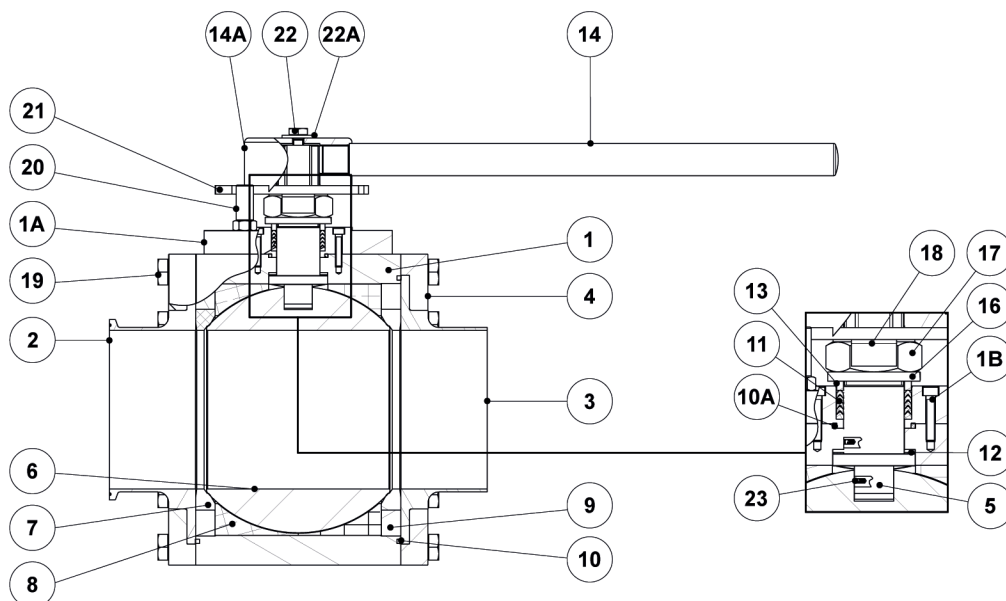
Remark: Maximum operating conditions may be limited by the valve end connections due to normative restrictions.

Valves with tube weld (ETO) connections are fitted, as standard, with loose body flanges which allow installation with no need to align the end connections. After installation the valve can rotate freely 360° to the desired orientation.



## DIMENSIONS (mm)

| SIZE | A   | A1  | A2  | A3  | A4  | ØB  | C   | D   | E   | ØF    | ØG    | ØH    | I  | BALL PORT | ISO 5211 | WGT. (kg) |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-------|----|-----------|----------|-----------|
| 6"   | 350 | 350 | 350 | 175 | 175 | 300 | 144 | 260 | 500 | 166,9 | 152,4 | 146,9 | 45 | 152,4     | F14      | 101,6     |



# MATERIALS

| POS. N° | DESIGNATION                   | MATERIAL              |
|---------|-------------------------------|-----------------------|
| 1       | Valve body                    | AISI 316L / 1.4404    |
| 1A      | Seal retainer                 | AISI 316L / 1.4404    |
| 1B      | Bolts                         | AISI 304 / 1.4301     |
| 2       | Clamp ferrules end connection | Stainless steel A2-70 |
| 3       | Tube weld end connection      | AISI 316L / 1.4404    |
| 4       | Flange                        | AISI 316L / 1.4404    |
| 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 ring                     | AISI 316L / 1.4404    |
| 10      | * Body seal                   | PTFE                  |
| 10A     | * Retainer seal               | PTFE                  |
| 11      | * Stem seals                  | TFM1600               |
| 12      | * Stem thrust seal            | TFM1600; PEEK         |
| 13      | * Spacer                      | AISI 316 / 1.4401     |
| 14      | Handle                        | AISI 304 / 1.4301     |
| 14A     | Handle body                   | AISI 304 / 1.4301     |
| 16      | Spring washer                 | Stainless steel A2    |
| 17      | Compression nut               | AISI 304 / 1.4301     |
| 18      | Lock washer                   | AISI 304 / 1.4301     |
| 19      | Body fixing bolts             | Stainless steel A2-70 |
| 20      | Stop pin                      | AISI 304 / 1.4301     |
| 21      | Handle stopper                | AISI 304 / 1.4301     |
| 22      | Handle fixing bolt            | Stainless steel A2-70 |
| 22A     | Washer                        | Stainless steel A2    |
| 23      | Antistatic device             | AISI 316 / 1.4401     |

\* Available spare parts.

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 M3HP   |     |   |   |   |   |   |   |     |   |     |   |  |
|---|-----|---|---|---|---|---|---|-----|---|-----|---|--|
| Valve model   | MHP | 1 | X | X | F | X | X | CB  | X | 150 |   |  |
| M3HP 3 pieces ball valve - AISI 316L  | MHP |   |   |   |   |   |   |     |   |     |   |  |
| Lever handle  |     |   |   |   |   |   |   |     |   |     |   |  |
| Round lever with complete stainless steel construction                                      |     | 1 |   |   |   |   |   |     |   |     |   |  |
| Bare stem   |     | 9 |   |   |   |   |   |     |   |     |   |  |
| Material  |     |   |   |   |   |   |   |     |   |     |   |  |
| AISI 316L / 1.4404  |     |   | X |   |   |   |   |     |   |     |   |  |
| Seat design   |     |   |   |   |   |   |   |     |   |     |   |  |
| Standard seats  |     |   |   | X |   |   |   |     |   |     |   |  |
| Cavity fillers  |     |   |   | F |   |   |   |     |   |     |   |  |
| Seat material   |     |   |   |   |   |   |   |     |   |     |   |  |
| TFM 1600  |     |   |   |   | F |   |   |     |   |     |   |  |
| Surface finish a)   |     |   |   |   |   |   |   |     |   |     |   |  |
| Standard surface finish   |     |   |   |   |   | X |   |     |   |     |   |  |
| Mirror mechanical polished external surfaces (SF1)  |     |   |   |   |   | P |   |     |   |     |   |  |
| Electropolished internal wetted parts (SF5)   |     |   |   |   |   | E |   |     |   |     |   |  |
| Special features  |     |   |   |   |   |   |   |     |   |     |   |  |
| None  |     |   |   |   |   |   | X |     |   |     |   |  |
| Degreased for oxygen  |     |   |   |   |   |   | O |     |   |     |   |  |
| Pipe connection   |     |   |   |   |   |   |   |     |   |     |   |  |
| TC – Sanitary clamps ASME BPE   |     |   |   |   |   |   |   | CB  |   |     |   |  |
| ETO – Extended tube orbital welding ASME BPE  |     |   |   |   |   |   |   | TB  |   |     |   |  |
| TC / ETO – Combination ASME BPE   |     |   |   |   |   |   |   | CTB |   |     |   |  |
| Ball port   |     |   |   |   |   |   |   |     |   |     |   |  |
| True bore   |     |   |   |   |   |   |   |     | X |     |   |  |
| Size  |     |   |   |   |   |   |   |     |   |     |   |  |
| 6"  |     |   |   |   |   |   |   |     |   | 150 |   |  |
| Special construction / Additional options   |     |   |   |   |   |   |   |     |   |     |   |  |
| Full description or additional codes have to be added in case of a non standard combination |     |   |   |   |   |   |   |     |   |     | E |  |

a) Consult TIS.GIA – General information ADCAPure – for further details and other surface finish options.