

## HIGH PURITY BALL VALVES M3HP (6" – DN 150)

### 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 or full 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.
  - Low ferrite stainless steel, C22 and other alloys.
  - For more options and extras, consult IS M3H.100 – Sanitary Ball Valves Additional Options and Extras.

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

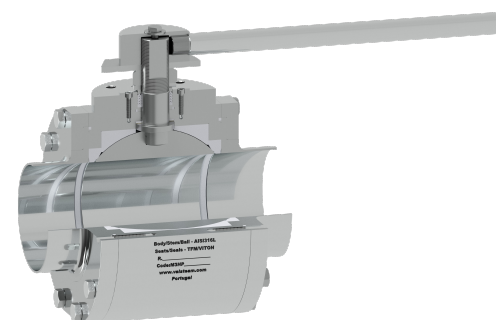
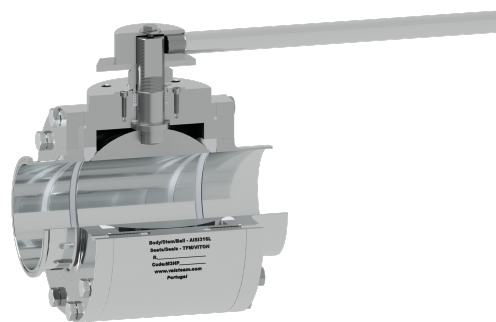
- AVAILABLE MODELS:** M3HP – Complete bar stock construction.

- SIZES:** 6"; DN 150.

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

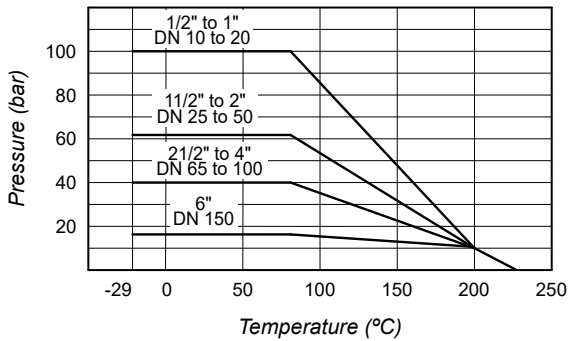
- PACKAGING:** Assembling and packaging in a clean room certified according to ISO 14644-1. The product is end capped and sealed with recyclable thermo-shrinkable plastic film, to avoid contamination.

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

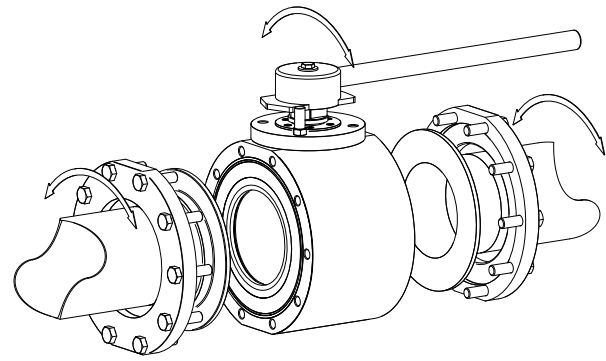


CE MARKING – GROUP 2 (PED – European Directive)	
PN16	Category
6" – DN 150	1 (CE marked)

**PRESSURE / TEMPERATURE LIMITS**



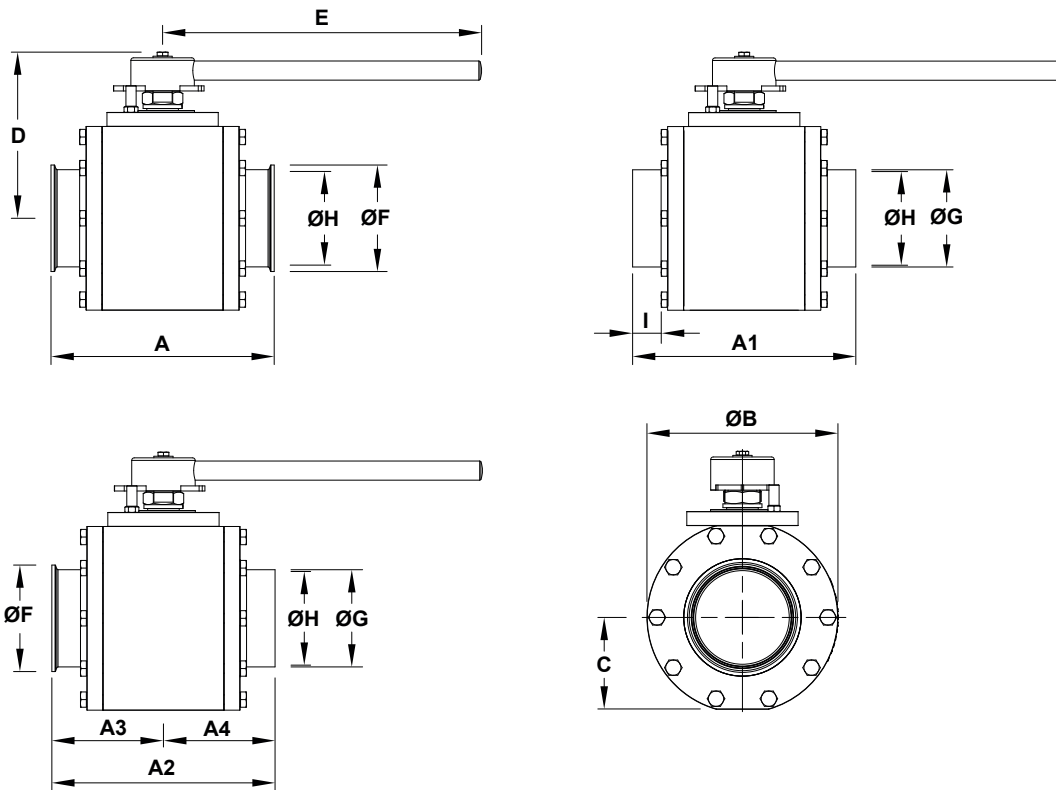
TFM 1600



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 - ASME BPE (mm)**

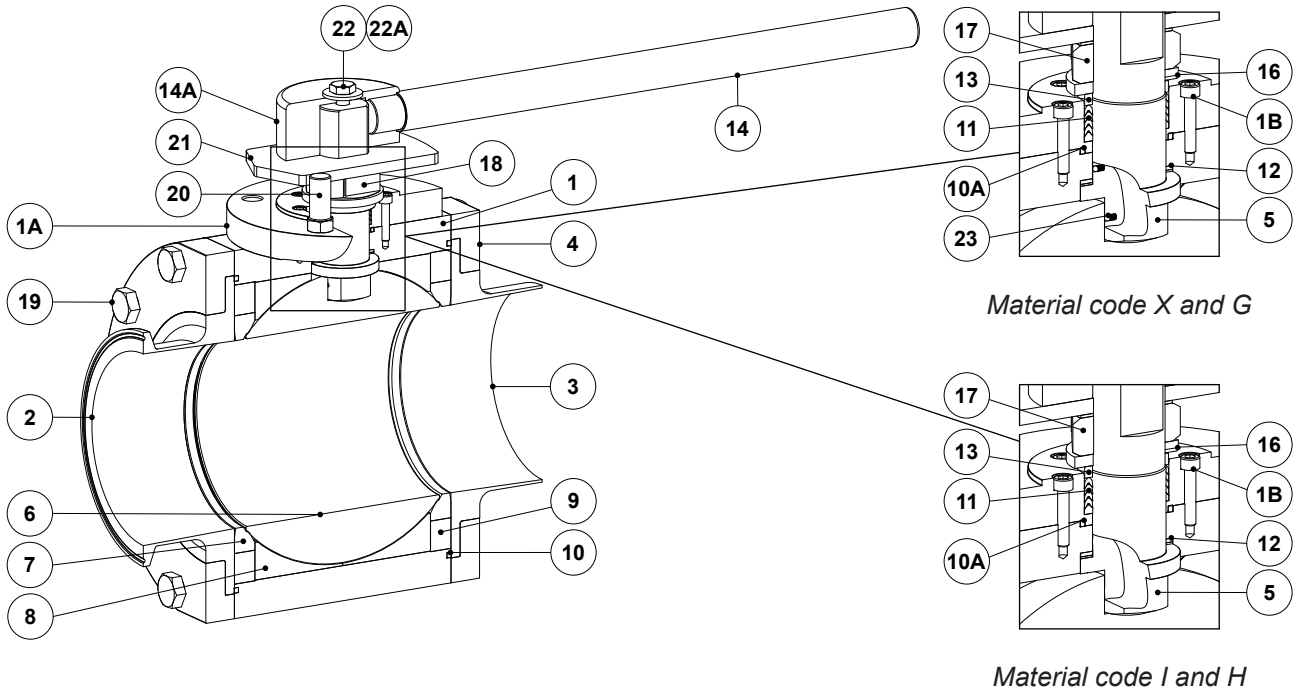
SIZE	A	A1	A2	A3	A4	ØB	C	D	E	ØF	ØG	ØH	I	BALL PORT	ISO 5211	WGT. (kg)
6"	350	350	350	175	175	300	144	260	500	166,9	152,4	146,9	45	147	F14	102

**DIMENSIONS - DIN (mm)**

SIZE	A	A1	A2	A3	A4	ØB	C	D	E	ØF	ØG	ØH	I	BALL PORT	ISO 5211	WGT. (kg)
DN 150	350	350	350	175	175	300	144	260	500	183	154	150	45	147	F14	102

**DIMENSIONS - ISO (mm)**

SIZE	A	A1	A2	A3	A4	ØB	C	D	E	ØF	ØG	ØH	I	BALL PORT	ISO 5211	WGT. (kg)
DN 150	350	350	350	175	175	300	144	260	500	183	168,3	163,1	45	147	F14	102



MATERIALS		
POS. N°	DESIGNATION	MATERIAL
1	Valve body	** AISI 316L / 1.4404; AISI 316L / 1.4435 ; Alloy C22 / 1.4601
1A	Seal retainer	AISI 316L / 1.4404
1B	Bolt	Stainless steel A2-70
2	Clamp ferrules end connection	** AISI 316L / 1.4404; AISI 316L / 1.4435 ; Alloy C22 / 1.4601
3	Tube weld end connection	** AISI 316L / 1.4404; AISI 316L / 1.4435 ; Alloy C22 / 1.4601
4	Flange	AISI 316L / 1.4404
5	Stem	** AISI 316L / 1.4404; AISI 316L / 1.4435 ; Alloy C22 / 1.4601
6	* Valve ball	** AISI 316L / 1.4404; AISI 316L / 1.4435 ; Alloy C22 / 1.4601
7	* Standard seat	TFM 1600
8	* Cavity filler seat	TFM 1600
9	Body ring	** AISI 316L / 1.4404; AISI 316L / 1.4435 ; Alloy C22 / 1.4601
10	* Body seal	PTFE
10A	* Retainer seal	PTFE
11	* Stem seal	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 bolt	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; \*\* Others 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.



ORDERING CODES M3HP											
<b>Valve model</b>	<b>MHP</b>	<b>1</b>	<b>X</b>	<b>X</b>	<b>F</b>	<b>X</b>	<b>X</b>	<b>CB</b>	<b>X</b>	<b>150</b>	
M3HP – Three pieces ball valve	<b>MHP</b>										
<b>Lever handle</b>											
Round lever with complete stainless steel construction		<b>1</b>									
Bare stem		<b>9</b>									
<b>Material</b>											
AISI 316L / 1.4404			<b>X</b>								
AISI 316L / 1.4404 with end connections in AISI 316L / 1.4435 a)			<b>G</b>								
AISI 316L / 1.4435			<b>I</b>								
Alloy C22 / 2.4602			<b>H</b>								
<b>Seat design</b>											
Standard seats				<b>X</b>							
Cavity fillers				<b>F</b>							
<b>Seat material</b>											
TFM 1600					<b>F</b>						
<b>Surface finish b)</b>											
Standard surface finish						<b>X</b>					
Mirror mechanical polished external surfaces (SF1)						<b>P</b>					
Electropolished internal wetted parts (SF5)						<b>E</b>					
<b>Special features</b>											
None								<b>X</b>			
Degreased for oxygen								<b>O</b>			
<b>Pipe connection</b>											
Clamp ferrule ASME BPE									<b>CB</b>		
Clamp ferrule DIN (DIN 32676-A)									<b>CD</b>		
Clamp ferrule ISO (DIN 32676-B)									<b>CI</b>		
Tube weld (ETO) according to ASME BPE									<b>TB</b>		
Tube weld (ETO) according to DIN 11866-A (DIN 11850-2)									<b>TD</b>		
Tube weld (ETO) according to DIN 11866-B (ISO 1127)									<b>TI</b>		
TC/ETO combination ASME BPE									<b>CTB</b>		
TC/ETO combination DIN 32676-A / DIN 11866-A									<b>CTD</b>		
TC/ETO combination DIN 32676-B / DIN 11866-B									<b>CTI</b>		
<b>Ball port</b>											
True bore (ASME BPE) or full bore (DIN and ISO)									<b>X</b>		
<b>Size</b>											
6" or DN 150										<b>150</b>	
<b>Special construction / Additional options</b>											
Full description or additional codes have to be added in case of a non standard combination											<b>E</b>

a) Only available with tube weld (ETO) ends. b) Consult TIS.GIA – General information ADCAPure – for further details and other surface finish options.