

HIGH PURITY BALL VALVES M3HP (1/2" to 2" – DN 10 to DN 50)

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 from the pipeline.

Bidirectional.

Antistatic device.

Anti blow out proof stem.

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

ISO 5211 mounting (with adapter for sizes below 1" and DN 20).

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:

- ISO 5211 mounting with flange adapter for sizes below 1" and DN 20.
- Degreased for oxygen use.
- Cavity fillers.
- Lever with locking system.
- See IS M3H.100 for more options and extras.

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

AVAILABLE

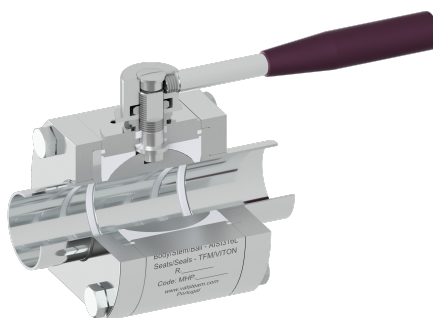
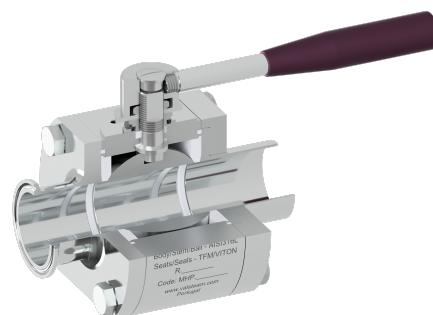
MODELS: M3HP – complete bar stock construction.

SIZES: 1/2" to 2"; DN 10 to DN 50.

CONNECTIONS: ASME BPE or DIN 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.

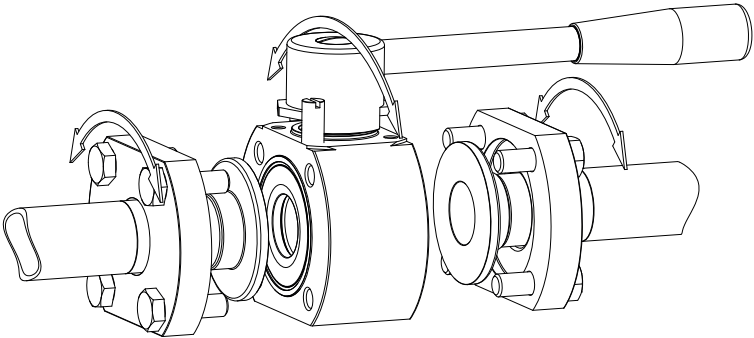
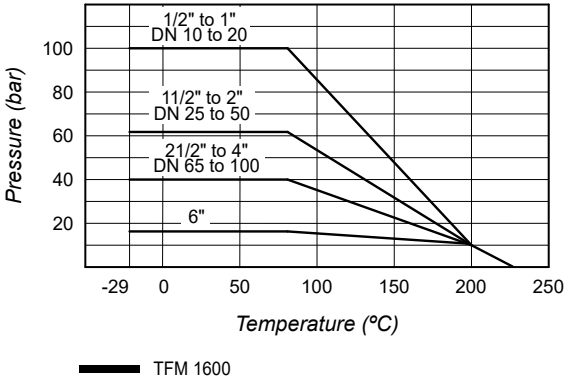
INSTALLATION: See IMI – Installation and maintenance instructions.



CE MARKING – GROUP 2 (PED - European Directive)

PN 63	PN 100	Category
DN 25 to 32	1/2" to 1" DN 10 to 20	SEP
1 1/2" to 2" DN 40 and 50	—	1 (CE Marked)

PRESSURE / TEMPERATURE LIMITS



Tube weld easy and quick installation

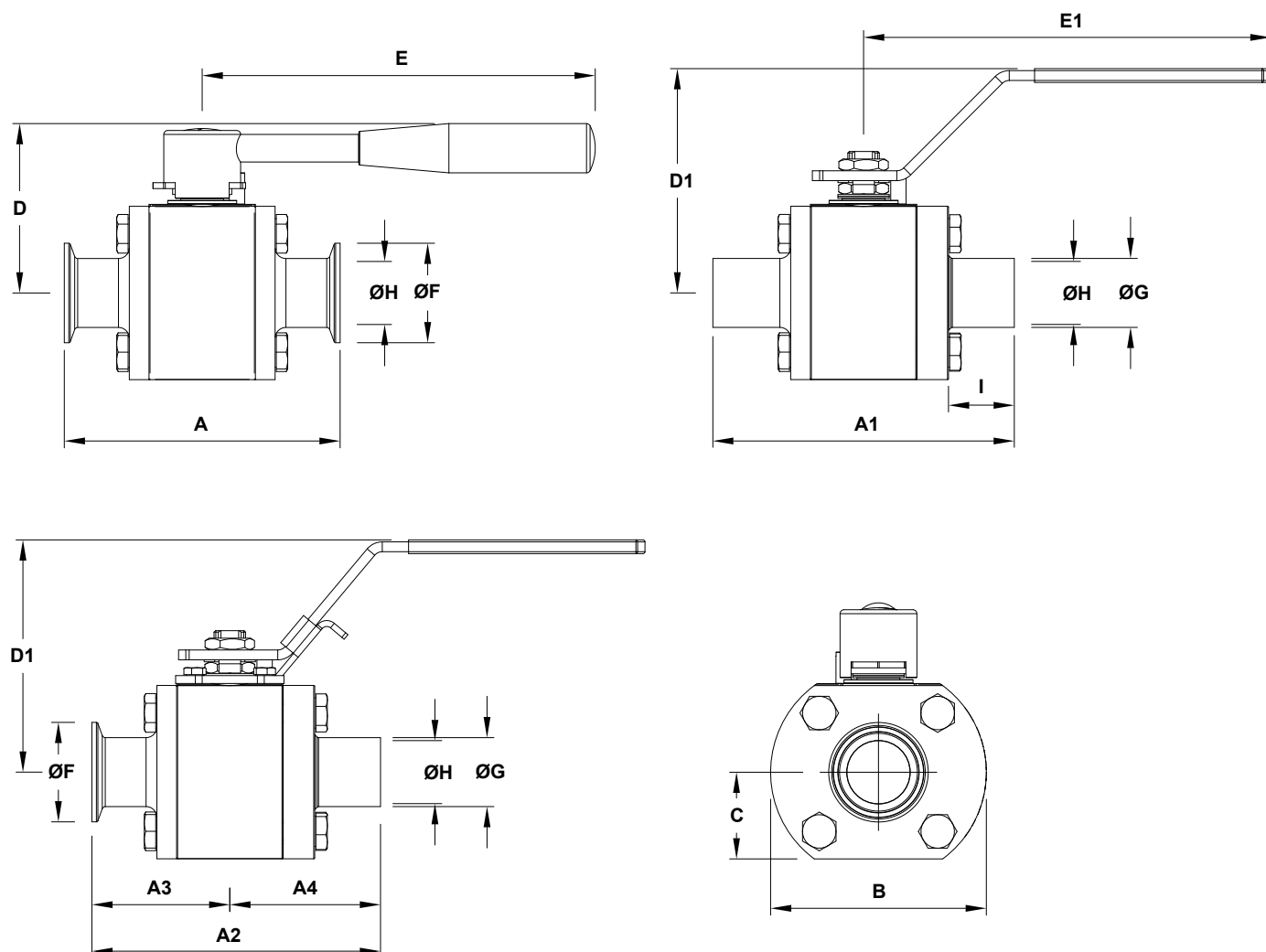
Remark: Maximum operating conditions may be limited by the valve end connections due to normative restrictions.

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.

LEVER OPTIONS		
ROUND LEVER	FLAT LEVER	FLAT LEVER WITH LOCKING SYSTEM

STEM EXTENSION UNITS *		
SEF/H	SEF/P	SEF/A

*Consult IS M3H.100 – Sanitary Ball Valves Options and Extras – for further information.



DIMENSIONS – ASME BPE (mm)

SIZE	A	A1	A2	A3	A4	B	C	D	D1	E	E1	ØF	ØG	ØH	I	BALL PORT	ISO 5211	WGT. (kg)
1/2"	88,9	101,6	95,5	44	51,5	59	22	49	65	130	150	25	12,7	9,4	25	9,4	F03 *	0,9
3/4"	101,6	114,3	108	51	57	64	24,5	53	69	130	150	25	19,1	15,8	27	15,8	F03 *	1,4
1"	114,3	127	120,5	57	63,5	79	31	68	87	165	176	50,4	25,4	22,1	27	22,1	F04	2,3
1 1/2"	139,7	152,4	146,5	70	76,5	109	44	86	114	200	207	50,4	38,1	34,8	27	34,8	F05	5,3
2"	165,1	177,8	171,5	82,5	89	134	53	97	124	200	232	63,9	50,8	47,5	28	47,5	F05	8,5

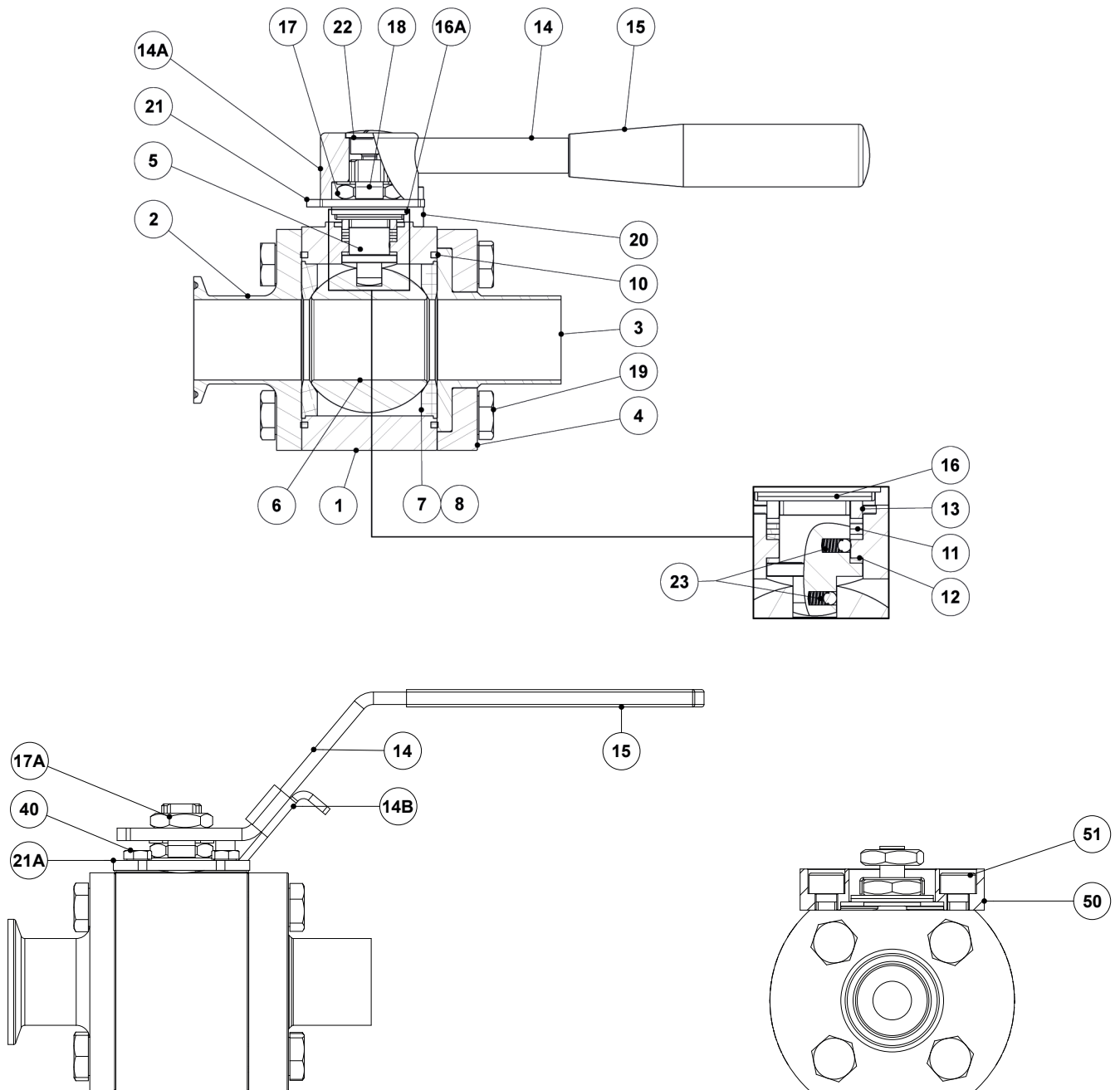
* Flange adapter option is required. See IS M3H.100 – Sanitary Ball Valves Additional Options and Extras.

DIMENSIONS – DIN (mm)

SIZE	A	A1	A2	A3	A4	B	C	D	D1	E	E1	ØF	ØG	ØH	I	BALL PORT	ISO 5211	WGT. (kg)
DN 10	90	102	96	45	51	59	22	48	65	130	150	34	13	10	25	10	F03 *	0,8
DN 15	100	114	107	50	57	64	24,5	53	69	130	150	34	19	16	27	16	F03 *	1,1
DN 20	115	127	121,5	57,5	64	79	31	68	86	165	176	34	23	20	27	20	F04	2,2
DN 25	125	135	130,5	62,5	68	89	36	73	92	165	176	50,5	29	26	27	26	F04	2,9
DN 32	140	153	147	71	76	109	44	86	114	200	207	50,5	35	32	27	32	F05	5,1
DN 40	150	161	155	75	80	119	48	90	119	200	207	50,5	41	38	27	38	F05	6,3
DN 50	165	178	172	82	90	134	53	97	124	200	232	64	53	50	28	50	F05	8,4

* Flange adapter is required. See IS M3H.100 – Sanitary Ball Valves Additional Options and Extras.

MATERIALS



Optional flat lever with locking system

*Optional ISO 5211 mounting with flange adapter
(only for sizes 1/2" and 3/4" – DN 10 and DN 15)*

MATERIALS

POS. N°	DESIGNATION	MATERIAL
1	Valve body	AISI 316L / 1.4404
2	Clamp ferrule end connection	AISI 316L / 1.4404
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
10	* Body seal	PTFE
11	* Stem seals	TFM 1600
12	* Stem thrust seal	TFM 1600
13	* Spacer	AISI 316 / 1.4401
14	Handle	AISI 304 / 1.4301
14A	Handle body	AISI 304 / 1.4301
14B	Locking piece	AISI 304 / 1.4301
15	Handle end	Vinyl; AISI 304 / 1.4301
16	Spring washers	Stainless steel A2
16A	Washer	AISI 304 / 1.4301
17	Compression nut	AISI 304 / 1.4301
17A	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
21A	Locking flange	AISI 304 / 1.4301
22	Handle fixing bolt	AISI 304 / 1.4301
23	Antistatic device	AISI 316 / 1.4401
40	Fixing bolts	Stainless steel A2-70
50	Flange adapter	AISI 316L / 1.4404
51	Fixing bolt	Stainless steel A2-70

* 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	X	X	X	F	X	X	CB	X	10		
M3HP – AISI 316L / 1.4404 three pieces ball valve	MHP											
Lever handle												
Round lever in stainless steel with plastic end		X										
Round lever with complete stainless steel construction		1										
Flat lever in stainless steel with plastic cover		2										
Flat lever in stainless steel with plastic cover and locking system		3										
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					
Condensate drain connection – Clamp ferrule b)							C					
Condensate drain connection – Tube weld (ETO) b)							T					
Pipe connection												
Clamp ferrule ASME BPE								CB				
Clamp ferrule DIN (DIN 32676-A)								CD				
Tube weld (ETO) according to ASME BPE								TB				
Tube weld (ETO) according to DIN 11866-A (DIN 11850-2)								TD				
TC/ETO combination ASME BPE								CTB				
TC/ETO combination DIN 32676-A / DIN 11866-A								CTD				
Ball port												
True bore									X			
Size												
DN 10											10	
1/2" or DN 15											15	
3/4" or DN 20											20	
1" or DN 25											25	
DN 32											32	
1 1/2" or DN 40											40	
2" or DN 50											50	
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. b) According to ASME BPE or DIN depending on selected pipe end connections.