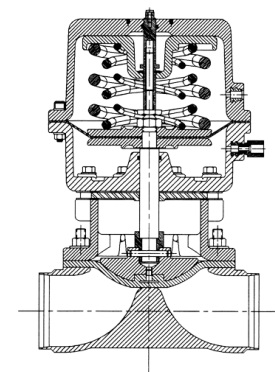
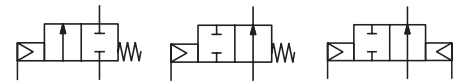


# ASCO™ ASEPTIC VALVES

PRESSURE OPERATED, VINYL-ESTHER THERMOSET OPERATOR, DN 80 - DN 100

SERIES  
**224**

- Pressure operated aseptic valve, designed for the bioprocessing industry.
- The diaphragm separates the piloting from the fluid. It ensures safety and quality of the final product.



General Valve Information	
Size range	DN 80 - DN 100
Operating mode	Normally closed, normally open, double acting
Max. service pressure	10,34 bar
Max. service temperature	+149°C
Min. service temperature	EPDM diaphragm: -30°C; PTFE diaphragm: -20°C
Actuator cover material	Vinyl-Ester Thermoset (FDA compliant)
Bonnet material	Nylon coated ductile iron (4"); Stainless steel (3")
Corrosion resistance	Alcohol, chloride and most caustic washdowns

Diaphragm material compatibility *			
Applications		Material	
		EPDM	PTFE
Passivation	Nitric Acid 15% <sup>(1)</sup>	U	R
	Phosphoric 10% <sup>(1)</sup>	R	R
	Citric Acid 15% <sup>(1)</sup>	R	R
	Mixed Chelants <sup>(2)</sup>	R	R
Cleaning <sup>(5)</sup>	Sodium Hydroxide	R	R
	Sodium Hypochlorite	R	R
	Potassium Hydroxide	R	R
	Phosphoric Acid	R	R
	Hydrogen Peroxide	R	R
	Sterilization	Saturated Steam 1,4 bar (126°C)	R <sup>(3)</sup>
Saturated Steam 2,1 bar (135°C)		R <sup>(3)</sup>	R
Saturated Steam 2,8 bar (142°C)		R <sup>(3)</sup>	R
Dry Heat (165°C)		U	R
Ozone <sup>(4)</sup>		R	R

\* Ensure that the compatibility of the fluids in contact with the diaphragm is verified.

<sup>(1)</sup> At 60°C

<sup>(2)</sup> Ammonium citrate base at 80°C

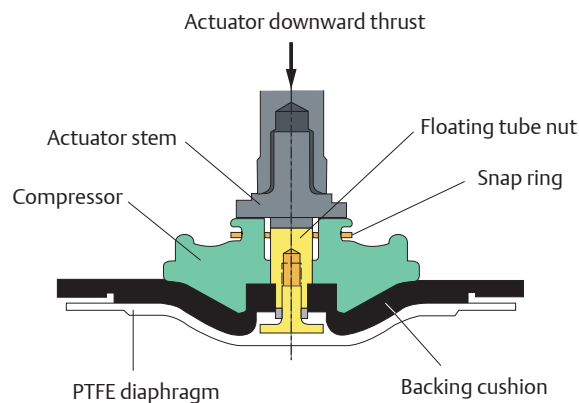
<sup>(3)</sup> Limited life and undesirable failure mode

<sup>(4)</sup> 3% at 27°C

<sup>(5)</sup> Consult factory for specific temperature and concentration limitations.

R = Resistant

U = Unsatisfactory



## Diaphragm certifications

- European Union Pressure Equipment directive 2014/68/EU
- FDA compliant
- 21CFR177.2600 – Elastomers
- 21CFR177.1550 – PTFE
- All diaphragms are available with USP class VI certificate of Conformance
- Chapter 87 In-Vitro
- Chapter 88 In-Vivo
- Certificate of compliance to EMEA/410/01 “Guidance on Minimizing the Risk of Transmitting Animal Spongiform Encephalopathy Agents via Human and Veterinary Medicinal Products” available on demand.
- Certificate of traceability to EN 10204 3.1 B available upon request.



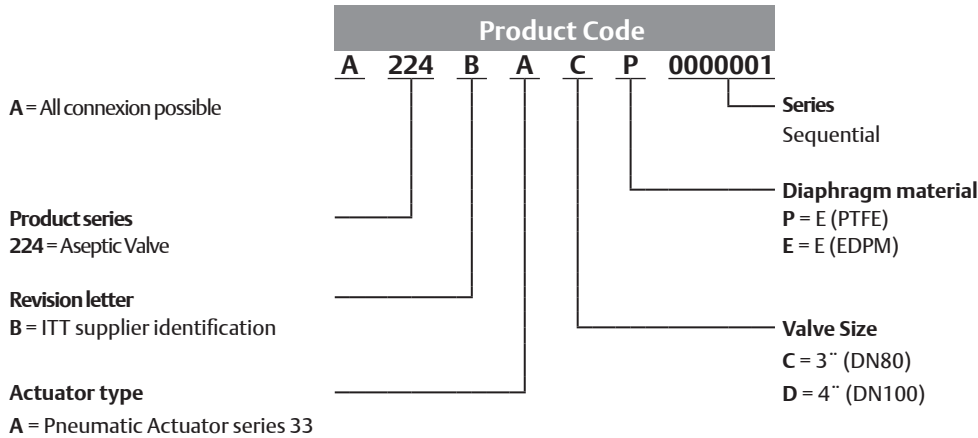
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**Surface finish**

Valve bodies are available in a complete range of mechanically or electropolished surface finishes to satisfy system design requirements. Electropolishing is the electromechanical method of removing metal from the surface. This surface finishing improves corrosion resistance, removes inclusions and improves the overall surface for cleaning and sterilization.

Mechanical Polish	EU Service Micron Max.
	No Mechanical Polish
	0.8Ra
	0.6Ra
	0.5Ra
	0.38Ra
	0.28Ra
Electropolish	No Electropolish
	Both Interior and Exterior Electropolish

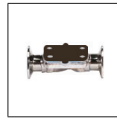
**How To Order**



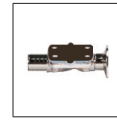
**Dimensions: mm (Body)**



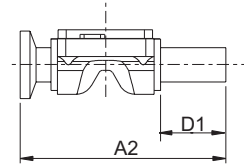
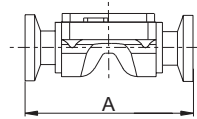
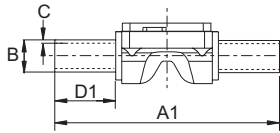
**Type 01**  
butt welding connection



**Type 02**  
clamp connection



**Type 03**  
clamp connection + butt welding connection



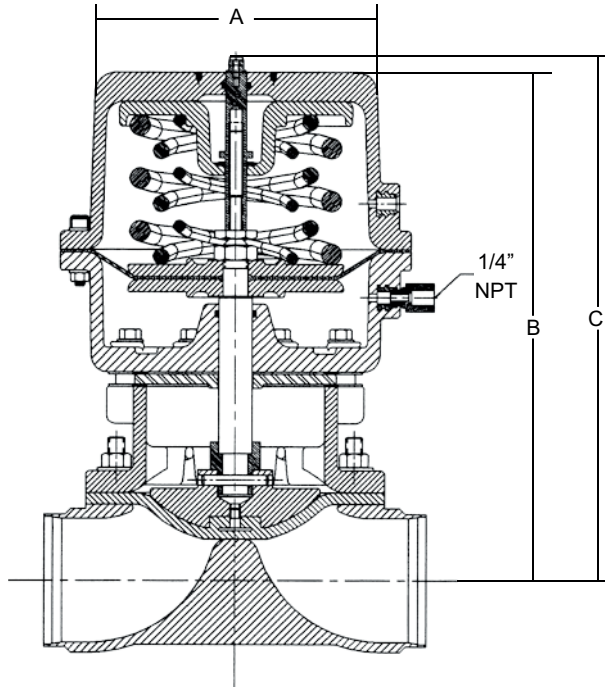
ANSI Forging										SMS	
B		A	A1	D1	A2	C				B	C
End connection size		Overall length (mm)	Overall length (mm)	Weld Tangent (mm)	Overall length (mm)	20 GA 0.812	18 GA 1.02	16 GA 1.29	14 GA 1.63		
IN	DN	Clamp	Extended BW Forging	Extended BW Forging	Clamp x butt welding connection (BW)	Extended BW	Extended BW ASME BPE	Extended BW	Extended BW ASME BPE	butt welding connection (BW)	
3"	80	222	252	44,5	237,2			S	O	76,1	2
4"	100	292	330	51	331,2			O	S		

ISO										DIN Serie 1		
End connection size		A	D1	B	C					B	C	
		(mm)	(mm)	(mm)	1	1.2	1.6	2	2.3	2.6	(mm)	(mm)
DN80		254	44,5	88,9					S	O	85	2
DN100		330	51	114,3					S	O	104	2

O = Optional  
S = Standard

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Dimensions: mm (Actuator)



Valve Size (DN)	A (mm)	B (mm)	C (mm)
80	201,9	360,7	416,8
100	201,9	401,8	452,2

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