Saunders

the science inside

Saunders® BioPharm Bodies Materials of Construction

www.cranechempharma.com

Two-Way Forged Bodies (see chart on back)

Saunders® 2-Way Forged Bodies are manufactured from select lots of 316L Stainless Steel which has been open die forged. This material is dual certified to ASTM A-182 and to DIN 1.4435 with the additional requirement for controlled sulfur, 0.005%-0.017%, as per ASME BPE.

Machined Bodies

Saunders® Machined Block Bodies are manufactured as standard from wrought 316L Stainless Steel bar (ASTM A479) or DIN 1.4435 according to customer request.

Machined Bodies – Weld Ends

Saunders® adds autoweld ends with controlled sulfur, per ASME BPE, to machined block bodies (tube OD specification). All autoweld ends comply with minimum tangent length per ASME BPE.

Other Materials

- DIN 1.4435 BN2
- AL6XN
- Hastelloy®
- Titanium
- SAF 604

Please visit our web-based drawing library at:
www.saundersdrawings.com

Hastelloy C® is a registered trademark of Haynes International, Inc.

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Saunders® 2-Way Forged Bodies (manufactured from select lots of 316L Stainless Steel which has been open die forged.)

Element	316L Per ASME BPE, MMOC-4	316L Per DIN 1.4435	Saunders® 2-Way Forgings
	Weight %	Weight %	Weight %
Carbon, max	0.035	0.03	0.03
Chromium	16.00-18.00	17.00-19.00	17.00-19.00
Manganese, max	2.00	2.00	2.00
Molybdenum	2.00-3.00	2.50-3.00	2.50-3.00
Nickel	10.00-15.00	12.50-15.00	12.50-15.00
Phosphorus, max	0.045	0.045	0.045
Silicon, max	1.00	1.00	1.00
Sulfur	0.005-0.017	0.015	0.005 -0.017

Please visit our Web-Based Drawing Library at: www.saundersdrawings.com for current database of drawings in PDF, 2D DWG, and 3D STP formats.

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CP-SAUNDERS-BIOPHARM BODIES MOC-FE-EN-L15-0412-AF **E-B-014-0**