

The TuBore™ 48 Series

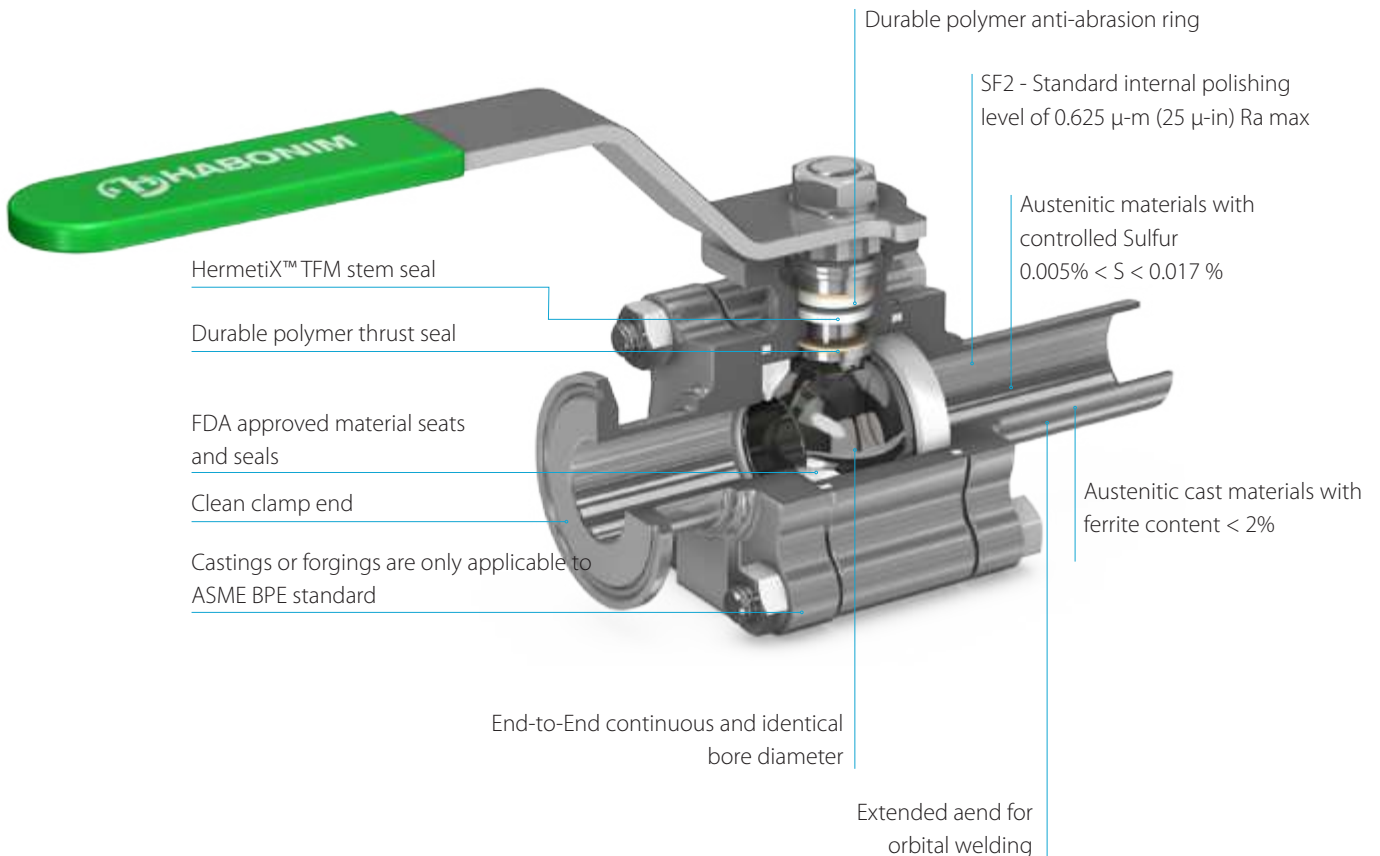
Clean Valves for the Biotech Industry



The TuBore™ 48 Series

The TuBore™ line is Habonim's clean ball valves for the Biotech industry. The valves comply with the ASME BPE and ASME B16.34 standards for applications in which cleanability and drainability are essential for product quality. The standard, highly durable stem seal for all TuBore™ valves is Habonim's patented HermetiX™. Made solely from FDA-approved polymer materials, the HermetiX™ stem seal enhances productivity and safety by virtually eliminating leaks, shutdowns, hazardous spillage, etc. It comes with a maintenance-free warranty of 4 years or 500,000 cycles. The TuBore™ valve port diameter is identical to the tube inner diameter so that no expansion or contraction can take place inside the system, resulting in full drainage and zero traces that could cause contamination. To provide superior welding quality, to avoid rouging on austenitic stainless steel surfaces, and corrosion attack on welding areas, forged 316L stainless steel material with low ferrite ($FE < 1\%$), and controlled sulfur ($0.005\% < S < 0.017\%$) are used as standard (is Habonim default).

48X series TuBore™ with ISO 15848-1 certified stem seal



The HermetiX™ stem seal enhances productivity and safety by virtually eliminating leaks, shutdowns, hazardous spillage, etc. Use the HermetiX feature in this area or the low ferrite and control sulfur
Port = Tube Inner - for full drainage and zero traces that could cause contamination

Features of the Tubore™ Clean Biotech Valve Series

- **Maximum flow capacity**
- **Minimum pressure drop**
- **Low-torque and bubble tight shutoff capabilities.**
- **Certified for fugitive emission to ISO 15848-1 standard**
- **Stem seal maintenance-free warranty of 4 years or 500,000 cycles**
- **Forged 316L stainless steel material with low ferrite (FE < 1%), and controlled sulfur (0.005% < S < 0.017 %) are standard.**
- **Superior materials (EN 10222-5 1.4435 (316L), A494 CX-2MW Alloy C22, and A494 CX-12MW Alloy C276) available upon request.**
- **Valve internal surface mechanically polished to 25 μ-in Ra max as standard. Higher surface finishes up to 20 μ-in Ra (max) available upon request, as well as electro-polishing of valve body and ends.**

Cleaning, Assembly, Testing and Packaging

Habonim's meticulous cleaning, assembly and inspection procedure for the TuBore™ line ensures the stringent cleanliness required by Biotech services.

All particles, grease, metal chips and other contamination hazards are removed thoroughly before the assembly process begins. The valves are assembled in an oil free restricted area by specially trained & qualified personnel. All valves are 100% helium leak tested. Packaging is done in the same cleanroom where the cleaning process was completed. Finished (dry, completed, inspected and approved) valves are removed from the cleanroom environment only after being bagged and sealed in a clean polyethylene bag.

Certifications and standards of compliance

Factory certification	ISO 9001-2008	Quality management system
Valve design & tests	ANSI B16.34	Valve design
	ASME BPE	Valve design
	DIN 11850 (Range 2)	Stainless steel tubes - Dimensions and tolerances
	ISO 1127	Stainless steel tubes - Dimensions and tolerances
	EN 12266-1, API 598	Testing of metallic valves - Pressure tests, test procedures and acceptance criteria.
	ISO 15848-1	Industrial valves - measurement, test and qualification procedures for fugitive emissions
	PED 97/23/EC Module H	Pressure equipment directive
	ATEX 94/9/EC	Equipment and protective systems intended for use in potentially explosive atmospheres (optional for actuated unit only)
Documentation	EN 10204 2.2 / 3.1 / 3.2	Metallic materials - types of inspection documents

VALVES ACCESSORIES



**Spring Return Handle (SrH)
Introduced**



**Fugitive Emission
Solutions**



**Spring-Loaded Locking
Device (Ld) Introduced**



Pneumatic Actuator



Breather Block



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