Swagelok Nuclear Capabilities

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Engineered to Help You Perform



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COLUMN TWO IS

Swagelok understands the pressures you face. We can help you meet the immediate and long-term demands of the nuclear power industry. Safely. Reliably. Responsively. And with the knowledge that the products you choose are especially suited for your applications.

OUR QUALITY & RELIABILITY = YOUR SAFETY

Minimize risk by choosing Swagelok

Our dedication to quality and reliability leads to longer product life, reducing expensive operational downtime and helping your workers spend less time and resources replacing assemblies. Swagelok products' ease of installation means you're up and running quicker without rework required. This reduces workers' collective radiation doses and the cost impact of that exposure.

Our focus on As Low As Reasonably Achievable or As Low As Reasonably Practicable (ALARA/ALARP) dose reduction protocols decreases workers' exposure times as well.

Build Swagelok into the design

When you specify Swagelok products for new construction or retrofits, you know that you're getting quality, reliability, and safety, backed by our limited lifetime warranty.

Because of stringent requirements in nuclear power plants, even a seemingly simple task like making a weld requires extended time and greater numbers of personnel to ensure proper setup and inspection. Swagelok helps minimize worker exposure with improved processes over those of traditional installations. Note that the times shown include all required setup and inspection times. Your actual installation times may vary, depending on your specific application.

DOSE REDUCTION SWAGELOK TUBE FITTINGS **REDUCTION IN**



Swagelok tube fitting installation = 2 people 120 minutes 240 total minutes

EXPOSURE TIME

Manual weld (1 in. stainless steel socket weld) = 3 people 240 minutes 720 total minutes

CUSTOM SOLUTIONS



REDUCTION IN EXPOSURE TIME

20 On-site tube fitting connections

5 On-site custom assembly connections

M200 ORBITAL WELD

70

REDUCTION IN EXPOSURE TIME

M200 orbital weld = 3 people 55 minutes 165 total minutes

Manual weld (1 in. stainless steel socket weld) = 3 people 240 minutes 720 total minutes

Worry-free code compliance

Swagelok has been a supplier of products to the nuclear industry for nearly as long as we have been in business. Many Swagelok components meet the nuclear industry codes and standards that you require, including:

- 10CFR50 Appendix B/10CFR21 ASME Section III—N, NPT, NA
- ASME B16.34, B31.1, QME-1
- ASME NQA-1, ANSI N45.2 and daughter standards • CSA Z299
- ISO 9001: 2008
- MSS-SP Documents for Valve Manufacturing & Testing
- HAF604 (China), CSA N285 (Canada), RCC-M (France)
- Inspecta (Europe)

Culture of

safety and

innovation

- Vd TÜV, European Pressure Equipment Directive (PED)
- METI/KHK
- NUPIC Preferred Supplier List
- F4N Fit for Nuclear certification

Swagelok has been dedicated to safety since our inception in 1947. Every associate owns safety, starting on the manufacturing floor. Our employees consistently look for safety risks and are empowered to point out safety concerns to anyone, no matter their position.

optimize our processes for efficiency.

duties in a reliable, safe manner.

Swagelok standard one-inch and under stainless steel tube fittings meet many global nuclear codes and standardsoff the shelf.

Protection against counterfeit, fraudulent, and suspect items (CFSI)

Immediate and potential threats to the safety of your workers, plant performance, the public, and the environment can be the result of using counterfeit or fraudulent items. Our culture of quality helps you guard against CFSI.

- Our fully traceable supply chain and quality processes ensure that you receive exactly what you ordered when you purchase our products, confirmed by product markings and documentation.
- Our proven quality, backed by our limited lifetime warranty, helps you know you're making the right decision when you choose our products.

- Continuous improvement: Lean and Six Sigma events continuously seek to
- Training: We continually educate our workforce so that we can perform our
- Innovation: Our culture of innovation has led to advancements in ergonomic approaches to manufacturing that maximize human capital.

RELIEVE YOUR PRESSURES

Support when you need it

While you may have expertise on-site, there are times when those resources may be needed to fulfill other roles.

Our dedicated Nuclear Services Group can help speed the development of project specifications and fluid system solutions, minimize problem-solving time, and reduce engineering costs by providing on-site engineering, technical support, and product compliance reviews.

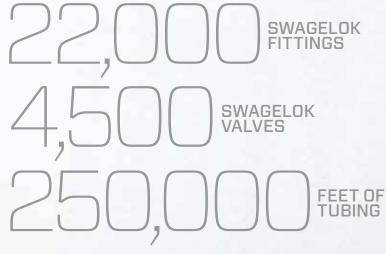
Long-term sustainability of your facility also requires the transfer of expertise to the next generation. Customized training is available for your employees or contractors. We can help you develop new skills or replace lost knowledge with in-person and online training programs. Topics include fluid system technologies, analytical instrumentation, orbital welding, steam fundamentals, and more.

MINIMIZE ENVIRONMENTAL RISK WITH LEAK-TIGHT SWAGELOK PRODUCTS.

Heat. Confined spaces. Gaseous environments. Chemical exposures. Steam hazards. Minimize your exposure to these risks and ensure material integrity by choosing Swagelok[®] fittings over weld connections in your plant.



IN A NUCLEAR PLANT THERE CAN BE AS MANY AS



Swagelok products can be found in:

- Compressed Air Systems
- Process Sample Systems

Radiation Air Monitoring Systems
 Chill Water & Cooling

- Instrument Racks and Assemblies
 Lube Oil Systems
 - Hydraulic Systems
 - Chemical Injection Systems
 - Water Applications

Ease the pain of supplier changeover Will your current suppliers be there when you need them for the long term? Changeover in the nuclear industry can be a difficult and costly process and must be justified. A primary reason for changeover is that suppliers may not maintain certification. Our products have been continuously certified since 1981, so you can be confident that switching to Swagelok is the right decision. To help ease the burden on your staff, we can perform specification reviews and offer solutions to existing or obsolete products from other suppliers. Here's a look at our history: Late 1950s Launched Nupro[®] bellows valve for nuclear applications Late 1960s Began providing fittings to the nuclear industry 2002 Received ASME N and NPT Certification 2011 Received ASME NA Certification

- 1981 Received ASME Quality System Certificates

- 2016 Received F4N Certification

Maximize resources with certified nuclear assemblies

ASME BPVC Section III, Class 1, 2, and 3 assemblies with proper documentation help you to reduce procurement efforts, unburden your on-site skilled workers, and ensure high-quality fabrications. We can develop your idea, enhance your design, fabricate your assembly, and factory test it -all under the Swagelok Limited Lifetime Warranty.

WE'RE NEARBY, NO MATTER WHERE YOU ARE

Globally, more than 200 authorized Swagelok sales and service centers are fully staffed to suit your needs, from inventory management and on-site warehousing to ensure product availability, to on-site, in-depth technical assistance, to emergency deliveries and equipment sales and rentals.

Your local Swagelok representative will work with you to provide you with the right level of Swagelok resources for an optimized solution to your unique needs.

[This can be customized and added to by distributors]

• Countries where Swagelok has sold into the nuclear industry





Learn more about how Swagelok helps you meet the pressures you face. Start a discussion with your local sales and service center representative today or visit our website at www.swagelok.com.

Swagelok

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