#### Swagelok Assembly Services

Swageld

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Built to Order Made to Order Engineered to Order



northerncal.swagelok.com

# SIMPLIFY, SPEED UP, & SAVE

Fluid system assemblies all have one thing in common, whether they're used for OEM, process, instrumentation, or maintenance applications: Someone has to design and assemble them. So it's worth asking: Should we tackle this by ourselves?

If you have fluid system engineers in-house, wiggle room in your schedule, space for more inventory, specialized tools for fabrication, and certified technicians to handle assembly and testing, you're all set. If not, Swagelok Assembly Services may be for you. Customers in this program receive:

- As much time as you need to discuss the solution
- CAD drawing with piping and instrumentation diagram
- Component selection and Bill of Materials
- Bending, welding, and assembly by certified technicians
- Testing and warranty of the assembly
- Professional packaging and delivery

WE OFFER QUICK-TURN HOSE ASSEMBLY, REGULATOR ASSEMBLY AND MUCH MORE. SEE PAGE 5 FOR A LIST OF EXAMPLES



PART OF A PROCESS ASSEMBLY BY SWAGELOK NORTHERN CALIFORNIA

## Design Better

#### Go simpler. Get more compact. Eliminate scrap. Avoid delays.

A well-designed assembly doesn't just get the job done, it does so with a minimum number of parts.

Good design also recognizes the realities of the supply chain. There are times when a single hard -to-get part can hang up an entire project because of long lead times for delivery.

Knowing when to adopt an alternative solution can lower overall costs. We know how to cut through the confusion that can result from having so many choices.

(Even our most basic KPR Series general purpose regulator can be built in about 2 million configurations of control ranges, body materials, inlet pressures, seat materials, sensing mechanisms and other factors.)

Our certified and experienced staff also knows how to use materials efficiently, reduce waste and maximize resources. Cutting the wrong length of tubing means having to throw out extra inches if it's too long, or throw out everything and start over again if it's too short. That kind of waste adds up.

## Save Time

Because fluid systems design and assembly are our core competencies, we can get the job done efficiently.

Our technicians are certified orbital welders, topnotch tubing benders, and trained, experienced assemblers.

We have the full array of tools to do the job right, including a computerized orbital welding system that can handle the most complex compound orbital welds, and store the specifications in its memory.

That's a key advantage if you ever need more of the same assemblies in the future.

Getting the job done right the first time saves you time. You get maximum efficiency. In the meantime, your own team can stay productive on their primary jobs.



WE CAN HANDLE THE MOST COMPLEX COMPOUND ORBITAL WELDS

## SAVE SPACE

A well-designed fluid system assembly has a compact footprint. It doesn't have unnecessary parts, so it doesn't take up unnecessary space.

In addition, by not having to clear out an area for parts storage and assembly, you save space on the front end.

To get that kind of sophisticated design, you need to entrust the work to someone with years of experience in fluid systems.

#### Reduce assemblies' footprint with help from seasoned pros.

EXAMPLE OF AN ASSEMBLY AVAILABLE FROM SWAGELOK NORTHERN CALIFORNIA



IF YOU DON'T ALREADY OWN THE SPECIALIZED TOOLS NECESSARY FOR DOING THE JOB RIGHT, YOU'LL NEED TO EITHER BUY OR RENT THEM.

#### Save Money

Doing it yourself doesn't mean it's free. Aside from materials cost, you're pulling team members off other work.

Someone has to draw a configuration for the assembly, produce a parts list, source the parts, order them, receive the shipments, inventory them, assemble, test, and pay each individual vendor.

You'll need a reliable process for any fabrication. A space for assembly one that might be better put to use for some other part of your operation.

If you don't already own the specialized tools necessary for doing the job right, you'll need to either buy or rent them. Then you need to dedicate labor to do the actual assembly; and if they are not familiar with the fitting installation you'll need to train them.

Because we have the components, the tools and factorytrained installers, we can do the job quickly, and at a higher level of quality than you may be able to achieve inhouse.

You may even save money.

#### Cut Risk

A poorly designed or poorly assembled fluid system increases risk and reduces safety.

If the metals aren't compatible with the fluid running through the system, it can result in corrosion and leaks.

Even leaking water can be a safety hazard or drip onto sensitive equipment and knock it out of service.

If more volatile fluids are in play, leaks pose even bigger risks and potential liability.

For companies that do all the design and assembly work themselves, the only recourse is to redo the work.

But Swagelok Northern California pressure tests or leak tests all assemblies before delivery, and we back them with the Swagelok limited lifetime warranty.

We also are part of Swagelok's global network. If your project requires a rare skill, we can tap into a worldwide roster of experts. WE CAN HANDLE THE MOST COMPLEX COMPOUND ORBITAL WELDS

EXAMPLE OF AN ASSEMBLY AVAILABLE FROM SWAGELOK NORTHERN CALIFORNIA

## Choose from 20+ Options

Here's a partial list of the kind of work our Assembly Solutions team can do:

- Specialized thermal insulation
- Ultrahigh purity fluid systems
- Wetchemistry flared PTFE systems
- Fabrication of sheet metal, machined components and 3D printed parts
- Setting relief valves
- Liquid manifolds
- Gas Boxes
- Tube bending and cutting
- Prebent and pre-swaged tubing
- Distribution manifolds

- Rapid-turn hose assembly
- Sample cylinder assemblies
- Orbital welding up to 4-in tubing
- Regulator stations
- Large system assemblie
- Automated valve solutions
- NG hose assemblies
- Rapid-turn regulator
  assemblies
- Custom kitting
- Tube swaging and threading subassemblies
- Leak testing: helium, hydrogen, hydraulic, pneumatic..



## CLIENT ROI EXAMPLE

An OEM manufacturer requested our help in designing and building a new gas panel. They provided us with a simple schematic and a bill of materials.

Our engineering team helped improved the layout, reducing the number of components by about 30% and saving \$3,000 in component costs alone. And using components we suggested, our customer saved an additional \$1,000. We simplified a client's schematic to use to 30% fewer components, and provided panels at \$4,000 less. The savings added up.

Our certified, experienced staff knows how to use materials efficiently, takes pride in reducing waste, and strives to be each and every client's favorite stsory. YOU RECEIVE A DRAWING OF YOUR ASSEMBLY, A TECHNICAL QUOTE, PRICING AND DELIVERY INFO -- WITH AS MUCH TIME AS YOU NEED TO DISCUSS THE SOLUTION.

#### IF YOU CAN THINK IT, WE CAN BUILD IT

If you can conceive of it or sketch it... we can build it. Send us a simple drawing by email, by fax, or on a piece of paper, including the specifications for the assembly that you need. In fact, you can even give us the specs over the phone.

We'll always make an effort to optimize your design to make it as efficient as can be. We'll stay in communication with you throughout the process making sure all questions are answered before we move ahead. We will provide a drawing of your assembly, a technical quotation, and pricing/delivery information.

#### Send us a simple drawing or tell us your idea or goals over the phone.

As proud as we are of Swagelok components, we realize that your system will likely need parts from other suppliers. That's not a problem. We have established working relationships with key suppliers of non-Swagelok components.

We may even be able to save you the trouble of unintentionally reinventing the wheel. We offer a variety of pre-engineered sul simple welds to complex manifolds. The list includes fluid distribution headers, sample probe modules, calibration and switching modules, fluid distribution headers and more.

IN ADDITION TO KITTING WE CAN CREATE CUSTOM LABELS ON THE COMPONENTS OR ON THE OUTSIDE PACKAGING.

## Assembly, Testing, Kitting & Labeling

# We pull from our well-stocked inventory and order any additional parts needed for the assembly.

All fabrication work takes place in a clean, well-equipped assembly area. Or, if your application demands it, we have a clean room assembly capability. We can also package ultrahigh purity components in our clean room.

The completed assembly will go through rigorous quality assurance inspections and testing. Snoop TM liquid leak detection, pressure decay, hydrostatic and helium leak testing are employed when needed.

Our processes and documentation comply with ISO 9001:2015 and the Swagelok Quality System registrations. Our specialized tools include a Two Level CNC Tube Bender with Push-Bend capability, orbital welding systems, helium leak testers, fiber optic inspection cameras, hydrostatic test benches, dust handling equipment, and so much more.

We also offer an array of customized component packaging and labeling options that can help eliminate additional handling at your site. By prepackaging components to your specifications, we can help reduce packaging waste, reduce warehousing costs, and increase the efficiency of your assembly process.

WOULD YOU LIKE TO SEE EXAMPLES? COME BY OUR CUSTOMER BRIEFING CENTER AT 3393 WEST WARREN AVE IN FREMONT, CA

#### LEVERAGE OUR TEAM

There are times when it makes sense to do the work yourself, such as changing out a part for regular maintenance. There are other times when it pays to hand the work over to someone who can quickly do an excellent job on the first try. Someone who can improve on an idea, who can select the ideal parts for the application, and who backs up their work with a warranty.

Working with Swagelok Northern California, you have an exceptional Assembly Solutions Team team ready to work when you need it. Talk with our Assembly Services Team. Fill a short form at our site to let us know you're interested, or use the contact info below.

There is no cost or obligation created by responding.

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