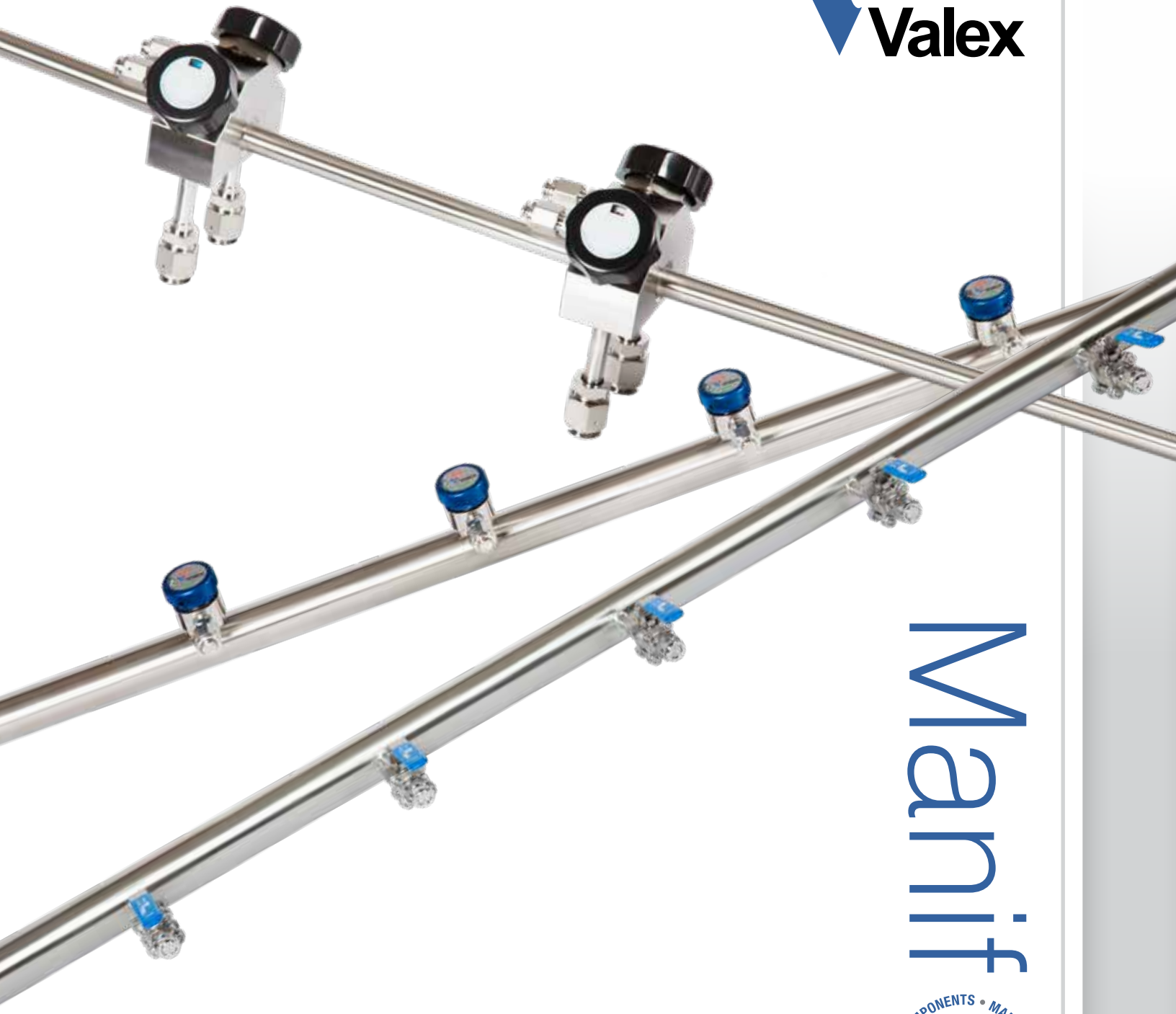
Valex



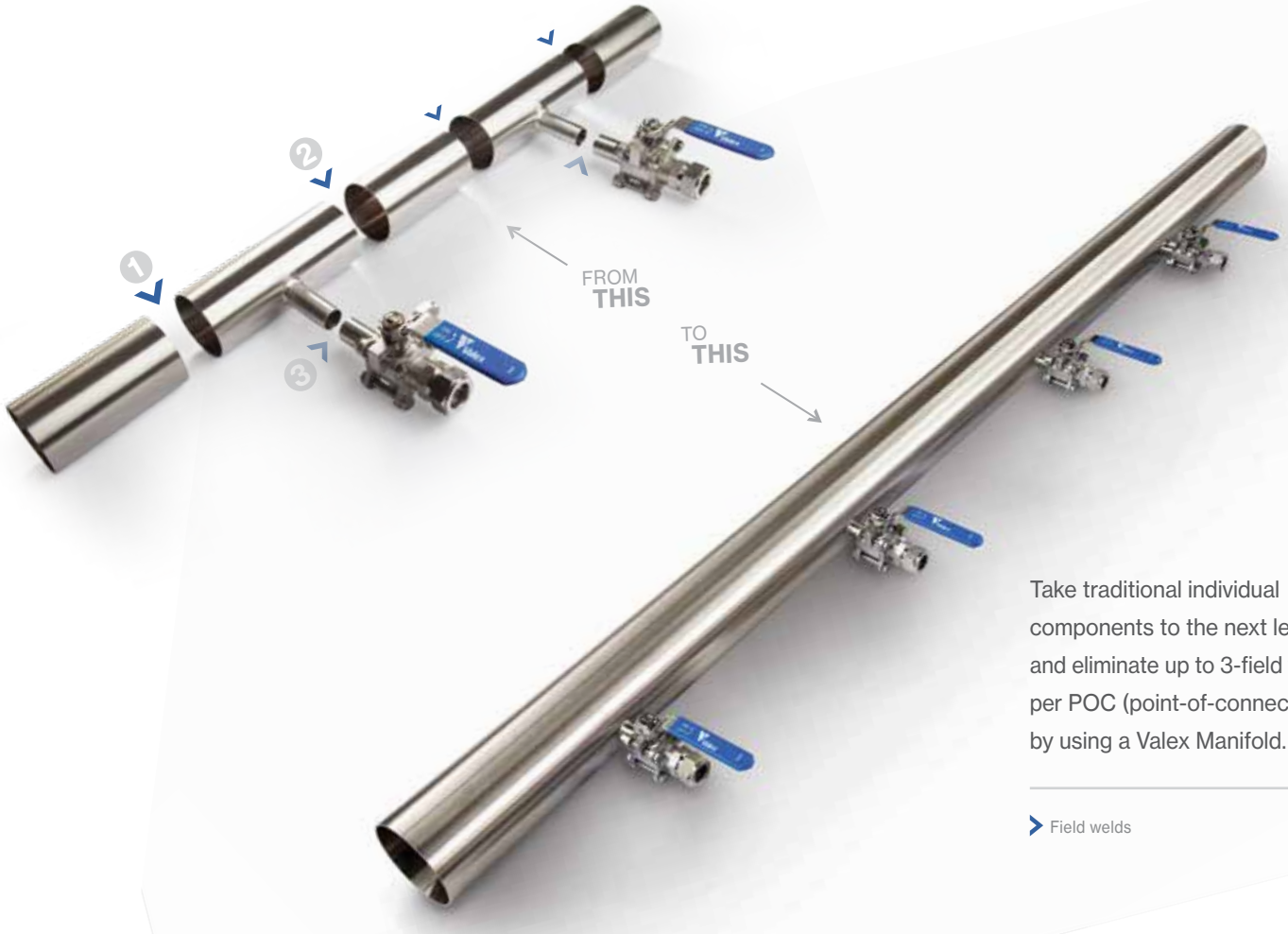
Manifolds

COMPONENTS • MANUFACTURING • ASSEMBLY • TESTING

ONE Trusted SOURCE

Valex Manifolds

- PCW, CFOS, UHP Configurations with ball valve, diaphragm valve & bellows valve options
- Main run lengths up to 24 feet and diameters up to NPS 12
- Fully leak tested & certified manifold assemblies
- Built to your custom drawings & specifications
- Full documentation package of each manifold identified in accordance with plant drawings
- Highly adaptable branch outlet configuration options



Take traditional individual components to the next level, and eliminate up to 3-field welds per POC (point-of-connection) by using a Valex Manifold.

Field welds

One Trusted Source

Our manifolds are born from the pedigree of world-class components that have been the overwhelming first choice of end users for over 40 years.

From building valves, to joining branch connections – we perform every step of crafting a manifold into an integrated assembly in order to ensure the same legendary quality that customers have depended upon us to provide for decades. After processing to customer's specifications, each manifold is then thoroughly tested to ensure trouble-free installation in the field.

Built from Valex tube, pipe, and valves – by Valex.

From One Trusted Source.

Increased Quality

- Decreased particle contamination by reducing number of field cutting, facing and welding operations
- Reduced number of total lateral weld seams
- Reduced chance of system contamination
- Faster system qualification

Increased Savings

Valex manifolds minimize your operating costs, increase productivity and enhance overall safety.

- Reduced on-site Argon weld purge gas usage
- Reduced critical skilled labor time and total time of system installation
- Reduced QA/QC weld inspections
- Reduced material handling and purchase orders

PCW Applications

- Process Cooling Water (PCW), City Water, Potable Water.

Benefits & Features

- Built from quality Valex PCW pipe and valves.
- Minimized “dead-leg” volume between main pipe run and branch connections.
- Automatically TIG welded using ValWeld™ process.
- Completed manifolds are 100% leak tested.
- Includes a Certificate-of-Compliance.

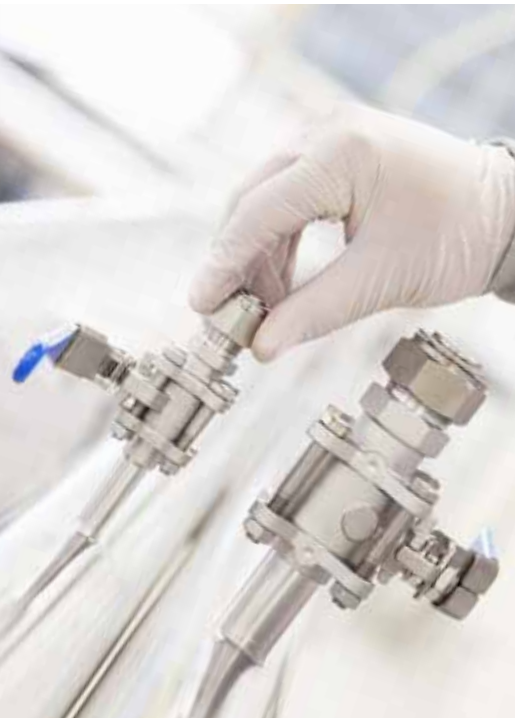
Standard Configurations

- Main run lengths up to 24 feet, and diameters up to NPS 12
- Branch (Point-of-Connection) sizes up to 6 inch
- Offered in 304L or 316L Stainless Steel, in both ASTM tube and NPS pipe sizes
- Flange, pipe butt-weld, socket, threaded connection branch valve options

PROCESS COOLING WATER

304L
316L

PCW



CFOS Applications

- Cost-effective systems where cleaning for oxygen-grade services are required, such as: Clean-Dry Air (CDA), Oil-Free Air (OFA), General Nitrogen (GN2), Utility Nitrogen (UN2), and other inert gas applications.

Benefits & Features

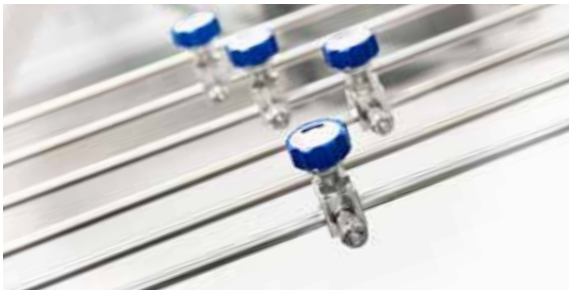
- Built using Valex High-Purity ball valves, and Valex CFOS tube or pipe.
- Minimized “dead-leg” volume between main run and branch.
- Automatically TIG welded using ValWeld™ process.
- Completed manifolds are 100% leak tested.
- Assembled, tested and bagged in an ISO Class 5 cleanroom.
- Includes a Certificate-of-Compliance and Inspection Certificate.

Standard Configurations

- Main run lengths up to 24 feet, and diameters up to NPS 10
- Branch (Point-of-Connection) sizes up to 6 inch
- Offered in 304L or 316L Stainless Steel
- Finish Options: 25 Ra, 40 Ra, 150 Ra and AP
- Tube butt-weld, compression fitting, face-seal, capped tube, and flanged branch valve connection options
- Various branch valve purge-port and purge-valve options

CLEANED FOR OXYGEN SERVICE

CFOS



UHP Applications

- Ultra-High Purity (UHP) Gas, Corrosive Gas, Specialty Gas and gas systems requiring the highest grade of materials and certifications.

Benefits & Features

- Built using Ultra-High Purity Valex EP tubing.
- Minimized “dead-leg” volume between main run and branch.
- Automatically TIG welded using ValWeld™ process.
- Completed manifolds are 100% helium-leak tested to 1×10^{-9} atm • cc/sec after assembly.
- Nitrogen purged, and double-bagged in an ISO Class 5 cleanroom.
- Includes a Certificate-of-Compliance and Inspection Certificate.

Standard Configurations

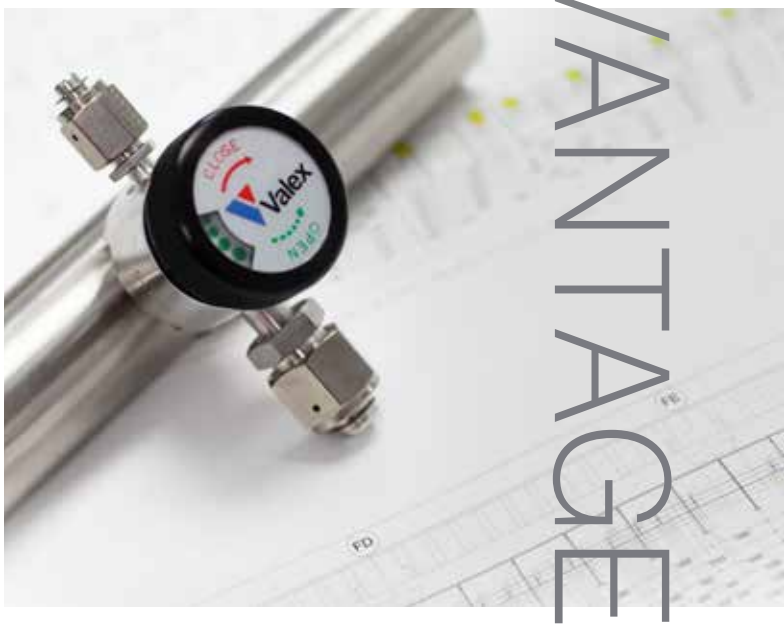
- Manifold lengths up to 24 feet, and diameters up to NPS 10
- Branch (Point-of-Connection) sizes up to 4 inch
- Offered in 316L Stainless Steel
- Various electropolished (EP) finish options
- Tube butt-weld and face-seal branch valve connection options
- Various purge-port and purge-valve options

ULTRA HIGH PURITY

Streamlined Solutions, Unparalleled Support

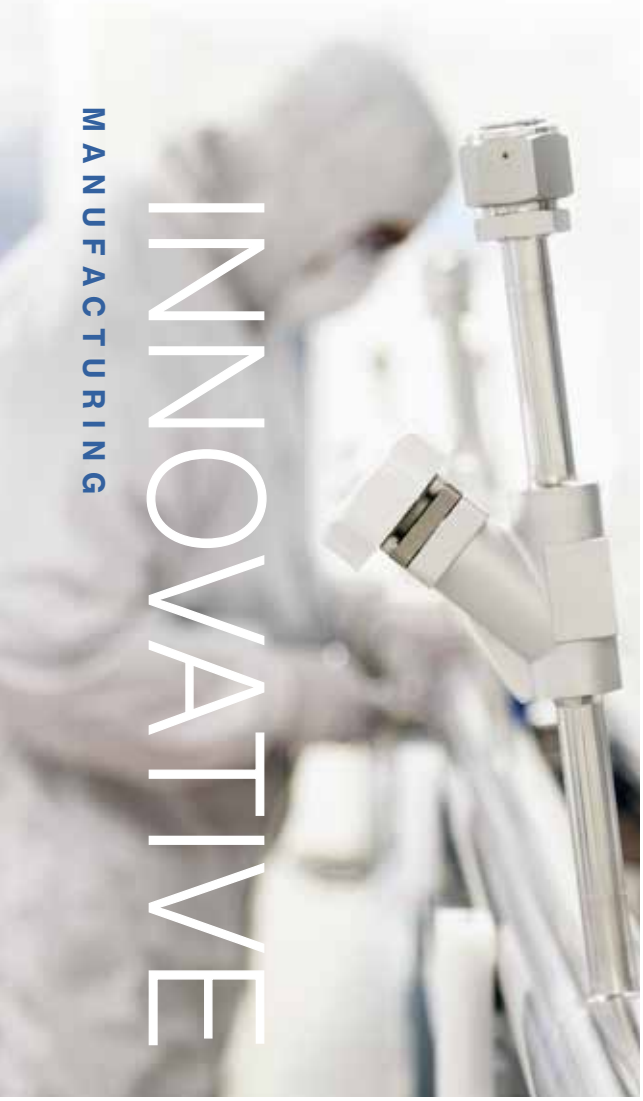
- Comprehensive support throughout entire project life-cycle.
- Valex onsite assistance available during project planning, for maximum manufacturing efficiency during construction.
- Strongest partnerships with industry leading UHP approved valve and component manufacturers.
- Complete inclusive documentation package available in hard-copy and electronic format, with easy identification of customer lateral, manifold ID, and Valex part number.
- Custom crating options and labeling for quick job-site lateral identification, and damage-free shipment.
- Minimized heats chosen for manifold main tube & pipe runs for quicker installation.

A COMPLETE ADVANTAGE



End-of-Line Manifolds

End-of-line (EOL) manifolds are available in a variety of configurations. Segments can be customized to utilize branch or Point-of-Connection valves, in-line valves, or a combination of the two. EOL spools can also be supplied with end caps, or other required fittings, to complete the termination of a process lateral.



Top-notch manifolds call for top-notch manufacturing.

Our manifolds are built utilizing leading-edge techniques, machinery, and innovative fabrication setups to maximize efficiency, accuracy, and achieve repeatable quality. Production consists of highly trained and proficient industry craftsmen, and certified welders - backed by project specialists, working in unison to streamline work-flow and cut lead-times.

Valex manifold manufacturing utilizes:

- Specialized “work-cells” for maximum efficiency of each production operation.
- Custom built rigid work station benches, with precision assembly fixturing for accurate component alignment, prior to welding.
- Advanced computer-controlled machining and collaring station for pulled style manifold assemblies.
- Three Valex world-wide manufacturing factories for load balancing of shop capacity for high-volume customer projects.


ValWeld™ Weld I.D.


ValWeld™ Weld O.D.

ValWeld™

State-of-the-art innovative welding technology that produces clean, consistent, repeatable, and reproducible high-quality automatic welds.

Weld integrity is ensured through inspection of:

- Concavity
- Convexity
- Axial & Angular Alignment
- Bead Width
- Bead Meander
- Discoloration

QUALITY

INSIDE & OUT

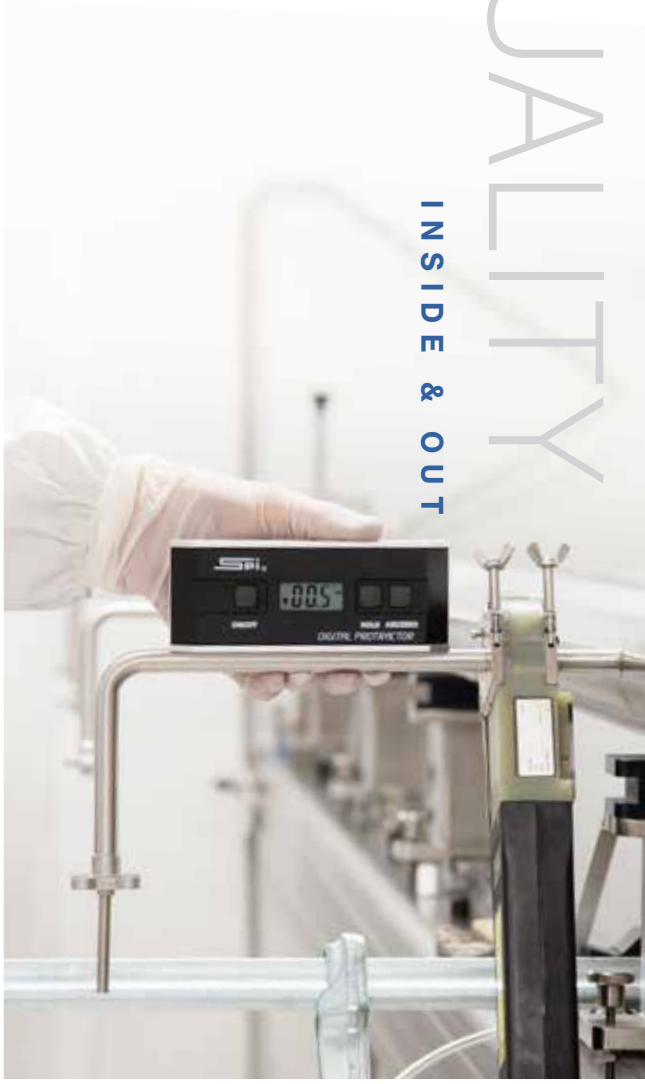
Making Connections

The recipe for quality built manifolds includes high-grade components, joined with high-grade weld connections. Our welds are constructed using Valex certified auto-weld programs, that follow Welding Procedure Specifications (WPS) supported by Procedure Qualification Records (PQR) - in accordance with ASME Boiler and Pressure Vessel Code Section IX requirements.

Welds are assigned a unique ID number used for the traceability of the weld operator, date, program, equipment, and heat number of the material used for the weld. Dedicated QC staff carefully examine each weld against coupon standards, before helium-leak testing, and marking the manifold as acceptable for shipment.

Library of Parts

Sample standards for weld discoloration are used by QC personnel as a “Library of Parts” during production, to ensure process welds meet or exceed acceptable requirements for color and haze.



A Complete Package

A comprehensive documentation package is available to facilitate on-site contractor and Quality Assurance Representative (QAR) tasks. Weld Coupons are archived for record retention.

Detailed documentation includes:

- Packing List
- Drawings
- Weld Logs with Weld Maps
- Sales Order
- Inspection Certificate
- Certificate-of-Compliance

Ordering Information

I– E 8 2 A 7 4 6 – 2 4 0 – X X X X

Part number matrix below is used for small project or low order quantities. For large project or base builds, please contact Valex for the part number schema that will be applicable to your job site.

I
Product Line
I = Integrated Manifolds

E
Main Run Alloy & ID Finish
A = 304L AP
B = 304L 150 Ra
C = 304L 40 Ra
D = 304L 25 Ra
E = 316L AP
F = 316L 150 Ra
G = 316L 40 Ra
H = 316L 25 Ra
I = 316L 20 Ra
J = 316L 10 Ra

8 | 2
Main Run Size

ASTM Tube	NPS Pipe
08 = 1/2"	75 = NPS 2
12 = 3/4"	77 = NPS 3
16 = 1"	79 = NPS 4
24 = 1-1/2"	80 = NPS 5
32 = 2"	81 = NPS 6
40 = 2-1/2"	82 = NPS 8
48 = 3"	83 = NPS 10
64 = 4"	84 = NPS 12
96 = 6"	

A
Branch Type
A = Ball Valve
B = Diaphragm Valve
C = Bellows Valve
D = Pipe/Tube Stub
E = ASME B16.5 Class 300 Flange
F = ASME B16.5 Class 150 Flange

7 | 4
Branch Size

ASTM Tube	NPS Pipe
04 = 1/4"	70 = NPS 1/2
06 = 3/8"	71 = NPS 3/4
08 = 1/2"	72 = NPS 1
12 = 3/4"	73 = NPS 1-1/4
16 = 1"	74 = NPS 1-1/2
24 = 1-1/2"	75 = NPS 2
32 = 2"	77 = NPS 3
48 = 3"	79 = NPS 4
64 = 4"	80 = NPS 5
96 = 6"	81 = NPS 6

6
Branch Quantity
Number of branch connections on manifold

2 | 4 | 0
Main Run Length
In inches, one number per box

X | X | X | X
Valex Unique Identifier
Unique number supplied by Valex

Not all possible part number combinations are available. Please contact Valex for availability.

Neither ozone-depleting nor mercury-bearing compounds are used during Valex processing or testing of any product.

C1905

Valex

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