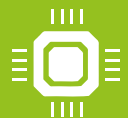


**D-ECKWEILER**  
connecting flow to purity



# MANIFOLDS

SOLUTIONS FOR  
SEMICONDUCTOR INDUSTRIES



MICRO  
ELECTRONICS

# SETTING NEW STANDARDS.

Offering tailor made configurations.

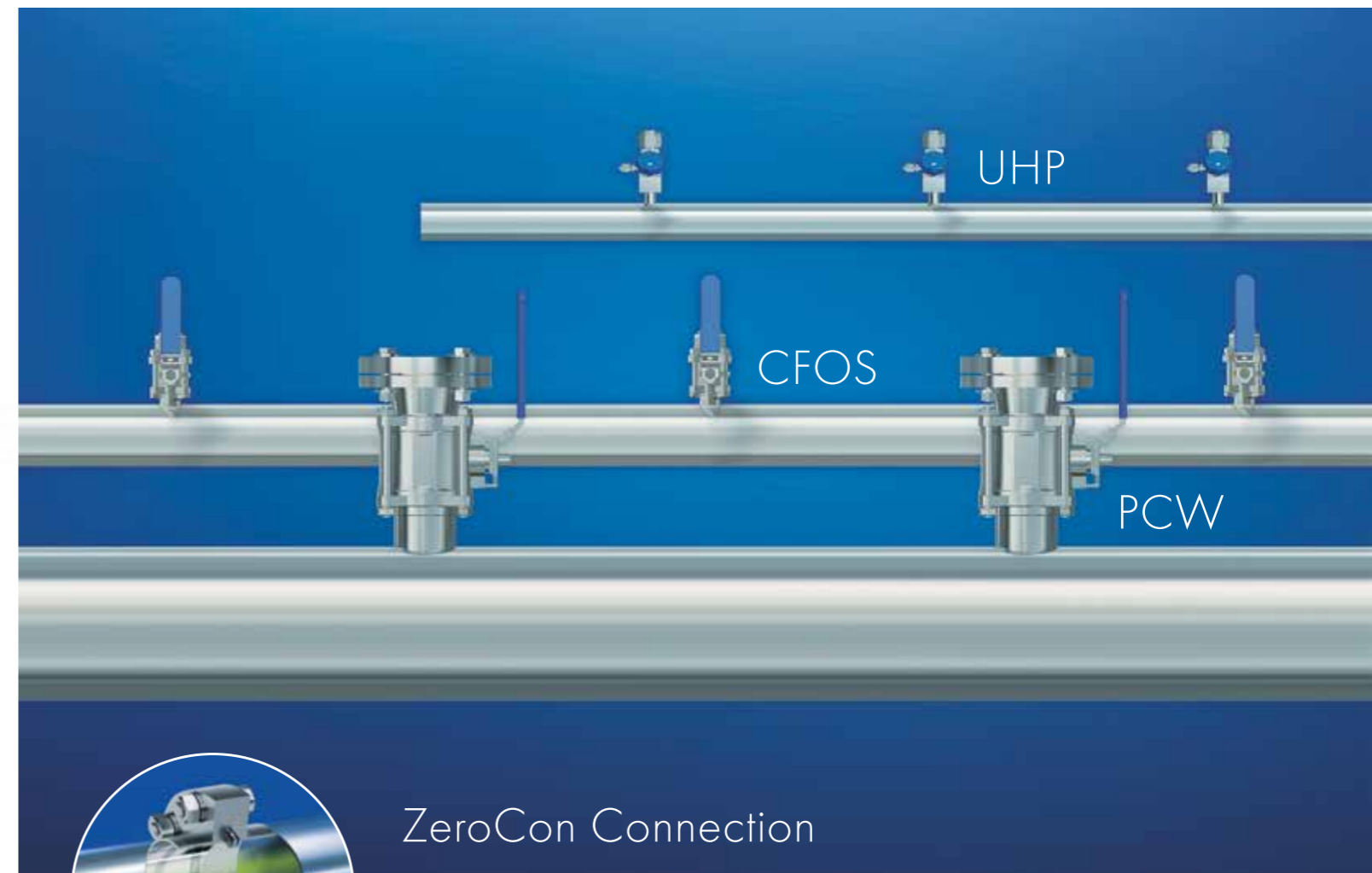
Conventional manifold production methods - utilizing tubes and T-pieces - often require multiple weld seams and skilled workforce. Our innovative off-site manufacturing approach not only offers a streamlined installation on site but also ensures a more **efficient and convenient system setup.**



Minimizing weld seams during installation on site will increase your efficiency but also minimize risk.

These are the advantages of Dockweiler manifold prefabrication at a glance:

1. Innovative solutions for connecting the spools on-site ✓
2. High-quality stainless steel components ✓
3. Fewer weld seams minimizing risk of leakage (up to 70%) ✓
4. Advanced welding technology ✓
5. Cleanroom production for UHP and CFOS laterals ✓
6. Customized for easy installation ✓
7. Comprehensive technical documentation ✓
8. Traceability from pre-material to final product ✓
9. Worldwide on-site delivery ✓



## ZeroCon Connection

With connections such as the unique ZeroCon connection, Dockweiler manifolds are more easy to install: ZeroCon has the tightness of a welded seam and thus allows the simple connection of spools on-site.

# KNOW-HOW IN EVERY DETAIL:

Profit from our semiconductor experience.

Achieving the highest quality in semiconductor production processes entails control of fabrication parameters, precision engineering at nanoscale levels, and defect detection and elimination, ensuring optimal performance and reliability in advanced electronic devices. This demanding pursuit of perfection ensures semiconductors to meet the stringent demands of cutting-edge technologies. **This is what we stand for.**



## Manifolds for UHP, CFOS and PCW systems delivered to Semiconductor project sites

- Segments up to 24 ft. / 7,31 m with valves at designated intervals ✓
- Customer specified number of valves ✓
- Fully tested, assembled, cleaned and packaged ✓
- Customized design ✓
- Manufacturing at Dockweiler site ✓
- Assembly at customer site ✓

## Highest quality for maximum requirements

- Prefabrication in a controlled environment ✓
- Clean room class 4/6/8 environment – referring to FD 10/1000/100000 environment ✓
- 100% helium leak tested to  $1 \times 10^{-7}$  scc/sec (PCW, CFOS),  $1 \times 10^{-9}$  scc/sec (UHP) ✓
- Weld log and quality certification, traceability due to unique marking ✓
- Cleanroom monitoring: Particles, Oxygen and Moisture ✓



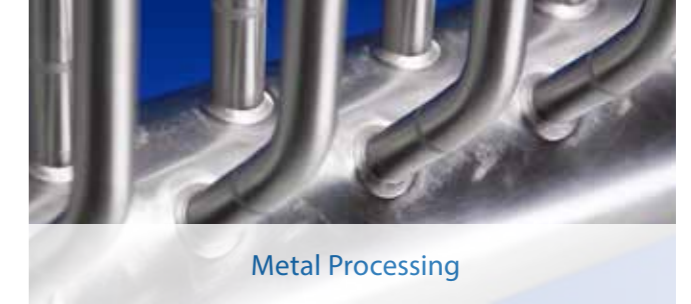
Welding Technology: SEMI F78-0611 / F81-0611



Clean Room Class 10 / 1,000 / 100,000



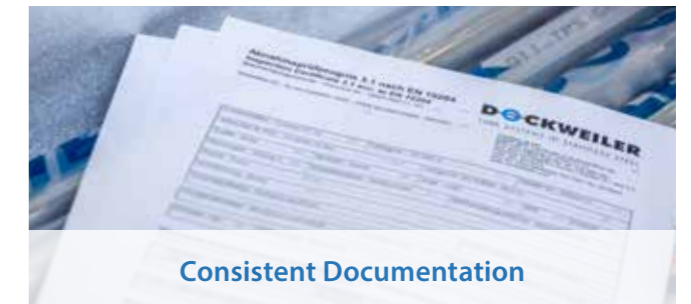
Surface Treatment



Metal Processing



Highest Purity up to Ra 5 µin



Consistent Documentation

# FOR ALL SUPPLY LINES OF A FAB:

From process cooling water to ultra high purity gases.

Various systems - one solution: Dockweiler manifolds for process cooling water, bulk gas, specialty gas and ultra-high purity gas applications.



PCW Process Cooling Water

<b>Surface PCW</b>
Bright-finished
<b>Sizes PCW</b>
- Maximum length 24 ft. / 7,31 m - Segment pipe diameter from NPS3 - NPS12 - Tube dimensions on request
<b>Materials PCW</b>
- 316L (UNS S31603) and 304L (UNS S30403)
<b>Options PCW</b>
- Manifolds ends square cut - Optional with special coupling connection
<b>Valves PCW</b>
- Valves as per customer specification



CFOS Clean for Oxygen

<b>Surfaces CFOS</b>
Bright-finished / Anodically cleaned
<b>Sizes CFOS and UHP</b>
-Maximum length 24 ft. / 7,31 m - Segment tube diameter from 1/2 - 6" - According to customer requirements
<b>Materials CFOS and UHP</b>
- 316L (UNS S31603) and 304L (UNS S30403) - Special materials on request
<b>Options CFOS and UHP</b>
- Manifolds ends prepared for orbital welding - Optional with ZeroCon connection (UHP) or Evans Presslok (CFOS)
<b>Valves CFOS and UHP</b>
- Valves as per customer specification



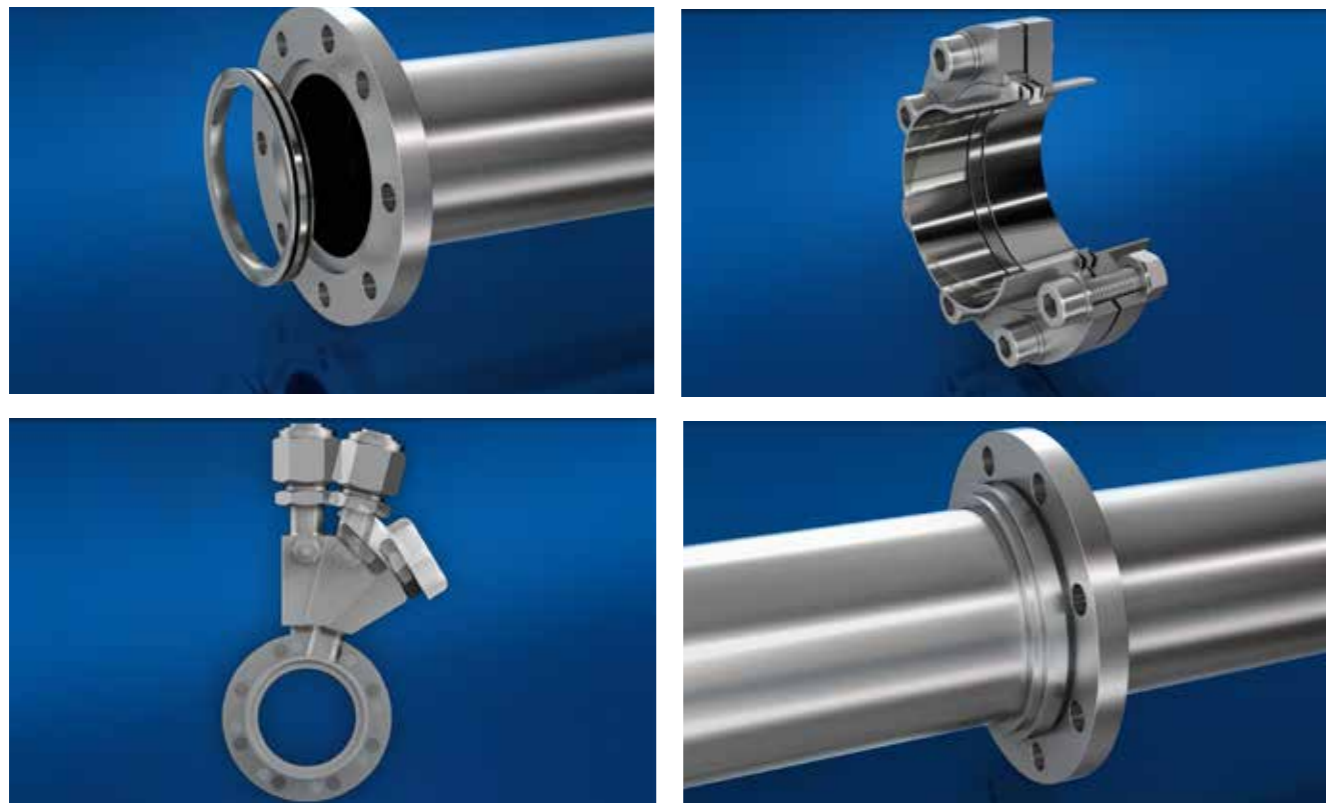
UHP Ultra High Purity

<b>Surface UHP</b>
Electropolished

# EFFICIENT SOLUTIONS.

With clever connections.

**Technical solutions that pay off.** With connections - such as the unique ZeroCon connection, Presslok or couplings for PCW - Dockweiler's solutions are easy to install and therefore extremely efficient.



ZeroCon from 1" with flanges

ZeroCon is the simple and efficient solution if you want a new, built-to-last connection. It combines all the advantages of a detachable connection with those of a welded connection. In addition to this connection, which is available as a screwed version (up to 1 inch) and as a flanged version (1-4 inches), we have the Presslok system for CFOS applications as well as special couplings for large PCW diameters.



Special couplings for large PCW diameters



ZeroCon screwed version up to 1"



Presslok system for CFOS applications

## Dockweiler Solution Engineering at your side

Customized Solutions such as manifolds are advanced system components for industrial processes. Our goal is to work with you to develop the best solution for your process. This means cost savings in the manufacture of components and also in installation. We see ourselves as a technology partner for efficiency, enhancement and optimization in the sectors of microelectronics.

# DOCKWEILER QUALITY. No matter what.



Semiconductor technology is becoming more dynamic every year. The production of manifolds for ultra-pure gas supply is therefore just one of many customer-specific solutions. Here, Dockweiler is one of the pioneers.



## Take Advantage of the Dockweiler Expertise

- Pioneer in the development of high purity surfaces for the semiconductor industry ✓
- Manufacturing specialist for the production of high purity manifolds ✓
- Everything from a single source - from tubes and fittings to special solutions ✓
- The Dockweiler surface qualities of **finetron**, **TCC** and **ultron** are the industry standard ✓
- WebCert online certificate database for simple documentation ✓
- Long-term cooperation with leading valve manufacturers ✓
- Over 40 years of intensive customer relationships: Production of more than 100,000 POC's welded for major microchip manufacturers in the past 3 years ✓
- Production sites around the globe ✓
- **Significant cost savings vs. conventional manifold fabrication** ✓

**Dockweiler AG**

An der Autobahn 30  
19306 Neustadt-Glewe  
Germany

☎ + 49 38757 58-0

✉ sales@dockweiler.com



[www.dockweiler.com](http://www.dockweiler.com)