



FLEXTRON

PURE FLEXIBILITY

Electropolished corrugated hoses in stainless steel
for high-purity semiconductor and fine chemicals applications.

Electropolished surface at 380x magnification

HIGH-PURITY HOSES MADE OF STAINLESS STEEL. IT'S ABOUT KNOW-HOW.

Dockweiler shows how it's done.

Ultra-pure gases are used in sensitive processes. Where they are used, high-purity, electropolished tubing systems are the first choice. In order to be able to connect components quickly and flexibly, flexible corrugated hoses are used. Another advantage: Vibrations and misalignments can thus be reduced. The disadvantage is that conventional corrugated hoses do not yet achieve the surface purity of electropolished stainless steel tubes systems.

This is exactly where Flextron comes into play: based on many years of experience in the semiconductor industry, Dockweiler has developed a process for electropolishing corrugated stainless steel hoses. With this special technology, Dockweiler guarantees a surface cleanliness that has previously only been achieved with electropolished tube systems. The result: Flextron corrugated hoses made of stainless steel. For the first time, it is now possible to deploy a complete ultra-pure gas supply made of stainless steel with electropolished surfaces. – With Flextron made by Dockweiler!

Electropolished stainless steel corrugated hoses of the highest Dockweiler quality:

- 1 more safety in the production process thanks to maximum absence of particles
- 2 guaranteed roughness in the flexible range: Ra of $\leq 0,4 / 0,6 \mu\text{m}$
- 3 Ultron quality: Cleanroom-cleaned and UHP-packed
- 4 fast and flexible also with individual connections
- 5 faster release of moisture in the system due to smaller surface area

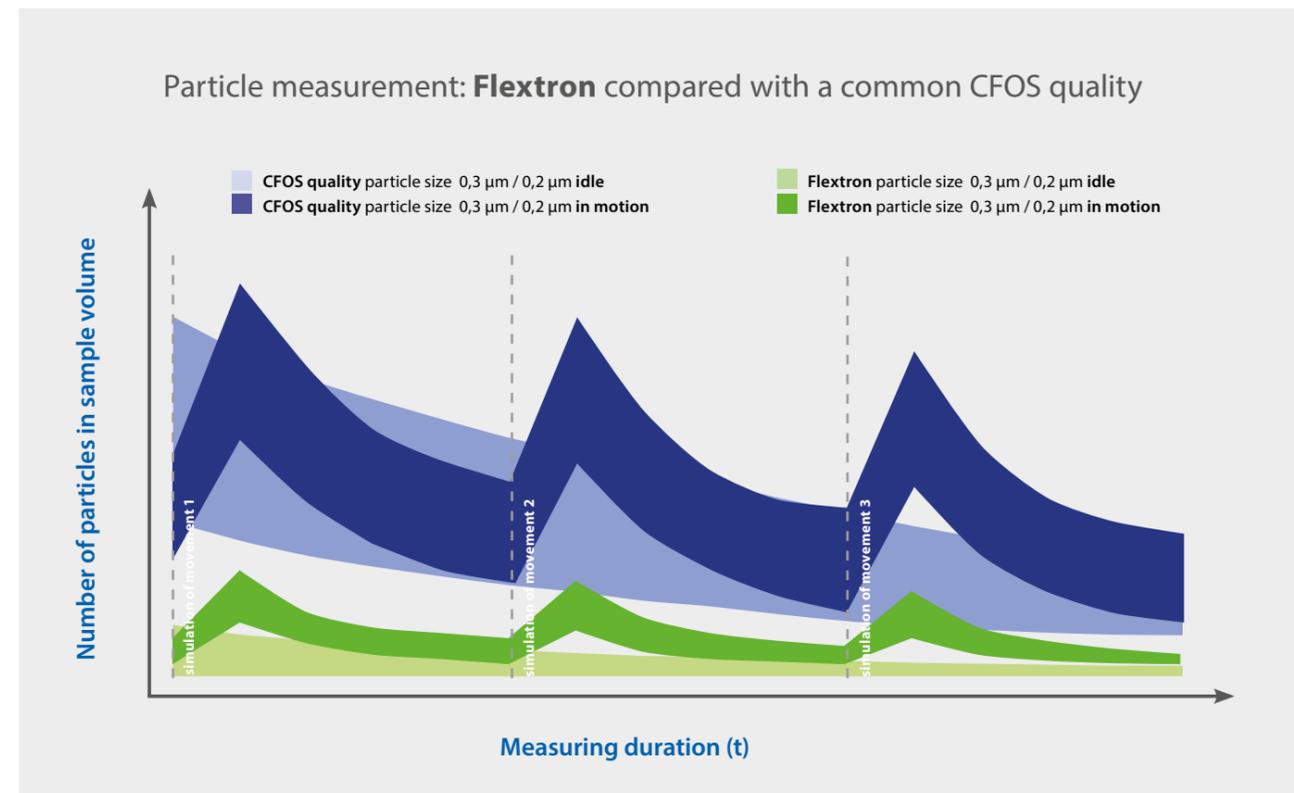


Flextron corrugated hoses in stainless steel:
Electropolishing ensures an optimal surface
quality and a roughness of $\leq 0,4 / 0,6 \mu\text{m}$

THE FLEXIBLE SOLUTION WITH THE PURITY OF ULTRON: FLEXTRON.

High-purity corrugated hoses in Dockweiler quality.

Flextron from Dockweiler is manufactured from mechanically corrugated stainless steel tubes. High-quality standard material is stainless steel 1.4404. A stainless steel wire braiding is added for higher pressure resistance. The unique combination of electropolished surface and flexible corrugated hose minimizes the risk of contamination and enables gas transport under full UHP conditions throughout the system.



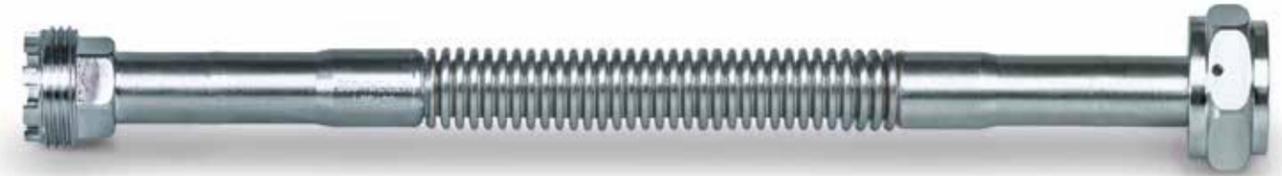
Proven in numerous tests: Flextron.

Dockweiler Flextron products have undergone extensive testing: bending and continuous stress test according to DIN EN ISO 10380, moisture and particle tests, combined tests, helium leak tests and pressure tests.

The results are impressive: All tests have shown that Flextron delivers almost comparable measurement values as rigid stainless steel tube systems with high-purity surfaces! And in comparison with corrugated hoses cleaned to CFOS level, the purity of Flextron is 2 times higher (see diagram above).



Flextron DN6 with VCR connection



Flextron DN8 with ZeroCon connection



Flextron DN6 with optional wire braiding and welding ends

Flextron at a Glance:

Features	Variants
Material	1.4404 UNS S31603 (316L)
System lengths (including welding ends)	6", 12", 24" and 36" (up to 60" on request)
Hose diameter	DN 6, DN 10 und DN 20
Hose couplings	1/4", 3/8", 1/2", 3/4", 1"
Surface treatment	Chemically cleaned Electropolished Ra ≤ 0,4 / 0,6µm
Connections	Welding ends VCR ZeroCon KF- / CF flanges and others on request
Wire braiding (optional)	1.4301 UNS S30403 (304L)

EVERYTHING FROM A SINGLE SOURCE. FOR HIGHEST PURITY. ALL FROM DOCKWEILER.

For UHP requirements of the semiconductor industry and fine chemicals suppliers.

Advantages at a glance:

- Only with Flextron does a UHP gas system meet the **highest purity requirements** – from the gas tank to the production facilities.
- **Fast and flexible connection** of system components to the ultra-pure gas supply.
- Electropolishing cleans the surface – the **particle generation is reduced to a minimum**.
- The smoothed surface **minimizes** the required **flushing and evacuation time**.
- The electropolished corrugated hose made of stainless steel guarantees a homogeneous passive layer for **optimum corrosion protection**.
- **A wide variety of connection ends** allow installation into the overall system.
- Complete **UHP stainless steel system from a single source**.

More technical advantages of Flextron:

- **Tightness guaranteed** as with a weld seam: **with ZeroCon connection**.
- **Oscillations** and/or **vibrations** in the system can be **decoupled** with Flextron.
- Optimal for **compensating installation tolerances** as well as **narrow dimensions**.



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