



DIAMOND BACK HOSE SERIES

Braided stainless steel hose with pipe socket

- Standard EN ISO 1.4404 | AISI 316L
- Compliant standards: EN ISO 10380, EN ISO 9001
- Clean manufacturing process
- Use in combination with DIN 11851 couplings (standard including DIN 11851 reihe 2 weld stubs)
- Superior life time up to 50.000 cycles; five times EN ISO 10380 standard
- Excellent for use in extreme environments (-273°C to 600°C)
- Heavy duty stainless steel hose for water purity applications

Applied in multiple SEMICON systems

Wafer fabrication equipment:

- Lithography
 - EUV Lithography Systems
 - DUV Lithography Systems
- Deposition Systems
 - Plasma Enhanced CVD (PECVD)
 - Atomic Layer Deposition (ALD)
 - Atomic Crystalline Deposition (EPITAXY)
- Etching / Stripping

Complementary Systems:

- Metrology Systems
- Inspection Systems
- Patterning Systems

Optional leak tightness validations

Depending on hose configuration, the following leak tightness validations are available:

- Helium leak test (multiple methods)
- Pressure decay test (high purity gas possible)
- Pressure resistance test

Optional cleanliness validations

- Particle purity validation
- UV/A inspection outside cleanliness
- Airborne particle counter (APC) inside cleanliness
- Molecular purity (high vacuum)
- Total organic carbon analysis by gas chromatography (TOC) for inside cleanliness
- Moisture testing (H₂O)

The braided Diamond Back® hose series is manufactured from clean strip material by CoreDux. The stainless steel strip is made into a tube by cold-rolling and high quality continuous longitudinal welding. The highly consistent result is reached by the hydroforming process. This braided Diamond Back® hose series is the excellent choice for transportation of purity fluids. The braided Diamond Back® hose series is compressed for extra flexibility. Even in extreme environments ranging from -273°C to 600°C. The aesthetically pleasing braided type is characterized by its smooth surface and omission of virtual leaks, making it useful in purity fluids and high demanding environments. Other common uses include serving as a protection layer against electromagnetic interference (i.e. Faraday cage), contamination of any kind.

	Braid type	∅ Inside	∅ Outside	∅ Tolerance outside	Bend radius		Max allowable pressure at 20°C	Burst pressure at 20°C
					Stat.Rs	dyn.Rd		
[mm]	[-]	[mm]	[mm]	[mm]	[mm]		[bar]	[bar]
6	A	6.0	11.4	±0.3	20	110	150	600
8 ¹	A	8.3	15.2	±0.3	20	130	115	460
10 ¹	A	10.1	17.8	±0.3	20	150	135	460
12 ¹	A	12.0	20.2	±0.4	25	124 ²	80	320
15 ¹	A	15.0	24.1	±0.4	32	146 ²	63	252
20 ¹	A	19.9	29.9	±0.4	38	169 ²	55	220
25 ¹	A	24.9	36.4	±0.4	45	195 ²	40	160
32 ¹	A	31.8	45.4	±0.5	58	225 ²	40	160
40 ¹	A	39.6	54.4	±0.5	70	255 ²	32	128
50 ¹	A	49.4	67.3	±0.6	85	293 ²	32	128
65 ¹	A	64.0	83.4	±0.7	105	345 ²	25	100

¹) very good life time resistance: 50.000 cyclus - 5 times superior to the EN ISO 10380 standard.

²) reduced bending radius (EN ISO 10 380 Standard Improved by 25%)

