

# AdvantaSil™ APSW-SP & APSW-SPC

## PLATINUM CURED WIRE-REINFORCED HOSE SMOOTH OR CONVOLUTED O.D.

Pharma & Biopharmaceutical Applications

### PRODUCT DATASHEET



The **AdvantaSil™ APSW-SP** silicone suction hose is a high-quality, single-ply wire-reinforced hose designed for critical applications in the biopharmaceutical and pharmaceutical industries. Known for its durability and purity, the APSW-SP hose is engineered to handle a variety of demanding processes while ensuring the highest standards of cleanliness and safety.

The **AdvantaSil APSW-SPC** 4-ply silicone suction hose is manufactured utilizing a mandrel-wrapping process, integrating a polyester mesh fabric, 302/304 stainless steel reinforcing wire helix, and additional silicone to form a wire-reinforced, mandrel-wrapped hose. Through a curing process, the hose attains homogeneity, enhancing its pressure and vacuum capabilities, and delivering exceptional resistance to pressure and vacuum.

## KEY FEATURES & BENEFITS

- Available with a smooth O.D. or, for easier bending, convoluted O.D.
- Mandrel wrapped with wire reinforcement for higher pressure and vacuum rating
- Crush and kink resistant; durable and heavy duty
- Available as full hose assemblies with crimped fittings
- Custom lengths (up to 12 feet / 3.65 meters) available
- Security of supply chain with redundant manufacturing sites
- Available in sizes up to 4" I.D.
- Comprehensive [validation package](#) to expedite qualification and validation

## TYPICAL APPLICATIONS



Pharma and biopharma high-pressure fluid transfer application



Ultrapure water transfers, washdown stations, skid systems, and other suction and discharge uses



CIP and SIP systems for cleaning and sterilizing production equipment and piping



Bioreactor process lines



Suction and discharge operations in pharma and biopharma processes



Handling aggressive media and buffer solutions



Aseptic transfer of high-purity and high-viscosity liquids



Integration in bioreactor and fermentation systems



Product fermentation

## TYPICAL PHYSICAL PROPERTIES\*

	ASTM Method	Value
Durometer, Shore A	D2240	70
Specific Gravity	D792	1.22
Ultimate Tensile Strength, psi (MPa)	D412	1320
Ultimate Elongation, %	D412	630
Tensile Modulus @100%, psi (MPa)	D412	500
Tear Strength, Die B, ppi (kN/M)	D624	320
Compression Set, %	D395B	20

## STERILITY\*

Available with validated sterility assurance of  $10^{-6}$  via gamma irradiation per ISO 11137 method Vdmax 25. A full sterility validation guide is available upon request.

## STERILIZATION METHODS

Autoclave	One-time cycle at 121°C, 30 min
Gamma Irradiation	Up to 50 kGy

**WARNING:** APSW silicone hose should not be utilized in hot oil or acid applications.

## CHEMICAL COMPATIBILITY\*

Acids, Dilute / Weak	Test Before Using
Acids, Strong / Concentrated	Test Before Using
Bases, Dilute / Weak	Acceptable
Bases, Strong / Concentrated	Test Before Using
Salts	Acceptable
High Purity Water	Acceptable
Oil/Water Emulsion	Test Before Using
Alcohol	Test Before Using
Organic Solvent	Not recommended

## COMPLIANT OR TESTED TO\*

- USP <665> Extractables/Leachables
- USP <87> Cytotoxicity MEM Elution
- USP <88> Class VI
- USP <85> Bacterial Endotoxin
- European Pharmacopeia 3.1.9
- ISO 10993-5 (Cytotoxicity, In Vitro)
- RoHS Compliant
- ADCF Compliant

[Review the Regulatory Overview chart](#)

\*NOTE: Testing based on liner only.

## PRODUCT SPECIFICATIONS

### APSW-SP - SMOOTH O.D., SPIRAL WRAPPED

Part Number	Catalog Number	I.D.		O.D.		Working Pressure 3:1 Safety Factor 70°F (21.1°C)		Burst Pressure at 70°F (21.1°C)		Bend Radius		Standard Available Lengths	
		in	mm	in	mm	PSI	Bar	PSI	Bar	in	mm	ft	m
A7180018-12	APSW-SP-0500	0.500	12.70	0.910	23.11	380	26.2	1520	104.8	1.0	25.4	12	3.66
A7180057-12	APSW-SP-0750	0.750	19.05	1.16	29.46	315	21.7	1260	86.9	1.5	38.1	12	3.66
A7180096-12	APSW-SP-1000	1.000	25.40	1.41	35.81	250	17.2	1000	68.9	2.5	63.5	12	3.66
A7180135-12	APSW-SP-1500	1.500	38.10	1.91	48.51	250	17.2	1000	68.9	4.0	101.6	12	3.66
A7180174-12	APSW-SP-2000	2.000	50.80	2.41	61.21	205	14.1	820	56.5	6.0	152.4	12	3.66
A7180213-12	APSW-SP-2500	2.500	63.50	2.91	73.91	185	12.8	740	51.0	10.5	266.7	12	3.66
A7180249-12	APSW-SP-3000	3.000	76.20	3.41	86.61	190	13.1	760	52.4	N/A	N/A	12	3.66
A7180285-12	APSW-SP-4000	4.000	101.60	4.41	112.01	140	9.7	560	38.6	N/A	N/A	12	3.66

### APSW-SPC - CONVOLUTED O.D., SPIRAL WRAPPED

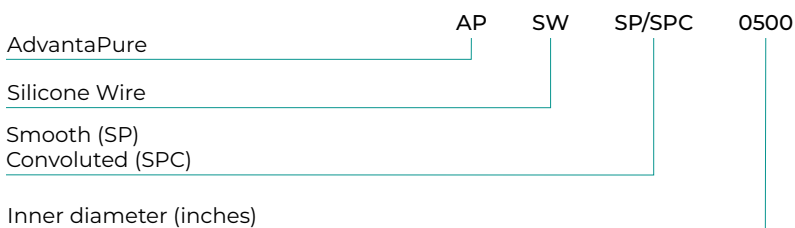
Part Number	Catalog Number	I.D.		O.D.		Working Pressure 3:1 Safety Factor 70°F (21.1°C)		Burst Pressure at 70°F (21.1°C)		Bend Radius		Standard Available Lengths	
		in	mm	in	mm	PSI	Bar	PSI	Bar	in	mm	ft	m
A7190024-12	APSW-SPC-0500	0.500	12.70	0.950	24.13	400	27.6	1600	110.3	1.0	25.4	12	3.66
A7190048-12	APSW-SPC-0750	0.750	19.05	1.20	30.48	338	23.3	1350	93.1	1.5	38.1	12	3.66
A7190072-12	APSW-SPC-1000	1.000	25.40	1.45	36.83	288	19.9	1150	79.3	2.5	63.5	12	3.66
A7190096-12	APSW-SPC-1500	1.500	38.10	1.95	49.53	250	17.2	1000	68.9	4.0	101.6	12	3.66
A7190120-12	APSW-SPC-2000	2.000	50.80	2.45	62.23	205	14.1	820	56.5	6.0	152.4	12	3.66

**NOTE:** Not all standard part numbers are stocked items. For the up-to-date list of stocked sizes and lengths available, please contact your sales representative.

### CATALOG NUMBER KEY

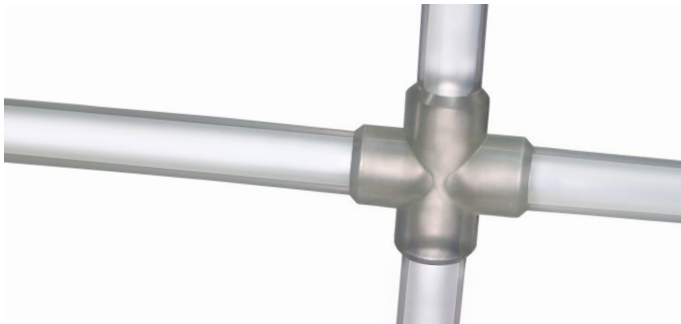
Nominal wall dimensions for all sizes of APSW-SP are .205" (5.21mm). For APSW-SPC, .225" (5.72mm). Custom lengths and hose assemblies with an assortment of fittings are available.

Example: 12 ft. of .500 in. I.D. tubing is catalog number APSW-SP-0500.



Custom lengths are available by special order. Working pressures are calculated from burst testing using a 3:1 safety factor. Application testing is recommended. Contact your AdvantaPure sales representative for packaging options.

**NOTE:** The data listed throughout this datasheet is meant only as a guide to aid in the design and is believed to be reliable; however, nothing stated shall constitute a guarantee or warranty for any application. Product field testing should be performed to find the actual values for a specific application.



### Overmolding - Connections and Assemblies

AdvantaSil APSW sizes can be integrated into our assemblies and manifolds. Choose from standard available wyes, tees, sanitary ends, crosses, and reducers, or opt for our custom overmolding design services to create custom pieces for your unique application.



### Crimped Assemblies up to 4" ID

Upon request, assemblies can be built-to-order in an ISO Class 7 cleanroom, using a variety of components for convenience and efficiency.



### Molded Tubing Ends

Ideal for aseptic transfer and processing, overmolded with multi-port sanitary clamp and ends to form a smooth fluid path.



### Adapter Connections

Various connections are available for versatility in the process.



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364 Valley Road · Warrington, Pennsylvania, 18976 USA  
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To learn more about AdvantaPure  
and what solutions we offer visit:  
[AdvantaPure.com](https://www.AdvantaPure.com)

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