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# **RECOMMENDED ENGINEERING SPECIFICATION FOR PumpSaver™**

# **BRAIDED METAL PUMP CONNECTOR (for steel piping)**

## PART 1 GENERAL

1.01 SECTION INCLUDES

1. PumpSaver braided metal pump connector(s). Provide appropriate model braided metal pump connector(s) to connect to mating piping:
	1. Model SMP 150# carbon steel plate flanges
	2. Model SMN carbon steel male NPT ends
	3. Model SVG carbon steel grooved pipe ends
	4. Model SF/CI-15P 150# carbon steel plate reducing ends
	5. Model SFCI-15PxVG carbon steel plate flange x grove end reducing ends

1.02 MANUFACTURER

A. PumpSaver braided metal pump connector shall be manufactured by Flex-Hose Co. or pre-approved equal.

PART 2 PRODUCTS

2.01 Braided metal pump connector(s)

## The hose shall be 321/304L annular corrugated stainless steel (manufactured in the USA).

1. The braid shall be 304 stainless steel (manufactured in the USA).
2. The stainless steel ring ferrule or band shall be of not less than 0.048” thick material.
3. The hose, braid and ferrule shall be integrally seal-welded using a 100% circumferential TIG weld.
4. The hose shall have the first “lip” removed (on flanged models) to insure there are no sharp edges.
5. All end fittings shall be must be attached using 100% circumferential weld.
6. Braided stainless steel pump connectors must be suitable for operating temperatures up to 850 degrees F (455° C).
7. The rated working pressure of the hose must have a 4:1 safety factor.
8. Each braided metal hose pump connector is to be individually leak tested by the manufacturer using air-under-water, helium leak detection, and/or hydrostatic pressure.
9. Model SMP shall be supplied with flat-face carbon steel plate flanges with drilling and outside diameter to 150# ANSI.

## Model SMN shall be supplied with carbon steel schedule 40 male NPT ends.

## Model SVG shall be supplied with carbon steel schedule 40 groove pipe ends.

1. Model SF/CI-15P shall be supplied with the smaller ID plate flange welded to a carbon steel schedule 40 concentric reducer. The corrugated metal hose inside diameter shall match the nominal size of the larger flange to minimize media pressure drop.
2. Model SF/CI-15pxVG shall be supplied with the smaller ID plate flange welded to a carbon steel schedule 40 concentric reducer. The corrugated metal hose inside diameter shall match the nominal size of the larger groove end diameter to minimize media pressure drop.
3. Flanged end pump connectors shall be prepared for shipment using cut-to-length spacers, securely positioned between the flanges to prevent axial compression damage during shipment and to maintain the manufactured length.
4. For the Canadian market they must be CSA standard B51 certified, inspected and tested by the Technical Standards and Safety Authority of Canada.
5. When used for potable water the models SMP, SMN and SVG shall be third party tested and, listed (by a laboratory in compliance with all applicable requirements of ISO/IEC 17025) and marked in accordance with NSF/ANSI 61-2011
6. When used for potable water the models SMP, SMN and SVG shall be third party tested and, listed (by a laboratory in compliance with all applicable requirements of ISO/IEC 17025) and marked in accordance with Section 1417(d) of the Safe Drinking Water Act. Must meet the lead content requirements of Section 116875 of the California Health & Safety Code, and the criteria of NSF/ANSI 372 for low lead.
	1. WARRANTY

PumpSaver model braided metal pump connector(s) must have a 3-year full product replacement warranty when installed in accordance with all specifications and installation instructions as described by Flex-Hose Co.