(2023Apr UFF Spec.docx)

# **RECOMMENDED ENGINEERING SPECIFICATION FOR UltraFuel Flex™**

# **BRAIDED METAL PUMP CONNECTOR**

## PART 1 GENERAL

1.01 SECTION INCLUDES

1. UltraFuel Flex UL 536 listed braided metal connector(s) for compressed and flammable gases. Provide appropriate model UltraFuel Flex braided metal connector(s) to connect to mating piping:
   1. Model UFFMP-UL 150# carbon steel plate flanges
   2. Model UFFMN-UL carbon steel male NPT ends
   3. Model UFFWN-UL carbon steel beveled pipe ends
   4. Model UFFRR-UL 150# raised face forged steel flanges.
   5. Model UFFRY-UL 150# raised face forged steel fixed flange x 150# forged steel lap joint floating flange.

1.02 MANUFACTURER

A. UltraFuel Flex 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 assembly shall be listed by UL (Underwriters Laboratories) to standard UL-536 for compressed and combustible gases at a maximum working pressure of 175 PSI at 70 degrees F. Based on a 5:1 burst to working pressure safety factor.

## 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. UL-536 Listed braided stainless steel connectors must be suitable for 175 operating temperatures 70 degrees F (21.1° C).
7. The rated working pressure of the hose must have a 5:1 safety factor.
8. Each braided metal hose pump connector is to be individually leak tested by the manufacturer using air-under-water. Upon completion they shall be individually hydrostatically tested to 262.5 PSI (1.5 times rated working pressure).
9. Model UFFMP shall be supplied with flat-face carbon steel plate flanges with drilling and outside diameter to 150# ANSI.

## Model UFFMN shall be supplied with carbon steel schedule 40 (minimum) male NPT ends.

## Model UFFWN shall be supplied with carbon steel schedule 40 (minimum) beveled pipe weld ends.

1. Model UFFRR shall be supplied with 150# raised face forged steel fixed flanges.
2. Model UFFRY shall be supplied with 150# raised face forged steel fixed flange one end and a 150# lap joint forged steel flange floating on a schedule 40 (minimum) type A stub end.
3. Flanged end 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.
   1. WARRANTY

UltraFuel Flex model braided metal 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.