# (2023Apr Sphere.docx)

# **RECOMMENDED ENGINEERING SPECIFICATION FOR Flexzorber™ MOLDED RUBBER SPHERICAL CONNECTORS AND EXPANSION JOINTS**

## PART 1 GENERAL

1.01 SECTION INCLUDES

1. Flexzorber rubber connectors and expansion joints. Provide appropriate model molded rubber spherical connector / expansion joint(s):
	1. Model NNS single sphere flanged (Neoprene)
	2. Model NND double sphere flanged (Neoprene)
	3. Model EES single sphere flanged (EPDM)
	4. Model EED double sphere flanged (EPDM)
	5. Model NNDFU double sphere union end (Neoprene)

1.02 SUPPLIER

A. Flexzorber molded rubber spherical connector /expansion joint shall be provided by Flex-Hose Co. or pre-approved equal.

PART 2 PRODUCTS

2.01 Molded spherical connector / expansion joint(s)

## The molded spherical body must be manufactured with multiple plies of nylon tire cord fabric.

1. The nylon tire cord fabric body must be reinforced with a spring steel wire.
2. Models NND, NNS, and NNDFU shall have a neoprene elastomer bonded to the nylon cord, and the model EED shall have a EPDM elastomer bonded to the nylon cord (to avoid exposure to atmosphere or media).
3. Neoprene / nylon models shall meet all requirements of the United States Coast Guard
4. Flanged models EED, EES, NND, and NNS shall have floating/rotatable zinc-coated plate steel flanges and must have drilled bolt holes in accordance with ANSI 150# standard.

## Model NNDFU shall have galvanized steel female NPT 150# unions.

## The rated design pressure of the molded body must have a minimum 4:1 safety factor (burst to operating pressure) at 70°F.

## Design pressure for models NND, NNS and NNDFU (neoprene) is based on a maximum operating temperature of

## 220° F (104° C). Design pressure for models EED and EES (EPDM) is based on a maximum operating temperature of 250° F (121° C).

## Flanged models EED, EES, NND, NNS shall be suitable for 26” Hg vacuum; model NNDFU shall be suitable for 16” Hg vacuum.

## For the Canadian market they must be CSA standard B51 certified, inspected and tested by the Technical Standards and Safety Authority of Canada.

SPECIAL NOTE: Unrestrained, rubber connectors/expansion joints will extend when pressurized; therefore, it is recommended that the piping system be anchored. When anchoring is not practical, StopLinks™ control devices must be used.

* 1. WARRANTY

Flexzorber model molded rubber spherical connector / expansion joint(s) must have a 2-year full product replacement warranty when installed in accordance with all specifications and installation instructions as described by Flex-Hose Co.