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## **Style 1104 Rubber Expansion Joint** Shown with 14" ID x 20" F/F (DN350mm x 508mm) - 150-lb Drilling | 1104-0014-3.16 **Control Unit** 1" thk. W/B [25.4mm] Section Detail **Retaining Ring** (segmented) Mating Ø24 5/8" Max OD Flange Ø18 3/4" BC [625mm] Cover (by others) [476.3mm] Reinforcement Unfilled Arch Tube 20" [508mn Filled Arch (reduce movements by 50%, increase spring rates by 400%) Pure Gum Neoprene Butvl Nitrile **EPDM** Viton® (Buna-N) (FKM) Tube . . U Cover ° F [∘ C] Tire Cord: ° F [∘ C] ° F [∘ C] ° F [⁰ C] ° F [° C] ° F [∘ C] Polyester 180 [82] 225 [107] 250 [121] 210 [99] 250 [121] 250 [121] Nuts Kevlar<sup>®</sup> 180 [82] 225 [107] 300 [149] 210 [99] 350 [177] 400 [204] Maximum Temperature rating based on lowest temperature material selected. EPDM or Butyl w/Polyester Tire Cord rated 300°F (149°C) for Air Service up to 25 psig (1.7 barg) Ø14" ID [355.6mm] **Bill of Materials** MATERIAL ITEM FINISH Ø1 1/8" [28.6mm] **Retaining Ring** Carbon Steel Hot Dipped Galvanized (12 holes) **Stainless Steel** Plain Ø21" OD Gusset **Carbon Steel** Hot Dipped Galvanized Rod Ø3/4" x 34" typ. [19mm x 864mm] [533.4mm] **Stainless Steel** Plain \*Gusset Rods ASTM A193 B7 Alloy Steel Hot Dipped Galvanized 1" thk. [25mm] ASTM A193 B8M 316 SS Plain Nuts ASTM A194 2H Steel Hot Dipped Galvanized ASTM A194 8M 316 SS Plain **Spherical Washers Stainless Steel** Plain Metal Reinforcement **High Tensile Steel Rubber Embedded** Textile Reinforcement Tire Cord **RFL** Coating SPRING RATE PRESSURE **MOVEMENT** (non-concurrent) WEIGHT Ext. Angular Ext. Lateral Vacuum **RBJ** with Comp. Lateral Torsional Comp. Angular Torsional Pressure Control ft-lb/deg ft-lb/deg Rings lb/in lb/in Unit in [mm] in [mm] in [mm] deg. deg. lb/in psig in-Hg [N/mm] [N/mm] [N/mm] [N-m/deg] [N-m/deg] lbs [kg] lbs [kg] [barg] [barg] 325 [56] 10.8 [14.6] 31.1 [42.2] 220 [15.2] 151 [68.6] 36.5 [16.6] 9 [229] 4 1/2 [114] 5 [127] 48 11.2 270 [47] 285 [49] 15 [-0.5] Inner Nuts (W/W) Spherical Washer (SW/B) Spherical Washer (SW/SW) **Optional Control Units** No Control Units Outer Washer, Integral Ring (INT-W/W) Integral Ring, Spherical Washer Integral Ring (INT-W/B) (INT-SW/SW) Inner Bare (W/B) (shown above) \*No. of Rods: 2 Rods / 216 psig 3 Rods / 220 psig

\*Gusset thickness and pressure listed above are for carbon steel gussets and ASTM A193 B7 rods. Contact General Rubber for stainless steel pressures and thicknesses. Contact General Rubber Corporation for full product specifications, Warnings and installation instructions.

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