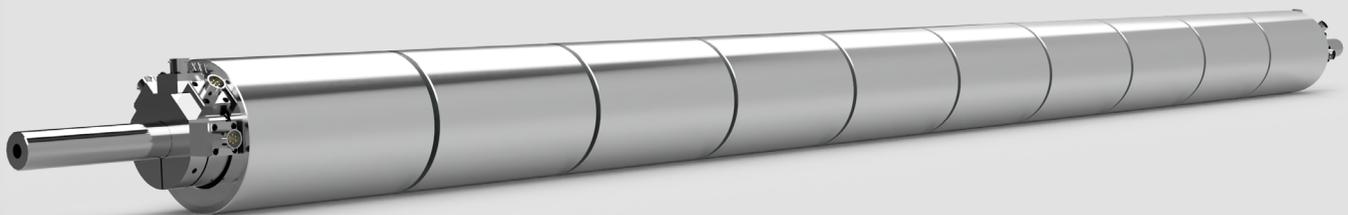




## STR SEGMENTED TENSION ROLL®



In recent years manufacturers and converters of extensible materials have been seeking the capability to measure and control process tension on two or more parallel web sections. In response, DFE has expanded upon the design of the popular Tension Roll® Transducer to deliver a custom device with multiple tension-sensing roll segments assembled in a series on a single shaft.

The Segmented Tension Roll® Transducer's compact footprint allows the same web path to be used for tension measurement of multiple web strands. This space savings and convenience simplifies the integration task of mechanical designers and process engineering teams. Each tension roll segment is also capable of measuring force bi-directionally and being calibrated independently,

which affords additional flexibility with the routing of web paths. Now individual webs can be routed over or under each roll segment in infinite combinations.

A typical Segmented Tension Roll® transducer consists of a single shaft with a series of evenly spaced tension-sensing idler roll segments. Each roll segment has integrated tension sensors in both ends. Electrical connectors are installed on the shaft ends and numbered accordingly for ease of identification and calibration. The standard roll type is aluminum with a 16 RMS or better finish. Other finishes and coatings are available by request.

The STR is available in 3, 4, 5 and 6 inch roll diameters with up to 10 segments. The maximum available shaft length is 120 inches.

## FEATURES & BENEFITS

- Measure tension on parallel web strands or at multiple points across a wide web
- Choose length to fit machine or press frame
- 50:1 effective load sensing range
- Load ratings from 12 - 400 lbs (55 - 1,800N)

## OPTIONS

**Environmental Connector (EC)** - Seals with mating cable electrical connector to protect against contact oxidation, especially useful in corrosive environments.

**Extended Range Output (XR)** - Increased sensitivity when used with legacy amplifiers and indicators such as the TI14, TI15, TI17, TI18, TI23 & TI24 with XRE option enabled.

**Non-Lubricated Bearings (NLB)** - No lubrication for bearings for lowest drag torque. Not recommended by DFE, voids warranty.

**Oiled Bearings (OB)** - Oil instead of grease for lubrication. Not recommended by DFE and may void warranty.

## ORDERING INFORMATION

You may order from description or by specifying the code below by matching each labeled digit with one of the choices given. *Example: STR2-4-03-15-.25-50-EC,XR*

**STR X - X - XX - XX - XXX - XXX - OPTIONS**  
(Separated by Commas)

SIZE	ROLL O.D.	NUMBER OF SEGMENTS <sup>1</sup>	ROLL LENGTH <sup>1</sup>	ROLL GAP	LOAD RATING	OPTIONS
1 2	3 (Std-Size 1 only) 4 (Std-Size 2) 5 6	Maximum Number: 5 for Size 1 10 for Size 2	Minimum Length: 6" for Size 1 7" for Size 2	Min. / Std: 1/4" (.25)	12 lbs 25 lbs 50 lbs 100 lbs 150 lbs (Size 1 only) 200 lbs (Size 2 only) 400 lbs (Size 2 only)	EC = Environmental Connector NLB = Non-Lubricated Bearings OB = Oiled Bearings SR = Steel Roll SSR = Stainless Steel Roll XR = Extended Range <sup>2</sup> Z = Special

### NOTES:

1. Maximum shaft length = 120".
2. Amplifier or indicator must have XRE option enabled.

