

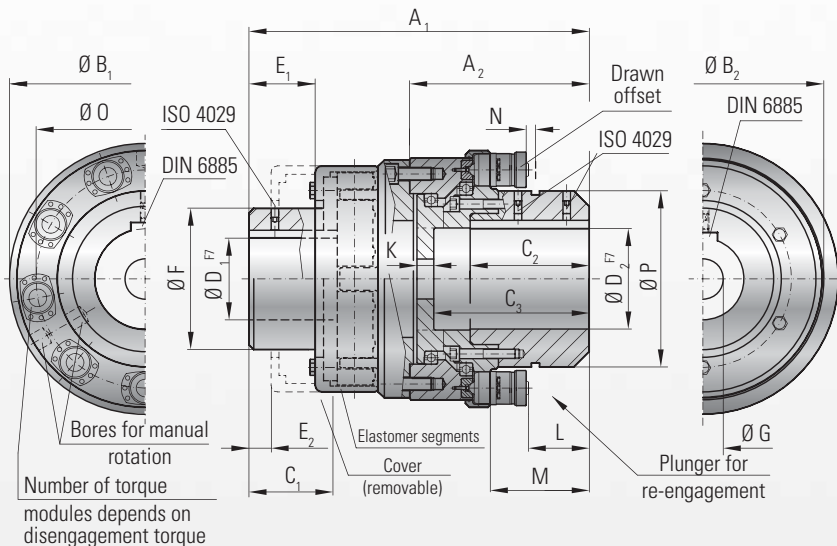


# MODEL ST 2

## TORQUE LIMITER



with integral elastomer coupling



**Material:**

**Torque limiter:** High-strength, nitro-carburized steel

**Elastomer segments:** precision molded, wear resistant rubber compound (75-80 Shore A)

**Elastomer coupling:** coupling hubs made from high-strength, cast steel (coated)

**Design:** with keyway or spline connection. Elastomer segments for misalignment compensation. Torque modules evenly spaced around the circumference. Field adjustable within the selected range.

**Temperature range:** see page 9

**Service life:** Infinite life and maintenance free when operated within the technical specifications.

**Fit tolerance:** Tolerance between hub and shaft 0.02 – 0.07 mm

**Balancing:** Standard balancing G16 (higher speeds upon request)

MODEL ST 2		Series											
		10			25			60			160		
Adjustment range available from - to (KNm)		1-6	2-10	6-18	2-8	4-15	10-25	8-18	15-35	30-60	20-50	40-100	80-160
		3 x ST 15	6 x ST 15	9 x ST 15	3 x ST 15	6 x ST 15	9 x ST 15	3 x ST 30	6 x ST 30	9 x ST 30	3 x ST 70	6 x ST 70	9 x ST 70
Overall length ±2 (mm)	A <sub>1</sub>	360			437			580			730		
Length of torque limiting portion (mm)	A <sub>2</sub>	183			230			320			410		
Flange OD (ST portion) (mm)	B <sub>1</sub>	270			318			459			648		
Flange OD (elastomer portion) (mm)	B <sub>2</sub>	290			330			432			553		
Fit length/keyway length D1 (mm)	C <sub>1</sub>	97			116			160			230		
Fit length/keyway length D2 (mm)	C <sub>2</sub>	120			155			220			290		
Bore depth (torque limiting portion) (mm)	C <sub>3</sub>	158			200			275			360		
Bore diameter (elastomer portion) Ø – Ø F7 (mm)	D <sub>1</sub>	40-105*			60-130*			80-160*			100-200*		
Bore diameter (torque limiting portion) Ø – Ø F7 (mm)	D <sub>2</sub>	40-110			60-140			80-200			100-290		
Length to cover (mm)	E <sub>1</sub>	70			87			112			152		
Length to (cover removed) (mm)	E <sub>2</sub>	22			26			40			65		
Hub diameter (mm)	F	160			200			255			300		
Bore for fastening screw (mm)	G	max. 110			max. 140			max. 200			max. 290		
Distance (mm)	L	45			83			96			136		
Distance (mm)	M	95			130			165			225		
Actuation path (mm)	N	4			4			7.5			10		
Bolt circle diameter ST (mm)	O	220			270			376			532		
Hub outside diameter (mm)	P	170			218			295			418		
Moment of inertia (approx.) D max. (10 <sup>-3</sup> kgm <sup>2</sup> )		854			1850			8960			36858		
Speed max. (1/min.)		2700			2300			1800			1500		
Approx. weight at D max. (kg)		80			115			287			729		
Axial (mm)		1.5			1.5			2			2.5		
Lateral (mm)		0.4			0.5			0.6			0.7		
Angular (Degrees)		1			1			1			1		
Dynamic torsional stiffness at T <sub>dyn</sub> (Standard A Insert) (10 <sup>3</sup> Nm/rad)		145			230			580			1000		

\* larger bore diameters upon request.



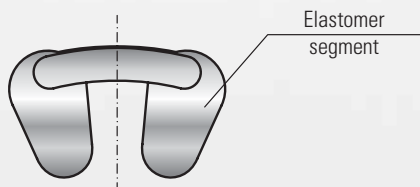
# MODEL ST2

## The elastomer segments

The compensating element of the ST2 torque limiters are the elastomer segments. These transmit the torque, while damping vibrations. The elastomer segments determine the properties of the entire coupling. The elastomer segments will also compensate for lateral, axial, and angular misalignment.

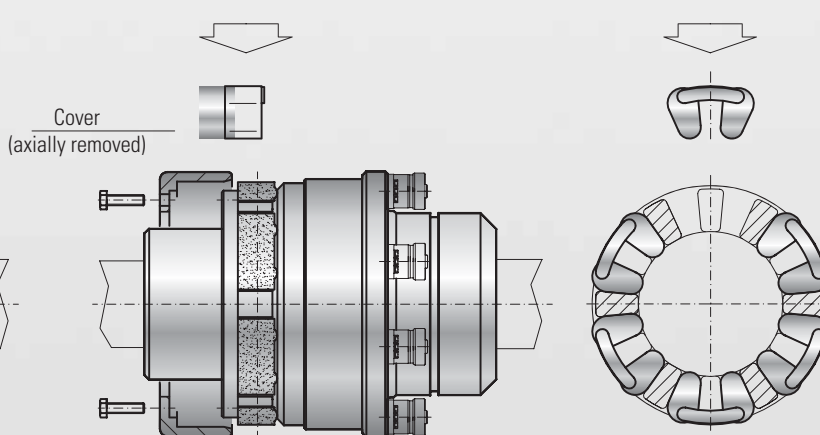
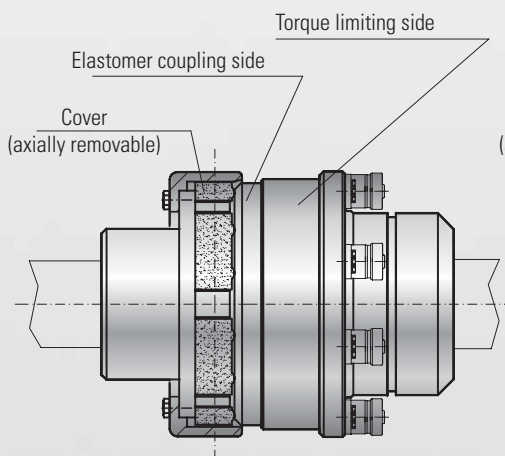
The standard elastomer segment is the type "A". Three different types are available.

Type	Relative damping ( $\psi$ )	Temperature range constant peak	Material	Shore hardness	Features
A (Standard)	1,0	-40°C to +80°C +90°C	Natural and synthetic rubber	75-80 Shore A	Very high wear resistance
B	1,0	-40°C to +100°C +120°C	Synthetic rubber	73-78 Shore A	Resistant to mineral oils and power fuel
C	1,0	-70°C to +120°C +140°C	Silicone rubber	70-75 Shore A	High temperature range



**Note:** Elastomer segments can easily be changed after installation. Every coupling utilizes 6x elastomer segments. The elastomer segments do not need to be installed prior to installation.

## Changing the elastomer segments



### Ordering example

ST2/025/10-25/15 / 100 / 120 / xx

- Model
- Series
- Adjustment range (KNm)
- Disengagement torque (KNm)
- Bore  $\varnothing D_1$  F7
- Bore  $\varnothing D_2$  F7
- Non-standard (e.g. stainless steel)

For easier handling, the coupling will be shipped unassembled.