

# ADJUSTABLE LENGTH WITH SPLIT CLAMPING HUB 12.5 - 1,200 Nm

## PROPERTIES

### FEATURES

- ▶ telescoping for adjustable length and rotational orientation
- ▶ very easy to install and remove
- ▶ no intermediate support bearings required
- ▶ length ranges up to 4 meters

### MATERIAL

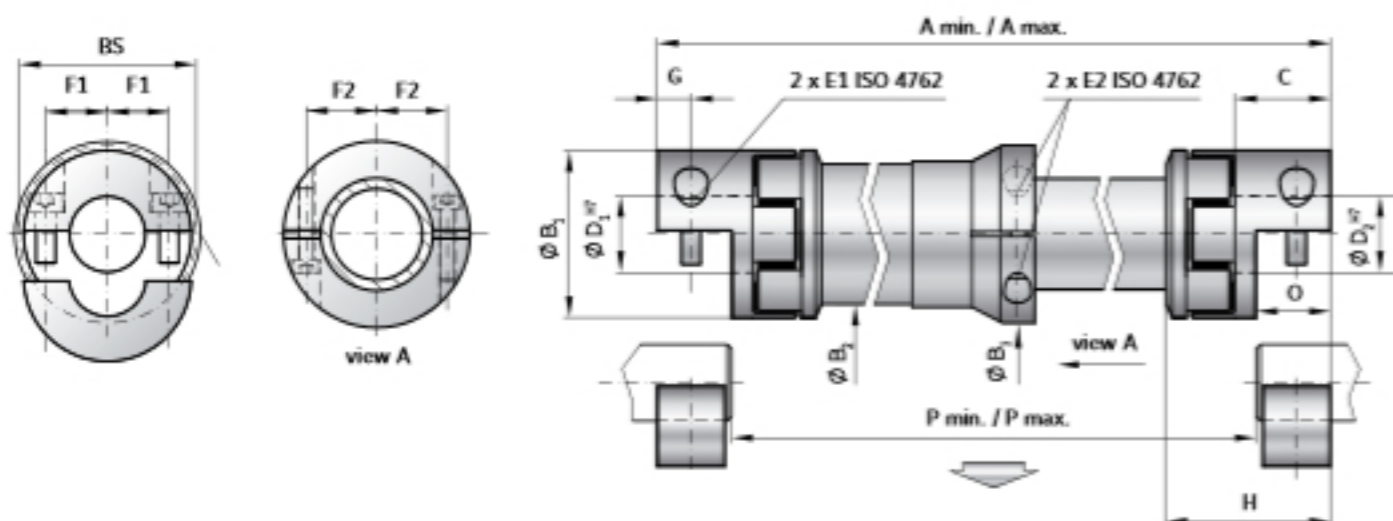
- ▶ **Hubs:** high strength aluminum
- ▶ **Intermediate tube:** highly straight and concentric aluminum tubing
- ▶ **Elastomer insert:** wear resistant, thermally stable TPU

### DESIGN

Two split clamping hubs, with two clamping screws in each, and concave driving jaws. Backlash free, vibration damping, electrically isolating elastomer inserts press fit into the hubs. Precision intermediate tube with a high level of straightness and lateral stiffness. Outer tube clamps over inner tube to fix the overall length.



split clamping hub



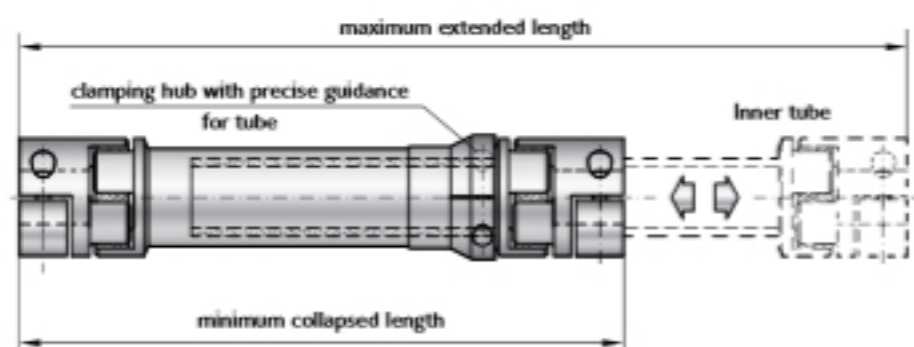
For details on the elastomer inserts see pages 72-73.

## FUNCTIONAL DESCRIPTION

The maximum extended length relates to the minimum collapsed length. The formulas to the right can be used to determine the corresponding values.

Information on sizing, torsional stiffness, misalignment ratings, etc. can be found on pages 16-18.

$$\text{Maximum extended length} = (\text{collapsed length} \times 2) - \text{measurement (X1 + X2)}$$



$$\text{Minimum collapsed length} = \frac{\text{maximum extended length} + \text{dimension (X1 + X2)}}{2}$$

## MODEL EZV

SIZE	10		20		60		150		300		450	
	A	B	A	B	A	B	A	B	A	B	A	B
Type (Elastomer insert)												
Rated torque (Nm) $T_{\text{en}}$	12.5	16	17	21	60	75	160	200	325	405	530	660
Max. torque* (Nm) $T_{\text{max}}$	25	32	34	42	120	150	320	400	650	810	1060	1200
Inserted min. length from - to (mm) $A_{\text{min}}$	150 - 2,055		200 - 2,075		250 - 2,095		300 - 2,115		350 - 2,130		400 - 2,150	
Extended over all length from - to (mm) $A_{\text{max}}$	190 - 4,000		250 - 4,000		310 - 4,000		370 - 4,000		440 - 4,000		500 - 4,000	
Measurement (mm) $X1+X2$	115		156		197		240		280		312	
Outside diameter clamping hub (mm) $B_1$	32		42		56		66.5		82		102	
Outside diameter tube (mm) $B_2$	28		35		50		60		80		90	
Outside diameter center hub (mm) $B_3$	41.5		47		67		77		102		115	
Outside diameter with screwhead (mm) $B_4$	32		44.5		57		68		85		105	
Fit length (mm) $C$	20		25		40		47		55		65	
Inside diameter from $\phi$ to $\phi$ H7 (mm) $D_{\text{in}}$	5 - 16		8 - 25		14 - 32		19 - 35		19 - 45		24 - 60	
Screw ISO 4762 $E_1$	M4		M5		M6		M8		M10		M12	
Tightening torque (Nm) $E_1$	4		8		15		35		70		120	
Screw ISO 4762 $E_2$	M4		M4		M5		M6		M8		M10	
Tightening torque (Nm) $E_2$	4		4.5		8		18		35		70	
Distance between centers (mm) $F_{\text{BS}}$	10.5		15.5		21		24		29		38	
Distance between centers (mm) $F_2$	15		18		26		31		41		45	
Distance (mm) $G$	7.5		8.5		15		17.5		20		25	
Coupling length (mm) $H$	34		46		63		73		86		99	
Shaft average value (mm) $N$	26		33		49		57		67		78	
Length (mm) $O$	16.6		18.6		32		37		42		52	
Moment of inertia coupling half ( $10^{-3}$ kgm <sup>2</sup> ) $J_1/J_2$	0.01		0.02		0.15		0.21		1.02		2.3	
Inertia of tube per meter ( $10^{-3}$ kgm <sup>2</sup> ) $J_1$	0.075		0.183		0.66		1.18		2.48		10.6	
Combined dynamic torsional stiffness of the inserts (Nm/rad) $C_{\text{tw}}^*$	270	825	1,270	2,220	3,970	5,950	6,700	14,650	11,850	20,200	27,700	40,600
Torsional stiffness of tube per meter (Nm/rad) $C_{\text{tw}}^{\text{tube}}$	321		1,530		6,632		11,810		20,230		65,340	

\*Maximum transmittable torque of the clamping hub depends on the bore diameter (see pages 78).

ORDERING EXAMPLE	EZV	20	1200	A	24	19.05	XX
Model	•						
Size		•					
Collapsed length			•				
Elastomer insert type				•			
Bore D1 H7					•		
Bore D2 H7						•	
For custom features place an XX at the end of the part number and describe the special requirements (e.g. EZV / 20 / 1200 / A / 24 / 19.05 / XX; XX-anodized aluminum)							

Special designation only (e.g. special bore tolerance).