

t1000-400

HIGH-SPEED ELASTOMER-CLAW COUPLING



DESCRIPTION

The t1000-400 is a single-row elastomer claw coupling for high-speed applications. This coupling is characterized by its relatively low weight, very robust design, high damping capability and easy maintenance.

The design principle of the coupling allows the torsional stiffness to be adjusted for different requirements by using elastomers of varying hardness.

OPERATING RANGE

Torque: up to 450 Nm
Speed: up to 18000 rpm

BENEFITS

- suitable for high dynamic loads
- compact and modular design allows fast exchange of the elastomer
- elastomer failure practically eliminated
- high damping and long lifetime
- stiffness adjustment by elastomer placement

FUNCTION

The design provides a strongly non-linear coupling characteristic. The special design allows problem-free adaptation to new applications.

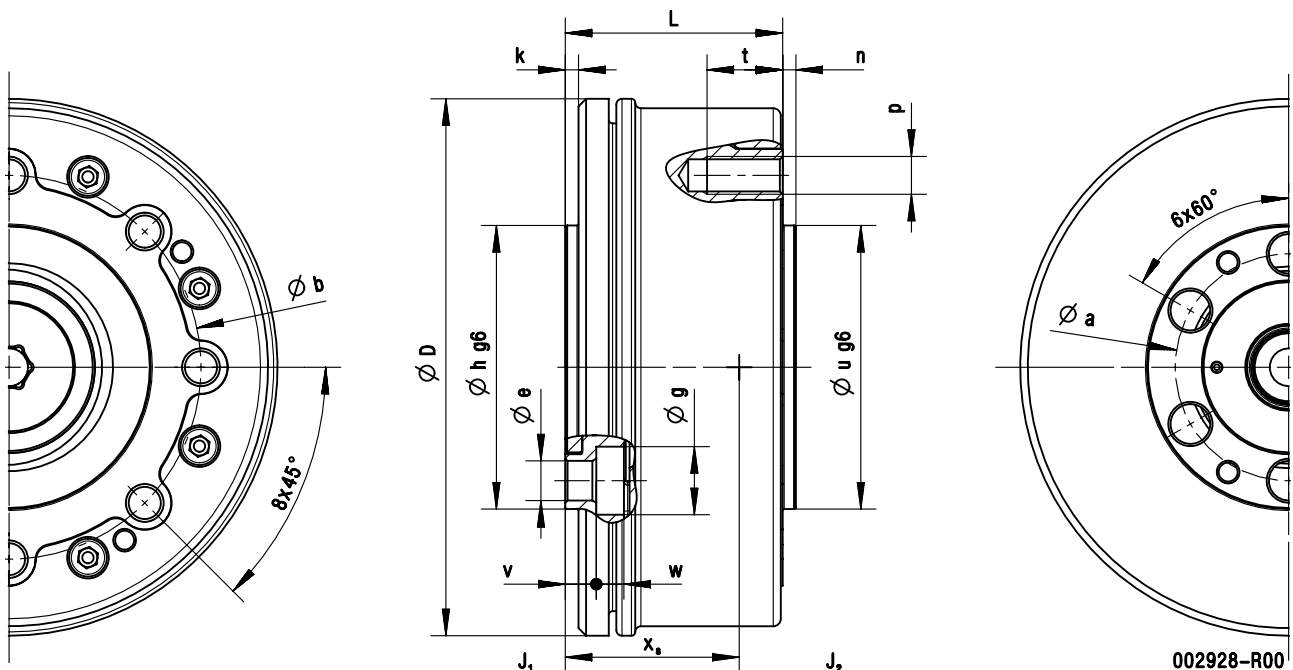


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Nominal torque ¹ T_{KN}	[Nm]	450
Maximum torque T_{Kmax}	[Nm]	800
Maximum alternating torque T_{KW}	[Nm]	400
Maximum speed n_{max}	[rpm]	18000
Torsional stiffness c_{Tdyn}	[Nm/rad]	400 - 2400
Relative damping Ψ	[-]	0.3
Inertia (flange-side) J_1	[kgm ²]	2.23E-03
Inertia (shaft-side) J_2	[kgm ²]	3.44E-03
Mass m	[kg]	2.55
Center of gravity (flange-side) x_s	[mm]	46.0
Maximum torsional angle φ_{max}	[°]	6
Operating temperature for elastomer made of natural rubber ² ϑ	[°C]	+80

Elastomer type	Material	Shore hardness
HN	Natural rubber	45 - 50° Shore A
EN		50 - 55° Shore A
WN		53 - 58° Shore A
NN		63 - 68° Shore A
SN (Standard)		73 - 78° Shore A
UN		83 - 88° Shore A



Coupling	D	L	a	b	e	g	h (g6)	k	n	p	t	u (g6)	v	w
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[-]	[mm]	[mm]	[mm]	[mm]
t1000-400	142	57.5	60	101.5	10.5	18	75	3.5	3.5	M10	20	75	8.2	7.3

Other dimensions available on request

¹The nominal torque must be equal to or greater than the maximum combustion engine torque

²Silicone elastomers for higher temperatures are available on request