

# t1000-400 – HIGH-SPEED 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

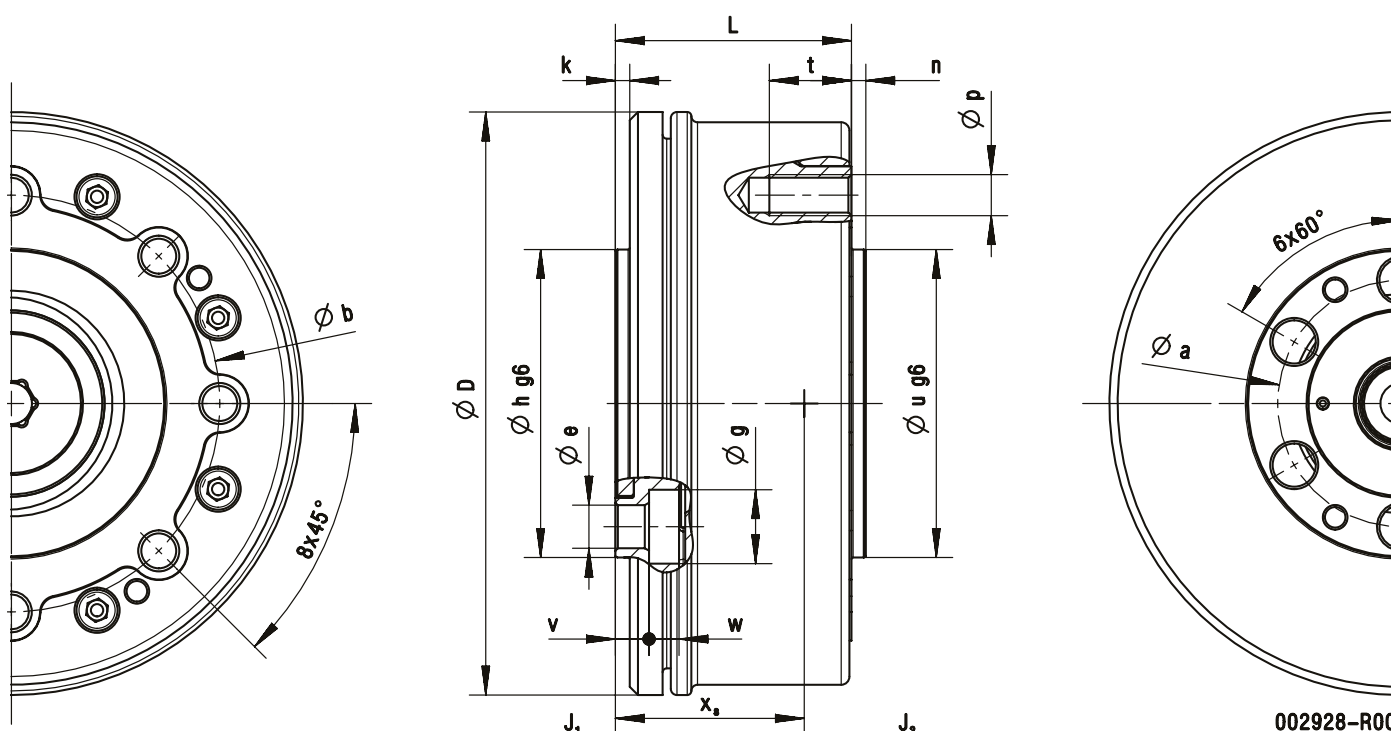
## Function

The design provides a strongly non-linear coupling characteristic. The special design allows problem-free adaptation to new applications and a short downtime when exchanging the elastomers.

# **t1000-400**

Nominal torque <sup>11</sup> $T_{KN}$	[Nm]	450
Maximum torque $T_{Kmax}$	[Nm]	800
Maximum alternating torque $T_{KW}$	[Nm]	400
Maximum speed	[rpm]	18000
Torsional stiffness $c_{Tdyn}$	[Nm/rad]	400 - 2400
Relative damping $\Psi$	[-]	0.3
Inertia $J_1$ (flange-side)	[kgm <sup>2</sup> ]	2.23E-03
Inertia $J_2$ (shaft-side)	[kgm <sup>2</sup> ]	3.44E-03
Mass	[kg]	2.55
Center of gravity $x_s$ (flange-side)	[mm]	46.0
Maximum torsional angle	[°]	6
Operating temperature for elastomer made of natural rubber <sup>12</sup>	[°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



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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