

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 and a short downtime when exchanging the elastomers.



Exclusive Representative in Japan

 TOKYO PLANT Co., Ltd.
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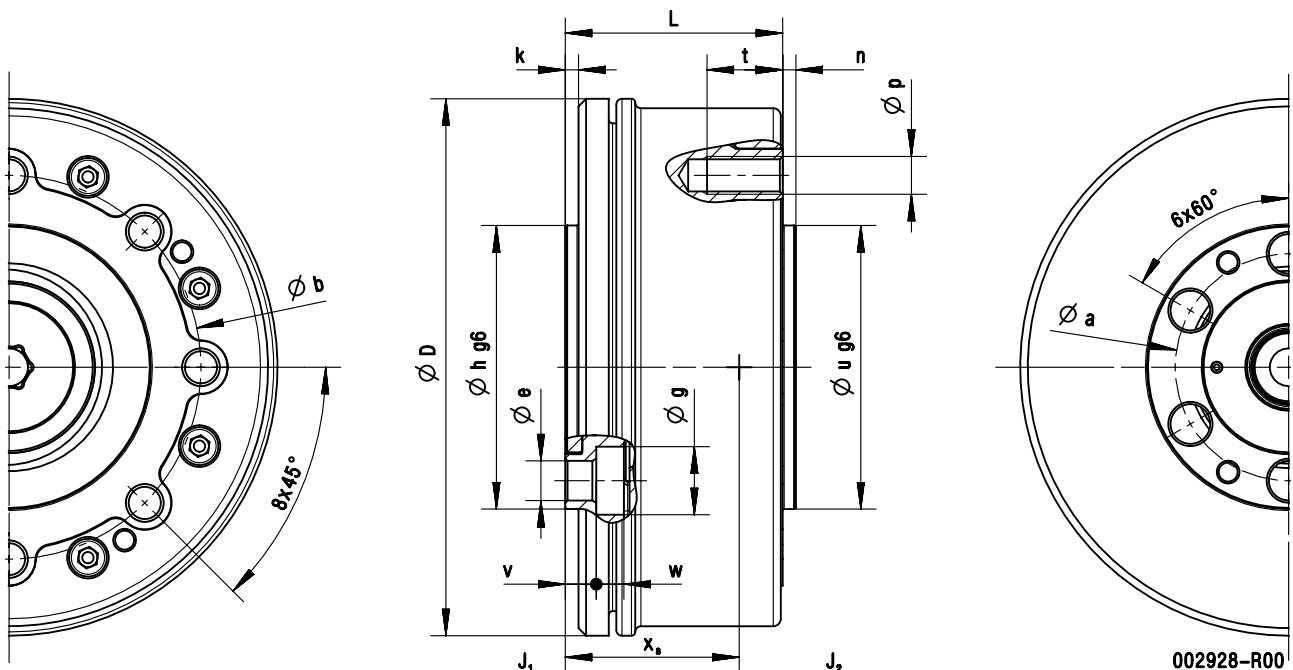
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| t1000-400 | | |
|-------------------------------------------------------------------------|---------------------|------------|
| Nominal torque ¹ T_{KN} | [Nm] | 450 |
| Maximum torque T_{Kmax} | [Nm] | 800 |
| Maximum alternating torque T_{KW} | [Nm] | 400 |
| Maximum speed | [rpm] | 18000 |
| Torsional stiffness c_{Tdyn} | [Nm/rad] | 400 - 2400 |
| Relative damping Ψ | [-] | 0.3 |
| Inertia J_1 (flange-side) | [kgm ²] | 2.23E-03 |
| Inertia J_2 (shaft-side) | [kgm ²] | 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 ² | [°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

2018-01-18 <96abb4287ccd6cf0281d054f2f6a72d83cbfc1bf> DS EN 14

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

²Silicone elastomers for higher temperatures are available on request