t2500-tLIMIT

ARC SPRING COUPLING

tectos
technologies | tools | solutions

DESCRIPTION

The t2500-tLimit is an arc spring coupling with built-in overload protection, especially designed for deployment in test beds. It works like a dual mass flywheel. Because of its modular spring design, it is possible to tailor its stiffness behavior to the unit under test.

NAMING

The product is named according to the following convention:

t2500-tttt-cccc-CVxx

- xx: joint size
- cccc: dynamic stiffness [Nm/rad]
- tttt: nominal torque [Nm]
- t2500: product name

Example: t2500-3200-6000-CV32

OPERATING RANGE

Torque:	up to 3200 Nm
Speed:	up to 5000 rpm
Stiffness:	up to 6000 Nm/rad

BENEFITS

- suitable for high dynamic loads
- high damping and long lifetime
- stiffness adjusted by spring placement
- wide stiffness range
- built-in overload protection

FUNCTION

Similar to a vehicular dual mass flywheel, the t2500-tLimit exhibits outstanding damping behavior. The overload protection cushions sudden torque peaks and decouples torsional vibrations.

Stiffness adjustment is achieved by using different spring configurations in the arc spring coupling. The standard t2500 specifications cover a nominal torque range of 3200 Nm for a torsional stiffness of 6000 Nm/rad.

tectos gmbh | gradnerstrasse 145 | 8054 graz | austria | t +43 316 228617 | f +43 316 228617-15 | info@tectos.at | www.tectos.at

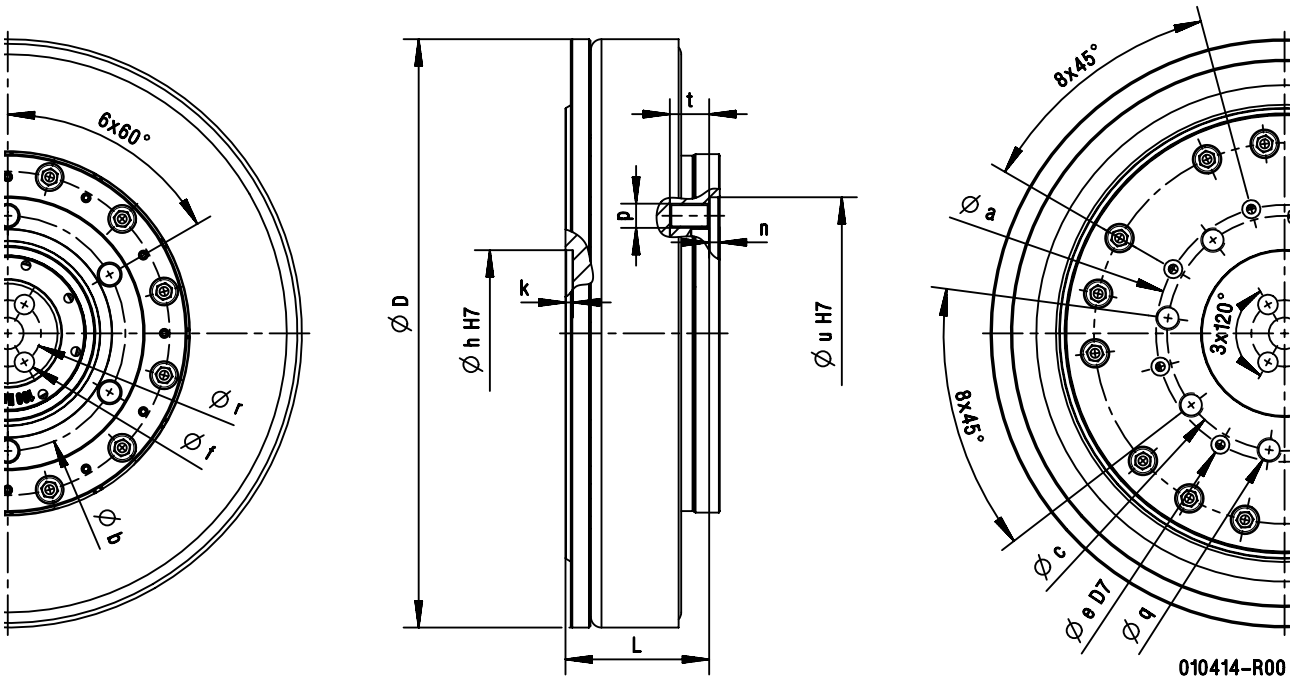
t2500-tLIMIT
ARC SPRING COUPLING

tectos
technologies | tools | solutions

Coupling	Flange	T_{KN} [Nm]	c_{Tdyn} [Nm/rad]	T_{Kmax} [Nm]	n_{max} [rpm]	m [kg]	x_s [mm]	J_1 [kgm^2]	J_2 [kgm^2]	Ψ [-]	d [Nms/rad]	φ_{max} [°]
t2500-3200-6000	CV30	3200	6000	6000	5000	53.00	42.5	2.61E-01	6.19E-01	0.8	2	57
	CV32					51.38		2.46E-01				

T_{KN} - Nominal torque[1]
c_{Tdyn} - Torsional stiffness
T_{Kmax} - Maximum torque
n_{max} - Maximum speed
m - Mass
x_s - Center of gravity flange-side
J_1 - Inertia flange-side
J_2 - Inertia shaft-side
Ψ - Relative damping
d - Damping
φ_{max} - Maximum torsional angle

Other dimensions available on request



Coupling	Flange	D [mm]	L [mm]	a [mm]	b [mm]	c [mm]	e (D7) [mm]	f [mm]	h (H7) [mm]	k [mm]	n [mm]	p [-]	q [-]	r [mm]	t [mm]	u (H7) [mm]
t2500	CV30	389	95	170	128.0	155.5	12	21	110	5.0	7	M12	M16	44	26	148
	CV32				155.5			22		4.5		M16				180

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

tectos gmbh | gradnerstrasse 145 | 8054 graz | austria | t +43 316 228617 | f +43 316 228617-15 | info@tectos.at | www.tectos.at