

# t2300 SERIES

## ARC SPRING COUPLING



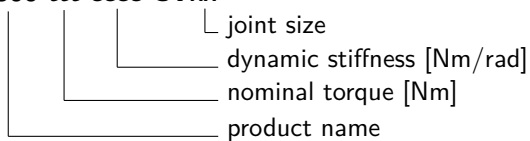
### DESCRIPTION

The t2300 is an arc spring coupling 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:

**t2300-ttt-cccc-CVxx**



Example: *t2300-650-800-CV15*

### OPERATING RANGE

Torque: up to 740 Nm  
Speed: up to 8000 rpm  
Stiffness: 720 - 920 Nm/rad

### BENEFITS

- suitable for high dynamic loads
- high damping and long lifetime
- wide stiffness range

### FUNCTION

As for a vehicle dual mass flywheel, the test bed dual mass flywheel boasts exceptional damping behavior.

Stiffness adjustment is achieved by using different spring configurations in the arc spring coupling. The standard t2300 specifications cover a nominal torque range of 580 - 740 Nm for a torsional stiffness of 720 - 920 Nm/rad.



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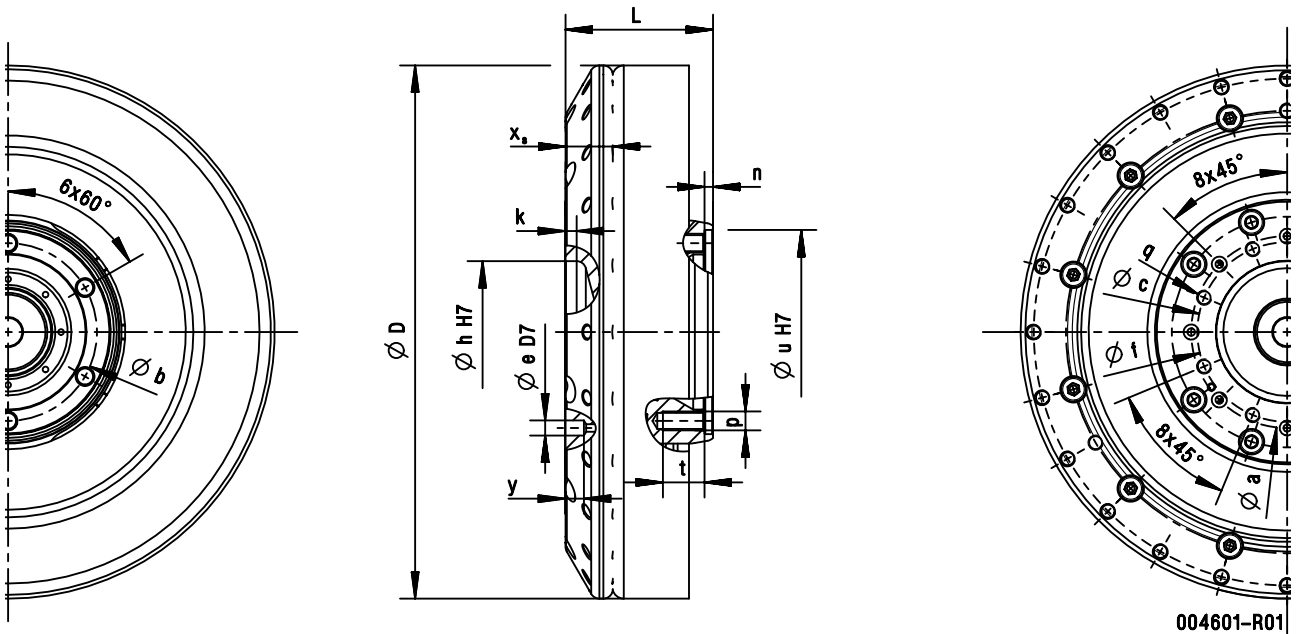
## ARC SPRING COUPLING

Coupling	Flange	$T_{KN}$ [Nm]	$C_{Tdyn}$ [Nm/rad]	$T_{Kmax}$ [Nm]	$n_{max}$ [rpm]	$m$ [kg]	$x_s$ [mm]	$J_1$ [kgm <sup>2</sup> ]	$J_2$ [kgm <sup>2</sup> ]	$\Psi$ [-]	$d$ [Nms/rad]	$\varphi_{max}$ [°]
t2300-580-720	CV10	580	720	720	8000	12.72	30.7	1.05E-01	2.00E-02	0.8	2	57
	CV15					12.65	30.5		1.99E-02			
t2300-650-800	CV10	650	800	800	8000	12.85	31.9	1.08E-01	2.27E-02	0.8	2	57
	CV15					12.77	31.3		2.25E-02			
t2300-740-920	CV10	740	920	920	8000	13.17	31.5	1.09E-01	2.39E-02	0.8	2	57
	CV15					13.09	31.4		2.38E-02			

$T_{KN}$  - Nominal torque<sup>1</sup>  
 $C_{Tdyn}$  - 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

$\Psi$  - Relative damping  
 $d$  - Damping  
 $\varphi_{max}$  - Maximum torsional angle



Coupling	Flange	D	L	a	b	c	e (D7)	f	h (H7)	k	n	p	q	t	u (H7)	y
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[-]	[-]	[mm]	[mm]	[mm]
t2300	CV10	282	74	101.5	80	95	8	14.5	75	6	4.5	M8	M8	18	94	10
	CV15				94							M10		22	108	

<sup>1</sup>The nominal torque must be equal to or greater than the maximum combustion engine torque