

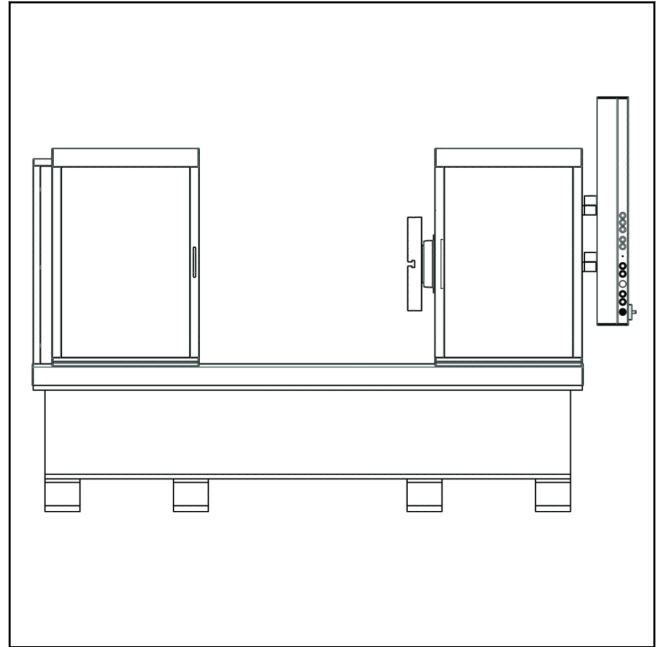
Product Information

TorsionLine TL 1000 / TL 2000 Torsion Testing Machine

CTA: 129013 166073



TorsionLine torsion testing machine with testControl II



Drawing showing TorsionLine with testControl II

Range of application

The TorsionLine TL1000 and TL2000 torsion testing machines are used to test torsional influence on materials and components. The torsion testing axis is horizontally orientated.

Main areas of use

- Plastics
- Metals
- Medical engineering products
- Fasteners and connectors
- Composites
- Drive shafts
- Propeller shafts
- Motor/engine bearings
- Camshafts

Advantages and Features

- Maximum stiffness ensures very accurate high rotation angle measurement resolution over the whole torque range.
- High resolution of high rotation angle measurement resolution

- Use of maintenance-free AC servo drives
- Operation with standard PC or laptop (no additional interface card required) and testXpert® II testing software
- Designed for production, quality assurance, and research and development
- Maximum flexibility in handling and operation thanks to state-of-the-art software control
- Safety device with electrical interlock (CE compliant)
- ZwickRoell's comprehensive range of optional accessories

Product Information

TorsionLine TL 1000 / TL 2000 Torsion Testing Machine

Type	TL 1000	TL 2000	
Item No.	1026880	1026881	
Load frame			
Torque (left/right)	1,000	2000	Nm
Overall height with safety device	1650	1650	mm
Overall width with safety cover	2580	2580	mm
Overall depth	843	843	mm
Height of test axis, from floor	958	958	mm
Safety device	electrically interlocked	electrically interlocked	
Weight with electronics, safety cover, torque transducer	1400	1400	kg
Grip-to-grip separation with face plate, without specimen holders, max.	1000	1000	mm
Diameter of specimens/specimen holders, max.	600	600	mm
Finish	RAL 7011 and RAL 7038	RAL 7011 and RAL 7038	
Ambient temperature	+10 to +35	+10 to +35	°C
Relative humidity (non-condensing)	20 to 90	20 to 90	%
Noise level	62	62	dB(A)
Torsion inherent stiffness	> 11,500	> 11,500	Nm/°
Specimen holders			
Connection to load frame (gearing, torque transducer) via face plate			
Diameter of specimen mounting flange, drive system	400	400	mm
Drive			
Rotational speed			
in revolutions	0.0005 to 20	0.0005 to 10	r.p.m
in degrees	0.18 to 7200	0.18 to 3600	°/min
Angle resolution of drive	0.5	0.2397	arcsec/digit
Positioning repeat accuracy (w/o reversal of direction)			
at 1000 °/min	≤5	≤5	arc-seconds
Play at zero torque crossing	< 5	< 5	arc-minutes
Electrical supply data			
Electrical power supply	400	400	V, 3 Ph/N/PE
Power consumption	5	5	kVA
Frequency	50/60	50/60	Hz

Torque transducer

For TorsionLine	Nominal torque T_{nom} [Nm]	Accuracy Class 1 ¹⁾ [Nm]	Item No.
TL 1000	1000	≥10	631053
TL 2000	2000	≥20	631052

1) based on ISO 7500-1