Quasar 2.5 2.5 kN Advanced Universal Testing Machine

TQ01.01

The 2.5 kN Quasar is the product of state of the art design, built to the highest quality levels and has many advanced technical features.

Programming tests and monitoring results can be controlled through our powerful and Intelligent Graphwork test software, which allows complete and accurate data management in accordance with European, North American and International Standards.

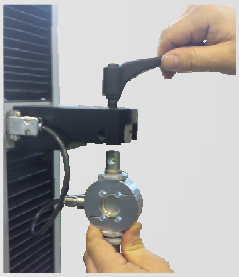
This instrument is suitable to be used both in production lines where the operator has to be fast and efficient and can accurately control the test with the optional remote control unit and also laboratory environments where the advanced software lets users analyse the test data. Graphwork allows full control of processing, filing, managing, and transmitting data to the company network, database, and performs many other functions.

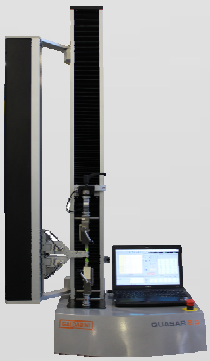
This Quasar frame has a flexible and modular construction. It can be equipped with various grips and fixtures, as well as extensometers, additional load cells and many more accessories, for a wide range of applications (tensile, compression, flexure, etc.).

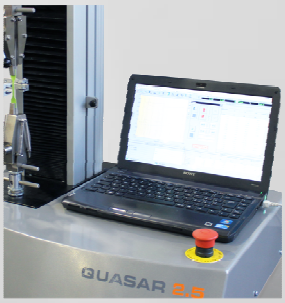
In addition, this user-friendly instrument can be fitted with additional load cells with lower capacities, providing the highest resolution and accuracy for micro-loads.

- Single-column rigid system with 2.5 kN maximum capacity
- Suitable for textile, plastic, composite and other materials
- Stylish design and advanced features
- One-Year Warranty
- Flexible and modular design for easy future expansion
- Key technical advantages include extremely high resolution of load and stroke readings, as well as minimum test speed of 0.0005mm/min, for the highest performance and most accurate results
- Manufactured by an ISO 9001 certified company
- Excellent price-to-quality ratio

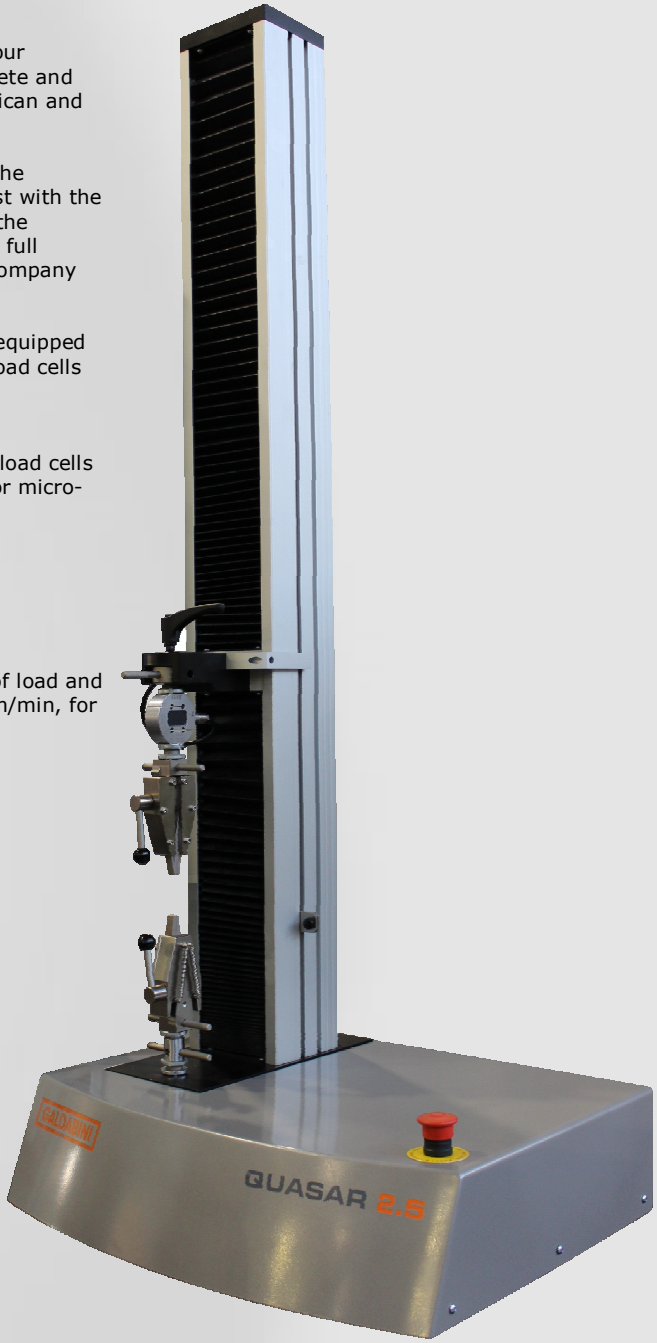
Ethernet connection


Easy load cell exchange

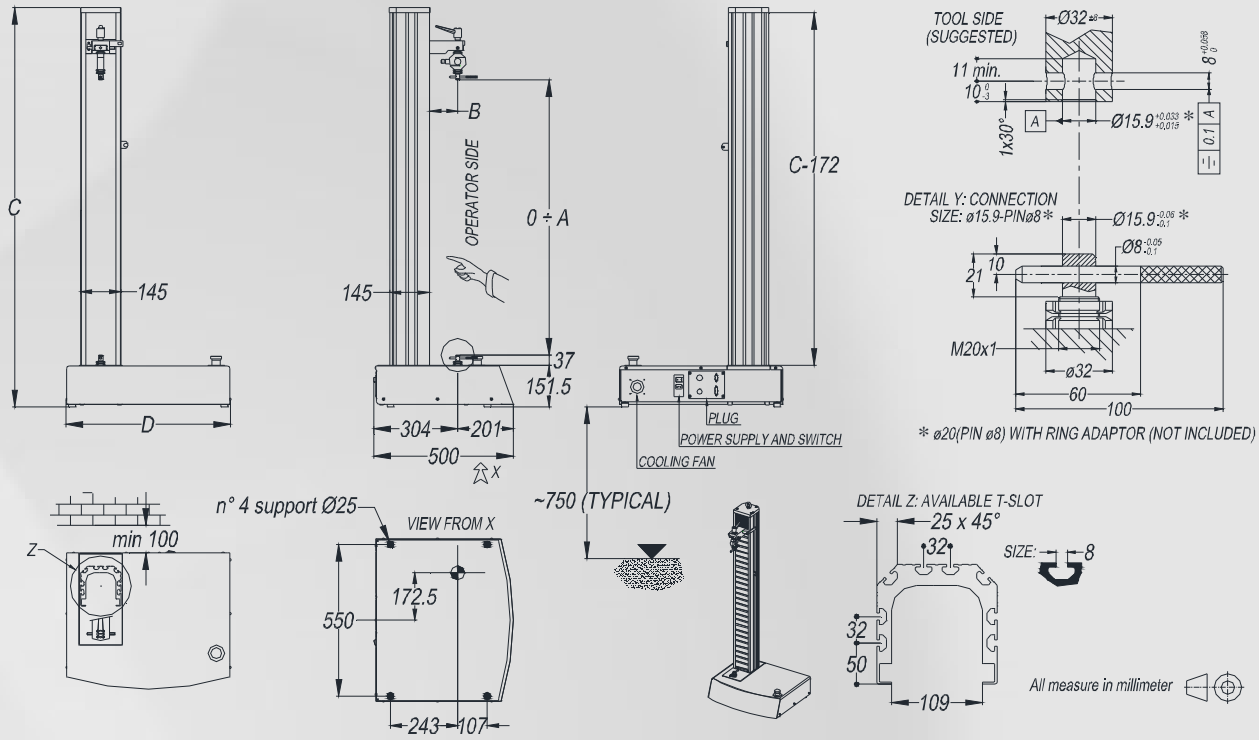

Extensometer available



Ready for laptop



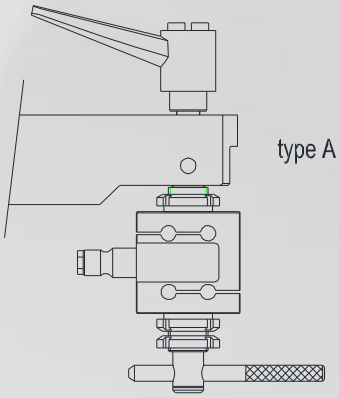
Universal testing machine Quasar 2.5 with manual wedge grip

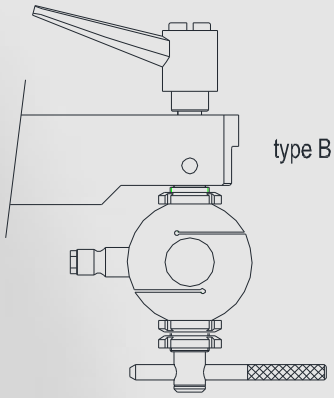


TECHNICAL SPECIFICATIONS:

ITEM ([10])	TQ01.01
Capacity of frame and max allowed load	2,500 N (562 lbf)
Load cell nominal size (tensile & compression)	3,000 N ([1]) ([12])
Max accidental overload ([11]) / breaking load	4,500 N / 9,000 N ([1])
Standards met or exceeded	ISO 7500-1, ASTM E4, EN 10002-2, JIS B7721, GB/T 16825.1, DIN 51221, BS 1610 and other equivalent
Load cell reading resolution	Over 3 million division (24 bit A/D converter)
Frame stiffness ([2]) Average	5,000 N/mm
Frame stiffness ([2]) Max deformation at full load	0.5 mm
Internal stroke resolution	0.081 µm
Speed at maximum load (during test)	0.0005 ÷ 1,000 mm/min.
Idle speed	1,000 mm/min.
Accuracy of positioning repeatability	0.02 mm (20 µm)
Accuracy of the set crosshead speed	0.5% of setting speed ([3])
Total stroke (Dimension A)	1,000 mm (39.37 in.)
Distance from column (Dimension B)	101 mm (3.98 in.)
Testing area width	Unlimited ([4])
Power Supply	To be chosen: 220V±10% 50/60Hz or 120V±10% 50/60Hz (other on request) ([5])
Power Rating	250 W
Machine weight (without accessories)	66 Kg (145 lb)
Finishing	Silver RAL 9006 / Black RAL 9011
Room temperature	From +5 to +40 °C
Air humidity (without condensing)	Max 80%
Internal data sampling rate	1,000 Hz
PC data transmission rate	500 Hz
PC interface	Ethercat (A dedicated Ethernet port on PC is required)
Dimension: Height (Dimension C) ± 3 mm	1,452 mm (57.2 in.)
Dimension: Width (Dimension D)	595 mm (23.4 in.)
Dimension: Depth ([6])	500 mm (19.7 in.)
Size when packed – approx ([7])	700x800 H1,700 mm
Noise level	< 72 db
Suggested local light level	300 lux

([1]) Data of standard load cell. See below for other available load cells
([2]) Excluded load cell. This value is evaluated in compression, without any type of grip
([3]) Average on 1 second or 0.01 mm of stroke (whichever the longer) without or constant load
([4]) Some type of extensometers or other devices may reduce this value
([5]) Some optional devices need also a compressed air line (5 bar) or different power supply
([6]) Frame dimension. Electrical connectors on the rear of the machine. See drawing
([7]) Machine is packed and travels in working position (not lying)





AVAILABLE LOAD CELL: ([8]) ([10])

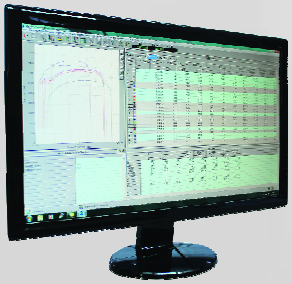
ITEM		TQ03.04.01	TQ03.04.01.0A	TQ03.04.01.0B	TQ03.04.02	TQ03.04.03	TQ03.04.03.0A	TQ03.04.04	TQ03.04.05 (standard)
Nominal size		10 N	20 N	50 N	100 N	250 N	500 N	1 kN	3 kN ([12])
Max accidental overload ([11]) / breaking load		150% of nominal size / 300% of nominal size							
Stiffness([9])	Average	33 N/mm	67 N/mm	167 N/mm	333 N/mm	833 N/mm	2,500 N/mm	5,000 N/mm	15,000N/mm
	Deformation at full load	Max. 0.3 mm					Max. 0.2 mm		
Type (see drawing)		A					B		

([8]) No limit in number of load cell. All load cell can work in compression and tensile and comes with connection. If certification is required, every load cell needs a different one.
([9]) Stiffness of the load cell only. The deformation under load is the sum frame + cell
([10]) Load cell must be ordered separately in any case (not included in the item of the machine frame)
([11]) A new calibration of the load cell may be necessary if "max accidental overload" is exceeded.
([12]) Max load of 3 kN standard load cell is software limited to 2.5 kN.

MAIN OPTIONAL:

	ITEM
Mobile pushbutton panel for machine control	TQ03.03
Silenced air compressor 0.75 Kw 1,450 rpm 230V 50Hz 1A 98 litres/min	TQ03.08.04
Internal piping with solenoid valves to use pneumatic device by keypad – compressed air line required (min 5 bar) ([13])	TQ03.03.01
External piping for pneumatic device with foot command – compressed air line required (min 5 bar) – filter, regulator & indicator included	TQ08.11
Table for machine, PC and printer (width x depth x height mm 1,750 x 750 x 740 600 Kg max) – white RAL 7035 with 6 black supports	TQ03.07.01
Table for PC and printer only (width x depth x height mm 900 x 800 x 730) - grey	TQ03.07.03
Touch screen (~ 7 inch) colour monitor (to be use as keypad) ([14])([15])	TQ03.02.00
Calibration certificate class 1 in range 1%-100% of full load	TQ02.02.01
Calibration certificate class 0.5 in range 1%-100% of full load	TQ02.02.01.A
Extension of certification class 1 in range 0,2%-1% of full load (TQ02.02.01 or TQ02.02.01.A required)	TQ03.06.01
PC ([14]) multi-language	TQ03.01.03
Touch screen PC all-in-one with support on column ([14])([16])	TQ03.01.01.02
Colour printer A4	TQ03.01.02
USB Web cam([14]) – the use of camera for recording test requires the special software module TQ02.01.04	TQ03.01.03
Electronic power supply stabilizer	TQ03.08.01
Analogic input channel (strain gauge and LVDT type available) for longitudinal deformation	TQ02.01.17

([13]) Filter+regulator+pressure indicator included. Pushbutton item TQ03.03 already included in this option
([14]) Characteristic of electronic device are constantly changing, type of supplied item may change according to the technology
([15]) Item TQ03.03 and TQ03.02.00 may co-exist
([16]) not suitable for some external special device (e.g. special extensometer, digital input)



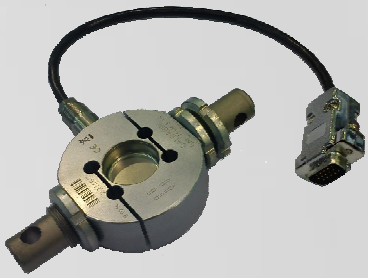
NOTE: the machine needs a Windows® based PC and special software.

TQ03.01.01.0

TQ03.03

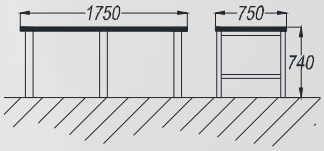
TQ03.02.00

TQ08.11



TQ03.04.05

TQ03.07.03 + TQ03.01.03



TQ03.07.01

TQ03.01.03

TQ03.08.04

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