



## **Datasheet**

## Quasar 25 25 kN Advanced Universal Testing Machine

TQ01.04 TQ01.04.01 TQ01.04.02 TQ01.04.04

The 25 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 Labtest software, which allows complete and accurate data management in accordance with European, North American and International Standards.

This instrument is suitable for use 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. Labtest allows full control of processing, filing, managing, and transmitting data to the company network, database, and performs many other functions.

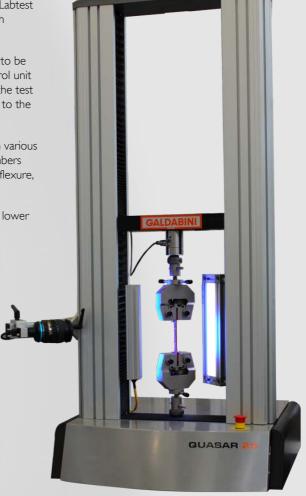
This Quasar frame has a flexible and modular construction. It can be equipped with various grips and fixtures, as well as extensometers, additional load cells, temperature chambers and many more accessories, for a wide range of applications (tensile, compression, flexure, etc.).

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.

- Two-column rigid system with 25 kN maximum capacity
- Suitable for metals, plastics, composites and other materials
- Stylish design and advanced features
- Ergonomic and useful design; 4.0 instrument
- Flexible and modular design for easy future development
- Key technical advantages include extremely high resolution of load and stroke readings, as well as minimum test speed of 0.0005 mm/min, for the high performance and most accurate results
- Manufactured by ISO 9001 Certified Company
- Excellent price-to-quality ratio

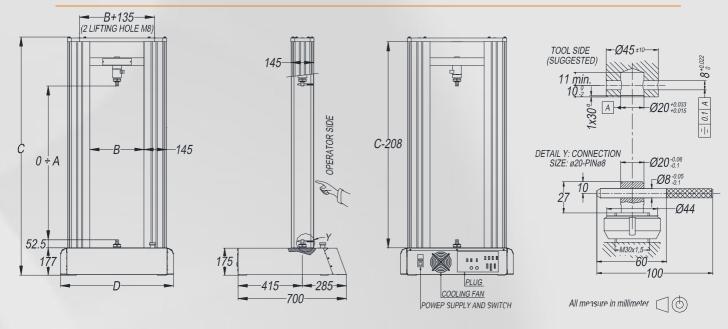


Ethernet connection



Universal testing machine Quasar 25 with Video extensometer





TECHNICAL SPECIFICATIONS												
ITEM (10)	TQ01.04		TQ01.04.01 (1)	TQ01.04.02 (2)	TQ01.04.03		TQ01.04.04 (2)					
Capacity of frame and max allowed load				25,000 N (5,620 lbf)								
Load cell nominal size (tensile & compression)	25,000 N ( <sup>3</sup> )											
Max accidental overload (11) / breaking	37.500 N / 50.000 N ( <sup>3</sup> )											
load (with above load cell)	37,000 14 7 50,000 14 (9)											
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)											
Internal stroke resolution	0.043 μm											
Speed at maximum load (during test)	0.0005 ÷ 500 mm/min.											
Idle speed	500 mm/min.											
Accuracy of positioning repeatability	0.02 mm (20 μm)											
Accuracy of the set crosshead speed				0.5% of setting speed (4)								
Total stroke (Dimension A) [mm / in.]			1,500 / 59.05	1,750 / 68.90	1,000 / 39.37		1,750 / 68.90					
Daylight between columns (Dimension B) [mm/	in.]		350 / 13.78		510	/ 20.0	08					
Testing area depth			0001 1001	Unlimited (5)	0/00/1		0. (6)					
Power Supply	To be chosen: 220V±10% 50/60Hz or 120V±10% 50/60Hz (other on request) (6)											
Power Rating	400 (/ /050 !! )		470 1/ (200 11)	700 W	405 1/ (400 11)		240 1/ (400 11)					
Machine weight (without accessories)	160 Kg (353 lb)	İ	176 Kg (388 lb)		195 Kg (430 lb)	2	210 Kg (463 lb)					
Finishing	Silver RAL 9006 / Black RAL 9011											
Room temperature	From +5 to +40 °C											
Air humidity (without condensing)	Max 80% 1.000 Hz											
Internal data sampling rate PC data transmission rate				500 Hz								
PC interface	Ethercat (A dedicated Ethernet port on PC is required)											
Height (Dimension C) + 3 mm	1.548 / 61	-	2,098 / 82.6	2,348 / 92.5	1,548 / 61		2,348 / 92.5					
Dimension D)	730 / 28.8		730 / 28.8	730 / 28.8	890 / 35		890 / 35					
[mm / in.] Depth (7)	100120.0		7007 20.0	700 / 27.6	000 / 00	1	000700					
Size when packed – approx (8) [mm]	900x900 H1,800		900x900 H2,400		1150x900 H1.800	115	50x2.650x H1.000					
Noise level			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	< 72 db			,					
Suggested local light level				300 lux								

<sup>(1)</sup> Load limit (only in tensile) of TQ01.04.01 is set to 12.5 kN if crosshead position (Dimension A) is greater than 1,000 mm (2) Load limit (only in tensile) of TQ01.04.02 and TQ01.04.04 is set to 10 kN if crosshead position (Dimension A) is greater than 1,000 mm (3) Data of standard 25 kN load cell. See below for other available main/auxiliary load cell

<sup>(5)</sup> Some type of extensometers or other devices may reduce this value

<sup>(6)</sup> Some optional devices need a compressed air line (5 bar) or different power supply

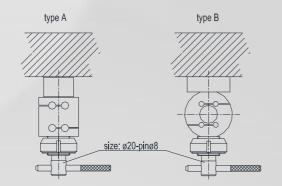
<sup>(7)</sup> Frame dimension, Electrical connectors on the rear of the machine. See drawing

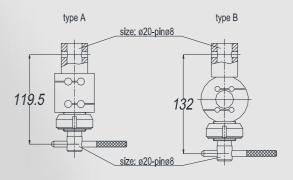
 $_{(8)}\, TQ01.04.02$  and TQ01.04.04 are packed and travel in lying position



As main load cell (fixed, not removeble)

## As auxiliary load cell (removable)





AVAILABLE MAIN / AUXILIARY LOAD CELL: (9)													
ITEM	TQ03.04.08 standard(10)	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				
Nominal size	25 kN	10 N	20 N	50 N	100 N	250 N	500 N	1 kN	2.5 kN				
Max accidental overload (11) / breaking loa	pad 150% of nominal size / 300% of nominal size												
Type (see drawing)	standard(10)	A B											
Kit for use as aux. cell (sold separately) (1	2) -	- TQ03.05.01 (generic code, correct load cell must be specified)											

(9) The main load cell must have a capacity greater then all auxiliary cell in use. 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.

(10) Standard 25 kN load cell must be ordered separately in any case (not included in the item of the frame machine)

(II) A new calibration of the load cell may be necessary if "max accidental overload" is exceeded.

The kit include female and male connection, pin and locknut (as in draw). Every auxiliary load cell need | kit.

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