

# Quasar 50

## 50 kN Advanced Universal Testing Machine

TQ01.05  
TQ01.05.01  
TQ01.05.02  
TQ01.05.03  
TQ01.05.04  
TQ01.05.05

The 50 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.

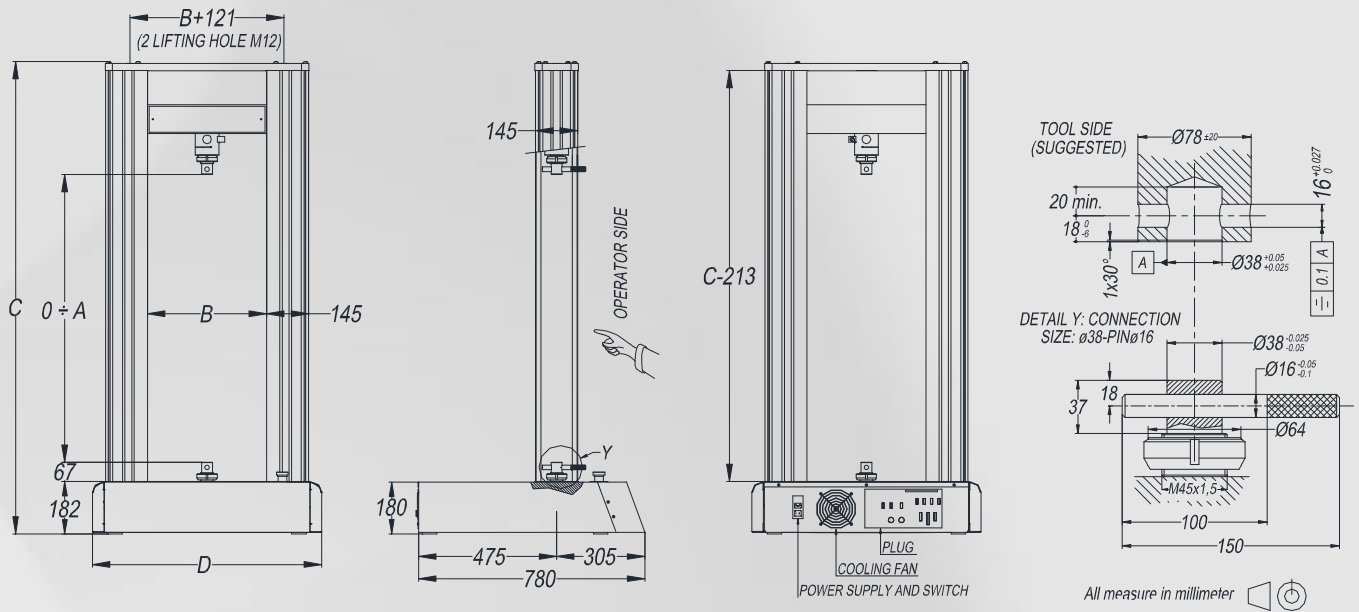
- Two-column rigid system with 50 kN maximum capacity
- Suitable for metals, plastics, composites and other materials
- Stylish design and advanced features
- Ergonomic design; 4.0 instrument
- Flexible and modular design for easy future development
- Key technical advantages include extremely high resolution 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 50  
with Micron extensometer



ITEM (10)	TQ01.05	TQ01.05.01 (1)	TQ01.05.02 (2)	TQ01.05.03	TQ01.05.04 (1)	TQ01.05.05 (2)
Capacity of frame and max admissible load	50 kN (11,240 lbf)					
Load cell nominal size (tensile & compression)	50 kN (3)					
Max accidental overload (11) / breaking load	75 kN / 150 kN (3)					
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)					
Stroke resolution	0.043 mm					
Speed at maximum load (in test)	0.0005 ÷ 500 mm/min.					
Idle speed	500 mm/min.					
Accuracy of positioning repeatability	0.02 mm (20 mm)					
Accuracy of the set crosshead speed	0.5% of setting speed (4)					
Total stroke (Dimension A)	[mm / in.]	1,000 / 39.37	1,500 / 59.05	1,750 / 68.9	1,000 / 39.37	1,500 / 59.05
Daylight between columns (Dimension B)	[mm / in.]	410 / 16.14		550 / 21.65		
Testing area depth	Unlimited (5)					
Power Supply	To be chosen: 220V±10% 50/60Hz or 120V±10% 50/60Hz (other on request) (6)					
Power Rating	1,300 W (6)					
Machine weight (without accessories)	255 Kg (562 lb)	270 Kg (595 lb)	280 Kg (617 lb)	400 Kg (882 lb)	415 Kg (915 lb)	425 Kg (937 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 (Dim. C) ± 3 mm	1,641 / 64.61	2,191 / 86.26	2,441 / 96.1	1,641 / 64.61	2,191 / 86.26	2,441 / 96.1
Width (Dimension D)	790 / 31.1			930 / 36.61		
Depth (7)	780 / 30.71					
Size when packed – approx (8) mm	950x950 H1,900	950x950 H2,500	950x2,750 H1000	950x1100 H1,900	950x1100 H2,500	1100x2,750 H1000
Noise level	< 72 db					
Suggested local light level	300 lux					

(1) Load limit (only in tensile) of TQ01.05.01 and TQ01.05.04 is set to 25 kN if crosshead position (Dimension A) is greater than 1,000 mm

(2) Load limit (only in tensile) of TQ01.05.02 and TQ01.05.05 is set to 20 kN if crosshead position (Dimension A) is greater than 1,000 mm

(3) Data of standard 50 kN load cell. See below for other available auxiliary load cell

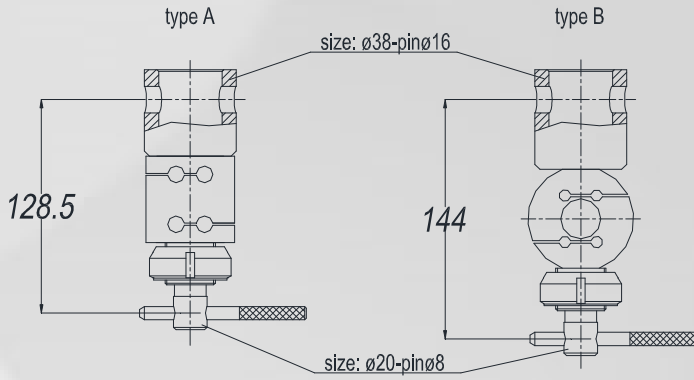
(5) Some type of extensometers or other devices may reduce this value

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

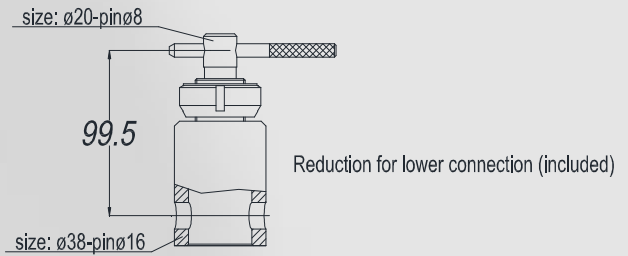
(7) Frame dimension. Electrical connectors on the rear of the machine. See drawing

(8) TQ01.05.02 and TQ01.05.05 are packed and travel in lying position

Auxiliary load cell (removable)



**IMPORTANT WARNING:**  
 Using auxiliary load cell in this size of machine  
 require grip with different size connection (ø20 pin ø8)



### AVAILABLE AUXILIARY LOAD CELL: <sup>(9)</sup>

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
Nominal size	10 N	20 N	50 N	100 N	250 N	500 N	1 kN	2.5 kN
Max accidental overload <sup>(11)</sup> / breaking load	150% of nominal size / 300% of nominal size							
Type (see drawing)	A						B	
Kit for use as auxiliary cell (sold separately) <sup>(12)</sup>	TQ03.05.02 (generic code, correct load cell must be specified)							

<sup>(9)</sup> The main load cell is always a 50 kN size. No limit in number of auxiliary load cell to be used under the main one.

All load cell can work in compression and tensile. If certification is required, every load cell (included main one) needs a different one.

<sup>(10)</sup> Standard 50kN load **is included** in the item of the frame machine

<sup>(11)</sup> A new calibration of the load cell may be necessary if "max accidental overload" is exceeded.

<sup>(12)</sup> The kit include female and male connection, pin and locknut (as in draw). Every auxiliary load cell need 1 kit. Using auxiliary cell need grip with connection size ø20 pin ø8.

Galdabini Spa, Via Giovanni XXIII, 183 21010 Cardano al Campo (VA) Italy

T +39 0331 732700

F +39 0331 730650

[info@galdabini.it](mailto:info@galdabini.it)

[galdabini.it](http://galdabini.it)

