GALDABINI 1890

Datasheet

Quasar 100 100 kN Advanced Universal Testing Machine

TQ01.06
TQ01.06.01
TQ01.06.02

The 100 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 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.

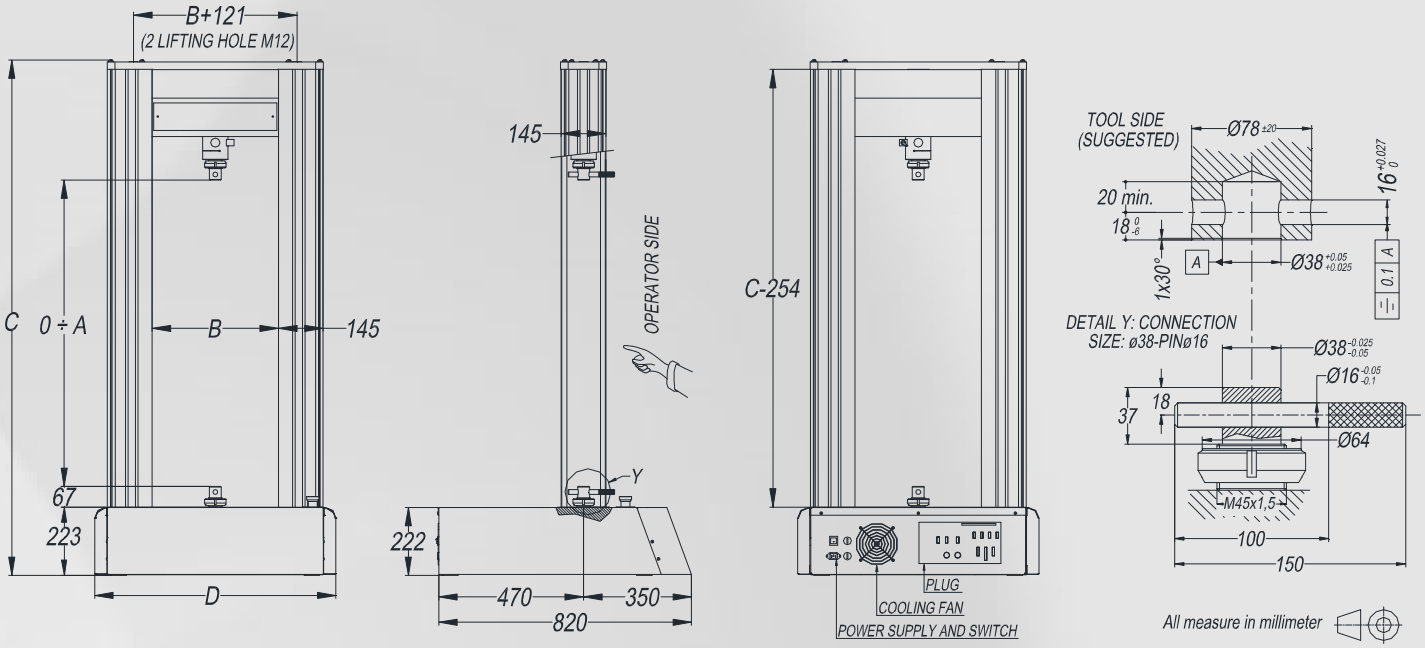
This Quasar frame has a flexible and modular construction. It can be equipped with various grips and fixtures, as well as extensometers, additional load cells, temperature chambers and many more accessories, for a wide range of applications (tensile, compression, flexure, etc.).

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.

Universal testing machine Quasar 100 with manual wedge grip, Micron extensometer

- Two-column rigid system with 100 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

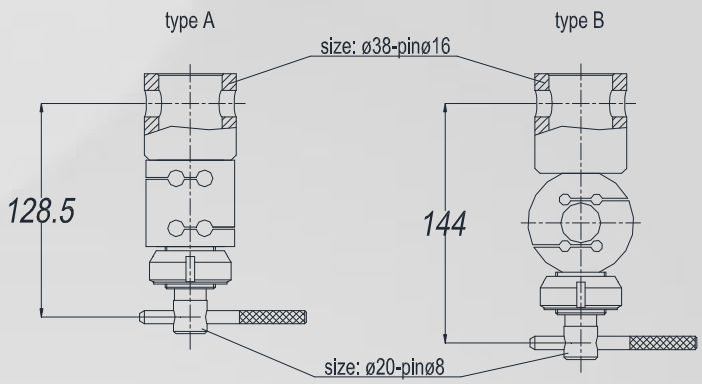


TECHNICAL SPECIFICATIONS

ITEM ([10])		TQ01.06	TQ01.06.01 ([1])	TQ01.06.02 ([2])
Capacity of frame and max admissible load			100 kN (22,481 lbf)	
Load cell nominal size (tensile & compression)			100 kN ([3])	
Max accidental overload ([11]) / breaking load			150 kN / 300 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			0.041 m	
Speed at maximum load (in test)			0.0005 ÷ 500 mm/min.	
Idle speed			500 mm/min.	
Accuracy of positioning repeatability			0.02 mm (20 m)	
Accuracy of the set crosshead speed			0.5% of setting speed ([4])	
Total stroke (Dimension A)		1,000 mm (39.37 in.)	**1,500 mm (59.05 in.)**	**1,750 mm(68.90 in.)**
Daylight between columns (Dimension B)			410 mm (16.14 in.)	
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			1,400 W ([6])	
Machine weight (without accessories)		360 Kg (794 lb)	390 Kg (860 lb)	415 Kg (915 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	1,682 mm (66.22 in.)	2,232 mm (87.87 in.)	2,482 mm (97.72 in.)
	Width (Dimension D)		783 mm (30.83 in.)	
	Depth ([7])		820 mm (32.28 in.)	
Size when packed – approx ([8]) mm		1000x950 H1,950 mm	1000x950 H2,550 mm	1000x2,800 H1,000mm
Noise level			< 72 db	
Suggested light local level			300 lux	

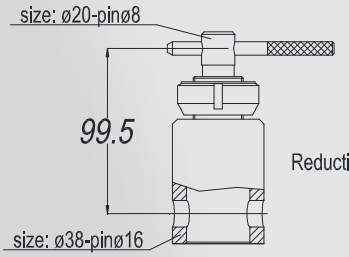
([1]) Load limit (only in tensile) of TQ01.06.01 is set to 50kN if crosshead position (Dimension A) is greater than 1,000 mm
([2]) Load limit (only in tensile) of TQ01.06.02 is set to 40kN if crosshead position (Dimension A) is greater than 1,000 mm.
([3]) Data of standard 100 kN load cell. See below 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]) TQ01.06.02 is packed and travels 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)



Reduction for lower connection (included)

AVAILABLE AUXILIARY LOAD CELL: ([9])

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 ([11]) / breaking load	150% of nominal size / 300% of nominal size							
Type (see drawing)	A						B	
Kit for use as auxiliary cell (sold separately) ([12])	**TQ03.05.02** (generic code, correct load cell must be specified)							

([9]) The main load cell is always a 100 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.
([10]) Standard 100kN load ***is included*** in the item of the frame machine
([11]) A new calibration of the load cell may be necessary if "max accidental overload" is exceeded.
([12]) 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.

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