

QFusion™ 300 (beta)



Part Number: 971-7000

Standard Features

High Rate, High Flow
Thermal System

Quake™ Vibration Tables

Vacuum Jacketed Manifold

PLC Control

Desktop PC with Flat Panel Monitor

QF Manager Software

FUSING BURN-IN AND HASS/HASA -- A MULTI-CAPABLE SYSTEM

Qualmark's QFusion represents the latest in accelerated stress test technology - specifically addressing the reliability testing needs during production. This system is designed to perform HASS/HASA (Highly Accelerated Stress Screen/Highly Accelerated Stress Audit) and/or Burn-In on product to locate failure modes that may have inadvertently been introduced during manufacturing. Design changes by downstream suppliers makes a well designed product such as one ruggedized with HALT susceptible to inferior substitutions. QFusion's combined environment (thermal and random shock vibration) and 6 table configuration accelerates process verification and for less cost than with traditional equipment.

Work Space	6 tables; Work space per table 27"w x 19"d x 11.2"h (686 x 482.5 x 285mm)
Outer Dimensions	81.0"w x 38.4"d x 102.0"h (2056 x 976 x 2591 mm)
Table Size	23.6" x 15.7" / table (x 6) (600 x 400mm)
Actuators	12 Actuators; 2/table Lubricant-free
Table Capacity	100 lbs (45 kg)
Acceleration	5 – 40 gRMS typical
Temp Range	+120°C to -60°C
Thermal Ramp Rate	60°C/min average
Power Requirements	380V, 400V, 440V, 480V 3Φ 50/60Hz, 90A (Service Rating)

Specifications for QFusion 300 beta units are based on design goals, individual beta units may perform differently than specified.

QFusion 300 beta includes:

- One (1) year warranty
- System start-up by a Qualmark certified service engineer
- System and software orientation
- Operations & Maintenance manual
- Control PC with Windows® operating system and flat panel monitor



Vibration Features	Table Top	23.6" x 15.7" (600 x 400mm)
	Table Top Hardware	24 threaded 3/8-16 holes on 4" centers; M10-1.5 thread optional
	Actuators	12 pneumatic, impulse-type, lubricant-free actuators (2/table)
	Vibration	Six degree of freedom, random, OmniAxial™ broadband excitation
	Table Product Capacity	100 lbs. (45 kg)
	Vibration Range	5 - 40gRMS
Thermal Features	Heating System	Open-element nichrome type
	Cooling System	Vacuum jacketed liquid nitrogen injection
	Temperature Range	+120°C to -60°C (+248°F to -140°F)
	Thermal Ramp Rate	60°C /minute average
Internal Features	Interior Dimension	27" w x 19" d x 11.2" h (686 x 482.5 x 285mm)
	Interior Construction	Stainless steel
Exterior Features	Exterior Dimensions	81.0" w x 38.4" d x 102.0" h (2056 x 976 x 2591mm)
	Doors	2; each door opens 135°
	External Construction	Painted steel construction with stainless steel trim
	Windows	Optional; on beta unit 6 windows, 3 on each side (9" x 19" viewing/window)
	Access Ports	12 total on back/2 per table; 4.5" w x 9" h (114 x 229mm)
	Sound	Nominally <80dBA measured at 1 meter
	Status Light Tower	4 indicator lights; green=run, yellow=standby, white=door warning, red=alarm
Control	Vibration/Temperature	PLC based, PC
	Interface	QF Manager
	Operating System	Microsoft Windows
Utilities	Electrical	380V, 400V, 440V, 480V, 3Φ, 60 Hz, 90A
	Air	96 SCFM Max (estimated) @ 100 PSI (2.72 m³/min. at 7 bar)

The specifications listed are design goals for QFusion 300 beta units. Individual systems may not perform according to these specifications.

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