

QFusion™ 300



Part Number: 971-7000

Standard Features

High Rate, High Flow
Thermal System
xLF2 Vibration Tables
Vacuum Jacketed Manifold
PLC Control
Desktop PC with Monitor
QF Manager Software

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

ESPEC's *patented* Qualmark 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 been inadvertently introduced during manufacturing. QFusion technology provides maximum performance for driving out process-induced faults and detecting inferior component substitutions that could otherwise turn up in the field as costly failures. 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 19.2"d x 11.3"h (686 mm x 486 mm x 286 mm)
Outer Dimensions	81.5"w x 38.4"d x 102.3"h (2070 mm x 976 mm x 2598 mm)
Table Size (Quantity-6)	23.6" x 15.6" / table (599 mm x 396 mm)
Actuators	12 Actuators; 2/table Lubricant-free
Table Capacity	6 tables; 100 lb (45 kg)/table
Acceleration¹	5 – 40 gRMS
Temp Range	+120°C to -60°C
Thermal Ramp Rate²	60°C/min
Power Requirements	380V, 400V 3Φ 50/60Hz 100A (Service Rating) 440V, 480V 3Φ 50/60Hz 100A (Service Rating)

**QFusion – Patented design. Since ESPEC continually improves product and service offerings, specifications are subject to change without notice. Please check with ESPEC to ensure you have the latest specification.*

QFusion 300 includes:

- One (1) year warranty
- Operations & Maintenance manual
- System start-up by a Qualmark certified service engineer
- System and software orientation
- One (1) Accelerometer for table control
- One (1) 20' (6.1 m) Accelerometer cable
- Six (6) Auxiliary accelerometer input channels
- Two (2) 72" (1.8 m) High temperature thermocouples - (1) product, (1) air
- Six (6) Auxiliary thermocouple input channels
- Six (6) Solid State User Relays (USR)
- Status light tower
- Control PC with Windows operating system and monitor



Vibration Features	Table Top Table Top Hardware Actuators Vibration Table Product Capacity Vibration Range ¹	Quantity 6; each 23.6" x 15.6" (599 mm x 396 mm) Per table; 24 threaded 3/8-16 holes on 4" centers; M10-1.5 thread optional 12 pneumatic, impulse-type, lubricant-free actuators (2/table) Six degree of freedom, random, OmniAxial™ broadband excitation 100 lb (45 kg)/table 5 - 40 gRMS (10Hz to 5000 Hz)
Thermal Features	Heating System Cooling System Temperature Range Thermal Ramp Rate ²	Open-element nichrome type Vacuum jacketed liquid nitrogen injection +120°C to -60°C (+248°F to -76°F) 60°C/minute
Internal Features	Interior Dimension Interior Construction	27" w x 19.2" d x 11.3" h (686 mm x 486 mm x 286 mm) per table Stainless steel
Exterior Features	Exterior Dimensions Doors External Construction Windows Access Ports Sound Status Light Tower	81.5" w x 38.4" d x 102.3" h (2070 mm x 976 mm x 2598 mm) 2; each door opens 135° Painted steel construction with stainless steel trim (6) 19" x 9" viewing/window (483 mm x 229 mm), (3) in each door 12 total on back/2 per table; 4.5" w x 9" h (114 mm x 229 mm) 73 dBA at 30 gRMS (at 1 meter) 4 indicator lights; green=run, yellow=standby, white=door warning, red=alarm
Control	Vibration/Temperature Interface Operating System	PLC based, PC QF Manager Microsoft Windows
Utilities	Electrical Air	380V, 400V, 3Φ, 50/60Hz, 100A 440V, 480V, 3Φ, 50/60 Hz, 100A (Service rating) 96 SCFM Max at 100 PSI (2.7 m³/min at 6.9 bar)

1. Measured on bare table.

2. Measured as the average rate between -40°C and 80°C in open air 3" above table center (in an empty chamber); levels vary by make and model.