Technical Manufacturing Corporation

TECH NOTES

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65-29640-01 Low Profile Platform Isolator, 24 x 36", 'MaxDamp'™

This small platform isolation system has been developed to solve the problem of vibration produced by vacuum roughing pumps and other smaller sources of vibration that must operate near sensitive equipment. The problem with vacuum pumps is that they can produce moderately low frequency vibrations, where simple isolation solutions, such as rubber pads, are not sufficiently effective.

The isolators are the hybrid type 'MaxDamp' air and high viscosity fluid-damped Gimbal Piston™ isolators. The pistons isolate both vertically and horizontally, with a higher level of damping to forced motion than air-only damped isolators. As used in this application, the isolators and platform (mass plate) absorb most of the vibrational energy produced by 1 or 2 vacuum pumps before the energy can be transmitted through the floor.

Specifications:

Resonance freq.: 2 _ Hz (vertical & horizontal)
Platform construction: 1" steel plate with stainless steel cover over top and sides, painted bottom
Isolator Modules: TMC 'Gimbal Piston MaxDamp', 350 lb gross load cap.(ea.) @ 80 psi. (158 kg. @ 5.4 atm.) Black powder coat paint.
Capacity: 1 or 2 vacuum roughing pumps, or similar load. (Load is limited in practical terms by the mass and height of the center-of-gravity of the payload, not by the absolute capacity of the isolators.)
System net weight: Approx. 280 lbs. (127 kg.)
Air requirement: Compressed air or nitrogen, 60-80 psi (4.1-5.4 atm), depending on payload. Flow rate is negligible once the isolators are operational.