

Advisory Bulletin



TB-34 Threaded Metal Inserts Reinforce Door & Stile Hardware in All Bobrick Partitions

Bobrick's standard partitions have superior holding power built in, using Commercial Hardware in an unique *no-hardware-on-the-outside* styling. In doors and stiles with particle board core (TrimLine, Designer and Series™ partitions), the hinge screws engage into 1/4–20 threaded inserts and the latch screws engage into 1/4–20 T-nuts. In doors and stiles with solid phenolic core (DuraLine Series®), both hinge and latch screws engage into 1/4–20 threaded inserts. Hinge, latch, keeper, and mounting screws are all type-304 stainless steel with tensile strength in excess of 90,000 psi.

Hinge and latch hardware on toilet partition doors and stiles are the components most subject to abuse and damage. For vandal-prone or exceptionally heavy-duty installations, Bobrick offers a special package of Institutional Hardware for use with our solid phenolic partitions. For a detailed description, see the current Bobrick Catalog.

Bobrick's test laboratory, which routinely function-tests all accessories and equipment at least twice a year, uses a pull-test stand with 1,000-pound maximum load tester to evaluate sample components pulled at random from the final assembly line of Bobrick partitions.

Test Procedures: Specimen stile or door is firmly mounted to pull-test stand, with jaws of the load tester pulling on the head of a screw that is engaged in the pre-installed threaded insert. Screws are pulled to 500 pounds and held for ten minutes. Force is then increased in 100-pound increments and held at each level another ten minutes. At the maximum test capacity of 1,000 pounds, the load is maintained for two hours. See Figures 1 and 2.

Figure 1

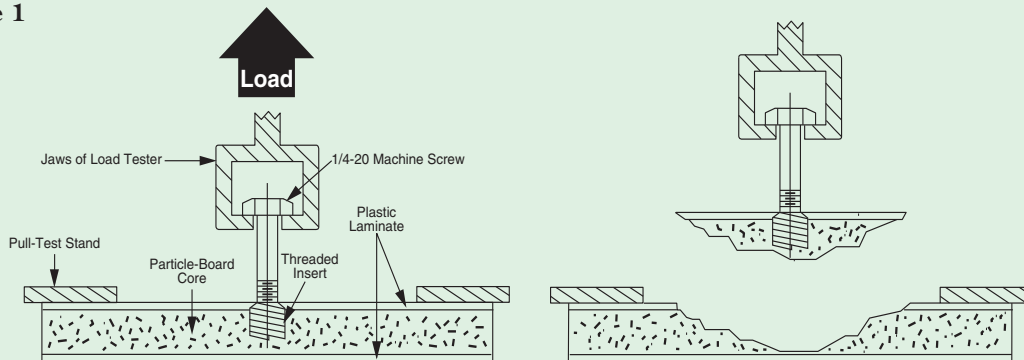


Figure 2

RESULTS OF BOBRICK'S PULL TESTS

METAL INSERT	PARTITIONS MATERIAL	
	Particle Board Core (1" finished thickness)	Solid Phenolic Core (3/4" finished thickness)
Hinge Insert	1/4–20 threaded insert 676 lb to pull out (8-test average)	1/4–20 threaded insert Sustained 1,000 lb for 2 hours *2100 lb to pull out (3-test average)
Latch Insert	1/4–20 T-nut Sustained 950 lb for 2 hours 1,000 lb to pull ou	1/4–20 threaded insert: Sustained 1,000 lb for 2 hours *2100 lb to pull out (3-test average)

* Results of independent testing laboratory.

Since each piece of hardware is attached with two or more screws, pull-out resistance to any stresses that might be applied to an installation is more than adequate. In addition, factory prepositioning of threaded inserts guarantees metal-to-metal engagement and eliminates misaligned or stressed door hardware.