Model 401, 403, 403B, 443 and 443B
Locking Regulators and Quadrants for 3/8" Square Damper Shaft

Model 404, 404B and 404SS
Locking Quadrants for 1/2" Round Damper Shaft

Application and Design

Young Regulator has a variety of locking regulators and quadrants for 3/8" square and 1/2" round damper shafts.

The Young 401 Valcalox self-locking regulator for 3/8" square damper shaft is designed to be mounted directly on the surface of a round or rectangular duct where the damper is located. It may be used with Young 820A-L rectangular or 5020 round dampers, as well as with other manufacturers’ dampers that have 3/8" square shafts.

The 401 is 1-1/2" in diameter and features zinc plated steel construction except for the regulator itself, which is die cast. It is adjusted by our 04 wrench, available separately, which fits over the end of a 3/8" square shaft. The shaft should penetrate the aperture at least 1/4". The opposite end of the wrench is used to tighten the hex locknut, which securely locks the damper in place. When the regulator is locked, several hundred serrations on the inside of the dial base and on the outside of the dial indicator base are interlocked so that a damper of any practical size is held securely in position. Shock and vibration will not release it.

Our 403 Valcalox regulator is similar to our 401 unit, except that a handle is permanently attached for easy, lever-type adjustment. The lever also indicates the position of the damper.

The Young 443 3/8" lever-type Valcalox regulator is similar to our 403 regulator except that it has a base 1" in depth designed for mounting on externally insulated duct. All 443 series regulators are operated by our 04 wrench, available separately.

NOT PICTURED – 443B – same as 443 but 2" high base
NOT PICTURED – 443B-3 – same as 443 but 3" high base

The Young 403B lever-type Valcalox regulator is similar to the 403 except that it has an acorn nut instead of a hex locknut, enabling it to be used in high-pressure applications. 403B must be used in conjunction with neoprene gaskets to ensure a tight seal. A FD flat gasket may be used on all flat duct and on round duct greater than 8" in diameter. FD flat gasket is available separately. To adjust the damper, the 403B’s acorn locknut is loosened or tightened with an 04 wrench.

The 404 lever type quadrant will control dampers with a 1/2" round shaft. Constructed of plated steel with set screws and lock washer with a die cast handle.

Pictured is the 404B, a 404 on a 2" base for insulated duct.

The 404SS is similar to the 404 but with stainless steel regulator, set screw and washer with die cast handle.