Suggested Specification for **Young Regulator** Dampers

1.0 Manual Volume Dampers, Round or Rectangular, with cable control or manual quadrant.

1.1 General

All manual volume dampers above hard ceilings must be controlled by the following cable control system. Furnish and install, at locations shown on plans, or in accordance with schedules, commercial grade control dampers and remote cable control system that meet the following minimum standards. Dampers mounted in inlet of diffuser are not acceptable. Ceiling access panels are not acceptable.

1.2 Construction

Dampers shall be round butterfly design or rectangular opposed blade design for low pressure drop. Round damper shall be heavy duty spiral shell with a 20 ga. "V" style blade, _" round CRS steel shaft and oil impregnated bronze bearings requiring no lubrication.

Rectangular dampers shall be opposed blade style for even distribution of air over face of grille. Damper shall be constructed of .050 extruded aluminum double channel frame and stainless steel hardware including the damper slide. Blades shall be .050 extruded aluminum with longitudinal reinforcing beads. Blades shall be installed in individual Teflon blade bushings in the damper frame. Dampers shall be used in branch ducts up to 12" high with velocity under 750 fpm and a maximum pressure of 2.0" w.g. Leakage shall be 5% of maximum flow.

Manufacturer shall supply all necessary hardware for simple installation of remote cable controls system including the Bowden aluminum angle bracket and the Bowden control hub to accommodate the cable control system mounted on the damper.

1.3 Cable Control System

Cable control system shall consist of Bowden cable .054" stainless steel control wire encapsulated in 1/16" flexible galvanized spiral wire sheath to insure positive operation for up to 50' (less if there are multiple turns or bends). Control kit shall be designed for use with internally or externally controlled round or rectangular dampers and shall consist of 14 ga. Steel rack and pinion gear drive to convert rotary motion to push-pull motion. Control shaft shall be D-style flattened _" diameter with 265 degree rotation providing graduations for positive locking control and 1 _" linear travel. Control mounting options include ceiling framework, behind grilles, on or inside plenum slot diffusers and other various types of diffusers or through ceiling via 1" or 3" inconspicuous access port. Twisting type cables are not acceptable.

1.4 Manual Quadrant

Manual quadrant shall be commercial quality, locking type for 3/8" square shaft and shall be provided on an extended base for externally insulated ductwork.