

## APPLICATION

Model RD-RC is a True Round damper with a manual Twist cable drive system allows damper adjustment through the face of the diffuser or grille, or from a small access point in the ceiling or wall. The rotary actuation cable is routed from the damper to the room side access point for easy damper adjustment and room balancing for individual comfort.

## Standard Construction

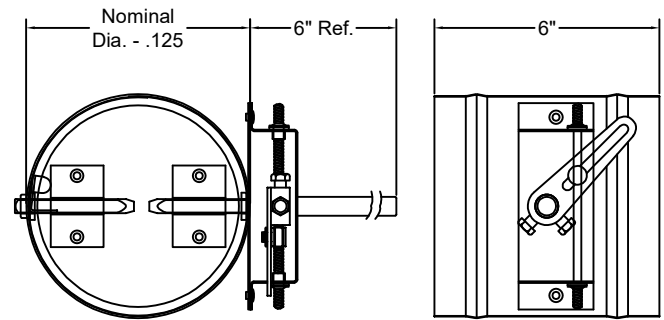
**Frame:** 6" Long 20 Gauge Galvanized Steel

**Blades:** 20 Gauge Galvanized Steel

**Axles:**  $\frac{3}{8}$ " Square Plated Steel

**Bearings:** Molded Synthetic Nylon 6/6.

**Operator:** Twist Cable Gear Box.



## SIZE

**Minimum:** 4" (102) Diameter

**Maximum:** 24" (610) Diameter

## OPTIONS

**Stand-Off Bracket** - 2" (51)

## VARIATIONS

**Stainless Steel Construction** - Frame, Blade, Axles and Hand Quadrant.

**Aluminum Construction** - .063 thick aluminum frame and blade. (Axles, clamps Ect. Galv. or Stn. Stl.)

## Optional Controllers Mounted Remotely

**Model 200** - Mounted on Diffuser or Duct

**Model 300** - Recess Ceiling Mount

**Model 400** - Small Screwdriver Slot Mount

**Model 900** - Wall Recess Mount

**Model 900-SM** - Wall Box Surface Mount

## Suggested Specification


Furnish and install, at locations shown on plans or as in accordance with schedules, remote twist cable control dampers meeting the following specifications: Dampers shall be of the butterfly type, consisting of a circular blade, fastened to a continuous  $\frac{3}{8}$ " mild steel square shaft. Inside frame surface shall be clean and smooth. Frame shall be minimum 20 gage (1.0) G60 galvanized steel and include full circumference rolled stiffener beads to allow easy sealing of spiral or flex duct joints. Blade shall be of the same material as the frame. Bearing shall be molded nylon, and shall be formed to the shape of the axle, reducing leakage around shaft penetration points. Factory install twist cable system to be combined with factory supplied and field mounted cable and controller. Material and construction specifications shall be minimum equivalent to United Entertech RD-RC.

Maximum Velocity		
Diameter	FPM (M/S)	Max. Pressure Differential Inches w.g. (kpa)
4" - 8" (102 - 203)	2600 (13.2)	3" (0.75)
10" - 12" (254 - 305)	2400 (12.2)	2.5" (.062)
14" - 18" (356 - 457)	2300 (11.7)	2" (0.5)
20" - 24" (508 - 610)	3200 (11.7))	1.5" (0.37)

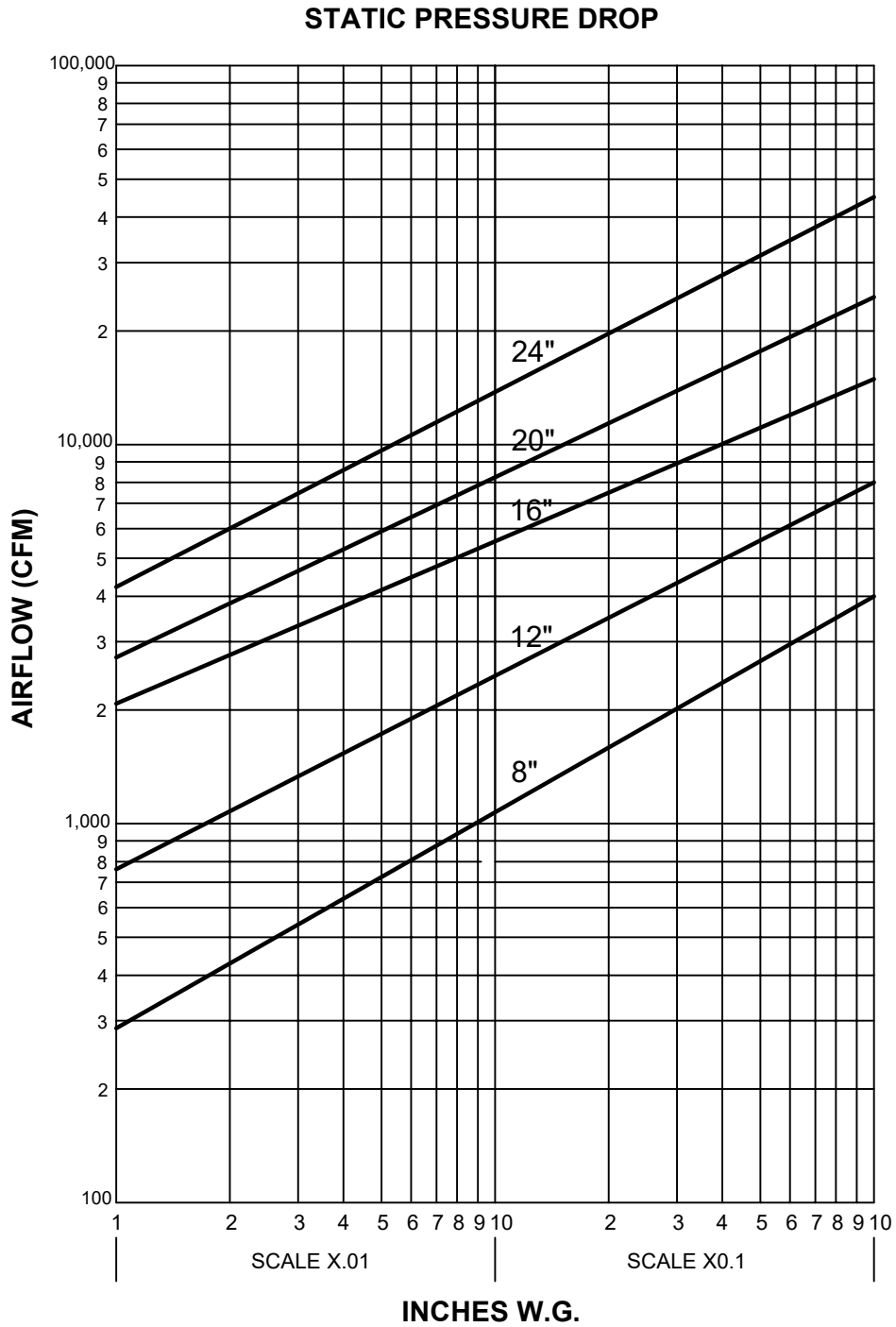
### Notes:

- Dampers are furnished approx. 1/8" (3) undersized, unless otherwise noted.
- Dimensions shown in parentheses ( ) indicate millimeters.

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		3005 South Hickory Street Chattanooga, Tennessee 37407 Tel: (423) 689-7715 <a href="http://www.unitedenertech.com">www.unitedenertech.com</a>			
		<b>RD-RC Round Twist Cable Damper</b>			
DRAWN BY: KSM	DATE: July 2025	REV. DATE:	REV. NO.	DWG. NO. <b>PD-026</b>	

## Performance Data



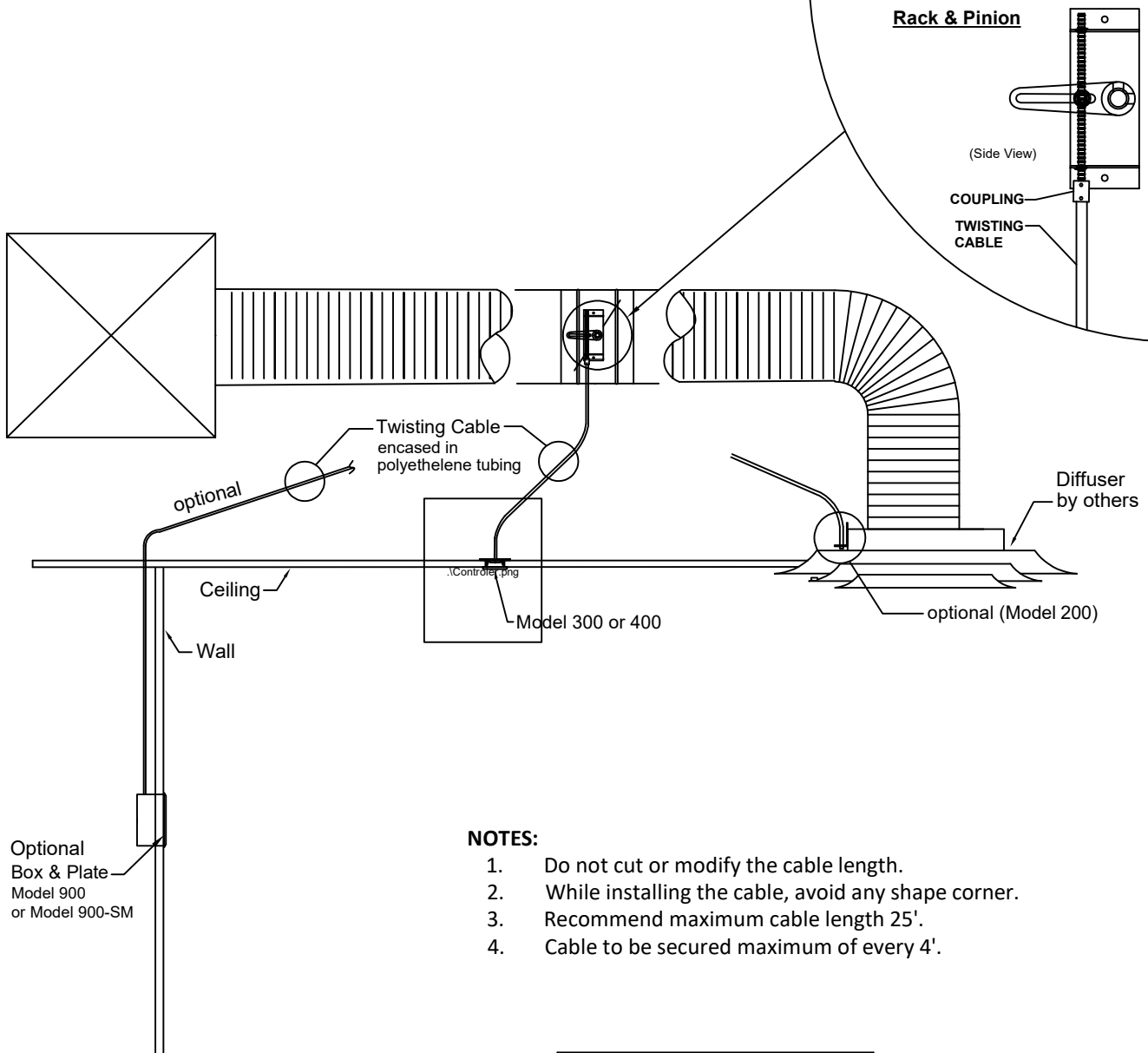
### Determining Static Pressure Drop (Round)

To determine static pressure drop through an open damper, start on the left side of the damper pressure drop chart. Given the CFM of air flow through the damper, follow the CFM line to the diagonal line of the damper size required, then down to the static pressure drop of the unit.

### Example:

The pressure drop of an 8" (203) diameter damper with 700 cfm flow is .051 inches w.g.

## RD-RC Operation



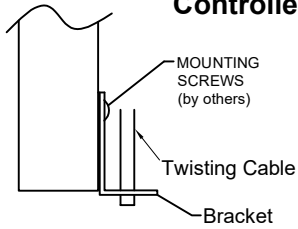
### NOTES:

1. Do not cut or modify the cable length.
2. While installing the cable, avoid any sharp corner.
3. Recommend maximum cable length 25'.
4. Cable to be secured maximum of every 4'.

CABLE LENGTHS	
LENGTH	DAMPER DIAMETER
10 ft.	20"Ø
12 ft.	18"Ø
14 ft.	14"Ø
18 ft.	12"Ø
up to 60 ft.	under 12"Ø

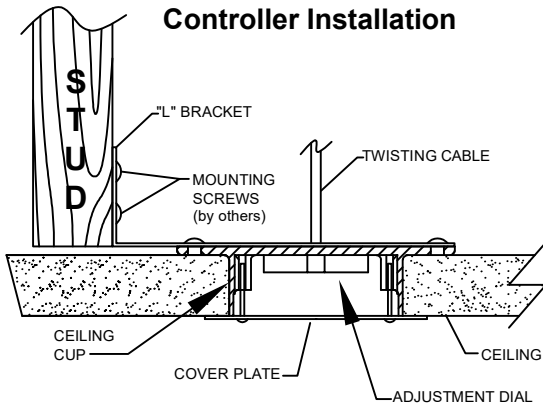
## Controllers

### Model 200 Controller Installation



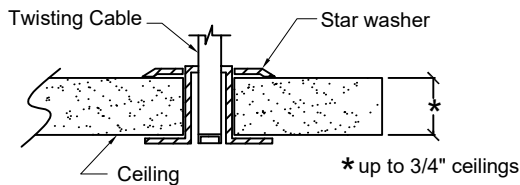
- 1.) Attach bracket to desired surface (plenum, ceiling joist, diffuser, or access panel). (mounting screws by others).
- 2.) Balance damper by turning the controller with a flat head screw driver

### Model 300 Controller Installation



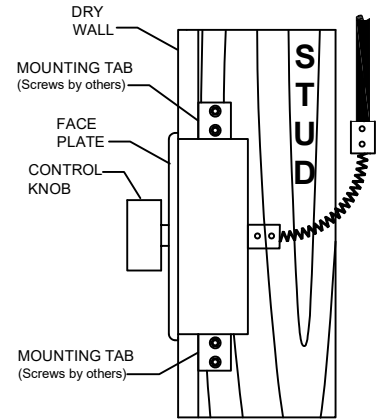
- 1.) Cut a  $\varnothing 2\frac{7}{8}$ " hole in ceiling. Install cup using "L" bracket and mounting screws (mounting screws by others)
- 2.) Attach cover to ceiling cup with provided screws.

### Model 400 Controller Installation



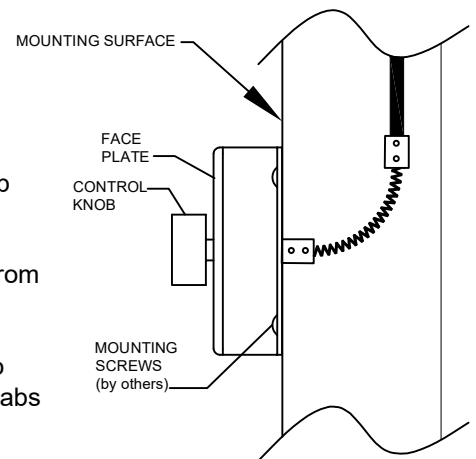
- 1.) Cut a  $\varnothing \frac{7}{16}$ " hole in ceiling.
- 2.) Insert controller with cable and secure with provided star washer.
- 3.) Balance damper by turning controller with a flat head screwdriver.

### Model 900 Controller Installation



- 1.) Remove control knob by loosening set screw.
- 2.) Remove face plate from box.
- 3.) Connect controller to stud through mounting tabs (mounting screws by others).
- 4.) Replace face plate and control knob.

### Model 900-SM Controller Installation



- 1.) Cut hole in wall at desired location
- 2.) Remove control knob by loosening set screw.
- 3.) Remove face plate from box.
- 4.) Connect controller to stud through mounting tabs (mounting screws by others).
- 5.) Replace face plate and control knob.

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