



**Young Regulator Co.**

7100 Krick Rd • Walton Hills, OH 44146

P: 440-232-9700 • F: 440-232-8266

[www.youngregulator.com](http://www.youngregulator.com)

Submit 821A – 1-10

**Model 821A with Flex Shaft**

*821A Face Operated Opposed Blade Damper*

*Flex Shaft Termination PLBR*

**Application and Design**

Young 821A dampers are standard, manual, opposed blade volume control dampers, which can be used to regulate airflow in square or rectangular duct systems. The 821A is controlled in the air stream from the face of the damper. When the distance from the air outlet to the damper is unreachable, couple a flexible steel shaft to the operating screw of the damper. Flexible shafting is a direct, mechanical method for transmitting rotary motion between two points. The opposite end of the flex shaft cable is terminated to the PLBR just inside the grille to operate an inaccessible opposed blade damper from the face of the grille. Features and benefits of the 821A damper include:

- Fast, simple installation
- Rugged, heavy-duty construction of aluminum extrusions and stainless steel hardware for long, corrosion-resistant life & stand-alone quality.
- Opposed blade damper distributes air evenly over face of grille.
- Individual blade bushings for smoother and quieter operation, minimizing rattling.
- Gear rack converts rotational motion into linear motion when the spur gear is run against it.
- Gear that turns to move the rack that is fastened to the stainless steel slide mechanism is held in place with a Nylock nut that maintains pressure and resistance to prevent the blades from moving in higher velocities or pressures.

**Tested up to 4" W.C.**



**FLEX SHAFT**

FS-XX (specify length in feet). Includes a coupling to attach to the operating nut of the 821A. The flexible steel shaft is a single wire around which successive multi-stranded layers of wire are wrapped. It is .250" in diameter, has a brass finish, and is capable of delivering more than 50# of torque without damage. Standard lengths: 1', 3', 6', and 8'. Custom lengths to 50'

**TERMINATION - PLBR**

The flexible steel shaft is coupled to the operating nut of the 821A damper. The shaft is carried through the inside of the duct and terminated to the PLBR just inside the grille. The PLBR is a simple mounting bracket that allows operating the damper by turning the Phillips head screw.

STANDARD CONSTRUCTION	
Frame	.050 Aluminum Extrusion with Reinforcing Channels
Blade	.050 Aluminum Extrusion with Reinforcing Channels
Slide	Stainless Steel
Blade Bushings	Individual Synthetic
Low Leak Seals	Not Available

SIZE INFORMATION Damper 3/16" undersized high & wide	
Frame Width	2 1/8" Wide
Blade Width	1.438" - Contained within Frame
Max Size	36" x 14"
Min Size	3" x 3"

QUANTITY	WIDE	HIGH	SHAFT LENGTH	NOTES

<b>PROJECT</b>	<b>LOCATION</b>
<b>CONTRACTOR</b>	<b>DESIGN SPECIFIER</b>