

## RT-WGA WORM GEAR ASSEMBLY

### INSTALLATION, OPERATION, AND MAINTENANCE INSTRUCTIONS

#### RECEIPT INSPECTION:

Check material received against packing list. Claims resulting from factory errors must be made within 2 weeks after receipt of goods.

#### INSTALLATION:

1. Prior to installing damper in duct, check to make sure blades operate freely with no binding or restriction.
2. Screw or rivet damper to duct. Make sure that fasteners do not interfere with blade operation and that damper is not racked.
3. Adjust worm gear rotation so that set screws will be accessible when in position. Align square shafts so as to catch set screws directly on flats. Set screws are 90° opposed. See reverse side for RT-WGA mounting requirements when dampers are supplied by others.
4. Slip worm gear assembly over shaft. Tighten (2) set screws onto damper shaft with 1/8" Allen key, then secure to duct or mounting plate. Assembly mounts horizontally or vertically as required for best cable run. Test for free operation by rotating cable. Do not attempt to rotate worm gear by pushing on damper blade.
5. **Support cables as required at all changes in direction and at 3 foot intervals. Use retaining clips furnished by MAT. NO DRAPING – cables should be taut or nearly so. 4" minimum turn radius. Clips should be installed with a loose fit to allow cable rotation. The longer the cable and the larger the damper – the more attention should be paid to cable support. For longer cable runs (e.g. > 30 ft) it may be more convenient to support the cable in a conduit rather than installing cable clamps at 3' intervals (field option)**
6. Fasten ceiling / wall cup or other termination to framing. For RT-CCS, RT-CCR, and RT-CCM see instructions provided.
7. **TEST individual damper operation to evaluate cable support scheme prior to ceiling close-up.**
8. Install ceiling/wall cup cover plate after installation and air system balancing, but prior to painting.

#### OPERATION:

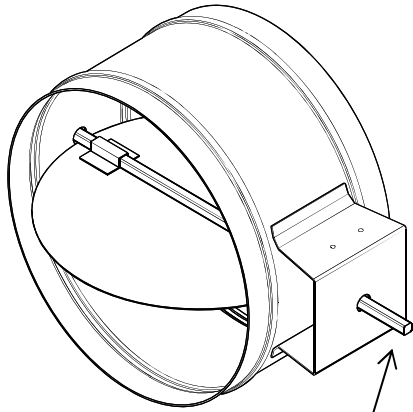
1. Damper may be adjusted with a quality 1/4" nut driver or hex socket wrench. (Thin blade screwdriver if ordered.) Often cable end may be pulled out several inches to ease adjustment.
2. Worm gear has a 20-1 ratio; therefore a 90 degree blade rotation requires five (minimum) complete rotations.
3. Damper will hold set position. Gear design will not allow reverse movement from the damper end.

#### MAINTENANCE:

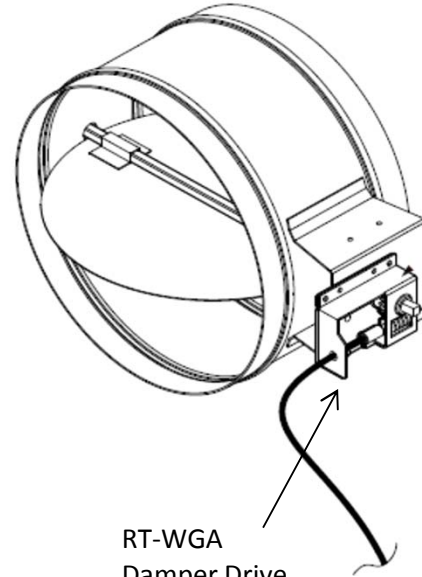
Properly installed *ROTO-TWIST*® dampers and the RT-WGA damper drive require no maintenance.

INSTALLER COMMENTS & SUGGESTIONS INVITED  
CALL 800-585-7686

For Dampers Supplied by Others

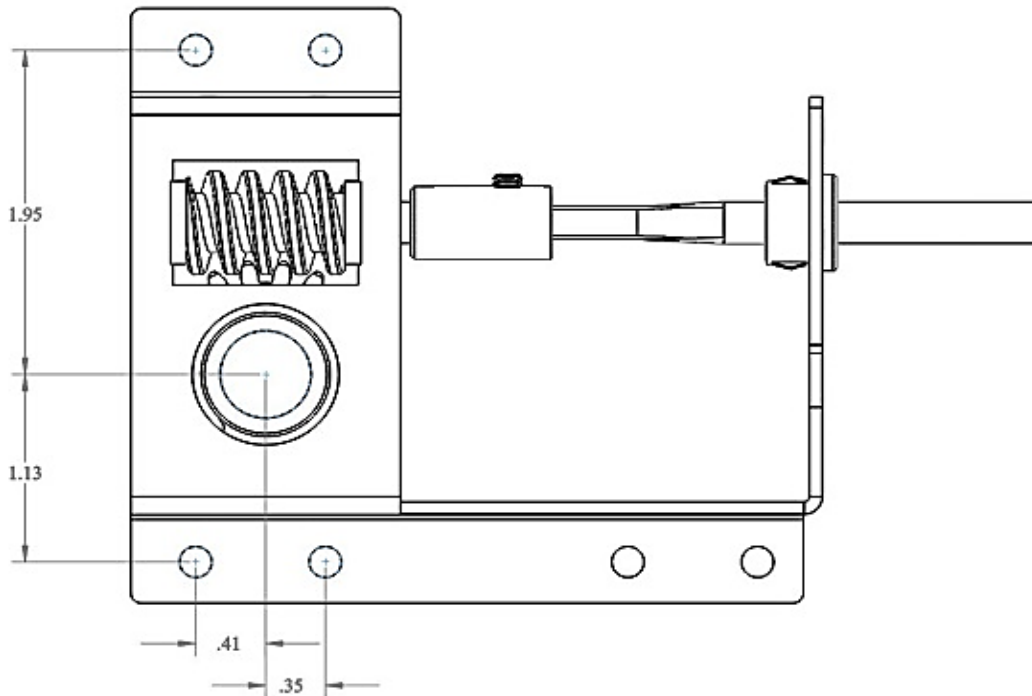


Damper shaft to extend beyond standoff bracket at least 1"



RT-WGA  
Damper Drive

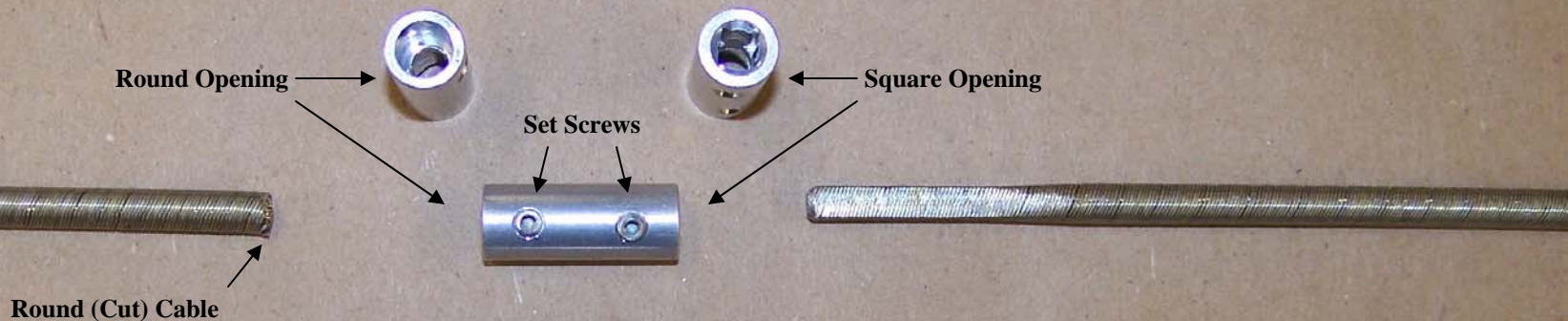
Mounting Locations for RT-WGA Damper Drive



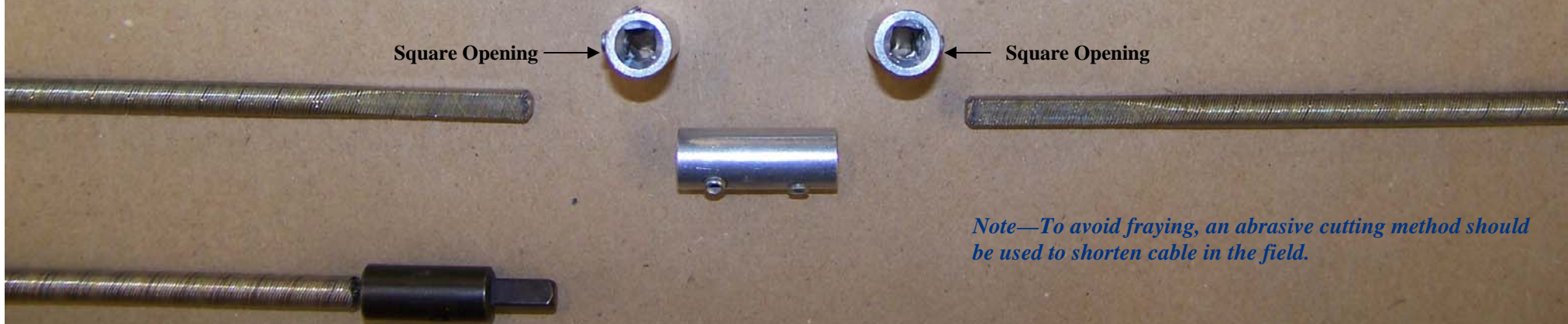
# METROPOLITAN AIR TECHNOLOGY

## ILLUSTRATION FOR LENGTHENING & SHORTENING OF CABLE

**MAT's Modified Coupling (P/N MAT-1012)** can be used to couple together a round cable end (from a cable that has been cut in the field) with a square cable end



**MAT's Standard Coupling (P/N MAT-1027)** is used to couple two square cable ends



*Note—To avoid fraying, an abrasive cutting method should be used to shorten cable in the field.*

**MAT's Field Cut Cable End (P/N MAT-1048)** is used to create a square tip on a cable that has been cut (shortened) in the field.