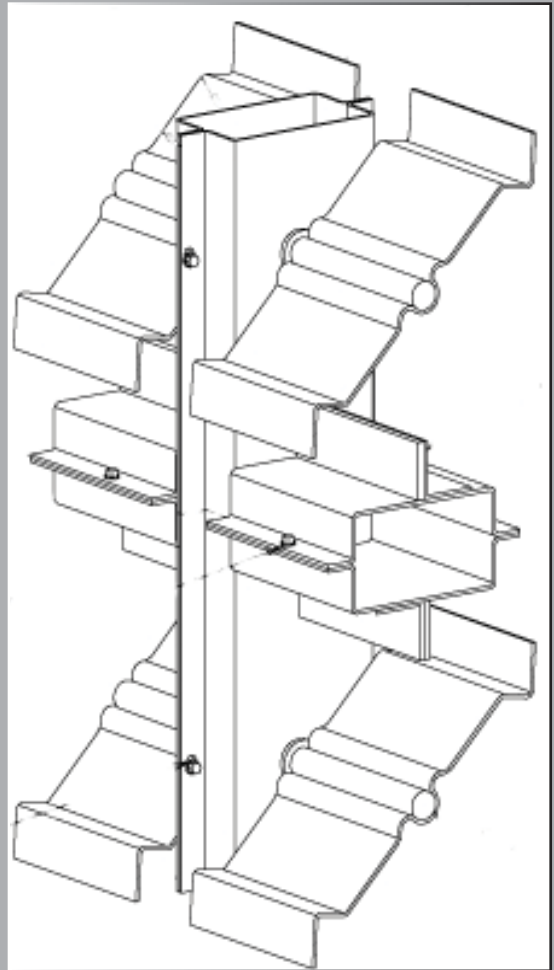
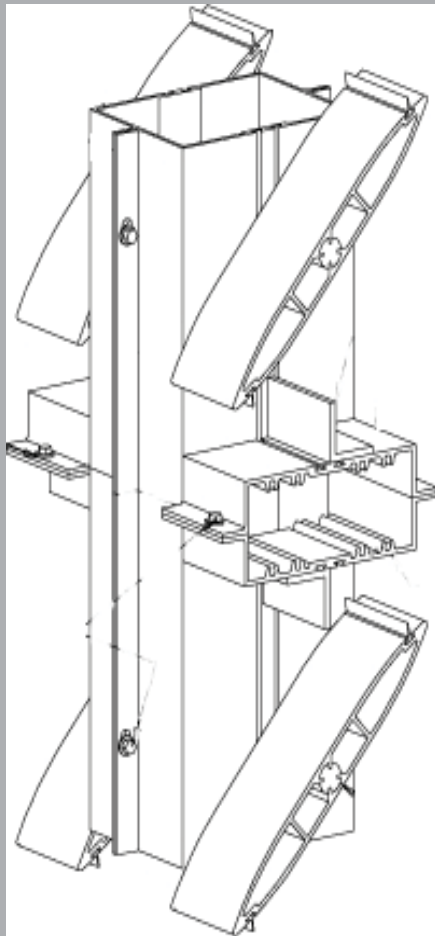


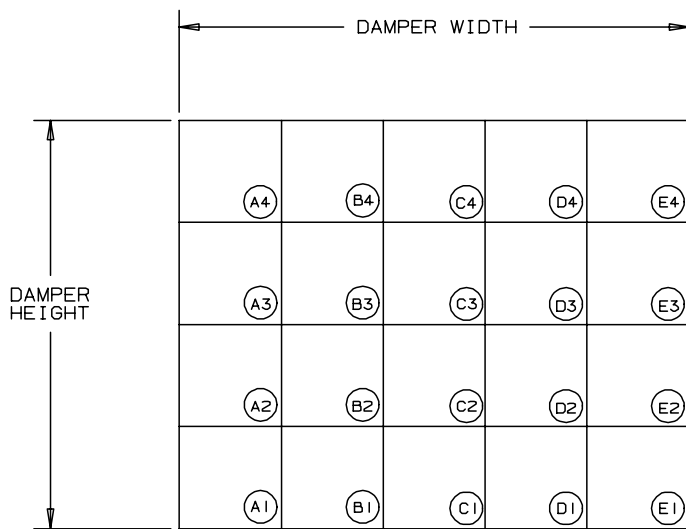


ARROW UNITED

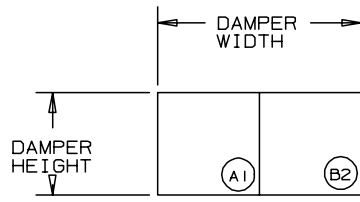


DAMPER
CONSTRUCTION
DETAILS

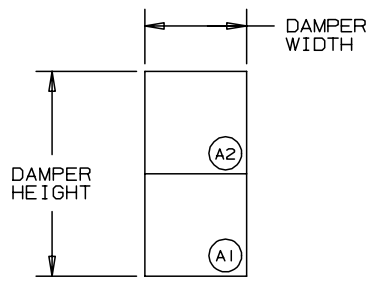
DAMPER TAGGING



REAR ELEVATION

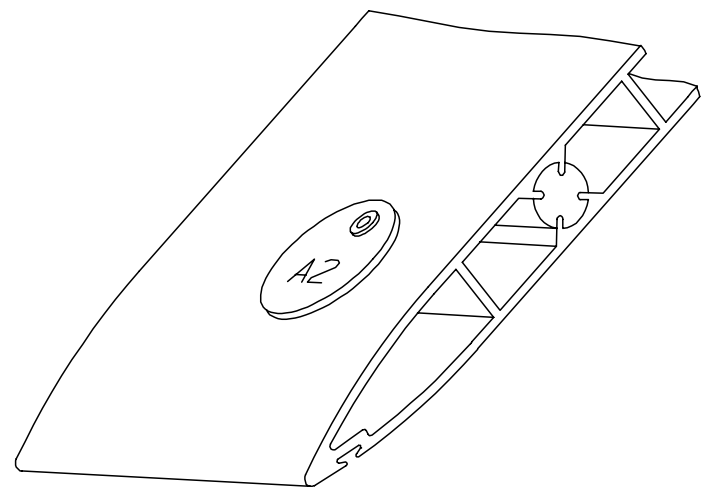


REAR ELEVATION



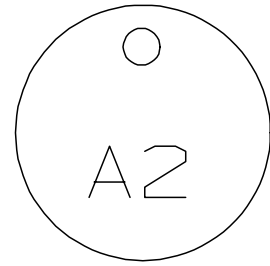
REAR ELEVATION

♦♦ ALL TAG IDENTIFICATION WILL BE LOCATED AT THE REAR OF ALL DAMPER SECTIONS, IN THE LOCATIONS SHOWN ON THE ABOVE ELEVATIONS. TAGS WILL BE APPROX. 1 1/4" DIA. ALUMINUM, WITH 1/4" HIGH LETTERING STAMPED INTO THE ALUMINUM. TAGS WILL BE RIVETED TO THE BOTTOM HALF OF THE FIRST BLADE OF EACH SECTION.



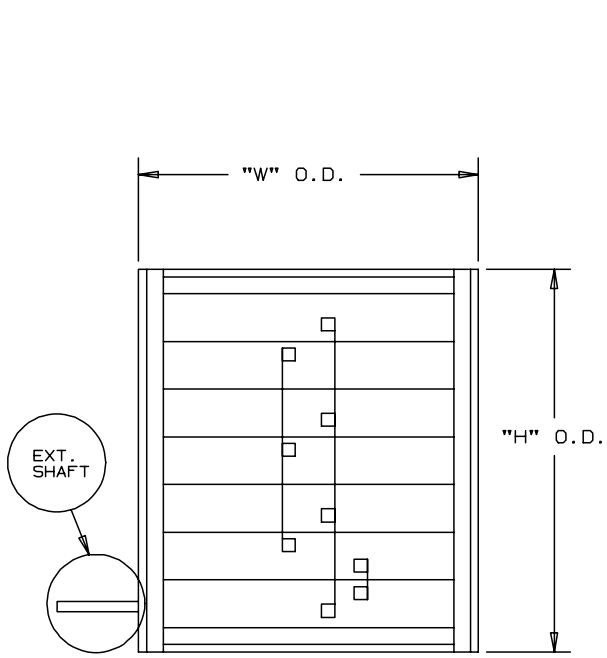
DAMPER TAG MOUNTING
DETAIL

• FRAME MEMBERS NOT SHOWN FOR CLARITY.

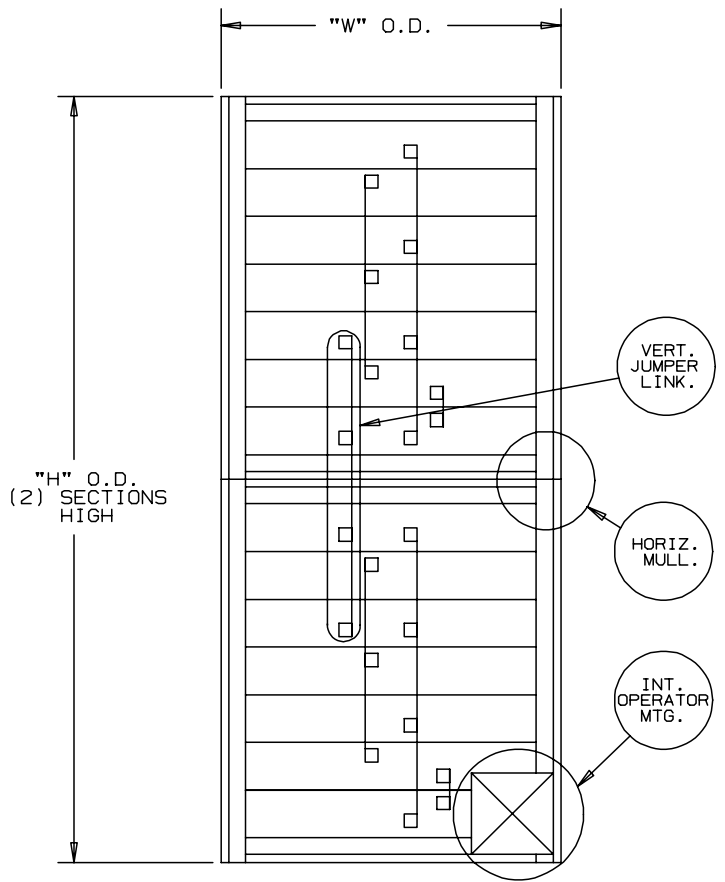


DAMPER TAG
DETAIL

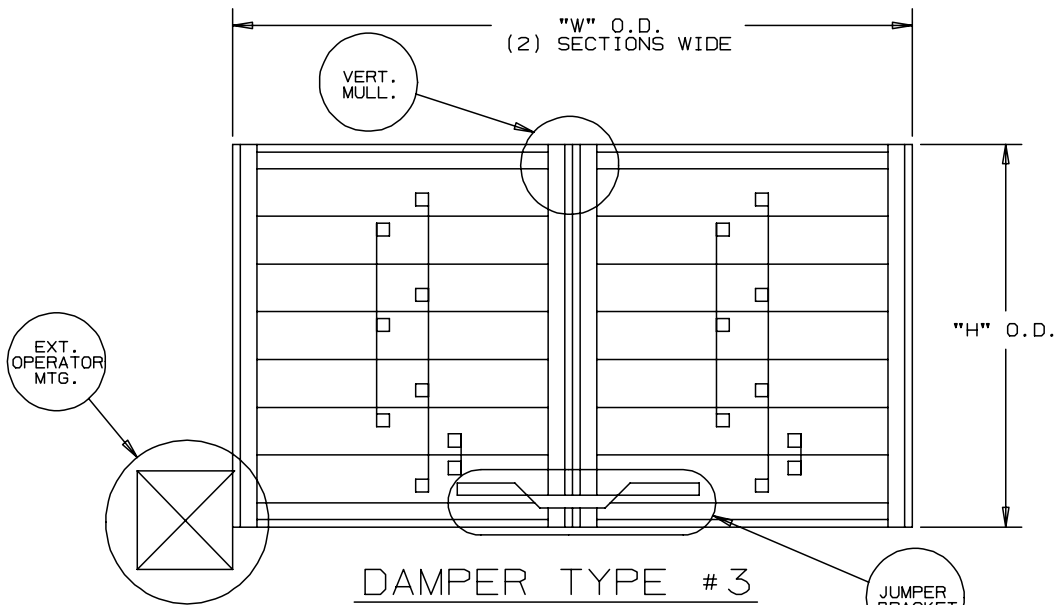
TYPICAL SCHEMATIC DAMPER ELEVATIONS



DAMPER TYPE # 1
SINGLE PANEL WITH EXTENDED SHAFT

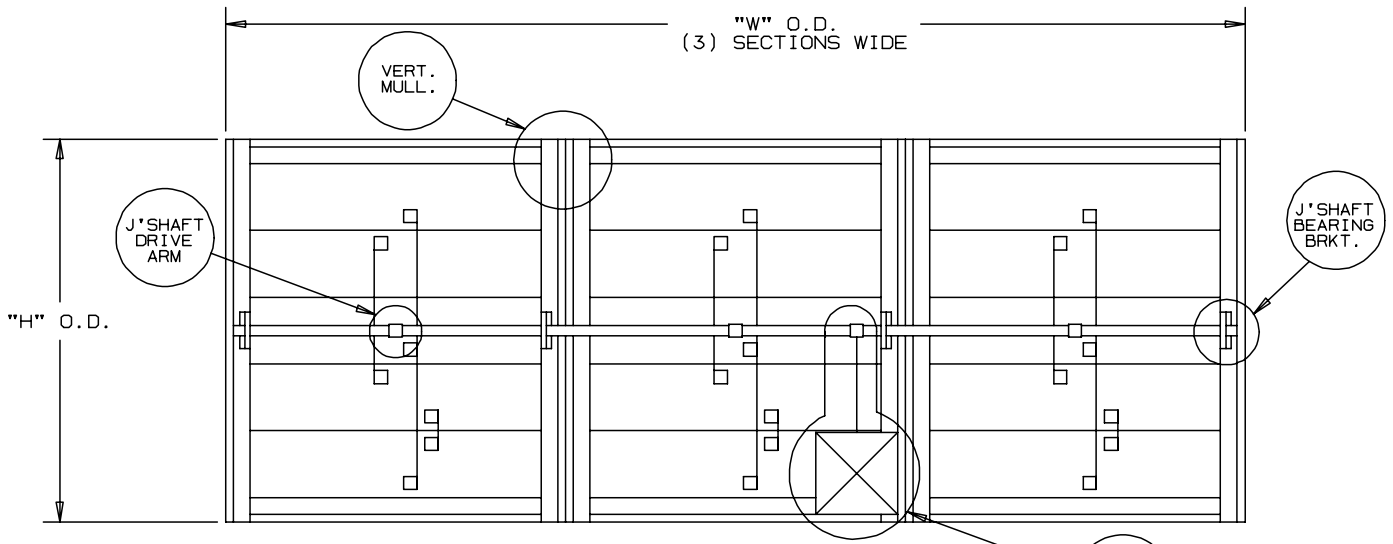


DAMPER TYPE # 2
HORIZONTAL MULLION WITH VERTICAL JUMPER LINKAGE AND INTERNALLY MOUNTED OPERATOR ONE SECTION WIDE BY TWO SECTIONS HIGH



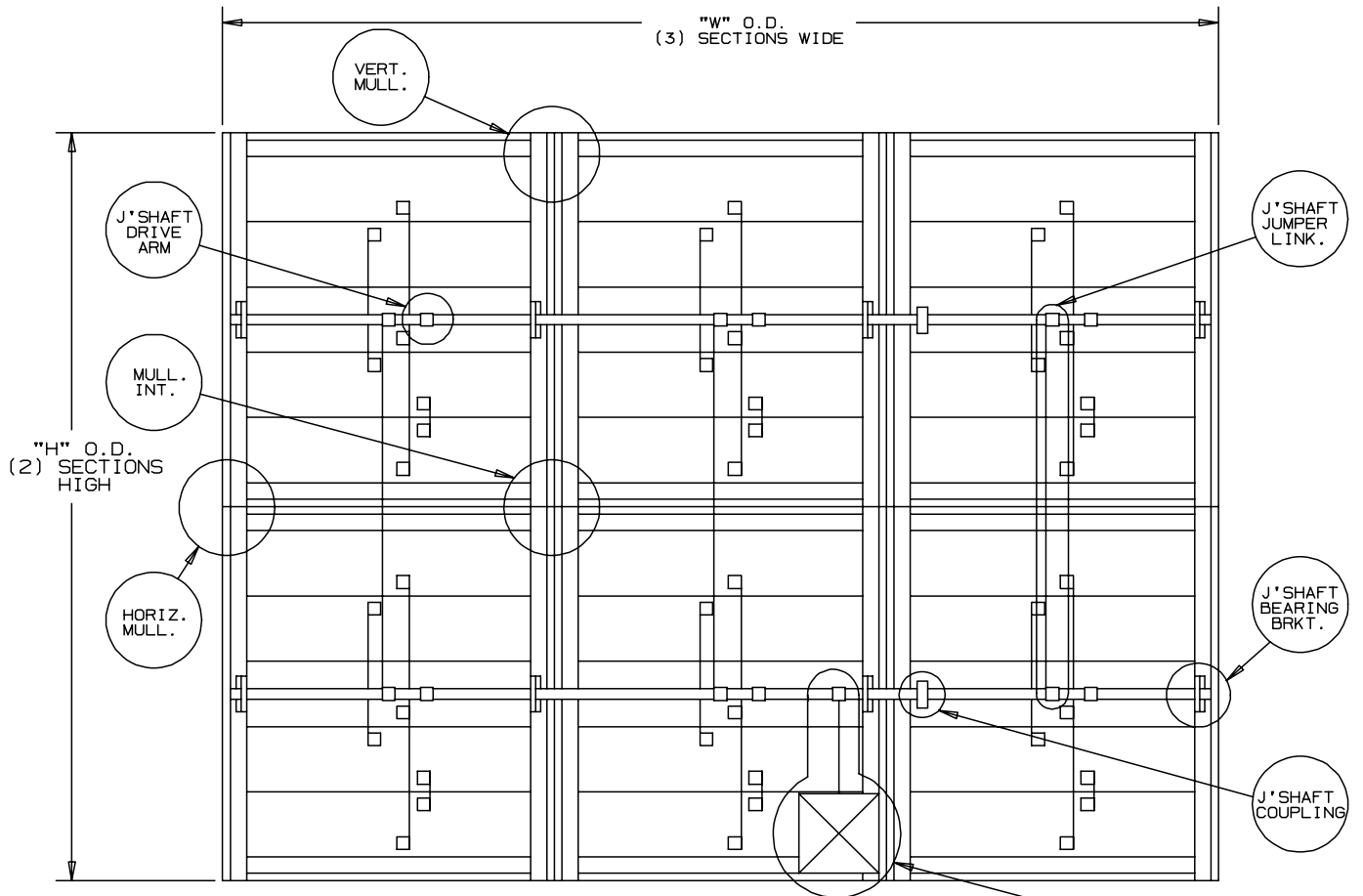
DAMPER TYPE # 3
VERTICAL MULLION WITH JUMPER BRACKET, EXTENDED SHAFT AND EXTERNALLY MOUNTED OPERATOR TWO SECTIONS WIDE BY ONE SECTION HIGH

TYPICAL SCHEMATIC DAMPER ELEVATIONS



DAMPER TYPE #4

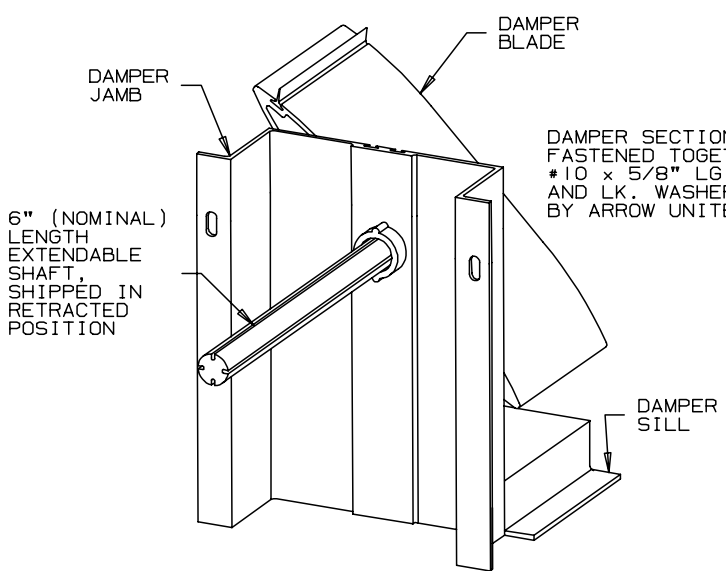
VERTICAL MULLIONS WITH JACKSHAFTING AND INTERNALLY MOUNTED OPERATOR DRIVING TO JACKSHAFTING MULTI-SECTIONS WIDE BY ONE SECTION HIGH



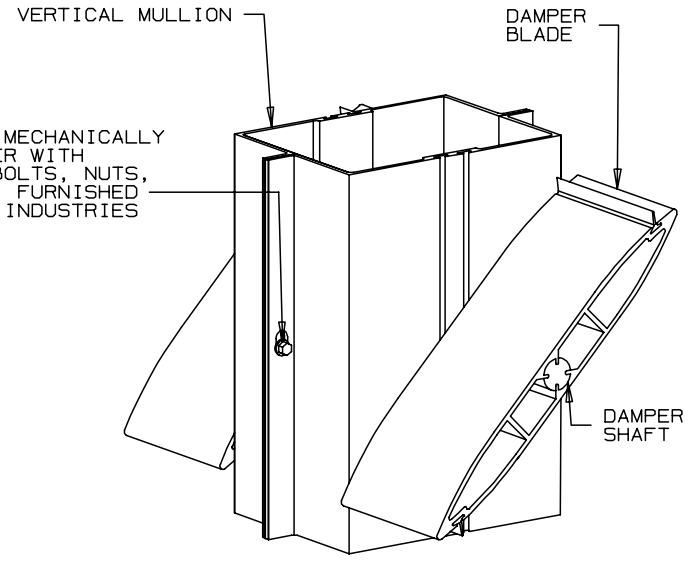
DAMPER TYPE #5

VERTICAL AND HORIZONTAL MULLIONS WITH INTERCONNECTED JACKSHAFTING AND INTERNALLY MOUNTED OPERATOR DRIVING TO LOWER JACKSHAFT MULTI-SECTIONS WIDE BY MULTI-SECTIONS HIGH

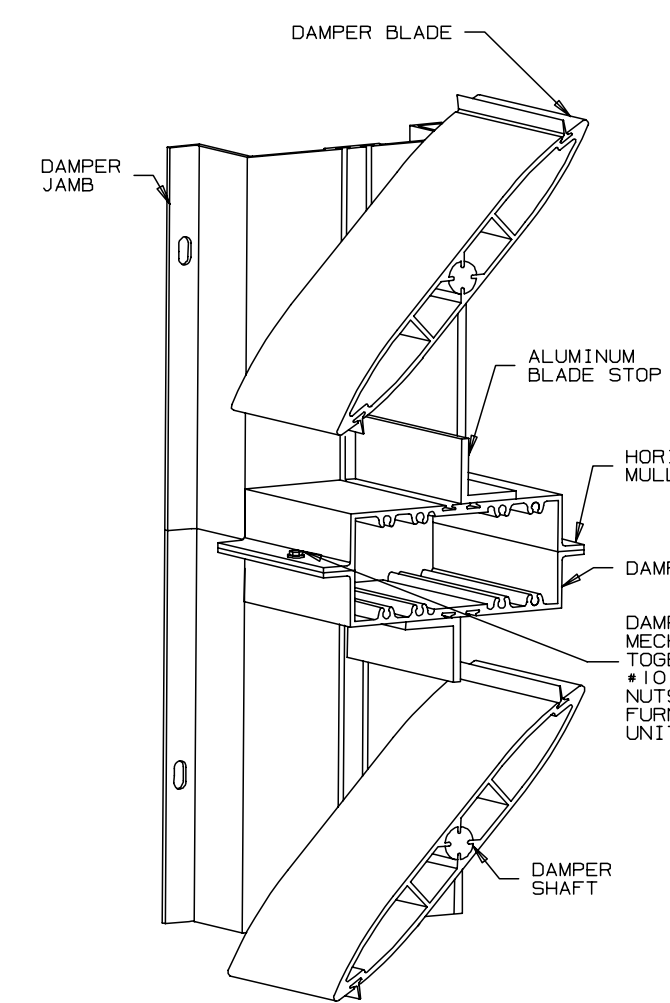
EXTRUDED ALUMINUM DAMPER DETAILS



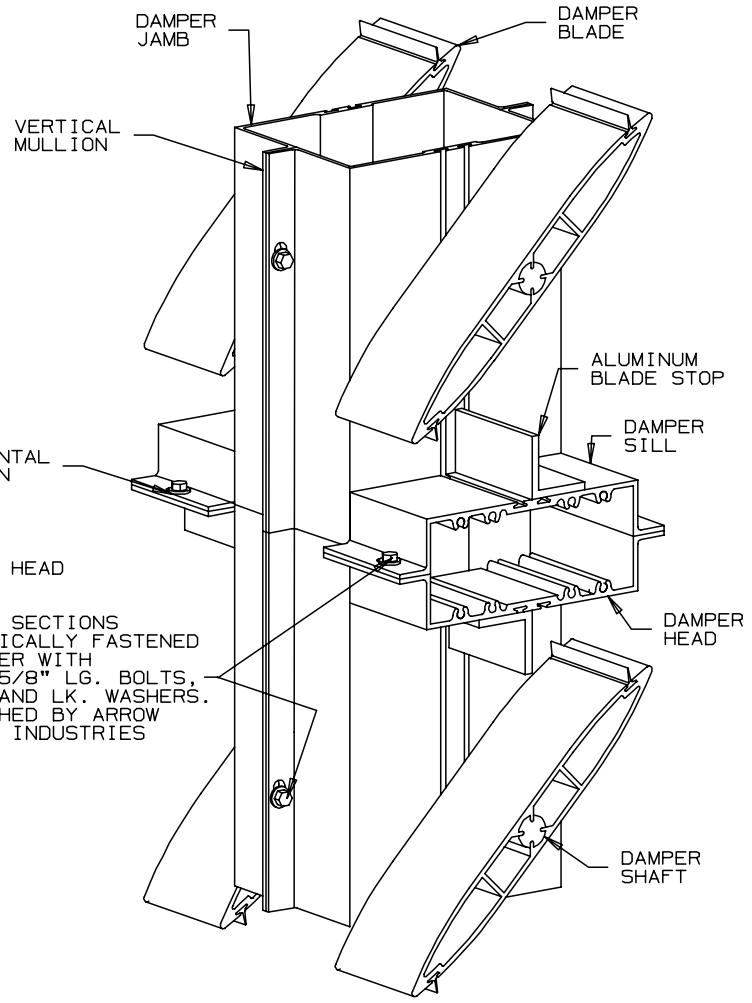
DETAIL # 1



DETAIL # 2



DETAIL # 3

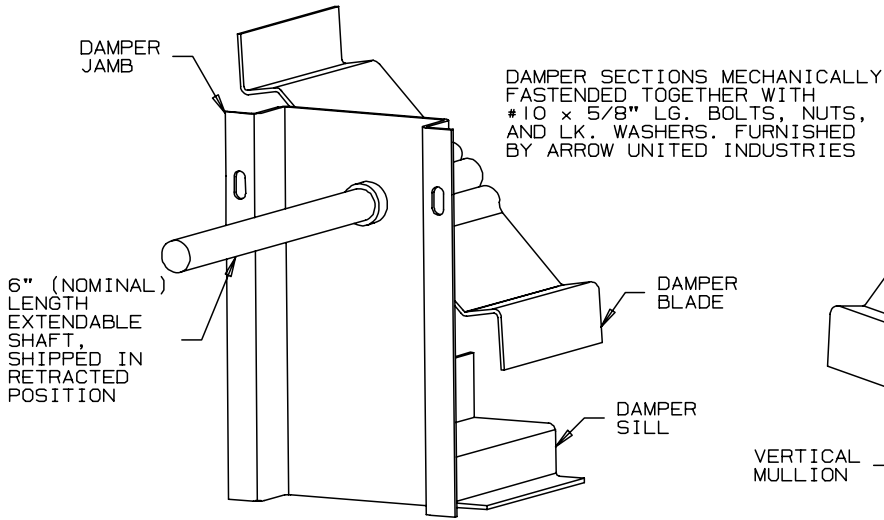


DETAIL # 4

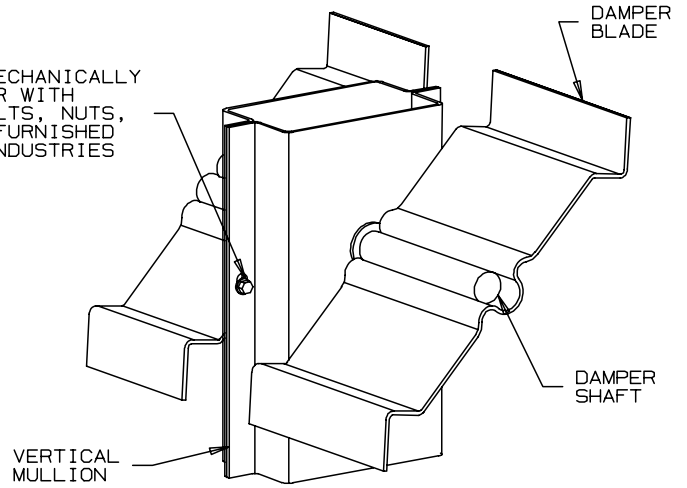
DAMPER SECTIONS MECHANICALLY FASTENED TOGETHER WITH #10 x 5/8" LG. BOLTS, NUTS, AND LK. WASHERS. FURNISHED BY ARROW UNITED INDUSTRIES

DAMPER SECTIONS MECHANICALLY FASTENED TOGETHER WITH #10 x 5/8" LG. BOLTS, NUTS, AND LK. WASHERS. FURNISHED BY ARROW UNITED INDUSTRIES

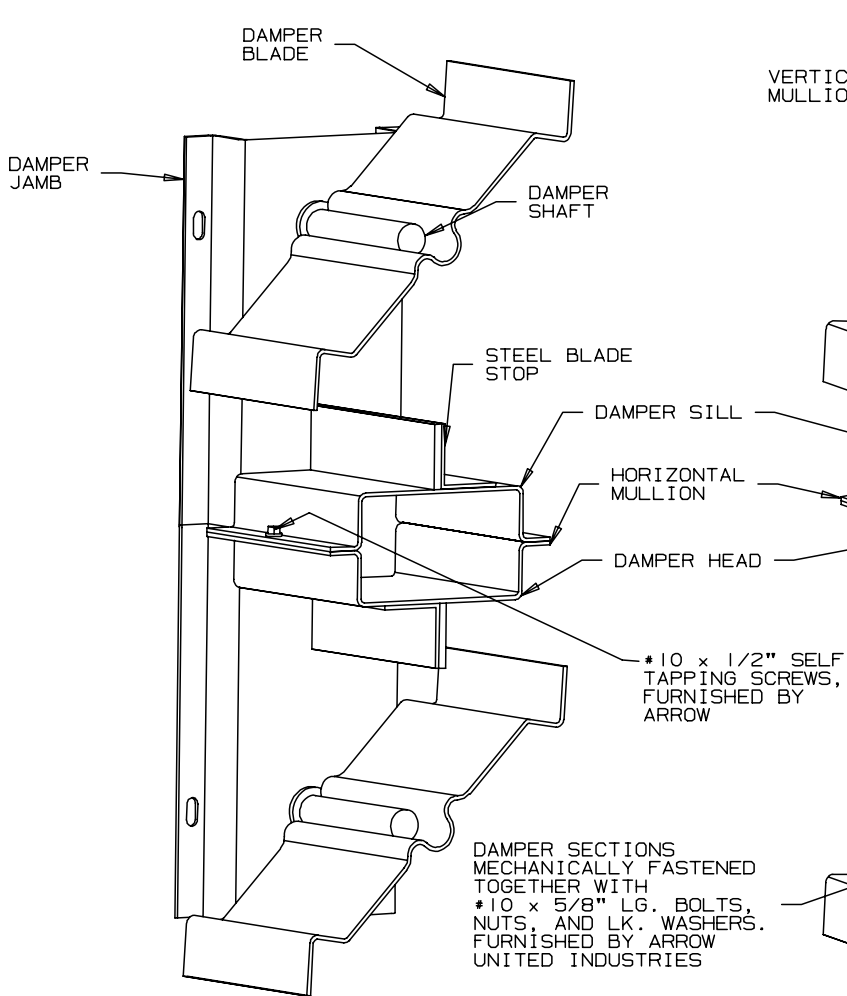
FABRICATED STEEL DAMPER DETAILS



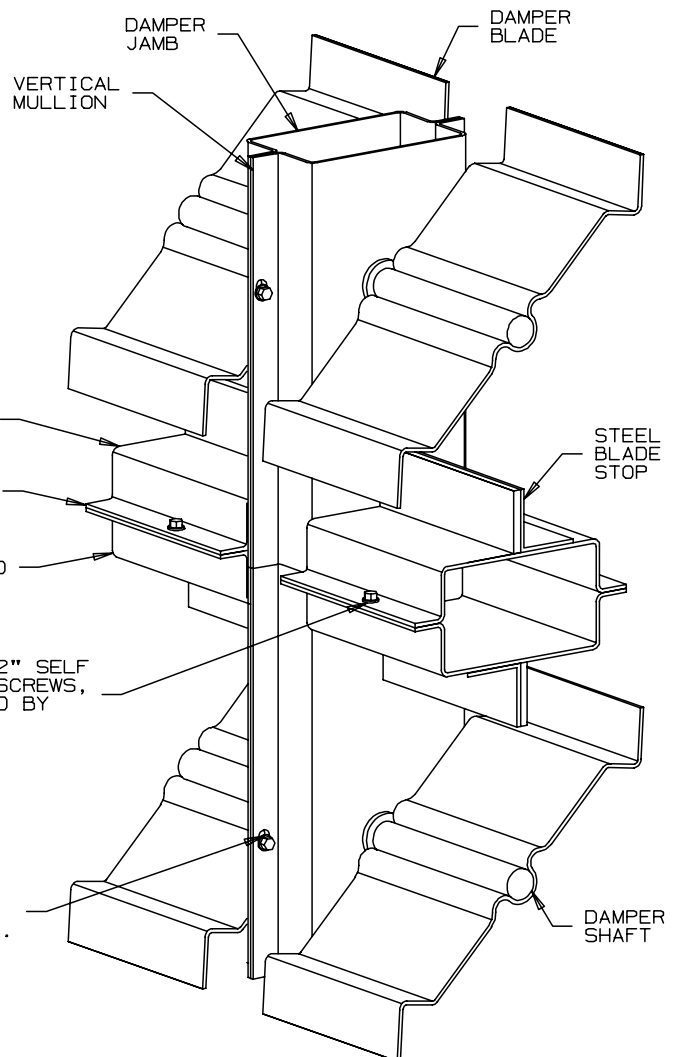
DETAIL # 5



DETAIL # 6

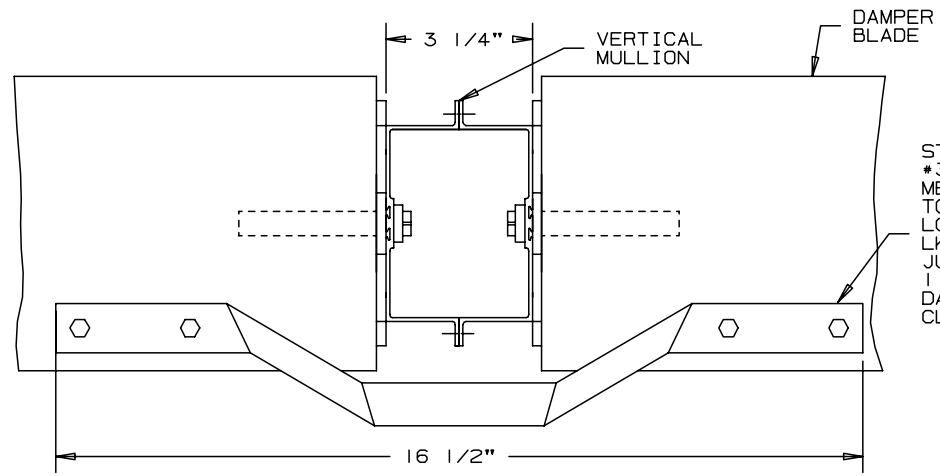


DETAIL # 7



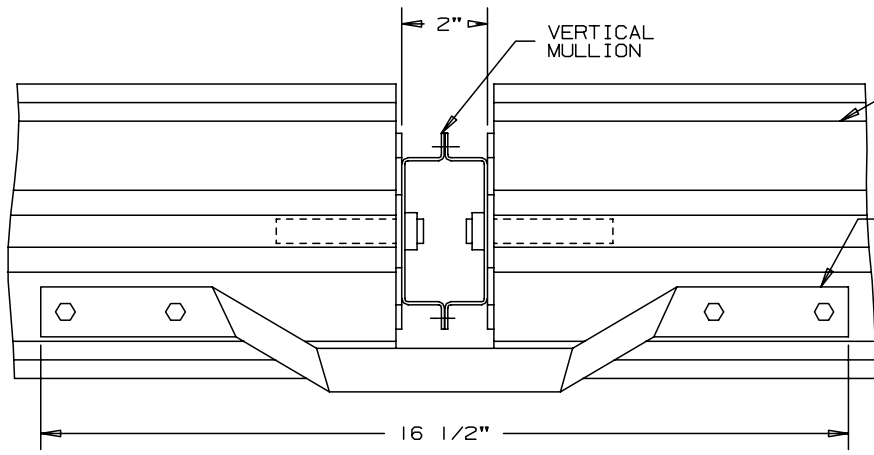
DETAIL # 8

DAMPER INTERCONNECTING DETAILS



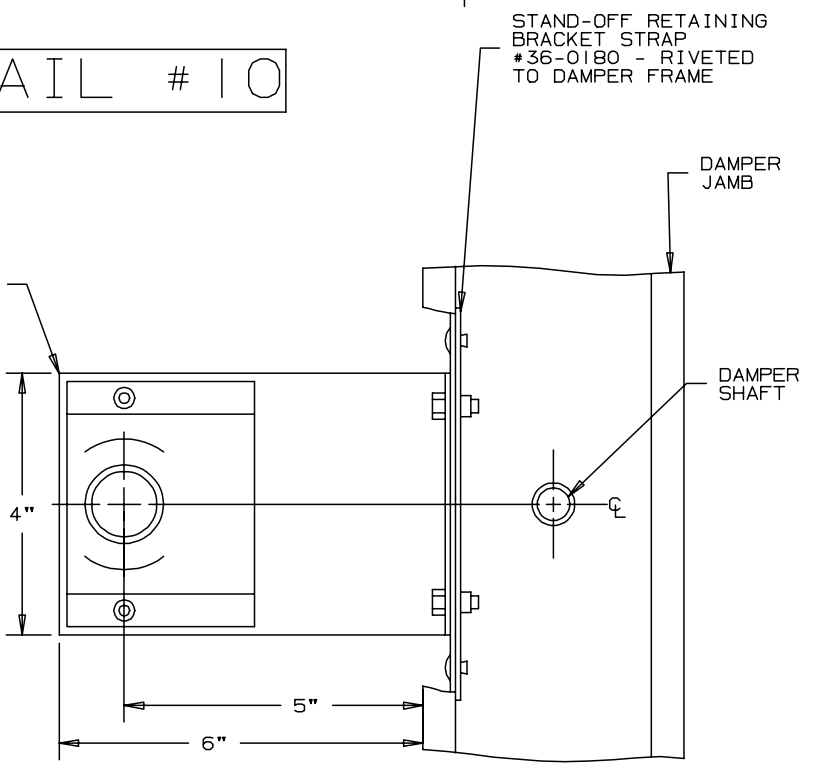
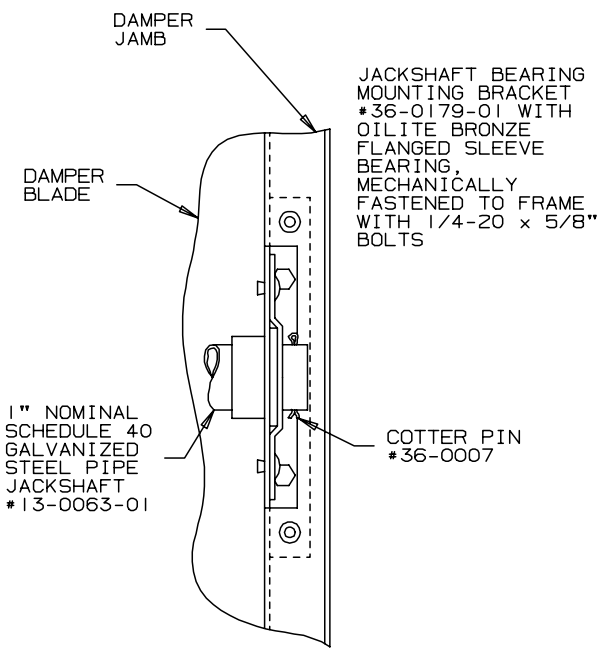
STEEL JUMPER BRACKET #38-0018-01, MECHANICALLY FASTENED TO BLADE WITH #10 x 1" LG. BOLTS, NUTS, AND LK. WASHERS
 JUMPER BRACKET EXTENDS 1 1/2" FROM FACE OF DAMPER FRAME IN THE CLOSED POSITION

DETAIL # 9



STEEL JUMPER BRACKET #38-0017-01, MECHANICALLY FASTENED TO BLADE WITH #10 x 5/8" LG. BOLTS, NUTS, AND LK. WASHERS
 JUMPER BRACKET EXTENDS 1" FROM FACE OF DAMPER FRAME IN THE CLOSED POSITION

DETAIL # 10

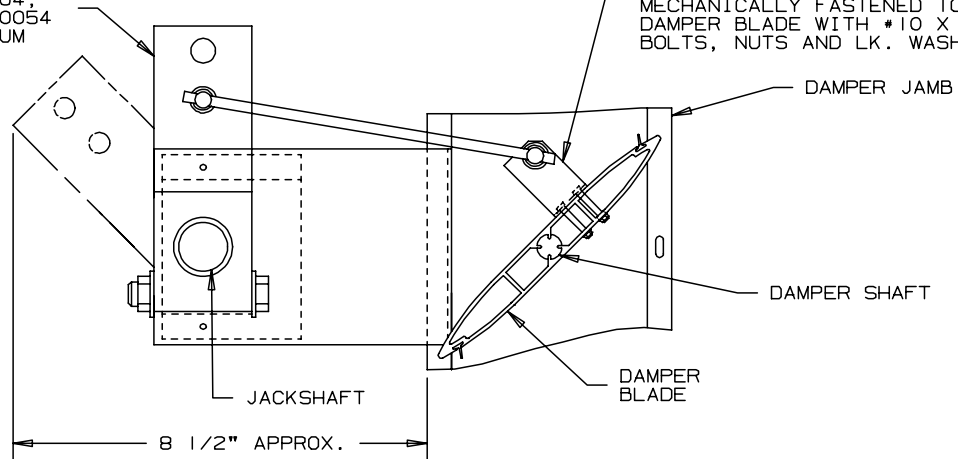


DETAIL # 11

DAMPER INTERCONNECTING DETAILS

H.D. DRIVE ARM #36-0168-05
WITH TRUNNION #36-0113-02,
CELCON BEARING #34-0004,
AND NYLON WASHER #34-0054
AND 5/16" DIA. ALUMINUM
INTERCONNECTING ROD

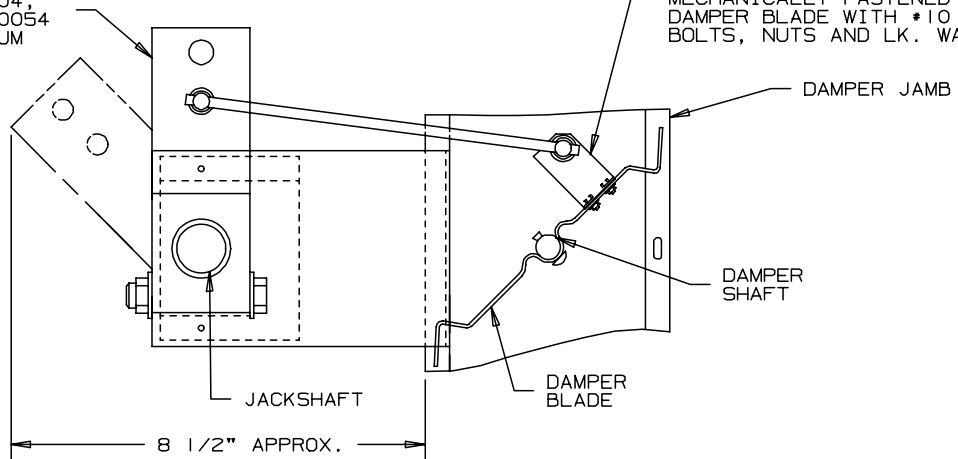
BLADE CLIP #38-0120-01
WITH TRUNNION #36-0113-02,
CELCON BEARING #34-0004,
AND NYLON WASHER #34-0054
MECHANICALLY FASTENED TO
DAMPER BLADE WITH #10 X 1" LG.
BOLTS, NUTS AND LK. WASHERS



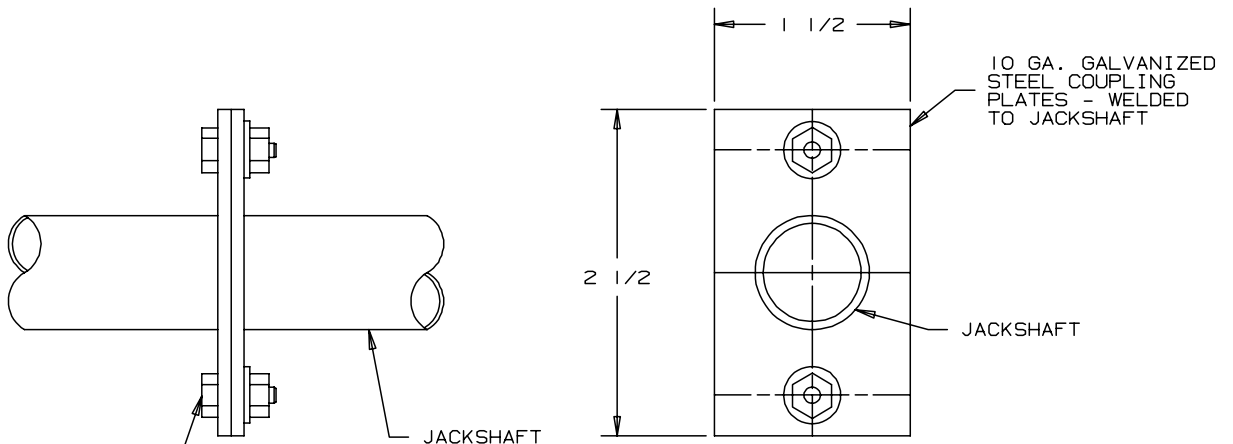
DETAIL # 12

H.D. DRIVE ARM #36-0168-05
WITH TRUNNION #36-0113-02,
CELCON BEARING #34-0004,
AND NYLON WASHER #34-0054
AND 5/16" DIA. ALUMINUM
INTERCONNECTING ROD

BLADE CLIP #38-0120-01
WITH TRUNNION #36-0113-02,
CELCON BEARING #34-0004,
AND NYLON WASHER #34-0054
MECHANICALLY FASTENED TO
DAMPER BLADE WITH #10 X 1" LG.
BOLTS, NUTS AND LK. WASHERS



DETAIL # 13

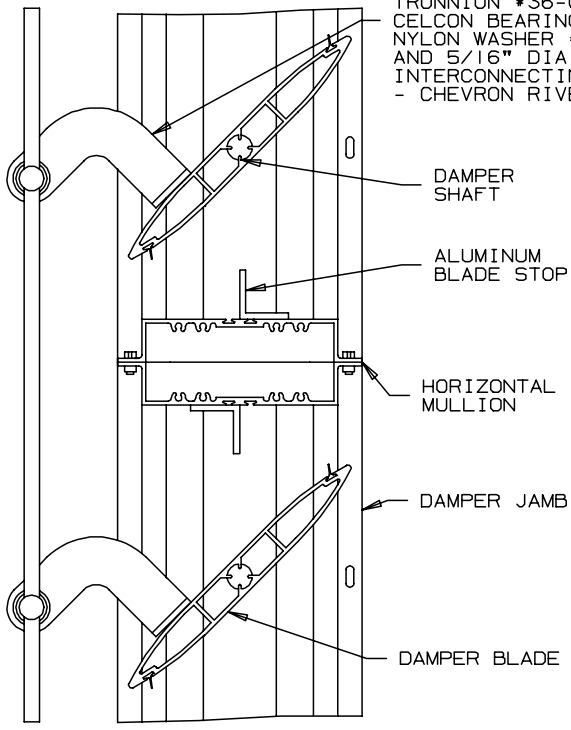


1/4 X 3/4" LG. BOLTS
WITH NUTS AND LK.
WASHERS

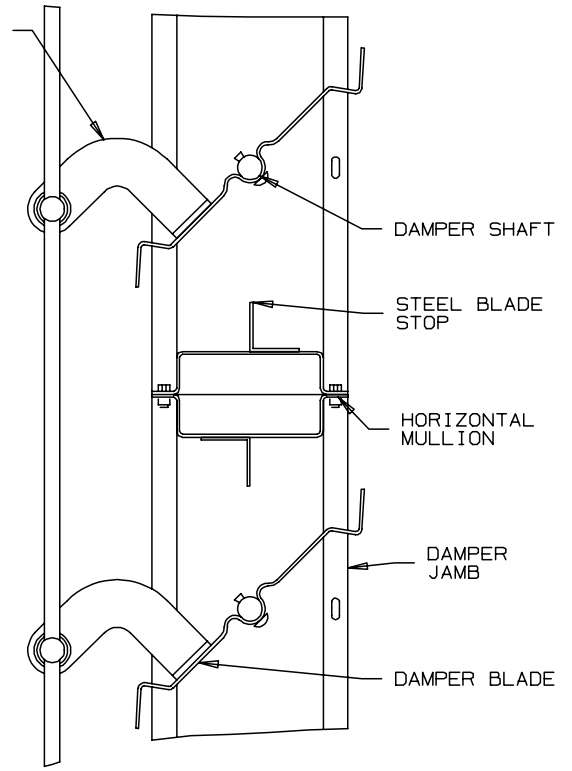
DETAIL # 14

DAMPER INTERCONNECTING DETAILS

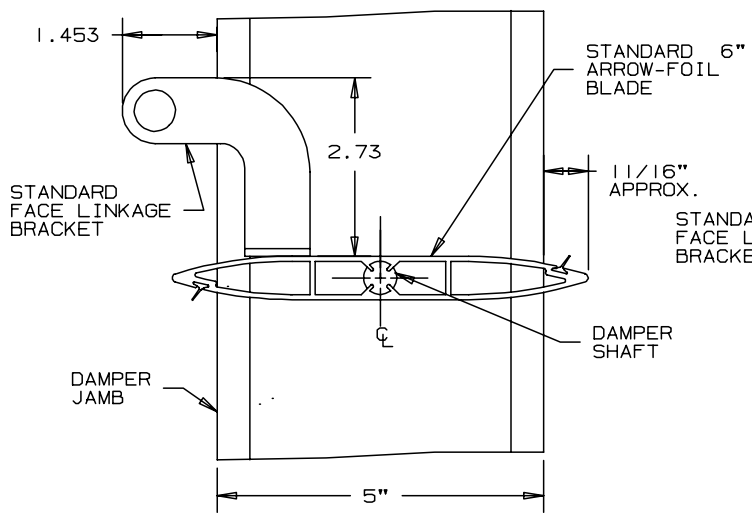
INTERCONNECTING LINKAGE
 CONSISTING OF: CHEVRON
 #38-0055-01 WITH
 TRUNNION #36-0113-02,
 CELCON BEARING #34-0004,
 NYLON WASHER #34-0054,
 AND 5/16" DIA. ALUMINUM
 INTERCONNECTING ROD.
 - CHEVRON RIVETED TO BLADE



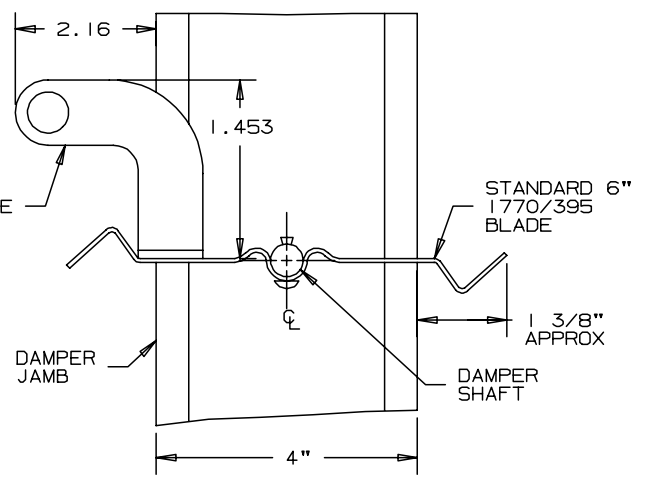
DETAIL # 15



DETAIL # 16

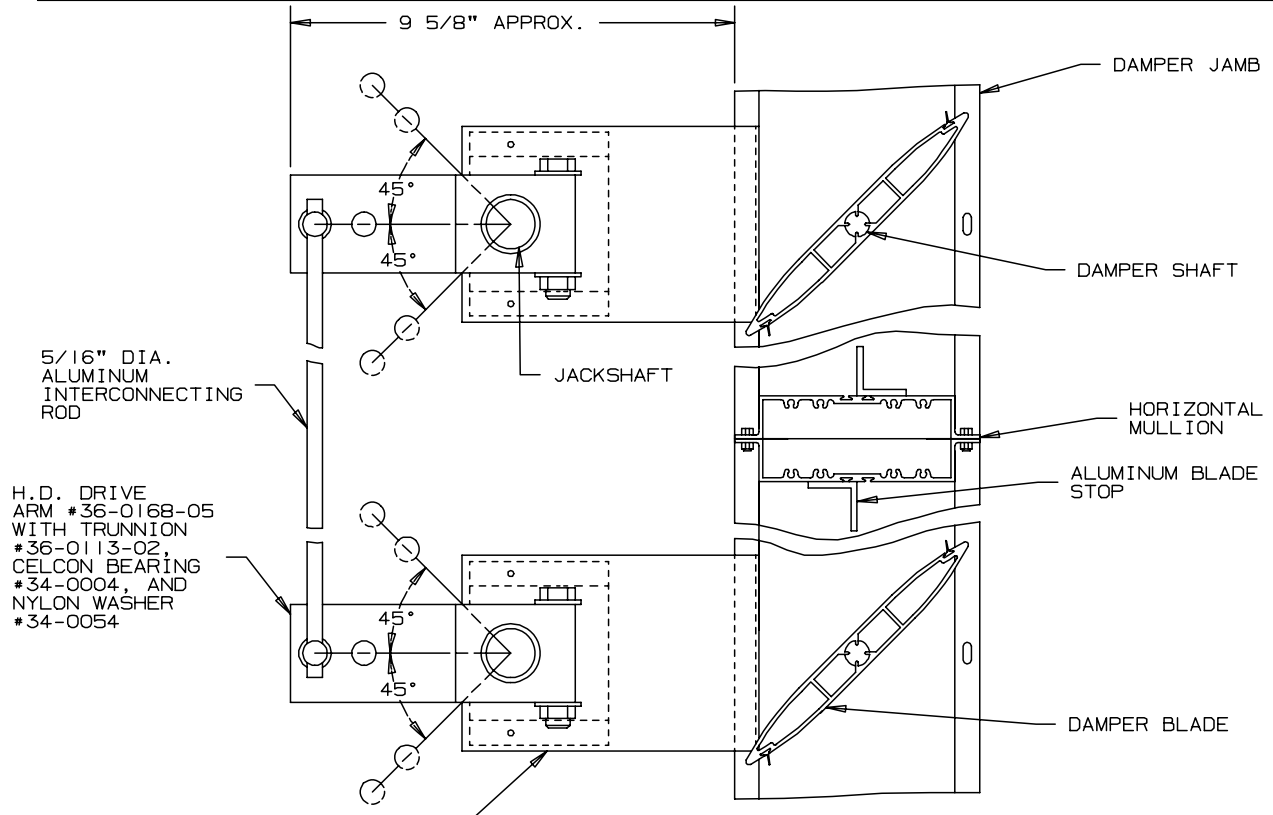


DETAIL # 17



DETAIL # 18

DAMPER INTERCONNECTING DETAILS

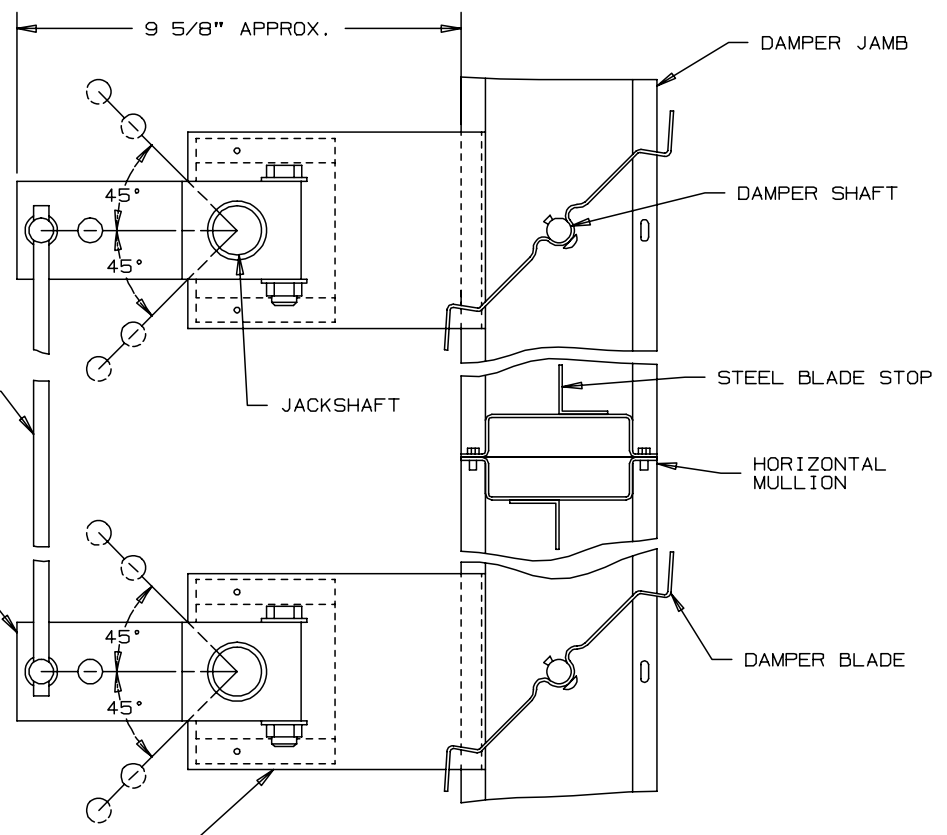


5/16" DIA.
ALUMINUM
INTERCONNECTING
ROD

H.D. DRIVE
ARM #36-0168-05
WITH TRUNNION
#36-0113-02,
CELCON BEARING
#34-0004, AND
NYLON WASHER
#34-0054

DETAIL # 19

JACKSHAFT BEARING MOUNTING
BRACKET #36-0179-01
- MECHANICALLY FASTENED
TO FRAME (SEE DETAIL #11
FOR MOUNTING DETAIL)



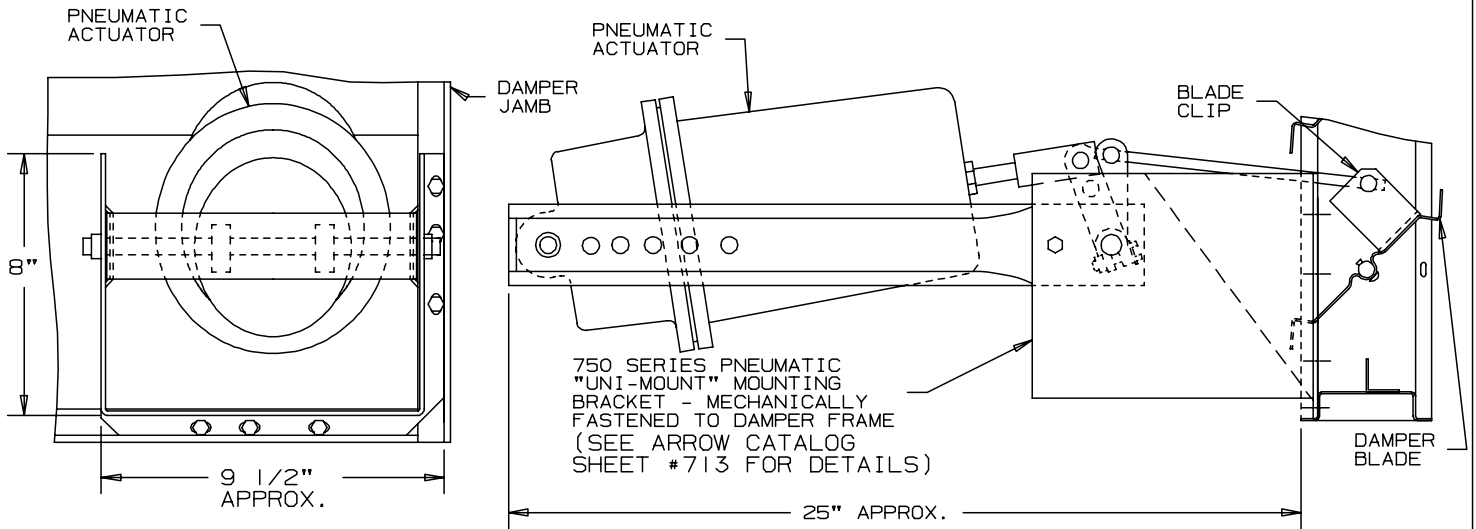
5/16" DIA.
ALUMINUM
INTERCONNECTING
ROD

H.D. DRIVE
ARM #36-0168-05
WITH TRUNNION
#36-0113-02,
CELCON BEARING
#34-0004, AND
NYLON WASHER
#34-0054

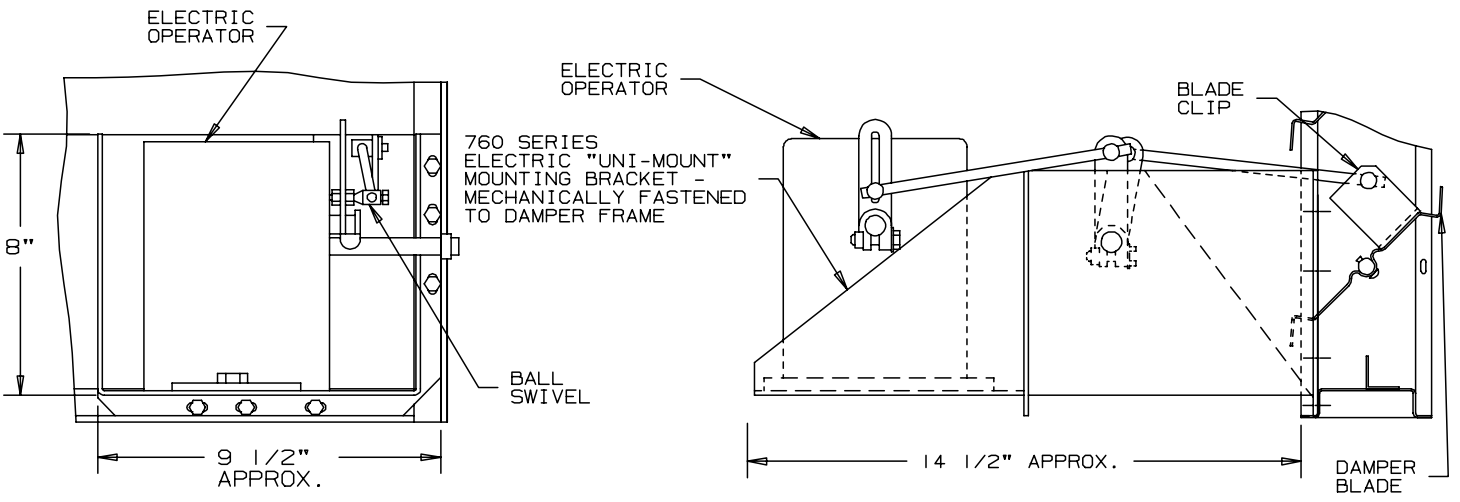
DETAIL # 20

JACKSHAFT BEARING MOUNTING
BRACKET #36-0179-01
- MECHANICALLY FASTENED
TO FRAME (SEE DETAIL #11
FOR MOUNTING DETAIL)

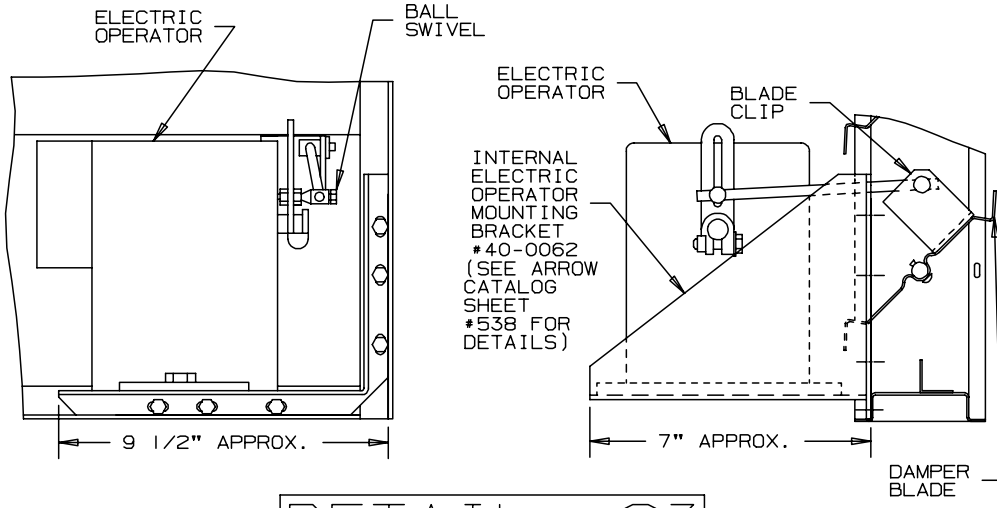
OPERATOR MOUNTING DETAILS



DETAIL # 21

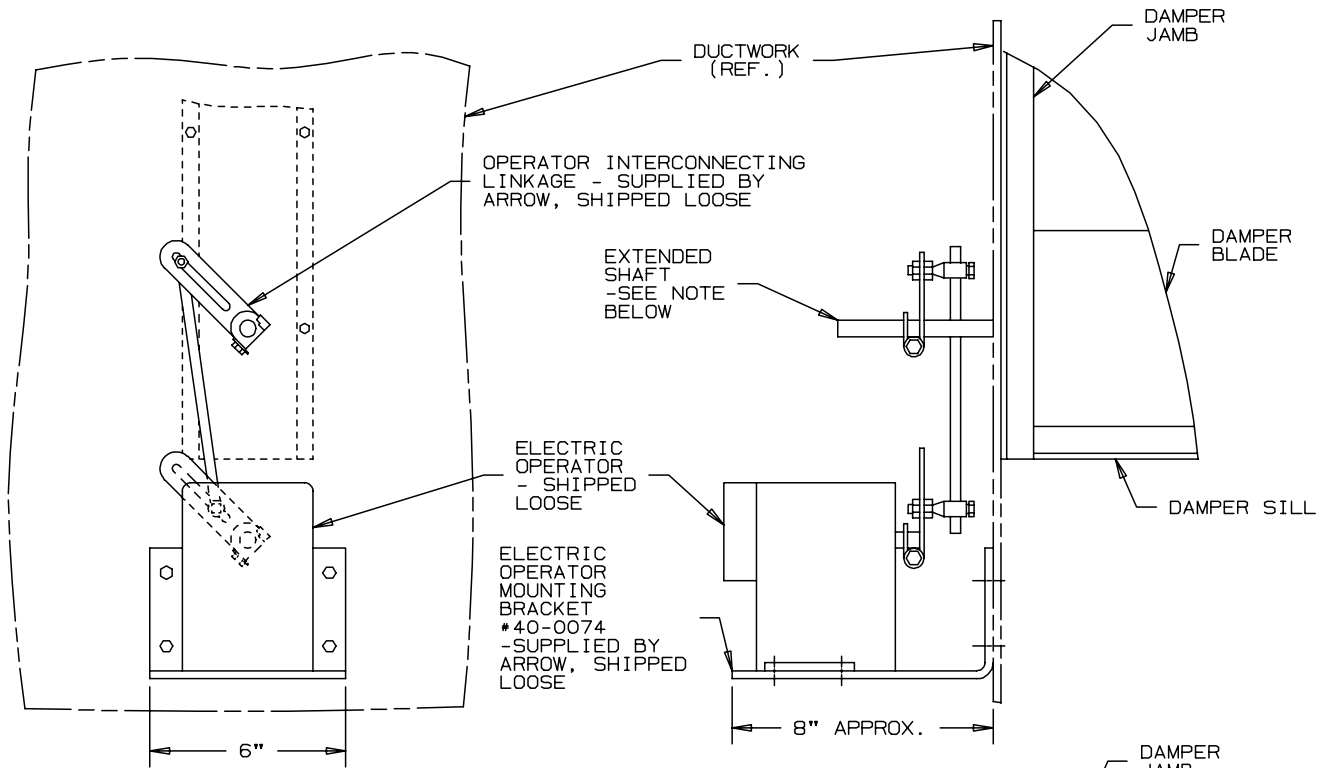


DETAIL # 22

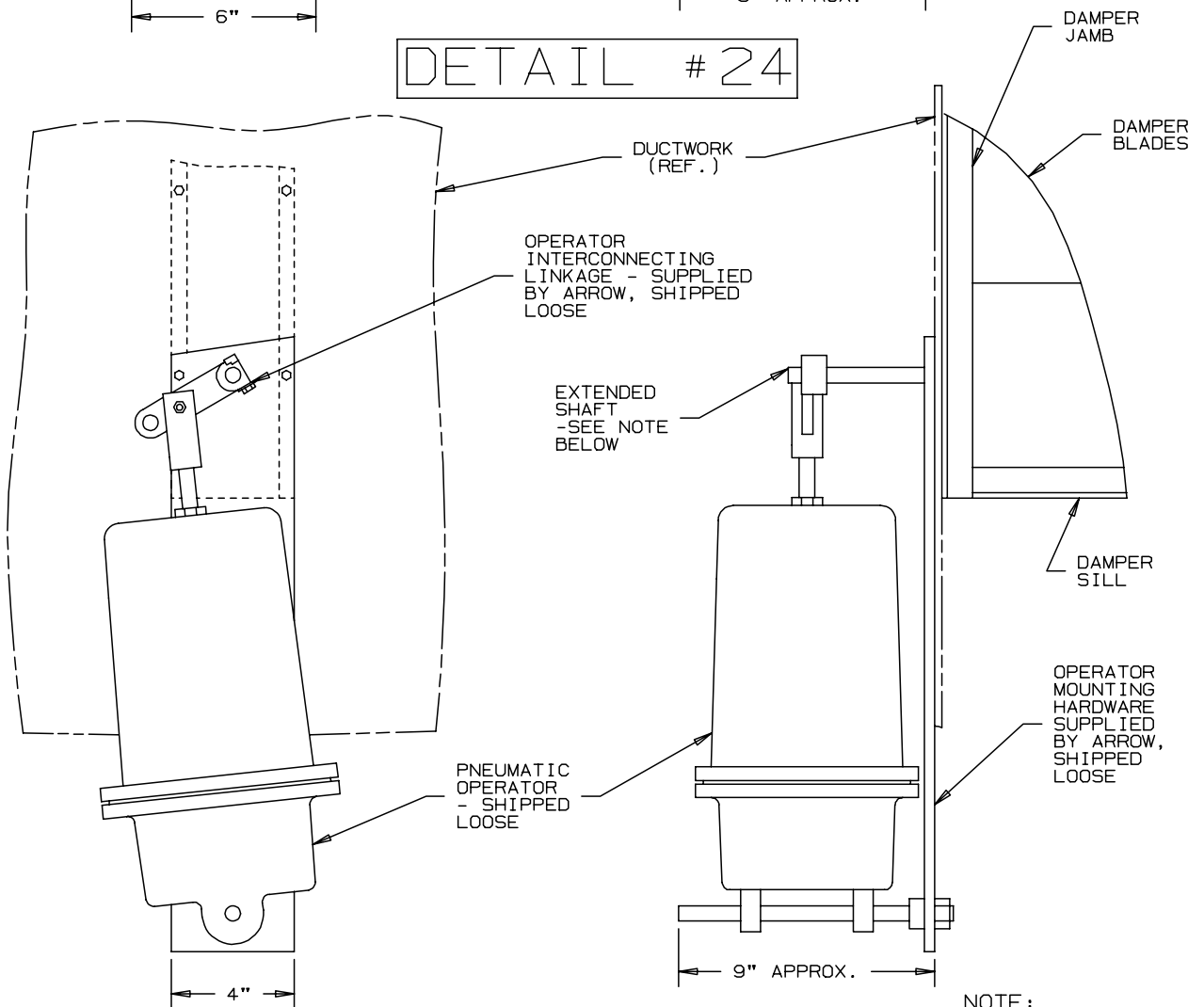


DETAIL # 23

OPERATOR MOUNTING DETAILS



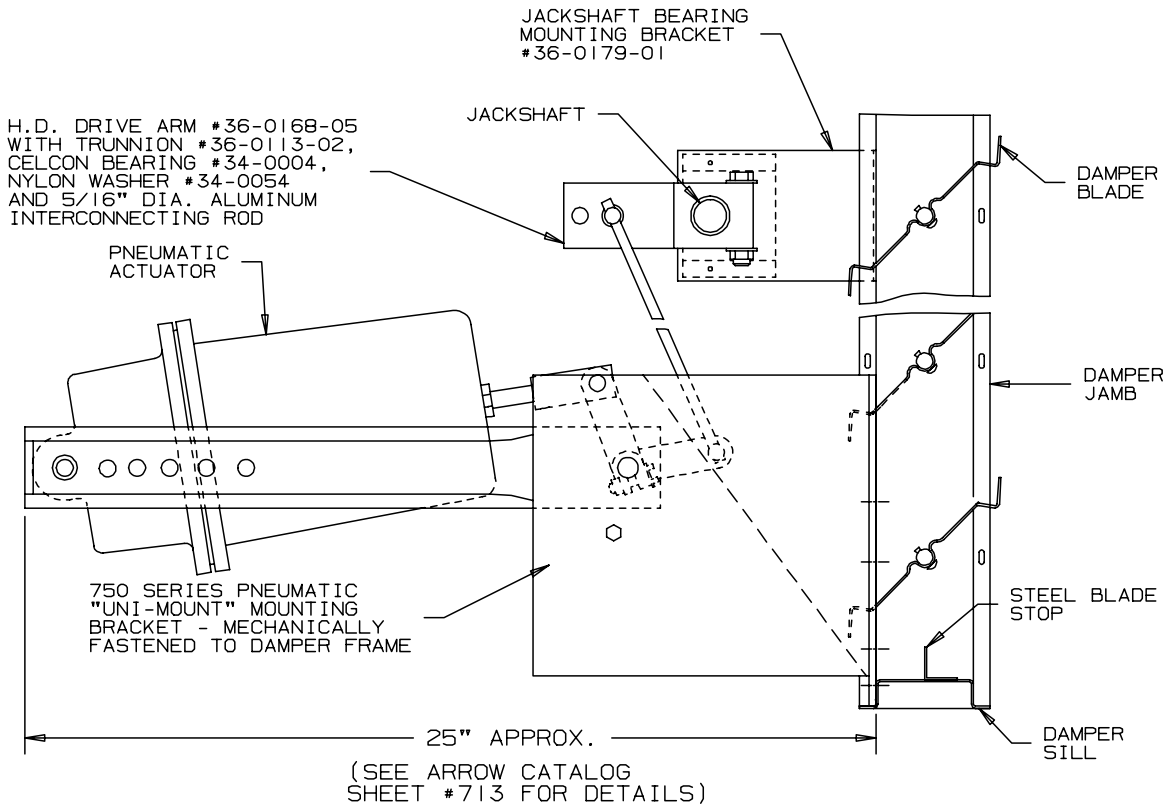
DETAIL # 24



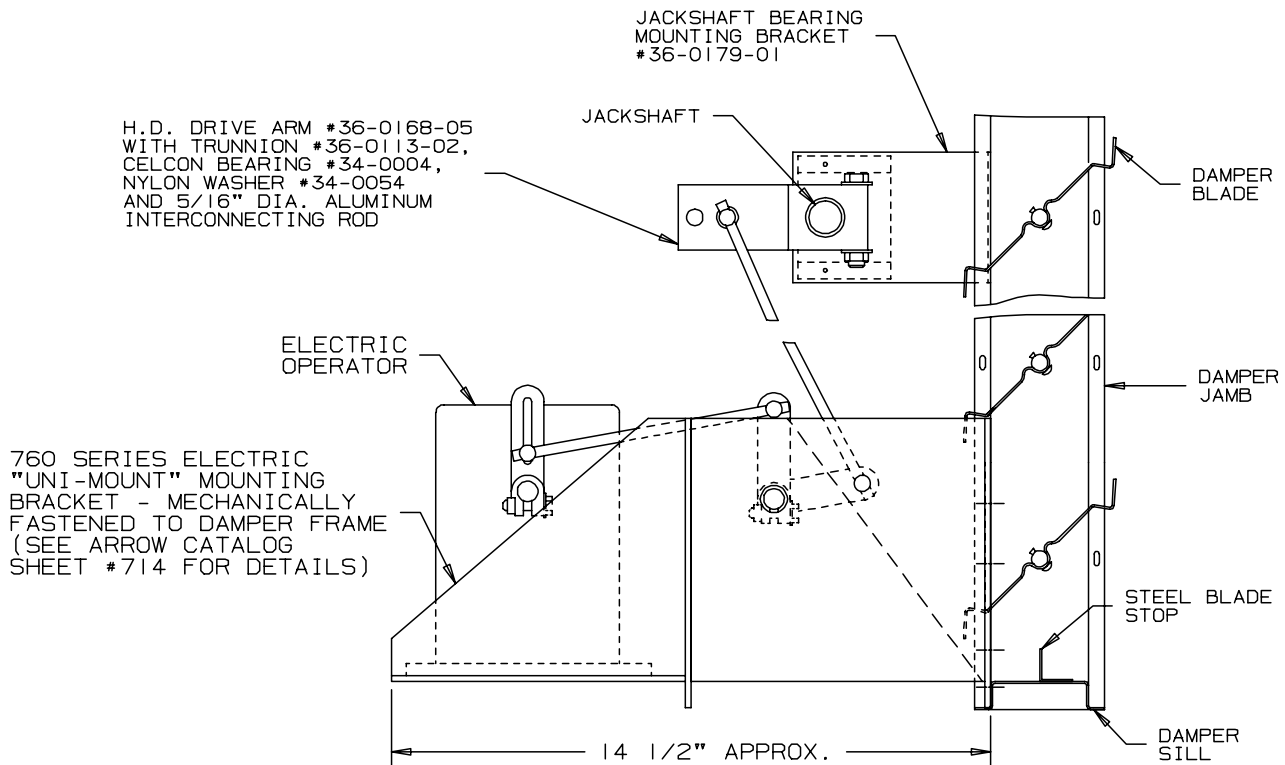
DETAIL # 25

NOTE:
CUSTOMER TO PROVIDE
CLEARANCE HOLE IN
DUCTWORK FOR EXTENDED
SHAFT.

OPERATOR MOUNTING DETAILS

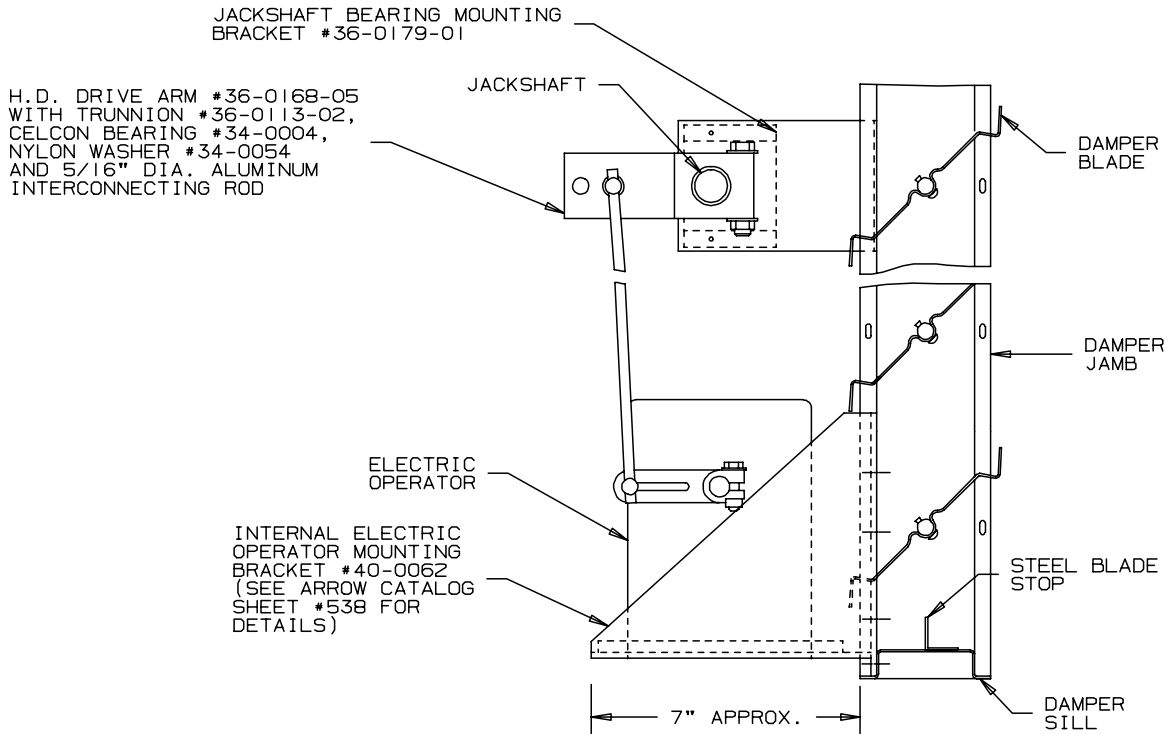


DETAIL # 26



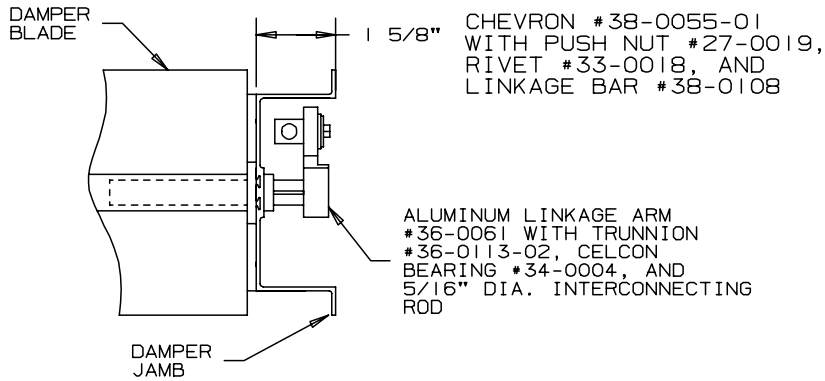
DETAIL # 27

OPERATOR MOUNTING DETAILS

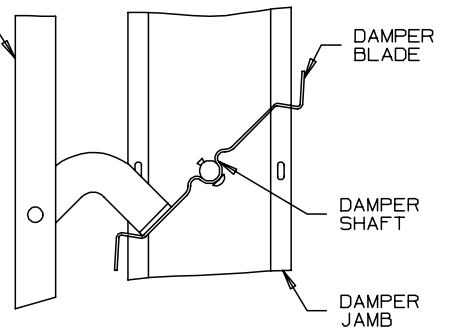


DETAIL # 28

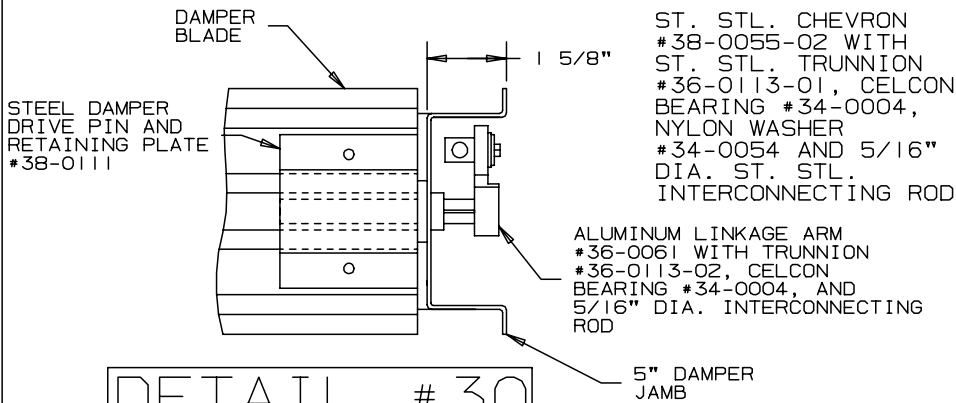
LINKAGE DETAILS



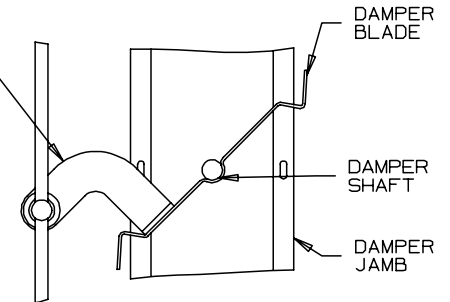
DETAIL # 29



DETAIL # 31



DETAIL # 30



DETAIL # 32