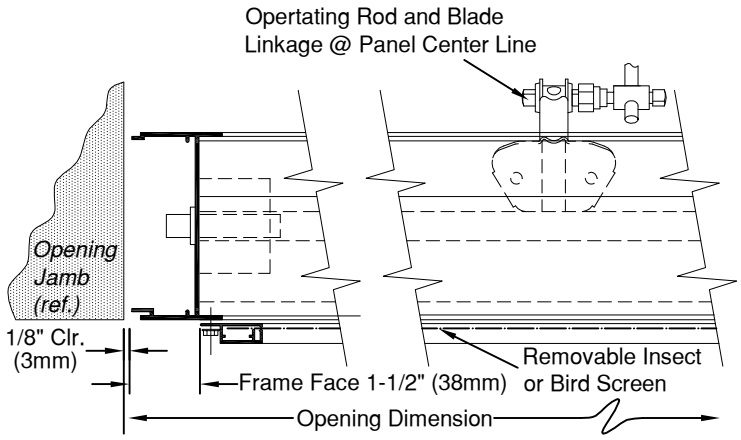
L&L LOUVERS INC.

12355 DOHERTY STREET
RIVERSIDE, CA. 92503
(951) 735-9300 FAX:(951)735-4628
E-MAIL: info@louver1.com

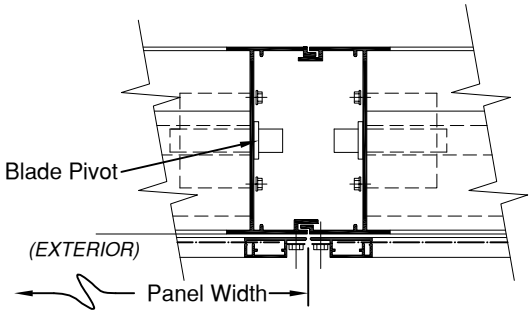
MODEL AX-4054-M

ADJUSTABLE EXT. ALUMINUM LOUVER

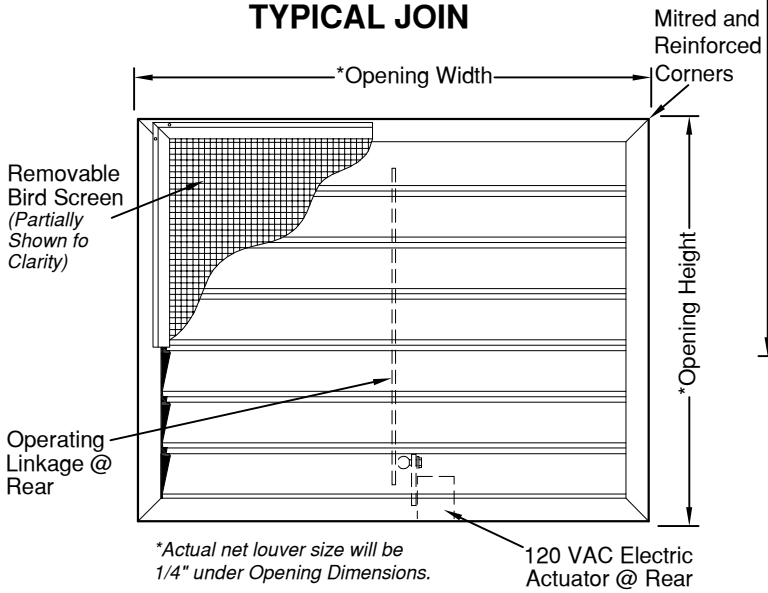
4" Storm Baffled (Motor Operated) 45° Blade



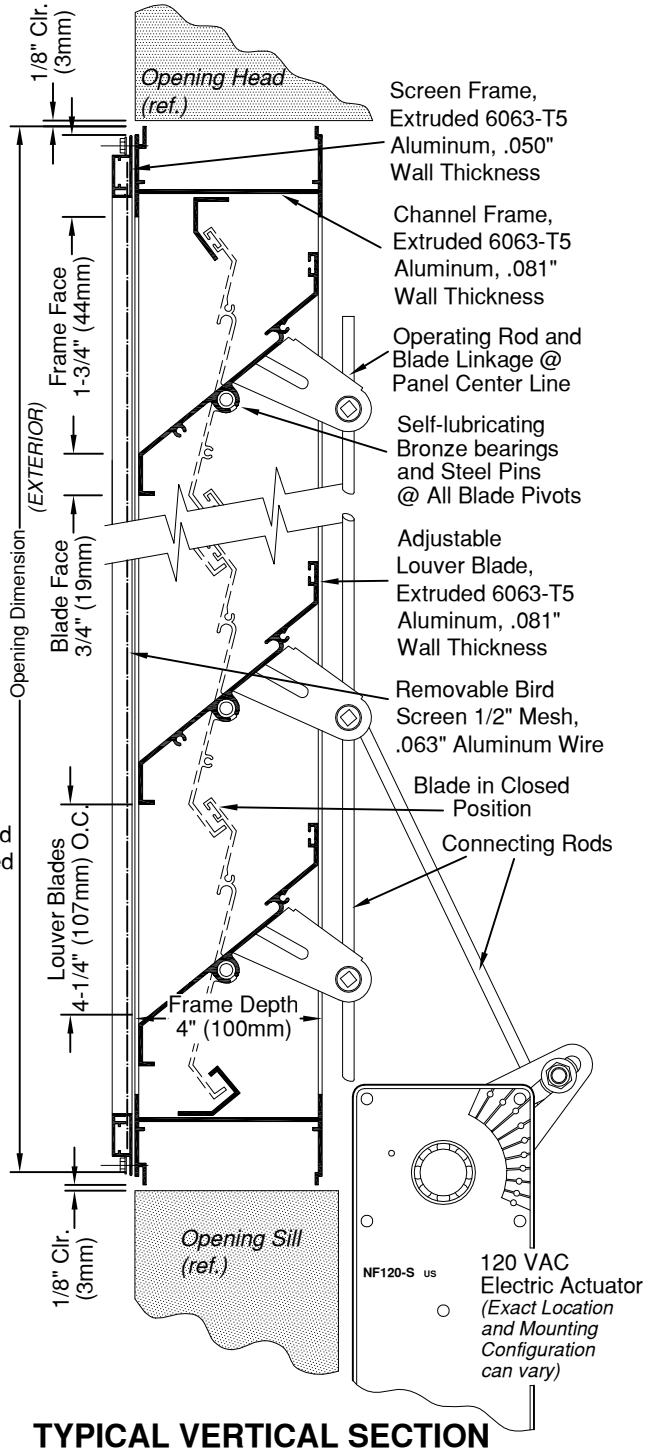
TYPICAL JAMB



TYPICAL JOIN



FRONT ELEVATION



TYPICAL VERTICAL SECTION

PROJECT:			
LOCATION:			
ARCHITECT:			
CONTRACTOR:			
CUSTOMER:		DATE:	

MEMBER

BROCHURE: JULY 07

NF120 (-S) US

On-off, Spring Return Fail-Safe, 120 VAC

Torque min. 60 in-lb, for control of air dampers

Application

For on-off, fail-safe control of dampers in HVAC systems. Actuator sizing should be done in accordance with the damper manufacturer's specifications. Control is on-off from an auxiliary contact, or a manual switch.

The actuator is mounted directly to a damper shaft up to 1.05" in diameter by means of its universal clamp. A crank arm and several mounting brackets are available for applications where the actuator cannot be direct coupled to the damper shaft.

Operation

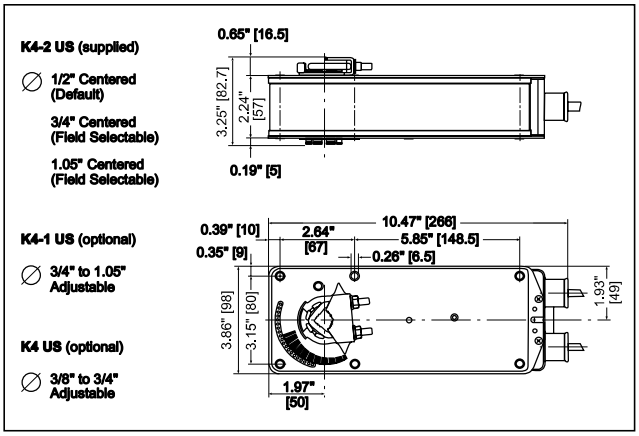
The NF series actuators provide true spring return operation for reliable fail-safe application and positive close off on air tight dampers. The spring return system provides constant torque to the damper with, and without, power applied to the actuator.

The NF series provides 95° of rotation and is provided with a graduated position indicator showing 0° to 95°.
The actuator may be stalled anywhere in its normal rotation without the need of mechanical end switches.

The NF120-S US versions are provided with 1 built-in auxiliary switch. This SPDT switch is provided for safety interfacing or signaling, for example, for fan start-up. The switching function is adjustable between 5° and 85°.

Technical Data	NF120 (-S) US
Power supply	120 VAC ± 10% 50/60 Hz
Power consumption	running: 6 W; holding: 3.5 W
Transformer sizing	7 VA
Electrical connection	3 ft, 18 GA appliance cable 1/2" conduit connector
Overload protection	Electronic throughout 0 to 95° rotation
Electrical protection	Auxiliary switches are double insulated
Angle of rotation	95°, adjustable 30 to 95° w/ accessories
Torque	60 in-lb [7 Nm] constant torque
Direction of rotation	reversible with CW/CCW mounting
Position indication	visual indicator, 0° to 95° (0° is spring return position)
Auxiliary switches (-S models)	1 x SPDT 7A (2.5A) @ 250 VAC, UL listed, adjustable 5° to 85°
Running time (nominal)	motor: < 75 sec spring: < 60 sec
Humidity	5 to 95% RH non-condensing
Ambient temperature	-22°F to +122°F [-30°C to +50°C]
Storage temperature	-40°F to +176°F [-40°C to +80°C]
Housing	NEMA type 2 / IP54
Housing material	zinc coated steel
Agency listings	UL 873 listed, CSA C22.2 No.24 certified
Noise level	max. 45 dB (A)
Servicing	maintenance free
Quality standard	ISO 9001
Weight	7.3 lbs (3.3 kg)

Dimensions [All numbers in brackets are in millimeters.]



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TYPICAL LOUVER INSTALLATION METHODS

(EXTRUDED ALUMINUM LOUVERS)

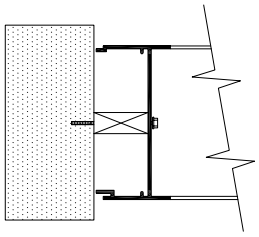

FIGURE B

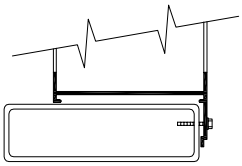

FIGURE D

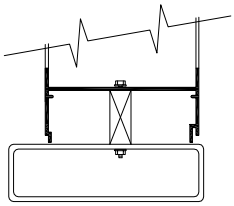

FIGURE E

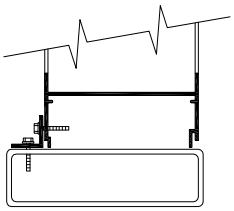

FIGURE F

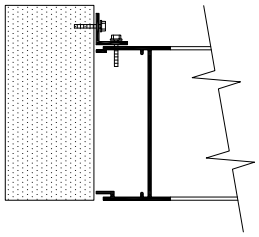

FIGURE C

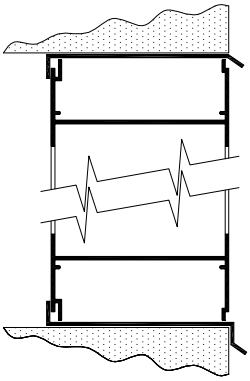

FIGURE G

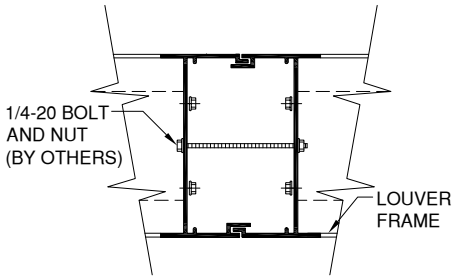

FIGURE I
EXPOSED MULLION
JOINT DETAIL

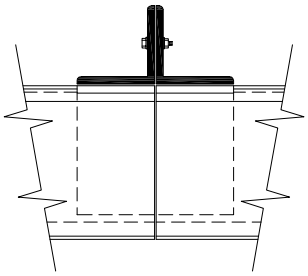

FIGURE J
HIDDEN MULLION
JOINT DETAIL

1. UPON RECEIPT, CHECK SHIPPING CONTAINERS FOR ANY DAMAGE THAT MAY HAVE OCCURRED DURING TRANSIT. NOTE ANY DAMAGES ON THE DELIVERY RECEIPT. IF CONCEALED DAMAGE HAS OCCURRED. YOU MUST NOTIFY THE FREIGHT CARRIER WITHIN (15) DAYS SO THAT CLAIMS CAN BE FIELD.
2. PRIOR TO INSTALLING CHECK THE OPENING FOR SQUARNESS AND ANY OBSTRUCTIONS THAT MAY INTERFERE WITH THE MOUNTING OR OPERATION OF THE LOUVER. VERIFY THAT THE LOUVER IS UNDER-SIZED APPROXIMATELY 1/4" SO THAT THE LOUVER IS NOT FORCED INTO THE OPENING.
3. THE LOUVER MUST BE INSTALLED SQUARE AND FREE FROM RACKING TO ENSURE PROPER PERFORMANCE. THIS SHOULD BE CHECKED PRIOR TO FASTENING THE FRAME TO THE OPENING.
4. WHEN JOINING MULTIPLE SECTION LOUVER ASSEMBLIES. LARGER ASSEMBLY MAY REQUIRE ADDITIONAL BRACING ON THE INTERIOR FOR TYPICAL MULLION JOINT DETAILS.
5. SECURE LOUVER INTO OPENING USING THE APPROPRIATE TYPE OF FASTENER FOR WHICH THE WALL OPENING IS MADE OF SPACE FASTENERS A MAXIMUM OF 24 INCHES ON CENTER.
6. STRAP ANCHORS MAY BE USED IF THEY WERE INSTALLED WHILE MASONARY WAS BEING POURED OR WHILE BLOCKS WERE BEING LAID
7. EXPANSION ANCHORS OR LEAD SHIELDS AND BOLTS MADE FOR MASONARY WAY BE USED. FASTENING CAN BE ACHIEVED THROUGH THE LOUVER FRAME OR BY USING ANGLES LOCATED BEHIND THE LOUVER (SEE FIGURES B AND C).
8. A FLANGED FRAME LOUVER CAN BE INSTALLED WITH FASTENERS THROUGH THE FLANGE INTO THE WALL (SEE FIGURE D).
9. FASTENERS THROUGH THE LOUVER FRAME INTO THE SUBFRAME CAN BE USED IT BLADE SPACING AND ACCESSIBILITY PERMIT (SEE FIGURE E).
10. CLIPS, CONTINUOUS ANGLES, OR PLATES MAY BE INSTALLED BEHIND THE LOUVER AND FASTEND TO SUBFRAME (SEE FIGURE F).
11. INSTALLATION INTO WOOD FRAMING IS THE SAME AS METAL FRAMING, EXCEPT THAT WOOD SCREWS WOULD NORMALLY BE USED.
12. PROTECTION AGAINST WATER INFILTRATION CAN BE ACHIEVED BY ADDING A DRIP CAP AT THE HEAD AND RECESSING THE LOUVER AS A MINIMUM (SEE FIGURE G). ADDITIONAL PROTECTION CAN BE ACHIEVED BY ADDING A GUTTERRRRR STYLE DRIP CAP AT THE HEAD, A WATER TIGHT DRIP PAN, AND AN OPTIMAL DRAIN
13. ALL HARDWARE SUCH AS CLIPS, ANGLES, AND ADDITIONAL BRACING ARE SUPPLIED BY OTHERS UNLESS OTHERWISE NOTED.

PROJECT:			
LOCATION:			
ARCHITECT:			
CONTRACTOR:			
CUSTOMER:		DATE:	

amca MEMBER