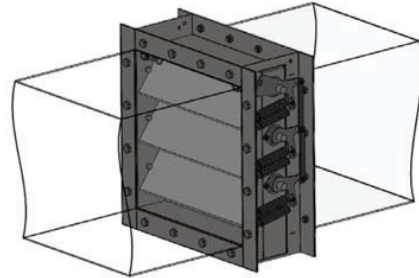


Models BL-301/BL-301-GR Blast Protection Damper Duct Mount Installation Instructions

Notes

- Standard blast damper frame thickness is 10 ga.
- Standard flange size is 3" (75mm). Damper blades will not extend outside the damper frame in the open position.
- The recommended fastener for duct mounting is a Grade 8 3/8" or 1/2" diameter bolt or metric property class 10.9.
- The responsibility to ensure that the ductwork is designed to withstand the rated blast load independent of the damper is the responsibility of others.



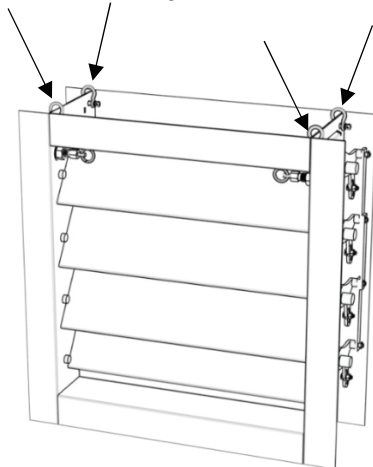
Rigging and Lifting Instructions

It is important that workers involved with hoisting and rigging activities are trained in both safety and operating procedures. Hoisting equipment should be operated only by trained personnel.

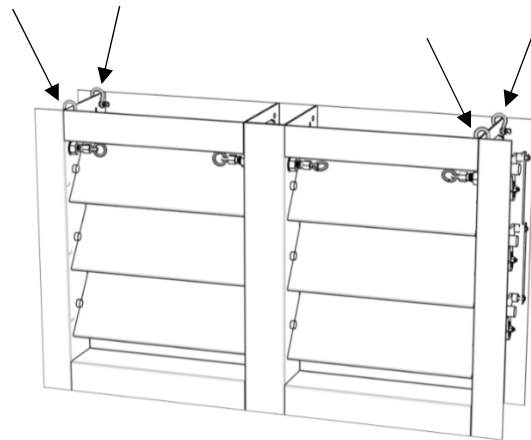
Four 1/2" lifting holes are located at the upper corners of each blast damper. These holes are sized to allow the attachment of 5/16 lifting shackles rated at 3/4 ton each. It is recommended that all four holes be used when lifting or transporting

the blast dampers. MAT has specified Crosby Screw Pin Shackles [Part # 1018393]. The specifications are provided in the product information sheet supplied by Crosby (shown below in this document). If using lift hooks with the shackles, it is recommended that the hooks be fitted with latches. Never wrap a hoist rope around the dampers. Attach the load to only the hook, with slings or other rigging devices. Always test rigging by raising the load slightly to make sure that the load is free and that all sling legs are taking the load.

Lifting locations shown by arrows below



Single Section Damper



Multi-Section Damper

CROSBY FORGED SHACKLES

Screw Pin Anchor Shackles



G-209 S-209

Screw pin anchor shackles meet the performance requirements of Federal Specification RR-C-271D Type IVA, Grade A, Class 2, except for those provisions required of the contractor.

- Shackles are Quenched and Tempered and can meet DNV impact requirements of 42 joules at -20C.
- Working Load Limit permanently shown on every shackle.
- Forged - Quenched and Tempered, with alloy pin.
- Capacities 1/3 thru 55 metric tons.
- Look for the Red Pin™ . . . the mark of genuine Crosby quality.
- Shackles can be furnished proof tested with certificates to designated standards, such as ABS, DNV, Lloyds, or other certification. Charged for proof testing and certification available when requested at the time of order.
- Hot Dip galvanized or Self-Colored.
- Fatigue Rated.

Nominal Size (in.)	Working Load Limit (t)*	Stock No.		Weight Each (lbs.)	Dimensions (in.)										
		G-209	S-209		A	B	C	D	E	F	G	H	L	M	P
3/16	1/3	1018357	—	.06	.38	.25	.88	.19	.60	.56	.98	1.47	.16	1.12	.19
1/4	1/2	1018375	1018384	.10	.47	.31	1.13	.25	.78	.61	1.28	1.84	.19	1.38	.25
5/16	3/4	1018393	1018400	.19	.53	.38	1.22	.31	.84	.75	1.47	2.09	.22	1.66	.31
3/8	1	1018419	1018428	.31	.66	.44	1.44	.38	1.03	.91	1.78	2.49	.25	2.03	.38
7/16	1-1/2	1018437	1018446	.38	.75	.50	1.69	.44	1.16	1.06	2.03	2.91	.31	2.38	.44
1/2	2	1018455	1018464	.72	.81	.63	1.88	.50	1.31	1.19	2.31	3.28	.38	2.69	.50
5/8	3-1/4	1018473	1018482	1.37	1.06	.75	2.38	.63	1.69	1.50	2.94	4.19	.44	3.34	.69
3/4	4-3/4	1018491	1018507	2.35	1.25	.88	2.81	.75	2.00	1.81	3.50	4.97	.50	3.97	.81
7/8	6-1/2	1018516	1018525	3.62	1.44	1.00	3.31	.88	2.28	2.09	4.03	5.83	.50	4.50	.97
1	8-1/2	1018534	1018543	5.03	1.69	1.13	3.75	1.00	2.69	2.38	4.69	6.56	.56	5.07	1.06
1-1/8	9-1/2	1018552	1018561	7.41	1.81	1.25	4.25	1.16	2.91	2.69	5.16	7.47	.63	5.59	1.25
1-1/4	12	1018570	1018589	9.50	2.03	1.38	4.69	1.29	3.25	3.00	5.75	8.25	.69	6.16	1.38
1-3/8	13-1/2	1018598	1018605	13.53	2.25	1.50	5.25	1.42	3.63	3.31	6.38	9.16	.75	6.84	1.50
1-1/2	17	1018614	1018623	17.20	2.38	1.63	5.75	1.54	3.88	3.63	6.88	10.00	.81	7.35	1.62
1-3/4	25	1018632	1018641	27.78	2.88	2.00	7.00	1.84	5.00	4.19	8.86	12.34	1.00	9.08	2.25
2	35	1018650	1018669	45.00	3.25	2.25	7.75	2.08	5.75	4.81	9.97	13.68	1.22	10.34	2.40
2-1/2	55	1018678	1018687	85.75	4.13	2.75	10.50	2.71	7.25	5.69	12.87	17.84	1.38	13.00	3.13

NOTE: Maximum Proof Load is 2.0 times the Working Load Limit. Minimum Ultimate Strength is 6 times the Working Load Limit. For Working Load Limit reduction due to side loading applications, see page 75.

