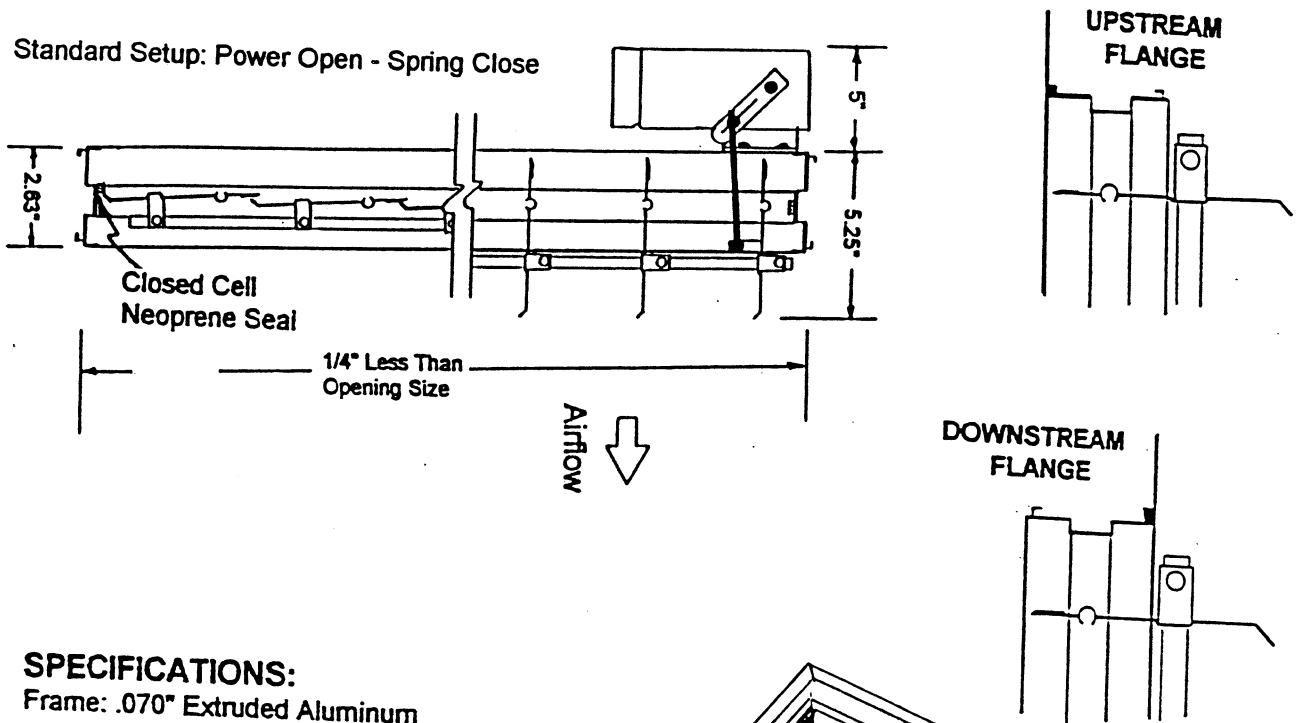


Model SPA-HD Shutter

Horizontal Mount, Vertical Airflow Down
With a MP-2562(120v) / MP-2654(24v)

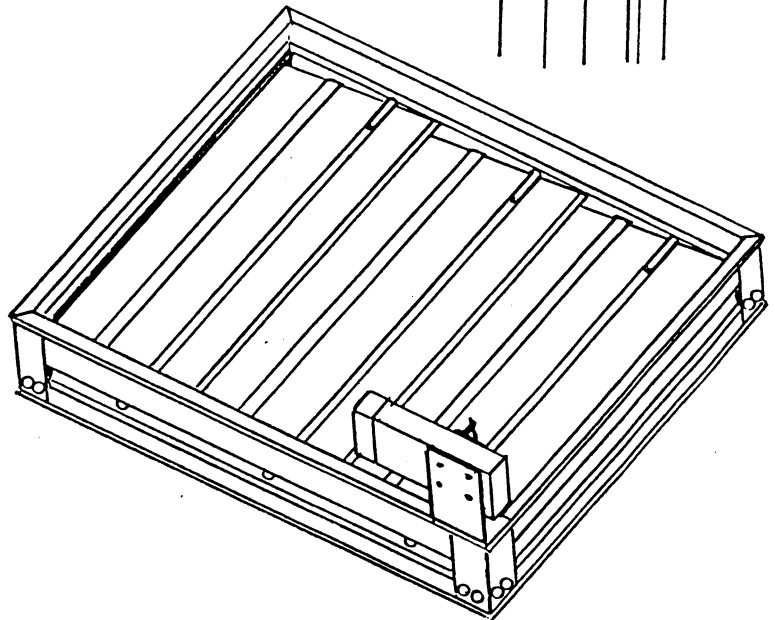


SPECIFICATIONS:

- Frame: .070" Extruded Aluminum 6063-T5 Alloy, Mitred Corners
- Blade: .050" Extruded Aluminum 6063-T5 Alloy with Polyurethane Seals
- Bearings: .25" I.D. Nylon
- Axles: .25" Nylon
- Minimum Size: 6"w X 6"h
- Maximum Size: 36"w X 48"h

OPTIONAL FEATURES:

- Flange Upstream (1.5")
- Flange Downstream (1.5")
- Counter-Balanced
- Birdscreen
- Insect screen



JOB _____

LOCATION _____ JOB NO. _____

ENGINEER _____ REPRESENTATIVE _____

CONTRACTOR _____ DATE _____

MODEL SPA SHUTTER AIR CONTROL DAMPER

PERFORMANCE DATA

TEST SIZE 24"x24"

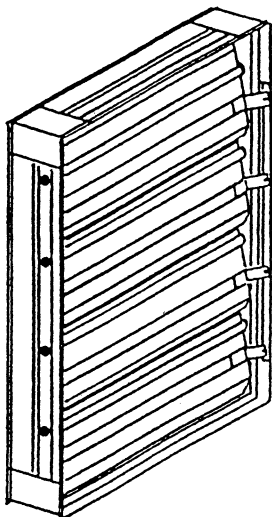
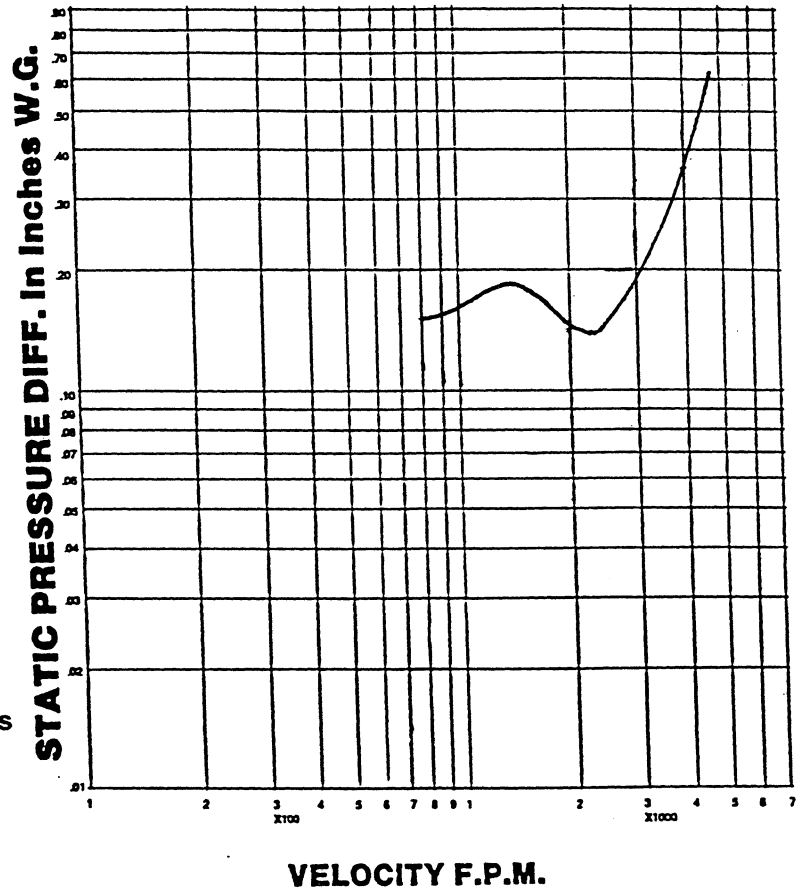
The tables have been developed through tests done by an independent testing laboratory to assist in application and selection of shutter control dampers.

Performance shown is at standard air density of .075 lb / ft . Pressure drop test are based on AMCA standard 500, using test set-up figure 5.3 for dampers installed with duct upstream and down.

Test size is 24" x 24". The velocity at which it begins to open is 34.3 fpm at .05" s.p., as tested. The velocity at which the blades are fully open is 2560 fpm. The maximum recommended velocity is as follows: 8"w to 24"w is 4000 fpm and 25" to 36" is 3400 fpm.

If the counter-balanced option is ordered, an over abundance of weights are shipped so they may be field adjusted so that the opening velocity and full open position will change thus causing the pressure drop to be less.

Pressure Drop



FREE AREA	WIDTH							
	8	12	16	20	24	28	32	36
8	.27	.45	.62	.80	.98	1.15	1.33	1.50
12	.43	.70	.98	1.26	1.54	1.82	2.09	2.37
16	.58	.96	1.34	1.72	2.10	2.48	2.86	3.24
20	.74	1.22	1.70	2.18	2.67	3.15	3.63	4.11
24	.90	1.48	2.06	2.65	3.23	3.81	4.40	4.98
28	1.05	1.74	2.42	3.11	3.79	4.48	5.16	5.85
32	1.21	1.99	2.78	3.57	4.36	5.14	5.93	6.72
36	1.36	2.25	3.14	4.03	4.92	5.81	6.70	7.59
40	1.53	2.54	3.54	4.54	5.54	6.54	7.54	8.54
48	1.85	3.05	4.25	5.46	6.66	7.87	9.07	10.27



A Leaders Industries Division

Free Area is calculated by subtracting blades, frame, and/or linkage from the duct area.