

Standard Construction:

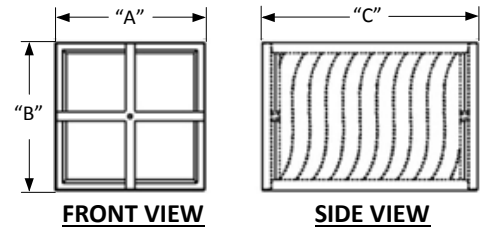
- Maximum Differential Pressure: 10 in. wg.
- Outer casing: 18 gauge CR steel fully welded and Powder Coated after fabrication
- Attenuation materials: Fiberglass based acoustical insulation bonded to 26 gauge (0.016" thick) acoustical barrier. All exposed fiberglass face to be bonded with a fiberglass scrim cloth per **Oxel** 919 treatment to a minimum strength per square inch of 80 lbs. warp and 70 lbs. filler, packed under a minimum of 5% compression. Fiberglass based insulation is vermin and moisture proof with a flame-spread maximum of 25

Model	Pressure Drop [In.wg.]	Face Velocity [fpm]	Insertion Loss [dB]								Generated Noise Lw [dB re 10 ⁻¹² Watts]							
			Octave Band Center Frequency [Hz]								Octave Band Center Frequency [Hz]							
			1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K
1420-90	0.23	-1500	17	21	25	33	35	40	54	56	74	71	65	61	54	53	47	45
	0.10	-1000	17	21	25	33	34	39	54	56	70	65	57	52	48	46	44	41
	0.03	-500	17	21	25	33	34	39	54	56	(56)	(44)	(36)	(33)	(29)	(26)	(20)	(18)
	0.03	500	17	21	25	33	34	39	54	56	(56)	(44)	(36)	(33)	(29)	(26)	(20)	(18)
	0.10	1000	17	21	25	33	34	39	54	56	70	65	57	52	48	46	44	41
	0.23	1500	17	21	25	33	34	39	54	56	74	71	65	61	54	53	47	45
1420-180	0.26	-1500	18	26	32	37	46	59	43	42	74	71	65	61	54	53	47	45
	0.12	-1000	18	26	31	37	45	58	43	42	70	65	57	52	48	46	44	41
	0.03	-500	18	26	31	37	45	58	43	42	(56)	(44)	(36)	(33)	(29)	(26)	(20)	(18)
	0.03	500	18	26	31	37	45	58	43	42	(56)	(44)	(36)	(33)	(29)	(26)	(20)	(18)
	0.12	1000	18	26	31	37	45	58	43	42	70	65	57	52	48	46	44	41
	0.26	1500	18	26	31	37	44	58	43	42	74	71	65	61	54	53	47	45
1420-DUAL-90	0.62	-1500	24	37	48	56	59	59	55	56	74	71	65	61	54	53	47	45
	0.27	-1000	24	37	48	55	58	58	55	56	70	65	57	52	48	46	44	41
	0.07	-500	24	37	48	55	58	58	55	56	(56)	(44)	(36)	(33)	(29)	(26)	(20)	(18)
	0.07	500	24	37	48	55	58	58	55	56	(56)	(44)	(36)	(33)	(29)	(26)	(20)	(18)
	0.27	1000	24	37	48	55	58	58	55	56	70	65	57	52	48	46	44	41
	0.62	1500	24	37	48	55	58	58	55	56	74	71	65	61	54	53	47	45
1420-DUAL-180	0.94	-1500	28	38	52	58	60	60	59	58	74	71	65	61	54	53	47	45
	0.42	-1000	28	38	52	57	59	59	59	58	70	65	57	52	48	46	44	41
	0.10	-500	28	38	52	57	59	59	59	58	(56)	(44)	(36)	(33)	(29)	(26)	(20)	(18)
	0.10	500	28	38	52	57	59	59	59	58	(56)	(44)	(36)	(33)	(29)	(26)	(20)	(18)
	0.42	1000	28	38	52	57	59	59	59	58	70	65	57	52	48	46	44	41
	0.94	1500	28	38	52	57	59	59	59	58	74	71	65	61	54	53	47	45
2224-180	0.24	-1500	14	24	28	37	45	56	41	41	81	78	72	68	61	60	54	52
	0.10	-1000	14	24	27	37	44	55	42	41	74	69	61	56	52	50	48	45
	0.03	-500	14	24	27	36	44	55	42	41	(60)	(48)	(40)	(37)	(33)	30	(24)	(22)
	0.03	500	14	24	27	36	44	55	42	41	(60)	(48)	(40)	(37)	(33)	30	(24)	(22)
	0.10	1000	14	24	28	37	44	55	42	41	74	69	61	56	52	50	48	45
	0.24	1500	14	24	28	37	43	54	41	41	81	78	72	68	61	60	54	52
1414-90	0.29	-1500	17	24	29	32	41	51	40	40	74	71	65	61	54	53	47	45
	0.13	-1000	17	24	29	32	41	50	40	40	70	65	57	52	48	46	44	41
	0.03	-500	17	24	29	32	41	50	40	40	(56)	(44)	(36)	(33)	(29)	(26)	(20)	(18)
	0.03	500	17	24	29	32	41	50	40	40	(56)	(44)	(36)	(33)	(29)	(26)	(20)	(18)
	0.13	1000	17	24	29	32	41	50	40	40	70	65	57	52	48	46	44	41
	0.29	1500	17	24	29	32	41	50	40	40	74	71	65	61	54	53	47	45

Version: 1-2014

Testing Information:

All acoustical performance and aerodynamic data is derived from NVLAP accredited laboratory tests in accordance with ASTM E477, the standard method for testing duct silencers. Published information originated from a 16" x 16" (406 x 406 mm) production unit, tested in forward flow (+, air/noise in same direction) and reverse flow (-, air/noise in opposite directions). If silencers are installed immediately before or after elbows, transitions, at the intake or discharge of the system or without a duct, allowance for such conditions must be included and compensated for when calculating the operating pressure through the silencer. Failure to make allowances for these conditions can add several velocity heads to the pressure loss of the system.


NOTES:

- Factory tolerances are +/- 1/16".
- When stacking modules allow for run-out of tolerances.
- Units bolt together using flanges and holes provided.

Aerodynamic Performance Data

Face Velocity [fpm] & Pressure Drop [in. wg.]

Model	500†	750†	1000†	1250†	1500	1,750	2,000	2,500	2,750	3,000
1420-90	0.03	0.06	0.10	0.16	0.23	0.32	0.41	0.64	0.77	0.92
1420-180	0.03	0.07	0.12	0.18	0.26	0.36	0.46	0.72	0.88	1.04
1420-DUAL-90	0.07	0.16	0.27	0.43	0.62	0.84	1.09	1.71	2.07	2.47
1420-DUAL-180	0.10	0.23	0.42	0.65	0.94	1.28	1.67	2.60	3.15	3.75
2224-180	0.03	0.06	0.10	0.17	0.24	0.33	0.43	0.68	0.82	0.97
1414-90	0.03	0.07	0.13	0.21	0.29	0.40	0.52	0.81	0.98	1.16

† Tested Velocities

Standard Module Weights and Dimensions

Model	Width A	Height B	Length C	Face Flow	Net Weight
1420-90	16 in.	16 in.	23 in.	16 in. X 16 in.	40 lbs.
1420-180	16 in.	16 in.	23 in.	16 in. X 16 in.	40 lbs.
1420-DUAL-90	16 in.	16 in.	68 in.	16 in. X 16 in.	110 lbs.
1420-DUAL-180	16 in.	16 in.	68 in.	16 in. X 16 in.	110 lbs.
2224-180	24 in.	24 in.	27 in.	24 in. X 24 in.	89 lbs.
1414-90	16 in.	16 in.	17 in.	16 in. X 16 in.	35 lbs.

HELPFUL EQUATIONS

Use the following formula to calculate pressure drop for intermediate velocities (in wg.)

Formula:

$$(\text{Job Velocity}/\text{Catalog Velocity})^2 \times \text{Catalog S.P.} = \text{P.D.}$$

Example:

$$(990/500)^2 \times 0.03 = 0.12 \text{ in wg.}$$

SPECIFYING / ORDERING INFORMATION

Provide the following when ordering:

1. Model Number.
2. Quantity of modules.
3. Assembled array configuration.

EXAMPLE: MVA 1420-90-12 (3 x 4 array)

OPTIONS:

- Aluminum Construction.
- Stainless Steel Construction.
- Heavy Duty Construction.
- Galvanized Finish.
- NFPA 130 Certified.
- Expedited Production.
- Expedited Shipping.