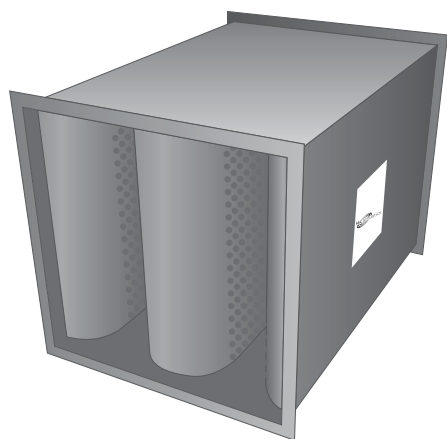


Ultra-pals™ Packless Silencers Type: XM

With Forward and Reverse Flow Ratings



The complete absence of fill combined with ease of cleaning and draining, makes packless silencers well suited for chemical plants, refineries, nuclear power plants and facilities handling petrol, grease, solvents or other hazardous materials.

Supplied as Standard:

- Aerodynamic inlet and discharge to splitter elements to reduce pressure drop and conserve energy

Designating Silencers: Example

Model: 6XM-600x600

Length	Type	Width	Height
1800mm	XM	600mm	600mm

XM Silencers must be supplied in standard modular widths that are multiples of 300mm.

- No Fibreglass
- No Foam
- No Mineral Wool
- No Fill of Any Kind

Self-Noise Power Levels dB re: 10⁻¹² Watts (for a 0.37m² face area silencer)

IAC XM Model	Octave Band	1	2	3	4	5	6	7	8
	Hz	63	125	250	500	1K	2K	4K	8K
	Silencer Face Velocity, m/s	Self-Noise Power Levels, dB							
3XM	-7.5	54	52	56	58	59	64	65	58
	-5	42	44	49	51	55	59	55	45
	+5	46	42	44	46	52	57	55	52
	+7.5	54	54	57	54	54	62	65	59
6XM & 9XM All Sizes (mm)	-10	64	61	58	59	60	64	67	64
	-5	56	52	52	52	55	61	60	50
	+5	58	54	49	46	52	60	60	50
	+10	66	67	65	61	58	63	69	67

Face Area Adjustment Factors (add or subtract from Lw values above)

Ultra-Pals™ Face Area, m ² *	0.09	0.19	0.37	0.74	1.50	3.00	6.00	12.00
Lw Adjustment Factor, dB	-6	-3	0	+3	+6	+9	+12	+15

* For intermediate face areas, interpolate to the nearest whole number

Aerodynamic Performance

IAC Model	Length (mm)	Static Pressure Drop N/m ²							
		5	7	10	15	17	22	27	32
XM	900	5	7	10	15	17	22	27	32
	1800	7	10	15	20	25	30	37	42
	2700	10	12	17	25	30	37	45	55
Silencer Face Velocity, m/s		1.27	1.52	1.78	2.03	2.29	2.54	2.79	3.05

Dynamic Insertion Loss (DIL) Ratings: Forward (+) / Reverse (-) Flow

IAC XM Model (length in mm)	Octave Band	1	2	3	4	5	6	7	8
	Hz	63	125	250	500	1K	2K	4K	8K
	Silencer Face Velocity, m/s	Dynamic Insertion Loss, dB							
3XM (900)	-7.5	6	8	12	18	22	13	10	7
	-5	6	6	10	17	20	12	9	8
	0	4	4	7	15	17	11	10	9
	+5	6	4	10	17	20	12	10	9
	+7.5	5	5	11	17	23	13	10	8
6XM (1800)	-7.5	10	15	23	33	30	16	11	10
	-5	9	12	17	30	25	14	12	11
	0	5	7	11	25	22	14	13	12
	+5	7	9	15	27	25	14	14	12
	+7.5	7	11	17	30	29	16	14	13
9XM (2700)	-7.5	12	22	32	39	38	21	16	13
	-5	10	19	26	36	31	19	18	16
	0	7	12	15	31	27	19	18	17
	+5	8	16	22	35	29	20	19	18
	+7.5	7	17	25	38	34	22	18	17

Note

- Silencer Face Area is the cross-sectional area at the silencer entrance
- Face Velocity is the airflow (m³/s) divided by the Face Area (m²)
- Pressure drop for any face velocity can be calculated from the equation:
 $PD = (\text{Actual FV} / \text{catalogue FV})^2 \times (\text{Catalogue PD})$
- Self Noise values shown are for a 0.37m² face area silencer
- For each doubling of face area add 3dB to the self noise values listed
- For each halving of face area subtract 3dB from the self noise values listed