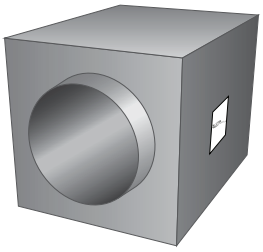
Ultra-pals™ Packless Silencers Type: TXS / TXL

With Forward and Reverse Flow Ratings



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

Designed primarily for use in fume hood applications, the complete absence of fill combined with ease of cleaning and draining makes TXS/TXL tubular packless silencers ideally 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: 200TXS or 200TXL-914

Pipe Diameter	Type	Length
200mm	TXS or TXL	914mm

Self-Noise Power Levels dB re: 10^{-12} Watts

IAC TXS 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							
TXS	-10	54	47	49	47	51	50	46	38
	-5	20	35	37	37	37	32	20	20
	+5	20	34	35	35	35	28	20	20
	+10	54	47	45	45	49	50	45	34

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

IAC TXS 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							
200TXS (914)	-10	15	20	26	17	12	12	12	7
	-5	15	18	26	16	11	12	12	8
	0	15	18	26	16	10	12	12	8
	+5	15	18	26	16	10	12	11	7
	+10	15	19	26	18	12	11	11	6
300TXS (914)	-10	11	13	23	25	18	12	13	9
	-5	9	11	19	22	14	11	13	9
	0	7	8	17	20	13	10	11	8
	+5	7	8	17	20	13	10	11	8
	+10	7	8	18	22	15	10	11	8

Self-Noise Power Levels dB re: 10^{-12} Watts

IAC TXL 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							
TXL	-10	20	33	37	39	36	31	20	20
	-5	20	20	25	25	23	20	20	20
	+5	20	22	28	28	25	20	20	20
	+10	20	35	42	41	35	29	20	20

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

IAC TXL 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							
200TXL (914)	-10	13	16	25	16	9	7	6	4
	-5	13	16	25	15	8	7	6	3
	0	13	15	25	14	8	7	6	3
	+5	13	15	25	14	8	7	6	4
	+10	12	15	25	15	8	7	6	4
300TXL (914)	-10	5	8	16	16	7	6	5	4
	-5	5	8	16	16	7	6	5	4
	0	4	8	16	16	7	7	5	3
	+5	4	8	16	16	7	7	5	3
	+10	5	8	16	17	7	7	5	3

Physical & Aerodynamic Performance Data

IAC Model	Pipe Dia. (mm)	Width (mm)	Height (mm)	Length (mm)	Weight (kg)	Static Pressure Drop N/m²							
200TXL	200	533	533	914	14	10	12	17	20	25	30	37	42
200TXS	200	533	533	914	14	37	50	65	82	102	125	147	172
Air Volume, m³/s						0.25	0.29	0.33	0.37	0.41	0.45	0.49	0.54
300TXL	300	533	533	914	16	10	12	15	20	25	30	35	42
300TXS	300	533	533	914	16	35	47	62	80	97	117	139	164
Air Volume, m³/s						0.56	0.65	0.74	0.83	0.93	1.02	1.11	1.20

Note

- The tabulated air flow in m^3/s is based upon tests in the IAC Acoustics R&D Laboratory, in accordance with applicable sections of internationally recognised airflow test codes. These codes require specific lengths of straight duct both upstream and downstream of the test specimen. Non-compliance with these codes can add from 0.5 to several velocity heads depending on specific conditions. The downstream measurements are made far enough downstream to include static regain. Therefore, if silencers are installed immediately before or after elbows, transitions or at the intake or discharge of the system, sufficient allowance to compensate for these factors must be included when calculating the operating static pressure loss through the silencer. See pages 10 and 11 for further details.
- Face Velocity is the airflow (m^3/s) divided by the Face Area (m^2)
- Pressure drop for any air volume can be calculated from the equation: PD= (Actual Volume / Catalogue Volume)^2 x (Catalogue PD)