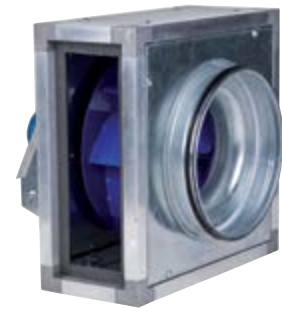


SLIM QUBE SSQUHT

Centrifugal Box Fan

SLIM QUBE SSQUHT

Product Overview



- 6 standard sizes from 315mm to 710mm
- Air volume flow rates up to 5.216 m³/s
- Static pressures of up to 1390 Pa
- Suitable for operating temperatures of up to +120°C (in duct)
- Inverter speed controllable via 1Ph and 3Ph supply
- Available in **AC**

A multi-discharge, double skinned fan unit incorporating a high performance backward curved impeller. With the motor situated out of the airstream, it is suitable for more arduous and elevated temperature applications.

High Temperature

Motors are out of the air stream and are not effected by contaminants in the ventilated air. The range is suitable for various applications, from contaminated air to elevated temperatures up to +120°C.

Intelligent Design

Movable panels allow the outlet position to be altered on site to suit installation.

Low Noise

Units are constructed from double insulated panels filled with 25mm fibre glass acoustic insulation giving reduced noise levels.

Easy Maintenance

An easily removable motor/impeller assembly arrangement is ideal for frequent cleaning or maintenance.

Weather Resistance

Motor cover is available as an accessory to allow external mounting.

Controllability

The Elta Drive range of inverters has been designed encompassing the latest technology and combining robustness with reliability. Using an inverter to control fans via sensors to reduce fan speed can provide significant cost-savings through lower energy consumption.

Warranty

Each SSQU has a 12 month warranty.

Construction

Constructed from self supporting corrosion-resistant extruded Aluminium section, assembled with aluminium corners and 25mm thick double skinned removable panels, manufactured from pre-galvanised steel, in-filled with a non flammable mineral wool, 60kg/m³.

Motor

Three phase multi-voltage IP55 TEFC Foot / Flange mounted IEC frame motors, wound for either (Delta) 230V/3Ph/50Hz or (Star) at 400V/3Ph/50Hz connection, suitable for speed control when used with the Eltadrive VSD range of frequency inverter controls.

Impeller

A free running impeller with 7 backwards-curved blades made of sheet steel with surface protection provided by powder coating. The rotating, non-fluted diffuser generates high efficiency levels and favourable acoustic characteristics.

Typical Applications

- Kitchens
- Restaurants
- Schools
- Colleges
- Shops
- Shower Rooms
- Factories

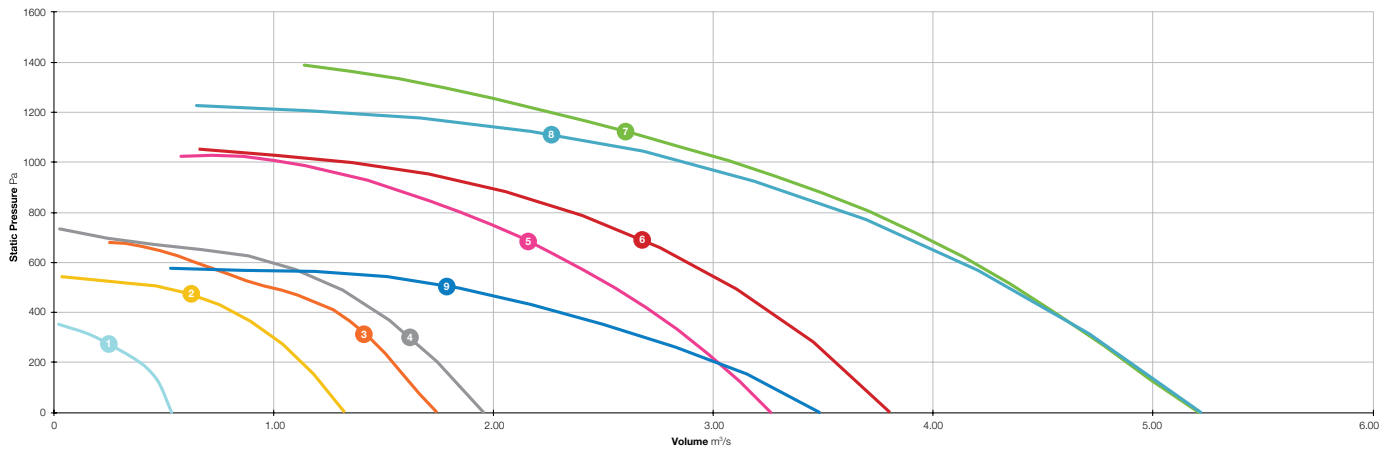
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Page	Information
3	Performance Range Curves
4	Performance, SFP & Electrical Data
5	Sound Data
6	Dimensional Data
7	Accessories
18	Notes

SLIM QUBE SSQUHT



Performance Range Curves



- 1 SSQU1 / 4-3HT
- 2 SSQU2 / 4-3HT
- 3 SSQU22 / 4-3HT

- 4 SSQU3 / 4-3HT
- 5 SSQU23 / 4-3HT
- 6 SSQU4 / 4-3HT

- 7 SSQU24 / 4-3BHT
- 8 SSQU4 / 4-3BHT
- 9 SSQU4 / 6-3HT

SLIM QUBE SSQUHT



Performance, SFP & Electrical Data

Three Phase 380V to 415V / 50Hz

Product Code	Speed r/min	Airflow SFP	Airflow m³/s @ Static Pressure Pa									At Best Efficiency Point		Electrical Data			dBA @ 3m	
			0	100	200	300	400	500	750	1000	1250	Overall Eff %	Input kW	Peak Amps	FLC* Amps	FLC# Amps		
SSQU1/4-3HT	1431	m³/s	0.536	0.490	0.391	0.190	-	-	-	-	-	35.3	0.270	0.81	2.30	1.02	Inlet	46
		W/(L/s)	0.48	0.54	0.69	1.24	-	-	-	-	-						Outlet	45
SSQU2/4-3HT	1435	m³/s	1.326	1.235	1.130	1.001	0.828	0.496	-	-	-	56.2	0.550	1.42	5.30	2.05	Inlet	51
		W/(L/s)	0.39	0.46	0.55	0.66	0.80	1.18	-	-	-						Outlet	52
SSQU22/4-3HT	1470	m³/s	1.764	1.657	1.536	1.394	1.222	0.998	-	-	-	54.3	1.098	2.30	8.50	3.17	Inlet	60
		W/(L/s)	0.56	0.62	0.69	0.78	0.88	1.03	-	-	-						Outlet	62
SSQU23/4-3HT	1440	m³/s	3.280	3.158	3.022	2.878	2.717	2.540	1.973	0.941	-	56.4	2.806	5.50	-	7.50	Inlet	66
		W/(L/s)	0.83	0.89	0.95	1.01	1.09	1.17	1.46	2.33	-						Outlet	68
SSQU24/4-3BHT	1475	m³/s	5.195	5.046	4.889	4.723	4.547	4.359	3.819	3.119	2.033	59.5	5.559	9.82	-	10.40	Inlet	70
		W/(L/s)	0.87	0.94	1.01	1.08	1.16	1.24	1.47	1.77	2.30						Outlet	72
SSQU3/4-3HT	1463	m³/s	1.955	1.854	1.744	1.621	1.477	1.292	-	-	-	64.9	1.100	2.40	8.50	3.17	Inlet	56
		W/(L/s)	0.41	0.48	0.56	0.64	0.74	0.86	-	-	-						Outlet	56
SSQU4/4-3BHT	1441	m³/s	5.216	5.068	4.910	4.739	4.554	4.352	3.748	2.884	-	66.7	5.500	10.40	-	10.4	Inlet	70
		W/(L/s)	0.59	0.65	0.73	0.81	0.90	0.99	1.27	1.65	-						Outlet	72
SSQU4/4-3HT	1437	m³/s	3.802	3.689	3.564	3.425	3.269	3.092	2.518	1.339	-	67.2	3.000	6.50	-	6.2	Inlet	65
		W/(L/s)	0.57	0.63	0.70	0.78	0.86	0.95	1.22	1.85	-						Outlet	66
SSQU4/6-3HT	950	m³/s	3.482	3.286	3.026	2.694	2.307	1.832	-	-	-	62.4	1.500	3.90	7.60	2.8	Inlet	58
		W/(L/s)	0.37	0.44	0.52	0.62	0.74	0.89	-	-	-						Outlet	59

* FLC Amps at 230V / 1Ph / 50Hz input before a 1Ph to 3Ph Variable Speed Drive.

FLC Amps at 400V / 3Ph / 50Hz input before a 3Ph to 3Ph Variable Speed Drive.

Exempt from ErP of the European Parliament.

A variable speed drive (Eltadrive) must be installed with this fan.

Data provided is at standard air density of 1.2 kg/m³.

Peak Amps @ 400V / 3PH / 50Hz.

The overall A-weighted sound pressure level is at a distance of 3m with spherical free-field propagation. It is expressed in dB re-20µPa and is presented for comparative purposes only.

SLIM QUBE SSQUHT



Sound Data

Three Phase 380V to 415V / 50Hz

Product Code	Speed r/min		Sound Power Level dBW @ Octave Band Hz								Total dB
			63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	
SSQU1/4-3HT	1431	Inlet	72	74	69	64	56	55	54	52	77
		Outlet	72	72	67	61	59	56	51	52	76
SSQU2/4-3HT	1435	Inlet	74	76	70	66	62	65	64	60	79
		Outlet	81	76	70	68	68	65	63	59	83
SSQU22/4-3HT	1470	Inlet	72	76	80	79	76	71	67	62	85
		Outlet	74	78	82	81	78	73	69	64	87
SSQU23/4-3HT	1440	Inlet	78	82	86	85	81	77	73	68	91
		Outlet	80	84	88	87	83	79	75	70	93
SSQU24/4-3BHT	1475	Inlet	81	85	89	89	85	80	76	71	94
		Outlet	83	87	91	91	87	82	78	73	96
SSQU3/4-3HT	1463	Inlet	76	77	72	67	68	71	69	65	81
		Outlet	79	76	71	70	72	70	68	64	82
SSQU4/4-3BHT	1441	Inlet	81	85	89	89	85	80	76	71	94
		Outlet	83	87	91	91	87	82	78	73	96
SSQU4/4-3HT	1437	Inlet	86	86	81	75	82	80	77	70	91
		Outlet	88	87	82	81	82	79	75	69	92
SSQU4/6-3HT	950	Inlet	82	85	76	72	75	71	66	62	88
		Outlet	83	82	76	78	74	71	66	61	87

Data provided at standard air density of 1.2 kg/m³.
 Tests and preparation of the sound data have been carried out in accordance with BS 848 Part 2:1985 at 50% peak pressure.
 The Sound Power Level Spectra are in dB re-1pW.

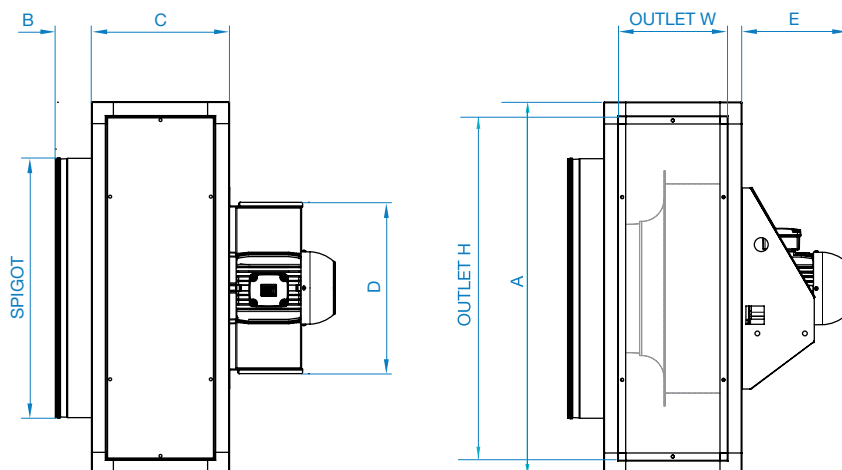
SLIM QUBE SSQUHT



Dimensional Data

Three Phase

Product Code	A	B	C	D	E	SPIGOT Ø	Outlet (W x H)	Weight kg
SSQU1/4-3HT	500	63	226	280	197	315	166 X 440	34
SSQU2/4-3HT	670	80	285	350	213	500	225 X 610	65
SSQU22/4-3HT	670	80	308	350	257	400	248 X 610	68
SSQU23/4-3HT	820	80	385	474	293	500	305 X 740	120
SSQU24/4-3HT	1020	99	426	474	389	630	346 X 940	182
SSQU3/4-3HT	820	80	323	350	257	560	243 X 740	89
SSQU4/4-3BHT	1020	99	426	474	389	710	346 X 940	180
SSQU4/4-3HT	1020	99	378	474	273	710	298 X 940	135
SSQU4/6-3HT	1020	99	426	474	273	710	345 X 940	147



Dimensions are in mm.

SLIM QUBE SSQUHT



Accessories

Three Phase

Product Code	Eltadrive Variable Speed Controller 1PH-3PH IP66	Eltadrive Variable Speed Controller 1PH-3PH IP20	Eltadrive Variable Speed Controller 3PH-3PH IP66	Eltadrive Variable Speed Controller 3PH-3PH IP20	External Roof	Flanged Silencer 1D Unpodded
SSQU1/4-3HT	149-ODE3-12037-1KB1Y	149-ODE3-12037-1KB12	149-ODE3-14037-3KA1Y	149-ODE3-14037-3KA12	039-SSQU-ER-A	068-0315-1DENP
SSQU2/4-3HT	149-ODE3-12075-1KB1Y	149-ODE3-12075-1KB12	149-ODE3-14075-3KA1Y	149-ODE3-14075-3KA12	039-SSQU-ER-B	068-0500-1DENP
SSQU22/4-3HT	149-ODE3-12150-1KB1Y	149-ODE3-12150-1KB12	149-ODE3-14150-3KA1Y	149-ODE3-14150-3KA12	039-SSQU-ER-C	068-0400-1DENP
SSQU23/4-3HT	-	-	149-ODE3-24400-3KA4Y	149-ODE3-24400-3KA42	039-SSQU-ER-D	068-0500-1DENP
SSQU24/4-3HT	-	-	149-ODE3-34055-3KA4Y	149-ODE3-34055-3KA42	039-SSQU-ER-E	068-0630-1DENP
SSQU3/4-3HT	149-ODE3-12150-1KB1Y	149-ODE3-12150-1KB12	149-ODE3-14150-3KA1Y	149-ODE3-14150-3KA12	039-SSQU-ER-C	068-0560-1DENP
SSQU4/4-3BHT	-	-	149-ODE3-34055-3KA4Y	149-ODE3-34055-3KA42	039-SSQU-ER-E	068-0710-1DENP
SSQU4/4-3HT	-	-	149-ODE3-24400-3KA4Y	149-ODE3-24400-3KA42	039-SSQU-ER-D	068-0710-1DENP
SSQU4/6-3HT	149-ODE3-22220-1KB4Y	149-ODE3-22220-1KB12	149-ODE3-24220-3KA4Y	149-ODE3-24220-3KA42	039-SSQU-ER-D	068-0710-1DENP

Product Code	Flanged Silencer 2D Unpodded	High Temperature Flexible Connectors (each)	Horizontal Weather Hood	TPO Transition Piece	Vertical Weather Hood	Wiring Diagram
SSQU1/4-3HT	068-0315-2DENP	063-0315-PU250	064-SSQU-WH-A	260-SSQU-TPO-A	064-SSQU-WHV-A	152-600
SSQU2/4-3HT	068-0500-2DENP	063-0500-PU250	064-SSQU-WH-B	260-SSQU-TPO-B	064-SSQU-WHV-B	152-600
SSQU22/4-3HT	068-0400-2DENP	063-0400-PU250	064-SSQU-WH-C	260-SSQU-TPO-C	064-SSQU-WHV-C	152-600
SSQU23/4-3HT	068-0500-2DENP	063-0500-PU250	064-SSQU-WH-E	260-SSQU-TPO-E	064-SSQU-WHV-E	152-600
SSQU24/4-3HT	068-0630-2DENP	063-0630-PU250	064-SSQU-WH-G	260-SSQU-TPO-H	064-SSQU-WHV-G	152-601
SSQU3/4-3HT	068-0560-2DENP	063-0560-PU250	064-SSQU-WH-D	260-SSQU-TPO-D	064-SSQU-WHV-D	152-600
SSQU4/4-3BHT	068-0710-2DENP	063-0710-PU250	064-SSQU-WH-G	260-SSQU-TPO-G	064-SSQU-WHV-G	152-601
SSQU4/4-3HT	068-0710-2DENP	063-0710-PU250	064-SSQU-WH-F	260-SSQU-TPO-F	064-SSQU-WHV-F	152-600
SSQU4/6-3HT	068-0710-2DENP	063-0710-PU250	064-SSQU-WH-G	260-SSQU-TPO-G	064-SSQU-WHV-G	152-600



Fan & inverter packages available.

Please contact Elta Fans for more information.

ELTADRIVE VARIABLE SPEED DRIVES

IP20

- Up to 22kW
- Built in PI control, EMC filter (C1) & brake chopper
- Application macros for industrial fan operation
- Bluetooth® connectivity
- Controls multiple motor types: IE2, 3, 4, IM, PM, BLDC and SynRM
- Operates up to 50°C



Overview

Compact, robust and reliable general purpose drive for panel mounting.

Simply Power Up

Eltadrive E3 provides precise motor control and energy savings using the factory settings. Simply power up and the drive can immediately deliver energy savings. 14 basic parameters allow simple adjustment for your application if required, with up to 50 parameters available in total for a highly flexible performance.

Power Supply

Connects at top.

Fast Connection

5mm rising clamp terminals with captive screws.

Quick Reference

Integrated help card.

Modbus RTS & CANopen

On board as standard.

SmartStart

Rapid parameter cloning and Bluetooth® PC interface.

Motor Supply

Connects at base.

Dimensional Data

Model	Size	Height	Width	Depth	Weight kg	Fixings
IP20	1	173	83	123	1.0	4 x M5
	2	221	110	150	1.7	4 x M5
	3	261	131	175	3.2	4 x M5
	4	420	171	212	9.1	4 x M8

Dimensions in mm.

ELTADRIVE VARIABLE SPEED DRIVES

IP66

- Up to 7.5kW
- Conformal coating as standard
- Switched or Non-Switched

Overview

Enclosed drives for direct machine mounting, dust-tight and ready for washdown duty.

Dust Tight Design

Install directly on your processing equipment and be sure of protection from dust and contaminants.

Washdown Ready

With a sealed ABS enclosure and corrosion resistant heatsink, the Eltadrive E3 IP66 is ideal for high-pressure washdown applications.

Eltadrive E3 IP66 Switched

Simply wire up the drive, turn the inbuilt potentiometer and the motor will start running - allowing immediate energy savings.

Coated Heatsink as Standard

Ideal for hygiene based operations requiring washdown such as food & beverage.

Fanless Heatsink

For reliable, cost effective operation.

Local Speed Potentiometer

Run Reverse / Off / Run Forward Switch

Lockable Mains

Disconnect / Isolator.

Dimensional Data

Model	Size	Height	Width	Depth	Weight kg	Fixings
IP66	1	232	161	179	3.1	4 x M4
	2	257	188	187	4.1	4 x M4
	3	310	211	252	7.6	4 x M4

Dimensions in mm.



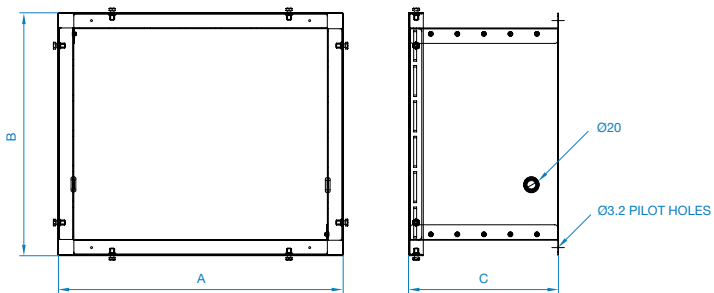
EXTERNAL ROOF

Accessories



- For use with SSQU range
- External roof for outdoor applications
- 1.2mm galvanised steel

Product Code	A	B	C	Weight kg
039-SSQU-ER-A	424	413	239	7
039-SSQU-ER-B	484	413	255	8
039-SSQU-ER-C	484	513	300	10
039-SSQU-ER-D	614	614	352	14
039-SSQU-ER-E	614	814	377	17



Dimensions are in mm.

FLANGED SILENCER

Overview



- Ideal for bolting directly to fan flange
- Ideal for all axial fans
- Ideal for cross talk elimination
- Ideal for flexible or spiral ducting

Overview

Elta Fans are able to provide 2 types of cylindrical silencers as standard; Type DENP (without pod) and DEP (with pod), these are categorised as follows; Compact Silencers (ENP / EP), Standard Silencers (ENP / EP / Melinex).

Construction

Both types are rigidly constructed in galvanised sheet steel, with a highly absorbent sound attenuating lining between the outer casing and the inner perforated steel lining. The end faces of the silencer has a series of threaded holes for direct mounting to the fixing flange/flexible collar. The EP (podded versions) will provide an improved level of attenuation. The inner acoustic pod is constructed from perforated steel sheet with a sound absorbent infill.

Melinex lined silencers must be used to prevent grease impregnation into the acoustic media for kitchen extract applications as prescribed in DW/172 HVAC Specification For Kitchen Ventilation Systems. For Melinex insertion losses, please contact Elta Fans. Silencers can be provided with differing lengths: 1D = 1 times diameter, 2D = 2 times diameter. The Velocity through podded silencer should not exceed 15m/s.

Silencer Attenuation

To determine the sound level of a fan fitted with a silencer, the dynamic insertion loss should be subtracted from the sound power level spectrum (dBW) of the fan. This should be done for the entire octave band mid-frequency spectrum. The fan dBW ratings and silencer attenuation apply equally to in duct applications, with a silencer connected between the fan and the duct system.

Dynamic Insertion Loss

The silencer attenuation is defined as the “dynamic insertion loss”. The values quoted in the tables represent the difference between the sound power level of a fan and silencer combination (dBW) and that of the fan alone (dBW). The dynamic insertion losses shown are the attenuations recorded under ideal working conditions. The achieved attenuation will vary according to the air velocity and flow pattern in the airways. Noise regeneration can occur at higher velocities, especially in EP silencers.

Square / Rectangular Silencers

In highly noise sensitive areas, where the circular silencers cannot achieve the necessary attenuation levels, Elta can design and build optional splitter silencers for greater effect.

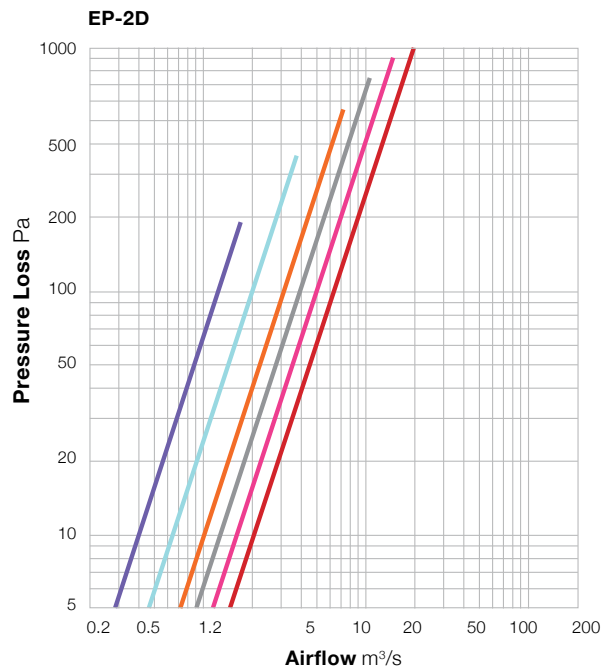
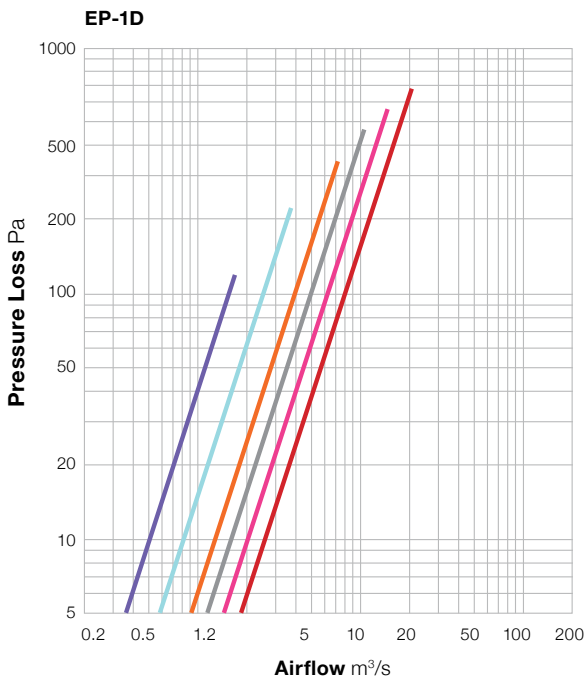
FLANGED SILENCER

Dynamic Insertion Loss & Pressure Graphs

Dynamic Insertion Loss

Fan Size	Silencer Length	Silencer Type	Insertion Loss @ Octave Band (Hz)							
			63	125	250	500	1k	2k	4k	8k
0315-0560	1D	ENP	-2	-5	-6	-9	-13	-11	-6	-6
		EP	-4	-6	-8	-11	-18	-19	-17	-14
	2D	ENP	-4	-8	-12	-17	-23	-17	-12	-10
		EP	-7	-10	-12	-21	-26	-26	-24	-22
0630-0710	1D	ENP	-3	-4	-9	-15	-15	-8	-7	-6
		EP	-4	-6	-8	-17	-23	-20	-18	-10
	2D	ENP	-6	-8	-13	-22	-22	-13	-12	-9
		EP	-8	-11	-16	-27	-32	-31	-29	-19

Podded Silencers Pressure Graphs



- Sizes**
- 315
 - 400
 - 500
 - 560
 - 630
 - 710

For Q250 podded pressure losses, please contact Elta Fans.

FLANGED SILENCER

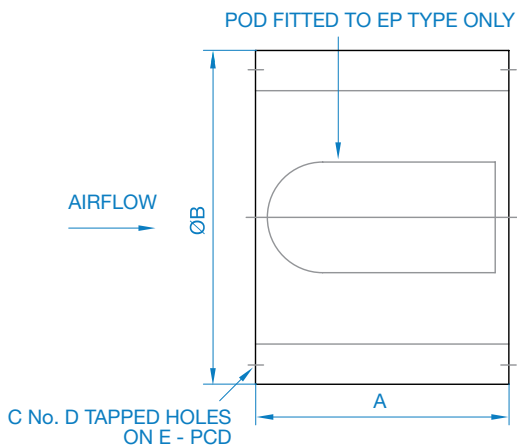
Dimensional Data

Silencer 1DENP Unpodded

Product Code	Fan Dia	A	B	C	D	E	Weight kg
068-0315-1DENP	315	315	416	8	M8	355	9
068-0400-1DENP	400	400	503	8	M10	450	13
068-0500-1DENP	500	500	657	12	M10	560	18
068-0560-1DENP	560	560	714	12	M10	620	22
068-0630-1DENP	630	630	784	12	M10	690	26
068-0710-1DENP	710	710	864	16	M10	770	32

Silencer 2DENP Unpodded

Product Code	Fan Dia	A	B	C	D	E	Weight kg
068-0315-2DENP	315	630	416	8	M8	355	15
068-0400-2DENP	400	800	503	8	M10	450	22
068-0500-2DENP	500	1000	657	12	M10	560	32
068-0560-2DENP	560	1120	714	12	M10	620	39
068-0630-2DENP	630	1260	784	12	M10	690	48
068-0710-2DENP	710	1420	864	16	M10	770	59



Dimensions are in mm.

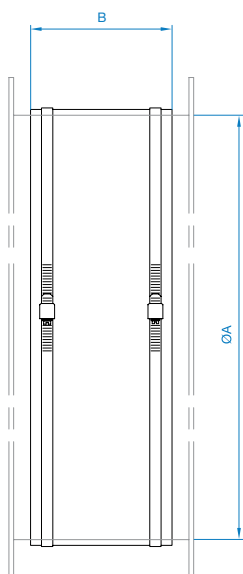
HIGH TEMPERATURE FLEXIBLE CONNECTOR

Accessories

- Fit to matching flanges to provide flexible connection
- Polyurethane coated glass fiber fabric
- Supplied with plated steel band fixings
- Alternative materials available to order
- Suitable for -50°C and +200°C and up to 400°C / 2 hours



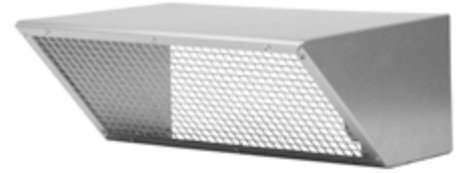
Product Code	Fan Dia. A	B	Weight kg
063-0315-PU250	315	150	0.6
063-0400-PU250	400	150	0.9
063-0500-PU250	500	150	1.2
063-0560-PU250	560	150	1.3
063-0630-PU250	630	200	1.4
063-0710-PU250	710	200	2.0



Dimensions are in mm.

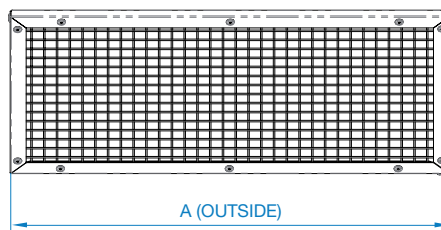
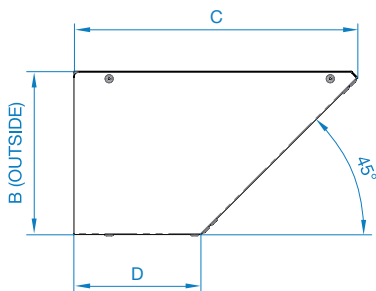
HORIZONTAL WEATHER HOOD

Accessories



- External Weather Hood for outdoor applications
- Pre-fitted birdguard
- 0.9mm galvanised steel

Product Code	A	B	C	D	Weight kg
064-SSQU-WH-A	437	162	282	126	3
064-SSQU-WH-B	607	222	342	126	4
064-SSQU-WH-C	607	246	365	126	5
064-SSQU-WH-D	737	239	359	126	5
064-SSQU-WH-E	737	301	420	126	5
064-SSQU-WH-F	937	295	415	126	6
064-SSQU-WH-G	937	343	463	126	7



Dimensions are in mm.

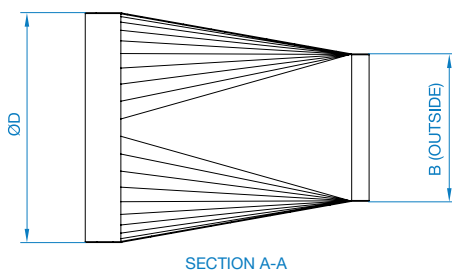
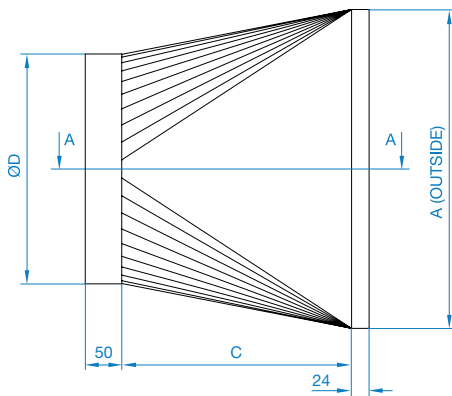
TPO TRANSITION PIECE

Accessories



- For use with SQU-HT(S) and SSQU range
- Rectangular to round transition
- 1.2mm galvanised steel

Product Code	A	B	C	ØD	Weight kg
260-SSQU-TPO-A	437	162	315	315	4
260-SSQU-TPO-B	607	222	500	500	9
260-SSQU-TPO-C	607	246	400	400	8
260-SSQU-TPO-D	737	239	560	560	12
260-SSQU-TPO-E	737	301	500	500	11
260-SSQU-TPO-F	937	295	710	710	18
260-SSQU-TPO-G	937	343	710	710	18
260-SSQU-TPO-H	937	343	630	630	16



Dimensions in mm.

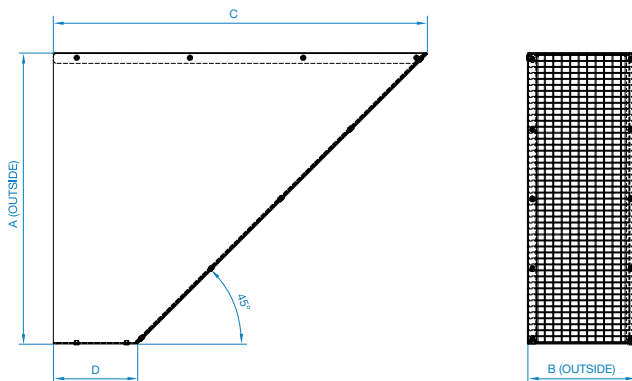
VERTICAL WEATHER HOOD

Accessories



- For use with SQU-HT(S) and SSQU range
- External Weather Hood for outdoor applications
- Pre-fitted birdguard
- 0.9mm galvanised steel

Product Code	A	B	C	D	Weight kg
064-SSQU-WHV-A	437	161	562	126	4
064-SSQU-WHV-B	607	222	731	126	6
064-SSQU-WHV-C	607	246	731	126	6
064-SSQU-WHV-D	737	239	862	126	8
064-SSQU-WHV-E	737	301	862	126	8
064-SSQU-WHV-F	937	295	1062	126	12
064-SSQU-WHV-G	937	343	1062	126	12



Dimensions are in mm.

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