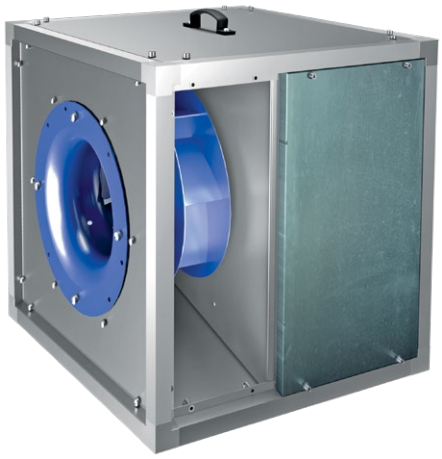
Iso-VK EC

Sound-insulated inline centrifugal fans



Use

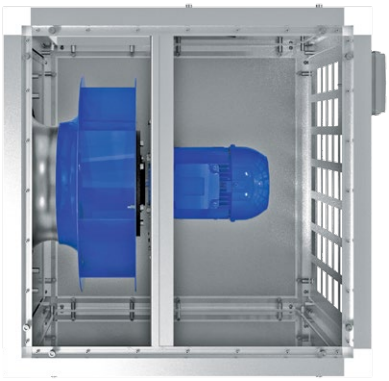
- Designed to extract contaminated hot air up to 120 °C, containing grease (when using grease filters), in high resistance conditions.
- Ideally function in various ventilation systems for restaurant or café kitchens, industrial bakeries, removal of gases generated during welding operations.
- Various application possibilities due to a special transformable casing design.
- Compatible with ∅ 315 up to 800 mm round or 500x500 up to 1175x1175 mm rectangular air ducts.

Air flow:
up to 27500 m³/h
7640 l/s

EC motor · ErP 2018 · 120 °C

Design

- Casing made of aluminium frame and removable aluzinc thermal- and sound-insulated double-skinned sandwich panels.
- Casing internally filled with 20 mm non-flammable mineral wool.
- Position of the removable panels can be adjusted to inline air flow or 90° angle air flow.
- Due to corrosion-resistant casing and thermal insulation the fan is suitable for external mounting.
- The electric motor, located outside the air flow, is mounted on an additional panel inside the fan.



Motor

- Highly reliable single-phase or three-phase EC motor with steel high-performance centrifugal impeller with backward curved blades.
- Motor is suitable for 50 Hz and 60 Hz.

Speed control

- The fan is controlled by an external 0-10 V control signal. Maximum fan speed does not depend on the available current frequency and is suitable for operation both at 50 and 60 Hz.

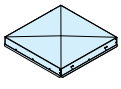
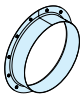
Mounting

- The fan is mounted with rectangular or round air ducts.
- Connected to air ducts with flexible vibration-absorbing connectors or connecting reducers of respective diameters.
- Power is supplied to the fan through an external terminal box.
- The fans can be installed in any mounting position with respect to air flow direction in the system. While mounting provide enough servicing space.

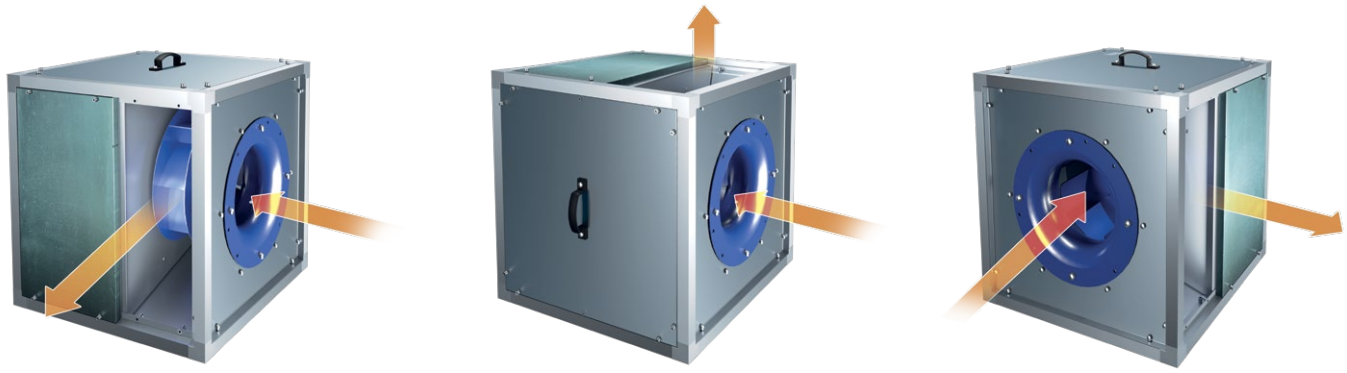
Designation key

Series	Motor type	Spigot diameter [mm]	Motor Phase
Iso-VK	**EC:** electronically commutated motor	**315; 355; 400; 450; 500; 560; 630; 710; 800**	**E:** single-phase **D:** three-phase

Accessories

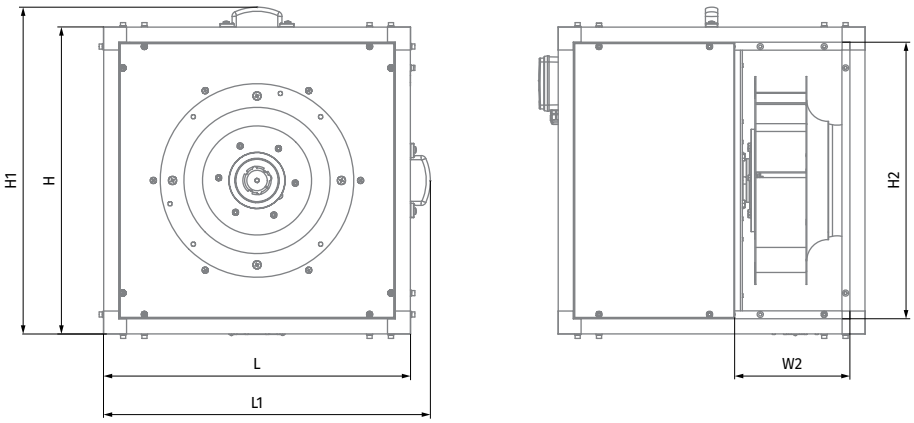
Flexible connector	Mounting bracket	Hood	Round flange	Speed controllers
				
EVA Iso-VK	MH Iso-VK	RSD Iso-VK	FR Iso-VK	CDT E/0-10

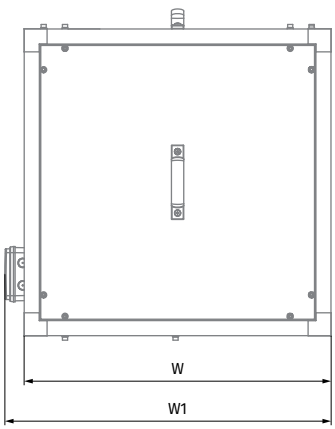
- The direction of air flow can be easily changed by rearranging the panel.



Dimensions [mm]

Model	H	H1	H2	L	L1	W	W1	W2	Weight [kg]
Iso-VK EC 315 E	500	538	440	500	538	500	538	200	38
Iso-VK EC 355 E	600	638	540	600	638	600	638	225	47.5
Iso-VK EC 400 E	670	708	610	670	708	670	708	252	57
Iso-VK EC 450 E	700	738	640	700	738	700	738	282	69.5
Iso-VK EC 500 E	820	858	760	820	858	820	858	321	95.5
Iso-VK EC 500 D	820	858	760	820	858	820	858	321	95.5
Iso-VK EC 560 D	900	938	840	900	938	900	938	365	113
Iso-VK EC 630 D (MAX)	1000	1038	940	1000	1038	1000	1038	409	164.5 (165)
Iso-VK EC 710 D	1075	1114	1015	1075	1152	1075	1112	455	199
Iso-VK EC 800 D	1175	1213	1115	1175	1213	1175	1213	506	245



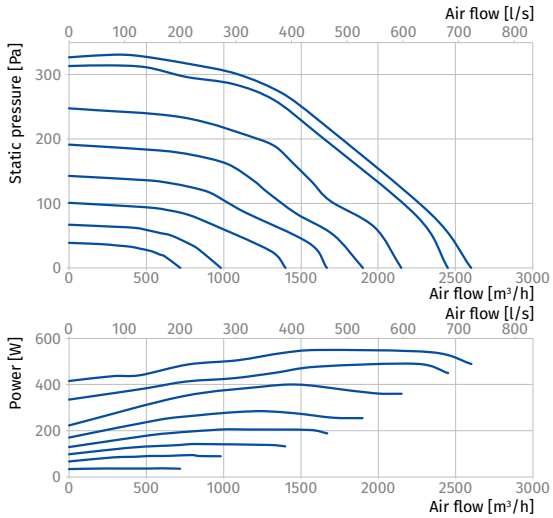


Technical data

Parameters	Iso-VK EC 315 E	Iso-VK EC 355 E	Iso-VK EC 400 E	Iso-VK EC 450 E
Voltage [V]	1 ~ 230	1 ~ 230	1 ~ 230	1 ~ 230
Frequency [Hz]	50/60	50/60	50/60	50/60
Power [kW]	0.55	0.55	0.55	1.1
Current [A]	4.9	4.9	4.9	7.9
Maximum air flow [m³/h (l/s)]	2600 (722)	3500 (972)	4600 (1278)	7200 (2000)
RPM [min⁻¹]	1500	1500	1500	1500
Sound pressure level at 3 m [dBA]	57	58	60	62
Transported air temperature [°C]	−25...+120	−25...+120	−25...+120	−25...+120
IP rating	IPX4	IPX4	IPX4	IPX4
Motor IP rating	IP55	IP55	IP55	IP55

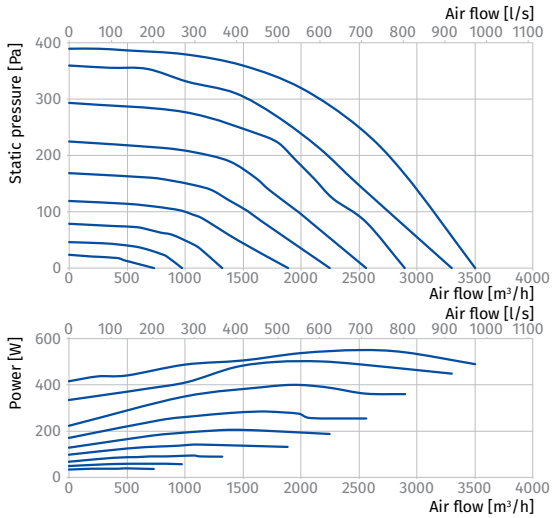
ISO-VK EC 315 E

Sound power level, A-weighted	Total	Octave frequency bands [Hz]								LpA 3 m	LpA 1 m
		63	125	250	500	1000	2000	4000	8000		
LWA to inlet [dBA]	**89**	70	84	86	78	72	65	55	45	**68**	**78**
LWA to outlet [dBA]	**93**	69	86	92	82	69	65	59	50	**73**	**83**
LWA to environment [dBA]	**77**	57	71	74	69	64	56	47	40	**57**	**67**



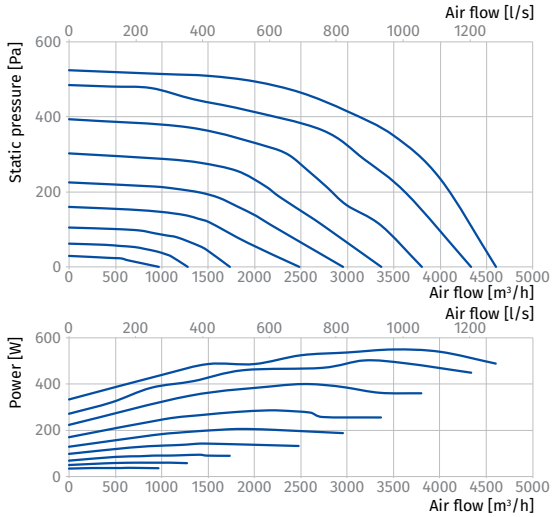
ISO-VK EC 355 E

Sound power level, A-weighted	Total	Octave frequency bands [Hz]								LpA 3 m	LpA 1 m
		63	125	250	500	1000	2000	4000	8000		
LWA to inlet [dBA]	**89**	70	84	86	78	72	65	55	45	**68**	**78**
LWA to outlet [dBA]	**94**	67	83	93	84	68	65	58	46	**74**	**84**
LWA to environment [dBA]	**79**	64	76	73	66	64	55	41	34	**58**	**68**



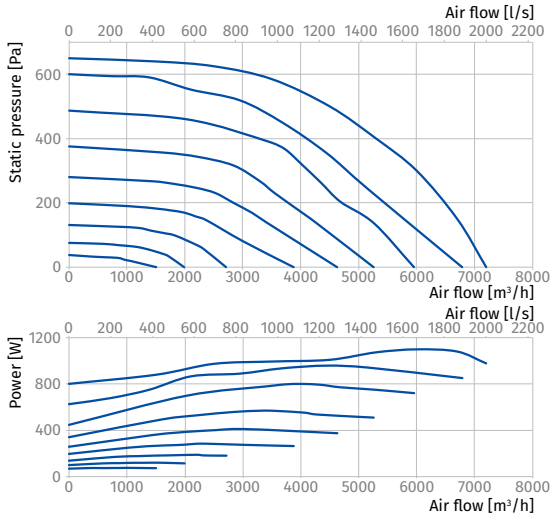
ISO-VK EC 400 E

Sound power level, A-weighted	Total	Octave frequency bands [Hz]								LpA 3 m	LpA 1 m
		63	125	250	500	1000	2000	4000	8000		
LWA to inlet [dBA]	**90**	70	85	87	78	72	66	55	45	**69**	**79**
LWA to outlet [dBA]	**95**	68	84	94	85	69	66	58	47	**74**	**84**
LWA to environment [dBA]	**80**	65	78	75	68	65	56	42	35	**60**	**70**



ISO-VK EC 450 E

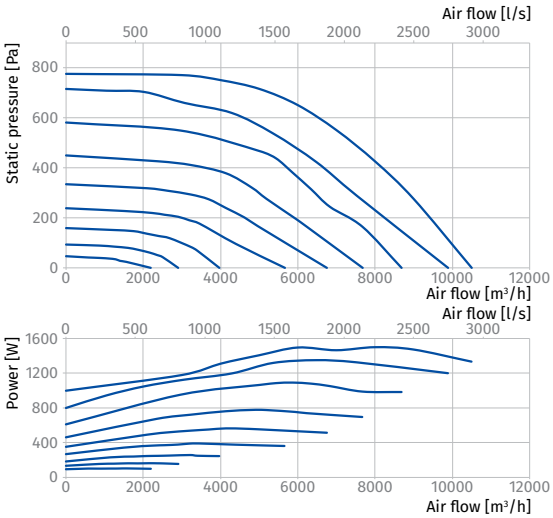
Sound power level, A-weighted	Total	Octave frequency bands [Hz]								LpA 3 m	LpA 1 m
		63	125	250	500	1000	2000	4000	8000		
LWA to inlet [dBA]	**91**	72	87	89	80	74	67	56	46	**71**	**81**
LWA to outlet [dBA]	**97**	70	85	96	86	70	67	59	48	**76**	**86**
LWA to environment [dBA]	**83**	68	80	77	69	67	57	43	36	**62**	**72**



Parameters	Iso-VK EC 500 E	Iso-VK EC 500 D	Iso-VK EC 560 D	Iso-VK EC 630 D	Iso-VK EC 630 D max
Voltage [V]	1 ~ 230	3 ~ 400	3 ~ 400	3 ~ 400	3 ~ 400
Frequency [Hz]	50/60	50/60	50/60	50/60	50/60
Power [kW]	1.5	1.5	3	3	5.5
Current [A]	10.5	3.5	6.4	7.2	10.9
Maximum air flow [m³/h (l/s)]	10500 (2917)	10500 (2917)	15700 (4361)	14000 (3889)	21000 (5834)
RPM [min⁻¹]	1500	1500	1500	1000	1500
Sound pressure level at 3 m [dBA]	63	63	64	65	67
Transported air temperature [°C]	−25...+120	−25...+120	−25...+120	−25...+120	−25...+120
IP rating	IPX4	IPX4	IPX4	IPX4	IPX4
Motor IP rating	IP55	IP55	IP55	IP55	IP55

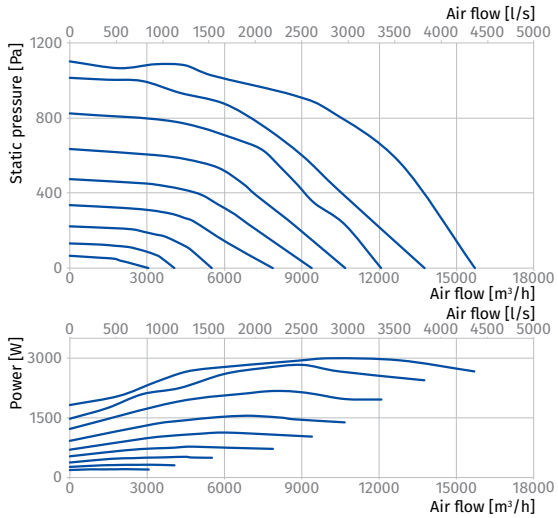
ISO-VK EC 500 E, ISO-VK EC 500 D

Sound power level, A-weighted	Total	Octave frequency bands [Hz]								LpA 3 m	LpA 1 m
		63	125	250	500	1000	2000	4000	8000		
LWA to inlet [dBA]	**92**	73	88	89	81	74	67	56	46	**72**	**82**
LWA to outlet [dBA]	**98**	71	86	97	87	71	68	60	48	**77**	**87**
LWA to environment [dBA]	**83**	69	81	78	70	67	58	43	36	**63**	**73**



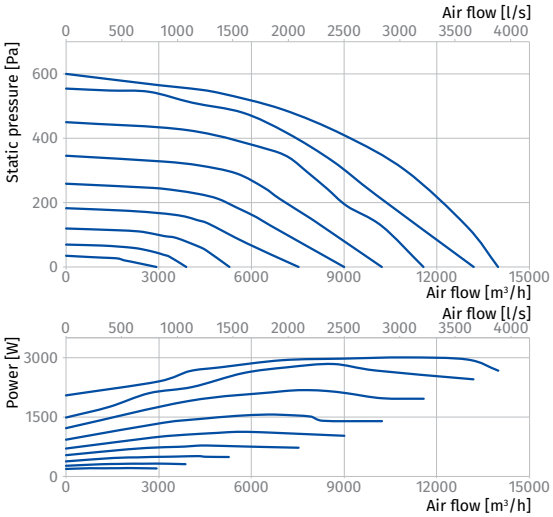
ISO-VK EC 560 D

Sound power level, A-weighted	Total	Octave frequency bands [Hz]								LpA 3 m	LpA 1 m
		63	125	250	500	1000	2000	4000	8000		
LWA to inlet [dBA]	**93**	74	89	90	81	75	68	57	47	**72**	**82**
LWA to outlet [dBA]	**100**	73	88	99	89	72	69	61	49	**79**	**89**
LWA to environment [dBA]	**85**	70	83	79	71	68	59	44	37	**64**	**74**



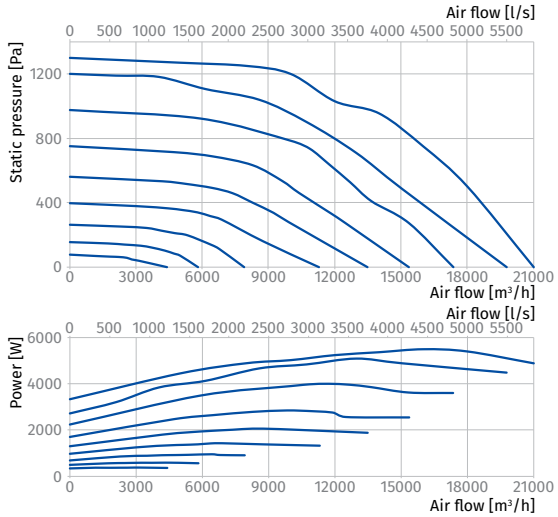
ISO-VK EC 630 D

Sound power level, A-weighted	Total	Octave frequency bands [Hz]								LpA 3 m	LpA 1 m
		63	125	250	500	1000	2000	4000	8000		
LWA to inlet [dBA]	**93**	74	89	90	81	75	68	57	47	**72**	**82**
LWA to outlet [dBA]	**100**	73	88	99	89	72	69	61	49	**79**	**89**
LWA to environment [dBA]	**86**	71	84	80	72	69	59	44	37	**65**	**75**



ISO-VK EC 630 D MAX

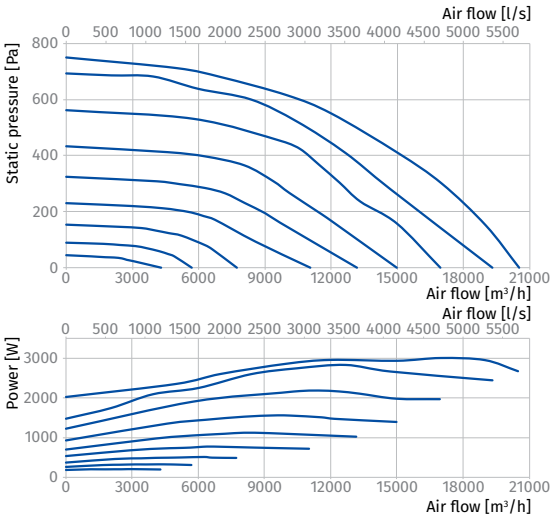
Sound power level, A-weighted	Total	Octave frequency bands [Hz]								LpA 3 m	LpA 1 m
		63	125	250	500	1000	2000	4000	8000		
LWA to inlet [dBA]	**95**	75	90	92	83	76	69	58	47	**74**	**84**
LWA to outlet [dBA]	**102**	74	90	101	91	73	70	62	50	**81**	**91**
LWA to environment [dBA]	**87**	73	85	81	73	70	60	45	38	**67**	**77**



Parameters	Iso-VK EC 710 D	Iso-VK EC 800 D
Voltage [V]	3 ~ 400	3 ~ 400
Frequency [Hz]	50/60	50/60
Power [kW]	3	5.5
Current [A]	7.2	12.9
Maximum air flow [m³/h (l/s)]	20500 (5695)	27500 (7640)
RPM [min⁻¹]	1000	1000
Sound pressure level at 3 m [dBA]	66	67
Transported air temperature [°C]	−25...+120	−25...+120
IP rating	IPX4	IPX4
Motor IP rating	IP55	IP55

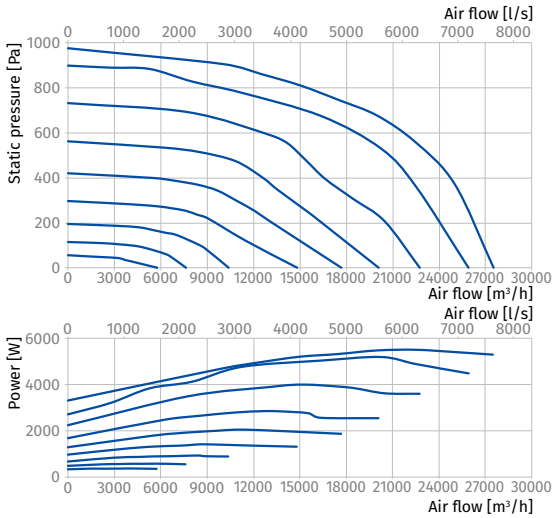
ISO-VK EC 710 D

Sound power level, A-weighted	Total	Octave frequency bands [Hz]								LpA 3 m	LpA 1 m
		63	125	250	500	1000	2000	4000	8000		
L_{WA} to inlet [dBA]	**94**	75	90	91	82	76	68	57	47	**73**	**83**
L_{WA} to outlet [dBA]	**101**	73	89	100	90	73	70	61	49	**80**	**90**
L_{WA} to environment [dBA]	**86**	72	84	81	72	69	59	44	37	**66**	**76**



ISO-VK EC 800 D

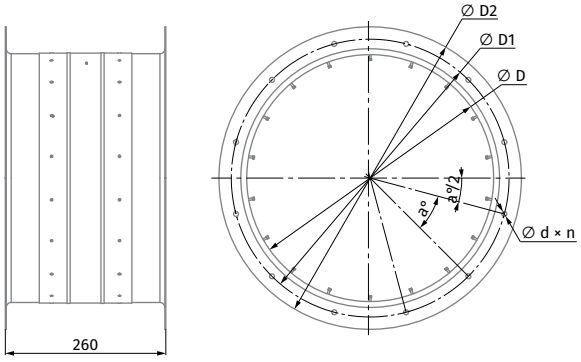
Sound power level, A-weighted	Total	Octave frequency bands [Hz]								LpA 3 m	LpA 1 m
		63	125	250	500	1000	2000	4000	8000		
L_{WA} to inlet [dBA]	**94**	75	90	91	82	76	69	58	47	**74**	**84**
L_{WA} to outlet [dBA]	**101**	74	90	101	90	73	70	62	50	**81**	**91**
L_{WA} to environment [dBA]	**87**	73	85	81	73	70	60	45	38	**67**	**77**



Modifications and options

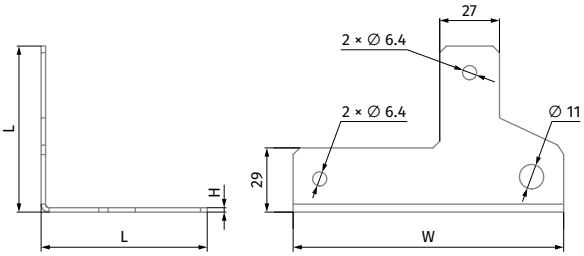
FLEXIBLE CONNECTOR EVA ISO-VK

Type	Dimensions [mm]						Weight [kg]
	Ø d	Ø D	Ø D1	Ø D2	n	a°	
EVA ISO-VK 315	8	315	365	405	6	60	4.76
EVA ISO-VK 355	10	355	395	435	8	45	4.08
EVA ISO-VK 400	8	400	450	490	12	30	4.76
EVA ISO-VK 450	8	450	500	540	12	30	5.34
EVA ISO-VK 500	12	500	560	600	12	30	6.12
EVA ISO-VK 560	12	560	620	660	12	30	6.83
EVA ISO-VK 630	12	630	690	730	12	30	7.66
EVA ISO-VK 710	12	710	770	810	16	22.5	8.6
EVA ISO-VK 800	12	800	860	900	16	22.5	9.67



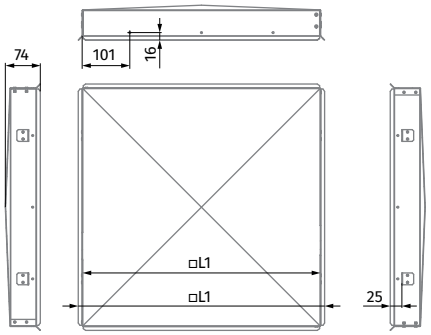
MOUNTING BRACKET MH ISO-VK

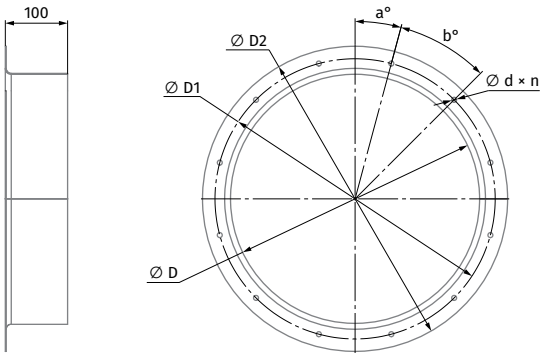
Type	Dimensions [mm]			Weight [kg]
	H	L	W	
MH ISO-VK 315...450	2	90	125	0.12
MH ISO-VK 500...800	3	90	125	0.21



HOOD RSD ISO-VK

Type	Dimensions [mm]		Weight [kg]
	L	L1	
RSD ISO-VK 315	503	522	2.42
RSD ISO-VK 355	603	622	3.25
RSD ISO-VK 400	673	692	3.91
RSD ISO-VK 450	703	722	4.21
RSD ISO-VK 500	823	842	6.57
RSD ISO-VK 560	903	922	7.71
RSD ISO-VK 630	1003	1022	9.27
RSD ISO-VK 710	1078	1097	10.53
RSD ISO-VK 800	1178	1197	12.3



ROUND FLANGE FR ISO-VK

Type	Dimensions [mm]					a°	b°	Weight [kg]
	Ø D	Ø D1	Ø D2	Ø d	n			
FR ISO-VK 315	315	365	405	8	6	15	60	1.7
FR ISO-VK 355	355	405	445	8	6	15	60	1.9
FR ISO-VK 400	400	450	490	8	12	15	30	2.13
FR ISO-VK 450	450	500	540	8	12	15	30	2.39
FR ISO-VK 500	500	560	600	12	12	15	30	2.75
FR ISO-VK 560	560	620	660	12	12	15	30	3.06
FR ISO-VK 630	630	690	730	12	12	15	30	3.44
FR ISO-VK 710	710	770	810	12	16	11.25	22.5	3.86
FR ISO-VK 800	800	860	900	12	16	11.25	22.5	4.34