

KOS-AL, OBP/P-AL – stationary extractor with balancer



Purpose

KOS-AL self-tightening suction duct is designed for capturing the exhaust fume from vehicles by means of the mobile balancing extractor – type: OBP/P-AL or mobile extractor OP-AL which is displacing along the suction duct. The trolley displacement proceeds while the vehicle is pulling the hose with nozzle (clamped on the vehicle exhaust pipe). The duct is meant for application with cars and trucks.

Structure

The KOS-AL duct consists of aluminium segments of length 2 m or 4 m joined together to any required length depending on the needs. Along the suction duct displaces a trolley with balancer and hose with the nozzle clamped at the vehicle exhaust pipe. The trolley is equipped with a shut-off damper which opens and closes when the hose is pulled down and lifted. Therefore, it is possible to apply a smaller fan, in application where to one duct are installed two or more extractors, and the use coincidence factor is lower than 1. The trolley fitting piece is sliding between the rubber aprons of the duct. The vacuum formed by extraction fan seals up the rubber aprons one to another. The extractor is equipped with a balancer (providing smooth hose retraction), a ratchet device fixing the hose at the required length and operational position. Using the self-release nozzle – the release mechanism disconnects the nozzle, while the extraction trolley approaches the duct end. Subsequently, the hose nozzle assembly


returns to its home position. On the other hand, the non-self-release-nozzle ought to be disconnected manually and should be pulled slightly to activate the balancer, which lifts the hose up afterwards. Terminal stoppers (fixed at the duct-ends) – are braking smoothly the trolley movement while it approaches the duct-ends. The recommended mounting height of the duct is 3 up to 4 m. The duct connection to the ventilation installation is possible to both duct ends as well as to its upper surface.

KOS-AL duct and OBP/P-AL with hose Ø100 mm is adapted for cars, Ø125 mm for medium-size vehicles of admissible total weight – up to 3,5 t, Ø150 mm for trucks. Selection of the hose diameter is depended on the engine cubic capacity of the serviced vehicle and its rotations. For more precise selection contact KLIMAWENT S.A. As option, we offer radio control – for automatic fan start at the moment, when the hose with nozzle is pulled down. After the completed work, the extraction fan switches off upon time delay (see catalogue card RADIO CONTROL).

NOTE:

For standard applications, we recommend extractors equipped with hoses of thermal resistance 150°C (short duration 200°C). For application with Diesel engine vehicles, equipped with Diesel Particulate Filter – Euro 5, Euro 6 (as there high exhaust temperature can occur), we recommend extractors with hoses of increased thermal resistance (OBP-AL/CF).

Mobile balancing extractor

	Type ¹	Part no.	Diameter of the hose [mm]	Hose length [m]	Recommended volume flow [m³/h]	Flow resistances [Pa]	Thermal resistance [°C]	Application ⁴	Weight [kg]
	OBP/P-AL-100-6	805O31	100	6	400	900	150 ²	SO	35,8
	OBP/P-AL-100-6/CF	805O06	100	6	400	900	300/150 ³	SO	35,8
	OBP/P-AL-125-6	805O32	125	6	700	1000	150 ²	SD	36,7
	OBP/P-AL-125-6/CF	805O07	125	6	700	1000	300/150 ³	SD	36,7
	OBP/P-AL-150-6	805O33	150	6	1500	1700	150 ²	SC	37,6
	OBP/P-AL-150-6/CF	805O08	150	6	1500	1700	300/150 ³	SC	37,6

1. Prior to selection of appropriate extractor, please contact KLIMAWENT S.A.

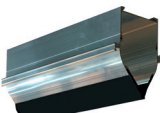
2. Flexible hose of thermal resistance 150°C (short duration 200°C).

3. First hose section of length 2 m of thermal resistance 300°C (short duration 350°C), further hose section of thermal resistance 150°C (short duration 200°C).


4. SO – car, SD – medium-size vehicle, SC – truck.

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Self-tightening suction duct

	Type	Part no.	Segment length [m]	Cross-section [cm ²]	Segment weight [kg]
	KOS-AL-2	804K43	2	290	19,4
	KOS-AL-4	804K44	4	290	38,8

Mobile extractors – without balancer – hose should be deposited manually on a hanger, there are no restrictions according to the length of the hose.

	Type ¹	Part no.	Hose diameter [mm]	Hose length [m]	Recommended volume flow [m ³ /h]	Flow resistances [Pa]	Thermal resistance [°C]	Application ⁴	Weight [kg]
	OP-AL-100-6	804O35	100	6	400	700	150 ²	SO	11,8
	OP-AL-100-6/CF	804O84	100	6	400	700	300/150 ³	SO	11,8
	OP-AL-125-6	804O36	125	6	700	800	150 ²	SD	12,7
	OP-AL-125-6/CF	804O85	125	6	700	800	300/150 ³	SD	12,7
	OP-AL-150-6	804O37	150	6	1500	1500	150 ²	SC	13,6
	OP-AL-150-6/CF	804O86	150	6	1500	1500	300/150 ³	SC	13,6



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Connectors*


Sort of the fitting piece	Type	Part no.	Diameter [mm]
 for axial connection	KPC	804K20	160
 universal connector	KTSU-200	804K79	200

* To connect the KOS-AL duct with the discharge ductwork

Duct hangers

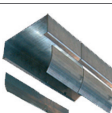
Sort of the hanger	Type	Part no.	Remarks
 ceiling hanger	Z	804K29	The hangers are fixed to the duct by bolting. The spacing between the hangers should not exceed 3 m.
 wall hanger	L	804K27	

Duct closing*


	Type	Part no.
	PZC	804K22

* To install at the beginning of the first segment and at the end of the last segment.

Segment connector

	Type	Part no.
	KSG	804K21

Terminal stopper

	Type	Part no.	Remarks
	STK	804K30	Stops the trolley when it approaches the duct ends.

Fans

Fans should be selected from separate catalogue cards, according to the flow efficiency and flow resistances.

Nozzles

Nozzles and suction stands – for application with the exhaust extractor – are described on separate catalogue card and they are additional equipment.