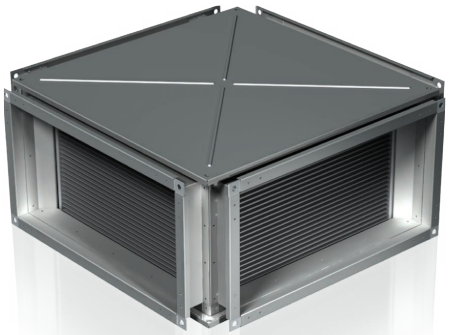
Series
PR



Applications

PR plate heat exchanger with X-shaped air passage designed for exhaust air heat recovery in conditioning and ventilating systems. The heat exchangers are connected directly to the rectangular ducts both with parallel and perpendicular or diagonal ducting at 45° Various connection modification are possible due to bend fittings which shall be ordered in the required quantity. The transported air shall not contain solid, fibrous, aggressive and explosive impurities.

Design

The heat exchanger casing is made of galvanized steel. The surface of the heat exchanger consists of thin aluminium plates for efficient heat exchange. Some condensate quantity which can be generated at exhaust surface can be removed at the bottom removable panel. PR heat exchangers equipment list includes connecting pipe on the bottom panel for condensate removing.

Technical data

Heat recovery efficiency and air resistance in the air duct are the basic factors that determine the heat exchanger performance. The thermal efficiency is calculated as following:

$$\eta = \frac{t_s - t_i}{t_e - t_i}$$

t_s – supply air temperature after heat recuperation;
t_i – intake air temperature before heat recuperation;
t_e – extract air temperature before heat recuperation.

Accessory

PK bend
Designed for easy mounting of the heat exchanger in any modifications of the air duct.

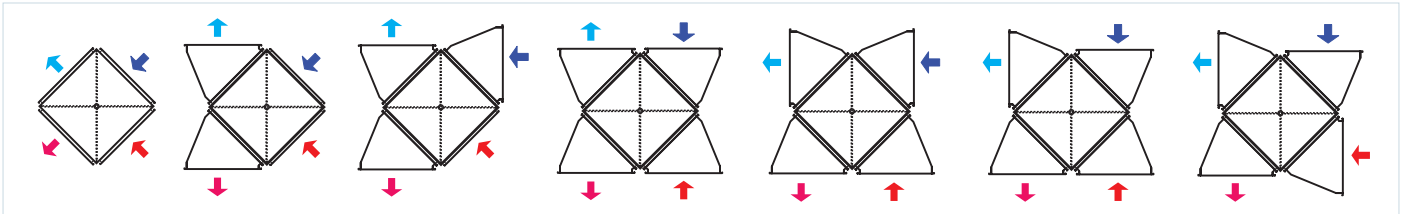
Bend designation
PK 600 x 300

PK bend

Accessory

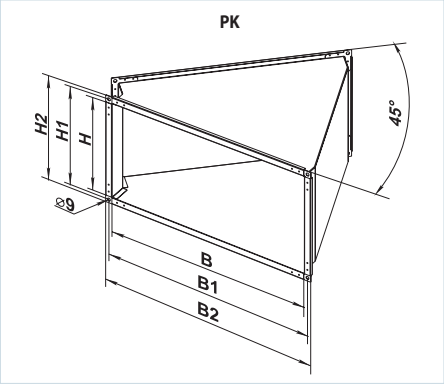
Summer block VL
For the summer period the heat exchanger can be replaced with the summer block VL which performs no heat recovery but reduces pressure loss by 10 %. It is applied in systems without by-pass at the inlet and in systems with no cooling.

Possible layout arrangements of PR heat exchanger and bends PK:



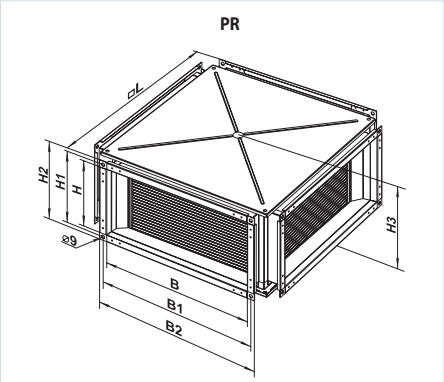
Designation key

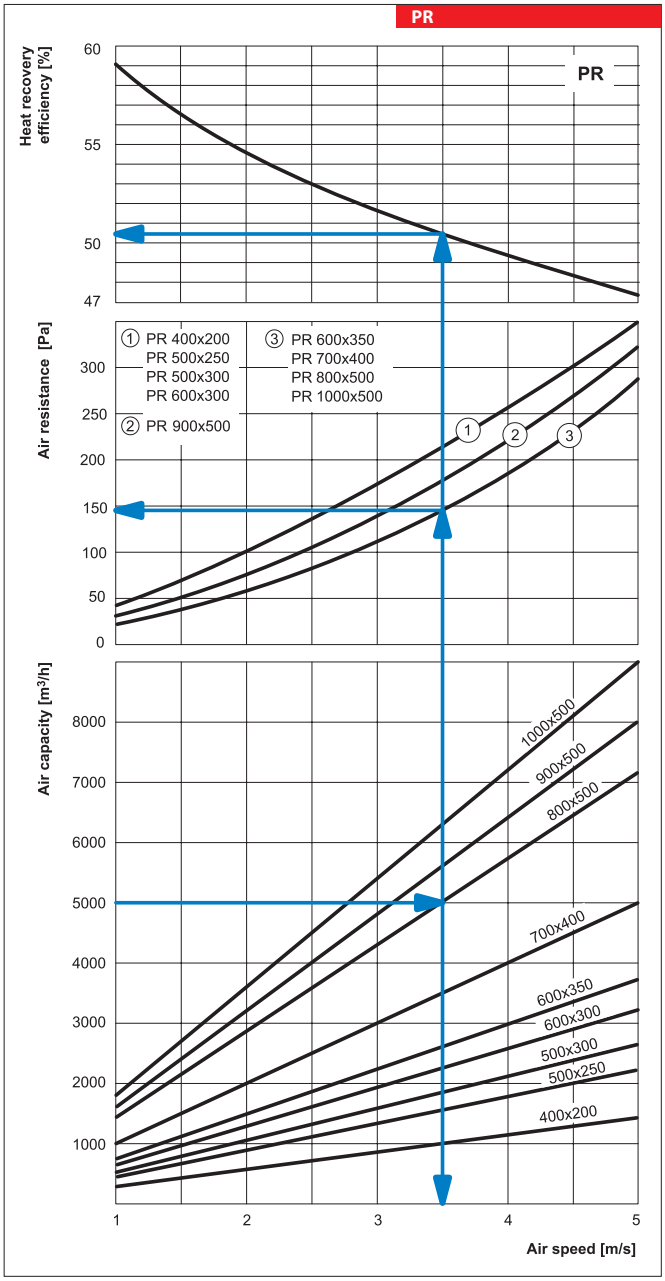
Series	Flange dimensions (WxH) [mm]
PR **PK**	400x200; 500x250; 500x300; 600x300; 600x350; 700x400; 800x500; 900x500; 1000x500
VL	400x200; 500x250; 500x300; 600x300; 600x350; 700x400; 800x500; 900x500; 1000x500



Overall dimensions

Type	Dimensions [mm]						Mass [kg]
	B	B1	B2	H	H1	H2	
PK 400x200	400	420	440	200	220	240	2.2
PK 500x250	500	520	540	250	270	290	3.3
PK 500x300	500	520	540	300	320	340	3.5
PK 600x300	600	620	640	300	320	340	4.5
PK 600x350	600	620	640	350	370	390	4.7
PK 700x400	700	720	740	400	420	440	5.9
PK 800x500	800	820	840	500	520	540	7.5
PK 900x500	900	920	940	500	520	540	8.7
PK 1000x500	1000	1020	1040	500	520	540	10.3





Overall dimensions

Type	Dimensions [mm]								Mass [kg]
	B	B1	B2	H	H1	H2	H3	L	
PR 400x200	400	420	440	200	220	240	275	530	17.1
PR 500x250	500	520	540	250	270	290	325	630	22.6
PR 500x300	500	520	540	300	320	340	375	630	24.2
PR 600x300	600	620	640	300	320	340	375	730	31.0
PR 600x350	600	620	640	350	370	390	425	730	33.4
PR 700x400	700	720	740	400	420	440	475	830	47.8
PR 800x500	800	820	840	500	520	540	575	930	61.1
PR 900x500	900	920	940	500	520	540	575	1130	78.8
PR 1000x500	1000	1020	1040	500	520	540	575	1130	78.3