

Always fresh air.

## Technical product information

befresh fresh air systems with heat recovery for new buildings

**befresh**



**PLUGGIT**  
Immer frische Luft



### Pluggit supply air outlet

The supply air is introduced into the room as displacement ventilation through optically attractive wall and floor cover grates.



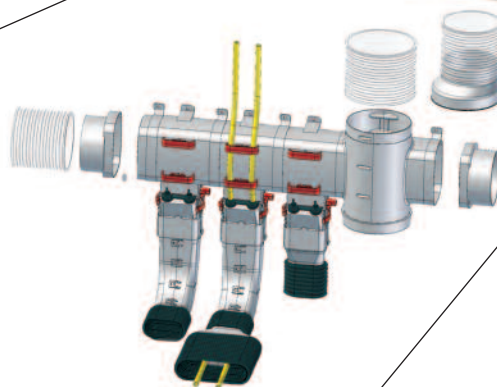
### PluggMar – air heat element

PluggMar ensures optimal indoor air quality in addition to a comfortable room temperature. The air-heating element is a fresh air provider and “heater” in one and is available as a wall or floor version.



### PluggFlex supply air duct

The supply air pipes are laid invisibly in the floor and can be laid easily without any further sealing. “Plugg it!”



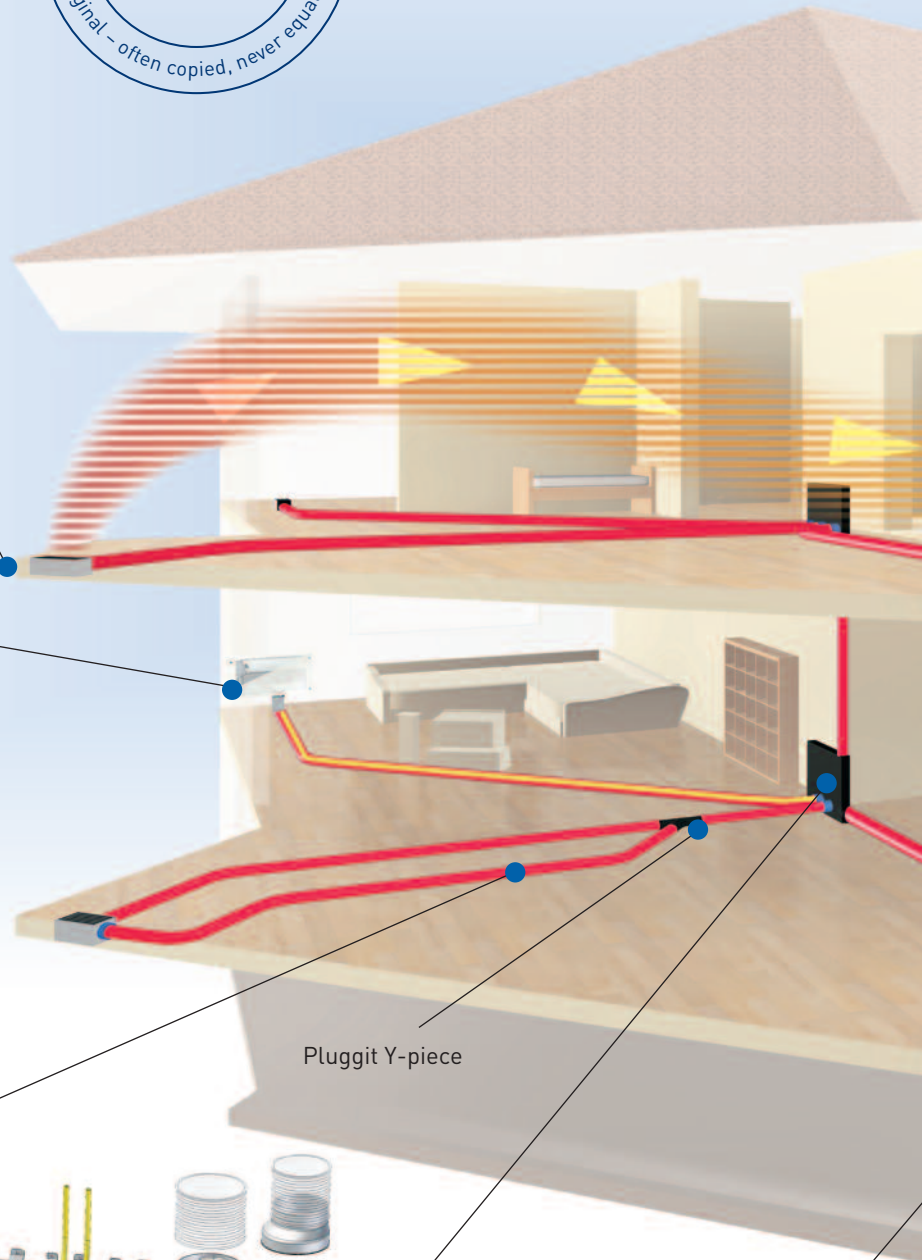
### Pluggit air distributor

The air volume can be set individually at each of the individual distributing elements for the room to be ventilated.



### PluggFlex exhaust tube

Through this tube, the collected extract air is directed into the heat recovery ventilation unit.



Pluggit Y-piece



# The Pluggit befresh fresh air systems with heat recovery for new buildings at a glance

## Pluggit extract air inlet

The used air is continuously extracted and transported to the extract collector by visually unobtrusive extract air inlets with special filter inlays.



## Pluggit extract air collector

The used, moisture-laden air is collected here and led to the fresh air unit for heat recovery.

## Pluggit geo thermal exchanger

Maximum ventilation efficiency through optimal use of soil temperatures. The supply air is pre-heated in winter and pre-cooled in summer. Pluggit offers a brine-air heat exchanger or a hygiene-air-soil geo thermal exchanger.

Pluggit silencer



## IsoPlugg insulating pipe



Air distribution, thermal insulation and condensate protection all in one. Simple, fast, secure – and cheaper and faster than parallel fold solutions.



## Pluggit air handling air unit


The centrally placed fresh air handling unit offers high energy efficiency through optimal heat recovery. In accordance with the principle of heat recovery, the fresh air is pre-heated in an energy efficient manner via a heat exchanger using the extract air and ensures a pleasant indoor climate and energy conservation.

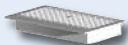
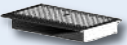

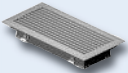

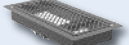
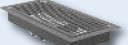
■ Outdoor air ■ Supply air (e.g. bedroom, living and children's rooms) ■ Extract air (e.g. kitchen, bathroom and WC) ■ Exhaust air

Air handling units	AP180	AP300
		
<b>Description</b>	Avent P180, four connections at the top one at the bottom, with speed regulation incl. wired remote control. Capacity: level 2, max. 130 m³/h	Avent P300, four connections on top incl. wireless remote control and summer-bypass. Capacity: level 2, max. 220 m³/h
<b>Living area</b>	120 m²	280 m²
<b>Heat recovery</b>	> 90 %	> 90 %
<b>max. air capacity</b>	180 m³/h at 100 Pa	300 m³/h at 240 Pa
<b>Supply voltage</b>	230 V AC 50 Hz	230 V AC 50 Hz
<b>Performance</b>	21.5 – 130 W	10 – 235 W
<b>Power consumption</b>	39 W (100 m³/h 100 Pa)	38 W at 150 m³/h; 100 Pa
<b>Direct current ventilator</b>	2 pieces, bent backwards	2 pieces, bent backwards
<b>Protection class</b>	IP44	IP41
<b>Filter class G4</b>	standard	standard
<b>Filter class F5</b>	optional	optional
<b>Filter class F7</b>	optional	optional
<b>Bypass</b>	not possible	✓
<b>DIBt-approval</b>	Z-51.3-189	Z-51.3-179
<b>Certifikates</b>	DIBt, Passivhaus, Ö-Norm	DIBt, Passivhaus, Ö-Norm
<b>Clean Safe</b>	✓	✓
<b>Remote control</b>	✓ (wired)	✓
<b>Width</b>	600 mm	590 mm
<b>Height</b>	805 mm	755 mm
<b>Depth</b>	376 mm	558 mm
<b>Weight</b>	38.5 kg	49 kg




AP300N	AP300D	AP450
		
Avent 300N, four connections on top incl. wireless remote control and summer-bypass. Capacity: level 2, max. 220 m³/h	Avent P300D, four connections on top incl. wired remote control without summer-bypass revolution regulation. Capacity: level 2, max. 220 m³/h	Avent P450, four connections on top incl. wireless remote control and summer-bypass. Capacity: level 2, max. 330 m³/h
280 m²	280 m²	350 m²
> 90 %	> 90 %	> 90 %
300 m³/h at 240 Pa	300 m³/h at 240 Pa	450 m³/h at 150 Pa
230 V AC 50 Hz	230 V AC 50 Hz	230 V AC 50 Hz
10 – 235 W	10 – 235 W	10 – 235 W
38 W at 150 m³/h; 100 Pa	38 W at 150 m³/h; 100 Pa	68 W at 260 m³/h; 100 Pa
2 pieces, bent backwards	2 pieces, bent backwards	2 pieces, bent backwards
IP41	IP41	IP41
standard	standard	standard
optional	optional	optional
optional	optional	optional
retrofitable	retrofitable	✓
Z-51.3-179	Z-51.3-179	Z-51.3-190
DIBt, Passivhaus, Ö-Norm	DIBt, Passivhaus, Ö-Norm	DIBt, Passivhaus, Ö-Norm
✓	✓	✓
✓	✓ (wired)	✓
590 mm	590 mm	590 mm
755 mm	755 mm	755 mm
558 mm	558 mm	739 mm
46 kg	46 kg	62,5 kg

Distributor	VT500	VT510	VT520	VT530
				
<b>Description</b>	Main distribution complete. In combination with the distributor elements ensures the distribution of the central fresh air supply to the individual rooms	Distributor module Standard with bow 90° for PK100	Distributor module straight for PK100	Distributor module straight for PK150
<b>Material</b>	ABS	ABS	ABS	ABS
<b>Colour</b>	black	black	black	black
<b>Width</b>	220 mm	120 mm	120 mm	120 mm
<b>Height</b>	266 mm	465 mm	355 mm	355 mm
<b>Depth</b>	117 mm	135 mm	135 mm	135 mm




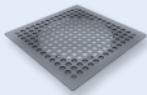
Ducts	PK100	PK150	PK200
	<p>"The original"</p>  <p><u>allfloor</u></p>	<p>"The original"</p>  <p><u>allfloor</u></p>	<p>"The original"</p>  <p><u>allfloor</u></p>
<b>Description</b>	PluggFlex-supply air duct for the connection of sub-distributor and supply air outlets	PluggFlex-supply air duct for the connection of sub-distributor and supply air outlets	PluggFlex-supply air duct for the connection of sub-distributor and supply air outlets
<b>Material</b>	PP	PP	PP
<b>Colour</b>	black	black	black
<b>Width</b>	92 mm	113 mm	172 mm
<b>Height</b>	50 mm	50 mm	57 mm
<b>Supply length</b>	25 m	25 m	10 m
<b>Weight</b>	330 g/m	400 g/m	750 g/m
<b>Min. bending radius</b>	0.5 m	0.75 m	1 m

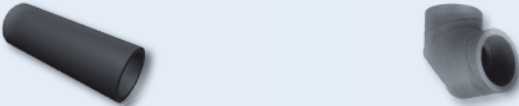
Covering grille	PL120	PL120 brown	PL121	PL122	PL123	PL124	PL125
							
<b>Description</b>	Covering grille standard, plastic, colour white for wall and floor mounting	Covering grille standard, plastic, colour brown for wall and floor mounting	Covering grille stainless steel for wall mounting	Covering grille plate aluminium with mounting frame for floor mounting	Covering grille steel, white lacquered, with mounting frame, only for wall mounting	Covering grille "Skive" Design rhomb, stainless steel with frame for wall and floor mounting	Covering grille "Skive" Design rhomb, stainless steel with frame for wall and floor mounting
<b>Fitting in wall</b>	✓	✓	✓	–	✓	✓	✓
<b>Fitting in floor</b>	✓	✓	–	✓	–	✓	✓
<b>Material</b>	ABS	ABS	stainless steel	aluminium	steel	stainless steel	stainless steel
<b>Colour/surface</b>	white	brown	brushed	–	white lacquered	brushed	brushed
<b>Length</b>	315 mm	315 mm	374 mm	325 mm	308 mm	323 mm	323 mm
<b>Width</b>	155 mm	155 mm	164 mm	165 mm	162 mm	163 mm	163 mm
<b>Height</b>	23 mm	23 mm	3 mm	53 mm	40 mm	46 mm	46 mm

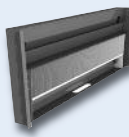


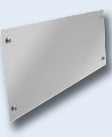
Tubes	SL080	SL125	SL150	SL180
				
<b>Description</b>	PluggFlex tube	PluggFlex tube	PluggFlex tube	PluggFlex tube
<b>Material</b>	PUR	PUR	PUR	PUR
<b>Colour</b>	transparent	transparent	transparent	transparent
<b>Dimensions</b>	NW080	NW125	NW150	NW180
<b>Supply length</b>	10 m	10 m	10 m	10 m
<b>min. bending radius</b>	0.1 m	0.2 m	0.3 m	0.4 m
<b>Output of pipe interfaces</b>	< 50 m³/h	< 150 m³/h	< 230 m³/h	< 350 m³/h

Extract air kits	EV100	EV150	EV200
			
<b>Description</b>	Pluggit extract air kit up to 50 m³/h	Pluggit extract air mounting kit	Pluggit extract air kit up to 25 m³/h
<b>Material</b>	ABS	ABS	ABS
<b>Colour</b>	black	black	black




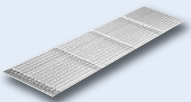



Covering grille	EVDB1	EVAB1/EVAB2	EVDB2	EVBP1
				
<b>Description</b>	Extract air filter screen standard NW150 (always in connection with filter connection EVFA1) for covering the air inlets	Extract air clip cover screen for EVDB1 for covering the air inlets	Extract air filter screen "Falsterbo" for covering the air inlets	Extract air stainless steel screen "Kalmar" for covering the air inlets
<b>Wall mounting</b>	✓	✓	✓	✓
<b>Material</b>	plastic	plastic	beech	stainless steel
<b>Colour/surface</b>	white	white or grey	nature	silver
<b>Length</b>	–	210 mm	–	190 mm
<b>Width</b>	–	210 mm	–	190 mm
<b>Height</b>	10 mm	15 mm	34 mm	2,5 mm
<b>Diameter</b>	187 mm	187 mm	188 mm	–

IsoPlugg	IP125	IP150	IP180
			
<b>Description</b>	Insulating tube for thermal and sound insulation and condensation protection for external and exhaust air pipe NW125	Insulating tube for thermal and sound insulation and condensation protection for external and exhaust air pipe NW150	Insulating tube for thermal and sound insulation and condensation protection for external and exhaust air pipe NW180
<b>Material</b>	EPE	EPE	EPE
<b>Colour</b>	anthracite	anthracite	anthracite
<b>Heat co-efficient</b>	0.04 W/m²K	0.04 W/m²K	0.04 W/m²K
<b>Density</b>	30 kg/m³	30 kg/m³	30 kg/m³
<b>Supply length</b>	2.25 m	2.25 m	2.25 m
<b>Internal diameter</b>	125 mm	150 mm	180 mm
<b>External diameter</b>	155 mm	180 mm	210 mm
<b>Installation</b>	IPVS1-1 coupling sleeve IPB01-1 bow 45° IPB06-1 bow 90°	IIPVS2-1 coupling sleeve IPB02-1 bow 45° IPB07-1 bow 90°	IPVS3-1 coupling sleeve IPB03-1 bow 45° IPB08-1 bow 90°

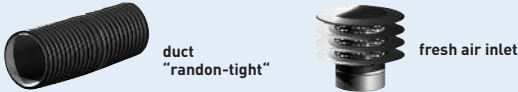
PluggMar Wall	PM900W	PMBTU2	BG900	BG901
				
<b>Description</b>	PluggMar wall type incl. heating connection	Electronic room control for controlling PM900W	Glass screen white for PM900W	Glass screen silver-grey for PM900W
<b>Mounting</b>	Wall	–	–	–
<b>Heating capacity (ventilating capacity)</b>	1.000 Watt at 50 m³/h; 55/45/20 °C	–	–	–
<b>Material</b>	steel sheeting, plastic coated	polycarbonate	safety glass	safety glass
<b>Colour</b>	white	white	white	silver-grey
<b>Width</b>	900 mm	90 mm	1,000 mm	1,000 mm
<b>Höhe</b>	390 mm	86 mm	440 mm	440 mm
<b>Depth</b>	63 mm	14 mm	6 mm	6 mm
<b>Installation</b>	Heating connection: 1/2" internal thread; Pluggit PluggFlex-duct PK200	In concealed socket (diameter 55 mm)	Installation with spot fitting kit PH900	Installation with spot fitting kit PH900


PluggMar Wall Electro	PM820WE	BG820	BG821	BW820
				
<b>Description</b>	PluggMar Wall Electro for electrical re-heating	Glass screen white for PM820WE	Glass screen silver-grey for PM820WE	Metal screen, powder-coated, white for PM820WE
<b>Mounting</b>	Wall	–	–	–
<b>Heating capacity (ventilating capacity)</b>	600 Watt at 50 m³/h	–	–	–
<b>Material</b>	steel sheeting, galvanised	safety glass	safety glass	metal powder coated
<b>Colour</b>	silver	white	silver-grey	white RAL 9010
<b>Width</b>	250 mm	310 mm	310 mm	320 mm
<b>Höhe</b>	250 mm	310 mm	310 mm	320 mm
<b>Depth</b>	75 mm	6 mm	6 mm	6 mm
<b>Installation</b>	Pluggit PluggFlex-duct PK100	Installation with spot fitting kit PH820	Installation with spot fitting kit PH820	Screw (included in scope of delivery)

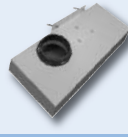
PluggMar Floor Slimline	PM1100BVR	PMBTU	GRA1100	GRE1100
				
<b>Description</b>	PluggMar floor version incl. control unit	Electronic room control for controlling PM1100BVR. Control of the 3 stages and the room temperature via a dual point actuator.	Grate aluminium for PM1100BVR	Linear grate stainless steel for PM1100BVR
<b>Mounting</b>	Floor	–	–	–
<b>Heating capacity (ventilating capacity)</b>	900 Watt at 50 m <sup>3</sup> /h; 55/45/20 °C	–	–	–
<b>Material</b>	galvanised steel sheeting, plastic coated	polycarbonat	aluminium	stainless steel
<b>Colour</b>	black	white	silver	silver
<b>Width</b>	1,135 mm	90 mm	1,132 mm	1,132 mm
<b>Height</b>	255 mm	86 mm	248 mm	248 mm
<b>Depth</b>	115 mm	14 mm	18 mm	18 mm
<b>Installation</b>	Heating connection: 1/2" internal thread; Pluggit PluggFlex-duct PK200	In concealed socket (diameter 55 mm)	Grate for covering the PM1100BVR	Grate for covering the PM1100BVR

Brine geothermal heat exchanger	SWT180
	
<b>Description</b>	Brine geothermal heat exchanger with brine mixture (water-antifreeze-mixture) for the optimal use of the soil temperatures. Heating of the external air in winter and cooling in summer.
<b>Material</b>	steel sheeting, powder coated
<b>Connection ventilating pipes</b>	IsoPlugg insulated pipes IP150 or IP180 commercially available diffusion proof insulated pipes 150 mm or 180 mm
<b>Connection brine pipe</b>	15 x 1 mm copper pipe
<b>Air flow volume</b>	max. 330 m³/h
<b>Brine flow rate</b>	150 – 200 l/h
<b>Operating pressure</b>	1.5 – 2.0 bar
<b>Filter G4</b>	standard
<b>Filter F7</b>	optional
<b>Width</b>	420 mm
<b>Height</b>	480 mm
<b>Depth</b>	504 mm
<b>Weight</b>	35 kg



GTC Hygienic-air-geo-thermal heat exchanger	GTC
	
<b>Description</b>	GTC Hygienic-air-geothermal heat exchanger for the optimal use of the soil temperatures. Heating of the external air in winter and cooling in summer.
<b>Material</b>	PP
<b>Duct diameter</b>	nominal width 205 mm, smooth walled internal pipe
<b>Thermal conductivity</b>	DIN 52612: 0,22 W/mK
<b>Pipe length</b>	mind. 25 m
<b>Pressure loss (Pa)</b>	30 Pa (250 m³/h, 30 m, 4 curves)
<b>Design flow</b>	max. 400 m³/h
<b>Loamy soil</b> energy efficiency	90 – 100 %
<b>Sand</b> energy efficiency	85 – 90 %
<b>Clay</b> energy efficiency	85 %
<b>Gravel</b> energy efficiency	80 %
<b>High hood</b> with filter element	ca. 40 cm

Distribution cabinets	VS502	VS503	VS505	VS506	VS507
					
<b>Description</b>	Distribution cabinet supply air 2 outlets	Distribution cabinet supply air 3 outlets	Distribution cabinet supply air 5 outlets	Distribution cabinet supply air 6 outlets	Distribution cabinet supply air 7 outlets
<b>Material</b>	Concealed cabinet galvanised steel, frame and door plastic coated	Concealed cabinet galvanised steel, frame and door plastic coated	Concealed cabinet galvanised steel, frame and door plastic coated	Concealed cabinet galvanised steel, frame and door plastic coated	Concealed cabinet galvanised steel, frame and door plastic coated
<b>Colour</b>	Screed deflector plate similar RAL9016	Screed deflector plate similar RAL9016	Screed deflector plate similar RAL9016	Screed deflector plate similar RAL9016	Screed deflector plate similar RAL9016
<b>Width</b>	682 mm	822 mm	987 mm	1,122 mm	1,272 mm
<b>Height</b>	664 mm	664 mm	664 mm	664 mm	664 mm
<b>Depth</b>	155 mm	155 mm	155 mm	155 mm	155 mm

Silencer	SD125-P	SD150-P	SD180-P	SD018
				
<b>Description</b>	Pluggit silencer, flexible, adjusted to AP180, NW125	Pluggit silencer, flexible, adjusted to AP300, AP300N, AP300D, NW150	Pluggit silencer, flexible, adjusted to AP450, NW180	Pluggit silencer, metal, adjusted to AP180, NW125
<b>Material</b>	Closed cell pulp with flexible aluminium coating	Closed cell pulp with flexible aluminium coating	Closed cell pulp with flexible aluminium coating	Galvanised steel sheeting
<b>Colour</b>	silver	silver	silver	white
<b>Length</b>	1,200 mm	1,200 mm	1,200 mm	600 mm
<b>Internal diameter</b>	125 mm	150 mm	180 mm	D 250 mm
<b>External diameter</b>	225 mm	250 mm	280 mm	H 180 mm

# The technology makes the difference.

Innovations Pluggit with added value for humans and the environment

**2Q**

Transverse and displacement ventilation – fresh air perfectly distributed, draught-free and virtually silent.

**allfloor**

System concept with maximum flexibility for the installation of ventilation channels. Regardless of whether in screed, concrete, wood flooring or wall, floor, ceiling. The original Pluggit air channels can be used anywhere.

  
**ServoFlow**

Control and supply with exactly the required or desired amount of fresh air.

**<EE>**

Energy efficiency – optimal ratio of energy expended to heat recovery degree attainment.

**CleanSafe**

Almost impossible pollution potential thanks to technically smooth surfaces combined with a concerted and certified cleaning concept.

**PluggMar®**  
 Frische Luft. Sanfte Wärme.

Fresh air and heat in one – faster, more flexible and more energy-efficient than conventional heating systems. Details at [www.pluggit.com](http://www.pluggit.com)

  
**refresh**

**In need of some fresh air in existing buildings?**  
**The unique fresh air system for the energetic refurbishment of existing buildings. Details at [www.pluggit.com](http://www.pluggit.com)**

## In need of some fresh air?

More information about the company, about the intelligent technology of the Pluggit fresh air systems for new buildings and refurbishment and information regarding references and regional contacts can be found at [www.pluggit.com](http://www.pluggit.com) or as a dialogue at [www.lueftungsblog.de](http://www.lueftungsblog.de)