

WE ARE POLYBLOC.

THE FUTURE OF ENERGY RECOVERY. SINCE 1982.

More than four decades ago, we began shaping the future.
By launching energy recovery systems that achieve more.
More efficiency. More quality. More profitability.

We have continuously developed this approach. Today, Polybloc heat exchangers are used all over the world. Individually manufactured for all requirements. At the highest technical level.

In this way we bring ecology and economy together.
A wise investment for the future.

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» The focus is on intelligent
building concepts with a comfort
factor for investors and users.
Over the entire life cycle.

*Arthur P. Moser, Gruner HVAC Planning of Meret Oppenheim
Hochhaus, Basel – CH, 3 Vapobloc, total 90,000 m³/h
© Herzog & de Meuron Architekten, Basel*



VAPOBLOC

MOISTURE AND HEAT RECOVERY

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VAPOBLOC

TRANSMITS MOISTURE. AND NO GERMS OR SMELLS.

Clean air is a precious commodity. And contributes significantly to people's health and well-being. However, we spend most of our lives in buildings.

In the heating period this means: In the dry heated air. For this reason, many people suffer from a sore throat, from burning eyes or dry skin.

When rooms are cooled by air-conditioning, the supply air must be dehumidified. This significantly increases the energy consumption.

The solution: an enthalpy plate exchanger – or in short: the Vapobloc! Its innovative membrane enriches the incoming warm air with moisture from the exhaust air or extracts moisture from the air under hot or tropical conditions. Without transmitting odors, germs, spores and bacteria!

The Vapobloc has thus proven itself in all areas of application such as hospitals, schools, retirement homes or apartment buildings.



PERFECT CLIMATE WHERE HUMIDITY AND PURITY COUNT:

Hospitals, schools
kindergartens, office buildings
retirement homes
apartment buildings



Einsiedeln Hospital, Einsiedeln – CH



Fahlmannmatte, Windisch – CH

Winpoly Plan V5.1.2023 - Gegenstrom-Wärmeaustauscher									
Parameter	Einheit	Wert	Einheit	Wert	Einheit	Wert	Einheit	Wert	Einheit
Temperatur T1	°C	20,0	20,0	20,0	20,0	20,0	20,0	20,0	20,0
Temperatur T2	°C	10,0	10,0	10,0	10,0	10,0	10,0	10,0	10,0
Relative Feuchte (%)	%	80,0	80,0	80,0	80,0	80,0	80,0	80,0	80,0
Relative Feuchte (g/kg)	g/kg	8,0	8,0	8,0	8,0	8,0	8,0	8,0	8,0
Enthalpie (kJ/kg)	kJ/kg	30,0	30,0	30,0	30,0	30,0	30,0	30,0	30,0
Auslast.		100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0
Temperatur T3	°C	10,0	10,0	10,0	10,0	10,0	10,0	10,0	10,0
Temperatur T4	°C	20,0	20,0	20,0	20,0	20,0	20,0	20,0	20,0
Relative Feuchte (%)	%	80,0	80,0	80,0	80,0	80,0	80,0	80,0	80,0
Relative Feuchte (g/kg)	g/kg	8,0	8,0	8,0	8,0	8,0	8,0	8,0	8,0
Enthalpie (kJ/kg)	kJ/kg	30,0	30,0	30,0	30,0	30,0	30,0	30,0	30,0

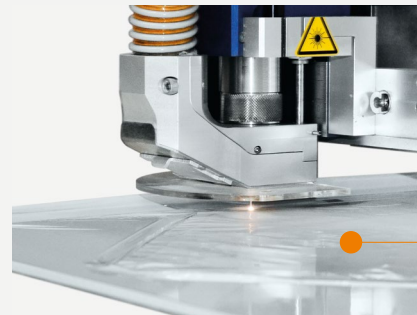
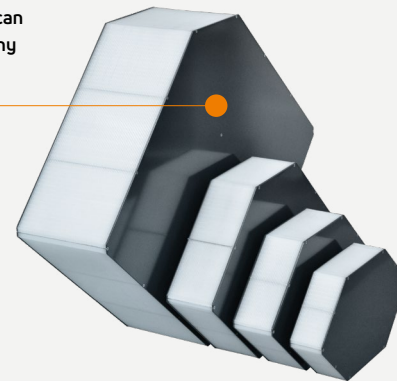
CERTIFIED PLANNING TOOL

Winpoly calculates how efficiently all Polybloc products interact in use under a wide variety of conditions. And can be easily integrated into any ventilation unit software.

Certified by:



Vapobloc is available in all standard dimensions and can be easily integrated into any ventilation unit.



High-quality polymer membrane with a long service life

THE VAPOBLOC ADVANTAGES AT A GLANCE

- MOISTURE TRANSFER IN WINTER**
Moisture is transferred through the special polymer membrane. The supply air is less dry and therefore provides for increased comfort.
- DEHUMIDIFICATION DURING AIR CONDITIONING**
Realizes energy savings, the refrigeration systems can be dimensioned much smaller.
- HIGH HEAT TRANSFER**
Various sizes also allow optimum dimensioning for all ventilation units.
- WATER VAPOR PERMEABLE MEMBRANE**
Allows only the transfer of water vapor molecules. Other media such as air, odors, germs and bacteria cannot pass through.
- OFFICIALLY CERTIFIED**
Performance and hygiene are regularly certified by neutral institutions.
- DOES NOT FREEZE**
Since a large part of the humidity is transferred to the supply air, there is normally hardly any condensate that can freeze.
- SAVINGS IN HUMIDIFIER OUTPUT**
The humidifiers can be smaller in size. The running costs for operation are considerably lower.
- MINIMUM MAINTENANCE**
Vapobloc is easy to clean and has no wearing parts.

FUNCTIONAL PRINCIPLE

Water vapor diffuses through the membrane. In Winter the supply air is humidified, in cooling conditions dehumidified. Contaminants such as particulate, odors, germs and bacteria cannot pass through.

