#### Efficient. Flexible. Reliable.

Hoval indoor climate systems are decentralised systems for heating, cooling and ventilating halls for industrial, commercial and leisure applications. The systems have a modular structure. One system comprises several ventilation units which are spread around the room. These units are equipped with reversible heat pumps and gas-fired appliances for decentralised heat and cold generation, or they heat and cool with a connection to a central energy supply.

Tailored control systems complete the system and ensure the effective combination and optimal use of all resources.

# **Diverse range of units ensures flexibility**Different types of ventilation units can be combined to create the perfect system for the

- project in question:
   RoofVent® supply and extract air handling
- TopVent® supply air units
- · TopVent® recirculation units

The number of supply and extract air handling units depends on how much fresh air is required in order to create a comfortable atmosphere for people in the building. Recirculation units cover additional heat or cool demand as required. A broad range of unit types and sizes with heating and cooling coils in various output levels means that the overall output of the system can be scaled to whatever level is required.

Specially designed unit versions are also available for halls with particularly humid or oily extract air. Furthermore, there is a range of units available which have been expressly developed for very specific purposes. ProcessVent units, for example, are coupled with extract air purification systems in industrial halls and recover heat from process air.

#### Draught-free air distribution

A key feature of Hoval indoor climate units is the patented vortex air distributor, known as the Air-Injector. It is controlled automatically and changes the blowing angle of the air continuously between vertical and horizontal. The highly efficient air supply system has many advantages:

- It provides a high level of comfort during heating and cooling. No draughts develop in the hall.
- The efficient and even air distribution ensures that the indoor climate units cover a large area.
- The Air-Injector keeps the temperature stratification in the room low, thus minimising heat loss through the roof.

#### Control with specialist expertise

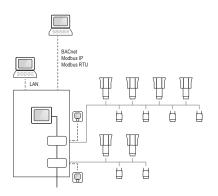
The TopTronic® C control system, which was specifically developed for Hoval indoor climate systems, regulates the separate units individually and controls them based on zones. This enables optimal adjustment to the local requirements of the different usage areas in the building. The patented control algorithm optimises energy use and ensures maximum comfort and hygiene levels. Clear interfaces make it easy to connect the system to the building management system.

Simpler control systems are also available for units that are only used for supply air or air recirculation.

#### Competent and reliable

Hoval will support you and provide expert knowledge throughout all project phases. You can rely on comprehensive technical advice when it comes to planning Hoval indoor climate systems and on the skills of the Hoval technicians during the installation, commissioning and maintenance of the system.

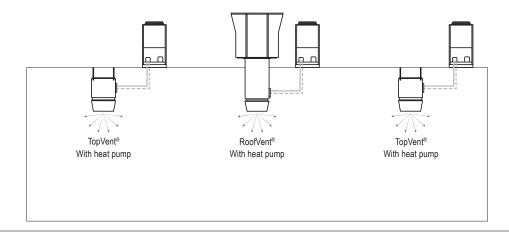




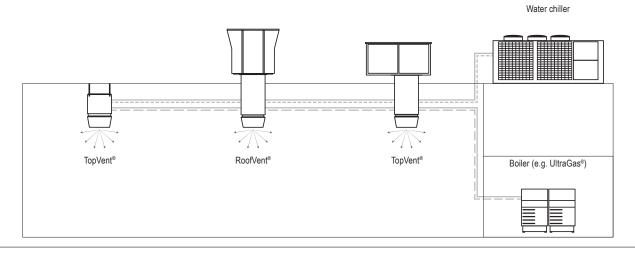




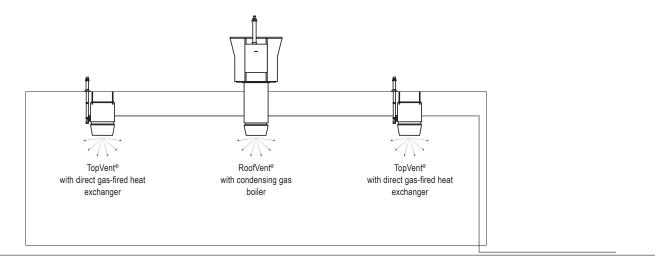
## System with decentralised heat and cold generation with heat pump



## System with central heat and cold generation



## System with decentralised gas-fired heat generation





## Supply and extract air handling units with efficient air distribution

RoofVent® RH

Heating with central heat generation

RoofVent® RC

Heating and cooling with central heat and cold generation in the 2-pipe system

RoofVent® RHC

Heating and cooling with central heat and cold generation in the 4-pipe system

#### Ventilation

- Fresh air supply
- Extract air removal
- Filters fresh air, recirculated air and extract air
- Air distribution with Air-Injector
- Recirculation operation

#### Ventilation

- Fresh air supply
- Extract air removal
- Filters fresh air, recirculated air and extract air
- Air distribution with Air-Injector
- Recirculation operation

#### Ventilation

- Fresh air supply
- Extract air removal
- Filters fresh air, recirculated air and extract air
- Air distribution with Air-Injector
- Recirculation operation

#### Heating

With connection to boiler system

#### Heating

With connection to boiler system

#### Heating

With connection to boiler system

## Cooling

With connection to water chiller

## Cooling

With connection to water

#### **Energy recovery**

Technical data	
Air flow rate	m³/h
Heat output	kW
Cooling capacity	kW
Operating distance	m x m
Weight	kg

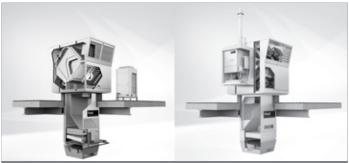
# RH-6 RH-9 5500 8000 up to 78 up to 139 22x 22 28x 28 849 1123

#### **Energy recovery**

RC-6	RC-9
5500	8000
up to 78 up t	to 139
up to 52 up t	o 98
22 x 22 2	8 x 28
882	1171

#### **Energy recovery**

RHC-9	RHC-6
800	5500
up to 13	up to 78
up to 9	up to 52
28 x 2	22 x 22
124	919



## Supply and extract air handling units with efficient air distribution

RoofVent® RP

Heating and cooling with decentralised heat pump RoofVent® RG

Heating with gas-fired heat generation

#### Ventilation

- Fresh air supplyExtract air removal
- Filters fresh air, recirculated air and extract air
- Air distribution with Air-Injector
- Recirculation operation

#### Ventilation

- Fresh air supply
- Extract air removal
- Filters fresh air, recirculated air and extract air
- Air distribution with Air-Injector
- Recirculation operation

#### Heating

With heat pump

## Heating

With condensing gas boiler

## Cooling

With heat pump

## **Energy recovery**

Technical data	
Air flow rate	m³/h
Heat output	kW
Cooling capacity	kW
Operating distance	m x m
Weight	kg

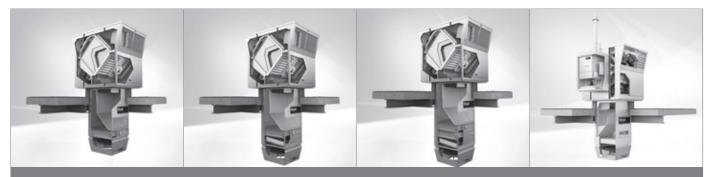
RP-6	RP-9
5500	8000
up to 40	up to 67
up to 40	up to 67
22 x 22	28 x 28
839	1201

## **Energy recovery**

RG-9
8000
up to 84
_
28 x 28
1250

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## Supply and extract air handling units with efficient air distribution (Non-EU countries)

#### RoofVent® KH

Heating with central heat generation

#### RoofVent® KC

Heating and cooling with central heat and cold generation in the 2-pipe system

#### RoofVent® KHC

Heating and cooling with central heat and cold generation in the 4-pipe system

#### RoofVent® KG

Heating with gas-fired heat generation

#### Ventilation

- Fresh air supply
- Extract air removal
- Filters fresh air, recirculated air and extract air
- Air distribution with Air-Injector
- Recirculation operation

#### Ventilation

- Fresh air supply
- Extract air removal
- Filters fresh air, recirculated air and extract air
- Air distribution with Air-Injector
- Recirculation operation

#### Ventilation

- Fresh air supply
- Extract air removal
- Filters fresh air, recirculated air and extract air
- Air distribution with Air-Injector
- Recirculation operation

#### Ventilation

- Fresh air supply
- Extract air removal
- Filters fresh air, recirculated air and extract air
- Air distribution with Air-Injector
- Recirculation operation

#### Heating

With connection to boiler system

#### Heating

With connection to boiler system

## Heating

With connection to boiler system

#### Heating

With condensing gas boiler

#### Cooling

With connection to water chiller

#### Cooling

With connection to water chiller

#### **Energy recovery**

KH-9	KH-6
11000	7500
up to 171	up to 110
_	
36 x 36	27 x 27
905	716

## Energy recovery

KC-9	KC-6
10500	7000
up to 167	up to 106
up to 112	up to 81
35 x 35	25 x 25
972	749

## Energy recovery

KHC-6	KHC-9
7000	10500
up to 106	up to 167
up to 81	up to 112
25 x 25	35 x 35
786	1026

## **Energy recovery**

KG-9	
11000	
up to 113	
_	
36 x 36	
1147	





## Recirculation units with efficient air distribution

TopVent® TH

Heating with central heat generation

TopVent® TC

Heating and cooling with central heat and cold generation in the 2-pipe system

TopVent® THC

Heating and cooling with central heat and cold generation in the 4-pipe system

#### Ventilation

- Recirculation operation
- Air distribution with Air-Injector
- Outlet nozzle (option)
- Air filtration (option)

#### Ventilation

- Recirculation operation
- Air distribution with Air-Injector
- Air filtration (option)

#### Ventilation

- Recirculation operation
- Air distribution with Air-Injector
- Air filtration (option)

#### Heating

With connection to boiler system

## Heating

With connection to boiler system

#### Heating

With connection to boiler system

## Cooling

With connection to water chiller

## Cooling

With connection to water chiller

Technical data	
Air flow rate	m³/h
Heat output	kW
Cooling capacity	kW
Operating distance	m x m
Weight	ka

TH-9	TH-6
9000	6000
up to 118	up to 76
_	_
31 x 31	23 x 23
166	111

TC-9	TC-6
9000	6000
up to 141	up to 76
up to 87	up to 44
31 x 31	23 x 23
276	216

THC-9	THC-6
9000	6000
up to 118	up to 76
up to 87	up to 44
31 x 31	23 x 23
340	255

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## Recirculation units with efficient air distribution

TopVent®	TP
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Heating and cooling with decentralised heat pump

#### TopVent® TV

Heating with central heat generation

#### TopVent® TW

Air curtain with central heat generation

#### Ventilation

- Recirculation operationAir distribution with Air-Injector
- Air filtration (option)

#### Ventilation

- Recirculation operation
- Air distribution via air outlet

#### Ventilation

- Recirculation operation
- Air distribution via outlet

#### Heating

■ With heat pump

## Heating

■ With connection to boiler system

#### Heating

With connection to boiler system

## Cooling

With heat pump

TP-6	TP-9
6000	9000
up to 40	up to 67
up to 40	up to 67
23 x 23	31 x 31
314	405

TV-5	TV-4	TV-2
5700	4850	2100
up to 45	up to 30	up to 13
_	_	_
12x 12	10 x 10	7x7
24	23	16

TW-2	TW-3	TW-5
1850	3100	4400
up to 11	up to 20	up to 29
_	_	_
Door h	neight up to	3.7 m
23	31	39

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## Recirculation units with efficient air distribution, configured as roof unit

TopVent® CH

Heating with central heat generation

TopVent® CC

Heating and cooling with central heat and cold generation in the 2-pipe system

TopVent® CHC

Heating and cooling with central heat and cold generation in the 4-pipe system

#### Ventilation

- Recirculation operation
- Air distribution with Air-Injector
- Outlet nozzle (option)
- Air distribution box (option, duct connection)
- Air filtration

#### Ventilation

- Recirculation operation
- Air distribution with Air-Injector
- Air distribution box (option, duct connection)
- Air filtration

#### Ventilation

- Recirculation operation
- Air distribution with Air-Injector
- Air-Injector
   Air distribution box
- (option, duct connection)
- Air filtration

#### Heating

With connection to boiler system

#### Heating

With connection to boiler system

#### Heating

With connection to boiler system

## Cooling

With connection to water chiller

## Cooling

With connection to water chiller

Technical data	
Air flow rate	m³/h
Heat output	kW
Cooling capacity	kW
Operating distance	m x m
Weight	kg

CH-6	CH-9
6000	9000
bis 76	bis 118
23 x 23	31 x 31
616	791

CC-6	CC-9
6000	9000
bis 76	bis 141
bis 44	bis 87
23 x 23	31 x 31
647	843

CHC-6	CHC-9
6000	9000
bis 76	bis 118
bis 44	bis 87
23 x 23	31 x 31
684	898



## Supply air units with efficient air distribution

#### TopVent® MH

Heating with central heat generation

#### TopVent® MC

Heating and cooling with central heat and cold generation in the 2-pipe system

#### TopVent® MHC

Heating and cooling with central heat and cold generation in the 4-pipe system

#### Ventilation

- Fresh air supply (duct connection)
- Mixed air operation
- Recirculation operation
- Air distribution with Air-Injector
- Air filtration

#### Ventilation

- Fresh air supply (duct connection)
- Mixed air operation
- Recirculation operation
- Air distribution with Air-Injector
- Air filtration

#### Ventilation

- Fresh air supply (duct connection)
- Mixed air operation
- Recirculation operation
- Air distribution with Air-Injector
- Air filtration

#### Heating

With connection to boiler system

#### Heating

With connection to boiler system

#### Heating

With connection to boiler system

## Cooling

With connection to water chiller

## Cooling

 With connection to water chiller

Technical data	
Air flow rate	m³/h
Heat output	kW
Cooling capacity	kW
Operating distance	m x m
Weight	kg

MH-9	MH-6
9000	6000
up to 121	up to 78
_	_
31 x 31	23 x 23
237	172

MC-9	MC-6
9000	6000
up to 145	up to 78
up to 68	up to 34
31 x 31	23 x 23
343	275

MHC-6	MHC-9
6000	9000
up to 78	up to 121
up to 34	up to 68
23 x 23	31 x 31
314	408



## Supply air units with efficient air distribution, configured as roof unit

TopVent® SH

Heating with central heat generation

TopVent® SC

Heating and cooling with central heat and cold generation in the 2-pipe system

TopVent® SHC

Heating and cooling with central heat and cold generation in the 4-pipe system

#### Ventilation

- Fresh air supply
- Mixed air operation
- Recirculation operation
- Air distribution with Air-Injector
- Air distribution box (option, duct connection)
- Air filtration

#### Ventilation

- Fresh air supply
- Mixed air operation
- Recirculation operation
- Air distribution with Air-Injector
- Air distribution box (option, duct connection)
- Air filtration

#### Ventilation

- Fresh air supply
- Mixed air operation
- Recirculation operation
- Air distribution with Air-Injector
- Air distribution box (option, duct connection)
- Air filtration

#### Heating

With connection to boiler system

#### Heating

With connection to boiler system

#### Heating

With connection to boiler system

## Cooling

With connection to water chiller

## Cooling

With connection to water chiller

Technical data	
Air flow rate	m³/h
Heat output	kW
Cooling capacity	kW
Operating distance	m x m
Weight	kg

SH-6	SH-9
6000	9000
bis 78	bis 121
_	-
23 x 23	31 x 31
661	846

SC-6	SC-9
6000	9000
bis 78	bis 145
bis 34	bis 68
23 x 23	31 x 31
692	898

SHC-6	SHC-9
6000	9000
bis 78	bis 121
bis 34	bis 68
23 x 23	31 x 31
729	953





Gas-fired recirculation	and supply air units with e	fficient air distribution
TopVent® TG	TopVent® MG	TopVent® GV
Recirculation unit with efficient air distribution	Supply air unit with efficient air distribution	Recirculation unit
Ventilation  Recirculation operation  Air distribution with Air-Injector  Air filtration (option)  Outlet nozzle (option)	Ventilation  Fresh air supply (duct connection)  Mixed air operation  Recirculation operation  Air distribution with  Air-Injector  Air filtration	Ventilation ■ Recirculation operation ■ Air distribution via air outlet louvre
Heating ■ With gas-fired heat exchanger	Heating ■ With gas-fired heat exchanger	Heating ■ With gas-fired heat exchanger
TG-6 TG-9 7000 11000	MG-6 MG-9 7000 11000	GV-3 GV-5 4200 8500

TG-6	TG-9
7000	11000
29	61
_	_
26 x 26	36 x 36
125	170

П	MG-6	MG-9
	7000	11000
	29	61
	_	_
	26 x 26	36 x 36
	175	230

GV-5
8500
50
_
16 x 16
80





## Compact units with energy recovery from process air

#### **ProcessVent PV**

Compact unit for ventilating with energy recovery from process air

#### **ProcessVent PVH**

Compact unit for ventilating and heating with energy recovery from process air

#### **ProcessVent PVC**

Compact unit for ventilating, heating and cooling with energy recovery from process air

#### Ventilation

- Fresh air supply
- Extract air removal (with air conveyance via the extract air purification plant)
- Recirculation operation
- Air filtration

#### Ventilation

- Fresh air supply
- Extract air removal (with air conveyance via the extract air purification plant)
- Recirculation operation
- Air filtration

#### Ventilation

- Fresh air supply
- Extract air removal (with air conveyance via the extract air purification plant)
- Recirculation operation
- Air filtration

#### Heating

With connection to boiler system

#### Heating

With connection to boiler system

## Cooling

■ With connection to water

## Energy recovery from process air

	PV-10
m³/h	10000
kW	_
kW	_
m x m	_
kg	1657

Technical data
Air flow rate
Heat output
Cooling capacity
Operating distance

Weight

# Energy recovery from process air

PVH-10	
10000	
up to 234	
_	
_	
1699	

# Energy recovery from process air

PVC-10
10000
up to 256
up to 118
_
1754