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HEAT EXCHANGER



Technical descripton	>>>
Dimensions	>>>
Variable drive equipment	>>>
Constant drive equipment	t >>>
Capacity / Calucation prog	gram >>>
Purge air	
Service, maintenance and	start up

Installation type / Order key >>>

ROTARY HEAT **EXCHANGER** <<<

TECHNICAL DESCRIPTION >>>

Heat exchangers for optimum energy recovery





CONDENSATION ROTORS

ST

Standard condensation heat exchanger for transfer of sensible energy.

STC

Condensing heat exchanger for transfer of sensible energy. Heat storing matrix, epoxy coated for corrosion protection.

AK

Condensing heat exchanger for transfer of sensible energy. Heat-storing matrix made from corrosionresistant aluminium.

Enchoy (Suzhou) Ventilation System Co., Ltd.

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MATERIALS WITH DIAMETERSUP TO 5000 mm

ENTHALPHY ROTORS

STE

Standard hygroscopic heat exchanger for transferof sensible and latentenergy. Heat storingmatrix specially treated for additional humidity transfer. App-roved forapplication in hospitals.

STEC

As STE, but with epoxyreinforced edging for additional protection.

AKE

Hygroscopic heat exchanger for transfer of sensible and latent energy. Heatstoring matrix made from corrosion resistant aluminium. Approved for application in hospitals.

AKEC

As AKE, but with epoxyreinforced edging for additional protection.

SORPTION ROTOR

HX

Standard sorption heat exchanger for transfer of sensible and latent energy. Heat storing matrix with silica gel coating for high humidity transfer over the complete temperature range.

HM

Standard sorption heat exchanger for transfer of sensible and latent energy. Heat storing matrix with molecular sieve 3A coating for high humidity transfer over the complete temperature range. Very selective for transfer of water molecules.



ROTOR

All rotors are manufactured for laminar airflow using one flat and one corrugated strip of material.

The foil types are either in standard thickness or 100 um aluminium, aluminium alloy, epoxy coated aluminium or zeolite coated aluminium.

Spokes are used to mechanically bond the rotor's laminations. These are threaded at the hub andwelded at the periphery. This facilitates cleaning without disturbing the laminations. Cleaning is possible using: air, steam, water or special chemicals. The rotor hub requires no maintenance and is equipped with life-time lubricated ball bearings or roller bearings installed in a protected position within the hub.

Installation of the rotor can be carried out horizontally or vertically. Choice of drive motor position.

See also "Rotor construction", "Advice on choice of material ".

CASING

Casings for wound rotor sizes up to 2450 mm are made from galvanised steel plates or aluminium profiles. The casing can be delivered complete or in two sections. For rotor sizes above 2450 mm the casing is made from aluminium or steel profiles. Delivered in two sections.

All casings can be adapted to suit duct connections. Built-in purge sector between supply air and exhaust air to avoid mixing of air currents.

Adjustable seal installed around the rotor periphery and along the central beam.

As an option, the drive casing can be fitted with inspection covers. See "Construction of casing" fora more detailed description.

DRIVE MECHANISM

The rotor is driven by a motor mounted on a bracket within the protective casing.

All rotors are belt driven from the motor pulley to the rotor periphery. See also "Drive equipment".

Choice of drive control system for variable rotor speed.





TECHNICAL ROTOR **DESCRIPTION** CONSTRUC-TION <<<

>>>

Rotor made of alternating layers of flat and corrugated foil. Available in various materials and well heights.

Foil thickness, standard or 100 um. Extends rotor life and is able to endure repeated cleaning.

Epoxy-coated foil or epoxy reinforced edging increase the life of the rotor in aggressive environments.

Flat rotor surface for minimum leakage.

Fracture-proof end faces that are not crushed and can be reset facilitate rotor cleaning using chemicals, water and steam at high pressure.

Mechanical 1y stable, as the interior spokes are threaded at the hub and welded at the periphery. These replace adhesives and ensure that the rotor is rigid. Also, glue may dissolve when cleaned with chemicals, hot water or vapour, or when in contact with certain air pollutants, thus increasing the risk of carry-over.

See "Technical description" and "Advice on choice of material"

The rotor is of mechanical construction with internal spokes threaded at the hub and welded at the periphery.



The rotor hub requires no naintenance and is equipped with life-time-lubricated ball bearings or roller bearing sinstalled in a proctected position within the hub.

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Below is a broad summary to help simplify the process of choosing rotor materials for various applications. If you require further information, please contact us

Standard condensation and hygroscopic rotors. For average pollution of supply or exhaust air with rotors, or clean supply and exhaust air with long operating times, or clean supply and exhaust air with

> **Enchoy STE1** Standard aluminium, hygroscopic.

Sorption wheel for high exchange rate of sensible and latent energy.

Heat storing matrix treated with special zeolithe for high humidity transfer over the complete temperature range (winter and summer).

> **Enchoy HX1** Standard aluminium, sorptive silicagel coating.

Enchoy HM1 Standard aluminium, sorptive molecular sieve 3A coating. Very selective for transfer of water molecules.

For applications in sea water environment, e.g. ships. Aluminium alloy EN 5052, containing 2.5% Mg.

Enchoy AK1 Standard non-corrosive aluminium alloy AK73, non-hygroscopic. **Enchoy AK2** 100 pm non-corrosive aluminium alloy AK73, non-hygroscopic.

Enchoy AKE1 Standard non-corrosive aluminium alloy AK73, hygroscopic. Enchoy AKEC1 Standard non-corrosive aluminium alloy AK73, epoxy-reinforced edging, hygroscopic.

For corrosive environments. STC for adaiabatic cooling (prevents humidity transfer of the years)

Enchoy STC1Enchoy STEC1Standard epoxy-coated aluminium
non—hygroscopic.Standard aluminium, epoxy-reinforced
edging, hygroscopic.

ADVICE ON CHOICE MATERIAL OF MATERIAL PROPERTIES



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Non-corrosive aluminium alloy type AK73 Epoxy Coated Epoxy-coated edging humidiy transfer Without adhesive Internal spokes Fracture-proof surface Cleanable Flat rotor surface High resistance to aggressive environments Maximum temperature in °C 7



ST	STE	HX/HM	STC	AK	AKE
No	No	No	No	Yes	Yes
No	No	No	Yes	No	No
No	No	No	No	No	No
-	+	++/++++	-	-	+
′es	Yes	Yes	Yes	Yes	Yes
′es	Yes	Yes	Yes	Yes	Yes
′es	Yes	Yes	Yes	Yes	Yes
++	++	+	++	++	++
'es	Yes	Yes	Yes	Yes	Yes
No	No	No	Yes	Yes	Yes
0°C	70°C	70°C	80°C	80°C	80°C



The Enchoy rotors are available in various casing models: •To be built into Air Handling Unit (AHU)

Casing type CS: for 400-2450 mm wound rotor.	Slide-in type casing for air-handling units. Simple construction made from sheet metal. No side panels, single side purge sector. Delivered mounted.
Casing type CSD: for 400-2450 mm wound/ sectorised rotor.	Like casing tyape CS. Divided casing. For cases with lack of space e.g transfer into building. Delivered dismounted.
Casing typ DS: for 2450-5000 mm sectorised rotor.	Slide-in type casing for air-handling units. Divided casing (in two sections) made of aluminium profiles with galvanised sheet metal plates. Without front covers. Casing delivered in parts and rotor in sectors for customer assembly.
Casing typ DS: for 2450-5000 mm sectorised rotor.	Slide-in type casing for air-handling units. Divided casing (in two sections) made of aluminium profiles with galvanised sheet metal plates. Without front covers. Casing delivered in parts and rotor in sectors for customer assembly.

•For direct connection to Air Handling Unit (AHU) or duct

Casing type C: for 400-2450 mm wound rotor.	Casing for direct connection to air-handling unit or duct. Made of aluminium profiles with galvanized sheet metal plates. Removable front covers. Delivered mounted.
Casing typ CD: for 400-2450 mm wound/ sectorised rotor.	Like casing type C. Casing for connection to air-handling unit or duct. Divided casing made of aluminium profiles with galvanised sheet metal plates. Removable front covers. Delivered dismounted.
Casing typ D: for 2450-5000 mm sectorised rotor.	Casing for connection to air-handling unit or duct. Divided casing (in two sections) made of galvanised steel profiles with galvanised sheet metal plates. Removable front covers. Casing delivered in parts and cater in the covers. Casing customer assembly. Rotor and casing size can be customised to suit customer
The standard casing is not The standard insulated, and has a double insulated.	requirements. standard casing is not ated, and has a double

CONSTRUC-**CONSTRUC-TION OF TION OF** CASING CASING

<<<

>>> **Overview**

	CS	CSD	DS	С	CD	D
Built into AHU	x	х	х	-	-	-
Directly connected to AHU or duct	-	-	-	х	х	х
Casing one-piece	х	-	-	Х	-	-
Casing divided	-	х	Х	-	Х	х
Side panels	No	No	No	Yes	Yes	Yes
Optional 50mm insulation	No	No	No	Yes	Yes	Yes
Rotor one-piece	Х	Х	-	Х	х	-
Rotor divided	-	х	х		х	х

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purge sector (CS—type, singlepurge sector only) and adjustablebrush sealings. and adjustablebrush sealings.





Example of available sizes.

Height (A), width (B) and rotor diameter (D) can be adapted to suit customer requirements.

SIZE	A/B	мм	D	E	Х	Y	WEIG	HT KG
	CS	CSD	MM	ММ	MM	MM	CS	CSD
600	800	840	600	290	100	30	31	32
800	900	940	800	290	100	30	49	51
950	1050	1090	950	290	100	30	66	68
1100	1200	1240	1100	290	100	30	85	87
1200	1300	1340	1200	290	100	30	99	101
1350	1450	1490	1350	290	100	30	122	124
1500	1600	1640	1500	290	100	30	147	150
1700	1800	1840	1700	290	100	30	185	187
1900	2000	2040	1900	290	100	30	226	229
2000	2100	2140	2000	290	100	30	249	252
2150	2250	2290	2150	290	100	30	285	288
2400	2500	2540	2400	290	100	30	349	353

Dimensions for non—insulated casing without panels. Weight excluding drive unit (see "Drive equipment") and packaging.



DIMENSIONS CASING CASING TYPE CS / CSD TYPE C

< < < To be built into AHU

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>>> For direct connection to

AHU or duct



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Example of available sizes. Height (A), width (B) and rotor diameter (D) can be adapted to suit customer requirements.

SIZE	А/В мм	D MM	E MM	X MM	Y MM	WEIGHT кg
600	820	600	430	50	30	56
800	1020	800	430	50	30	80
950	1170	950	430	50	50	99
1100	1320	1100	430	50	50	121
1200	1420	1200	430	50	50	137
1350	1570	1350	430	50	50	163
1500	1720	1500	430	50	50	190
1700	1920	1700	430	50	50	230
1900	2120	1900	430	50	50	274
2000	2220	2000	470	70	70	297
2150	2370	2150	470	70	70	334
2400	2620	2400	470	70	70	400

Dimensions for non—insulated and 50 mm insulated casings. Weight excluding insulation, drive unit (see "Driveequipment") and packaging.







Example of available sizes

Height (F1/FZ), width (B) and rotor diameter (D) can be adapted to suit customer requirements.

SIZE	В	D MM	E MM	F ₁ /F ₂ MM	X MM	Ү мм	WEIGHT KG
950	1170	950	430	610/560	50	50	139
1100	1320	1100	430	685/635	50	50	166
1200	1420	1200	430	735/685	50	50	185
1350	1570	1350	430	810/760	50	50	215
1500	1720	1500	430	885/835	50	50	248
1700	1920	1700	430	985/935	50	50	310
1900	2120	1900	430	1085/1035	50	50	362
2000	2220	2000	470	1145/1075	70	70	389
2150	2370	2150	470	1220/1150	70	70	432
2400	2620	2400	470	1345/1275	70	70	511

Dimensions for non—insulated and 50 mm insulated casings. Weight excluding insulation, drive unit(see "Drive equipment") and packaging.





CASING **TYPE CD**

<<< For direct connection to AHU or duct

CASING **TYPE DS** >>>

To be built into AHU

Example of available sizes. to suit customer requirements.

SIZE	В	D MM	E MM	F ₁ /F ₂ MM	X MM	Y MM	WEIGHT KG
2650	2850	2650	430	1465/1385	160	80	629
2900	3100	2900	430	1590/1510	160	80	738
3200	3400	3200	430	1740/1660	160	80	857
3500	3700	3500	430	1890/1810	160	80	1037
3800	4000	3800	430	2040/1960	160	80	1169
4200	4400	4200	430	2240/2160	160	80	1356
5000	5200	5000	470	2640/2560	160	80	1770



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Height (Fl/FZ), width (B) and rotor diameter (D) can be adapted

Dimensions for non-insulated casing without panels. Weight excluding drive unit (see "Driveequipment") and packaging.





Example of available sizes.

Height (Fl/Fz), width (B) and rotor diameter (D) can be adapted to suit customer requirements.

SIZE	В	D MM	E MM	F ₁ /F ₂ MM	Х ММ	Y MM	WEIGHT KG
2650	2880	2650	430	1480/1400	160	80	664
2900	3130	2900	430	1605/1525	160	80	775
3200	3430	3200	430	1755/1675	160	80	898
3500	3730	3500	430	1905/1825	160	80	1081
3800	4030	3800	430	2055/1975	160	80	1216
4200	4430	4200	430	2255/2175	160	80	1408
5000	5230	5000	470	2655/2575	160	80	1831

Dimensions for non-insulated and 50 mm insulated casings. Casing with side removable panels Weight excluding insulation, drive unit (see "Drive equipment") and packaging.



CASING TYPE D

<<< For direct connection to AHU or duct

VARIABLE DRIVE **EQUIPMENT**

>>> EMX-815/25/35 / EMS VVX6

EMX[™]-R is a series of integra-ted drive systems specially de-signed for driving rotary heat exchangers. The drive system is available in four sizes, for rotors up to 5500mm in diameter, and in several different configurations.

The drivesystem is based on the switched reluctance (SR) principle.



MAJOR BENEFITS

Sturdy motor unit as gears are not necessary (not VVX6). The motor has optional direction of rotation (not VVX6).

- Constant torgue over the entire speed range provides ideal operating characteristics at low speeds.
- and earth.

The soft start reduces mechanical wear. irrespective of load.

external motor protectors. Sealing class IP 54 protects against dirt and moisture. ■ High efficiency means low operating costs.

DRIVE MOTOR/ CONTROL UNIT		SPG25t/40t EMX-P10	EMX-R15	EMX-R25	EMX-R35	VVX6
Rotor diameter	mm	<800	<1530	1531-2530	2531-3530	3531-5500
Input voltage	V	220-240	220-240	220-240	220-240	220-240
Frequency	Hz	50/60	50/60	50/60	50/60	50/60
Motor power	kW	0,025 / 0.04	0,040	0,100	0,160	0,750
Input current	А	max. 0,7	0,70	1,30	1,70	max. 7,20
Protection class		-	IP54	IP54	IP54	IP54
Weight (motor/control unit)	kg	2,1/0,4	5,0/1,7	8,0/1,7	11,0/1,7	11,8/6,8

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- Easy to install—the drive system requires no initial tuning or adjustment.
- Short-circuit-proof between the motor phases and between motor phases
- ■IntraSens), electronic rotor position detection, guarantees that the motor always maintains the rotation speed determined by the control signal,
- Integrated electronic motor protection eliminates the need for separate

DESCRIPTION OF FUNCTIONS

MiniMax (VK-enclosed) is a modern vector-modulated frequency Inverter with all the additional functions necessary for controlling rotating heat exchangers.

Recognises most available control speed reference signals.

The speed of the heat exchanger (and its efficiency) is controlled by the frequency inverter, so that the speed of the rotor is in proportion to the input signal from your central control.

If the input signal is below the adjusted threshold value, the rotor will stop.

When the rotor has been still for 30 minutes the cleaning function will engage and the rotor will rotate at 10s per minimum speed.

The rotation monitor (a magnet installed on the rotor plus integral magnetic transmitter) will stop the frequency inverter and send an alarm signal in the event of belt breakage or similar mechanical failurer.

In the event of excess or insufficient voltage or open thermal contact, the frequency inverter will stop and an alarm signal will be given.



Motor power max	0,37 kW	Max. frequency	40-100 Hz
Motor current max	2,2 A	Acceleration time	1-30 s
Overload 2 min / 30 min	3,5 A	Deceleration time	1-30 s
Connection voltage	1x230 V	Ambient temperature	
Connection frequency	50-60 H	(no condensation)	0-45 °C
Output voltage	3 x 0-230 V	Protection class	IP 54
Output frequency	1-100 Hz	Weight	1,4 kg
Min. frequency	1-20 Hz	Dimension H x W x D	195 x 165 x 67 mm
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VARIABLE DRIVE **EQUIPMENT** <<< MINIMAX VK

VARIABLE DRIVE **EQUIPMENT** >>>

MICROMAX

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DESCRIPTION OF FUNCTIONS

MicroMax is a modern vectormodulated frequency inverter with all the additional functions necessary for controlling rotating heat exchangers.

The rotation speed is regulated by a control signal 0-10V.

The speed of the heat exchanger (and its efficiency) is controlled by the frequency inverter, so that the speed of the rotor is in proportion to the input signal from your central control.

stop.

When the rotor has been still for 30 minutes the cleaning function will engage and the rotor will rotate at 10s per minimum speed.

The rotation monitor (a magnet installed on the rotor plus integral magnetic transmitter) will stop the frequency inverter and send an alarm signal in the event of belt breakage or similar mechanical failure.

In the event of excess or insuf- ficient voltage or open thermal contact, the frequency inverter will stop and an alarm signal will be given.



DRIVE MOTOR CONTROLL UNIT		MICROMAX 180	MICROMAX 370	MICROMAX 750
Rotor diameter	mm	0-2399	2400-3549	3550-5000
Input voltage	V	230	230	230
Input frequency	Hz	50/60	50/60	50/60
Motor power	kW	0,18	0,37	0,75
Input current	А	0,99	1,82	3,2
Protection class		IP54	IP54	IP54
Weight (control unit)	kg	0,9	1,2	1,2

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If the input signal is below the adjusted threshold value, the rotor will

[1]3-phase induction motor - IEC standard. [2]Isolation class F. [3]4-pole / 1500 rpm. [4]Worm gear—Density tested. [5]IEC-approved flange for the motor-B14. [6]Mounted on feet. [7]Lifetime lubrication—with synthetic oil.[8]Available with thermo contact for monitoring of winding temperature.



DRIVE MOTOR		AP56	AP63	AP71	AP80
Rotor diameter	mm	300-1199	1200-1699	1700-2449	2450-5000
Input voltage	V	3x230/400	3x230/400	3x230/400	3x230/400
Frequency	Hz	50/60	50/60	50/60	50/60
Motor power	kW	0,09	0,18	0,37	0,75
Rated current	А	0,40	0,57	1,05	1,90
Gear change		7:1	7:1	7:1	7:1
Weight	kg	4,3	5,9	7,9	12,1

CONSTANT CONSTANT DRIVE EQUIPMENT

<<< AP56 / AP63 / AP71 / AP80



SPG25 / SPG40

[1]Single-phase or three-phase AC-motor with gearbox [2]Gear with lubricated roller-bearings.[3]Assembly of motor and gearbox with screws mounted through both units, also to be used when mounting unit to motor bracket. [4]Thermostat relay is integrated. [5]Tachometer option, for variable speed system.



ANTRIEB		
Input voltage	V	
Frequency	Hz	
Motor power	kW	
Rated current	А	
Weight	kg	

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SPG 25	SPG25tacho	SPG40K	SPG40V
230	230	3x400	3x230
50/60	50/60	50/60	50/60
0,025	0,025 0,04		0,04
0,24	0,24	0,21	0,39
1,89	2,03	3,4	3,4



VARIABLE DRIVE	EQUIPMENT-	EMX-R/	VVX
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DRIVE MOTOR / CONTROL UNIT		اـــــا 	EMX-R15	EMX-R25	EMX-R35	VVX6
Rotor diameter	mm	<800	800-1530	1531-2530	2531-3530	3531-5500
Input voltage	V	220-240	3x220-240	3x220-240	3x220-240	3x220-240
Frequency	Hz	50/60	50/60	50/60	50/60	50/60
Motor power	kW	0,025 / 0.04	0,040	0,100	0,160	0,750
Rated current	А	max. 0,7	0,70	1,30	1,70	max. 7,20
Protection class		-	IP54	IP54	IP54	IP54
Weight (motor/control unit)	kg	2,1/0,4	5,0/1,7	8,0/1,7	11,0/1,7	11,8/6,8

VARIABLE DRIVE EQUIPMENT – MINIMAX / MICRIMAX WITH MOTOR

DRIVE MOTOR		40V	AP56t	AP63t	AP71t	AP80t
Rotor diameter	mm	m <1000 <1500		1500-2399	2400-3549	3550-5000
Control unit		Micromax 180/ Minimax	Micromax 180/ Minimax	Micromax 180/ Minimax	Micromax 370/ Minimax	Micromax 750
Input voltage	V	3x230	3x230	3x230	3x230	3x230
Frequency	Hz	50/60	50/60	50/60	50/60	50/60
Motor power	kW	0,04	0,09	0,18	0,37	0,75
Rated current	А	0,39	0,70	0,99	1,82	3,30
Protection class		IP54	IP54	IP54	IP54	IP54
Weight (motor/control unit)	kg	3,4/<2,0	4,3/<2,0	5,9/<2,0	7,9/<2,0	12,1/<2,0

CONSTANT DRIVE EQUIPMENT

DRIVE MOTOR		25	40K	AP56	AP63	AP71	AP80
Rotor diameter	mm	<850	<1000	<1200	1200-1699	1700-2449	2450-5000
Input voltage	V	230	3x400	3x230/400	3x230/400	3x230/400	3x230/400
Frequency	Hz	50/60	50/60	50/60	50/60	50/60	50/60
Motor power	kW	0,025	0,04	0,09	0,18	0,37	0,75
Rated current	А	0,24	0,21	0,70/0,40	0,99/0,57	1,82/1,05	3,30/1,90
Weight	kg	1,8	3,4	4,3	5,9	7,9	12,1

DRIVE HOW TO EQUIPMENT -TABLE **SUMMARY** <<<

USE THE ENCHOY CAPACITY DIAGRAM

>>>

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[4] Read out efficiency.





[1] Select airflow.[2] Select rotor size with acceptable pressure drop (a) and air speed (b).[3] Follow vertical line along to airflow ratio.



Capacity





STANDARD CALCULATION WELL HEIGHT, **PROGRAMS** 200 mm rotor depth

<<<

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We have developed a series of calculation programs for simple selection of a heat exchanger model.

The series consists of several different programs based on thesame calculation data.

Ourcalculation engine, Enchoy Blackbox DLL, is used as a base. It is an ActiveXX-Dll where we have collected the formulas necessary for calculations. If you cannot use Blackbox DLL, we have a small program that will function as a kind of "glue" between the dll file and your program. This is known as **Enchoy Blackbox wrapper**.

The main program is **Enchoy Calculation.** This is a fully-fledged program containing all the features you need to select the correct heat exchangerfrom our product range. Enchoy Calculation, together with this catalogue, is an excellent source of information.

If you have any further questions regarding calculation, please contact us.

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ENCHOY

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Due to rotation of the storage matrix, a part of the exhaust air remains in the rotor when it turns to the supply air. Without a purgezone a certain volume of exhaust air will always be carried over to the supply air steam.



This can be prevented with a correctly dimensioned purgezone. The purgezone is located on the supply air steam (after the rotor) side, at the point where the rotor storage matrix rotates from the supply air steam, over the purgezone, into the exhaust air steam.





ENCHOY

	dp < 200 Pa	dp 200-500 Pa	dp 500-800 Pa	dp > 800 Pa
P2 P3 exhaust	no purge zone recom- mended	Standard 5° angle	2.5° angle	no purge zone recom- mended
P2	no purge zone recom- mended	Standard 5° angle	2.5° angle	no purge zone recom- mended
P2	no purge zone recom- mended	Standard 5° angle	2.5° angle	no purge zone recom- mended
P2 P2 P3 exhaust	NO PURG	GEZONE (backflo	ow through the pu	ırgezone)

The criteria to decide about dimensioning a purgezone are the ventilator position and the pressure difference (dp) between P1 minusP4 in [Pa] (see following table).

Without informadon about the pressure difference or the positioning of the ventilators, a standard purgezone is installed and sealed with brush sealings.



The environment around a heat exchanger influences its function, efficiency and pressure drop.

The most important parts of the heat exchanger should be checked regularly, especially if air guality deteriorates.

Below you will find some simple checking procedures.

MAINTENANCE OF THE ROTOR

The rotor faces must be inspected regularly for dirt and dust deposits. Even if the air-handling unit has filters, these may be broken or ineffective, allowing dirty air to bypass the filter. This will dramatically increase dirt deposits.

IF THERE ARE DIRT AND DUST DEPOSITS ON THE ROTOR. THESE CAN BE EASILY REMOVED. USING ONE OF THE FOLLOWING **METHODS:**

[1]vacuum cleaner—if there is not too much dirt. [2]compressed air—if there is a lot of dirt, but it is not firmly attached. [3]hot water or solvents if there is a lot of firmly attached dirt.

THE UNIT CAN ALSO BE EQUIPPED WITH AUTOMATIC CLEANING **DEVICES THAT USE COMPRESSED AIR OR WATER:**

E-CLEAN 16 High-pressure air (6-8 Bar pressure).

MAINTENANCE OF DRIVE UNIT

[1]The rotor is driven by motor via a drive belt around the rotor periphery. [2] Tension of the drive belt must be checked after the first 100 operating hours. [3] Tension can be increased by shortening the belt, which is joined by means of small fishplates.

[4]The motor itself requires no maintenance.

MAINTENANCE OF SEALS BETWEEN ROTOR AND HOUSING

Clearance between seals and rotor must be checked during inspection and, if necessary, corrected. The seals require no further maintenance.

SERVICE AND START UP **MAINTENA-**>>> NCE

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Start up also includes the inspection of correct installation and adequate electrical connection of the energy recovery equipment, along with a mechanical and electrical check.

- the rotor slightly.
- 2. Check free access to the driving motor.
- 3. Check drive tension.
- 4. Check direction of rotation.
- 5. Constant speed drive: if necessary, by interchanging the phases.
- 6. Variable speed drive:



1. Check smooth and unrestricted rotor running. If the rotor is blocked by the sealings, they have to be adjusted. The sealing should touch

When looking towards the warm side, the rotor must rotate from the exhaust air flow via the purge sector into the supply air flow.

Check electrical connection. Change the direction of rotation,

See start-up instructions for the specific control drive.





1-4 DRIVE UNIT EXHAUST AIR

ACCES SIDE

PURGE SECTOR ON

PURGE SECTOR ON BACK

INSTALLA- TION TYPE AND MOTOR POSITION <<<<	THE MOST FREQUENT INSTALLA- TION TYPES, INSPECTION SIDE AND MOTOR POSITION >>>	Supply Air flow up U Supply air down D
Enchoy (Suzhou) Ventilation System Co., Ltd.	Enchoy (Suzhou) Ventilation System Co., Ltd.	For identif Supply air
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Email: info@enchoy.com.cn Http://www.enchoy.com	Email: info@enchoy.com.cn Http://www.enchoy.com	For other

rflow



flow



fication of the motor position and service side can be used flow up **U** , and right hand **AHU R=UR=B1**.

be placed with both identifications (**UR** or **B1**) , firmation will be done only as per B 1.

installation variants please look page 9:1, Installation type and motor position

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Left hand AHU L

Right hand AHU R



Accessories

• Inspection window • Drain pan • Connection plates • Connection flanges • Cleaning system

ORDER KEY <<<

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