HEAT RECUPERATORS WITH AIR-AIR CROSS FLOW

XRC SERIES

OVERVIEW AND CONSTRUCTION DETAILS

OVERVIEW :

The **XRC** series of heat recuperators are fitted with a highly efficient air-air heat exchanger that makes it possible to reuse a significant amount of the heat present in the extracted air. It is therefore suitable for all those installations where a significant amount of heat can be recovered thereby making energy savings, such as in ventilation systems in shops, offices, catering premises, bars and restaurants.

CONSTRUCTION DETAILS:

- The **XRC** model is made with an aluminium profile structure and box shape panels of pre-varnished galvanized steel, internally isolated with glass wool having an average thickness of 15 mm, ideal to guarantee the maximum results for acoustic and thermal isolation with density greater than than 120 Kg/m³.
- Static type heat exchanger, highly efficient, made with aluminium plates using cross-air flows kept separate by a suitable sealing.
- G4 class supply and extraction filter elements, wavy model, in polyester fibre with a metal frame and electrically welded containment net with purposely ideated slots to facilitate maintenance and periodic substitution.
- Supply and extraction centrifugal ventilators with double aspiration removable on each side of the unit for frequent maintenance.
- One or three speed electric motors directly coupled, usually available in stock 1 speed version.
- On board terminal for electrical connections and ventilators control.
- Condensation collecting basin in galvanized steel with condensation discharge.

ACCESSORIES :

Cooling or heating batteries.
Speed regulator and switch.
Electronic control system.
Supply or extraction grill.
Air load regulation damper.
Rain protection roof.
Base corner support.

XRC MODEL
DETAIL OF VENTILATOR INSPECTION DOOR

XRC MODEL
DETAIL FILTER SUBSTITUTION DOOR

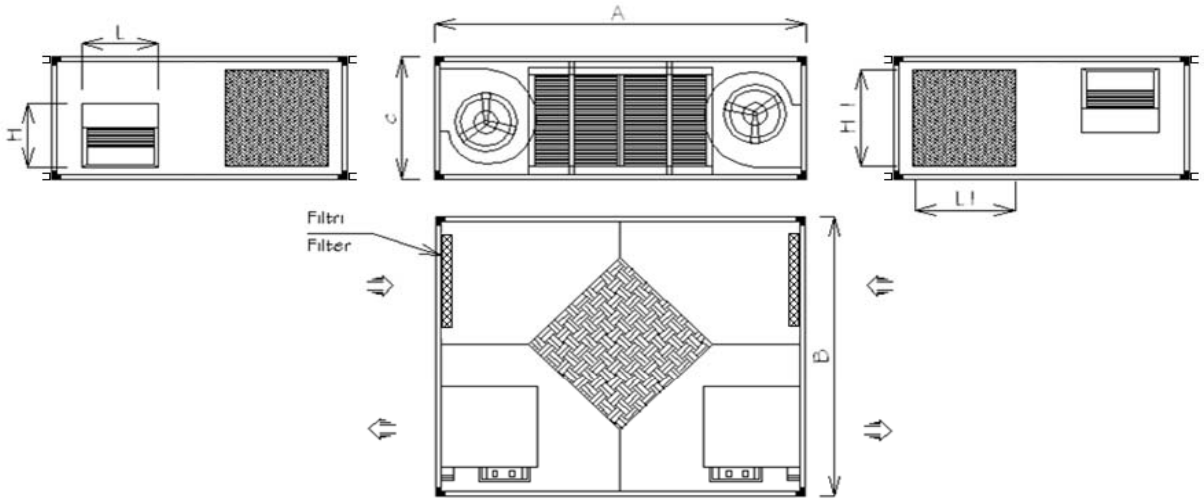
DETAIL OF A MODEL MADE TO CUSTOMER REQUESTS

HEAT RECUPERATORS WITH AIR-AIR CROSS FLOW

CONSTRUCTION DIMENTIONS

XRC SERIES

XRC & XRCE MODEL - PRODUCTION DRAWING



MODEL	A [mm]	B [mm]	C [mm]	L [mm]	H [mm]	L1 [mm]	H1 [mm]	Weight [Kg]
XRC 03	1000	800	320	210	125	200	150	43
XRC 06	1000	1000	320	210	125	300	200	65
XRC 10	1250	1150	400	232	200	400	300	101
XRC 15	1250	1150	400	232	262	400	300	113
XRC 20	1450	1150	500	298	262	400	400	139
XRC 25	1700	1250	500	298	262	500	400	159
XRC 30	1700	1250	550	331	289	500	400	175
XRC 40	1900	1350	670	309	341	500	500	183
XRC 50	1900	1600	670	395	341	625	500	212
XRC 60	1900	1600	670	395	341	625	500	232

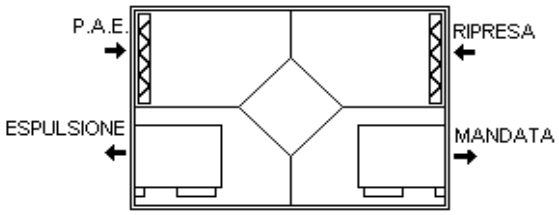
HEAT RECUPERATORS WITH AIR-AIR CROSS FLOW

XRC SERIES

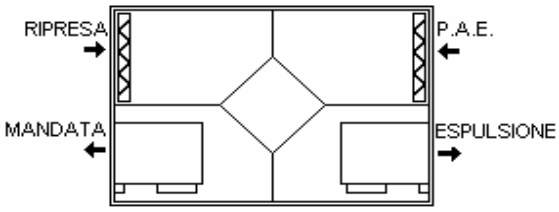
HORIZONTAL CONFIGUTATIONS

THE HORIZONTAL CONFIGURATIONS ARE FROM ABOVE VIEW

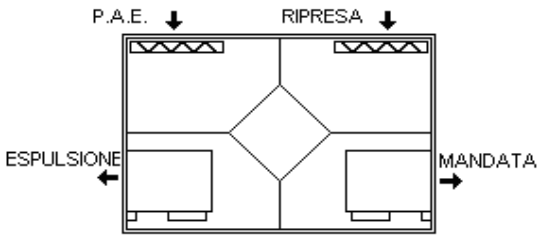
K1 CONFIGURATION (HORIZONTAL)



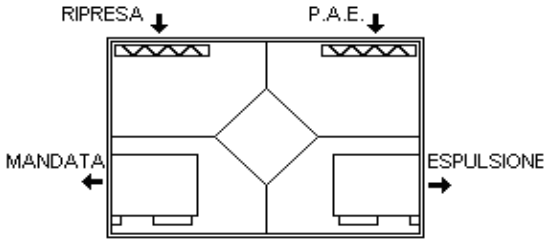
K2 CONFIGURATION (HORIZONTAL)



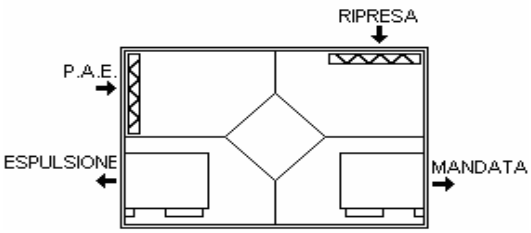
K3 CONFIGURATION (HORIZONTAL)



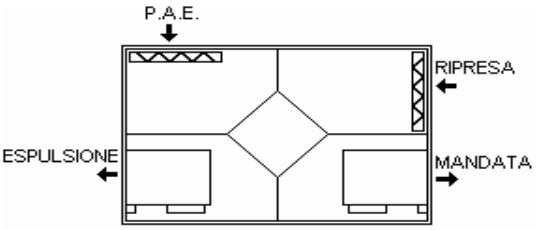
K4 CONFIGURATION (HORIZONTAL)



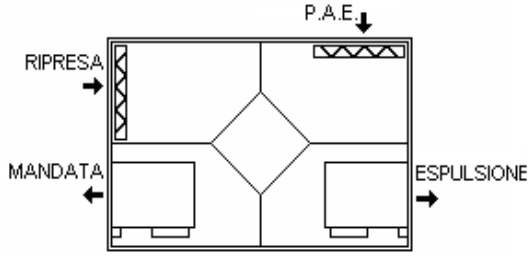
K5 CONFIGURATION (HORIZONTAL)



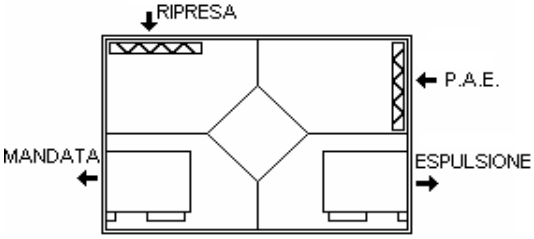
K6 CONFIGURATION (HORIZONTAL)



K7 CONFIGURATION (HORIZONTAL)



K8 CONFIGURATION (HORIZONTAL)



OTHER CONFIGURATIONS ON REQUEST

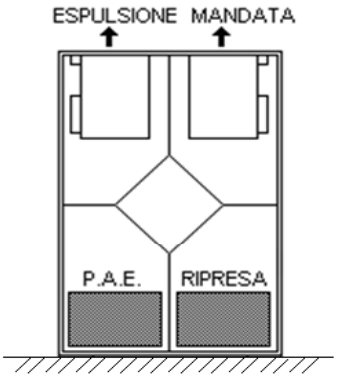
HEAT RECUPERATORS WITH AIR-AIR CROSS FLOW

XRC SERIES

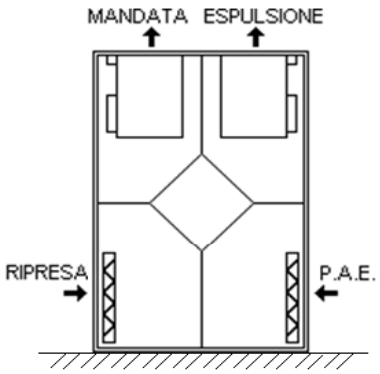
HORIZONTAL CONFIGUTATIONS

THE SHOWN VERTICAL CONFIGURATIONS ARE SIDE-ON VIEW.

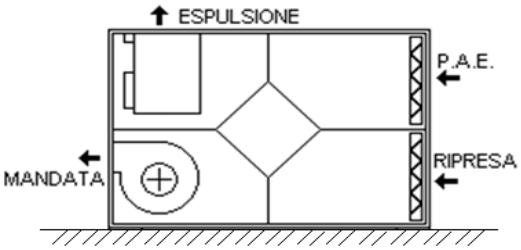
K9 CONFIGURATION (VERTICAL) SIDE AND FRONT INSPECTION



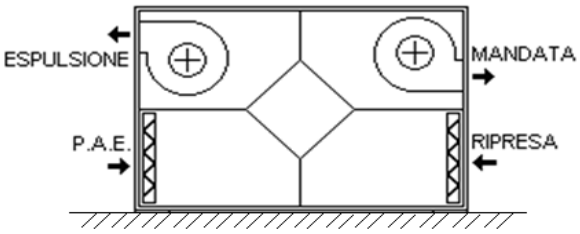
K10 CONFIGURATION (VERTICAL) SIDE AND FRONT INSPECTION



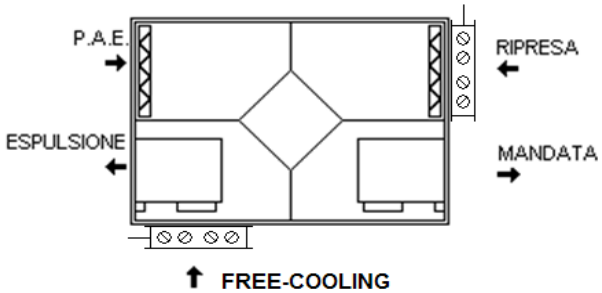
K12 CONFIGURATION (VERTICAL)



K11 CONFIGURATION (VERTICAL)



FREE-COOLING CONFIGURATION (HORIZONTAL)



OTHER CONFIGURATIONS UPON REQUEST

HEAT RECUPERATORS WITH AIR-AIR CROSS FLOW

XRC SERIES

PERFORMANCE

The data in the tables indicate the performance for a nominal air load.
The variantion in performance air load described below in relation to the size of the recuperator, is described in the tables at the end of this chapter.
The graphs for the curves of the ventilators are available upon request from our Technical Department.

XRC - XRCE RECUPERATORS GENERAL CHARACTERISTICS

	RECUPERATOR MODEL	Nominal air load [m³/h]	Supply air static pressure (*) [Pa]	Acoustic power [dB(A)] (**)
	**03**	250	220	53
	05	500	180	51
	10	1000	100	53
	15	1500	150	60
	20	1900	200	59
	25	2500	190	56
	30	3200	170	59
	40	4000	120	69
	50	5000	110	68
	60	6000	Δ 290	Δ 72
			Y 90	Y 71

EXCHANGERS GENERAL CHARACTERISTICS (*)

	RECUPERATOR MODEL	Recovery efficiency [%]	Air recovery thermal power [kW]	Air temperature on exit [°C]
	**03**	50,0	1,50	8,40
	05	53,0	2,40	8,30
	10	54,0	4,90	8,40
	15	52,0	7,00	7,90
	20	52,0	9,40	7,90
	25	51,0	12,00	7,80
	30	51,0	15,00	7,80
	40	51,0	19,00	7,80
	50	51,0	23,00	7,70
	60	50,0	27,00	7,50

(*) Evaluated performances with nominal air load temperature on exit of 20 °C and fresh air at -5 °C.
(**) Generated noise power of each ventilator in an open space at a distance of 1 metre.

HEAT RECUPERATORS
WITH AIR-AIR CROSS FLOW

VENTILATORS

XRC
SERIES

SINGLE SPEED VENTILATOR CHARACTERISTICS
EACH RECUPERATOR HOUSES TWO VENTILATORS

	RECUPERATOR MODEL	Power [W]	nr poles	I max [A]	nr speeds	Protection level [IP]	Isolation class	Power Supply [V/ph/Hz]
	03	2 x 90	2	2 x 1,0	1	IP 32	B	230/1/50
	06	2 x 90	2	2x 1,0	1	IP 32	B	230/1/50
	10	2 x 147	4	2 x 1,5	1	IP 55	F	230/1/50
	15	2 x 420	4	2 x 3,6	1	IP 55	F	230/1/50
	20	2 x 550	4	2 x 4,6	1	IP 55	F	230/1/50
	25	2 x 550	4	2 x 4,6	1	IP 55	F	230/1/50
	30	2 x 550	4	2 x 4,6	1	IP 55	F	230/1/50
	40	2 x 1100	6	2 x 10	1	IP 20	F	230/1/50
	50	2 x 1100	6	2 x 10	1	IP 20	F	230/1/50
1 SPEED	60	2 x 1500	4	2 x 5,4	1	IP 20	F	400/3/50

THREE SPEED VENTILATOR CHARACTERISTICS
EACH RECUPERATOR HOUSES TWO VENTILATORS

	RECUPERATOR MODEL	Power [W]	nr poles	I max [A]	nr speeds	Protection level [IP]	Isolation Class	Power Supply [V/ph/Hz]
	03	2 x 60	2	2 x 1,0	3	IP 32	B	230/1/50
	06	2 x 60	2	2 x 1,0	3	IP 32	B	230/1/50
	10	2 x 147	4	2 x 1,5	3	IP 44	F	230/1/50
	15	2 x 350	4	2 x 2,8	3	IP 55	F	230/1/50
	20	2 x 550	4	2 x 5,4	3	IP 55	F	230/1/50
	25	2 x 550	4	2 x 5,4	3	IP 55	F	230/1/50
	30	2 x 550	4	2 x 5,7	3	IP 10	F	230/1/50
	40	2 x 736	6	2 x 7,4	3	IP 20	F	230/1/50
3 SPEED	50	2 x 736	6	2 x 6,8	3	IP 20	F	230/1/50

(*) Evaluated performances with nominal air load temperature on exit of 20 °C and fresh air at -5 °C.
(**) Irradiated noise without dampening of panels.

HEAT RECUPERATORS WITH AIR-AIR CROSS FLOW

XRC SERIES

ACCESSORIES

G4 FILTER CHARACTERISTICS

	RECUPERATOR MODEL	filter code	filtering efficiency	Front air velocity [m/s]	Dimensions [mm]
	03	FO48150200	EU4-G4	2,3	200x150x48
	06	FO48200300	EU4-G4	2,3	300x200x48
	10	FO48300400	EU4-G4	2,3	400x300x48
	15	FO48400300	EU4-G4	3,5	400x300x48
	20	FO48400400	EU4-G4	3,3	400x400x48
	25	FO48400500	EU4-G4	3,5	500x400x48
	30	FO48400500	EU4-G4	4,4	500x400x48
	40	FO48500500	EU4-G4	4,4	500x500x48
	50	FO48500625	EU4-G4	4,4	625x500x48
	60	FO48500625	EU4-G4	4,4	625x500x48

Normally available in stock as spare parts.

HEAT RECUPERATORS WITH AIR-AIR CROSS FLOW

XRC SERIES

ACCESSORIES

POST-HEATING WATER COILS XRC and XRCE
NORMALLY INSTALLED INSIDE THE RECUPERATOR

IMAGE	RECUPERATOR	POST HEATING BATT.	GEOMETRY	N°ROWS/N° TUBES PER ROW	BLADE PITCH (mm)	THERMAL YELD (kW)	WATER TEMP. ON EXIT (°C)	PRESSURE LOSS AIR SIDE (Pa)	PRESSURE LOSS WATER SIDE (kPa)	COLLECTOR DIAMETER	WEIGHT (kg)
	**10**	BPS 10	30x30	2 / 10	2,5	9,8	36,3	45	13,6	¾	5
	15	BPS 15	30x30	2 / 11	2,5	13,9	34,8	50	5,3	¾	7
	20	BPS 20	30x30	2 / 14	2,5	18,5	34,6	57	10,8	¾	8
	25	BPS 25	30x30	2 / 14	2,5	23,5	35,1	57	20,6	¾	9
	30	BPS 30	30x30	2 / 16	2,5	27,8	33,1	72	9,5	1	10
	40	BPS 40	30x30	2 / 20	2,5	35,8	33,8	70	19,6	1	12
	50	BPS 50	30x30	2 / 20	2,5	46,4	34,8	60	19,7	1	15
	60	BPS 60	30x30	2 / 20	2,5	51,7	32,8	83	23,7	1	15

Sizes chosen with the foolowing conditions: water 70/60 °C, immitted air 8 °C, nominal air load.

XRC e XRCE POST-HEATING ELECTRIC COILS
NORMALLY INSTALLED INSIDE THE RECUPERATOR

IMAGE	RECUPERATOR	POST HEATING BATT.	ELECTRICAL RESISTANCE [kW]	POWER SUPPLY [V]	STAGES **	ABSORBTION [A]	EXIT AIR TEMPERATURE [°C]	DIMENSIONS [mm]	WEIGHT [kg]
	**03**	BPE 03	2,0	230/ 1 /50	1	8,7	28,4	300 x 140 x 150	2
	06	BPE 05	4,0	230/ 1 /50	1	17,4	27,8	300 x 140 x 150	2
	10	BPE 10	4,5	400/ 3 /50	1	6,5	21,3	350 x 240 x 150	3
	15	BPE 15	6,0	400/ 3 /50	1	8,7	20,7	350 x 240 x 150	3
	20	BPE 20	9,0	400/ 3 /50	1	13,0	22,0	360 x 340 x 150	3
	25	BPE 25	12,0	400/ 3 /50	1	17,3	22,2	360 x 340 x 150	3
	30	BPE 30	12,0	400/ 3 /50	1	17,3	19,5	360 x 340 x 150	3
	40	BPE 40	12,0	400/ 3 /50	1	17,3	19,5	360 x 340 x 150	3
	50	BPE 50	12,0	400/ 3 /50	1	17,3	19,5	360 x 340 x 150	3
	60	BPE 60	12,0	400/ 3 /50	1	17,3	19,5	360 x 340 x 150	3

Sizes chosen with the foolowing conditions: immitted air at 8 °C, nominal air load.
****3 stage heat coil on request**

HEAT RECUPERATORS WITH AIR-AIR CROSS FLOW

XRC SERIES

ACCESSORIES

VARIATOR FOR SINGLE SPEED MOTORS (TWO PER UNIT)

	RECUPERATOR MODEL	Variator Code	Maximum Absorption [A]	Power Supply [V/ph/Hz]
	03	XRC-RVM03A	3	230/1/50
	06	XRC-RVM03A	3	230/1/50
	10	XRC-RVM03A	3	230/1/50
	15	XRC-RVM05A	5	230/1/50
	20	XRC-RVM05A	5	230/1/50
	25	XRC-RVM05A	5	230/1/50
	30	XRC-RVM05A	5	230/1/50
	40	XRC-RVM20A	20	230/1/50
	50	XRC-RVM20A	20	230/1/50

For single speed motors, allows a constant regulation of the number of revolutions of the motor.
Includes ON-Off switch
One regulator for every fan

THREE SPEED MOTOR COMMUTATOR TWO PER UNIT)

	RECUPERATOR MODEL	Commutator Code	Maximum Absorption [A]	Power Supply [V/ph/Hz]
	03	XRC-RVC4P	6	230/1/50
	06	XRC-RVC4P	6	230/1/50
	10	XRC-RVC4P	6	230/1/50
	15	XRC-RVC4P	6	230/1/50
	20	XRC-RVC4P	6	230/1/50
	25	XRC-RVC4P	6	230/1/50
	30	XRC-RVC4P	6	230/1/50
	40	XRC-RVC4P	6	230/1/50
	50	XRC-RVC4P	6	230/1/50

Used for motors with three speeds.
Need to specify during order processing if this motor is required.
Includes Off position
One switch for every fan

POWER SUPPLY SWITCH

	RECUPERATOR MODEL	Commutator Code	Maximum Absorption [A]	Power supply [V/ph/Hz]
	60	XRC-CDP380	5,4	400/3/50

Specific for three-phase motors

HEAT RECUPERATORS
WITH AIR-AIR CROSS FLOW

XRC
SERIES

ACCESSORIES

50mm PITCH GRILLES

IMAGE	RECUPERATOR MODEL	Grille Code	Front air velocity [m/s]	Dimensions [mm]
	03	GI200190	2,3	200x190
	06	GI300190	2,3	300x190
	10	GI400290	2,3	400x290
	15	GI400290	3,5	400x290
	20	GI400390	3,3	400x390
	25	GI500390	3,5	500x390
	30	GI500390	4,4	500x390
	40	GI500490	4,4	500x490
	50	GI625490	4,4	625x490
	60	GI625490	4,4	625x490

50mm PITCH GRILLES WITH BIRD NET

IMAGE	RECUPERATOR MODEL	Grille Code	Front air velocity [m/s]	Dimensions [mm]
	03	GIRE200190	2,3	200x190
	06	GIRE300190	2,3	300x190
	10	GIRE400290	2,3	400x290
	15	GIRE400290	3,5	400x290
	20	GIRE400390	3,3	400x390
	25	GIRE500390	3,5	500x390
	30	GIRE500390	4,4	500x390
	40	GIRE500490	4,4	500x490
	50	GIRE625490	4,4	625x490
	60	GIRE625490	4,4	625x490

50mm PITCH DAMPER

IMAGE	RECUPERATOR MODEL	Aluminium damper Code	Front air velocity [m/s]	Dimensions [mm]
	03	WM-10P200150	2,3	200x160
	06	WM-10P300200	2,3	300x210
	10	WM-10P400300	2,3	400x310
	15	WM-10P400300	3,5	400x310
	20	WM-10P400400	3,3	400x410
	25	WM-10P500400	3,5	500x410
	30	WM-10P500400	4,4	500x410
	40	WM-10P500500	4,4	500x510
	50	WM-10P625500	4,4	625x510
	60	WM-10P625500	4,4	625x510

HEAT RECUPERATORS WITH AIR-AIR CROSS FLOW

XRC SERIES

ACCESSORIES

RAIN COVER

IMAGE	RECUPERATOR MODEL	Pre-varnished galvanized steel cover	Galvanized steel cover
	03	XTAXRC03	XTAXRCE03
	06	XTAXRC06	XTAXRCE06
	10	XTAXRC10	XTAXRCE10
	15	XTAXRC15	XTAXRCE15
	20	XTAXRC20	XTAXRCE20
	25	XTAXRC25	XTAXRCE25
	30	XTAXRC30	XTAXRCE30
	40	XTAXRC40	XTAXRCE40
	50	XTAXRC50	XTAXRCE50
	60	XTAXRC60	XTAXRCE60

BASE CORNER SUPPORTS (*)

IMAGE	RECUPERATOR MODEL	Base corner support in galvanized steel H 100 mm (4 pieces)
	03	CM-XTA-PIEDINO A
	06	CM-XTA-PIEDINO A
	10	CM-XTA-PIEDINO A
	15	CM-XTA-PIEDINO A
	20	CM-XTA-PIEDINO A
	25	CM-XTA-PIEDINO A
	30	CM-XTA-PIEDINO A
	40	CM-XTA-PIEDINO A
	50	CM-XTA-PIEDINO A
	60	CM-XTA-PIEDINO A

(*) It can be installed in recuperators with a vertical configuration or in those versions with a horizontal configuratioN for floors versions. 4 corner supports in galanized steel H 100mm.

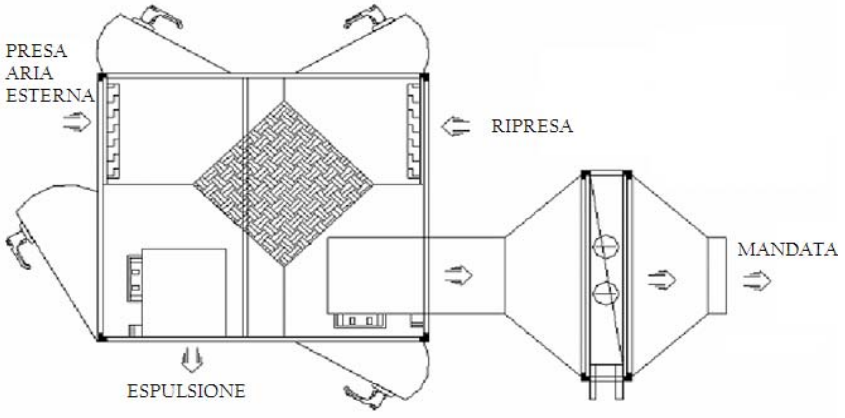
HEAT RECUPERATORS WITH AIR-AIR CROSS FLOW

XRC SERIES

ACCESSORIES

COOLING SECTION :

Allows cooling and the possibility of dehumidifying the air on exit from the recuperator unit. An exchange battery is used with copper tubing and and aluminium pack with a collection basin in galvanized steel. The unit is boxed in a special aluminium profile casing and a dobble panel, sandwich, system insulated with glass wool. The characteristics of the frame allow the unit to be fixed into place in linear square air ducts.



Example of connection between recuperator and battery unit. Duct connectors are not supplied.

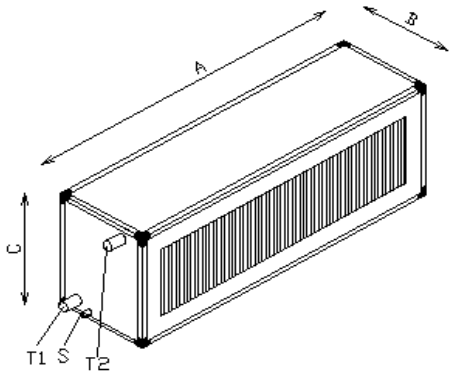
WATER COOLED BATTERIES XRC e XRCE

RECUPE-RATOR	COOLING BATT.	GEOMETRY	BLADE PITCH [mm]	COOLING YIELD [kW]	EXIT AIR TEMP. [°C]	AIR SIDE PRESSURE LOSS [Pa]	WATER SIDE PRESSURE LOSS [kPa]	WEIGHT [kg]
10	BPF 10	30x30	2,5	8,45	13,8	95	17,8	19
15	BPF 15	30x30	2,5	9,6	14,6	132	22,3	19
20	BPF 20	30x30	2,5	14,9	14,9	149	22,4	22
25	BPF 25	30x30	2,5	18,7	15,4	173	19,1	27
30	BPF 30	30x30	2,5	24,8	15	154	21	28
40	BPF 40	30x30	2,5	31,2	14,9	142	17,3	35
50	BPF 50	30x30	2,5	39,6	14,7	142	23,5	46
60	BPF 60	30x30	2,5	47,2	14,8	142	20,1	47

Sizes chosen with the following criteria: injected air at 29 °C dry bulb, U.R. 50%, water temperture of 7/12 °C.

COOLING WATER BATTERIES TABLE

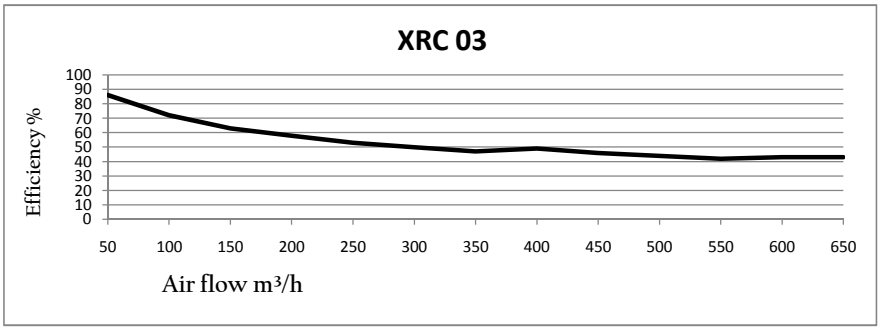
Dim.	A [mm]	B [mm]	C [mm]	T1 [G]	T2 [G]	S [mm]
BPF 10	1000	250	295	¾"	¾"	1"
BPF 15	1000	250	295	¾"	¾"	1"
BPF 20	1200	250	350	1"	1"	1"
BPF 25	1400	250	350	1"	1"	1"
BPF 30	1350	250	450	1"	1"	1"
BPF 40	1050	290	650	1 ¼"	1 ¼"	1"
BPF 50	1250	290	650	1 ¼"	1 ¼"	1"
BPF 60	1450	290	650	1 ¼"	1 ¼"	1"



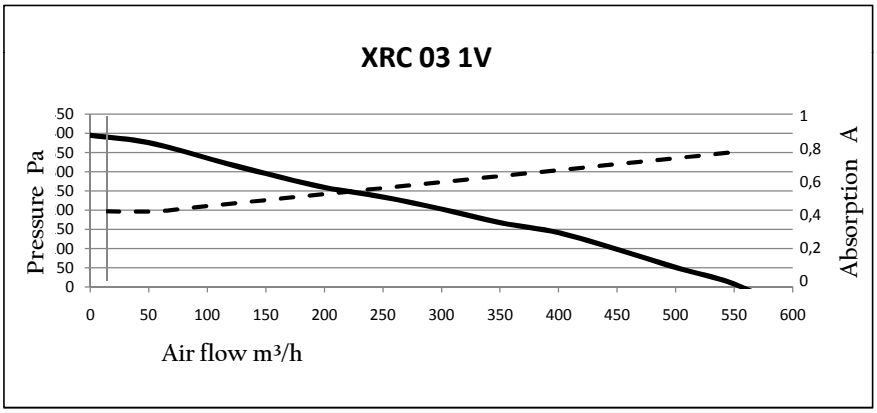
HEAT RECUPERATORS WITH AIR-AIR CROSS FLOW

XRC
SERIES

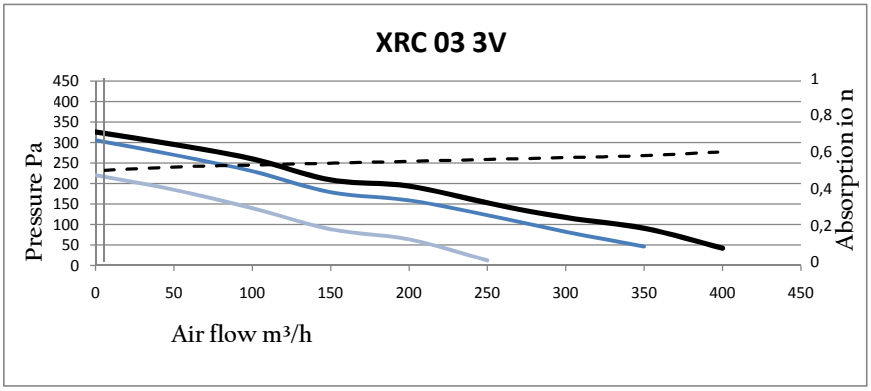
SELECTION CURVES
MODEL 03



Thermal exchange efficiency.
By varying the air flow, it is possible to obtain different efficiency values for the thermal exchange.
The air flow can be adjusted both with regulatting the dampers and by varying the revolutions of the motors.



Single speed version.
Available static pressure and power absorption.
By varying the air flow, it is possible to obtain different static pressure values for the injected air.
The dotted line on the diagram also indicates the power absorption for the correct size of the power supply system.

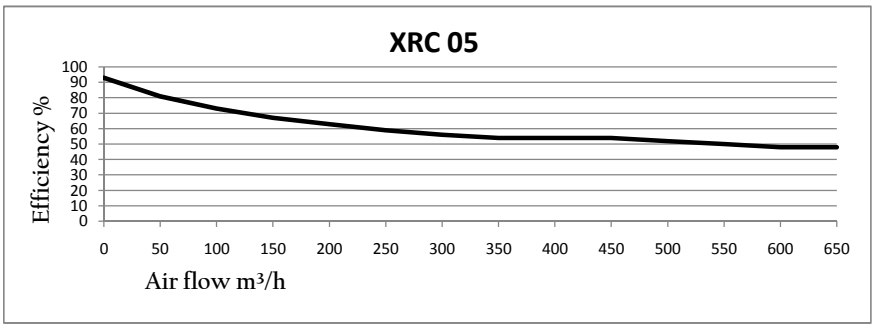


Three speed version.
Available static pressure and power absorption.
By varying the air flow, it is possible to obtain different static pressure values for the injected air.
When the speed decreases so does the pressure.
The dotted line in the diagram indicates the maximum power absorption for the correct dimensioning of the power supply system.

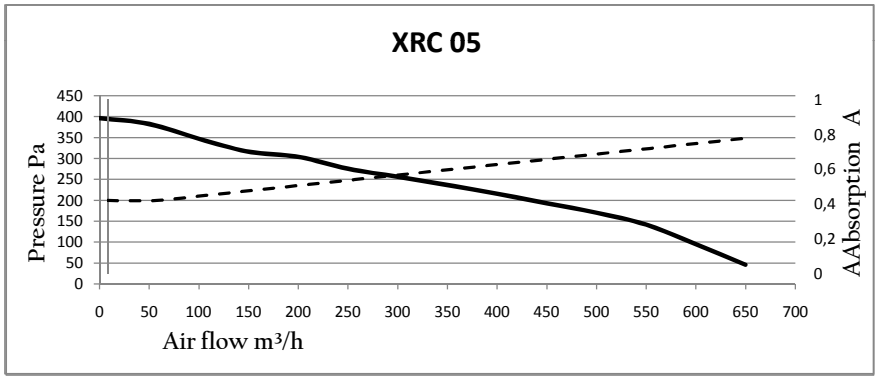
HEAT RECUPERATORS WITH AIR-AIR CROSS FLOW

XRC
SERIES

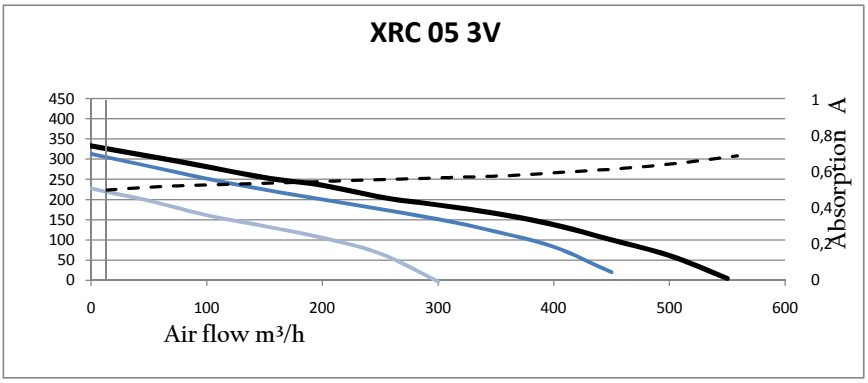
SELECTION CURVES
MODEL 05



Thermal exchange efficiency.
By varying the air flow, it is possible to obtain different efficiency values for the thermal exchange.
The air flow can be adjusted both with regulatting the dampers and by varying the revolutions of the motors.



Single speed version.
Available static pressure and power absorption.
By varying the air flow, it is possible to obtain different static pressure values for the injected air.
The dotted line on the diagram also indicates the power absorption for the correct size of the power supply system.

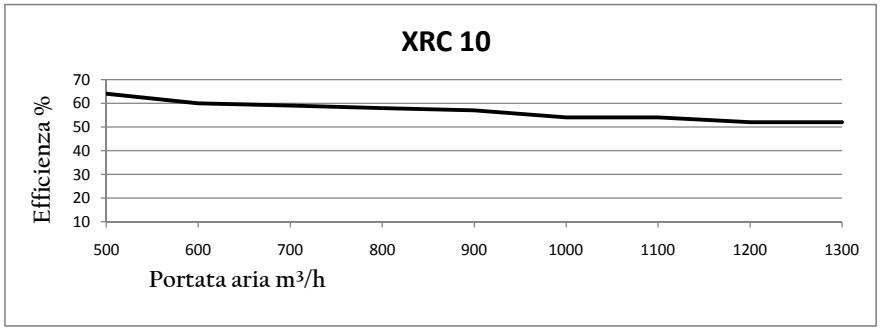


Three speed version.
Available static pressure and power absorption.
By varying the air flow, it is possible to obtain different static pressure values for the injected air.
When the speed decreases so does the pressure.
The dotted line in the diagram indicates the maximum power absorption for the correct dimensioning of the power supply system.

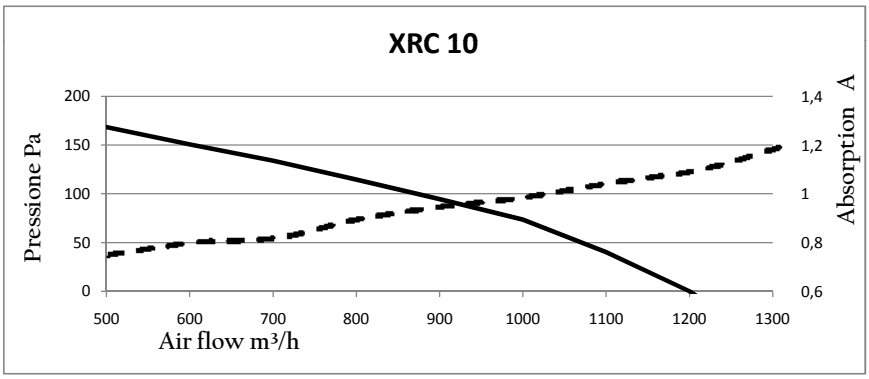
HEAT RECUPERATORS WITH AIR-AIR CROSS FLOW

XRC
SERIES

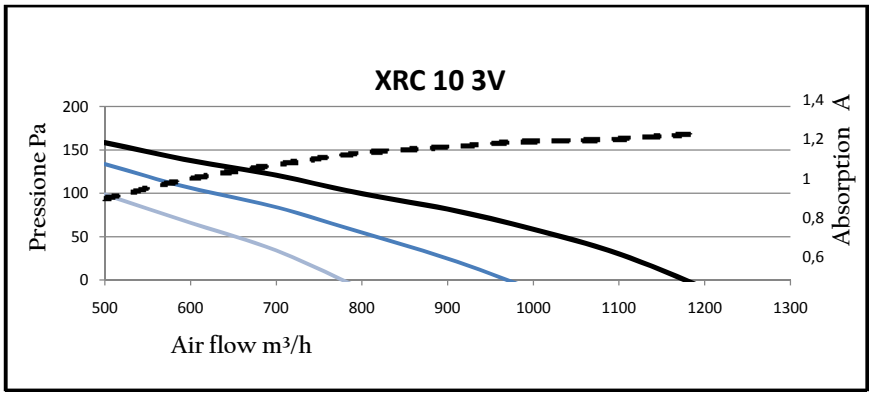
SELECTION CURVES
MODEL 10



Thermal exchange efficiency.
By varying the air flow, it is possible to obtain different efficiency values for the thermal exchange.
The air flow can be adjusted both with regulatting the dampers and by varying the revolutions of the motors.



Single speed version.
Available static pressure and power absorption.
By varying the air flow, it is possible to obtain different static pressure values for the injected air.
The dotted line on the diagram also indicates the power absorption for the correct size of the power supply system.

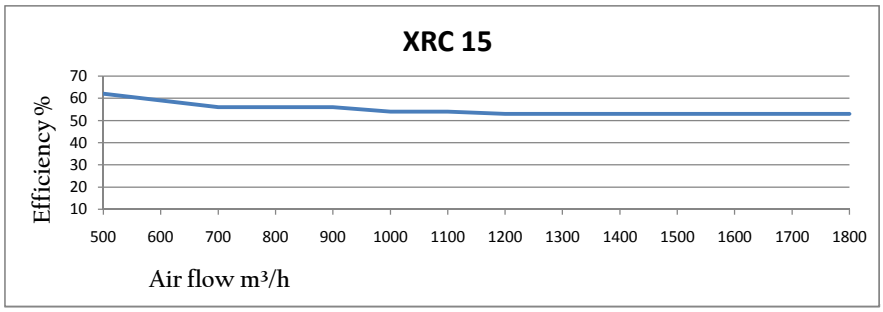


Three speed version.
Available static pressure and power absorption.
By varying the air flow, it is possible to obtain different static pressure values for the injected air.
When the speed decreases so does the pressure.
The dotted line in the diagram indicates the maximum power absorption for the correct dimensioning of the power supply system.

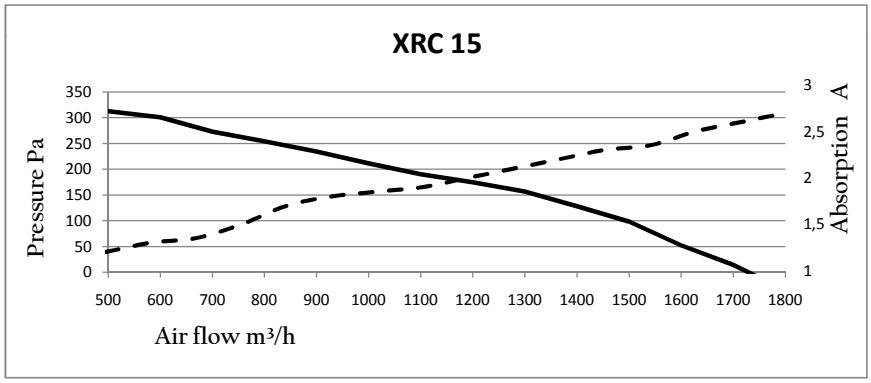
HEAT RECUPERATORS WITH AIR-AIR CROSS FLOW

XRC
SERIES

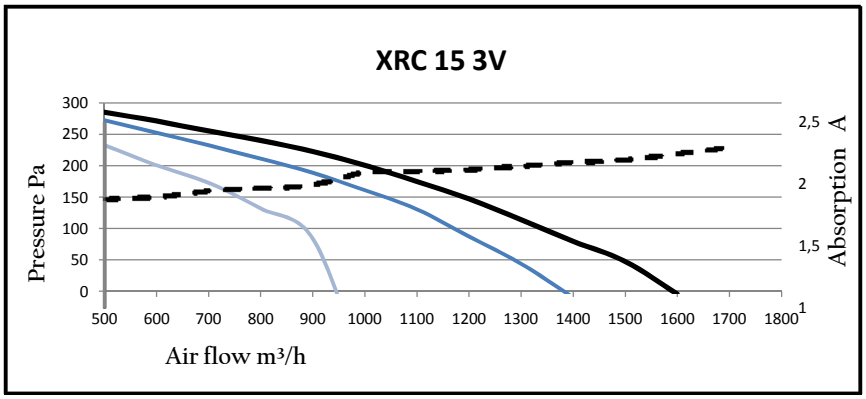
SELECTION CURVES
MODEL 15



Thermal exchange efficiency.
By varying the air flow, it is possible to obtain different efficiency values for the thermal exchange.
The air flow can be adjusted both with regulatting the dampers and by varying the revolutions of the motors.



Single speed version.
Available static pressure and power absorption.
By varying the air flow, it is possible to obtain different static pressure values for the injected air.
The dotted line on the diagram also indicates the power absorption for the correct size of the power supply system.

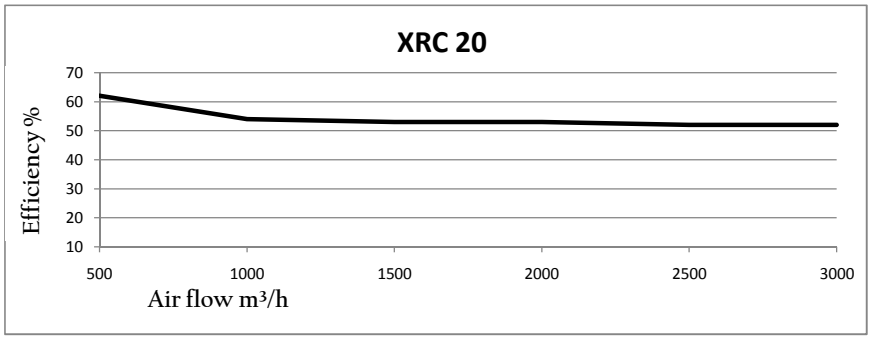


Three speed version.
Available static pressure and power absorption.
By varying the air flow, it is possible to obtain different static pressure values for the injected air.
When the speed decreases so does the pressure.
The dotted line in the diagram indicates the maximum power absorption for the correct dimensioning of the power supply system.

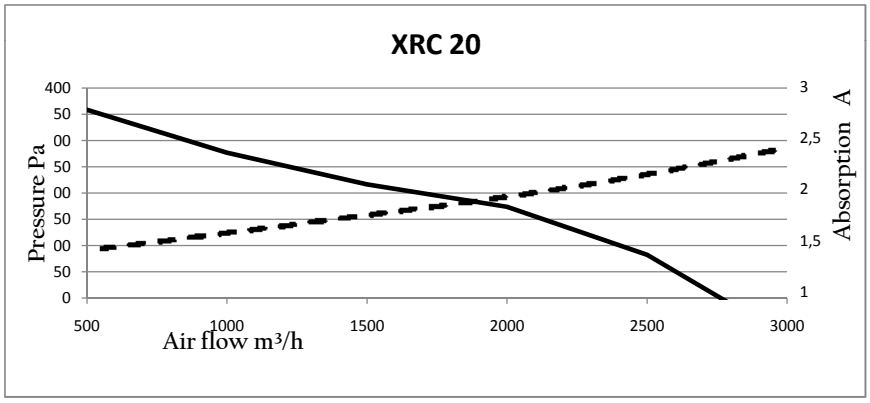
HEAT RECUPERATORS WITH AIR-AIR CROSS FLOW

XRC
SERIES

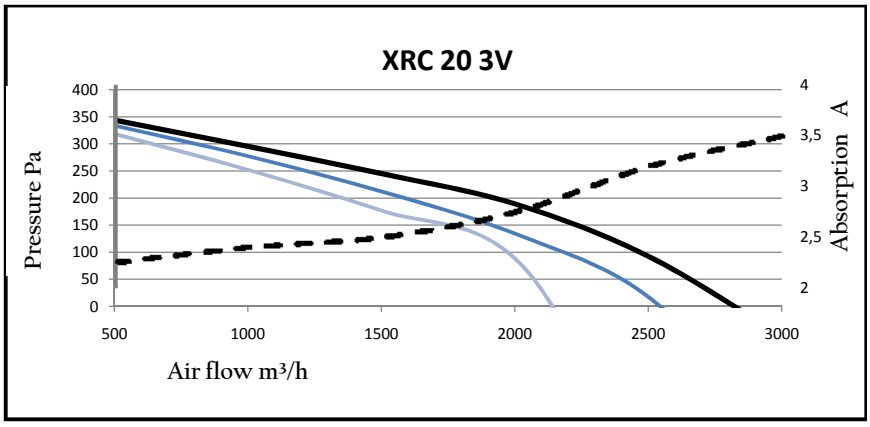
SELECTION CURVES
MODEL 20



Thermal exchange efficiency.
By varying the air flow, it is possible to obtain different efficiency values for the thermal exchange.
The air flow can be adjusted both with regulatting the dampers and by varying the revolutions of the motors.



Single speed version.
Available static pressure and power absorption.
By varying the air flow, it is possible to obtain different static pressure values for the injected air.
The dotted line on the diagram also indicates the power absorption for the correct size of the power supply system.

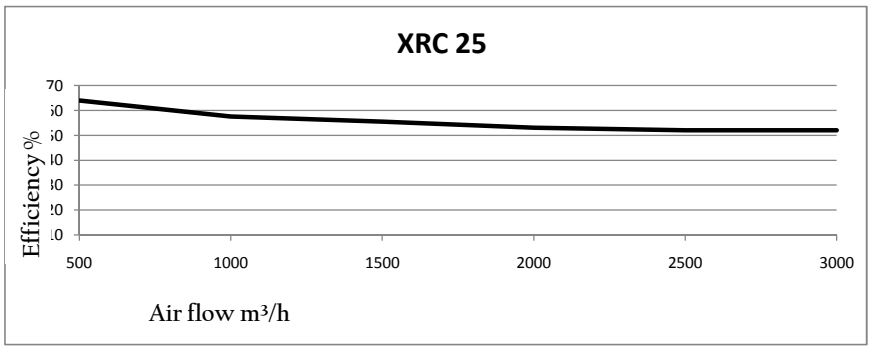


Three speed version.
Available static pressure and power absorption.
By varying the air flow, it is possible to obtain different static pressure values for the injected air.
When the speed decreases so does the pressure.
The dotted line in the diagram indicates the maximum power absorption for the correct dimensioning of the power supply system.

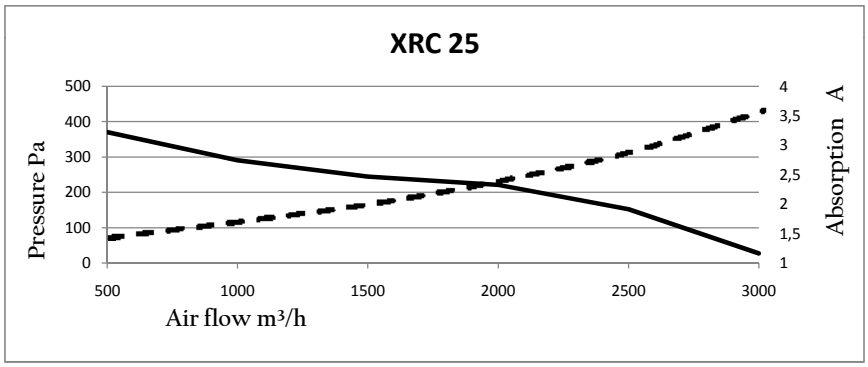
HEAT RECUPERATORS WITH AIR-AIR CROSS FLOW

XRC
SERIES

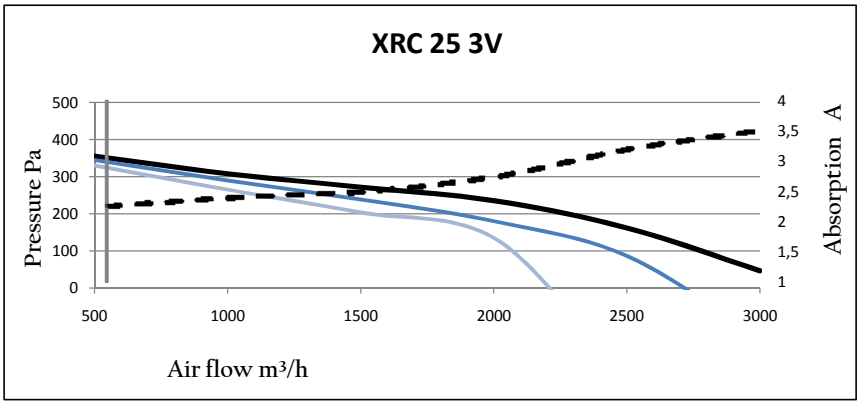
SELECTION CURVES
MODEL 25



Thermal exchange efficiency.
By varying the air flow, it is possible to obtain different efficiency values for the thermal exchange.
The air flow can be adjusted both with regulatting the dampers and by varying the revolutions of the motors.



Single speed version.
Available static pressure and power absorption.
By varying the air flow, it is possible to obtain different static pressure values for the injected air.
The dotted line on the diagram also indicates the power absorption for the correct size of the power supply system.

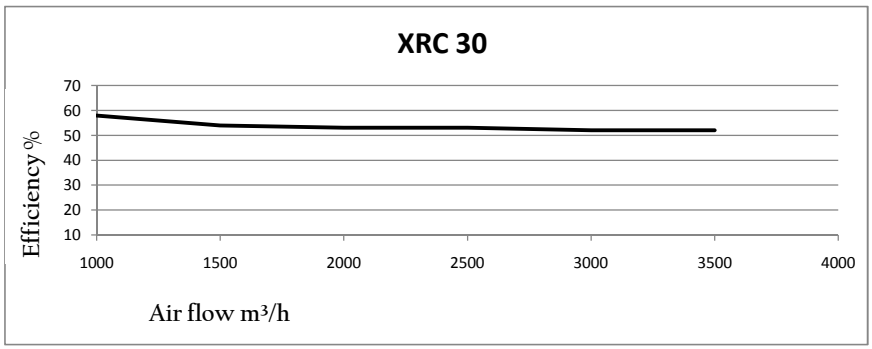


Three speed version.
Available static pressure and power absorption.
By varying the air flow, it is possible to obtain different static pressure values for the injected air.
When the speed decreases so does the pressure.
The dotted line in the diagram indicates the maximum power absorption for the correct dimensioning of the power supply system.

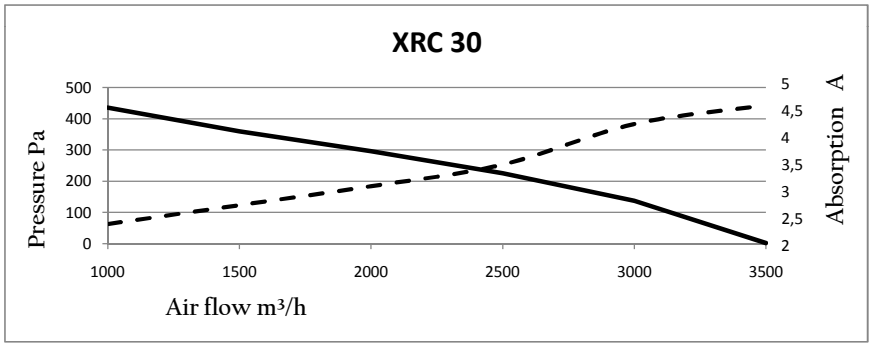
HEAT RECUPERATORS WITH AIR-AIR CROSS FLOW

XRC
SERIES

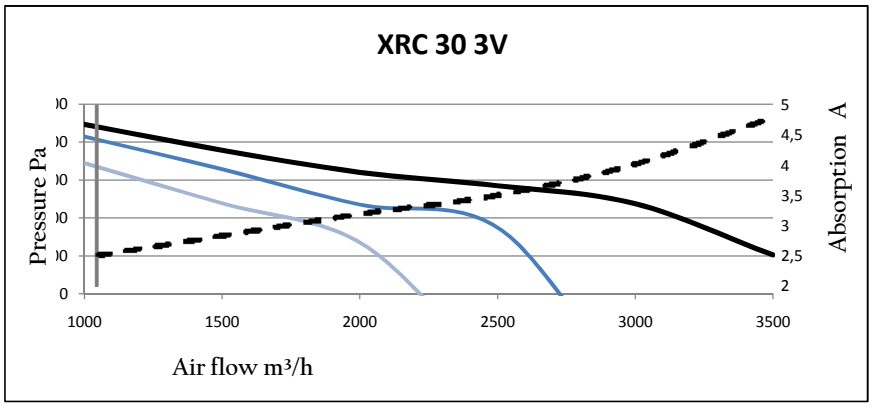
SELECTION CURVES
MODEL 30



Thermal exchange efficiency.
By varying the air flow, it is possible to obtain different efficiency values for the thermal exchange.
The air flow can be adjusted both with regulatting the dampers and by varying the revolutions of the motors.



Single speed version.
Available static pressure and power absorption.
By varying the air flow, it is possible to obtain different static pressure values for the injected air.
The dotted line on the diagram also indicates the power absorption for the correct size of the power supply system.

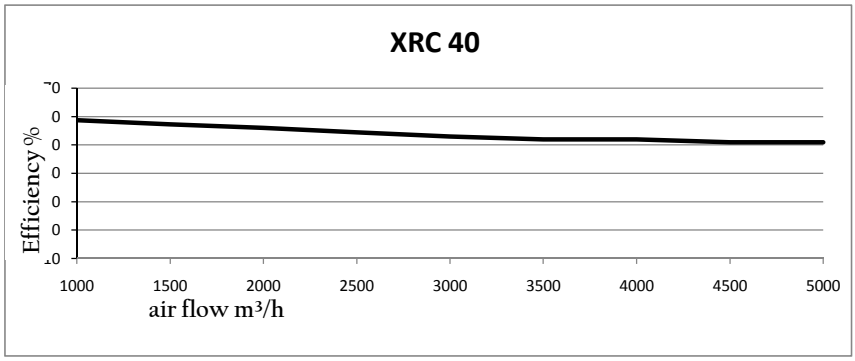


Three speed version.
Available static pressure and power absorption.
By varying the air flow, it is possible to obtain different static pressure values for the injected air.
When the speed decreases so does the pressure.
The dotted line in the diagram indicates the maximum power absorption for the correct dimensioning of the power supply system.

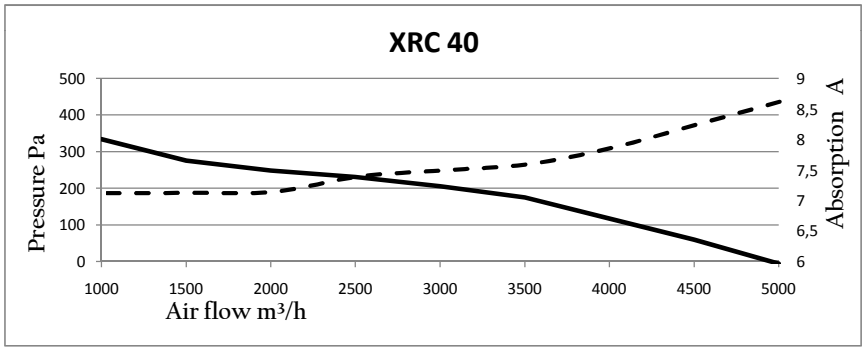
HEAT RECUPERATORS WITH AIR-AIR CROSS FLOW

XRC
SERIES

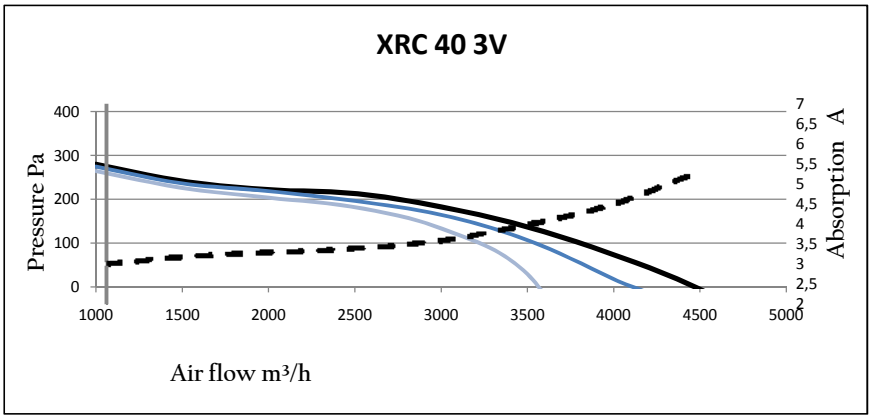
SELECTION CURVES
MODEL 40



Thermal exchange efficiency.
By varying the air flow, it is possible to obtain different efficiency values for the thermal exchange.
The air flow can be adjusted both with regulatting the dampers and by varying the revolutions of the motors.



Single speed version.
Available static pressure and power absorption.
By varying the air flow, it is possible to obtain different static pressure values for the injected air.
The dotted line on the diagram also indicates the power absorption for the correct size of the power supply system.

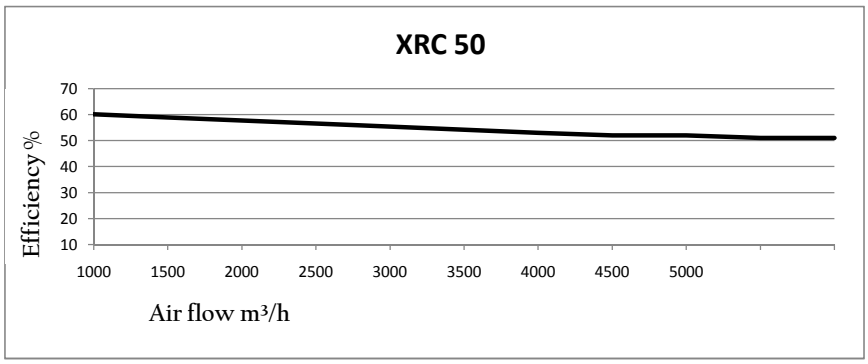


Three speed version.
Available static pressure and power absorption.
By varying the air flow, it is possible to obtain different static pressure values for the injected air.
When the speed decreases so does the pressure.
The dotted line in the diagram indicates the maximum power absorption for the correct dimensioning of the power supply system.

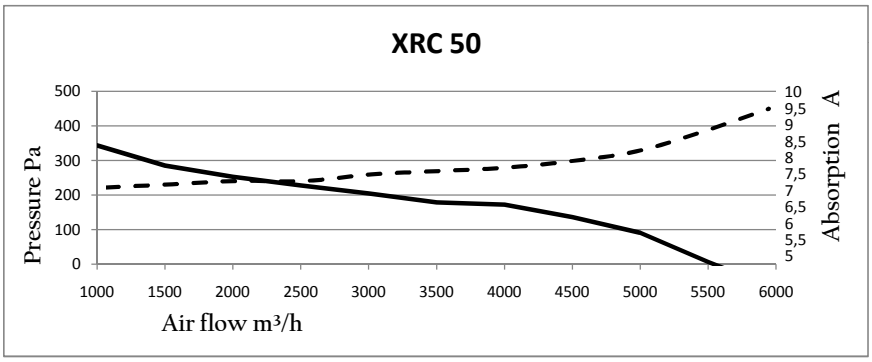
HEAT RECUPERATORS WITH AIR-AIR CROSS FLOW

XRC
SERIES

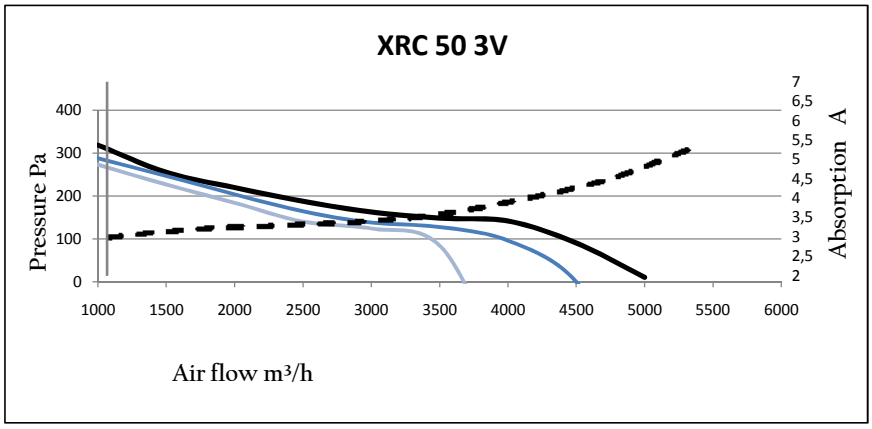
SELECTION CURVES
MODEL 50



Thermal exchange efficiency.
By varying the air flow, it is possible to obtain different efficiency values for the thermal exchange.
The air flow can be adjusted both with regulatting the dampers and by varying the revolutions of the motors.



Single speed version.
Available static pressure and power absorption.
By varying the air flow, it is possible to obtain different static pressure values for the injected air.
The dotted line on the diagram also indicates the power absorption for the correct size of the power supply system.

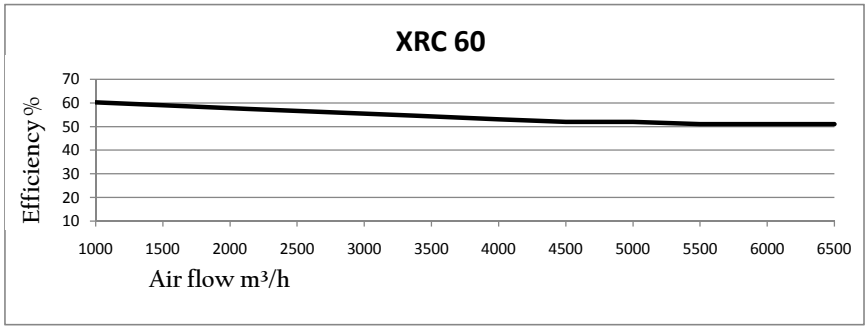


Three speed version.
Available static pressure and power absorption.
By varying the air flow, it is possible to obtain different static pressure values for the injected air.
When the speed decreases so does the pressure.
The dotted line in the diagram indicates the maximum power absorption for the correct dimensioning of the power supply system.

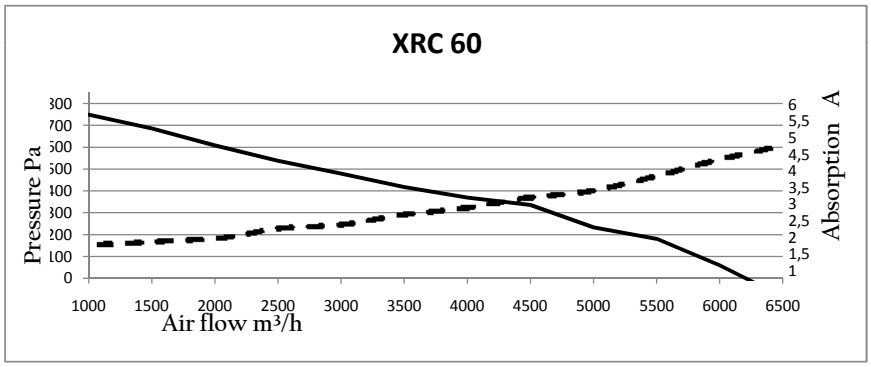
HEAT RECUPERATORS WITH AIR-AIR CROSS FLOW

XRC
SERIES

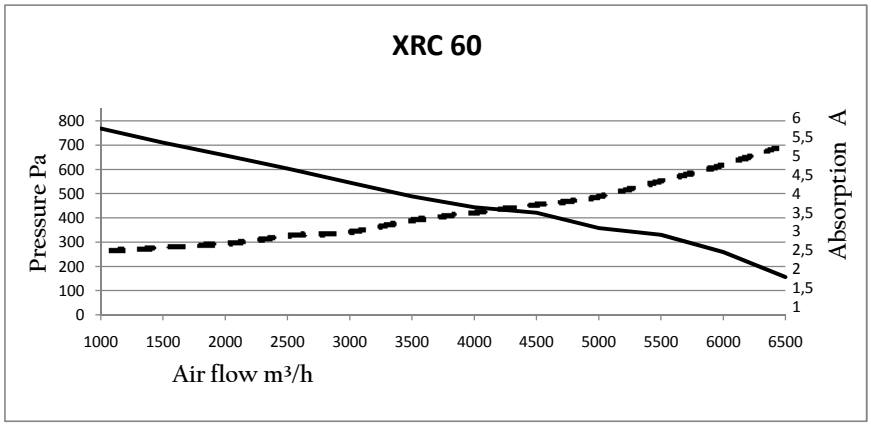
SELECTION CURVES
MODEL 60



Thermal exchange efficiency.
By varying the air flow, it is possible to obtain different efficiency values for the thermal exchange.
The air flow can be adjusted both with regulatting the dampers and by varying the revolutions of the motors.



Star connection - inferior speed
Available static pressure and power absorption.
By varying the air flow, it is possible to obtain different static pressure values for the injected air.
The dotted line on the diagram also indicates the power absorption for the correct size of the power supply system.



Triangular connection - superior speed
Available static pressure and power absorption.
By varying the air flow, it is possible to obtain different static pressure values for the injected air.
When the speed decreases so does the pressure.
The dotted line in the diagram indicates the maximum power absorption for the correct dimensioning of the power supply system.

HEAT RECUPERATORS
WITH AIR-AIR CROSS FLOW

COMPLETE REGULATION SYSTEM

XRC
SERIES

COMPLETE REGULATION SYSTEM :

The XRC series heat recuperators make use of an efficient system that can control two single faze motors at a variable speed, up to a maximum of three speeds. Alternatively two different power tri-faze motors allow a modular control of the temperature, both for three way valves and electric batteries.

CONSTRUCTION CHARACTERISTICS FOR STANDARD BASE MODEL:

The COMPACT command panel has a tin containment casing with a protection rating IP55 in PVC all in white. This is installed on the side of the unit. The control is done via a remote and/or infrared signal keypad. It is set up to manage the thermal regulation fixed point system, to control the anti freeze danger of the cooling and heating battery, to indicate when the filters need maintenance, for the presence of air flow and other external warnings like for example the general status of the set up.
The unit is delivered complete with power supply connection diagrams, instruction manual and conformity declarations. The testing for the control panel is done at the factory if installed by our technician or our technician can be present if installed by a third party.
The dimension of the control panel are 300x300x150mm and those for the control are 153x110x66mm.

REGULATION SYSTEMS

	MODEL	COMPACT base model 1 to 3 speeds	COMPACT base model 1 to 3 speeds with absorption above 10 A	COMPACT base model for tri faze motors with maximum power of 4 kW
	**03**	XRC-QC0		
	06	XRC-QC0		
	10	XRC-QC0		
	15	XRC-QC0		
	20	XRC-QC0		
	25	XRC-QC0		
	30	XRC-QC0		
	40		XRC-QC1	
	50		XRC-QC1	
	60			XRC-QC2

ADDITIONS FOR REGULATION SYSTEMS

MODEL	Addition of variable speed absorption with maximum of 6 Ampere	Addition of variable speed absorption with maximum of 10 Ampere	Addition of variable speed absorption with maximum of 20 Ampere	Addition of variable speed with inverter
03	XRC-QCAV06			
06	XRC-QCAV06			
10	XRC-QCAV06			
15		XRC-QCAV10		
20		XRC-QCAV10		
25		XRC-QCAV10		
30		XRC-QCAV10		
40			XRC-QCAV20	
50			XRC-QCAV20	
60				RXC-QCAVIN

HEAT RECUPERATORS WITH AIR-AIR CROSS FLOW

COMPLETE REGULATION SYSTEM

XRC SERIES

ADDITIONS FOR REGULATION SYSTEMS

MODEL	Addition of control for 230 V electric battery with RSS max 5 kW	Addition of control for 400 V electric battery with RSS max 12 kW	Three way valve for post heating water coil BPS	Three way valve for cooling water coil BPF	Free-cooling on-off
03	XRC-BOX05				XRC-03 FC
06	XRC-BOX05				XRC-05 FC
10		XRC-BOX12	XRC-VMC10	XRC-VMF10	XRC-10 FC
15		XRC-BOX12	XRC-VMC15	XRC-VMF15	XRC-15 FC
20		XRC-BOX12	XRC-VMC20	XRC-VMF20	XRC-20 FC
25		XRC-BOX12	XRC-VMC25	XRC-VMF25	XRC-25 FC
30		XRC-BOX12	XRC-VMC30	XRC-VMF30	XRC-30 FC
40		XRC-BOX12	XRC-VMC40	XRC-VMF40	XRC-40 FC
50		XRC-BOX12	XRC-VMC50	XRC-VMF50	XRC-50 FC
60		XRC-BOX12	XRC-VMC60	XRC-VMF60	XRC-60 FC

ACCESSORIES

	DESCRIPTION	CODE
	Pair of pressurestats for for blocked filters with pressure intake and pipes with measuring scale 50 - 500 Pa	XRC-QCPT300
	Pair of lights with DO NOT SMOKE/SMOKING AREA sign	XRC-QCLS
	Proportional humidification probe; combined probesT/UR% 24V power supply	XRC-UPP
	Supply Fixed Point Humidification probe; combined probe T/UR% 24V power supply	XRC-UPF
	Optional on-off Defrost probe; NTC 10KΩ probe	XRC-DF
	Room electrical control with ABS casing, dimensions 144x82x27mm with IP 30 protection Supply voltage 230V - 1fase - 50Hz with neutral and earth On - Off switch Switch N° 03 speed **	XRC-CEA

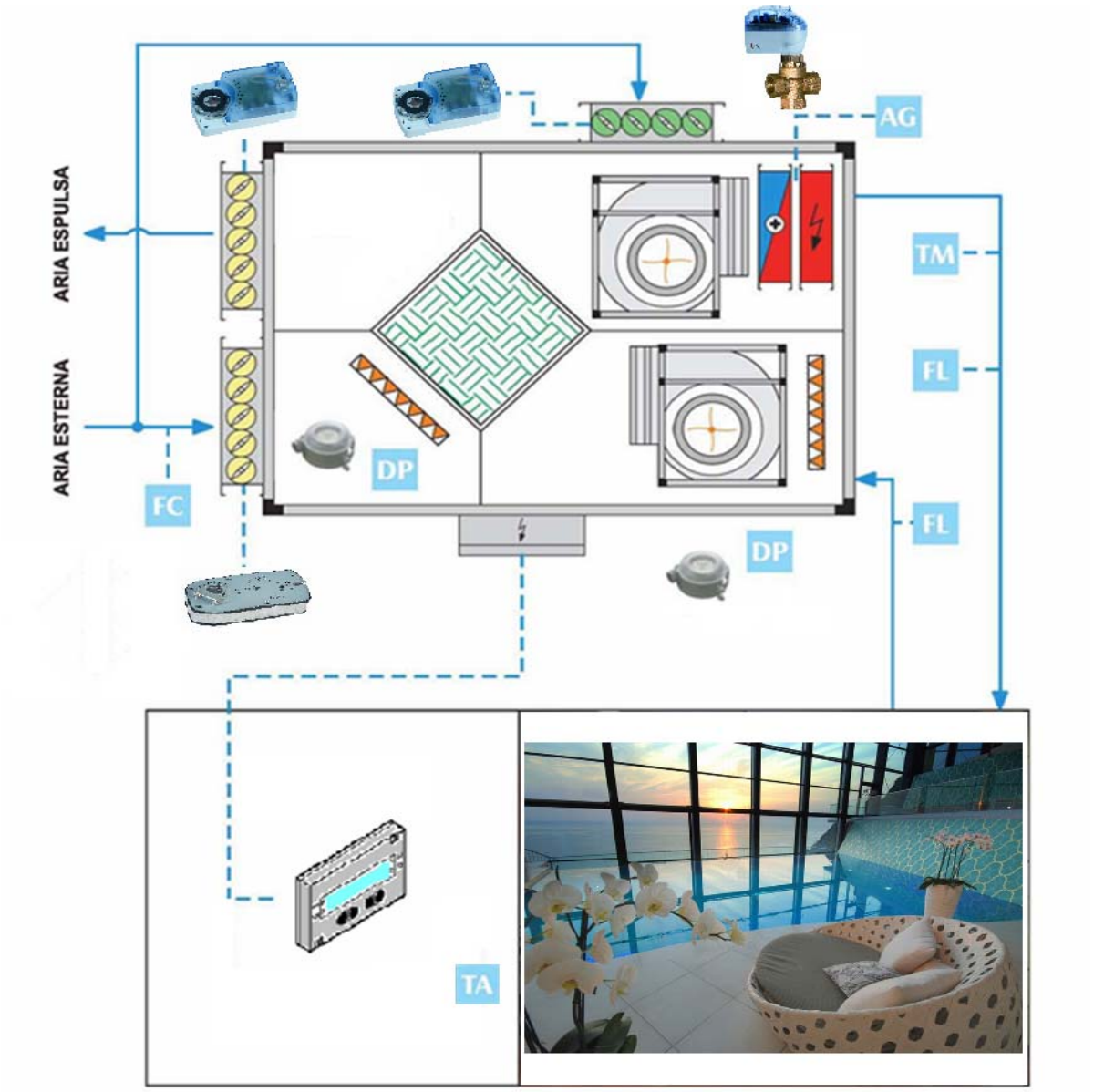
**** The room electrical control is supplied as alternative to the CRK regulation system**

HEAT RECUPERATORS WITH AIR-AIR CROSS FLOW

XRC SERIES

COMPLETE REGULATION SYSTEM

APPLICATION EXAMPLE



FL FLOWSTAT
AG ANTIFREEZE THERMOSTAT
DP DIFFERENTIAL PRESSURESTAT
TM SUPPLY TEMPERATURE
TA ROOM TEMPERATURE
FC EXTERNAL TEMPERATURE (FREE COOLING)