



ALTEC DEMO SHORT GUIDE



USER SHORT GUIDE

Dear User,

A short guide for the selection module of the AHU software is provided.

ALTEC SRL

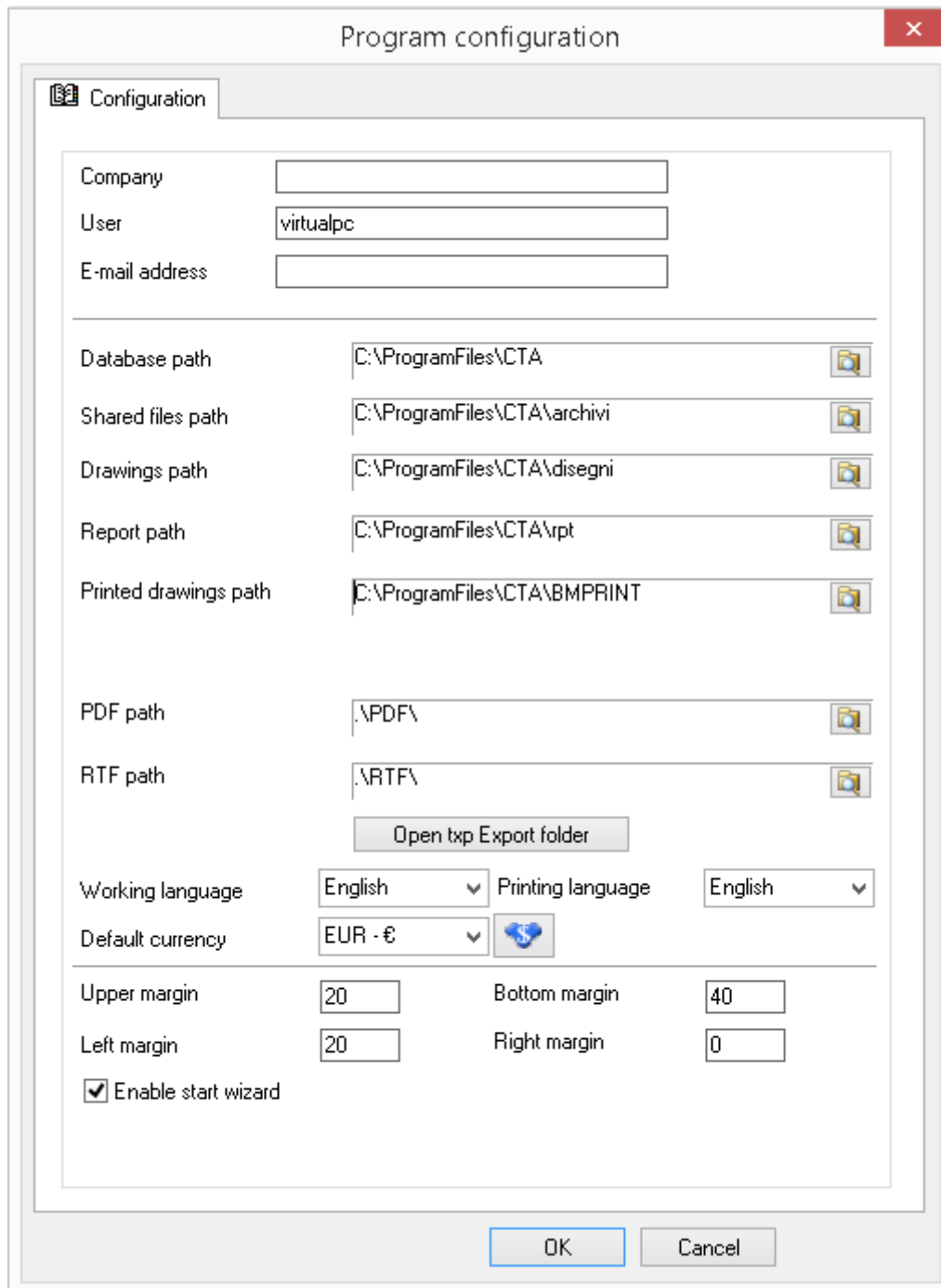


Sommario

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GENERAL INSTRUCTIONS

It is necessary to configure the program correctly, choosing the button CONFIGURATION from the menu OPTIONS.



Program configuration

Configuration

Company

User virtualpc

E-mail address

Database path C:\ProgramFiles\CTA

Shared files path C:\ProgramFiles\CTA\archivi

Drawings path C:\ProgramFiles\CTA\disegni

Report path C:\ProgramFiles\CTA\rpt

Printed drawings path C:\ProgramFiles\CTA\BMPRINT

PDF path .PDF\

RTF path .RTF\

Open tpx Export folder

Working language English Printing language English

Default currency EUR -€

Upper margin 20 Bottom margin 40

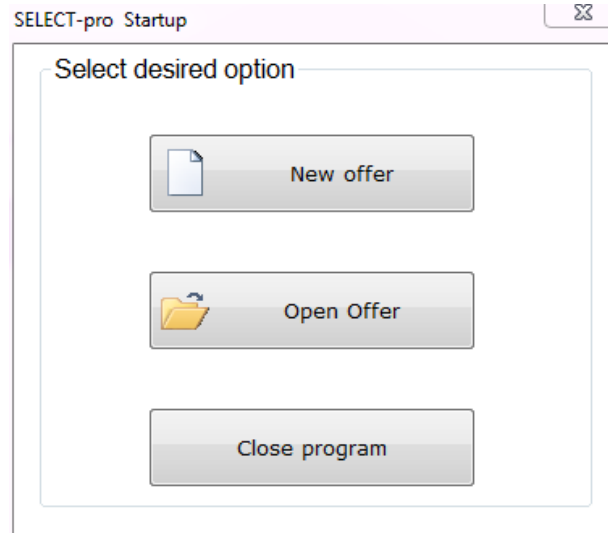
Left margin 20 Right margin 0

Enable start wizard

OK Cancel

OFFER BUILDING

Click on NEW OFFER.



Enter AIR FLOW data. After that, please click on the button SELECT and flag the unit with the most suitable air flow value, according to customer's requirements.

×
Select unit size

?
Select size
Psychrometry

Supply air flow m³/h cfm

Air velocity m/s

Return air flow m³/h cfm

X	Model	Velocity	Height	Base
<input type="checkbox"/>	AHU-06	3.43	800	1050
<input type="checkbox"/>	AHU-07	2.81	900	1050
<input checked="" type="checkbox"/>	AHU-08	2.34	900	1200
<input type="checkbox"/>	AHU-09	2.00	900	1350
<input type="checkbox"/>	AHU-10	1.70	1050	1350

AHU dimension (external) Base mm

Size air passage Base mm

Heigh mm

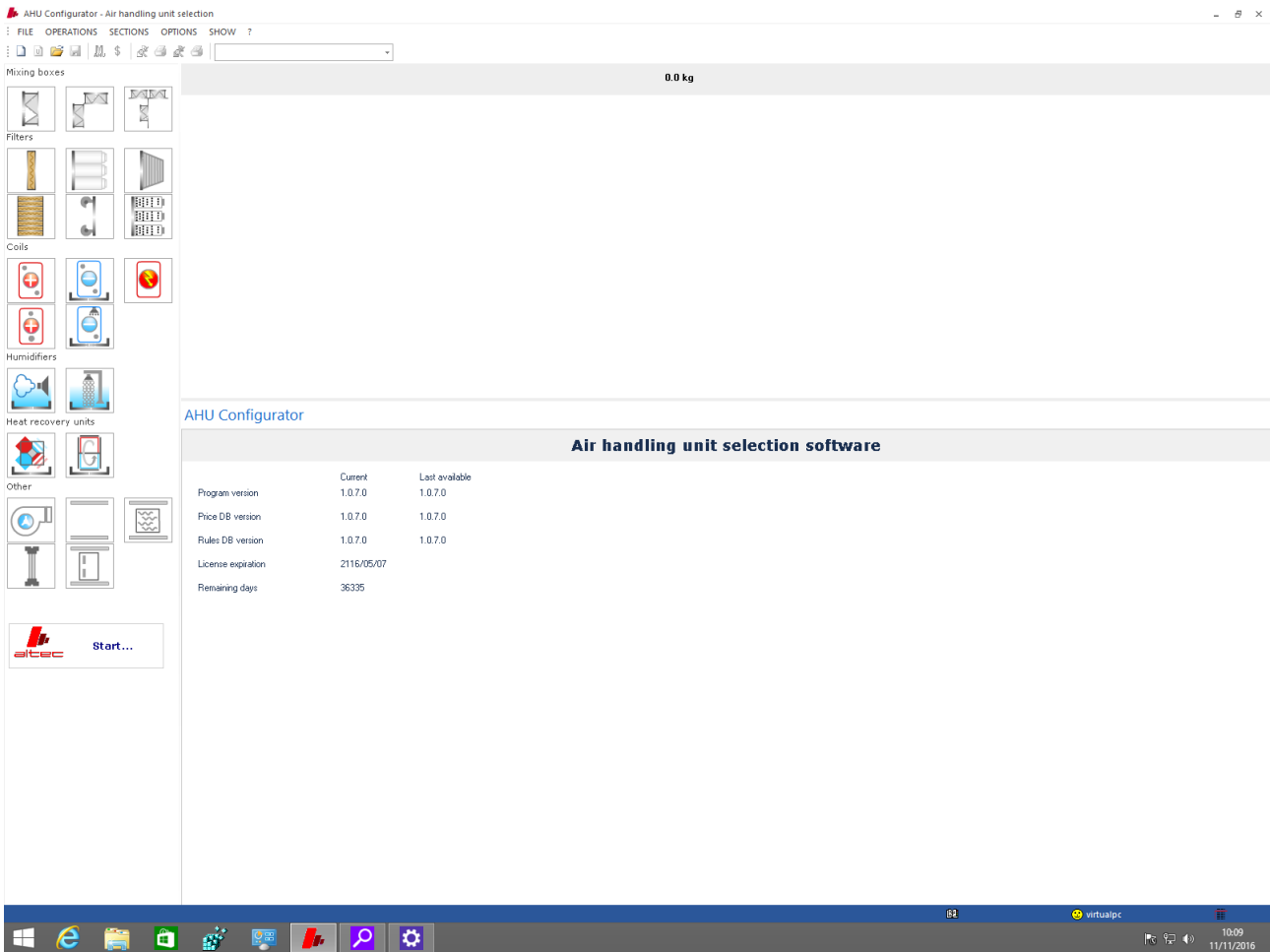
Heigh mm

Coils overall dim.

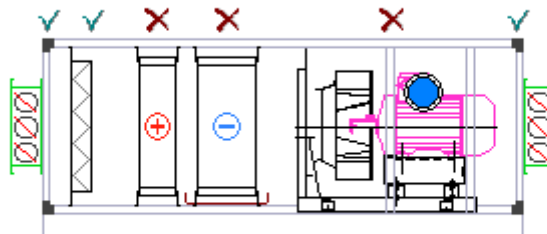
2.34 m/s X Y

Unit	Profile thickness	Panels thickness	Internal side material	External side material	Connection side	Baseframe	Internal sheet metal material
AHU	40 mm	25 mm	Aluminium	Aluminium	Right	Baseframe galvanized steel profile H 150	Galvanized steel
Thermoacoustic insulation		External side material		Connection side		Baseframe	
Injected polyurethane		Aluminium		Right		Baseframe galvanized steel profile H 150	
Inspection side		External side material		Connection side		Baseframe	
Right		Aluminium		Right		Baseframe galvanized steel profile H 150	
Roof		External side material		Connection side		Baseframe	
Without roof		Aluminium		Right		Baseframe galvanized steel profile H 150	
Technical space		External side material		Connection side		Baseframe	
No technical space		Aluminium		Right		Baseframe galvanized steel profile H 150	

Left on the main window, click on the button of the component you want to select in order to compose a unit;

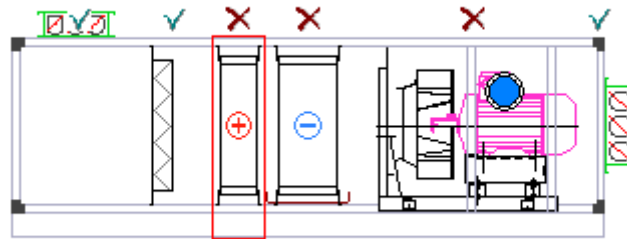


Here an example of selection, together with the unit scheme.

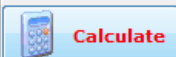



Sections with a brown cross or a blue ring (this is the case of Heat recoveries and steam humidification) cannot be computed before computing the single component.

Just click on each component and enter the mandatory data to be computed. Then click on the button Calculate.



SELECT-pro

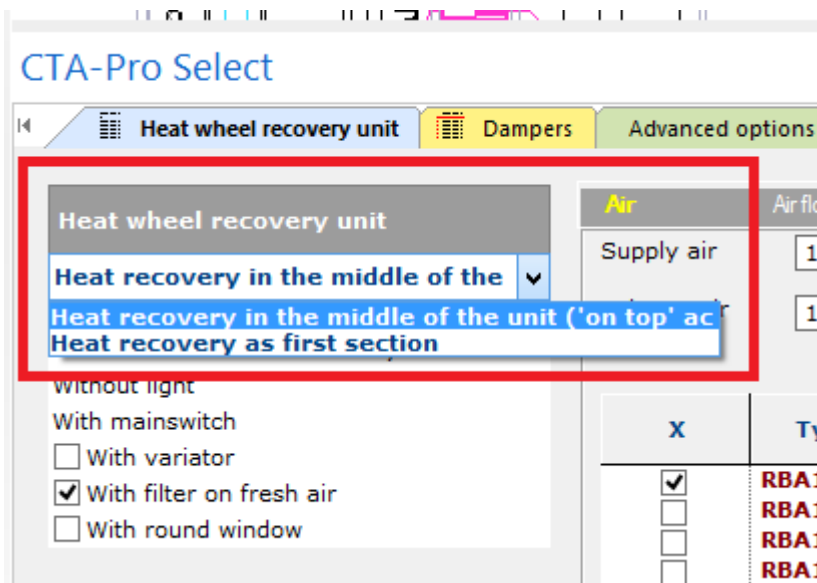
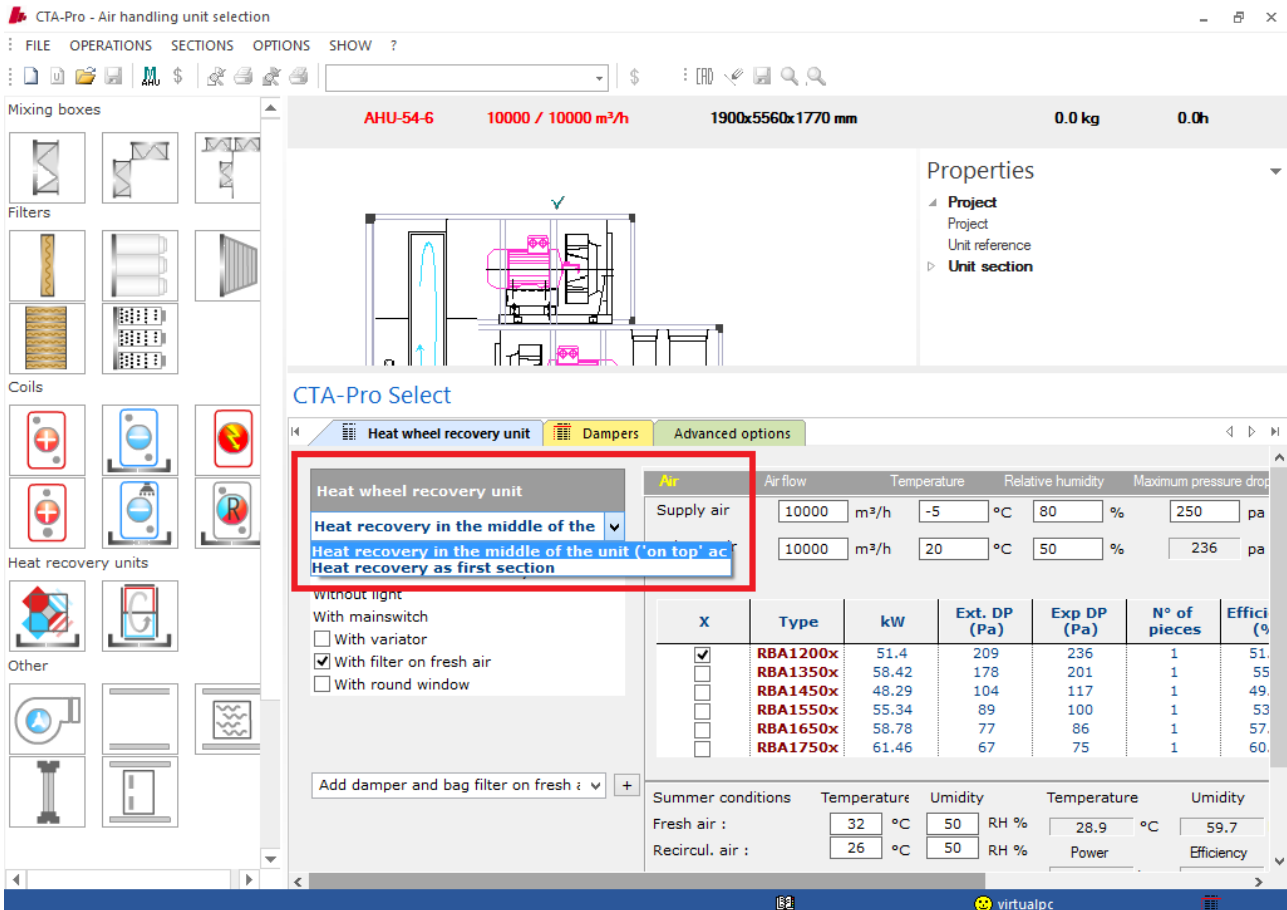
		Base	Height	Air flow			Only predisposition <input type="checkbox"/>
TPS-IMP		mm	mm	25000	m ³ /h		
With thermostat <input type="checkbox"/>							
Geometry	3329S	Tube type	Cu 12 x 0.35		Fins: 0.11 mm Aluminum		
Fin space	2.0 mm	Frame type	1.25 mm Galvanized Ste				
Air	Entering temperature	-15	°C	90	Relative humidity (%)		
	Leaving temperature (°C)	27	0	°C	Speed	Volume	Pressure drop
	Relative humidity (%)	0	0	%	0 m/s	0 m ³ /h	0 Pa
Fluid flow	Water	Ethylene in weight		0	%		
	Entering temperature	80	°C	Leaving temperature °C	60	0	°C
	Max pressure drop (kPa)	25		0 m/s	0 m ³ /h	0	kPa
N°	Dim.	Power		Exchange surface		S/T	
		0 kcal/h	0 kW	0 m ²	0		

The correct order to compute components is: COILS, HEAT RECOVERY and FANS.

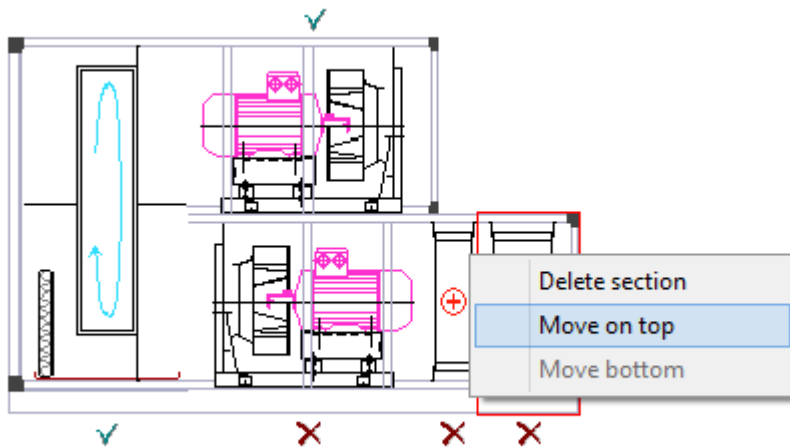
Once chosen and computed all components, all the sections will get a green tick.

MOVE ON TOP FUNCTION

This is an option that you can activate from Heat recovery tab.

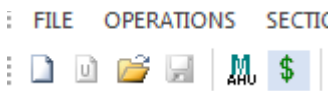


After choosing this option from accessories list you **right click** on each component you would like to **move on the top of the unit** as shown below:



PRICE CALCULATION

Now it is possible to compute the price of the unit by clicking on the green dollar of the menu



Calculation of unit price ✖

\$ Unit price

Additional prices

Description	Price	Q.ty

Discount Profit %

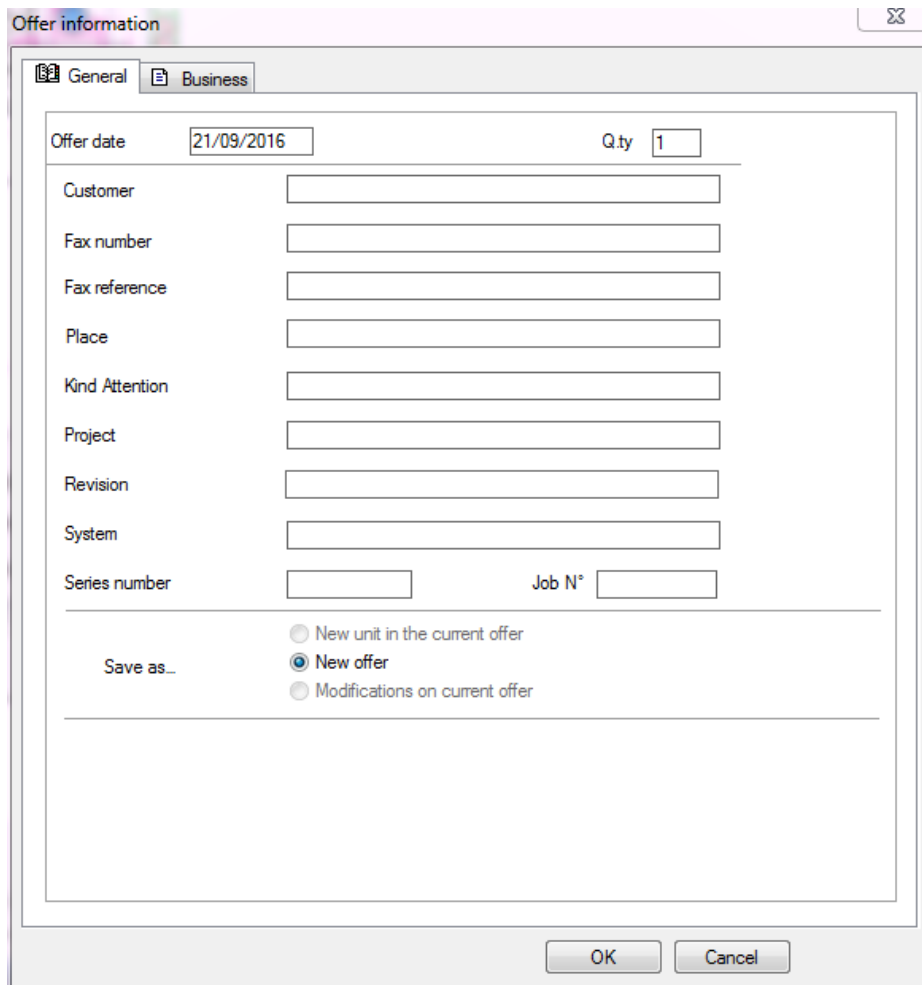
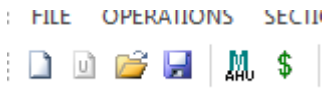
Currency Exchange

Unit price € 10.275,00

€ 10.274,89

SAVING AN OFFER

Click on the violet icon “Save offer” so that you can enter all the customer’s data and terms and conditions (tab “Business”)



Offer information

General Business

Offer date: 21/09/2016 Qty: 1

Customer:

Fax number:

Fax reference:

Place:

Kind Attention:

Project:

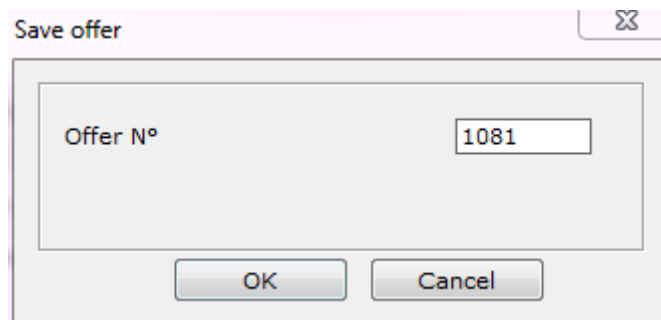
Revision:

System:

Series number: Job N°:

Save as... New unit in the current offer
 New offer
 Modifications on current offer

OK Cancel



Save offer

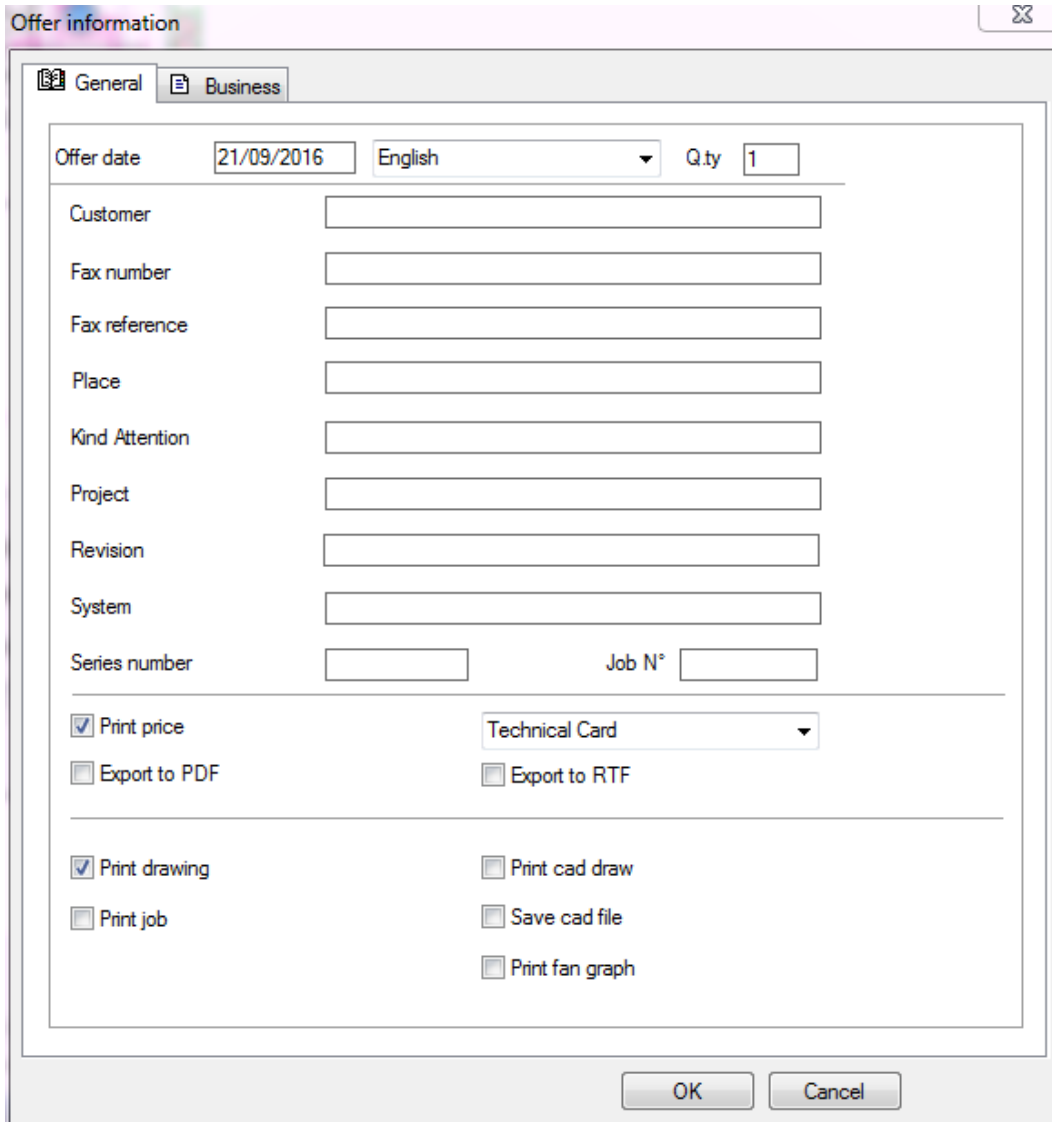
Offer N°: 1081

OK Cancel

OFFER PRINTOUT

Now it is possible to proceed with offer printing; there are different tick boxes whether you want to:

- Just print the offer “Print drawing”
- Create the PDF or RTF version through “Export to PDF” / “Export to RTF”;
- Print and save a CAD drawing of the selected unit.



The image shows a software dialog box titled "Offer information". It has two tabs: "General" (selected) and "Business". The dialog contains several input fields and checkboxes. The "Offer date" field is set to "21/09/2016", the language is set to "English", and the quantity is "1". Below these are fields for "Customer", "Fax number", "Fax reference", "Place", "Kind Attention", "Project", "Revision", "System", "Series number", and "Job N°". At the bottom, there are checkboxes for "Print price" (checked), "Export to PDF", "Print drawing" (checked), "Print job", "Technical Card" (dropdown menu), "Export to RTF", "Print cad draw", "Save cad file", and "Print fan graph". "OK" and "Cancel" buttons are at the bottom right.


PDF and RTF will be stored in the folder as defined into configuration options.

PRICE DETAIL

Once computed each component, by clicking on the red dollar button it is possible to get a document with price details for internal use.

CTA-Pro - Air handling unit selection

FILE OPERATIONS SECTIONS OPTIONS SHOW ?


MP40W.6 5000 / 5000 m³/h Unit price 20x4640 mm

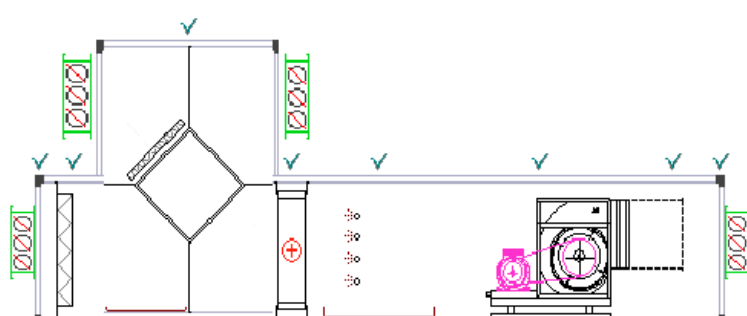
Mixing boxes

Filters

Coils

Humidifiers

Heat recovery units



CTA-Pro Select

<p>Airflow 5000 m3/h 1055x1620x4820 mm Internal metal sheet: Galvanized steel thickness 15/10 Panel internal side: Galvanized Steel thickness 9/10 Panel external side: Galvanized preplastified sheet (Plastisol) thickness</p>		<p>Customer: AHU Reference:</p>		<p>Price per kilo £ 0,64 Price per kilo € 0,64 Profiles 40 mm</p>	
1	Intake section	B			
	Section length (mm)	150			
	Frontal dimensions (mm)	1055 x 1055			
	Section weight (kg)	12.4			
	Total working time (min)	15			
	Pressure drop (Pa)	30.0			
	Aluminium / Aluminium Frontal damper N. 1 975x310 Speed Frontal damper 4.6 m/s	£ 48,00			
	Section price (structure excluded)	£ 48,00			
	ASSEMBLING-FINISHING (@BSERR@ < 1501) & (@ACC21@#52)	CC:7 - 15.00 min	15.000000	assembly damper	
2	Synthetic/metallic filter	B			
	Section length (mm)	150			
	Frontal dimensions (mm)	1055 x 1055			
	Section weight (kg)	18.73			
	Total working time (min)	89			
	Pressure drop (Pa)	100.9			
	Synthetic G4 (eff. 86%) EN779 Hinges N*4 R 3 C 2 N* 3 592 x 287 x 48 ID 730 N* 3 Frames305X610X100 ID 3 N* 3 287 x 287 x 48 ID 684 N* 3 Frames305X305X75 ID 16 Internal sheet metal parts mq 0.23 Handles N*0	£ 4,44		29011	
		£ 7,11	Price per u £ 2,37	Discoun 0.0 %	FILT_G4_287X592X48
			Price per unit	Discoun 0.0 %	TEL_T_305X610X100
		£ 9,48	Price per u £ 3,16	Discoun 0.0 %	FILT_G4_287X287X48
			Price per unit	Discoun 0.0 %	TEL_T_305X305X75
		£ 2,20			
	Section price (structure excluded)	£ 23,23			
	METAL SHEET DETAILS REINFORCE 1003x117 mm PUNCHING MACHINE BENDING MACHINE ASSEMBLING-FINISHING	N*2.00 -mq 0.23 ZN Thick 1.50 mm 2.76 kg CC:1 - 5.00 min CC:2 - 4.00 min CC:7 - 80.00 min 60.000000 5.000000 LASER & CUT REINFORCE 4.000000 BEND REINFORCE 20.000000 ASSEMBLY REINFORCE			
3	Junction	B			
	Section length (mm)	80			
	Frontal dimensions (mm)	1055 x 1055			
	Section weight (kg)	0			
	Total working time (min)	60			
	Pressure drop (Pa)	0.0			
	Internal metal sheet mq mq 0.00				
	Section price (structure excluded)				
	ASSEMBLING-FINISHING	CC:7 - 60.00 min	60.000000	assembly junction	

This document includes:

General information about the unit , in particular:

- Air flow rate
- type of profile used,
- internal and external panel material with price/Kg and thickness

Technical details per each section involved, regarding:

- Structure (in bold): length, weight frontal dimensions, total working time and pressure drop
- Structure composition (single item)+ internal metal sheet meters used and price per unit
- Total price for the whole section without considering structure

The following screenshots of the last pages of the report, include a SUMMARY divided as follows

- Weight and cost of external and internal structure (panels, profiles, internal components, metal sheets, screws and joints)
- Total labor cost and time (specified also per kind of working) of the structure according to sections (number of modules in which the unit is divided)
- Total labor time divided per working center (structure and component sections)

Costs in red represent total net cost of structure, components and labor costs. A multiplier gives the total selling price.

Summary

Total weight of frame (structure+ panels)	542.82 Kg				
Total weight of panels	496.75 Kg				
Total weight of internal components	261.94 Kg				
Total weight of unit	806.97 Kg				
Total profiles cost 55.3 m. P140-25	£ 15,26	£ 0,4084	Price/kg		
Gaskets GUARN25 123.01 m	£ 22,14	£ 0,18	Price/m		
Omega profiles 6.21 m. P240-25	£ 3,56	£ 0,41	Price/kg		
Omega joints N° 14			Unit price		
Total cost of panels 4-1-19-2-090-090mq 19.81	£276,50	int loss 0 %	ext . loss 0 %		
Cost of metal sheet ZN0.9 - PL0.9 mm	Price/kg 0,64	Price/kg 1,02	Price mq 1,58	Insulation MW £ 30,97	
Internal sheet metal material	£ 88,51		mq 5.57		
Total panels square m	mq 19.81				
Panel screws n. 300	£ 6,00				

Cost of structure materials **£ 323,39**
 Total cost of components **£ 939,51**

Total labor cost 531,00 35.40 h - 15,00 £/h

Total net costs **£ 1.793,90**

Price multiplier 1.67

Total costs **£ 1.793,90**

AHU Price list £ 2.995,81

Total additional prices

Discount 0

Selling price £ 2.996,00

Times for structure (minutes)	PUNCH	BEND	FOAM	CUTT	FAN PR	MOVE	ASSBL	TOT
STRUCTURE PROFILES	0	0	0	96	0	0	192	288
OMEGA PROFILES	0	0	0	14	0	0	28	42
CORNERS	0	0	0	0	0	0	0	0
OMEGA JOINTS	0	0	0	0	0	0	0	0
PANELS	125	400	0	0	0	0	350	875
BASEFRAME METAL SHEET	0	0	0	0	0	0	0	0

BASEFRAME CORNERS	0	0	0	0	0	0	0	0	
BASEFRAME CONNECTIONS	0	0	0	0	0	0	0	0	
PANELS GASKETS	0	0	0	0	0	0	30.75	30.75	
ROOF	0	0	0	0	0	0	0	0	
DRAIN PAN	0	0	0	0	0	0	0	0	
PACKAGING	0	0	0	0	0	0	0	0	1235
Total labor cost for unit structure	€ 308,93								
Times for structure for section (minutes)									
Section A	30	96	0	26	0	0	141.47	293.47	
Section B	45	144	0	34	0	0	203.44	426.44	
Section C	20	64	0	24	0	0	111.28	219.28	
Section D	30	96	0	26	0	0	144.57	296.57	1235
Summary for working center									
	PUNCH	BEND	FOAM	CUTT	FAN PR	MOVE	ASSBL	Tot.	
Times for structure (minutes)	125	400	0	110	0	0	600.75	1235.75	
Intake section							15	15	
Synthetic/metallic filter	5	4					80	89	
Junction							60	60	
Plate heat recovery unit	27.5	18					240	285.5	
Junction							60	60	
Heating coil	10	8					70	88	
Steam humidification section	7.5	6					70	83.5	
Junction							60	60	
Fan section	7.5	10					115	132.5	
Balancing section								0	
Intake section							15	15	
Totals for working center	182.5	446	0	110	0	0	1385.75	2124.25	
Total labor cost	531,00		35.40 h - 15,00 €/h						

AHU summary sections

Offer /17-11-2016

Section A

Section 0

Dimensions B:1055.0 H:1055.0 L:380.0 85.2 kg
 N°0 Corners
 N°4 Aluminium segment P140-25 1055 mm
 N°4 Aluminium segment P140-25 1055 mm
 N°4 Aluminium segment P140-25 380 mm
 Side A -N°1 Panel cut P240-25 975 mm (0-310 O)
 Side B -N°1 Omega segment P240-25 975 mm (150-0 V)
 Side A -N°1 Panel 975 x665 mm AA2
 Side B -N°1 Panel 150 x975 mm AB1
 Side B -N°1 Panel 90 x975 mm -Door AB2
 Side D -N°1 Panel 300 x975 mm AD1
 Side E -N°1 Panel 300 x975 mm AE1
 Side F -N°1 Panel 300 x975 mm AF1

Section B

Section 0

Dimensions B:1055.0 H:1620.0 L:980.0 215.6 kg
 N°0 Corners
 N°4 Aluminium segment P140-25 1055 mm
 N°4 Aluminium segment P140-25 1620 mm
 N°4 Aluminium segment P140-25 980 mm
 Side A -N°1 Omega segment P240-25 975 mm (0-975 O)
 Side A -N°1 Panel cut P240-25 975 mm (0-1230 O)
 Side B -N°1 Omega segment P240-25 900 mm (0-975 O)
 Side B -N°1 Omega segment P240-25 505 mm (150-1035 V)
 Side C -N°1 Omega segment P240-25 975 mm (0-975 O)
 Side C -N°1 Panel cut P240-25 975 mm (0-1230 O)
 Side D -N°1 Omega segment P240-25 900 mm (0-975 O)
 Side A -N°1 Panel 975 x195 mm BA2
 Side B -N°1 Panel 900 x975 mm BB1
 Side B -N°1 Panel 150 x505 mm BB2
 Side B -N°1 Panel 690 x505 mm BB3
 Side C -N°1 Panel 975 x195 mm BC2
 Side D -N°1 Panel 900 x975 mm BD1
 Side D -N°1 Panel 900 x505 mm BD2
 Side E -N°1 Panel 900 x975 mm BE1
 Side F -N°1 Panel 900 x975 mm BF1

Section C

Section 0

Dimensions B:1055.0 H:1055.0 L:1530.0 198.6 kg
 N°0 Corners
 N°4 Aluminium segment P140-25 1055 mm
 N°4 Aluminium segment P140-25 1055 mm
 N°4 Aluminium segment P140-25 1530 mm
 Side B -N°1 Panel 1450 x975 mm CB1
 Side D -N°1 Panel 1450 x975 mm CD1
 Side E -N°1 Panel 1450 x975 mm CE1
 Side F -N°1 Panel 1450 x975 mm CF1

Section D

Section 0

Dimensions B:1055.0 H:1055.0 L:1930.0 307.6 kg
 N°0 Corners
 N°4 Aluminium segment P140-25 1055 mm
 N°4 Aluminium segment P140-25 1055 mm
 N°4 Aluminium segment P140-25 1930 mm
 Side B -N°1 Omega segment P240-25 975 mm (600-0 V)
 Side C -N°1 Panel cut P240-25 975 mm (0-310 O)
 Side B -N°1 Panel 600 x975 mm - Door DB1
 Side B -N°1 Panel 1190 x975 mm DB2
 Side C -N°1 Panel 975 x665 mm DC2
 Side D -N°1 Panel 1850 x975 mm DD1
 Side E -N°1 Panel 1850 x975 mm DE1
 Side F -N°1 Panel 1850 x975 mm DF1

Summary of profiles

P140-25 N° 4 380mm
P140-25 N° 28 1055mm
P140-25 N° 4 980mm
P140-25 N° 4 1620mm
P140-25 N° 4 1530mm
P140-25 N° 4 1930mm
P240-25 N° 2 900mm
P240-25 N° 1 505mm
P240-25 N° 4 975mm

Summary of panels

N° 1 90 x 975 mm 4-1-19-2
N° 1 150 x 975 mm 4-1-19-2
N° 1 150 x 505 mm 4-1-19-2
N° 3 300 x 975 mm 4-1-19-2
N° 1 600 x 975 mm 4-1-19-2
N° 1 690 x 505 mm 4-1-19-2
N° 1 900 x 505 mm 4-1-19-2
N° 4 900 x 975 mm 4-1-19-2
N° 2 975 x 665 mm 4-1-19-2
N° 2 975 x 195 mm 4-1-19-2
N° 4 1450 x 975 mm 4-1-19-2
N° 1 1190 x 975 mm 4-1-19-2
N° 3 1850 x 975 mm 4-1-19-2

Total corner profile

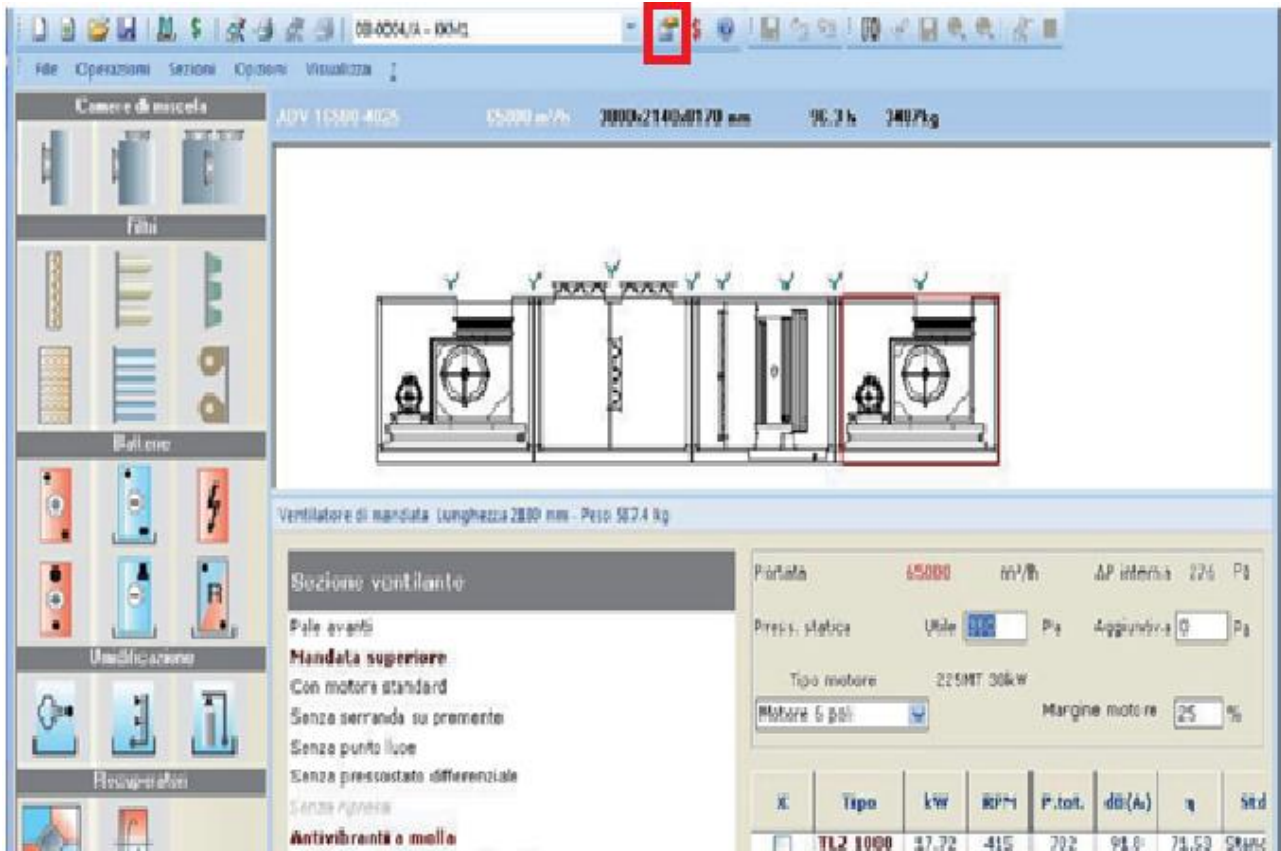
55.3 meters

Total Omega profile

6.2 meters

BILL OF MATERIAL

By clicking on the button of the Bill of Material, it is possible to get a list of all items composing the unit.



It is a list of technical details per each unit module (e.g. New part number B) regarding structure (e.g. gaskets, structure profiles...), metal sheets (e.g. METAL SHEET ZN 20/10) and purchase components' items.

☐ Sections: New part number B

☐ Component: 01 STRUCTURE COMPONENTS

GASKETS
 UNIT BASE METAL SHEET
 STRUCTURE PROFILES
 OMEGA PROFILES
 CORNERS
 OMEGA JOINTS
 PANELS
 PANELS SCREWS

☐ Component: 02 SHEET METAL

METAL SHEET ZN 20/10
 PANELS 50 mm ZNVERN 10/10 ZN 10/10
 METAL SHEET ZN 10/10
 METAL SHEET ZN 15/10

☐ Component: 03 Heat wheel recovery unit

Different kind of information are available per each single item listed:

- Unit measurement
- Quantity (how many pieces of that single Structure component, Metal sheet or purchase component item)
- Price per unit (single item)
- Total price of the items involved
- Part number (article code).

Unit	Quantity	Price pe...	Total P...	Part number	P..	N.	N.	Group
NR	4.00	0,5	2	PIASTRINA				25
NR	8.00	1	8	TRIANGOLO				25
ML	12.68	1,05	13,31	PROFTTGIUN...				25
NR	4.00	0,44	1,76	LEGNI				33
NR	1.00	0,2	0,2	ETICHETTAC...				33
MT	51.72	0,133	307,63	GUARN2				33
KG	28.17	2,4	67,6	PB110				33
KG	18.80	4	75,2	P1-50				33
KG	1.05	3	3,15	P2-50				33
NR	8.00	0,83	6,64	A-50				33
NR	4.00	0,29	1,15	G-50				33
MQ	10.54	72,47	763,97					34
NR	60.00	0,01	0,6	VITEPARTNU...				33
KG	28.17	2,4	67,6					33
MQ	10.54	47,67	502,53	50ZNVERN10/...				33
KG	5.88	2,4	14,11	LAMZN10				33
KG	84.89	2,4	203,74	LAMZN15				33