# FCX P

## Fan coils
## Ductable installations

Aermec adheres to the EUROVENT Certification Programme.
The products concerned appear in the EUROVENT Certified Products Guide.

## Features

- Available in 8 sizes and 3 versions:
  **FCX-P**: wall/ceiling mounting without cabinet
  **FCX-PE**: wall/ceiling mounting without cabinet and with direct expansion coil
  **FCX-PO**: wall/ceiling mounting with high static 7 speeds available (3 can be selected) (FCX 22, 32, 42, 50 and 62)
- Versions with 4 row coil (FCX 24, 34, 44, 54, 64 and 84)
- EUROVENT certified
- 3-speed fan unit
- Full compliance with safety regulations
- Broad range of controls and accessories
- Low noise operation
- Reduced pressure drops across heat exchangers
- Motors with permanently connected condensers
- Easy installation and maintenance
- Air filter easily removed and cleaned
- Possibility of residual pressure for duct requirements
- Type 1 fireproof internal insulation and air filter
- Removable blades for easy and effective cleaning
- Water connections reversibility during installation

## Accessories

- **AMP**: Kit for wall/ceiling mounting.
- **BC**: Auxiliary condensate drip tray.
- **BV**: Single row hot water coil.
- **DSC4**: Condensate drainage device for use when natural run-off is not possible.
- **GA**: Intake louver with fixed slats.
- **GAF**: Intake louver with fixed slats and filter.
- **GM**: Delivery louver with adjustable slats.
- **MA**: A-type cabinet (use Auxiliary Drip Tray BC 4 for FCX AS).
- **MU**: U-type cabinet (use Auxiliary Drip Tray BC 5-6 for FCX U).
- **PC**: Rear cover panel.
- **PCR**: Galvalnized cover panel for controls and heating element terminals.
- **PA**: Intake Plenum made of galvanized steel sheet, provided with Intake Connections for Circular Section Ducts.
- **PA-F**: Intake plenum that allows to have the intake and the delivery on the same side, suitable for all the installations where it is requested to put the appliance outside the air-conditioned rooms in order to reduce to the minimum the noise and facilitate the maintenance operations.
- **PM**: Delivery plenum in galvanized steel with external insulation, with plastic outlet connections for circular section ducting.
- **PX**: Control panel with selector switch.
- **PXB**: Simplified control panel with electronic ambient thermostat for wall installation.
- **PXAE**: Electronic thermostat for fan coils installed in two-pipe or four-pipe systems. Simplified commands with two selectors for temperature and ventilation control (three speeds with manual or automatic control). It can control up to two valves of the On-Off type. **Wall mounting.**
- **PXAR**: Electronic thermostat for fan coils installed in two-pipe systems, and systems with two pipes with electric heater or four pipes (without electric heater). Simplified controls with just two selectors for the control of the temperature and the ventilation (3 speeds with manual or automatic control). The control of the electric heater can be activated using the speed selector. It can monitor the electric heater and one On-Off type valve or up to two On-Off type valves. **Water temperature sensor included. Wall mounting or mounting on the fan coil.**
- **RD**: Delivery straight duct connection.
- **RDA**: Intake straight duct connection.
- **RP**: Delivery 90° duct connection.
- **RPA**: Intake 90° duct connection.
- **RX**: Armoured electrical heating element with safety thermostat. (Need thermostat with el. heater control).
- **SE**: Manually operated fresh air intake louver.
- **SIT 3-5**: Thermostat interface cards. They allow to set up a fancoils network (max. 10) commanded by a centralised panel (switch or thermostat).
  SIT3: commands the three speeds of the fan and must be installed on each fancoil of the network; it receives the commands from the switch or from the SIT5 card.
  SIT5: commands the 3 fan speeds and up to two valves (four-pipe systems); it sends the thermostat commands to the fancoils network.
- **SW**: Probe for the electronic thermostats (excluding PXB) which permits operation of the unit only with water above 35 °C.
- **TF**: Room thermostat with selector.
- **VCF**: Kit comprising motorized three-way valve, unions and copper pipes. For 3-row (VCF 1, 2 and 3) and 1-row (VCF 4 and 5) coils.
- **ZX**: Feet for built-in installation.

## Electronic thermostat (PXAE and PXAR)

### Silent operation
The absence of electro-mechanical actuators eliminates the typical clicking noises generated by relays in certain conditions. This fact, combined with the silent ventilation, ensure the outstanding acoustic comfort standards of Aermec fancoils.

### Automatic on - off
After a check of the input water temperature, the microprocessor starts up or shuts down (to stand-by) the fan (and valve if fitted) in summer or winter operation mode.

### Automatic season changeover
After a check of the input water temperature (with water temperature probe), the panel automatically positions to winter or summer operation, changing also the thermostat temperature scale.

### Automatic fan speed change
Possibility of automatic fan speed change to ensure gradual modulation of power supplied.

### Other functions:
AUTOTEST, winter antifreeze check and electric heater (PXA_R).

| Accessories | | FCX fan coils Size 17 | 22 / 24 | 32 / 34 | 42 / 44 | 50 / 54 | 62 / 64 | 82 / 84 | 102 | Versions |
|---|---|---|---|---|---|---|---|---|---|---|
| AMP | | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | All |
| BC | 4 | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | FCX P + MA |
| | 5 | ✔ | ✔ | ✔ | ✔ | ✔ | | | | FCX P + MU |
| | 6 | | | | | | ✔ | ✔ | ✔ | FCX P + MU |
| | 8 | ✔ | ✔ | ✔ | ✔ | ✔ | | | | All |
| | 9 | | | | | | ✔ | ✔ | ✔ | All |
| BV | 117 | ✔* | | | | | | | | P-PE |
| | 122 | | ✔* | | | | | | | All |
| | 132 | | | ✔* | | | | | | All |
| | 142 | | | | ✔* | ✔* | | | | All |
| | 162 | | | | | | ✔* | ✔* | ✔* | All |
| DSC4 | | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | All |
| GA | 17 | ✔ | | | | | | | | P-PE |
| | 22 | | ✔ | | | | | | | All |
| | 32 | | | ✔ | | | | | | All |
| | 42 | | | | ✔ | ✔ | | | | All |
| | 62 | | | | | | ✔ | ✔ | ✔ | All |
| GAF | 17 | ✔ | | | | | | | | P-PE |
| | 22 | | ✔ | | | | | | | All |
| | 32 | | | ✔ | | | | | | All |
| | 42 | | | | ✔ | ✔ | | | | All |
| | 62 | | | | | | ✔ | ✔ | ✔ | All |
| GM | 17 | ✔ | | | | | | | | P-PE |
| | 22 | | ✔ | | | | | | | All |
| | 32 | | | ✔ | | | | | | All |
| | 42 | | | | ✔ | ✔ | | | | All |
| | 62 | | | | | | ✔ | ✔ | ✔ | All |
| MA | 17 | ✔ | | | | | | | | P-PE |
| | 22 | | ✔ | | | | | | | All |
| | 32 | | | ✔ | | | | | | All |
| | 42 | | | | ✔ | ✔ | | | | All |
| | 62 | | | | | | ✔ | ✔ | ✔ | All |
| MU | 17 | ✔ | | | | | | | | P-PE |
| | 22 | | ✔ | | | | | | | All |
| | 32 | | | ✔ | | | | | | All |
| | 42 | | | | ✔ | ✔ | | | | All |
| | 62 | | | | | | ✔ | ✔ | ✔ | All |
| PA | 17 | ✔ | | | | | | | | P-PE |
| | 22 | | ✔ | | | | | | | All |
| | 32 | | | ✔ | | | | | | All |
| | 42 | | | | ✔ | ✔ | | | | All |
| | 62 | | | | | | ✔ | ✔ | ✔ | All |
| PA-F | 17 | ✔ | | | | | | | | P-PE |
| | 22 | | ✔ | | | | | | | All |
| | 32 | | | ✔ | | | | | | All |
| | 42 | | | | ✔ | ✔ | | | | All |
| | 62 | | | | | | ✔ | ✔ | ✔ | All |
| PCR | 1 | ✔ | ✔ | ✔ | ✔ | ✔ | | | | All |
| | 2 | | | | | | ✔ | ✔ | ✔ | All |
| PM | 17 | ✔ | | | | | | | | P-PE |
| | 22 | | ✔ | | | | | | | All |
| | 32 | | | ✔ | | | | | | All |
| | 42 | | | | ✔ | ✔ | | | | All |
| | 62 | | | | | | ✔ | ✔ | ✔ | All |
| PX2 | | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | All |
| PXB | | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | All |
| PXAE | | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | All |
| PXAR | | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | All |
| RD | 17 | ✔ | | | | | | | | P-PE |
| | 22 | | ✔ | | | | | | | All |
| | 32 | | | ✔ | | | | | | All |
| | 42 | | | | ✔ | ✔ | | | | All |
| | 62 | | | | | | ✔ | ✔ | ✔ | All |
| RDA | 17 | ✔ | | | | | | | | P-PE |
| | 22 | | ✔ | | | | | | | All |
| | 32 | | | ✔ | | | | | | All |
| | 42 | | | | ✔ | ✔ | | | | All |
| | 62 | | | | | | ✔ | ✔ | ✔ | All |
| RP | 17 | ✔ | | | | | | | | P-PE |
| | 22 | | ✔ | | | | | | | All |
| | 32 | | | ✔ | | | | | | All |
| | 42 | | | | ✔ | ✔ | | | | All |
| | 62 | | | | | | ✔ | ✔ | ✔ | All |
| RPA | 17 | ✔ | | | | | | | | P-PE |
| | 22 | | ✔ | | | | | | | All |
| | 32 | | | ✔ | | | | | | All |
| | 42 | | | | ✔ | ✔ | | | | All |
| | 62 | | | | | | ✔ | ✔ | ✔ | All |
| RX | 17 | ✔* | | | | | | | | P-PE |
| | 22 | | ✔* | | | | | | | All |
| | 32 | | | ✔* | | | | | | All |
| | 42 | | | | ✔* | | | | | All |
| | 52 | | | | | ✔* | | | | All |
| | 62 | | | | | | ✔* | ✔* | ✔* | All |
| SE | 15X | ✔ | | | | | | | | P-PE |
| | 20X | | ✔ | | | | | | | All |
| | 30X | | | ✔ | | | | | | All |
| | 40X | | | | ✔ | ✔ | | | | All |
| | 80X | | | | | | ✔ | ✔ | ✔ | All |
| SIT | 3 | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | PE-PO |
| | 5 | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | PE-PO |
| SW3 | | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | P-PO |
| TF1 | | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | P-PO |
| VCF | 1 | ✔ | ✔ | ✔ | | | | | | P-PO |
| | 2 | | ✔** | ✔** | ✔** | ✔** | | | | P-PO |
| | 3 | | | | | | ✔** | ✔** | ✔** | P-PO |
| | 4 | ✔ | ✔ | ✔ | ✔ | ✔ | | | | P-PO |
| | 5 | | | | | | ✔ | ✔ | ✔ | P-PO |
| ZX | 7 | ✔ | ✔ | ✔ | ✔ | ✔ | | | | All |
| | 8 | | | | | | ✔ | ✔ | ✔ | All |

* = Not available for the 4-row models.
** = The 4-row models can only be combined with the VCF2 valves (FCX-P 24, 34, 44 and 54) and VCF3 valves (FCX-P 64 and 84).

## Technical data

| Mod. | FCX-P | 17 | 22 | 24 | 32 | 34 | 42 | 44 | 50 | 54 | 62 | 64 | 82 | 84 | 102 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Heating capacity | W (max.) | 2490 | 3400 | 3950 | 4975 | 5850 | 7400 | 8600 | 8620 | 10100 | 12920 | 14300 | 15140 | 17100 | 17020 |
| | W (med.) | 2070 | 2700 | 3200 | 4085 | 4850 | 6415 | 6930 | 7530 | 8760 | 10940 | 11500 | 13350 | 14420 | 15240 |
| | W (min.) | 1610 | 1915 | 2200 | 3380 | 3850 | 5115 | 5200 | 5420 | 6240 | 8330 | 8500 | 10770 | 11200 | 12560 |
| Heating capacity* (water inlet 50°C) | W (max.) ***(E)*** | 1360 | 2100 | 2320 | 3160 | 3550 | 4240 | 5250 | 4900 | 6100 | 6460 | 7810 | 7990 | 10400 | 9670 |
| Electric heating element power | W | 700 | 950 | - | 1300 | - | 1650 | - | 1950 | - | 2200 | - | 2200 | - | 2200 |
| Water flow rate | l/h | 214 | 292 | 340 | 427 | 503 | 636 | 740 | 741 | 869 | 1110 | 1230 | 1300 | 1471 | 1464 |
| Water pressure drops | kPa | 2.8 | 6.3 | 4.0 | 14.2 | 8.0 | 14.1 | 21.0 | 14.2 | 22.0 | 14.8 | 22.0 | 19.8 | 30.0 | 16.6 |
| Total cooling capacity | W (max.) ***(E)*** | 1000 | 1500 | 1730 | 2210 | 2800 | 3400 | 4450 | 4190 | 4970 | 4860 | 6350 | 7420 | 8600 | 7620 |
| | W (med.) | 890 | 1330 | 1500 | 2055 | 2450 | 2800 | 3780 | 3640 | 4770 | 4660 | 5520 | 5500 | 7600 | 7140 |
| | W (min.) | 720 | 1055 | 1150 | 1570 | 2050 | 2310 | 2970 | 2840 | 3620 | 3950 | 4500 | 4710 | 6270 | 6270 |
| Sensible cooling capacity | W (max.) ***(E)*** | 830 | 1240 | 1380 | 1750 | 2130 | 2760 | 3300 | 3000 | 3540 | 3980 | 5030 | 5680 | 5780 | 5980 |
| | W (med.) | 710 | 1055 | 1140 | 1540 | 1789 | 2115 | 2722 | 2750 | 3101 | 3510 | 4195 | 4250 | 5016 | 4984 |
| | W (min.) | 540 | 755 | 828 | 1100 | 1441 | 1635 | 2079 | 2040 | 2281 | 2825 | 3330 | 3450 | 4013 | 4263 |
| Water flow rate | l/h | 172 | 258 | 297 | 413 | 482 | 585 | 765 | 721 | 912 | 836 | 1092 | 1189 | 1479 | 1311 |
| Water pressure drops | kPa ***(E)*** | 2.6 | 5.8 | 3.0 | 16.6 | 9.0 | 14.3 | 19.2 | 19.3 | 25.9 | 11.6 | 13.0 | 13.5 | 22.0 | 19.2 |
| Air flow rate | $m^3/h$ (max.) | 200 | 290 | 290 | 450 | 450 | 600 | 600 | 720 | 720 | 920 | 920 | 1140 | 1140 | 1300 |
| | $m^3/h$ (med.) | 160 | 220 | 220 | 350 | 350 | 460 | 460 | 600 | 600 | 720 | 720 | 930 | 930 | 1120 |
| | $m^3/h$ (min.) | 110 | 140 | 140 | 260 | 260 | 330 | 330 | 400 | 400 | 520 | 520 | 700 | 700 | 900 |
| Fans | n. | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 |
| ♪ Sound pressure | dB (A) (max.) | 36.5 | 41.5 | 42.5 | 39.5 | 39.5 | 42.5 | 46.5 | 47.5 | 47.5 | 48.5 | 48.5 | 53.5 | 52.5 | 57.5 |
| | dB (A) (med.) | 29.5 | 34.5 | 37.5 | 32.5 | 32.5 | 35.5 | 41.5 | 42.5 | 44.5 | 42.5 | 42.5 | 48.5 | 48.5 | 52.5 |
| | dB (A) (min.) | 22.5 | 22.5 | 26.5 | 25.5 | 27.5 | 28.5 | 32.5 | 33.5 | 35.5 | 33.5 | 35.5 | 41.5 | 42.5 | 47.5 |
| Sound pressure FCX PO | dB (A) (max.) | - | 49.5 | 49.5 | 44.0 | 44.0 | 50.0 | 50.0 | 50.5 | 50.5 | 53.5 | 53.5 | 55.5 | 55.5 | - |
| Sound power FCX PO | dB (A) (max.) | - | 58.0 | 58.0 | 52.5 | 52.5 | 58.5 | 58.5 | 59.0 | 59.0 | 62.0 | 62.0 | 60.0 | 64.0 | - |
| Sound power | dB (A) (max.) ***(E)*** | 45.0 | 50.0 | 51.0 | 48.0 | 48.0 | 51.0 | 55.0 | 56.0 | 56.0 | 57.0 | 57.0 | 62.0 | 61.0 | 66.0 |
| | dB (A) (med.) ***(E)*** | 38.0 | 43.0 | 46.0 | 41.0 | 41.0 | 44.0 | 50.0 | 51.0 | 53.0 | 51.0 | 51.0 | 57.0 | 57.0 | 61.0 |
| | dB (A) (min.) ***(E)*** | 31.0 | 31.0 | 35.0 | 34.0 | 36.0 | 37.0 | 41.0 | 42.0 | 44.0 | 42.0 | 44.0 | 50.0 | 51.0 | 56.0 |
| Water contents | l | 0.58 | 0.79 | 1.0 | 1.11 | 1.5 | 1.48 | 1.9 | 1.48 | 1.9 | 2.52 | 3.4 | 2.52 | 3.4 | 2.52 |
| Max. motor power (W) | FCX P ***(E)*** | 35 | 25 | 33 | 44 | 44 | 57 | 57 | 67 | 67 | 82 | 91 | 106 | 106 | 131 |
| | FCX PO | - | 54 | 54 | 97 | 97 | 111 | 111 | 82 | 82 | 97 | 97 | 135 | 135 | - |
| Max. input current (A) | FCX P | 0.16 | 0.12 | 0.25 | 0.21 | 0.45 | 0.28 | 0.51 | 0.35 | 0.36 | 0.40 | 0.48 | 0.49 | 0.62 | 0.58 |
| | FCX PO | - | 0.25 | 0.25 | 0.45 | 0.45 | 0.51 | 0.51 | 0.36 | 0.36 | 0.48 | 0.48 | 0.62 | 0.62 | - |
| Max. motor power with electric heater (W) | FCX P | 735 | 975 | - | 1344 | - | 1707 | - | 2017 | - | 2282 | - | 2306 | - | 2331 |
| | FCX PO | - | 1004 | - | 1397 | - | 1761 | - | 2032 | - | 2297 | - | 2335 | - | - |
| Input current with electric heater (A) | FCX P | 3.2 | 4.25 | - | 5.86 | - | 7.45 | - | 8.83 | - | 9.97 | - | 10.06 | - | 10.15 |
| | FCX PO | - | 4.38 | - | 6.00 | - | 7.68 | - | 8.84 | - | 10.05 | - | 10.19 | - | - |
| Coil connections | ø (4R) | - | - | 3/4″ | - | 3/4″ | - | 3/4″ | - | 3/4″ | - | 3/4″ | - | 3/4″ | - |
| | ø (3R) | 1/2″ | 1/2″ | - | 1/2″ | - | 3/4″ | - | 3/4″ | - | 3/4″ | - | 3/4″ | - | 3/4″ |
| | ø (1R) | 1/2″ | 1/2″ | - | 1/2″ | - | 1/2″ | - | 1/2″ | - | 1/2″ | - | 1/2″ | - | 1/2″ |

**Power supply** = 1~ 230V 50Hz.

***(E)*** = Prestazioni certificate EUROVENT

Performance values refer to the following conditions:

♪ Sound pressure measured in an 85 $m^3$ semi-reverberant test chamber with reverberation time Tr = 0.5s.

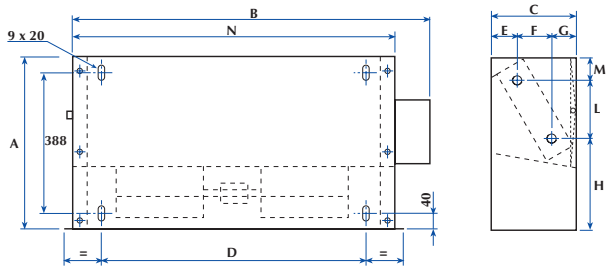
Cooling:
- room air temperature 27 °C D.B., 19 °C W.B.;
- water inlet temperature 7 °C; maximum speed;
- Δt water 5 °C.
- for medium and low speed, water flow rate remains same as at maximum speed.

Heating:
- room air temperature 20 °C;
- water inlet temperature 70 °C; maximum speed;
- Δt water 10 °C;
- for medium and low speed, water flow rate remains same as at maximum speed.

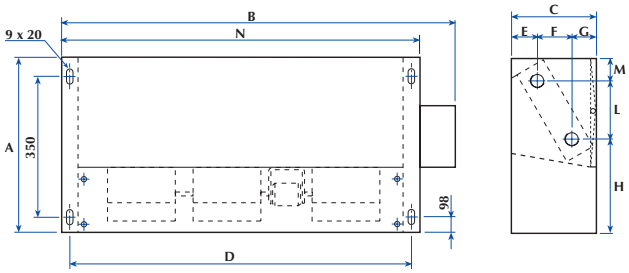
Heating*:
- room air temperature 20 °C;
- water inlet temperature 50 °C; maximum speed;
- water flow rate same as in cooling operation.

## Dimensions (mm)

**FCX P 17 - 22 - 32 - 42 - 50**

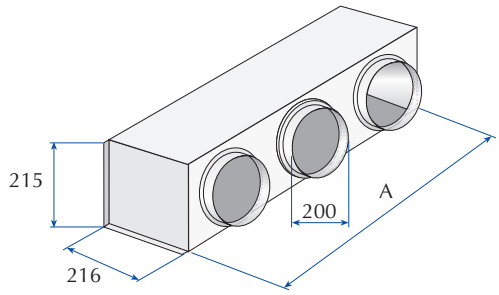



**FCX P 62 - 82 - 102**



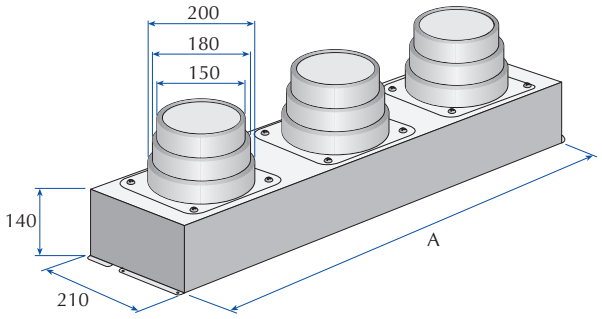

| FCX P | 17 | 22 - 24 | 32 - 34 | 42 - 44 | 50 - 54 | 62 - 64 | 82 - 84 | 102 |
|---|---|---|---|---|---|---|---|---|
| A | 453 | 453 | 453 | 453 | 453 | 558 | 558 | 558 |
| B | 452 | 562 | 793 | 1013 | 1013 | 1147 | 1147 | 1147 |
| C | 216 | 216 | 216 | 216 | 216 | 216 | 216 | 216 |
| D | 330 | 440 | 671 | 891 | 891 | 1102 | 1102 | 1102 |
| E | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 |
| F | 101 | 101 | 101 | 101 | 101 | 107 | 107 | 107 |
| G | 74 | 74 | 74 | 74 | 74 | 68 | 68 | 68 |
| H | 260 | 260 | 260 | 260 | 260 | 273 | 273 | 273 |
| L | 144 | 144 | 144 | 144 | 144 | 253 | 253 | 253 |
| M | 49 | 49 | 49 | 49 | 49 | 32 | 32 | 32 |
| N | 412 | 522 | 753 | 973 | 973 | 1122 | 1122 | 1122 |
| Weight (Kg) | 11 | 13 | 18 | 22 | 22 | 33 | 33 | 33 |

### PA - INTAKE PLENUM



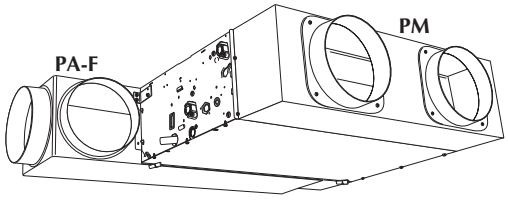

| PA | 17 | 22 | 32 | 42 | 62 |
|---|---|---|---|---|---|
| A | 390 | 500 | 731 | 951 | 1072 |
| Blocks | 1 | 2 | 2 | 3 | 4 |

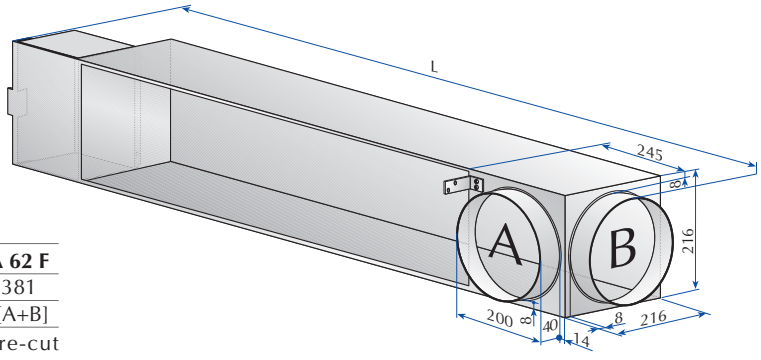
### PM - DELIVERY PLENUM




| PM | 17 | 22 | 32 | 42 | 62 |
|---|---|---|---|---|---|
| A | 412 | 522 | 753 | 973 | 1094 |
| Blocks | 1 | 2 | 2 | 3 | 4 |

### PA-F - FRONT INTAKE PLENUM




| | PA 17 F | PA 22 F | PA 32 F | PA 42 F | PA 62 F |
|---|---|---|---|---|---|
| A | 658 | 768 | 1039 | 1259 | 1381 |
| Blocks | 1 [A] | 1 [A] | 2 [A+B*] | 2 [A+B*] | 2 [A+B] |

B* = unopened intake spigot. To use it remove the pre-cut element.



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