

thermally separated

T2/TB2

limitlessly  
flexible

hygienically smooth

# PRO

optimally  
energy efficient

TÜV certified

inherently stable



Spirit of Air

# WK-com PRO - the choice of professionals



## PROFESSIONAL LIKE YOU!

**WK-com PRO** – the new air handling unit series with unlimited versatility

**WK-com PRO – the innovative and powerful air handling unit concept with limitless applications and configurations for indoor and outdoor installations.**

The inherently stable and self-supporting framework is accommodated entirely within the unit but is not in contact with the air flow. Thermally separated panels completely enclose the framework. The push-fit framework can be fully dismantled where necessary for ease of transport, handling and installation.

Patented hinges with three-dimensional adjustability are concealed within the door panels and are not visible from the interior or exterior.

A proprietary lever lock with a closing mechanism integrated into the panels can neither touch nor damage the inner wall of the unit. All inner surfaces of the casing are completely smooth, without indentations, and can be cleaned without leaving any residue. In general, only tested, microbially inert seals and sealants are used.

**WK-com PRO** represents a symbiosis of advanced engineering design with the best static and thermal properties, and the consistent implementation all-encompassing hygiene standards.

“Customisable  
to the utmost  
extent!”

The option to select and combine casing finishes in zinc-plated sheet steel, V2A/V4A stainless steel, seawater-resistant aluminium or with a paint finish/coating allows for a wide range of applications. Free configuration of the unit dimensions results in unlimited and unparalleled exploitation of the structural characteristics. Transport and handling are simple and straightforward, thanks to the crane eyes which can be mounted at the corners of

the unit. No additional reinforcement, base frames or transport structures required! The centring guides at the unit's corners ensure precise, fast and easy installation.

The unit is configured according to customer specifications. All air conditioning and air handling components can be combined and used.

All unit designs can be freely configured with individual, efficient and project-specific equipment.

Integral refrigeration and control technology, efficient heat recovery systems, all forms of humidification and dehumidification technology and much more, pose no problems for us.

An integral cable duct to simplify all internal cabling can be included as an optional extra. With **WK-com PRO**, you can rely on an air handling unit that delivers maximum quality and efficiency, and is compliant with all national and international standards, guidelines and ordinances!

#### Unit design:

- ▶ Indoor installation in T2/TB2
- ▶ Outdoor installation in T2/TB2

#### Unit versions:

- ▶ Standard to VDI 6022
- ▶ Hygiene and clean room to VDI 6022/EN 1946-4
- ▶ ATEX to Directive 2014/34/EU



#### Casing material versions:

- ▶ Sendzimir-galvanised and sealed sheet steel (up to 1.5 mm thick)
- ▶ AlMg3 aluminium
- ▶ V2A/V4A stainless steel
- ▶ Paint finish/coating RAL paint finish as chosen by the customer



#### Casing dimensions:

- ▶ Internal cross-section of unit with height and width multiples of 305 mm (1/2 standard filter cell) + casing
- ▶ Optional: external casing dimensions in height and width in mm grid



#### Casing data as per EN 1886:

- ▶ Casing thermal insulation class: T2
- ▶ Casing thermal bridge factor class: TB2
- ▶ Casing tightness class -400/+700 Pa: L1
- ▶ Casing mechanical stability: D1
- ▶ Insertion insulation of housing:  $\Sigma 53.0$  dB

#### Casing design:

- ▶ Self-supporting, inherently stable framework
- ▶ Threaded and push-fit design
- ▶ Hinges and lever locks integrated into panels
- ▶ Crane eye fittings integrated into corner connectors
- ▶ Thermally separated panels with 52 mm wall thickness
- ▶ No base frame needed for stability reasons
- ▶ Optional: factory-fitted cable shaft to simplify all internal cabling
- ▶ Hygienically smooth casing inner surfaces – no indentations or dirt-collecting corners!
- ▶ Designed to VDI 6022/EN 1946-4
- ▶ Tailored assembly / disassembly of all cladding panels by means of a screw channel in the profile:
  - no drilling chips
  - precise screw guidance



# WK-com PRO - in detail

Quality guarantee:  
DIN, VDI and hygiene tests, member of the AHU manufacturers' association

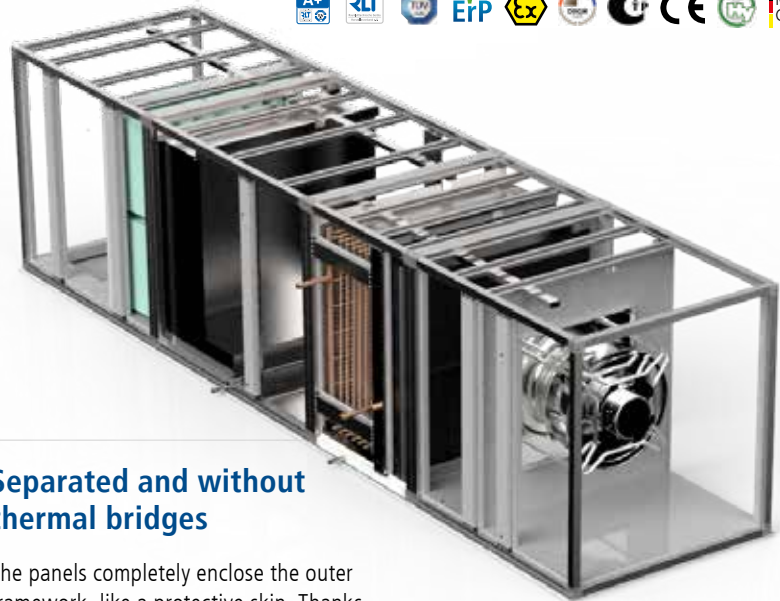


## DESIGN

### Self-supporting framework

The self-supporting framework forms an inherently stable skeleton for very simple positioning using crane eyes.

The framework is integrated elegantly within the unit and is separated from air flow. It can also be fully dismantled to overcome any logistical challenge.



Screwchannel

### Separated and without thermal bridges

The panels completely enclose the outer framework, like a protective skin. Thanks to the thermal separation, thermal bridges cannot form between the unit's inner and outer walls.



Centring guide for a precise connection



Extending rail for fan exchange

## INSPECTION DOORS

### Hinges

Patented hinges with three-dimensional adjustability are concealed within the door panels and are not visible from the interior or exterior. The insulated hinge and sight-glass design is a further guarantee of thermal tightness.

### Internal lock

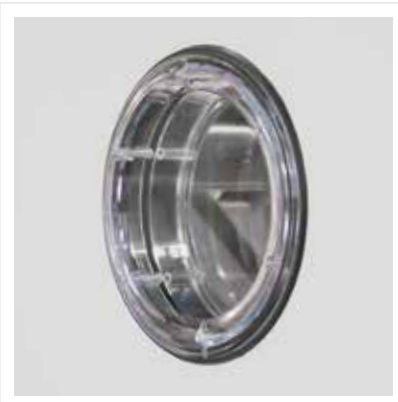
The lock concealed within the door panel does not touch the inner wall and ensures hygienically smooth inner surfaces. Thermal loss is almost zero thanks to the insulated mechanism. The doors can be opened from both the inside and outside.



Hinge



Internal lock



Sight-glass for easy visual inspection



## HYGIENE

### Smooth inner wall

With its smooth inner surfaces without joints or edges, our **WK-com PRO** unit provides no breeding ground for micro-organisms. The casing is sealed hygienically with tested, microbially inert sealants.



Completely smooth on the inside

### Airtight louver flaps

Additional airtight louver flaps (DIN 1946 Pt.4) enable safe operation, even in extremely sensitive areas, such as operating theatres, where sterility is a matter of life and death.



Residue-free cleaning

### 3D condensate pan

The 3D pan, made from aluminium or stainless steel, has a three-dimensional fall, which reliably prevents water residues and the associated hygiene risks arising from bacterial growth.



3D condensate pan empties quickly and completely

## FILTERS

1. Panel filter
2. Compact filter
3. Short bag filter
4. Long bag filter
5. Grease trap filter
6. HEPA filter
7. Activated charcoal filter



### Filters

All **WK-com** units are fitted with filters as standard to EN 779 (2012) or ISO ePM 1 - ISO ePM 10 to ISO 16890. Other filters can also be supplied on request.

The filters treated with biostatic preservative prevent the growth of fungi and bacteria to ensure clean, healthy air.

Biostatic filters boast an outstanding dust storage capacity and level of efficiency in damp conditions.

### Filter classes

Under EN 779, the filter class is defined according to the mean efficiency (Em) for 0.4 µm particles.

















- M5:  $ePM_{10} \geq 50\%$   
M6:  $ePM_{2.5} \geq 50\%$   
F7:  $ePM_1 \geq 50\%$   
F8:  $ePM_1 \geq 70\%$   
F9:  $ePM_1 \geq 80\%$



ISO 16890 divides filters into groups.

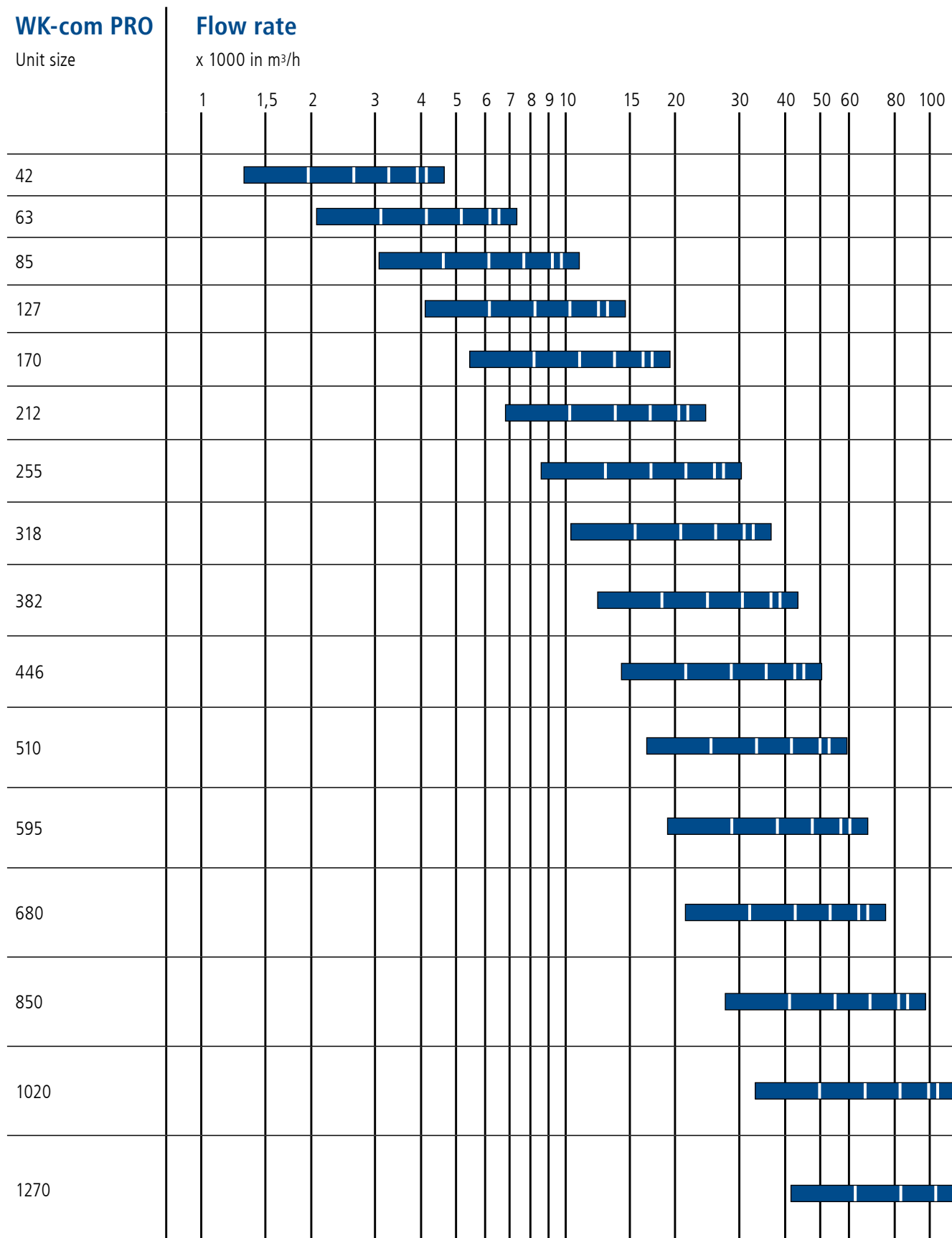
ISO ePM 1, ISO ePM 2,5, ISO ePM 10 and ISO ePM coarse.

The filters are grouped according to separation efficiency with reference to PM1, PM2.5 and PM10 (0.3-10 µm particles), dust storage capacity, gravimetric separation efficiency and differential pressure.

# WK-com PRO - find the right unit fast

WK-com PRO Unit size	Filters Layout	Quantity	
		1/1	1/2
42		1	0
63		1	1
85		1	2
127		2	2
170		4	0
212		4	2
255		4	4
318		6	3
382		9	0
446		9	3
510		9	6
595		12	4
680		16	0
850		20	0
1020		24	0
1270		30	0

 Half filter  
 Full filter  
 --- Not installed in this size



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