



Photo:
OUPC 4040
with fan

Kompakt multi-stage filter for cooling lubricants for floor mounting. For filtration of oil mist, emulsion mist, minimal quantity lubrication and oil smoke.

Air volume OUPC 2000 / 2020: Up to 2,00m³/h
Air volume OUPC 4000 / 4040: Up to 4,000m³/h

Description

- The polluted air is led into the bottom of the separator to pre-separation chamber for air distribution and densification. The accumulated particles are led on to the washable pore filter PPI35 that separates dust and accumulated liquid with up to 50% higher efficiency than alu-grease filter.
- Then the air is fine filtered in filter cartridge type G104A with micro-glas filter material, where the fibers allow the fluid to drain away from the filter. Filtration degree > 99% of particles above 0.1µm
- Below the first two filter stages a fluid reservoir with ½"-drain cock is located that can be connected to a collection container by siphon.
- Last filter stage is a HEPA-filter, filter class H13 that ensures the removal of >99.95% smoke particles down to 0,1µm, before the air is led to clean air outlet or fan (fan only in OUPC 2020 and 4040).
- OUPC is delivered with outlet connection.

All-round unit with low operating costs

The 4-stage separator principle in OUPC ensures the optimale filtration solution, regardless the type of cooling lubricants, since every filter stage represents the optimale filter principle for each of the primary types of mists: oil mist, emulsion mist, minimal quantity lubrication and oil smoke.

The large surface of the washable pre-filter and self-draining filter cartridge ensure long service life and low pressure loss, which minimize costs for energy and filter replacements. The high separation degree of the third filter stage ensures very long life.

Compact and space-saving solution

The vertical construction of OUPC 2000 – 4040 provides an especially compact and space-saving filter solution for floor mounting. With integrated fan the piping on the clean air side is also saved (where recirculation is permitted).



Inlet module with pre-filter

Placement of pre-separator and pore filter in the chamber in the bottom behind front door ensures quick and convenient service. Inlet can optionally be mounted in the right or left side or on the backside.



Integrated fan
Fan VR 3000 and VR 5500 are integrated in enclosure with outlet silencer and integrated service door in fan cabinet.



DIN-cartridge G104A
G104A micro-glas filter is easily top-mounted and absolute filter HEPA/H13 is mounted in elevator system.



Easy to check differential pressure above filters

Each of the primary filter stages are equipped with differential pressure manometer for monitoring of the individual pressure losses for filter service optimization.

Advantages by removing oil mist directly at the machine

- The hazardous effects on breathing and skin are reduced
- Fire risk as well as the risk of oil mist aerosols damaging electronics in the machines are minimized

Filter monitoring: Continuous monitoring must be kept with pressure drop above filters for timely replacement of these. For this Minihelic-differential pressure manometer is mounted on front side of OUPC.

Filter material:

Standard	Material	Filtration efficiency
Pre-separation in grease filter	Pore filter 35 open-celled polyurethane foam (washable)	Separated normally up to 30% of particles
Fine filtration in self-draining cartridge filter	Cartridge filter ø325mm, length 330/660mm, G104A polyester/glassfibre	Separated more than 99% of particles over 0.1µm
Fine filtration through HEPA-absolute filter	HS-Mikro SFV High Efficiency Particular Air filter, microfilter (glassfibre) mounted in metal frame	> 99,95% equal to filter class H13 according to DS EN1822

Pressure lost over the individual filter stages:

Filter stage	Filter type	△ P start [Pa]	△ P end [Pa]
1	Pore filter PPI35	30	400
2	Filter cartrigde G104A	100	1800
4	HEPA-filter H13	40	700



Pore filter PPI35
Washable (max. 110°C)

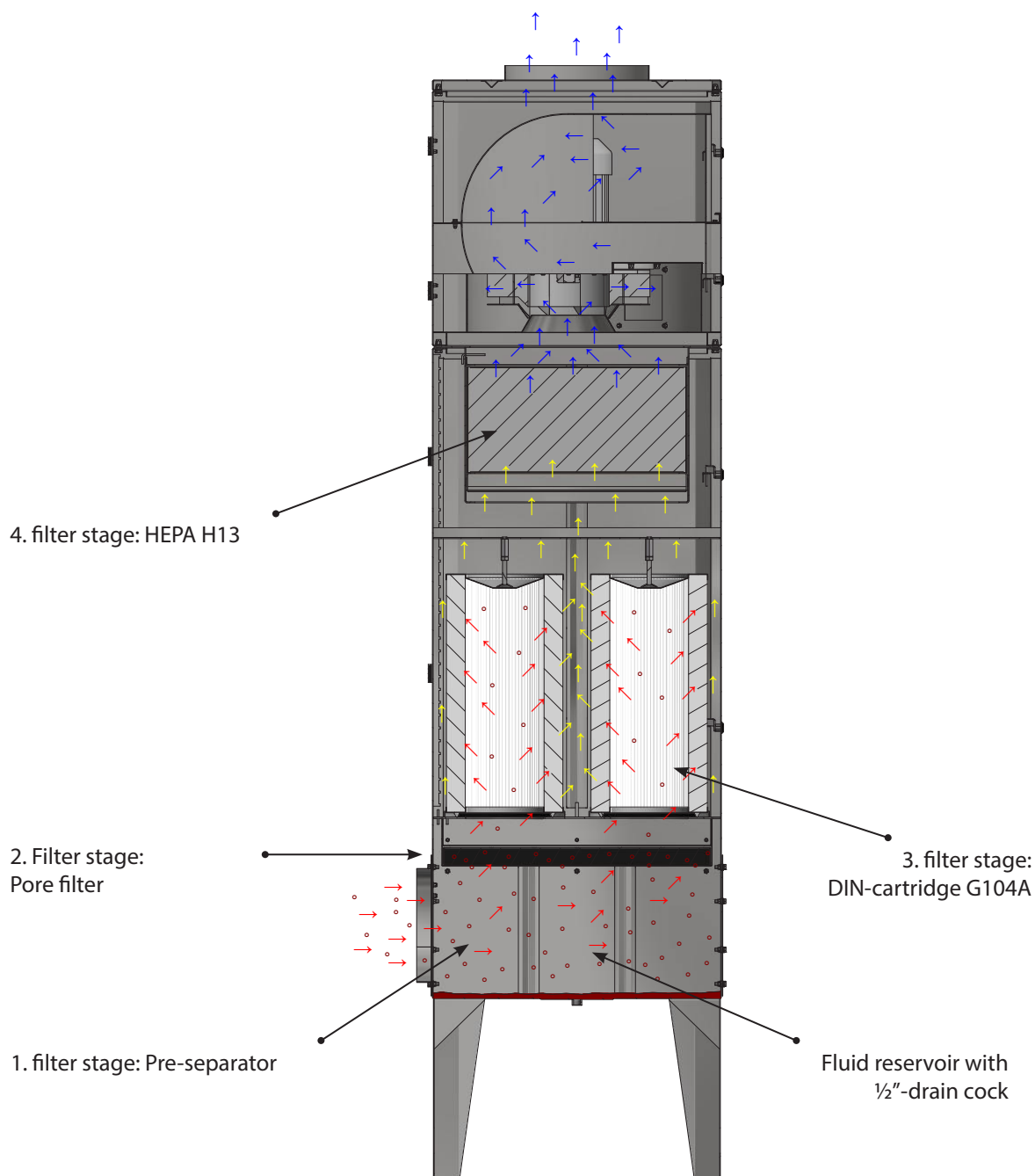


Cartridge filter
Fine filtration through self-draining filter cartridges increases the interval between required filter replacements. (Normal life 2000-6000 hours.)



HEPA-filter
Standard H13 is used. According to request higher filter class is available.

Principle sketch for flow through oil mist separator type OUPC 4040:



Construction/surface:

Oil mist filter type OUPC is constructed according to:

- Machine Directive 2006/42/EU
- EMC Directive 2014/30/EU
- Directive 2014/68/EU about pressure equipment
- Low Voltage Directive 2014/35/EU
- Harmonized standards: EN 13854, EN 4414, EN 12100, EN 60204-1, EN ISO 13857
- Further standards: ISO 3746

Filter cabinet is made in 2mm black steel plate
Surface powder enamelled RAL 7042/7011 structure

Further is available:

- Siphon for drain cock

Oil mist filter type OUPC is available in the sizes as stated in the form below.

Please, contact us for assistance in selecting the optimal unit taking into consideration air volume, type and volume of cooling lubricant, operation times etc.

Oil mist separator type OUPC 2000 / 4000:

Type	Order no.	Filter area [m ²]	Max. capacity [m ³ /h]	Number pre-filter ¹⁾	Number cartridge filter ²⁾	Number Minihelic-differential pressure manometer ³⁾	Number absolute filter (HEPA / H13)	Weight [Kg]	Noise [dB(A)]
OUPC 2000	04 352 250	16	2000	1	2	3	1 ⁴⁾	240	-
OUPC 4000	04 353 250	32	4000	1	4	3	1 ⁵⁾	240	-

¹⁾ Pore filter PPI35, 1x2m (08 179 800)

³⁾ DIN-cartridge ø325x660mm, G104A (08 139 510)

⁴⁾ 1 pc. Minihelic-differential pressure manometer 0-3kPa (09 500 000) and 2 pcs. Minihelic-differential pressure manometer 0-0.5kPa (09 500 100)

⁵⁾ Absolute filter in MDF-frame, HEPA/H13, 610x610x292mm (08 177 000)

⁶⁾ Absolute filter in metal frame, HEPA/H13, 610x610x292mm (08 177 900)

Oil mist separator type OUPC 2020 / 4040 with built-in fan:

Description fan

- Unit is in top equipped with a fan type VR, 3x400 VAC, 50Hz, 2-pole. The fan is equipped with closed fan wheel and backward-curved straight self-cleaning blades, static/dynamic balanced according to ISO 14694 (BV3 G 6,3).

Type	With fan type	Order no.	Filter area [m ²]	Max. capacity [m ³ /h]	Number pre-filter ¹⁾	Number cartridge filter ²⁾	Number Minihelic-differential pressure manometer ³⁾	Number absolute filter (HEPA / H13)	Weight [Kg]	Noise [dB(A)]
OUPC 2020	VR 3000	04 352 000	16	2000	1	2	3	1 ⁴⁾	395	74
OUPC 4040	VR 5500	04 353 000	32	4000	1	4	3	1 ⁵⁾	415	76

¹⁾ Pore filter PPI35, 1x2m (08 179 800)

³⁾ DIN-cartridge ø325x660mm, G104A (08 139 510)

⁴⁾ 1 pc. Minihelic-differential pressure manometer 0-3kPa (09 500 000) and 2 pcs. Minihelic-differential pressure manometer 0-0.5kPa (09 500 100)

⁵⁾ Absolute filter in MDF-frame, HEPA/H13, 610x610x292mm (08 177 000)

⁶⁾ Absolute filter in metal frame, HEPA/H13, 610x610x292mm (08 177 900)

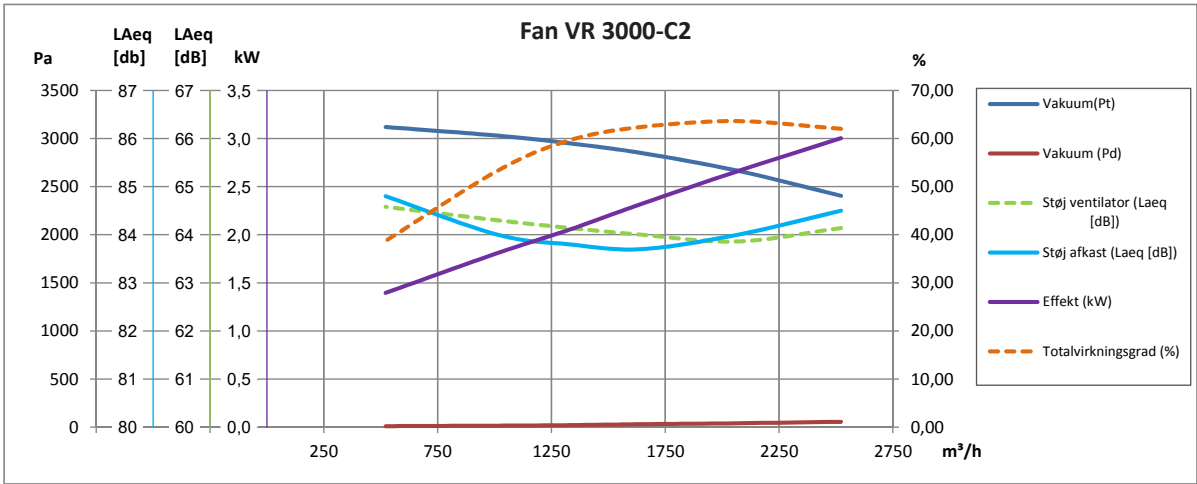
Consumption data for oil mist filter type OUPC with built-in fan:

Type	With fan type	Volt [V]	[rpm.]	[kW]	Rated current (Amp)	Start current [I _L /I _N]
OUPC 2020	VR 3000-OUPC-C2	3x400	2-pole	3.00	■	■
OUPC 4040	VR 5500-OUPC-C2	3x400	2-pole	5.50	■	■

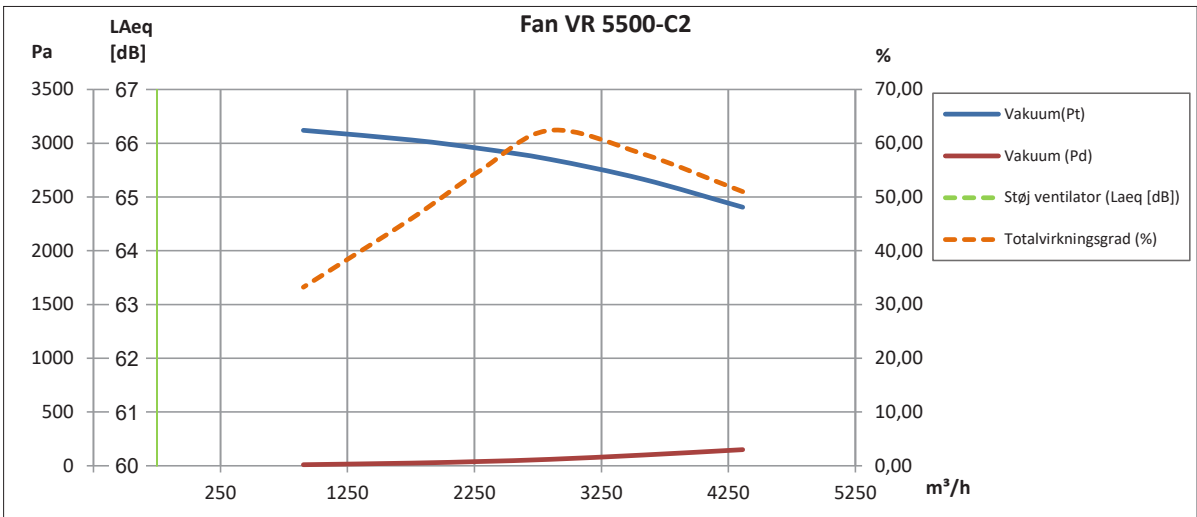
Motor data ≥ 0.75kW, 3x400V, according to IE3-motors.

- See section "General information" conc. electro motors

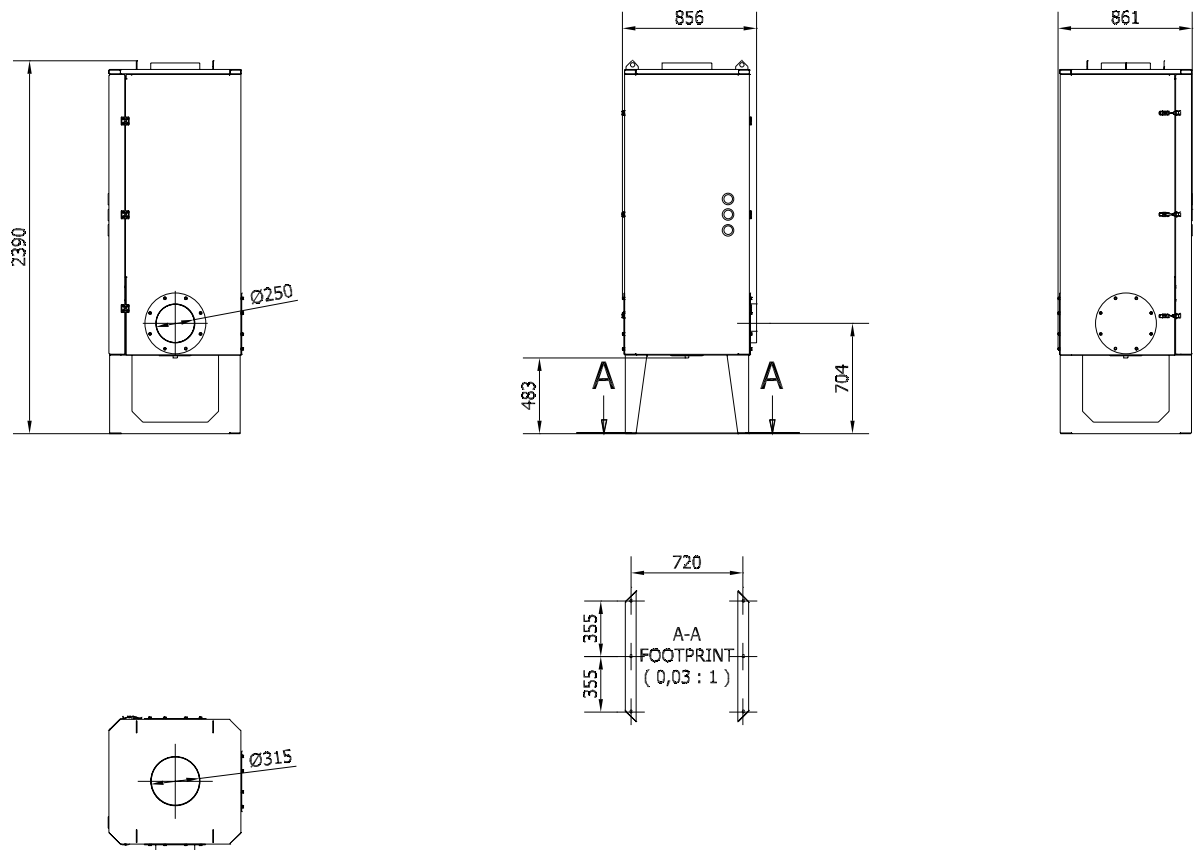
2-pole:



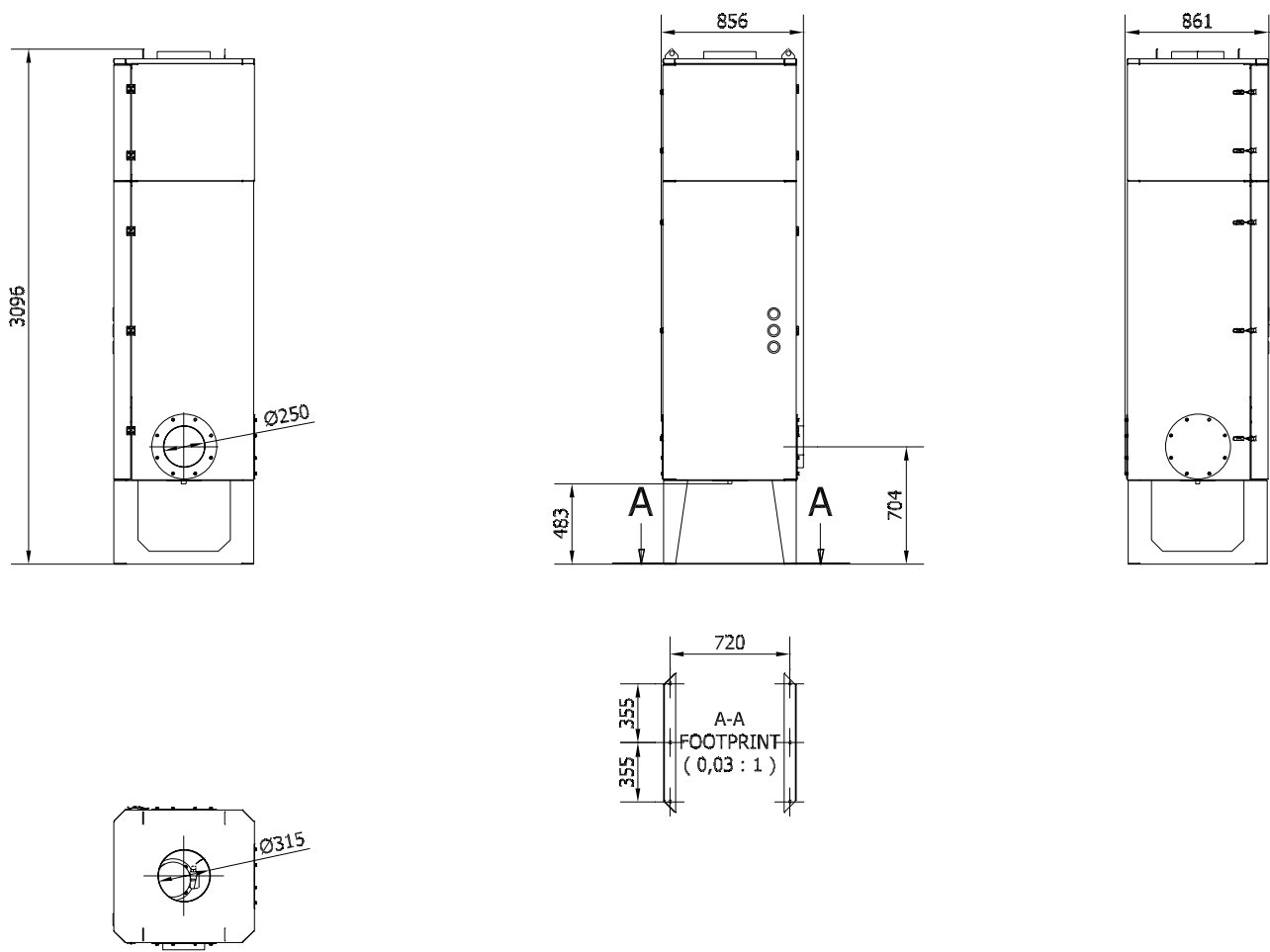
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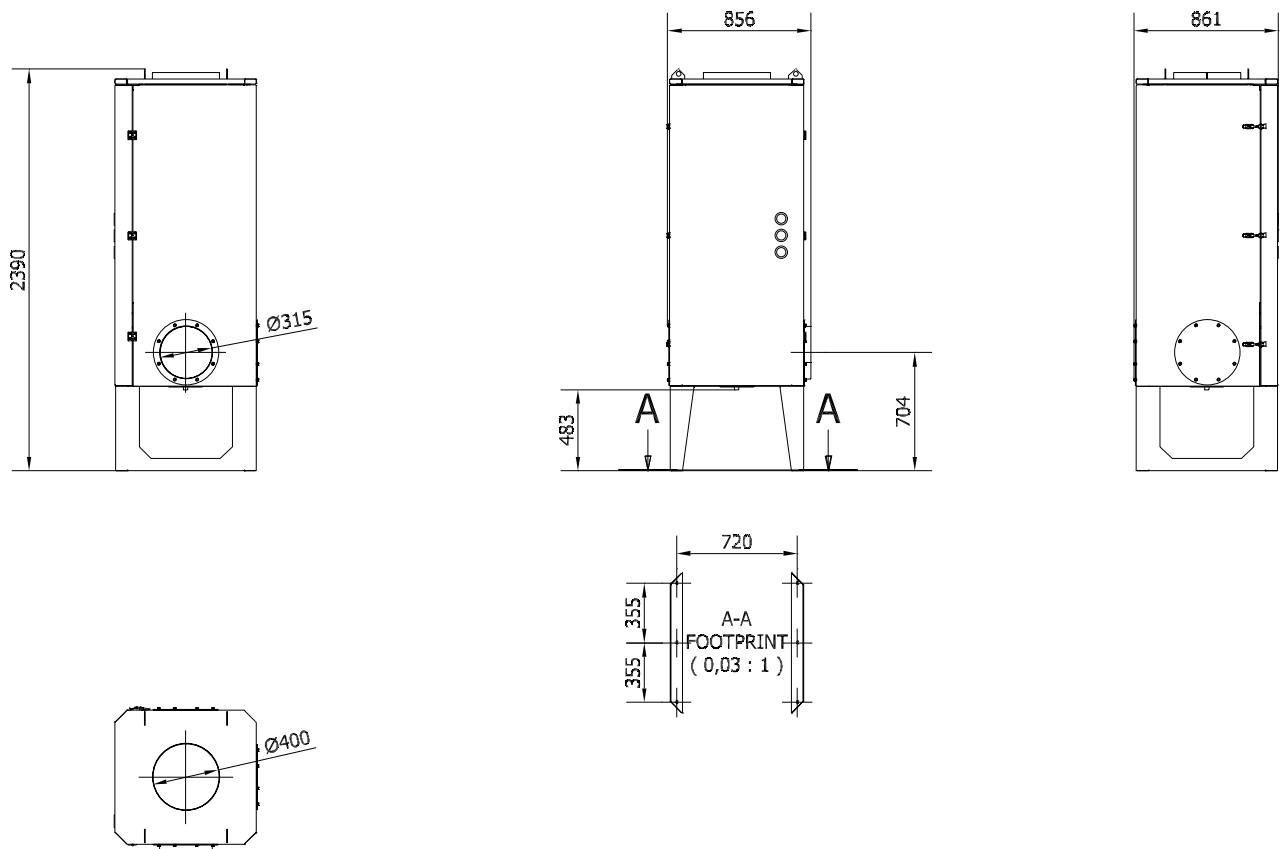
Oil mist separator type OUPC 2000:



Oil mist separator type OUPC 2020:



Oil mist separator type OUPC 4000:



Oil mist separator type OUPC 4040:

