Ultrapac® 2000 Standard, Ultrapac® 2000 Superplus, Mini (Typ 0005 bis 0025)

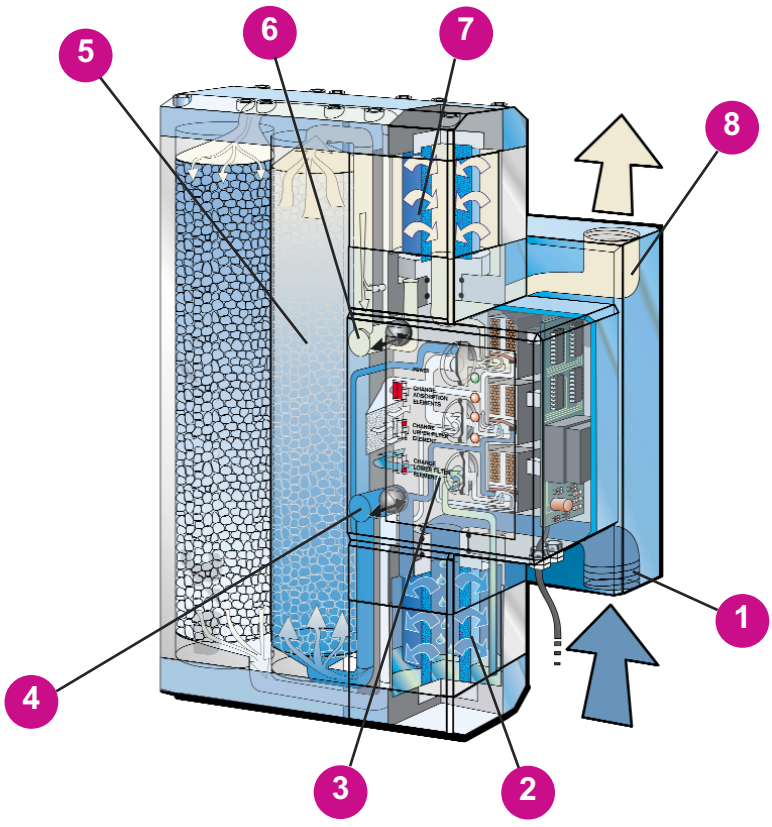
Complete purification package with heatless adsorption dryer, pre-, afterfilter and condensate drain.

Ultrapac® 2000 Standard

Compressed air is led through the inlet of the dryer (1) and across the prefilter (2).
At this stage, the air is cleaned from particles and condensate.
The condensate is removed via the membrane condensate drain (3).
Via the lower shuttle valve (4), the air is led into desiccant cartridges (5), in which the air is dried down to the required dewpoint.
Via the upper shuttle valve (6), the air gets into an afterfilter (7), in which particles from the desiccant are retained.
Via the outlet (8), the clean and dry air is lead into the compressed air network to the point of use.
While one vessel with desiccant cartridge is in the drying phase (adsorption), the other cartridge is being dried again (regeneration).
A partial stream of dried air is expanded via an orifice and lead accross the desiccant cartridge for regeneration and via a solenoid valve and a silencer system to the atmosphere.

Ultrapac® 2000	Volume flow in m^3/h (1 bar, 20°C)*	Regeneration air losses (average) m^3/h (1 bar, 20°C)	Volume flow out (min.) m^3/h (1 bar, 20°C)	Pressure loss initial mbar	Prefilter MF	Afterfilter PE	amount of cartridges
0005	5	0.85	3.95	65	02/05	02/05	2
0010	10	1.70	7.90	95	03/05	03/05	4
0015	15	2.55	11.85	115	04/10	04/10	6
0025	25	4.25	19.75	250	06/10	06/10	10

* Related to 1 bar (abs) and 20 °C at inlet of compressor and 7 bar (g) and 35 °C inlet temperature



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Ultrapac® 2000 Standard Mini / Superplus Mini

Features Ultrapac® 2000 series:	Benefits:
Purification package complete with pre-, afterfilter and condensate drain.	Turnkey System, no additional installation cost; all components from one hand, therefore perfect technical match
Desiccant in cartridges	Easy storage, transport and installation; optimum fixation of desiccant; no risk of fluidizing of desiccant
Compact, space saving design	Installation in smallest spaces, possible also as retrofit
Component exchange display	High operating safety, due to calculation of optimum exchange point for filter elements and desiccant cartridges.
Unique Multifunction Block	All moving parts and all electronic components integrated in a function block, therefore easy and efficient maintenance

Features Ultrapac® 2000 Superplus:	Benefits:
Intermittent operation	Link between dryer and compressor possible on central applications, therefore saving of regeneration air
Throttle package	By means of enclosed throttle package and automatic adaptation of the control at inputted operating conditions, an optimal regeneration air consumption and a maximally possible flow according to the correction factor table within the total range of 4-16 bar (g) and 25-50°C is reached
Load control	Adjustment of adsorption cycles to the actual inlet water load, therefore saving of regeneration air and reduction of operating cost
Self-Diagnosis-System	Sensor-controlled monitoring of regeneration air flow, therefore without-gap-monitoring of dryer functions and of system pressure
Text Display	Display of all operating status, of fault indication and maintenance intervals in clear text messages
Info-Channel	Serial interface for transmission of alarm- and maintenance messages
Economizer-Function	Online calculation of optimum exchange point of filter elements by continuous evaluation of energy cost versus cost of replacement filter element

Sizing:

f	4 bar(g)	5 bar(g)	6 bar(g)	7 bar(g)	8 bar(g)	9 bar(g)	10 bar(g)	11 bar(g)	12 bar(g)	13 bar(g)	14 bar(g)	15 bar(g)	16 bar(g)
25°C	0.69	0.82	0.96	1.10	1.24	1.38	1.50	1.50	1.50	1.50	1.50	1.50	1.50
30°C	0.69	0.82	0.96	1.10	1.24	1.38	1.50	1.50	1.50	1.50	1.50	1.50	1.50
35°C	0.63	0.75	0.88	1.00	1.13	1.26	1.38	1.50	1.50	1.50	1.50	1.50	1.50
40°C	0.48	0.58	0.68	0.77	0.87	0.96	1.06	1.16	1.25	1.35	1.45	1.50	1.50
45°C	0.38	0.45	0.53	0.60	0.68	0.75	0.83	0.90	0.98	1.05	1.13	1.20	1.28
50°C	0.30	0.36	0.42	0.48	0.54	0.60	0.66	0.72	0.78	0.84	0.90	0.96	1.02

$$\dot{V}_{corr} = \frac{\dot{V}_{nom}}{f}$$

Example: $\dot{V}_{nom}$ = 22 Nm^3/h, Inlet temperature = 30°C, Operating pressure = 10 bar (g)

$$\dot{V}_{korr} = \frac{22\ m^3/h}{1.50} = 14.66\ m^3/h.$$

Calculated dryer size: type 0015

Product description:

Ultrapac® 2000 Standard and Superplus:
Complete purification package, consisting of heatless adsorption dryer which works on the basis of pressure swing adsorption, with integrated pre- and after filter and electronic condensate drain

Medium:

Compressed air/ nitrogen

Pressure dewpoint

–40 °C at 100% load, –70 °C at 70% of rated flow and a maximum inlet temperature of 35 °C

Operation pressure:

min. 4 bar (g), max. 16 bar (g)

Medium temperature:

min. 5 °C, max. 50 °C

Ambient temperature:

min. 4 °C, max. 50 °C

Compressed air consumption:

17% of the rated flow, in average

Power supply:

230 V/50 -60 Hz AC;
110 V/50 -60 Hz AC
24 V DC; 24 V AC on request

Power consumption:

approx. 4 W

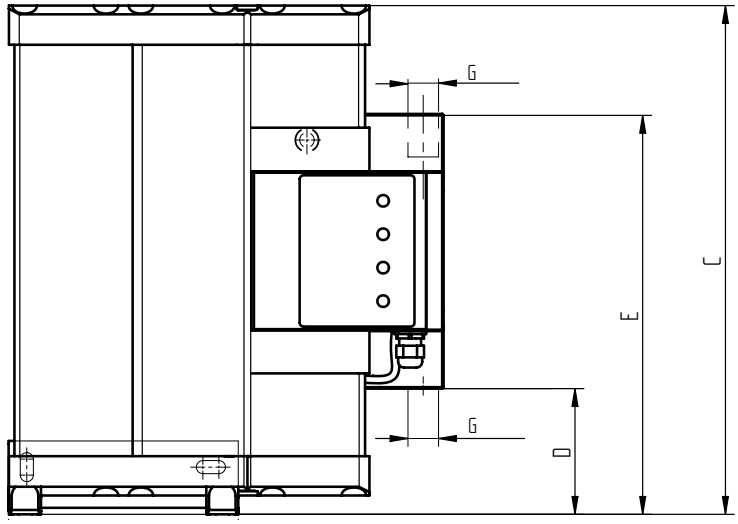
Materials:

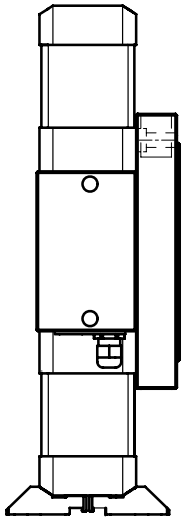
Extruded Profiles	Anodized Aluminium
Adsorber and Filter lids	Glass fiber enforced polyamide

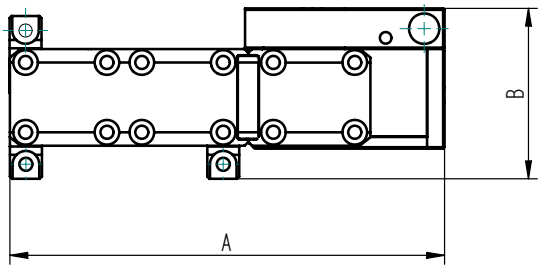
Declaration of conformity:

acc. to 2006/95/EC
97/23/EC

Ultrapac® 2000 Standard Mini
Ultrapac® 2000 Superplus Mini







Ultrapac® 2000 Mini						
Type	G “	A mm	B mm	C mm	D mm	E mm
0005	G ½	300	121	343	84	273
0010	G ½	300	121	591	208	397
0015	G ½	300	121	853	339	528
0025	G ½	300	121	1377	601	789