Ultrapac 2000 Standard, Ultrapac 2000 Superplus, Midi (Type 0035 to 0100)

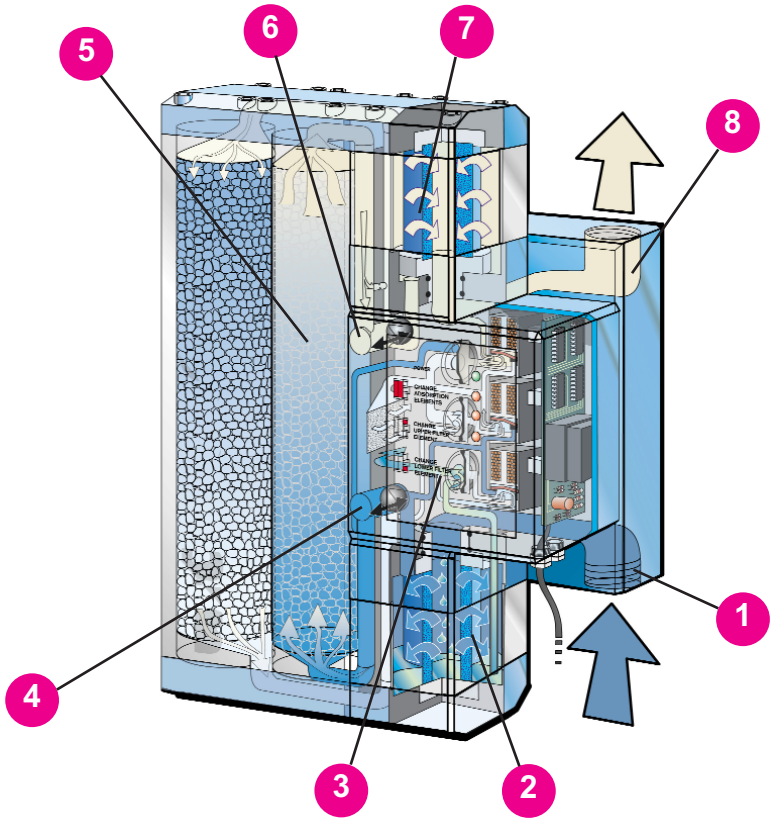
Complete purification package with heatless adsorption dryer, pre-, afterfilter and condensate drain.

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	Quantity of cartridges
0035	35	5.95	27.65	75	04/20	04/20	4
0050	50	8.50	39.50	100	05/20	05/20	6
0065	65	11.05	51.35	125	05/25	05/25	8
0080	80	13.60	63.20	170	07/25	07/25	10
0100	100	17.00	79.00	250	07/25	07/25	12

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



Technical alterations reserved (R02/ 2005/11/30)

Technical Data

Donaldson Ultrafilter®

Ultrapac 2000 Standard Midi
Ultrapac 2000 Superplus Midi

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 standard	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: $\dot{V}_{nom}$ = 50 m³/h, Inlet temperature = 30°C, Operating pressure = 10 bar (g)

$$\dot{V}_{corr} = \frac{50\ m^3/h}{1.50} = 33{,}33\ m^3/h.$$

Calculated dryer size: Ultrapac 2000, Typ 0035

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 afterfilter 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

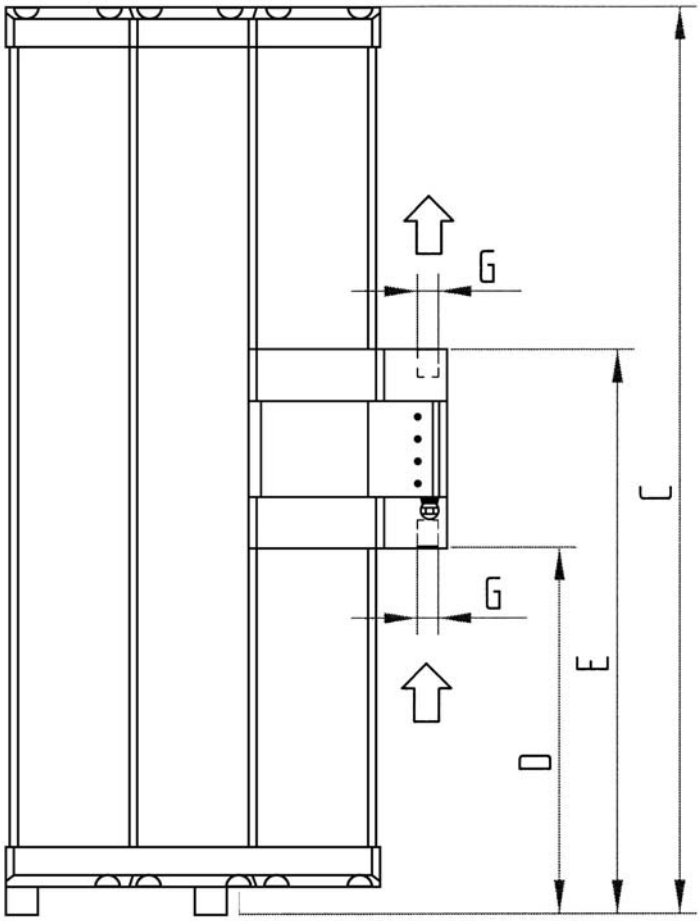
Declaration of conformity:

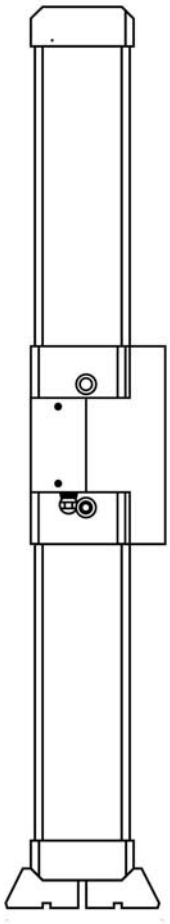
acc. to 73/23/EC
97/23/EC

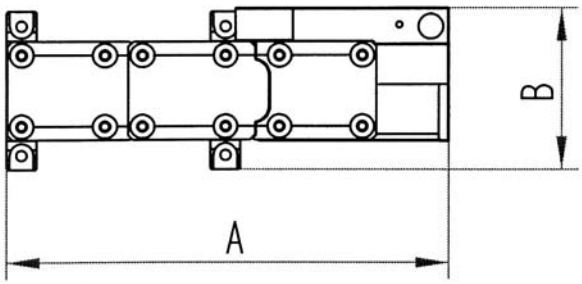
Dimension Sheet

Donaldson Ultrafilter

Ultrapac 2000 Standard Midi
Ultrapac 2000 Superplus Midi







Ultrapac 2000 Midi						
Type	**G "**	**A mm**	**B mm**	**C mm**	**D mm**	**E mm**
0035	G 1	531	195	665	227	465
0050	G 1	531	195	917	354	592
0065	G 1	531	195	1169	480	716
0080	G 1	531	195	1421	606	844
0100	G 1	531	195	1673	732	970