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ultrafilter ULTRADRY COMPACT UDC
heatless regenerated adsorption dryer

Why drying compressed air?

Compressed air is used in almost all areas of industrial manufacturing as a source of energy or processing. Compressed air needs to be dry, free of particles and oil to avoid cost expensive production downtimes.

The atmospheric air drawn in contains harmful substances, dirt particles and moisture in the form of water vapor, which condenses out in compressed air pipes and can lead to considerable costs (corrosion, freezing etc.). These costs are avoided by using an ULTRADRY COMPACT UDC adsorption dryer. As a complete system, the ULTRADRY COMPACT UDC consists of a pre-filter with automatic condensate drain, adsorption dryer and an integrated dustfilter.

ULTRADRY COMPACT UDC

- The ULTRADRY COMPACT UDC covers with 17 sizes for volume flows between 7 m³/h to 620 m³/h a wide range for central and decentral purification applications.
- Particles and condensates are retained by a pre-filter up to a residual oil content of 0,03 ppm. Condensates are drained securely and efficiently by an integrated condensate drain.
- The subsequent adsorption dryer removes moisture from the compressed air up to a pressure dew point of -40°C. Regeneration and drying is made in two parallel installed vessel.
- Dust particles out of the desiccant is retained in the included after-filter.
- The ULTRADRY COMPACT UDC control contains a selfdiagnostic mode, indicating forthcoming service intervals and function monitoring.
- Extremely compact, space-saving construction. Installation on smallest foot prints. Due to the multiport connections (up to UDC 038) the ULTRADRY COMPACT UDC can be installed in vertical and horizontal position.
- Wall mounting brackets and stand feets can be obtained as an accessory (UDC 007 - UDC 076).

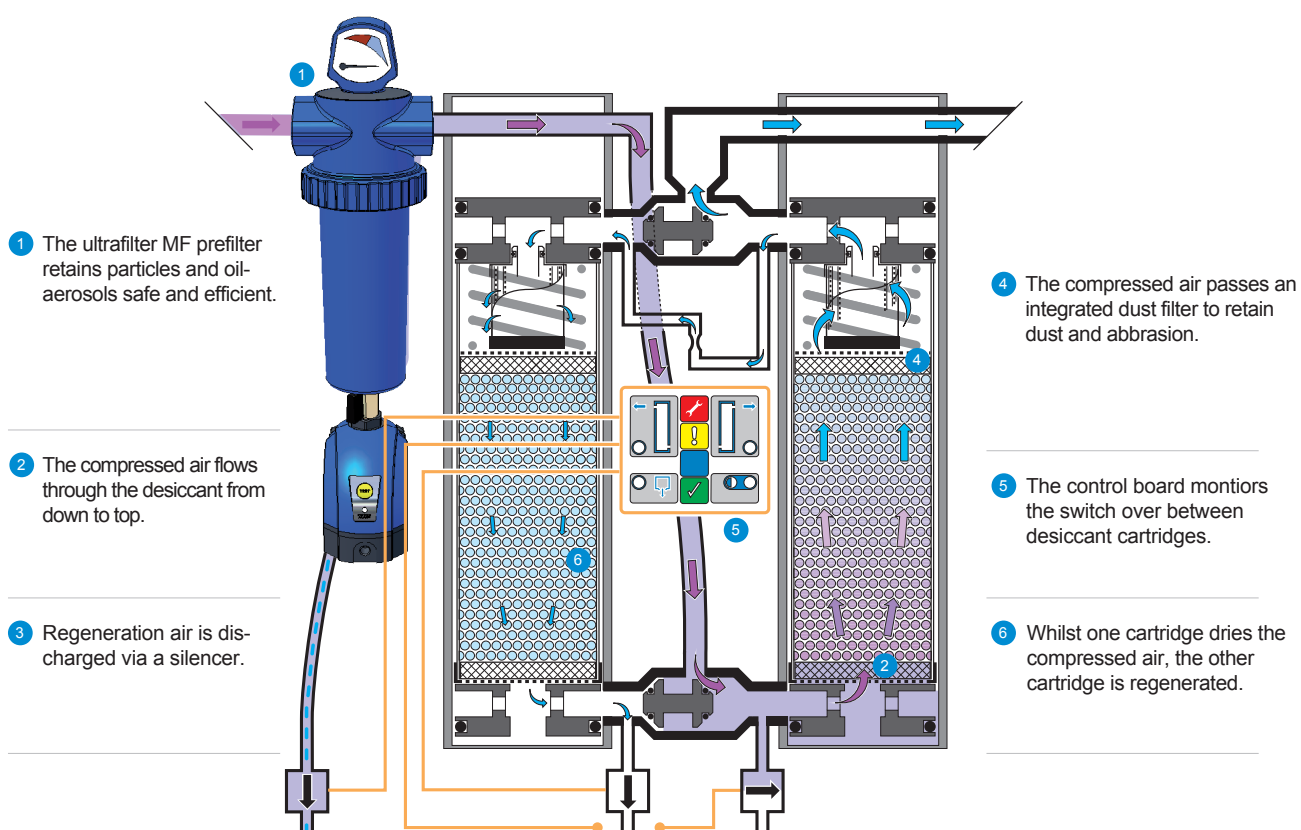
Desiccant cartridges

It is easy and quick to exchange the desiccant cartridges – without disconnecting compressed air connection. The cartridges are fitted with integrated dustfilter. Springs inside the cartridge ensure that the desiccant is fixed in all operation cycles. The desiccant can be checked easily by the transparent cartridges. Oil-overload can be detected soon so a downtime of the unit can be prevented.



Features and advantages

- Complete purification package with pre- and after filter and condensate drain.
- All components are build in one housing, ready to connect and to operate.
- Spring-loaded fixture of desiccant in the cartridges. Therefore easy to serve and no risk of abrasion of desiccant.
- Function monitoring and control by an intelligent processor. Fault indication are monitored on the control board.
- Memory-function: All operating data are stored. In case of power supply breakdown, the dryer restarts with the last cycling mode.
- Compact and space saving construction. Installation in smallest space possible. The installation can be made in vertical and horizontal direction.
- Integrated broadband for power supply 100– 240 V AC, 12–24 V DC, 50– 60 Hz.
- Anodized aluminum profiles secure protection against dirt and particles and ensure long operation safety.
- Easy access to all parts via an demountable front panel.
- The regeneration air is discharged via an integrated silencer.

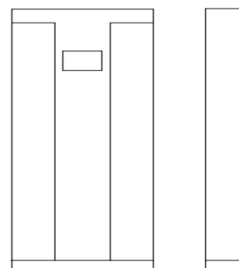


Technical data

Type UDC	Volume flow 7 barg m³/h	Connection	Dimensions in mm			Pre-filter MF size	Weight in kg
			Height	Width	Depth		
007	7	3/8"	445	281	92	03/05	13,0
010	10	3/8"	504	281	92	03/05	14,0
014	14	3/8"	565	281	92	03/05	15,0
017	17	3/8"	635	281	92	03/05	16,5
026	26	3/8"	815	281	92	03/05	19,5
038	38	3/8"	1065	281	92	03/05	24,0
056	56	3/8"	1460	281	92	03/05	31,0
076	76	3/4"	700	520	164	05/20	47,0
093	93	3/4"	800	520	164	05/20	55,0
110	110	1/2"	900	520	164	05/20	61,0
144	144	1"	1100	520	164	05/20	64,0
178	178	1"	1410	520	164	05/20	69,0
229	229	1 1/4"	1610	520	164	07/25	81,0
297	297	1 1/4"	2010	520	164	07/25	87,0
365	364	1 1/2"	1410	520	328	07/30	96
467	467	1 1/2"	1610	520	328	07/30	108
620	620	2"	3010	520	328	10/30	122

In accordance with ISO 7183 related to 1 bar, 20°C, operating pressure 7 barg, compressed air inlet temperature of 35°C, ambient temperature of 25°C and pressure dewpoint of -40°C.

Operating data:	
Operating pressure min.:	4 bar
Operating pressure max.:	16 bar
Ambient temperature max.:	50°C
Inlet temperature max.:	50°C
electr. connection:	12VDC to 24 V DC
	100VAC to 240 V AC.



Dryer correction factors:

Flow = nominal flow (7 bar) / K1 x K2 x K3 x K4..

operating pressure	bar	5	6	7	8	9	10	11	12	13	14	15	16
conversion factor	K1	0,62	0,75	0,87	1	1,12	1,25	1,37	1,5	1,62	1,75	1,87	2

temperature	°C	25	30	35	40	45	50
conversion factor	K2	1,07	1,06	1,04	1	0,93	0,78

dewpoint	°C	-40	-70
conversion factor	K3	1	0,7

Example:

volume flow : (operating pressure / (K 1 x K 2 x K 3)

Operating pressure: 7bar

Inlet temperature: 25°C

Dewpoint: -70°C

volume flow / K1xK2xK3 = 70 / 0,9 x 1,06 x 0,7 = 105Nm³/h

Technische Änderungen vorbehalten



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