



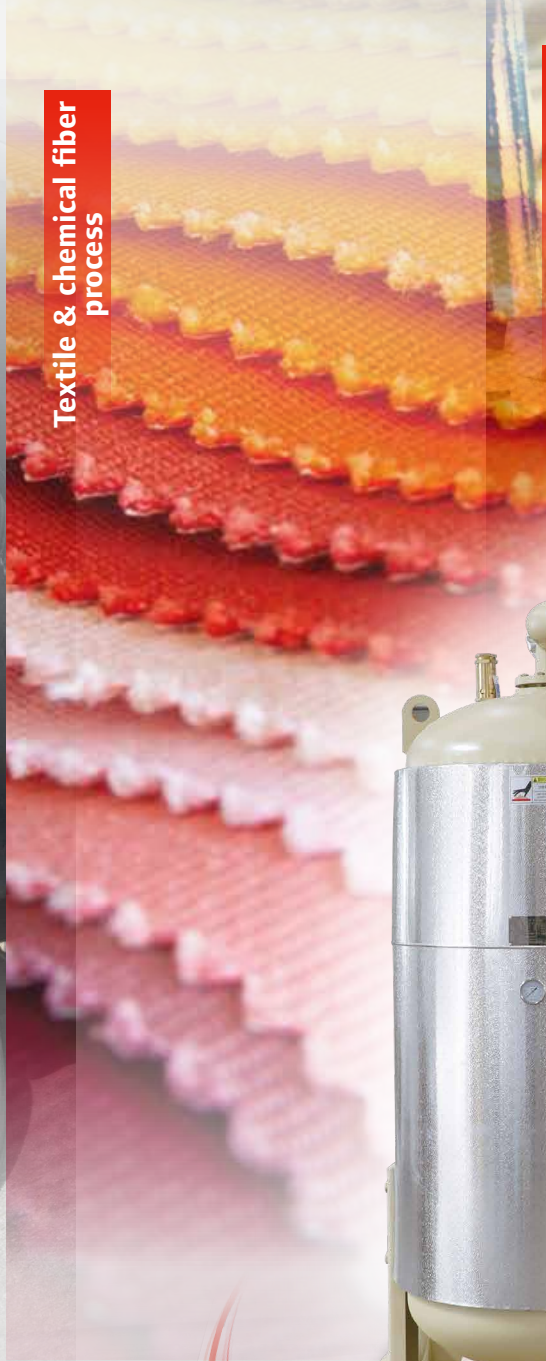
Heat-of-Compression Regenerative Desiccant Dryers

HCD Series





Rubber, tire products



Textile & chemical fiber process



Process instrument air



**Superior
Design**



**Quality
Materials**



**Reliable
Performance**



Pharmaceutical & bio-fermentation process

Food, beverage & tobacco production



Simple
Installation



Intelligent
Control



Easy
Operation

HCD Series

Heat-of-Compression (HOC) Regenerative Desiccant Dryers

With Ingersoll Rand HCD series HOC regenerative desiccant dryers, the desiccant saturated after adsorption is regenerated with the hot air discharged from the compressor, instead of electric heating, and then cooled through partial dry air blowing, if required, to enhance its drying capability.

HCD series dryers can only be used in combination with air compressors with oil-free lubrication. This is because, when high temperature oil-containing compressed air is used for desiccant regeneration, it will contaminate and fail the desiccant, and impair the performance of the dryers; also, oil may be accumulated over time during high temperature regeneration, resulting in potential safety hazards.



Product Features

- Excessive heat of the air compressor, along with deep heating technology & automatic bypass technology, is utilized to achieve better regeneration effect
- Dual eccentric PTFE soft seal butterfly valve is selected for higher reliability and longer service life of the equipment
- Stainless steel heater with a low heating density enables less pressure loss and longer service life
- Heating and blow cooling is automatically controlled by the temperature, and a parallel output function is added to ensure stable dew point
- New tower insulation design and patterned aluminum skin improves the overall energy saving and safety of the equipment



Configuration

Cryogenic Temperature Model

- Working pressure range: 0.7~1.0Mpa
- Average air consumption: 3% (industry standard: 5-6%)
- Nominal pressure dew point: -40°C
- Inlet temperature: $\geq 120^{\circ}\text{C}$
- Simens PLC
- TD-400 text display
- Near / remote control
- Stainless steel pneumatic control pipeline assembly

High Temperature Model

- Working pressure range: 0.7~1.0Mpa
- Average air consumption: 3% (industry standard: 5-6%)
- Nominal pressure dew point: -40°C
- Inlet temperature: $\geq 180^{\circ}\text{C}$
- Simens PLC
- TD-400 text display
- Near / remote control
- Stainless steel pneumatic control pipeline assembly

Model	Flow	Overall power	Max coolingwater	Air interface pipe	Dimensions (mm)			Weight
HCD	m ³ /min	kW	flow t/h	diameter mm	L	W	H	kg
HCD-H series high temperature HOC dyers								
HCD20H	19	0.2	14.5	DN65	2800	1400	2700	1800
HCD22H	23	0.2	15.9	DN65	2800	1400	2700	1980
HCD25H	26	0.2	18.1	DN65	2800	1400	2700	2250
HCD35H	35	0.2	25.3	DN80	2900	1500	2750	3150
HCD45H	45	0.2	32.5	DN100	3000	1600	2800	4050
HCD50H	52.9	0.2	38.3	DN100	3000	1600	2800	4680
HCD60H	62.0	0.2	44.8	DN125	3200	1700	2850	5580
HCD70H	69.0	0.2	50.6	DN125	3600	1900	2950	6300
HCD75H	76.9	0.2	55.6	DN125	4100	2200	3050	6900
HCD85H	84.1	0.2	61.5	DN150	4100	2200	3150	7500
HCD-H series high temperature HOC dyers								
HCD120L	120	51.2	54	DN150	3800	2800	3100	9000
HCD150L	150	69.2	68	DN150	3900	3000	3200	10800
HCD180L	180	84.2	81	DN200	4200	3200	3300	13200
HCD200L	200	93.2	90	DN200	4400	3500	3500	14700
HCD250L	250	96.2	112	DN250	4500	4000	4100	18300
HCD300L	300	138.2	135	DN250	5100	4500	4500	21900
HCD350L	350	160.2	160	DN250	5600	4500	4500	22900
HCD400L	400	185.2	180	DN300	6000	4700	4700	23900

Notes: the dimensions and air inlet & outlet pipe diameter of all dryers are subject to the final outline drawings.

HCD Series

Zero Purge HOC Regenerative Desiccant Dryers

With HCD(H/L)ZP series zero purge HOC regenerative desiccant dryers, the desiccant saturated after adsorption is regenerated with the hot air discharged from the compressor, instead of electric heating. During blow cooling of the desiccant, auxiliary cooling is conducted with a high efficiency water cooler. Thus, no final compressed air or electric power is consumed in the whole process, resulting in high efficiency and energy saving.

HCD series dryers can only be used in combination with air compressors with oil-free lubrication. This is because, when high temperature oil-containing compressed air is used for desiccant regeneration, it will contaminate and fail the desiccant, and impair the performance of the dryers.



Product Features

- Superior tube fin coolers are used to achieve zero purge and no electric power consumption in the cold blowing process for high efficiency and energy saving
- Stainless steel pipeline connection ensures stable control air passage
- Dual eccentric PTFE soft seal butterfly valve is selected for higher reliability and longer service life of the equipment
- Heating and blow cooling is automatically controlled by the temperature, and a parallel output function is added to ensure stable dew point
- New tower insulation design and patterned aluminum skin improves the overall energy saving and safety of the equipment



Configuration

Cryogenic Temperature Model

- Working pressure range: 0.7~1.0Mpa
- Average air consumption: 0%
- Nominal pressure dew point: -30~-40°C
- Inlet temperature: $\geq 120^{\circ}\text{C}$
- Simens PLC
- TD-400 text display
- Near / remote control
- Stainless steel pneumatic control pipeline assembly

High Temperature Model

- Working pressure range: 0.7~1.0Mpa
- Average air consumption: 0%
- Nominal pressure dew point: -30~-40°C
- Inlet temperature: $\geq 180^{\circ}\text{C}$
- Simens PLC
- TD-400 text display
- Near / remote control
- Stainless steel pneumatic control pipeline assembly

Model HCD	Flow m³/min	Overall power kW	Max coolingwater flow t/h	Air interface pipe diameter mm	Dimensions (mm)			Weight kg
HCD-H ZP series high temperature HOC dryers								
HCD20H ZP	19	0.2	18.2	DN65	2850	1400	2700	1900
HCD22H ZP	23	0.2	20	DN65	2850	1400	2700	2080
HCD25H ZP	26	0.2	22.7	DN65	2850	1400	2700	2350
HCD35H ZP	35	0.2	32.5	DN80	3000	1500	2850	3260
HCD45H ZP	45	0.2	40.8	DN100	3200	1600	2850	4170
HCD50H ZP	52.9	0.2	48	DN100	3200	1600	2850	4800
HCD60H ZP	62.0	0.2	56.3	DN125	3400	1700	2900	5710
HCD70H ZP	69.0	0.2	63.5	DN125	3600	2000	2950	6520
HCD75H ZP	76.9	0.2	69.8	DN125	4100	2200	3050	7130
HCD85H ZP	84.1	0.2	77.1	DN150	4100	2200	3150	7760
HCD-L ZP series cryogenic temperature HOC dryers								
HCD120L ZP	120	66.2	86.8	DN150	5000	2900	3100	9920
HCD150L ZP	150	90.2	95.2	DN200	4900	3000	3200	12400
HCD180L ZP	180	120.2	114.2	DN200	5200	3200	3300	14880
HCD200L ZP	200	132.2	127	DN200	5400	3500	3500	16430
HCD250L ZP	250	165.2	159	DN250	5500	4000	4100	21080
HCD300L ZP	300	180.2	190	DN250	6100	4500	4500	23800
HCD350L ZP	350	210.2	222	DN250	6600	4500	4500	24900
HCD400L ZP	400	240.2	254	DN300	7100	4700	4700	25900

Notes: the dimensions and air inlet & outlet pipe diameter of all dryers are subject to the final outline drawings.



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