D.I.T.

NEW CDT

Refrigerant Air Dryer

With After Cooler

High Temperature Series

Independent AFTER COOLER



Design For High Temperature Air Inlet Only.
Model 200 Upper Discharge Heat From The Top Of The Machine
Please Select Model With *AFTER COOLER* For High Temperature Air Inlet To Save Energy.

Warranty Compressor Evaporator **2 years**

Energy Saving / High-Efficiency / High-Quality

DIT AIR

Refrigerated Compressed Air Dryer

HIGH TEMPERATURE * HEAVY LOAD * FULL LOAD truly meet the needs of your air dryness

Air quality requirements **ISO-8573.1**

Quality Level	Amount of Solid Particulate				Water content		Oil content
	Maximum number of particles per m^3			Particle Size	Pressure dew point 7kg/cm^2G		Total Oil Content
	0.1-0.5micron	0.5-1.0micron	1.0-5.0micron	micron	P.D.P	PPM(Vol.)	mg/m^3
1	100	1	0	0.1	-70℃	0.3	0.01
2	100,000	1,000	10	1	-40℃	16	0.1
3	-	10,000	500	5	-20℃	128	1
4	-	-	1,000	15	+3℃	940	5
5	-	-	-	40	+7℃	1240	25
6	-	-	-	-	+10℃	1500	-

Do you know how much moisture goes into the compressed air system every day?

Ambient Temperature ℃	50HP compressor $6m^3/mm$: (l/day) Relative Humidity %							
	20	30	40	50	60	70	80	90
50	151	226	301	377	452	527	603	678
40	96	142	189	238	285	334	380	427
30	58	85	112	140	170	197	224	252
20	28	44	57	72	88	101	116	131

Moisture on the impact of air compressor systems and equipment

* cause the pipeline system corrosion and leaks.
* reduce the efficiency of pneumatic tools and equipment and service life.
* impact of precision instruments, reduces the accuracy of control equipment and fault
* result in equipment maintenance costs high, reduced productivity and competitiveness of factory

The Right Choice of Dryer Considerations:

- Temperature: ambient temperature higher than 43 ℃, proposed select Dryer with water-cooled series.
- Inlet Temperature: air inlet temperature higher than 45 ℃, proposed select dryer with a separate after-cooler
- Inlet pressure: the higher the air inlet pressure, the better the water efficiency, it is recommended to be 7kg/cm2G as the base, it should be appropriate to increase dryer capacity when pressure is too low.
- Air volume: recommend choosing air volume capacity of the dryer, should be not less than rated output air volume of compressor.
- Pressure dew point: It is recommended to select Dryer capacity which pressure dew point can actually meet the ISO-8573.1 class4 air quality requirements (PDP +3 ℃)

Air Volume Correction Factor Table

Correction factor								
Ambient temperature ℃	28	30	32	35	38	40	42	43
Factor (K1)	1,14	1,11	1,08	1,00	0,96	0,89	0,82	0,78
Air inlet temperature ℃	45	50	55	60	65	70	75	80
Factor (K2)	1,12	1,08	1,00	0,92	0,84	0,72	0,70	0,68
Working pressure Kg/cm^2	4	5	6	7	8	9	10	13
Factor (K3)	0,80	0,90	0,94	1,00	1,04	1,07	1,10	1,13
Pressure Dew Point ℃	2	3	4	5	6	7	8	10
Factor (K4)	0,96	1,00	1,04	1,06	1,08	1,10	1,14	1,16

Calculation Example (50hp Compressor , $6.0m^3/mm$)

Inlet Air Flow	$6m^3/min$	Correction Factor	Correction Calculation	Select Model
Ambient Temperature	38℃	K1=0.96	$\frac{6m^3/min}{0.96x1.00x1.07x1.00} = 5.8m^3/min$	CDT-50A
Air inlet Temperature	55℃	K2=1.00		
Working Pressure	9 kg/cm^2	K3=1.07		
Dew Point	3℃	K4=1.00		

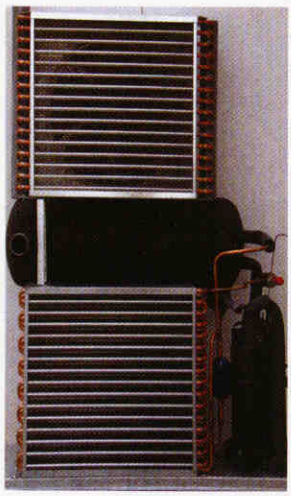
The overall design quality

•Independent large after-cooler design, cooling capacity increase 10% to 20%, suitable for high-temperature and heavy-duty use.
•Using Energy Design - an independent after-cooler set cooling inlet air, firstly can remove the moisture content 30% to 50%, dramatically reducing the cooling load on the system could save up to 20% to 30%.
•Air Outlet warmed by the heat exchanger, to prevent the rear air pressure system condensation and corrosion within the pipeline, to ensure compressed air system is clean and reliable.
•All machines designed meet CE safety requirements, using electrical components with CE safety certification.
•Compact Design, configuration, save installation space.
•Using high temperature powder coating paint casing, beautiful and do not rust
•Fully closed base with Galvanized anti-corrosion design

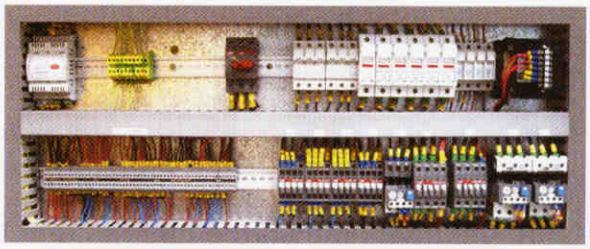


Independent high temperature After-Cooler

Full load heavy type independent after-cooler, extra large cooling capacity design, good ability to remove moisture. Energy saving, using Fan to discharge Heat to reduce power consumption of refrigerant compressor. meet ISO-8573.1 lever 4 air quality requirements.



CE Electrical control panel



Provide electrical control panel which meet CE safety requirements, configure the coaxial line and cable in out protection cover, using well-known brand in Europe ABB electrical components, the best electrical safety and long using life.

Control Panel

C



N



C With large LED display panel, provide digital dew point temperature and air in out temperature display.(Good environment for heat discharge)

N Oil-filled stainless pressure gauge shows the Dew-Point temperate. (High temperature environment)

CE Cooling Fan Assembly & pressure switch







Provide qualified cooling fans with CE safety certification and the most reliable quality of pressure switches for long using life

Technical Specification of CDT-A Series Air cooled Dryer

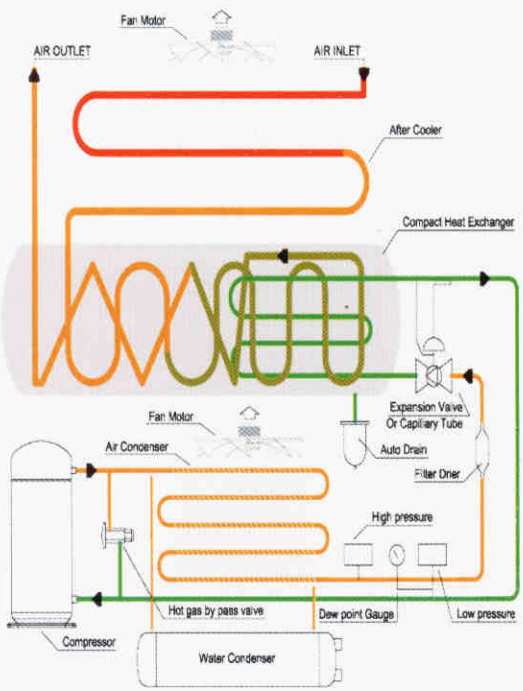
MODEL	AIR FLOW		POWER SUPPLY	NOMINAL POWER	CONNECTION	DIMENSION			WEIGHT	REFRIGERANT
	(m^3/ min)	(CFM)	V/Ph/Hz	kw	inch	L.	W.	H.	kg.	
CDT-8A	0.9	32	220 / 1 / 50	0.31	1" PT	718	388	880	80	R134a
CDT-10A	1.4	50	220 / 1 / 50	0.51	1" PT	718	388	880	88	R134a
CDT-15A	1.8	64	220 / 1 / 50	0.54	1" PT	718	388	880	91	R134a
CDT-20A	2.7	95	220 / 1 / 50	0.96	1" PT	718	388	880	97	R-22 / R407C
CDT-30A	4.3	152	220 / 1 / 50	1.12	1 1/2" PT	868	388	1200	113	R-22 / R407C
CDT-40A	5.5	194	220 / 1 / 50	1.23	1 1/2" PT	868	388	1200	128	R-22 / R407C
CDT-50A	6.8	240	220 / 1 / 50	1.57	1 1/2" PT	868	388	1200	137	R-22 / R407C
CDT-60A	8.1	286	220 / 1 / 50	1.83	2 " PT	1200	450	1350	150	R-22 / R407C
CDT-75A	11	389	220 / 1 / 50	2.66	2 " PT	1200	450	1350	200	R-22 / R407C
CDT-100A	15	530	380 / 3 / 50	3.28	2 1/2" PT	1200	600	1600	267	R-22 / R407C
CDT-125A	18	636	380 / 3 / 50	3.68	2 1/2" PT	1200	600	1600	279	R-22 / R407C
CDT-150A	23	813	380 / 3 / 50	4.63	2 1/2" PT	1200	600	1600	624	R-22 / R407C
CDT-175A	28	990	380 / 3 / 50	5.03	2 1/2" PT	1200	600	1600	367	R-22 / R407C
CDT-200A	30	1060	380 / 3 / 50	5.92	3" PT	1500	1000	1850	485	R-22 / R407C
CDT-250A	36	1272	380 / 3 / 50	6.53	3" PT	1500	1000	1850	536	R-22 / R407C
CDT-300A	43	1519	380 / 3 / 50	9.11	4" FL	1800	1000	2000	617	R-22 / R407C
CDT-350A	48	1696	380 / 3 / 50	10.56	4" FL	1800	1000	2000	678	R-22 / R407C

Technical Specification of CDT-W Series Water cooled Dryer

MODEL	AIR FLOW		POWER SUPPLY	NOMINAL POWER	CONNECTION	DIMENSION			WEIGHT	REFRIGERANT
	(m^3/ min)	(CFM)	V/Ph/Hz	kw	inch	L.	W.	H.	kg.	
CDT-100W	17	595	380 / 3 / 50	2.71	2 1/2" PT	1200	600	1150	258	R-22 / R407C
CDT-150W	26	910	380 / 3 / 50	4.06	2 1/2" PT	1200	600	1150	333	R-22 / R407C
CDT-200W	33	1155	380 / 3 / 50	5.21	3" PT	1500	600	1580	476	R-22 / R407C
CDT-250W	40	1400	380 / 3 / 50	5.81	3" PT	1500	600	1580	528	R-22 / R407C
CDT-300W	48	1680	380 / 3 / 50	7.55	4" FL	1500	600	1580	603	R-22 / R407C
CDT-400W	68	2380	380 / 3 / 50	10.11	4" FL	1600	800	1700	790	R-22 / R407C
CDT-500W	81	2835	380 / 3 / 50	11.36	6" FL	1600	800	1700	995	R-22 / R407C
CDT-600W	99	3465	380 / 3 / 50	13.65	6" FL	1600	800	1700	1120	R-22 / R407C

*The specification subject to change without notice in advance.

CDT- 100 **A** (Air Cooled) **W** (Water Cooled) **C** (Digial Temp.) **N** (Not Digital Temp.) **S** (R22) **O** (R407c)



Dryer maximum air flow = Dryer air flow x K1 x K2 x K3 x K4

Correction factor								
Ambient temperature ℃	28	30	32	35	38	40	42	43
Factor (K1)	1,14	1,11	1,08	1,00	0,96	0,89	0,82	0,78
Air inlet temperature ℃	45	50	55	60	65	70	75	80
Factor (K2)	1,12	1,08	1,00	0,92	0,84	0,72	0,70	0,68
Working pressure Kg/cm²	4	5	6	7	8	9	10	13
Factor (K3)	0,80	0,90	0,94	1,00	1,04	1,07	1,10	1,13
Pressure Dew point ℃	2	3	4	5	6	7	8	10
Factor (K4)	0,96	1,00	1,04	1,06	1,08	1,10	1,14	1,16

1, CDT Series Air Inlet Temperature 80℃ (Max.)
2, Pressure Dew Point 2~10 ℃
3, Ambient Temperature 10~43℃
4, Independent After Cooler
5, Air In-Out Pressure Drop <3 Psig
6, 2 Years Warranty for Compressor And Evaporator.

Most of the Dryers on the Market are without the After-Cooler, usually People choose the bigger size of air dryer or compressor due to no After-Cooler. Result to higher power consumption.

COOLER