



CDK-SA SERIES

Refrigerant Air Dryer

Stainless Steel Plate

Heat Exchanger

Air Inlet Temperature 65 °C (Max.)

Warranty
Compressor
Evaporator

2

years

Energy Saving/High-Efficiency/High-Quality

DIT Refrigerated Air Dryer

DIT Refrigerated Air Dryer offers the best solutions to minimize energy loss, reduce corrosion level, prolong life of compressed air systems and decrease maintenance costs.

About DIT Refrigerated Air Dryer

In compressed air systems, moisture is a huge problem and the prevention of corrosion caused by condensed water is an important issue. This is a critical factor as moisture and corrosion would minimize the performance and shorten the lifetime of compressed air systems and pneumatically controlled tools and equipment. To prevent this problem from occurring, the air dryer is the most commonly used solution. In these kinds of equipment, the main problems which affect the performance of compressed air systems are high volume, high pressure loss and complicated traditional types of heat exchangers which are not efficient. For this, DIT has successfully integrated the Brazen Heat Exchanger into our dryer system. This technology is supported by complete research and proven test data and the unique design has enabled DIT to obtain is being patented in France, USA, Taiwan and Southeast Asia.

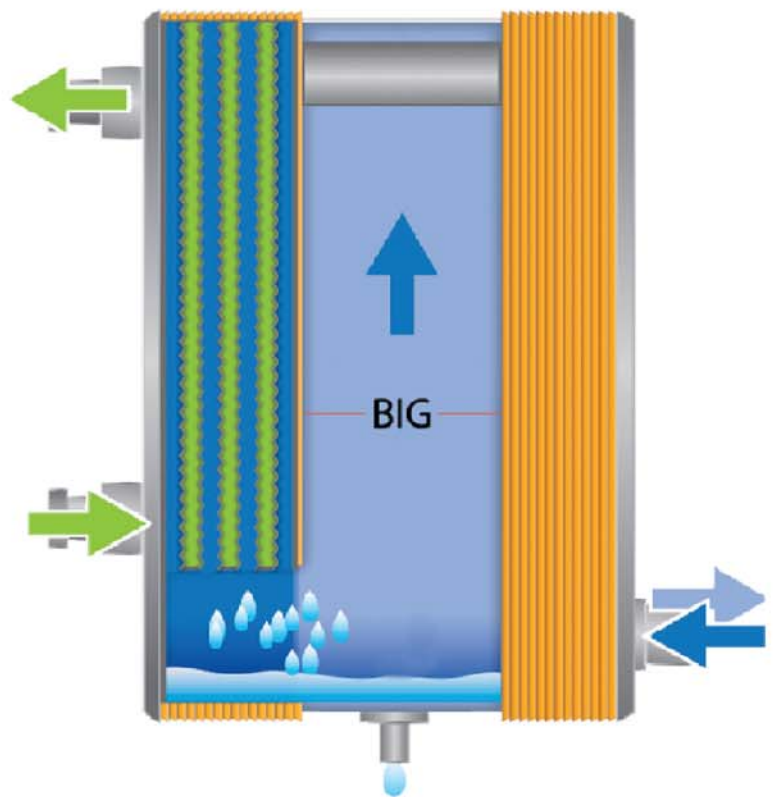
The main advantage of Plate Heat Exchanger

- A 3 in 1 configuration, the air-to-air exchanger, evaporators and demister separator are combined in one module. This ensures a very compact, robust and energy efficient design.
- High efficiency heat transfer performance.
- Unique patents for cross-flow design features with the condensate being separated as soon as it is created along the cooling path.
- Energy saving application due to low pressure drop.
- Simple and easy maintenance.
- Dry air down to 3 °C pressure dew point at outlet



Advantage

- ✓ Long life time durability
- ✓ Corrosion-resistance
- ✓ High thermal transfer efficiency
- ✓ Compact, easy installation
- ✓ Proven and reliable quality
- ✓ Flexible flows and temp. monitor option



* Unique Design Separator

DIT's distinct non-mesh design separator has advantages of lower pressure drop, clogging free, maintenance free, and longer service life than other heat exchangers.

* Oil Blockage Free

Patented plate design of evaporator, shorten the flow path of refrigerant by 30%, with the smooth surface of SUS 304, DIT can prevent lubricant oil residual which happens frequently in aluminum plate fin heat exchangers.

* No Ice Blockage

With DIT patented plate design of evaporator, condensed water will not remain on the plates, but directly enters to a separation space of the evaporator, which effectively reduce the risk of ice blockage. (Need to check the drain valve regularly)

* Equipped with Patented Leakage Testing Connector

Leading and multinational patent technology, exclusively ensures excellent quality of DIT 3-in-1 brazed plate heat exchanger.



UL



CE / PED

DIT Refrigerated Air Dryer Features

Easy to Install

DIT's compact design and well-structured component layout provides extreme installation flexibility. The easily accessible components ensure that DIT dryer occupies less valuable plant floor space.



High quality refrigerant compressor

(HITACHI / MITSUBISHI / COPELAND)

Hermetic, suction gas is cooled and protected against thermal and current overloads. The compressor is mounted on anti-vibration rubber supports to ensure quiet running of the dryer.



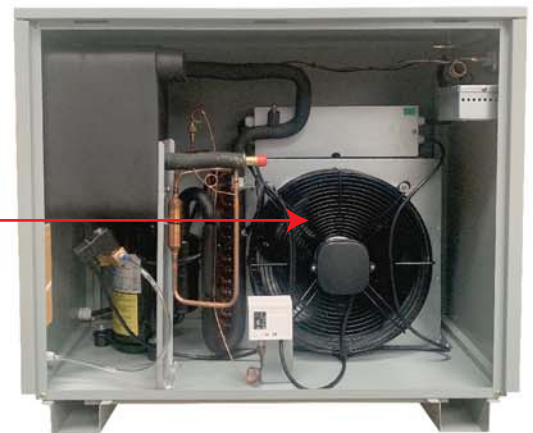
Easy to operate Control Panel (CAREL)

The advance digital display allows DIT's dryer operation to be easily monitored at a glance. Use for model: CDK 3-250



UL/CE Condenser Fan

Provide qualified cooling fans with UL/CE safety certification for long using life.



PLC to operate Control Panel (CAREL)

The advance digital display allows DIT's dryer operation to be easily monitored at a glance. Use for model: CDK 300-700



PLC to operate Control Panel (CAREL)

The advance digital display allows DIT's dryer operation to be easily monitored at a glance. Use for model: CDK 800 up.



Reliable solenoid valve

This value is used in all standard models. The discharge and pause timer on the solenoid are also adjustable.

The flexible and adaptable operation of the valve ensures effective discharge of condensates.

Technical Specification of CDK-S/CDK-SA Series Air - Cooled Dryers

MODEL	AIR FLOW		Power Supply V / PH / Hz	Nominal Power KW	Connection inch	Dimension (mm)			Weight Kg	Refrigerant	Pressure Bar(Max.)
	(m ³ /min)	(CFM)				W.	L.	H.			
CDK- 3S	0.45	16	220/1/50	0.19	1/2" PT	382	450	430	31	R134a	16
CDK- 5S	0.65	23	220/1/50	0.21	1/2" PT	382	450	430	32	R134a	16
CDK- 8S	0.9	32	220/1/50	0.25	1/2" PT	382	450	430	33	R134a	16
CDK- 3SA	0.45	16	220/1/50	0.19	1/2" PT	382	450	430	31	R134a	16
CDK- 5SA	0.65	23	220/1/50	0.21	1/2" PT	382	450	430	32	R134a	16
CDK- 8SA	0.9	32	220/1/50	0.25	1/2" PT	382	450	430	33	R134a	16
CDK- 10SA	1.4	49	220/1/50	0.37	1/2" PT	382	502	480	38	R134a	16
CDK- 15SA	1.8	64	220/1/50	0.42	3/4" PT	382	502	480	40	R134a	16
CDK- 20SA	2.7	95	220/1/50	0.57	3/4" PT	393	723	650	65	R134a	16
CDK- 30SA	4.3	152	220/1/50	0.73	1" PT	393	723	650	69	R134a	16
CDK- 40SA	5.5	194	220/1/50	1.08	1-1/2" PT	404	875	761	92	R134a	16
CDK- 50SA	6.8	240	220/1/50	1.28	1-1/2" PT	404	875	761	101	R407c	16
CDK- 60SA	8.1	286	220/1/50	1.51	1-1/2" PT	451	1190	882	115	R407c	16
CDK- 75SA	11	388	220/1/50	1.84	2" PT	451	1190	882	135	R407c	16
CDK- 100SA	15	530	380/3/50	2.68	2" PT	451	1190	882	145	R407c	16
CDK- 125SA	18	636	380/3/50	3.03	2-1/2" PT	451	1190	882	165	R407c	16
CDK- 150SA	23	812	380/3/50	3.55	2-1/2" PT	588	1204	1005	198	R407c	16
CDK- 175SA	28	989	380/3/50	4.20	2-1/2" PT	588	1204	1005	208	R407c	16
CDK- 200SA	30	1059	380/3/50	4.72	3" PT	588	1204	1005	225	R407c	16
CDK- 250SA	36	1271	380/3/50	5.05	3" PT	588	1204	1005	256	R407c	16
CDK- 300SA	43	1519	380/3/50	6.77	4" FL	1004	1560	1615	380	R407c	16
CDK- 350SA	48	1695	380/3/50	7.36	4" FL	1004	1560	1615	400	R407c	16
CDK- 400SA	61	2154	380/3/50	8.95	5" FL	1004	1560	1615	450	R407c	16
CDK- 500SA	72	2543	380/3/50	11.20	5" FL	1004	1560	1615	510	R407c	16
CDK- 600SA	89	3143	380/3/50	13.95	6" FL	1200	2200	1900	930	R407c	16
CDK- 700SA	96	3390	380/3/50	15.40	6" FL	1200	2200	1900	1050	R407c	16
CDK- 800SA	122	4308	380/3/50	19.90	6" FL	1200	2200	1900	1120	R407c	16
CDK- 1000SA	144	5085	380/3/50	22.80	8" FL	1200	2860	1900	1260	R407c	16
CDK- 1200SA	170	6004	380/3/50	26.80	8" FL	1200	2860	1900	1580	R407c	16
CDK- 1500SA	185	6533	380/3/50	39.70	10" FL	1200	3200	2050	2200	R407c	16
CDK- 2000SA	285	10065	380/3/50	44.80	12" FL	1200	5000	2050	2400	R407c	16
CDK- 2500SA	340	12007	380/3/50	52.80	12" FL	1200	5000	2050	3100	R407c	16

Technical Specification of CDK-SW Series Water - Cooled Dryers

MODEL	AIR FLOW		Power Supply V / PH / Hz	Nominal Power KW	Connection inch	Dimension (mm)			Weight Kg	Refrigerant	Pressure Bar(Max.)
	(m ³ /min)	(CFM)				W.	L.	H.			
CDK- 100SW	15	530	380/3/50	2.06	2" PT	451	1190	882	145	R407c	16
CDK- 125SW	18	636	380/3/50	2.50	2-1/2" PT	451	1190	882	165	R407c	16
CDK- 150SW	23	812	380/3/50	2.85	2-1/2" PT	451	1190	882	198	R407c	16
CDK- 175SW	28	989	380/3/50	3.30	2-1/2" PT	451	1190	882	208	R407c	16
CDK- 200SW	30	1059	380/3/50	3.95	3" PT	588	1204	1005	225	R407c	16
CDK- 250SW	36	1271	380/3/50	4.27	3" PT	588	1204	1005	256	R407c	16
CDK- 300SW	43	1519	380/3/50	4.60	4" FL	588	1204	1005	380	R407c	16
CDK- 350SW	48	1695	380/3/50	6.27	4" FL	588	1204	1005	400	R407c	16
CDK- 400SW	61	2154	380/3/50	6.86	5" FL	800	1204	1615	450	R407c	16
CDK- 500SW	72	2543	380/3/50	8.05	5" FL	800	1204	1615	510	R407c	16
CDK- 600SW	89	3143	380/3/50	10.30	6" FL	800	1500	1615	930	R407c	16
CDK- 700SW	96	3390	380/3/50	12.30	6" FL	800	1500	1615	1050	R407c	16
CDK- 800SW	122	4308	380/3/50	13.75	6" FL	800	1800	1615	1120	R407c	16
CDK- 1000SW	144	5085	380/3/50	18.25	8" FL	1200	1800	1800	1260	R407c	16
CDK- 1200SW	170	6004	380/3/50	20.60	8" FL	1200	1800	1800	1580	R407c	16
CDK- 1500SW	185	6533	380/3/50	24.60	10" FL	1200	1800	1800	1860	R407c	16
CDK- 2000SW	285	10065	380/3/50	36.50	12" FL	1200	2400	1800	2290	R407c	16
CDK- 2500SW	340	12007	380/3/50	41.20	12" FL	1200	2400	1800	2400	R407c	16

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

Correction factor										
Ambient temperature °C	28	30	32	35	38	40	42	43		
Factor (K1) CDK-S/SA	1.14	1.10	1.06	1	0.94	0.91	0.88	0.86		
Air inlet temperature °C	35	40	45	50	55	60	63	65		
Factor (K2)	1.48	1.18	1	0.83	0.71	0.58	0.52	0.48		
Working pressure Kg/cm ²	4	6	7	8	9	10	13	16		
Factor (K3)	0.79	0.94	1	1.05	1.09	1.12	1.2	1.26		
Dew point temperature °C	-	3	4	5	6	7	8	10		
Factor (K4)	-	0.96	1	1.02	1.03	1.06	1.07	1.09		

Water temperature °C	25	26	28	30	32	34	36	37
Factor (K1) CDK-SW	1.14	1.10	1.06	1	0.94	0.91	0.88	0.86

1. CDK-S/CDK-SA/CDK-SW Series Air Inlet Temperature 65 °C (Max.)
2. Dew Point Temperature 3-10 °C
3. Ambient Temperature 43 °C (Max.)
4. CDK-S with Temperature Display
5. CDK-SA/CDK-SW with Digital Controller
6. CDK-S/CDK-SA/CDK-SW Series No After Cooler
7. Air In-Out Pressure Drop < 3 Psig
8. 2 Years warranty for Compressor and Evaporator

