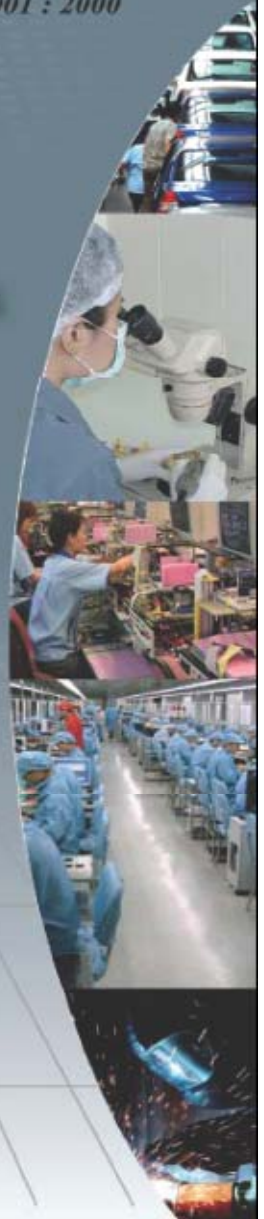




ISO9001 : 2000

## AIR DRYER CDT-GN Series



# YOUR SOLUTION



# Air Dryer ; CDT - GN Series

## Air Side

Designed to economically produce consistent dew point with low pressure drop in a compact size exchanger - evaporator - separator

## Feature:

### Heat Exchangers

DIT engineered and manufactured shell and radial finned tube design ensures sufficient cooling...minimizes pressure drop...resists fouling

- "Balanced" design maximizes the heat transfer rate while minimizing pressure drop
- Wide tube spacing, baffling, and right angle flow patterns make heat exchangers resistant to fouling adding years of useful service life

## Air-to-Air Heat Exchangers

- Large air-to-air heat exchangers remove over half of the heat load from the incoming air stream - minimizing refrigeration system size and power requirements
- DIT design balances the high heat transfer coefficient inside the tubes (caused by vapor condensation and low profile swirl generators) with the greater surface area on the outside of the tubes...allows for a compact design, high heat transfer rate and low pressure drop
- Tube surfaces resist fouling.. wet dirty air is exposed to smooth tube walls and removable free floating swirl generators

## Air-to-Refrigerant Heat Exchanger

- Large surface area permits the compressed air stream to be consistently cooled to the dew point temperature
- A multi-pass refrigerant design allows maximum use of available refrigeration capacity

Refrigerant velocity controlled by varying the cross-sectional flow area (less cross-sectional area the early passes where refrigerant is mostly a liquid; larger cross-section area in the later passes where it is mostly a gas)... ensure quick response to changes in load.

Swirl generators in the later passed enhance refrigerant droplet evaporation

## Separator-highly efficient separation prevents liquid carryover

separator removes 99% of condensed moisture and maintains this high efficiency across a wide range of flows

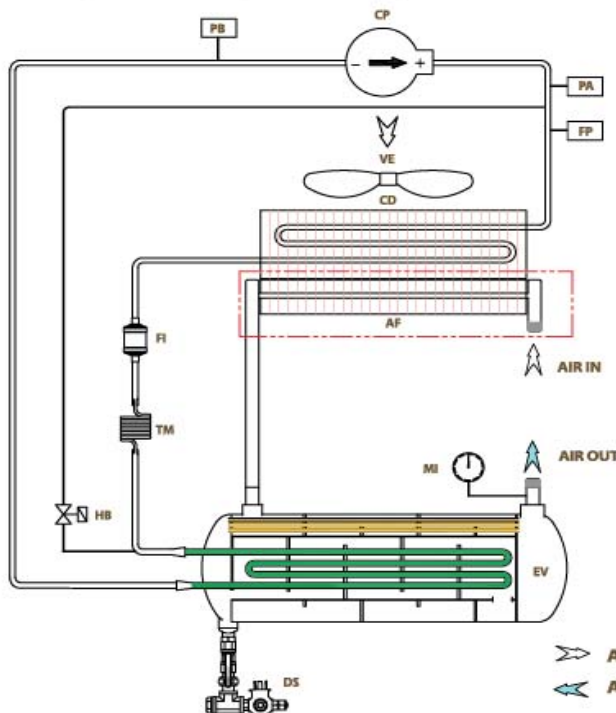
- Maintains high efficiency at varying load conditions
  - Removes smaller droplets (100% of all droplets 3 microns and larger)
  - prevents liquid re-entrainment
  - Filters out all solid contaminants 3 microns and larger
  - 5 ppm w/w of oil aerosols remaining
- CDT dryers are equipped with hot gas bypass valve to adjust the compressor capacity to the actual evaporator capacity in a refrigerating plant (30 up).

## Automatic drain with manual valve and reliable discharge collected condensate

- Compact size
- Easily discharging drainage from pneumatic circuit
- Easy cleaning

## After cooler (Air cooled system)

- Extra large heat exchanger
- Increased air flow with extra large fan system
- Fuse fan protector
- Head pressure controlled fan cycling on all fans
- Flooded head pressure control allows operation in low ambient temperatures.



## FLOW DIAGRAM

- AF AFTER COOLER COIL
- VE CONDENSER FAN
- CD CONDENSER COIL
- FI FILTER DRIER
- CT CAPILLARY TUBE
- EV EVAPORATOR & HEAT EXCHANGE
- DS DRAIN SYSTEM
- PB LOW PRESSURE CONTROL ( For CDT-10 GN up )
- CP COMPRESSOR
- PA HIGH PRESSURE CONTROL ( For CDT-10 GN up )
- FP FLOW PRESSURE CONTROL ( For CDT-100 GN up )
- MI AIR PRESSURE GAUGE
- HB HOT GAS BY PASS ( For CDT-30 GN up )

➤ AIR IN  
➤ AIR OUT

\*\* This is a draft flow diagram.  
It will change according to the spec of each machine.

# TECHNICAL DATA OF "CDT : 3GN ~ 350GN "

LOW-TEMPERATURE SERIES AIR / WATER COOLER DRYERS SPECIFICATIONS (Air Inlet Temp MAX. 75 °C)

MODEL	CDT	3 GN	5 GN	8 GN	10 GN	15 GN	20 GN	30 GN	40 GN	50 GN	60 GN
AIR FLOW	M <sup>3</sup> /hr	27	39	54	84	108	162	258	330	408	486
	M <sup>3</sup> /min	0,45	0,65	0,9	1,4	1,8	2,7	4,3	5,5	6,8	8,1
	CFM	16	23	32	50	64	95	152	194	240	286
CONNECTION		1/2" PT				1" PT		1 - 1/2" PT			2" PT
REFRIGERANT		R134a					R 22				
POWER SUPPLY		1PH / 220 - 240V									
REFRIGERANT COMPRESSOR	HP	0.2	0.2	0.3	0.4	0.5	0.75	1.0	1.2	1.5	1.7
CONDENSATION	AIR	S	S	S	S	S	S	S	S	S	S
	WATER	-	-	-	-	-	-	-	-	-	-
DIMENSION (mm.)	W	380	380	380	388	388	388	388	388	388	450
	D	500	500	500	718	718	718	868	868	868	1200
	H	490	490	490	600	600	600	740	740	740	875
WEIGHT	Kg.	34	36	50	73	76	82	93	103	112	155

MODEL	CDT	75 GN	100 GN	125 GN	150 GN	175 GN	200 GN	250 GN	300 GN	350 GN
AIR FLOW	M <sup>3</sup> /hr	660	900	1080	1380	1680	1800	2160	2580	2880
	M <sup>3</sup> /min	11	15	18	23	28	30	36	43	48
	CFM	389	530	636	813	990	1060	1272	1519	1696
CONNECTION		2" PT	2 - 1/2" PT			3" PT		4" FL		
REFRIGERANT		R 22								
POWER SUPPLY		1 PH / 220 - 240				3PH / 380V - 440V				
REFRIGERANT COMPRESSOR	HP	2.0	3.0	3.4	4.0	4.5	5.0	6.0	7.5	8.0
CONDENSATION	AIR	S	S	S	S	S	S	S	S	S
	WATER	O	O	O	O	O	O	O	O	O
WATER CONDENSER FLOW RATE	l /min	26	28	30	33	36	44	65	70	75
DIMENSION (mm.)	W	450	600	600	600	600	800	800	800	800
	D	1200	1300	1300	1300	1300	1600	1600	1600	1600
	H	875	1200	1200	1200	1200	1500	1500	1500	1500
WEIGHT	Kg.	165	180	190	230	240	300	350	380	400

\* R407c REFRIGERANT IS OPTIONAL

S = STANDARD O = OPTION - - = NOT AVAILABLE



DEW POINT TEMPERATURE	°C	2	3	4	5	6	7	8	10
	K4	0,96	1,00	1,04	1,06	1,08	1,10	1,14	1,16

ENVIRONMENT TEMPERATURE	°C	25	30	32	35	38	40	43
	K3	1,16	1,11	1,08	1,00	0,94	0,89	0,78

AIR INLET TEMPERATURE	LOW - TEMPERATURE ( MAX. 75 °C ) ; G / GN Series					
	°C	50	55	60	70	75
	K2	1.22	1.18	1.00	0.83	0.69

WORKING PRESSURE	kg / cm <sup>2</sup>	2	4	5	6	7	8	9	10	11	12	13
	K1	0,62	0,82	0,86	0,92	1,00	1,04	1,07	1,10	1,12	1,13	1,15

\*\* Max. working pressure of Auto drain ( Standard ) = 10 kg / cm<sup>2</sup> ; More than 10 kg / cm<sup>2</sup> is " Optional "

CORRECT AIR FLOW =  $\frac{\text{AIR INLET FLOW}}{K1 \times K2 \times K3 \times K4}$

CHOOSE MODEL =

CDT - 100 G : AIR CONDENSATION ; Dew Point - Digital Temperature Control ( Optional Model )  
 CDT - 100 GN : AIR CONDENSATION ; Dew Point - Gauge ( Standard Model )  
 CDT - 100 GWN : WATER CONDENSATION ( Optional Model )



# YOUR SOLUTION



Water chiller - IPT Series



Water chiller - LT Series



Water chiller -  
SLT, PST Series



Water chiller - OLT Series



Air dryer - CDT Series



Air dryer - Mast Series



Air cooled - After cooler  
Water cooled - After cooler



Compressed air filter

Distributor :