

How to Order

Requirement :	Inlet flow	100 cfm
	working pressure	5 Kg / cm ²
	Inlet temperature	45° C
	Ambient temperature	38° C
Referring tables :	Factor Pi	= 0.84
	Factor Ti	= 1
	Factor Ta	= 1
Dryer capacity required :	Flow	= 100
	Pi x Ti x Ta	= 0.84 x 1 x 1
		= 119 cfm
Choose the nearest higher model :		= Coldspell 150

Correction Factor

Inlet Air Temperature °C	30	38	45	50
Correction Factor (Ti)	1.14	1.08	1	0.75
Inlet Pressure Kg/cm ²	5	7	9	12
Factor (Pi)	0.84	1	1.11	1.21
Ambient Temperature °C	25	30	38	43
Factor (Ta)	1.36	1.18	1.0	0.86

Ordering Code

CS	Flow	Electricals	Gas	Condensor	Heat Exchanger	Compressor	Working Pressure
1 - 230 V - 50 Hz 1 Phase (Standard for models 40 to 300)	●	●	●	●	●	●	●
2 - 415 V - 50 Hz 3 Phase (Standard for models 400 & above)							
3 - 110 V - 60 Hz 1 Phase (Optional)							
4 - 230 V - 60 Hz 1 Phase (Optional)							
5 - 380 V - 50 Hz 3 Phase (Optional)							
1 R 407c (Optional from models 200 & above)	●	●	●	●	●	●	●
2 R 134a (Standard for models 40 to 150)							
3 R 22 (Standard for models 200 & above)							
A - Air Cooled (Standard for models 40 to 1000)	●	●	●	●	●	●	●
W - Water cooled condensor (Standard for models 1200 & above)							

● 16 Kg / cm², 40 : 40 Kg / cm²

● A : Advanced Hermatic Scroll
● S : Standard Hermatic Reciprocating

● I : Integral Heat Exchanger


Example : For selection of CS 40 : 1 2 A I S 40
1 - 230 V - 50 Hz 1 Ph; 2 - R 134a; A - Air Cooled; I -Integral Heat Exchanger; S - Standard Hermatic Reciprocating; 40 - Working Pressure



Manufacturing Facility




Our Presence



Our Other Range of Products

- Timer based Auto Drain Valve
- Level Sensing Auto Drain Valve
- Submicron Filter
- Moisture Separator
- Desiccant Dryer (Heated)
- Desiccant Dryer (Heatless)



Trident Pneumatics Pvt Ltd 5/232, K.N.G. Pudur Road, Coimbatore - 641 108, India. Ph : +91-422-2400492 Fax : +91-422-2401376	Trident Pneumatics Pvt Ltd Shanghai, China.	Trident Pneumatics Sdn Bhd Selangor, Malaysia.
e-mail : sales@tridentpneumatics.com Website : www.tridentpneumatics.com		

Sales & Service Outlets	Ahmedabad 98259 26342	Bangalore 98450 93322	Chennai 99949 78928	Delhi 98113 10726	Hyderabad 98854 45321	Kolkatta 24071900	Mumbai 25434551	Pune 27471877	12 / 07
------------------------------------	--------------------------	--------------------------	------------------------	----------------------	--------------------------	----------------------	--------------------	------------------	---------



Refrigeration Compressed Air Dryer

Coldspell

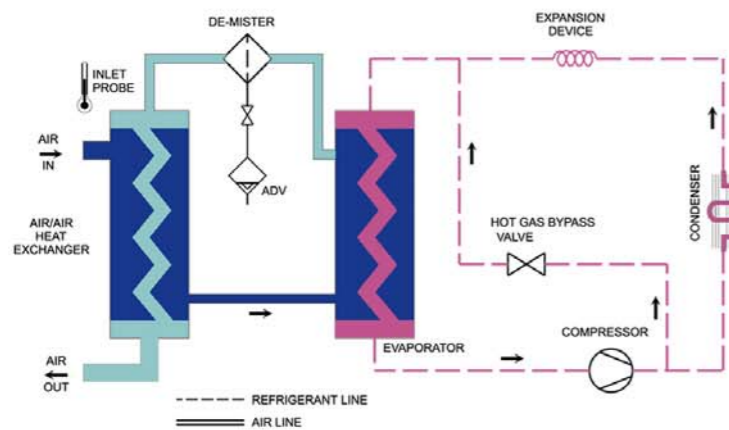
- Microprocessor Controller
- Anti Freezer
- Anti Recycle Controller
- Large condensor for high ambient temperatures
- Advanced 3 in 1 integral heat exchanger
- Easy read bar indicator electronic controller
- LCD display controller

Principle of Operation - Coldspell

Warm compressed air enters the Air / Air Heat Exchanger where it is precooled by outgoing cold dry air. Pre-cooling makes it possible to use a smaller (More Economical) refrigeration Unit. The pre-cooled air enters the Air to Freon Heat Exchanger where it is cooled down to +3°C. At this temperature, water condenses into liquid droplets, which are removed from the air stream by a very efficient Demister and automatically discharged by a Trident Automatic Drain Valve. The Cold dry compressed air passes back

through the secondary side of the Air to Air Heat Exchanger where it is reheated by the incoming warm air. Reheating the outgoing compressed air increases the volume of the air enabling it to do more work and it also prevents downstream pipe sweating. Trident Heat Exchanger has no extended surfaces or sharp corners that collect dust, dirt or oil residue. Any dust, dirt and oil will be washed from the air system along with the condensed moisture at the De-mister. The De-mister.

Schematic Layout



Superior Design

- Eco Friendly Gas
- Micro Processor based controller provides Dryer status
- Hot Gas By-Pass Valve Prevents evaporator freezing.
- Optional Level sensing Condensate drain for No Air loss
- Simple and reliable Capillary Expander



Specification of Dryer

Model	Flow in cfm	Power Consumption in KW		End Connection	Dimensions in mm			Weight in Kg
					H	W	D	
Coldspell 40	40	0.36	-	1" BSP	600	450	550	55
Coldspell 50	50	0.36	-	1" BSP	700	450	480	55
Coldspell 60	60	0.36	-	1" BSP	600	450	550	55
Coldspell 80	80	0.85	-	1 1/2" BSP	820	500	600	70
Coldspell 100	100	0.85	-	1 1/2" BSP	710	480	530	60
Coldspell 150	150	1.02	-	1 1/2" BSP	820	500	600	70
Coldspell 200	200	-	1.44	2" NB	710	480	530	60
Coldspell 250	250	-	1.44	2" NB	1000	650	800	110
Coldspell 300	300	-	1.85	2" NB	1000	650	800	130
Coldspell 400	400	-	2.40	2" NB	1320	950	1150	240
Coldspell 500	500	-	2.40	2 1/2" NB	1320	950	1150	260
Coldspell 650	650	-	3.30	2 1/2" NB	1320	950	1150	290
Coldspell 800	800	-	4.00	3" NB	1375	1150	1300	350
Coldspell 1000	1000	-	4.80	3" NB	1580	1380	1530	490
Coldspell 1200	1200	-	3.92	4" NB	1580	1380	1530	580
Coldspell 1500	1500	-	-	4" NB	1530	1280	1530	620
Coldspell 2000	2000	-	-	6" NB	1380	1280	1080	900
					1750	1480	1980	1020

For any other capacity contact factory. Specifications are subject to change without notification.

* Power consumption will be low for use of water cooled condenser instead of air cooled.

** IHE - Integral Heat Exchanger.

Recommended Accessories

Dryer model (2)	Sub Micron filter 5 micron (5)	Sub Micron filter 1 micron (3)	Sub Micron filter .01 micron (4)
Coldspell 40 & 50	G 100 P	G 100 X	G 100 Y
Coldspell 60 & 80	G 250 P	G 250 X	G 250 Y
Coldspell 100 & 150	G 250 P	G 250 X	G 250 Y
Coldspell 200 to 300	G 600 P	G 600 X	G 600 Y
Coldspell 400 to 500	G 851 P	G 851 X	G 851 Y
Coldspell 650	G 1210 P	G 1210 X	G 1210 Y
Coldspell 800 to 1000	G 1810 P	G 1810 X	G 1810 Y
Coldspell 1200	G 2200 P	G 2200 X	G 2200 Y
Coldspell 1500	G 2600 P	G 2600 X	G 2600 Y
Coldspell 2000	G 3400 P	G 3400 X	G 3400 Y

Installation Guide - ISO 8573.1 Class 1.4.1 Dirt, Water and Oil

