

How to Order

|                                   |                     |                        |
|-----------------------------------|---------------------|------------------------|
| Requirement :                     | Inlet flow          | 100 cfm                |
|                                   | working pressure    | 5 Kg / cm <sup>2</sup> |
|                                   | 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 <sup>2</sup> | 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 / cm<sup>2</sup>, 40 : 40 Kg / cm<sup>2</sup>

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)

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Lasting Value



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

India's Largest Exporter of Compressed Air Treatment Products

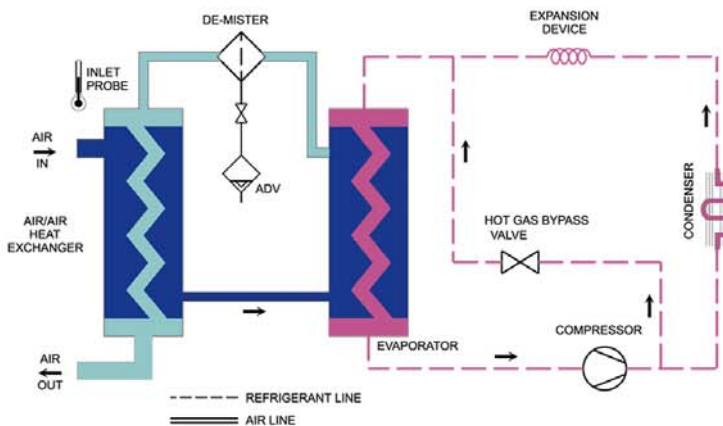


Principle of Operation - Coldspell

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.

Schematic Layout



Superior Design

Eco Friendly Gas

Hot Gas By-Pass Valve Prevents evaporator freezing.

Simple and reliable Capillary Expander

Micro Processor based controller provides Dryer status

Optional Level sensing Condensate drain for No Air loss



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           |
|                |             |                         |      | 1" BSP         | 600              | 450  | 550  | 55           |
| Coldspell 60   | 60          | 0.36                    | —    | 1" BSP         | 700              | 450  | 480  | 55           |
|                |             |                         |      | 1" BSP         | 600              | 450  | 550  | 55           |
| Coldspell 80   | 80          | 0.85                    | —    | 1½" BSP        | 820              | 500  | 600  | 70           |
|                |             |                         |      | 1" BSP         | 710              | 480  | 530  | 60           |
| Coldspell 100  | 100         | 0.85                    | —    | 1½" BSP        | 820              | 500  | 600  | 70           |
|                |             |                         |      | 1" BSP         | 710              | 480  | 530  | 60           |
| Coldspell 150  | 150         | 1.02                    | —    | 1½" BSP        | 1000             | 650  | 800  | 110          |
| Coldspell 200  | 200         | —                       | 1.44 | 2" NB          | 1000             | 650  | 800  | 130          |
| Coldspell 250  | 250         | —                       | 1.44 | 2" NB          | 1000             | 650  | 800  | 130          |
| Coldspell 300  | 300         | —                       | 1.85 | 2" NB          | 1320             | 950  | 1150 | 240          |
| Coldspell 400  | 400         | —                       | 2.40 | 2" NB          | 1320             | 950  | 1150 | 260          |
| Coldspell 500  | 500         | —                       | 2.40 | 2½" NB         | 1320             | 950  | 1150 | 290          |
| Coldspell 650  | 650         | —                       | 3.30 | 2½" NB         | 1375             | 1150 | 1300 | 350          |
| Coldspell 800  | 800         | —                       | 4.00 | 3" NB          | 1580             | 1380 | 1530 | 490          |
| Coldspell 1000 | 1000        | —                       | 4.80 | 3" NB          | 1580             | 1380 | 1530 | 580          |
| Coldspell 1200 | 1200        | —                       | 3.92 | 4" NB          | 1530             | 1280 | 1530 | 620          |
| Coldspell 1500 | 1500        | —                       | —    | 4" NB          | 1380             | 1280 | 1080 | 900          |
| Coldspell 2000 | 2000        | —                       | —    | 6" NB          | 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

