

For the Coating Industry



Range of Products



India's Largest Exporter of Compressed Air Treatment Products

- Applications :**
- Spray Painting — Automobiles, Industrial, Consumable durables, Channels
  - Powder Coating — Industrial, Office Furnitures, Panels

### Why Poor Finish ?

### Concave & Convex Surfaces

How does it happen?

When the coating material is sprayed on an object from the air expands before it reaches the object. By nature this expansion cools the compressed air. The cooled compressed air can condense the water it is carrying. In this application temperature drop can be upto  $-3^{\circ}\text{C}$  depending upon the ambient conditions. The liquid water coats the object and prevents deposition of paints creating blisters, craters, fish eye, hazing and multitude of other problems. It also makes the powder in powder coating applications to stick together and blotches on the surface. It can also block fine orifices of powder coating spray guns in extreme cases.



### Solution

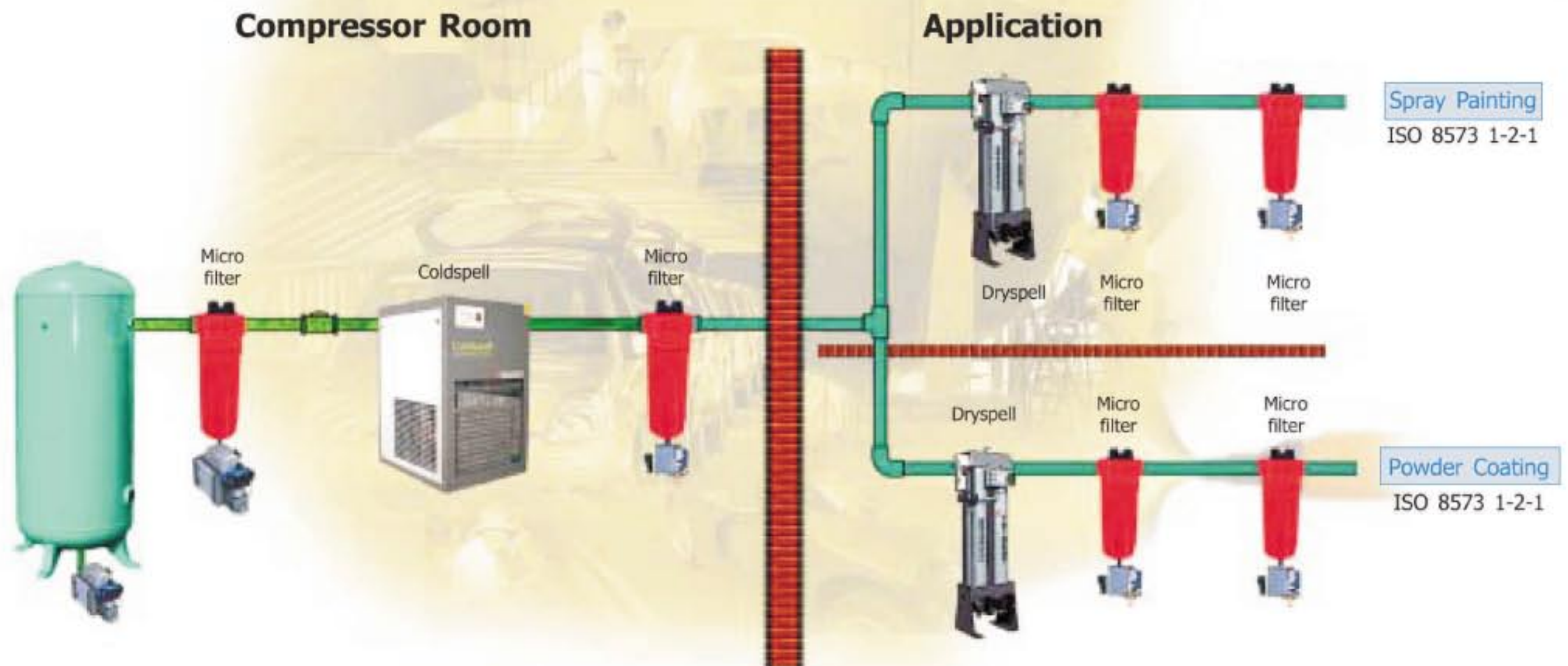
Dew point achievable on

- Refrigeration Dryer  $+3^{\circ}\text{C}$
- Desiccant Dryer  $-10^{\circ}\text{C}$  to  $-40^{\circ}\text{C}$

The above data illustrates very clearly that for coating applications only desiccant dryer could be the best choice to avoid the condensation problems while expansion.

However Refrigeration dryer can be installed at the compressor room which could take up the initial moisture load and deliver compressed air at  $+3^{\circ}\text{C}$  dew point. This air can be used for other general applications in a factory.

So a refrigeration dryer and set of filters followed by a desiccant dryer would be an ideal solution for coating applications.



### For Optimum Airtreatment Solutions

### ISO 8573.1 Quality Classes

Application	Auto Drain	Filters	Refrigeration Dryers	Desiccant Dryer
Spray Painting	✓	✓	✓	✗
Powder Coating	✓	✓	✓	✓

Quality Class	Dirt Particle size in Micron	Water Dewpoint $^{\circ}\text{C}$ (ppm. vol.) at 7 bar g	Oil (Including vapour) mg/m <sup>3</sup>
1	0.1	-70 (0.3)	0.01
2	1	<b>-40 (16)</b>	<b>0.1</b>
3	5	-20 (128)	1.0
4	15	+3 (940)	5
5	40	+7 (1240)	25
6	—	+10 (1500)	—

## Selection Chart

Details	Dryspell	Filter	
		Pre	After
1 Gun	Dryspell 20	G 100 X1A	G 100 Y1A
2 Guns	Dryspell 45	G 100 X1A	G 100 Y1A
3 Guns	Dryspell 60	G 100 X1A	G 100 Y1A
4 Guns	Dryspell 100	G 250 X1A	G 100 Y1A
5 Guns	Dryspell 100	G 250 X1A	G 100 Y1A

## Dryspell

The latest technology in desiccant Air Dryers offering total cleaning and drying solution for lubricated as well as non-lubricated Compressors. Coalescing filters (boro silicate micro glass fibres) assure maximum removal of oil and liquid moisture upto 0.3 microns. Compressed air at  $-40^{\circ}\text{C}$  dew point.



### Salient features :

- Microprocessor Controller • Pre-filter rating 0.3 microns (coalescer) • Shuttle valve for Low Pressure drop
- All Aluminium resist oxidation & scale formation • Dewpoint better than  $-40^{\circ}\text{C}$  • Design Patented

Model	Flow cfm	End Connection BSP	Dimensions (mm)			Weight KGS	Recommended Accessories	
			H	W	D		Pre filter (1)	Post filter (2)
Dryspell 5	5	1/2"	390	280	200	9	G 24 P	G 24 Y
Dryspell 10	10	1/2"	600	280	200	11	G 24 P	G 24 Y
Dryspell 20	20	1/2"	1015	280	200	16	G 100 P	G 100 Y
Dryspell 30	30	1/2"	810	350	260	28	G 100 P	G 100 Y
Dryspell 45	45	1/2"	1055	350	260	34	G 100 P	G 100 Y
Dryspell 60 A	60	3/4"	1250	350	285	43	G 100 P	G 100 Y
Dryspell 100	100	1"	1540	415	300	81	G 250 P	G 250 Y

## DP Series

Designed and tested to provide 100% clean, dry, oil free compressed air at  $-40^{\circ}\text{C}$  atmospheric dew point, to safeguard your valuable pneumatic equipment. Available in 19 models to suit specific requirements. For pressures upto 70 bar and flow upto 10,000 cfm.



**Salient features :** • Extensive Mimic display with Electronic Controller • Energy saving purge economiser • Stainless Steel Filters Cartridges • Fabrication Code : IS 2825 • Dewpoint better than  $-40^{\circ}\text{C}$

**Optional :** • Fabrication Code : ASME SEC VIII DIV I • Dewpoint based changeover

Model	Inlet Flow cfm	End Connection	Dimensions (mm)			Weight Kg
			Height	Width	Depth	
DP - 192	114	1" BSP	2000	750	650	380
DP - 288	172	1" BSP	2050	750	650	440
DP - 384	229	1 1/2" BSP	2100	750	650	550
DP - 480	286	2" NB	1640	1200	1300	620
DP - 576	343	2" NB	1975	1200	1300	700
DP - 768	458	2" NB	1860	1200	1300	850
DP - 960	572	2" NB	2200	1200	1300	950
DP - 1440	860	3" NB	1925	1500	1500	1265
DP - 1920	1144	3" NB	2350	1500	1500	1575

• Operating voltage - 230 V AC 50 Hz 1 Ph.

## Coldspell

Designed and tested to provide 100% clean, dry, oil free compressed air at -23°C atmospheric dew point, to safeguard your valuable pneumatic equipment. Available in 17 models to suit specific requirements. For pressures upto 70 bar and flow upto 5000 cfm.

### Salient features :

- Microprocessor Controller • Anti Freezer • Anti Recycle Controller • Advanced 3 in 1 integral heat exchanger • Large condensor for high ambient temperatures






Model	Flow in cfm	Power Consumption in KW		End Connection	Dimensions in mm			Weight in Kg
		R 134a	R 407c		H	W	D	
Coldspell 20	20	0.36	–	1" BSP	530	450	475	55
Coldspell 40	40	0.36	–	1" BSP	530	450	475	55
Coldspell 50	50	0.36	–	1" BSP	530	450	475	55
Coldspell 60	60	0.36	–	1" BSP	530	450	475	55
Coldspell 80	80	0.85	–	1" BSP	700	490	525	70
Coldspell 100	100	0.85	–	1" BSP	700	490	525	70
Coldspell 150	150	1.02	–	1½" BSP	845	670	700	110
Coldspell 200	200	–	1.40	1½" BSP	845	670	700	130
Coldspell 250	250	–	1.40	1½" BSP	845	670	700	130
Coldspell 300	300	–	1.85	2" NB	1140	830	1080	240
Coldspell 400	400	–	2.10	2" NB	1140	830	1080	260
Coldspell 500	500	–	2.40	2" NB	1140	830	1080	290
Coldspell 650	650	–	3.30	2" NB	1090	1000	1280	350
Coldspell 800	800	–	4.00	3" NB	1120	1400	1500	490
Coldspell 1000	1000	–	4.80	3" NB	1120	1400	1500	580
Coldspell 1250	1250	–	5.20	4" NB	1120	1400	1500	620
Coldspell 1500	1500	–	6.00	4" NB	1200	1180	1730	900
Coldspell 2000	2000	–	8.00	6" NB	1200	1180	1730	1020

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

## 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



## Cleansweep

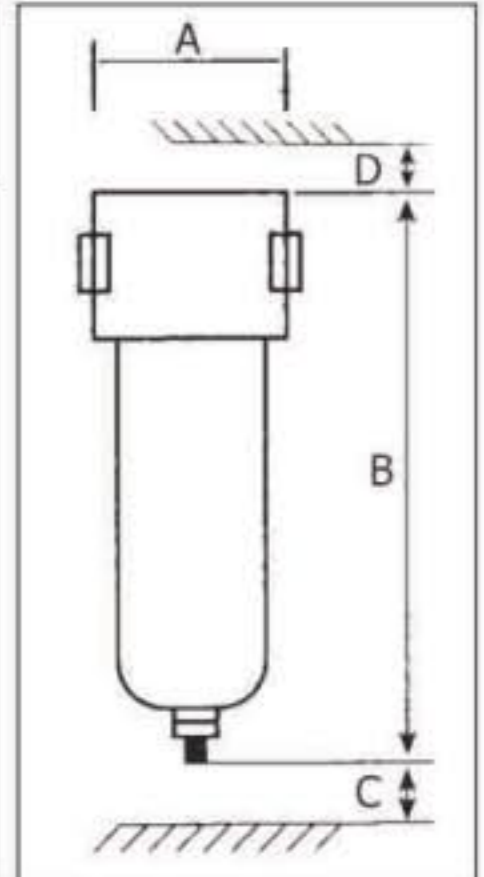
Contaminants in unfiltered compressed air eventually have disastrous effect on the end products. To increase the performance of pneumatic tools these contaminants need to be filtered periodically.

Oil and water are present both in liquid and vapour state. Coalescing filters with filter media (boro silicate micro glass fibres) remove Liquid contaminants.

### Salient features :

- Coalescing filters • Aluminium Pressure Die Cast Housing • Coloured Element • Differential Pressure Indicator / Gauge • Internal Drain / External Drain

Model	Element Grade	Drain Type	Pipe Size BSP/ NB	Flow Rate (scfm)	Max Working Pressure kg/cm <sup>2</sup>	Housing Dimensions (mm)				Weight (kgs)
						A	B	C	D	
G 24	P/X/Y/A	IA / EA	¼"	15	16	72	193	100	—	1
G 100	P/X/Y/A	IA / EA	½"	60	16	96	237	150	—	1.5
G 250	P/X/Y/A	IA / EA	1"	150	16	117	465	300	—	3.5
G 600	P/X/Y/A	IA / EA	1½"	350	16	117	530	425	—	4
G 851	P/X/Y/A	IA / EA	2"	500	16	170	722	480	—	10.5
G 1210	P/X/Y/A	IA / EA	2"	710	16	170	722	550	—	11
G 1810	P/X/Y/A	IA / EA	3"	1065	12	235	760	550	—	20
G 2200	P/X/Y/A	IA / EA	4" NB	1200	12	440	1325	—	800	75
G 2600	P/X/Y/A	IA / EA	4" NB	1500	12	650	1500	—	800	85
G 3400	P/X/Y/A	IA / EA	6" NB	2000	12	650	1500	—	800	85



\* Contact factory for high flowrate and pressure.

Description	Element Grade			
	P	X	Y	A
Filter Element	Borosilicate	Borosilicate	Borosilicate	Activated Carbon
Particle Removal	5 (Micron)	1 (Micron)	0.01 (Micron)	0.01 (Micron)
Max. Oil carryover	5 (mg/m <sup>3</sup> )	0.5 (mg/m <sup>3</sup> )	0.01 (mg/m <sup>3</sup> )	0.003 (mg/m <sup>3</sup> )

**Ordering Code : Example :** Model G 24 X EA (or) G 24 X IA

X - Element Grade ; EA - Drain Electro Adjustable ; IA - Drain Internal Automatic

## Compact Timer Drain - CTD Series

CTD is the culmination of years of manufacturing drains. It takes care of all problems normally associated with drains. The controller is now built of ultra reliable microcontroller and feature dual adjustment of both cycle and drain. The valve has a large orifice and special solenoid operator section to discharge dust.

Should the valve still get clogged you can service it without removing from the installation. Press the knob at the bottom of the valve to mechanically clear all the sludge. Electronically flush a few times and now it is fully serviced and ready for use.



**Salient features :** • Easy to mount at all locations • Maintain and clean drain valve without removing from service • On and Off timing adjustable • Large orifice for effective drain of dust and condensate • Design Patented

## Leveling Sensing Drains - LDV Series



Trident's condensate sensing type automatic drain valve is the latest advancement in drain valve technology. Instead of operating through cycle timer, these valves sense the condensate level for activation, ensuring absolutely no loss of compressed air and hence enormous energy saving. Trident condensate sensing type drain valves are highly efficient and reliable. These drain valves can be fitted directly on the equipment simply by replacing the manual drains.

**Salient features :** • Zero Air Loss • Noise Free • Condensate Sensing Type • Design Patented



**Our Mission :** To deliver quality compressed air.

**What we can offer :** A range of solutions to remove impurities in compressed air. Appropriate solutions to manage and reduce energy cost of compressed air.

**Quality :** In 19 years of global operation, Trident has established a strong market presence through its quality and reliable products. In addition to acquiring ISO 9001 : 2000 status, Trident has approved CE marking for its products. Company has adapted the six sigma process in developing products.

**Technology :** A dedicated team of R&D engineers strive to incorporate latest technology with special emphasis on making products energy efficient.

**Service :** World wide network of business associates and service outlets render prompt service.

#### Our Presence



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