

JINDAL ALUMINIUM LTD., BHIWADI UNIT, RAJASTHAN.

DATE : 10.02.2022

COMPARATIVE CHART / APPROVAL NOTE
SUB: 150 CFM AIR DRIER AND FILTERS
DEPARTMENT : MECHANICAL MAINTENANCE

SR. NO.	Description	UOM	QTY	SANPAR MICROFILTERS PVT. LTD., BANGALORE: MR. SANJAY - 9373982424		TRIDENT PNEUMATICS PVT. LTD., NOIDA: MR. PINKI CHAUHAN - 09910265907		DELAIR INDIA PVT. LTD., GURGOAN, MR. DEEPESH - 9599937061	
				Rate	Amount	Rate	Amount	Rate	Amount
1	Refrigerated air dryer , capacity - 150 CFM	NOS	1	90000.00	90000.00	99644.00	99644.00	145000.00	145000.00
2	Elgi make Pre-filter , Model no- PF 280 / Equivalent	NO	1	9800.00	9800.00	10550.00	10550.00	15000.00	15000.00
3	Elgi make fine filter , Model no- FF 280 / Equivalent	NO	1	10200.00	10200.00	10550.00	10550.00	17000.00	17000.00
TOTAL					110000.00		120744.00		177000.00
ADD : GST					19800.00		21733.92		31860.00
SUB TOTAL - 1				18%	129800.00		142477.92		208860.00
LESS : GST					19800.00		21733.92		31860.00
GRAND TOTAL					110000.00		120744.00		177000.00
TERMS & CONDITIONS :									
PRICE BASIS :					FOR - JAL BHIWADI		FOR - JAL BHIWADI		FOR - JAL BHIWADI
DELIVERY :					TWO WEEKS FROM THE DATE OF RECEIPT OF ORDER		ONE WEEK FROM THE DATE OF RECEIPT OF ORDER		WORK WILL BE COMPLETED IN ONE WEEK
PAYMENT :					7 DAYS CREDIT		7 DAYS CREDIT		100% AGAINST PROFORMA INVOICE BEFORE DISPATCH
WARRANTY					12 MONTHS FROM THE DATE OF RECEIPT OF MATERIAL		12 MONTHS FROM THE DATE OF RECEIPT OF MATERIAL		12 MONTHS FROM THE DATE OF RECEIPT OF MATERIAL

WE HAVE RECEIVED REQUISITION FOR PROCUREMENT OF REFRIGERATED AIR DRIER 150 CFM AND FILTERS. ENQUIRY SENT TO MANUFACTURERS, OFFERS RECEIVED, NEGOTIATED AND AFTER COMPARATION WE FOUND PRICE OFFERED BY M/S. SANPAR MICROFILTERS PVT. LTD. - BANGALORE RATES ARE COMPETITIVE.

HENCE APPROVAL REQUESTED TO RELEASE ORDER ON M/S. SANPAR MICROFILTERS PVT. LTD. - BANGALORE AT ABOVE PRICE, TERMS AND CONDITIONS.

RAJGOPAL SH. SM SH. AD SH. DKS SH. VR SH. DS SH. RKU PURC

delair®

The Compressed Air Treatment System Company

PURIFLAIR®

delair india pvt. ltd.

Head Office & Plant I: 21-C, Sector 18, Gurgaon 122015, Haryana, India
Phone: +91 124 4091111 • Fax: + 91 124 4091100
E-mail: delair@pahwa.com • Website: www.delairindia.com

FINAL Prices: The prices indicated below are exclusive of any taxes and duties and are ex-works, plant, Gurgaon.

Description	HSN Code	FINAL Prices
DELAIR Ref. Compressed Air Dryer FDI-290 A (170 CFM)	8479:89:20	Rs. 1,45,000/- each

Ordering Procedures: The order will require to be made out directly in favor of M/s.Delair India Pvt. Ltd., 21-C, Sector -18, Gurgaon - Haryana. Cheques / drafts for advance and other payments are to be made out directly in favor of Delair India Pvt. Ltd.

Terms and conditions:

- The above prices are Ex-works, Gurgaon.
- Packing and forwarding will be NIL
- GST will be extra @ 18% or as applicable at the time of dispatch.
- Delivery -2 weeks from the date of receipt of PO & advance.
- Payment: 40% advance along with Purchase Order & balance against Proforma Invoice prior to dispatch.
- Insurance to be arranged and borne by you.
- Freight extra as actual from GURGAON FACTORY to Site to be borne by you.
- Validity of this offer is 30 days from the date of this offer
- Warranty is 12 months from the date of commissioning or 18 months from date of supply whichever is earlier.
- Delair will do the commissioning on FREE OF COST

→ Pre filter - Rs. 15,000 ✓
 → Fine filter - Rs. 17,000 ✓

Yours faithfully,

For Delair India Pvt. Ltd.,

Deepesh Upadhyay
 National Sales Manager
 +91 124 4091130
 +91 9599937061
 dupadhyay@pahwa.com

*Discussed with
 Mr. Deepesh and
 agreed above
 rate*

(Signature)

CHECK LIST

DISCOUNT: *Rate as above*

POF: *Issued*

ED: *N/A*

CGST: *18% Excl. of*

IGST: *18% Excl. of*

100% *Against PI*
before dispatch.

FOR: *JOLBNPL*

Warranty: *one year*

DELIVERY: *Two weeks*

delair[®]

The Compressed Air Treatment System Company

PURIFLAIR[®]**delair india pvt. ltd.**Head Office & Plant I: 210, Sector 18, Gurgaon 122015, Haryana, India
Phone: +91 124 4091111 • Fax: +91 124 4091100
E-mail: delair@pahwa.com • Website: www.delairindia.com**REFRIGERATED - FDI SERIES - TECHNICAL SPECIFICATIONS**

Make	Delair → <i>Weatherland Now Indian</i>
Model	FDI-290 A/170 CFM
INLET Capacity	140 CFM ✓ <i>compressor capacity</i>
Design Standards	IS:2825 Class II, TEMA C
Material of Construction- Plate / Pipe / Tube	IS:2062 / IS:3589 & IS:1239 / SS-304 & COPPER
Working Pressure	7.0 BAR(G)
Design Pressure	8.0 BAR(G)
Pneumatic Test Pressure	9.0 BAR(G)
Air Inlet Conditions	
Inlet Temperature	50 °C (Max.)
Ambient Temperature	45 °C
Relative humidity	100%
Air Outlet Conditions	
Temperature	<8-10°C From Inlet Temp.
Pressure dew point temp	+3 - 4°C
Pressure drop	~0.15 BAR(G)
Air Inlet/Outlet Connections	1" BSP
Power Supply	220 V AC / 1PH / 50Hz
Total Power Consumption	~0.85 Kw
Dryer Dimensions (L x W x H)	1100 x 465 x 930 (APPROX.)
Approx. weight of drier	270 Kg. (APPROX.)
Details Of Refrigerant Compressor	
Make	Danfoss/ELERSON
Type	Hermetically Sealed, Reciprocating Compressor
Refrigerant Gas	R-134 a
Power Consumption	0.75 Kw
Details Of Safety Interlocks	
High Pressure Cutout Switch	Yes

*Comp
150 CFM*Plant II: Puriflair, 22, GIDC Estate, Makarpura, Vadodara 390010, Gujarat, India • Phone: +91 265 868/666
Fax: (91-265) 2638770 • E-mail: puriflair@pahwa.com
Regd. Office: 20, Rajpur Road, Delhi 110054, India • Phone: +91 11 23906660 • Fax: +91 11 23906600
E-mail: enquire@pahwa.com • CIN U24111DL1988PTC034228
Branch Offices: Gurgaon • Kolkata • Chennai • Mumbai • Vadodara**PAHWA GROUP**
Innovation is life

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E-mail: delair@pahwa.com - Website: www.delairindia.com

REF: DAI/HO-DU/0201/JAL-RJ/2021-22	Dated: 24/01/2022
M/s. JINDAL ALUMINIUM LTD SP 2/333 ,INDUSTRIAL AREA , BHIWADI -301019 ,ALWAR (RJ) ,India	Mob :9611195368
Kind Attn: - Mr. RAJGOPAL C SARDA (Asst MANAGER -PURCHASE) Email : rajgopal@jindalaluminium.com	

Sub. : FINAL Competitive Offer for Delair Refrigerated Type Compressed Air Dryer.

Dear Sir,

This refers to your email inquiry regarding above-mentioned subject. we thank you very much for the interest shown in our dryers.

We are pleased to introduce ourselves as a sister concern of M/s. Bry Air Asia Pvt. Ltd., (Leaders in Chemical Dehumidifiers) leading manufacturers for Compressed Air Dryers Delair India Pvt. Ltd. manufactures of Compressed Air Dryers and other allied products such as Air Receivers, Air Filters, After Coolers and Moisture Separators are pioneers in this field and have already supplied more than 40000 units all over India and abroad.

In line with the same, your Requirement of 150 cfm capacity of Refrigerated Type Compressed Air Dryer at an operating pressure of 7.0 BARG and the inlet temperature considered as 45 °C & ambient temp of 45 Degree C . For this requirement of yours, we are pleased to offer you Delair Refrigerated Type Compressed Air Dryer Model FDI -290 A having capacity of 170 cfm equipped with Delsmart Card

Please find enclosed our offer for the above recommended models along with literature and also some salient features of Delair Refrigerated Type Compressed Air Dryer for your ready reference.

We hope you will find the above in line with your requirement and shall favor us with your valued purchase order.

Thanking you and assuring you of our best services at all times.

Yours faithfully,
For Delair India Pvt. Ltd.,

Deepesh Upadhyay
National Sales Manager
+91 124 4091130
+91 9599937061
dupadhyay@pahwa.com

“Think of dry air, Think of delair”

Plant II: Puriflair, 22, GIDC Estate, Makarpura, Vadodara 390010, Gujarat, India - Phone: +91 265 6567666
Fax: (91-265) 2638770 - E-mail: puriflair@pahwa.com
Regd. Office: 20, Rajpur Road, Delhi 110054, India - Phone: +91 11 23906666 - Fax: +91 11 23906600
E-mail: enquire@pahwa.com - CIN U24111DL1988PTC034228
Branch Offices: Gurgaon - Kolkata - Chennai - Mumbai - Vadodara

PAHWA GROUP
Innovation is life



**REFRIGERATED AIR DRYER
CAT-D1-42A
TECHNO-COMMERCIAL PROPOSAL**

Technical Specifications

5 Commercial Proposal

M/s. Sanpar Microfilters Pvt Ltd.
B'ware.

M/s. Sanpar - 9373982424

Offer Number: SMPL/SAL/OF/27/27797				Offer Date: 17/01/2022		
Customer Details: Jindal Aluminium Limited SP-2/333, Industrial Area, Bhiwadi Dist Alwar-301019						
Sl. No	Product Code	Product Description	HSN Code	Qty	Rate (INR)	Amount (INR)
1	CAT-D1-42A	Refrigerated Air Dryer	84193900	1	1,28,000.00	1,28,000.00
2	CAT-M1.2-50 PF	Pre-Filter with SID	84193900	1	13,900.00	13,900.00
3	CAT-M1.2-50 FF	Fine Filter with MD	84193900	1	14,500.00	14,500.00
					Basic Price: 1,56,400.00	
In Words: One Lakh Fifty Six Thousand Four Hundred Rupees Only.						
Best Regards Kavan Mob:7349142424				For SANPAR MICROFILTERS PVT LTD <i>Final Rate</i> Rs, 1,10,000/-		
						Authorized Signatory

CHECK LIST

DISCOUNT: *ed Rate as above*

TAX: *For cl.*

EXTRA: *N.A.*

WARRANTY: *18% Extra*

WARRANTY PERIOD: *7 days from the date of Receipt*

WARRANTY TYPE: *FOR - JAL BWD. Material*

WARRANTY DURATION: *one year*

WARRANTY COVERAGE: *Two weeks*

*Discussed with
Sanpar and agreed
above rate*

08/02/22



**REFRIGERATED AIR DRYER
CAT-D1-42A
TECHNO-COMMERCIAL PROPOSAL**

**Commercial
Proposal**

5.1 Terms and Conditions

Price

Ex works, Bangalore

Packing & Forwarding:

Extra @3% on the basic price

DELIVERY:

1-2 week from the confirmed purchase order.

GST

Extra@18%

PAYMENT TERMS:

100% Against Proforma Invoice

WARRANTY:

The equipment's supplied by SANPAR shall be warranted against any manufacturing defects or poor workmanship for a period of 12 months from the date of supply.

VALIDITY:

Validity of our offer is for 30 days from the date of this offer.

FREIGHT

Extra on to pay basis

LIMITATION OF LIABILITY

Notwithstanding anything, to the contrary in this Agreement, the Purchase Order, or any other mutually agreed document between the parties, the maximum liability for damages of the Contractor/Supplier, its servants or agents, shall under no circumstances exceed an amount equal to the Agreement or the Purchase Order Price. The Contractor/Supplier shall not in any case be liable for loss of profit or special, punitive, exemplary, indirect, or consequential losses whatsoever.

SMPL/SAL/OF/27/27797

Offer Date: 17/01/2022



**REFRIGERATED AIR DRYER
CAT-D1-42A
TECHNO-COMMERCIAL PROPOSAL**

**Technical
Specifications**

4.3 TECHNICAL SPECIFICATIONS OF FILTER

SANPAR air filters are designed to effectively protect the downstream equipment's and prevent contaminants such as dust and oil vapors. The filter housing is powder coated internally and externally to protect against corrosion and scratches. The filter is also aerodynamically designed to minimize pressure drops.

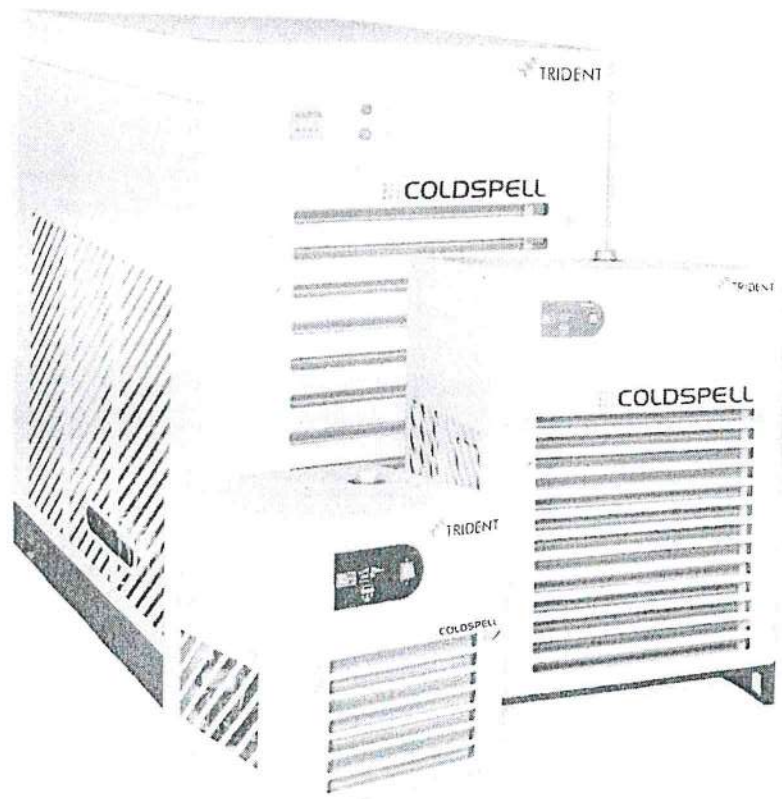
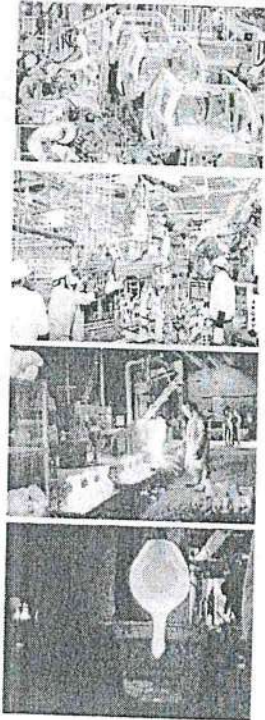
The filter elements are manufactured inhouse and quality tested to ensure consistent performance.

PRE-FILTER

Pre-Filter uses coarse filter element capable of removing dust particles of size 3 microns. It uses particulate filtration technology to achieve an efficiency of 99.99%.



SR NO.	DESCRIPTION	UNITS	SANPAR
1.1	Make / Model		SANPAR/ CAT-M1.2-50 PF
1.2	Max. flow rate	cfm	150
1.3	Working pressure.	Bar(g)	7
1.4	Max. Air inlet temperature	°C	45
1.5	Micron Rating	micron	3
1.6	Filter Element Material		Pleated Cellulose Acetate
1.7	Filter Housing M. O. C.		Aluminum Die Cast
1.8	Filter End connections	BSP	2"
2	ACCESSORIES		
2.1	'SANPAR' Internal Drain		SID



- Large condenser for high ambient temperatures
- Microprocessor based controller
- Anti-recycle feature for compressor protection
- Low pressure drop across advanced heat exchangers saves energy
- The dryers have been designed for nominal standard inlet conditions as per ISO 7183 - 2007
- Dryer Quality class - ISO 8573 - 1 : 2010 (E) class -5-



Refrigeration Compressed Air Dryer
Coldspell

Specification of Dryer

Model	Item Code	Flow in scfm	Power consumption (KW) R134a/R407c	End connection	Dimension (mm)			Weight (kg)	Recommended Pre Filter** 5 Micron	Recommended Post Filter**	
					H	W	D			1 Micron	0.01 Micron
Coldspell 20	PH191	20	0.32	¾" BSP	420	400	430	38	T100PEA	T100XIA	T100YIA
Coldspell 40	PH192	40	0.34	1" BSP	525	450	475	48	T100PEA	T100XIA	T100YIA
Coldspell 50	PH193	50	0.36	1" BSP	525	450	475	48	T100PEA	T100XIA	T100YIA
Coldspell 60	PH194	60	0.36	1" BSP	525	450	475	48	T100PEA	T100XIA	T100YIA
Coldspell 80	PH195	80	0.85	1" BSP	675	485	525	65	T250PEA	T250XIA	T250YIA
Coldspell 100	PH196	100	0.85	1" BSP	675	485	525	65	T250PEA	T250XIA	T250YIA
Coldspell 150	PH197	150	1.02	1½" BSP	860	670	700	123	T250PEA	T250XIA	T250YIA
Coldspell 200	PH198	200	2.08/2.34	1½" BSP	860	670	700	129	T600PEA	T600XIA	T600YIA
Coldspell 250	PH199	250	2.08/2.34	1½" BSP	860	670	700	129	T600PEA	T600XIA	T600YIA
Coldspell 300	PH169	300	2.4/2.4	2" NB	1275	850	800	240	T600PEA	T600XIA	T600YIA
Coldspell 400	PH170	400	2.5/2.3	2" NB	1275	850	800	260	T851PEA	T851XIA	T851YIA
Coldspell 500	PH171	500	2.5/2.3	2" NB	1275	850	800	290	T851PEA	T851XIA	T851YIA
Coldspell 650	PH186	650	3.12/3.32	2" NB	1700	1100	1425	350	T1210PEA	T1210XIA	T1210YIA
Coldspell 800	PH187	800	5.3/4.8	3" NB	1700	1100	1425	490	T1810PEA	T1810XIA	T1810YIA
Coldspell 1000	PH188	1000	4.72/4.8	3" NB	1700	1100	1425	580	T1810PEA	T1810XIA	T1810YIA
Coldspell 1250	PH189	1250	5.63/5.12	4" NB	1700	1100	1425	620	T2200PEA	T2200XIA	T2200YIA
Coldspell 1500	PH190	1500	6.21	4" NB	1700	1100	1425	900	T2600PEA	T2600XIA	T2600YIA
Coldspell 2000	PH202	2000	8.00	6" NB	1700	1100	1450	1020	T3400PEA	T3400XIA	T3400YIA

For any other capacity contact factory. Specifications are subject to change without notification. Max. Pressure = 16 bar.

*Note : Coldspell 20 - Coldspell 500 = R 134A, Coldspell 650 to Coldspell 2000 = R 407C **To be ordered separately.

Air cooled Temperature = Ambient temperature.

Water cooled Temperature : 32°C max


How to Order

Requirement :	Inlet flow	100 scfm
	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	Flow	= 100
required :	Pi x Ti x Ta	0.84 x 1 x 1
		= 119 scfm
Choose the nearest higher model :		= Coldspell 150

Correction Factor


Air Inlet Temperature °C	30	38	45	50	55	60
Correction Factor (Ti)	1.14	1.08	1.0	0.75	0.63	0.5
Ambient Temperature °C	25	30	38	43		
Correction Factor (Ta)	1.36	1.18	1.0	0.86		
Inlet Pressure Kg/cm ²	3	5	7	9	12	
Correction Factor (Pi)	0.6	0.84	1.0	1.11	1.21	

Rated near option B as per standard ISO 7183 - 2007



Our Other Range of Products

- Timer based Auto Drain Valve • Level Sensing Auto Drain Valve • Desiccant Dryer (Heatless) • Desiccant Dryer (Heated) • Oxygen & Nitrogen Generators • Flex Dryer



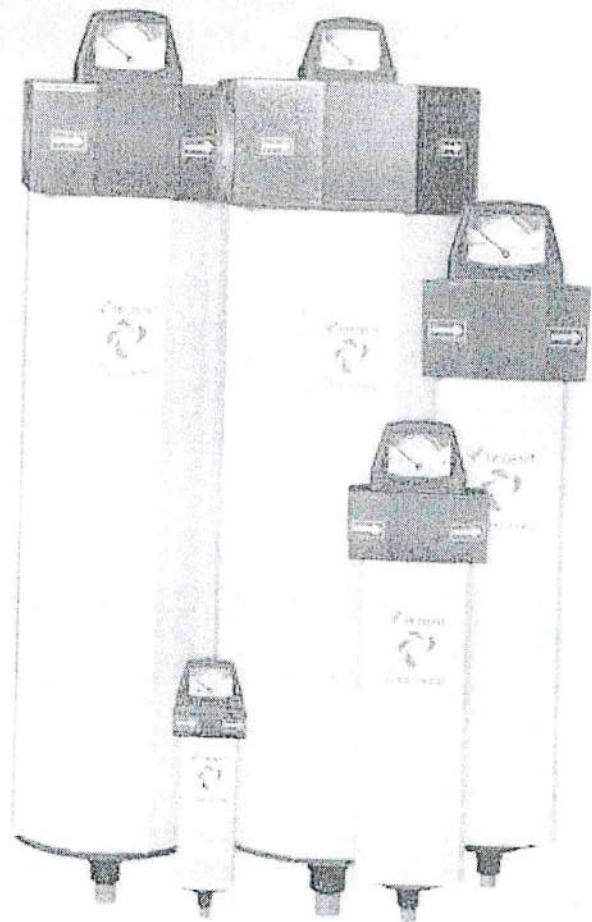
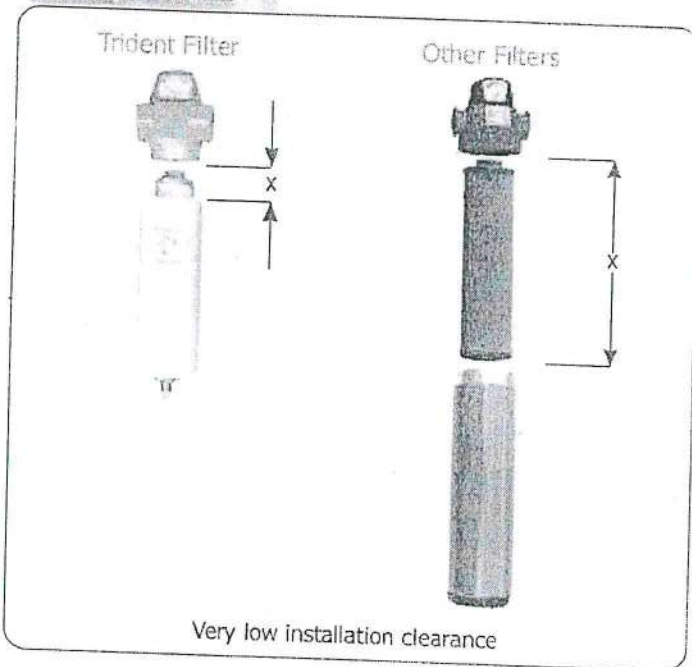
Trident Pneumatics Pvt Ltd



Add. : The Technology Centre, B-8, Sector-64, Noida 201301 (U.P.)

E-mail : sales@t17@gmail.com, technologycentre17@gmail.com

Phone : 91-9910265907, 9911108941



- Very low installation clearance - Install anywhere
- Oil Removal (Coalescing) and Particulate
- Flow from 60 cfm to 1065 cfm
- Particle Removal 0.01 (μm)
- Max. Oil carryover 0.003 (mg/m^3)



Submicron Filters

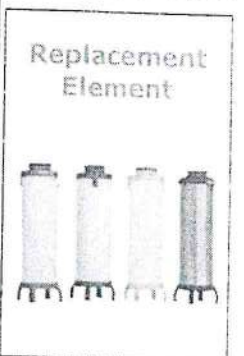
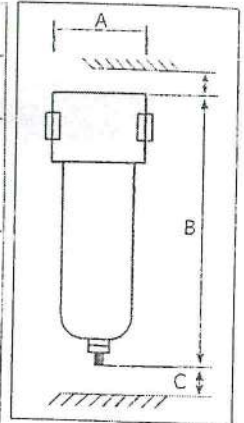
Cleansweep

Working Principle

Coalescing is a continuous natural process in which oil and water particles that pass through the filter element come into contact with a fibre strand and unite with other collected aerosole to form droplets. The droplets fall to the bottom of the housing and are drained away.

Technical Data

Model	Element Grade	Item Code		Pipe Size BSP	Flow Rate (sclm)	Max Working Pressure (kg/cm ²)	Housing Dimensions		
		(EA) Drain Type	(IA) Drain Type				A	B	C
T 100	P X Y A	PF149 PF149A PF149B PF149C	PF150 PF150A PF150B PF150C	1/2"	60	16	92	233	50
T 250	P X Y A	PF129 PF129A PF129B PF129C	PF128 PF128A PF128B PF128C	1"	150	16	114	326	50
T600	P X Y A	PF131 PF131A PF131B PF131C	PF130 PF130A PF130B PF130C	1 1/2"	350	16	118	420	50
T851	P X Y A	PF167 PF167A PF167B PF167C	PF163 PF163A PF163B PF163C	2"	500	16	145	580	50
T1210	P X Y A	PF177 PF177A PF177B PF177C	PF164 PF164A PF164B PF164C	2"	710	16	145	580	50
T1810	P X Y A	PF170 PF170A PF170B PF170C	PF165 PF165A PF165B PF165C	3"	1065	12	190	700	50



Ordering Code : **Examble** : Model T100 X EA (or) T100 X IA X - Element Grade ; IA - Internal Automatic float drain.

Specification

Description	Element Grade			
	P	X	Y	A
Filter Element	Borosilicate	Borosilicate	Borosilicate	Activated Carbon
Construction Material (T100 - T1810)	Extruded Aluminium Alloy	Extruded Aluminium Alloy	Extruded Aluminium Alloy	Extruded Aluminium Alloy
Coating - External	Epoxy Powder Coating	Epoxy Powder Coating	Epoxy Powder Coating	Epoxy Powder Coating
Particle Removal	5 (µm)	1 (µm)	0.01 (µm)	0.01 (µm)
Max. Oil carryover	5 (mg/m ³)	0.5 (mg/m ³)	0.01 (mg/m ³)	0.003 (mg/m ³)
Max. Working Temp.	80°C	80°C	80°C	80°C
Initial Pressure Loss	0.03 (kg/cm ²)	0.06 (kg/cm ²)	0.1 (kg/cm ²)	0.06 (kg/cm ²)
Pressure Drop for Element Change	0.2 (kg/cm ²)	0.2 (kg/cm ²)	0.2 (kg/cm ²)	0.2 (kg/cm ²)
Element End Cap Colour	Green	Red	Yellow	Black

Our Other Range of Products

- Timer based Auto Drain Valve
- Level Sensing Auto Drain Valve
- Desiccant Dryer (Heatless)
- Desiccant Dryer (Heated)
- Refrigeration Dryers
- Oxygen & Nitrogen Generators
- Flex Dryer



Add : The Technology Centre, B-8, Sector-64, Noida-201301 (UP)
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