

# SBX Series

## Direct Expansion Refrigerated Air Dryers



### WHY DRY AIR?

Moisture naturally exists in our atmosphere in the form of water vapor. This same moisture is present throughout a compressed air system unless the air is treated to remove the moisture.

The amount of water that can enter a compressed air system is substantial. For example, if inlet air conditions are 75°F and 75% relative humidity, about 6 gallons of water vapor will enter the air system with each 100 scfm of air compressed within 8 hours. If the air is compressed to 175 psig and then cooled back to 75°F, 5.4 gallons of this water vapor will condense into a liquid.

Dry air adds to productivity by saving maintenance and repair costs on pneumatic equipment. It reduces the possibility of airline rust or freeze-up, eliminates paint blemishes caused by water, and reduces product contamination.

Saylor-Beall SBX Direct Expansion Refrigerated Air Dryers are designed and manufactured to efficiently remove moisture from compressed air and assure a reliable supply of dry air.



### FEATURES & BENEFITS



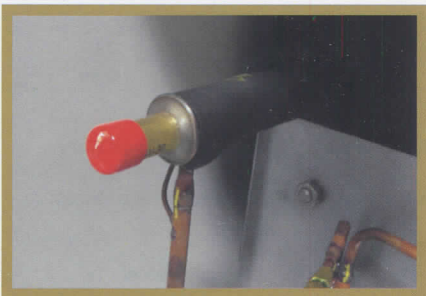
#### Stainless Steel Heat Exchanger

With a patented design, corrosion resistant construction and integrated moisture separator, the large surface area heat exchanger is truly unique and efficient.



#### CAREL Microprocessor

Functionality monitoring text display includes power on, dew point temperature, drain operation and manual override.



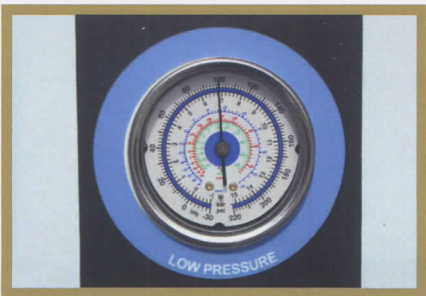
#### Automatic Expansion Valve

The TXV ensures stable dew point performance even in changing ambient conditions.



#### Easy Installation and Start-up

Small footprint, lightweight and ready to go out of the box



#### Refrigerant Gauge Standard

Refrigerant gauge is located above the controller for ease of troubleshooting.



#### Adjustable Timer Drain Standard

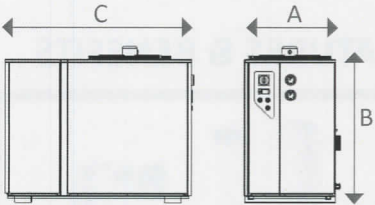
Timed solenoid drain is fully adjustable and extremely reliable.

[www.saylor-beall.com](http://www.saylor-beall.com)

PRODUCT SPECIFICATIONS

Model	Inlet & Outlet <sup>(1)</sup>	Rated Flow <sup>(2)</sup>	Absorbed Power <sup>(3)</sup>		Dimensions (inches)			Approx. Weight	Power Supply (V/Ph/60Hz) <sup>(4)</sup>		
	NPT/FLG	scfm	Nm <sup>3</sup> /h	kW	A	B	C	lbs	115/1	230/1	460/3
SBX 0015	½"	15	24	0.22	15	18	17	55	●		
SBX 0020	½"	20	32	0.23	15	18	17	62	●		
SBX 0030	½"	30	48	0.24	15	18	17	70	●		
SBX 0045	½"	45	72	0.25	15	18	17	77	●		
SBX 0055	¾"	55	88	0.47	15	20	19	84	●		
SBX 0085	¾"	85	136	0.49	15	20	19	92	●		
SBX 0110	1"	110	177	0.92	16	29	26	143	●		
SBX 0135	1"	135	217	0.92	16	29	26	143	●		
SBX 0175	1½"	175	281	0.96	16	29	26	152	●		
SBX 0215	1½"	215	345	0.94	16	34	30	196		●	
SBX 0250	1½"	250	401	1.05	16	34	30	222		●	
SBX 0250	2"	250	401	1.47	18	47	35	253			●
SBX 0340	2"	340	546	1.47	18	47	35	253		●	●
SBX 0470	2"	470	754	2.50	18	47	35	297			●
SBX 0550	2½"	550	883	2.60	18	47	35	319			●
SBX 0725	2½"	725	1164	3.46	18	47	35	397			●

Specifications											
design operating pressure range					0 to 232 psig						
maximum inlet temperature					158°F						
maximum ambient temperature					110°F - 122°F depending on refrigerant (contact support for details)						



Pressure Correction Factors <sup>(5)</sup>													
inlet air pressure (psig)	58	72	87	100	115	130	145	160	175	190	204	218	232
correction factor	0.72	0.82	0.92	1.00	1.06	1.09	1.11	1.15	1.18	1.19	1.21	1.23	1.26

Inlet Temperature Correction Factors <sup>(5)</sup>														
inlet air temperature (°F)	85	90	95	100	105	110	115	120	125	130	135	140	145	155
correction factor	1.27	1.19	1.09	1.00	0.91	0.78	0.71	0.63	0.56	0.52	0.48	0.44	0.40	0.33

Ambient Temperature Correction Factors <sup>(5)</sup>						
ambient temperature (°F)	70	80	90	100	105	110
correction factor	1.18	1.16	1.06	1.00	0.96	0.90

- (1) ½" to 2 ½" are NPT threaded connections.
- (2) Rated flow capacity: conditions for rating dryers are in accordance with ISO7183 (Option A2). Compressed air at dryer inlet: 100 psig (7 bar) and 100°F (38°C); ambient air temperature: 100°F (38°C); operating on 60Hz power supply.
- (3) Nominal absorbed power at rated operating conditions using 115/1/60 or 460/3/60 power supply (as applicable). For absorbed power at other voltages or conditions, contact sales@saylor-beall.com
- (4) Specify voltage requirements when ordering. For 575V applications, contact sales@saylor-beall.com for assistance.
- (5) To be used as a rough guide only. All applications should be confirmed by sizing software. Contact sales@saylor-beall.com for sizing assistance.

\*2 year warranty with pre-filtration and non-corrosive piping system installed.

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