Your benefits with Deltech® Smard refrigerant dryers

Low energy consumption

Fast responding dew point

Easy access, low maintenance requirements

Operational reliablity: high quality components and workmanship

Standard models of the Smard refrigerant compressed air dryers		SC 10-SC 30	43-195	242-288	468-612	900-1440	1800-2880
Medium	: Compressed air	•	•	•	•	•	•
Housing	: Steel	•	•	•	•	•	•
Colour	: RAL 9002 (white) powder coated	•	•	•	•	•	•
Inlet and outlet	: On top	-	•	-	-	-	-
	: On rear	•	-	•	•	•	•
	: Bypass	❍	❍	❍	❍	❍	❍
Refrigerant	: R134a	•	•	•	•	•	❍
	: R404A	-	-	-	-	-	•
Cooling	: Air cooled	•	•	•	•	•	❍
	: Water cooled	-	-	❍	❍	❍	•
Location	: Indoors	•	•	•	•	•	•
IP rating	: IP 44	•	•	•	•	•	•
	: IP 54	-	❍	❍	❍	❍	❍
Dew point indication	: Analog	•	•	-	-	-	-
	: Digital	-	❍	-	-	-	-
	: Digital with alarm lamp	-	-	•	•	•	•
	: Digital with potential free alarm contact	-	❍	❍	❍	•	•
	: Digital indication of evaporating temperature, air intake temperature, condensing temperature	-	-	❍	❍	❍	•
Condensate drain	: Time controlled condensate drain	•	•	•	•	•	-
	: Level controlled condensate drain, type: Beko-mat®	-	❍	❍	❍	❍	•
Power supply	: 230V 1 phase 50Hz	•	•	•	-	-	-
	: 400V 3 phases 50Hz	-	-	-	•	•	•
	: Alternative power supplies	❍	❍	❍	❍	❍	❍

• standard
❍ optional
- not applicable

Options may vary per country.

Design data	Min	Design	Max	SC 10-SC 30	43-195	242-288	468-612	900-1440	1800-2880
Inlet pressure*	2 bar(g)	7 bar(g)	16 bar(g)	•	•	•	•	•	•
Inlet temperature*	+2°C	+35°C	+55°C	•	•	•	•	•	•
Ambient temperature*	+2°C	+25°C	+45°C	•	•	•	•	•	❍
Cooling water temperature*	+5°C	+25°C	+45°C	-	-	-	❍	❍	•

* Use the multipliers when the conditions are different from the design conditions. Refer to the table on the other side of this page.

Deltech® refrigerant compressed air dryers prefer a Deltech® PF prefilter and a Deltech® HF afterfilter.

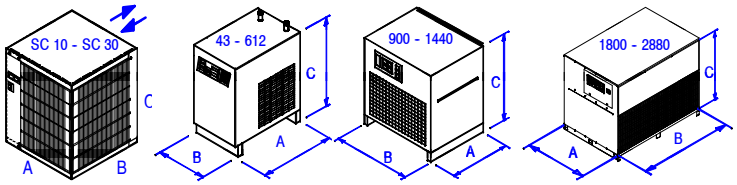
Flair also issues a computer program capable of making the selection for you.

20 bar(g) inlet pressure or 50°C ambient temperature on request

Model	Capacity	Dimensions			Weight	Connection	Noise level	Cooling		Power consumption	
	*	A	B	C				air	water	air	water
	m^3/h	mm	mm	mm	kg		dB(A)	m^3/h	m^3/h	kW	kW
Smard SC 10	**30**	321	321	404	20	R $^3/_8$	45	-	-	0.17	-
Smard SC 18	**60**	448	478	579	34	R $^3/_4$	51	-	-	0.28	-
Smard SC 24	**80**	448	478	579	36	R $^3/_4$	53	-	-	0.35	-
Smard SC 30	**100**	448	478	579	40	R $^3/_4$	53	-	-	0.43	-
Smard 43	**144**	637	540	715	55	R 1	< 60	800	-	0.56	-
Smard 54	**180**	637	540	715	66	R 1	< 60	800	-	0.56	-
Smard 69	**230**	637	540	715	85	R 1	< 60	800	-	0.70	-
Smard 83	**276**	637	540	715	89	R 1	< 60	800	-	0.70	-
Smard 113	**376**	854	540	940	95	R $1^1/_4$	< 70	1400	-	0.90	-
Smard 141	**471**	854	540	940	99	R $1^1/_4$	< 70	1400	-	0.90	-
Smard 168	**560**	854	540	940	145	R 2	< 70	1400	-	1.00	-
Smard 195	**650**	854	540	940	162	R 2	< 70	1400	-	1.00	-
Smard 242	**805**	940	697	1266	179	R $2^1/_2$	< 69	2800	0.60	2.10	1.80
Smard 288	**960**	940	697	1266	179	R $2^1/_2$	< 69	2800	0.70	2.10	1.80
Smard 468	**1560**	1375	857	1442	290	R $2^1/_2$	< 80	5000	1.20	3.40	3.00
Smard 540	**1800**	1375	857	1442	340	R $2^1/_2$	< 80	5000	1.40	4.10	3.70
Smard 612	**2040**	1375	857	1442	340	R $2^1/_2$	< 80	5000	1.50	4.10	3.70
Smard 900	**3000**	1200	1660	1553	492	DN 100	< 80	10000	2.10	6.90	6.20
Smard 1170	**3900**	1200	1660	1553	534	DN 100	< 80	10000	2.80	7.60	6.90
Smard 1440	**4800**	1200	1660	1553	680	DN 100	< 80	10000	3.30	7.80	7.00
Smard 1800	**6000**	1350	2050	1624	1500	DN 150	< 80	15000	4.40	12.6	11.4
Smard 2160	**7200**	1350	2050	1624	1600	DN 150	< 80	-	5.40	-	15.2
Smard 2520	**8400**	1350	2050	1624	1700	DN 150	< 80	-	6.50	-	20.0
Smard 2880	**9600**	1350	2050	1624	1800	DN 150	< 80	-	7.20	-	20.0

* Larger capacities on request

The capacity of the dryer is based on the intake volume of the air compressor at 20°C, 1 bar(a)
Wydajność osuszacza odnosi się do stanu sprężarki na ssaniu przy 20°C, 1 bar (a)



The following data needs to be used to convert the inlet air conditions to the required dryer capacities.

Capacity correction (FP) for different inlet pressures in bar(g)

bar(g)	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Smard SC 10 - Smard SC 30	0.70	0.80	0.87	0.92	0.96	1.00	1.03	1.05	1.07	1.08	1.10	1.11	1.12	1.13	1.14
Smard 43 - Smard 2880	0.62	0.72	0.82	0.90	0.96	1.00	1.04	1.07	1.10	1.13	1.15	1.17	1.19	1.20	1.21

Multiplier (FTL) for different ambient air and cooling water temperatures in °C

	Air cooled					Water cooled				
°C	+25	+30	+35	+40	+45	+25	+30	+35	+40	+45
Smard SC 10 - Smard SC 30	1.00	1.00	1.00	1.00	1.00	-	-	-	-	-
Smard 43 - Smard 2880	1.00	0.92	0.85	0.78	0.72	1.00	0.94	0.88	0.84	0.80

Capacity correction (FTI) for different inlet temperatures in °C

°C	+25	+30	+35	+40	+45	+50	+55
Smard SC 10 - Smard 2880	1.60	1.24	1.00	0.82	0.69	0.59	0.50

Example

Air volume (V1) at dryer inlet : 600 m^3/h
Inlet pressure : 8 bar(g)
Inlet temperature : +40°C
Ambient temperature : +30°C
V2 : Required dryer capacity, corrected for 35°C, 7 bar(g)

Calculation:

$$V2 = \frac{V1}{FP * FTL * FTI} = \frac{600}{1.04 * 0.92 * 0.82} = \mathbf{765\ m^3/h}$$

Dryer model Smard 242 is suitable.

Deltech

Your Flair distributor is: