

Your Benefits with Smard Refrigerated Dryers



- **Low energy demand**
- **Non-corrosive air circuit of copper and high-grade steel**
- **Powder-coated steel construction**
- **Unique heat exchange technology**



Smard Refrigerated Dryers		SC 5-30	MRD 47-53	MRD 80	MRD 105-273	MRD 333-400	MRD 500
Medium	: Compressed air	Standard	Standard	Standard	Standard	Standard	Standard
Housing	: High-grade steel plate	Standard	Standard	Standard	Standard	Standard	Standard
Color - panel	: RAL 9001 (white) powder-coated	Standard	Standard	Standard	Standard	Standard	Standard
Color - frame	: Gray, powder-coated	Standard	Standard	Standard	Standard	Standard	Standard
Inlet and outlet	: Right (inlet) & rear-side (outlet)	---	Standard	Standard	Standard	Standard	---
	: Left	---	---	---	---	---	Standard
	: Rear-side	Standard	---	---	---	---	---
	: Bypass	Option	Option	Option	Option	Option	Option
Refrigerant	: R134a	Standard	Standard	---	---	Standard	---
	: R404	---	---	---	---	---	Standard
	: R407c	---	---	Standard	Standard	---	---
Condenser	: Air cooled	Standard	Standard	Standard	Standard	Standard	Standard
	: Water cooled	---	---	---	---	Option	Option
Heat exchanger	: Tubes of copper	Standard	---	---	---	---	---
	: High-grade steel plates	---	Standard	Standard	Standard	Standard	Standard
Installation	: Indoors	Standard	Standard	Standard	Standard	Standard	Standard
IP rating	: IP 23	Standard	Standard	Standard	Standard	---	---
	: IP 44	---	---	---	---	Standard	Standard
Dew point indication	: Analog indicator	Standard	Standard	Standard	---	---	---
	: Digital LED	---	---	---	Standard	Standard	Standard
	: Digital with warning light	---	---	---	Standard	Standard	Standard
	: Digital with potential-free alarm contact	---	Option	Option	Option	Standard	Standard
Condensate drain	: Time controlled	Standard	Standard	Standard	---	---	---
	: X-Drain level controlled, electronic	---	Option	Option	Standard	Standard	Standard
Power supply	: 230V 1 phase 50 Hz	Standard	Standard	Standard	Standard	---	---
	: 400V 3 phases 50 Hz	---	---	---	---	Standard	Standard
	: Other operating voltages on request	Option	Option	Option	Option	Option	Option

Standard equipment and options show country specific differences.

Design data *	Min.	Design	Max.	SC 5-30	MRD 47-53	MRD 133-266	MRD 333-400	MRD 500
Inlet pressure	2 bar(ü)	7 bar(ü)	16 bar(ü)	Standard	Standard	Standard	Standard	Standard
Inlet temperature	+4 C	+35 C	+49 C	Standard	Standard	Standard	Max +55 C	Max +55 C
Ambient temperature	+7 C	+25 C	+43 C	Standard	Standard	Standard	Max +45 C	Max +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.

Model	Capacity m³/h		Connection BSP	Dimensions (mm)			Weight kg	Supply voltage V/ph/hz	Power consumption kW
	Tp +3°C	Tp +7°C		height	width	depth			
Smard SC series									
Smard SC 5	20	---	3/8	382	320	320	19	230/1/50	0,24
Smard SC 10	30	---	3/8	382	320	320	19	230/1/50	0,24
Smard SC 18	60	---	3/4	568	368	394	28	230/1/50	0,34
Smard SC 24	80	---	3/4	568	368	394	30	230/1/50	0,42
Smard SC 30	100	---	3/4	568	500	500	41	230/1/50	0,58
Smard MRD series									
Smard 47	140	155	1	601	363	861	50	230/1/50	0,55
Smard 53	160	175	1	601	363	861	53	230/1/50	0,60
Smard 80	240	265	1	601	363	921	58	230/1/50	1,04
Smard 105	315	345	2	761	443	971	72	230/1/50	1,33
Smard 120	360	395	2	761	443	971	78	230/1/50	1,59
Smard 157	470	515	2	761	443	971	85	230/1/50	1,81
Smard 194	580	640	2	811	493	1151	100	230/1/50	2,32
Smard 227	680	750	2	811	493	1151	112	230/1/50	2,80
Smard 273	820	900	2	811	493	1251	134	230/1/50	2,95
Smard 333	1.100	1.210	2 1/2	1510	1129	857	266	400/3/50	2,55
Smard 400	1.300	1.430	2 1/2	1510	1129	857	285	400/3/50	2,95
Smard 500	1.700	1.870	3	1510	1129	857	335	400/3/50	5,70

Use the following multipliers for deviating conditions to choose the correct dryer:

Multiplier for different inlet pressures in bar (ü) (F1)												
bar(ü)	3	4	5	6	7	8	9	10	11	12	13	14
Smard SC 5 - MRD 500	0,79	0,87	0,92	0,96	1,00	1,03	1,07	1,10	1,13	1,16	1,18	1,21

Multiplier for different inlet temperatures in °C (F2)					
C	+35	+40	+45	+50	+55
Smard SC 5 - MRD 500	1,00	0,84	0,71	0,63	0,55

Multiplier for different ambient temperatures in °C (F3)					
C	+25	+30	+35	+40	+45
Smard SC 5 - SC 30	1,00	1,00	1,00	1,00	1,00
Smard MRD 47 - MRD 500	1,00	0,94	0,89	0,83	0,78

Example	Calculation
Compressor capacity (V1)	: 850 m³/h
Working pressure (F1)	: 10 bar(ü)
Inlet temperature (F2)	: +45 C
Ambient temperature (F3)	: +35 C
V2	: Required dryer capacity
	$V2 = V1 : (F1 \times F2 \times F3) = 850 : (1,1 \times 0,71 \times 0,89) = 1223 \text{ m}^3/\text{h}$ → Smard 400 is suitable

- Technical details to change without notice -