



INDUSTRIAL COMPRESSED AIR & GAS SOLUTIONS



MADE IN ITALY



## REFRIDGE AIR DRYER SD SERIES

TRD-2025/V03

## WHY SD?

The TRYCOMP SD Series has been developed through close technical collaboration with FruiAir Italy, combining European engineering precision with TRYCOMP's a proud Turkish brand technology to create a new generation of high-efficiency, cost-effective air dryers.

These dryers are built to last, engineered to perform efficiently even under extreme conditions (up to 45°C ambient and 55°C inlet temperature) while maintaining a tight and stable dew point.

All TRYCOMP SD models are eco-friendly, fully equipped as standard, and designed for easy maintenance and long service life.



## TECHNICAL ADVANTAGES

### **Integrated All-in-One Heat Exchanger**

The SD Series features a compact, integrated heat exchanger that combines Air-to-Air (Economizer),

Air-to-Refrigerant (Evaporator), and Demister Separator & Piping in a single assembly.

Its full counter-flow design ensures excellent thermal efficiency, consistent dew point, and minimal

pressure loss.

Large air-to-air sections and top air connections make installation simple and efficient.

### **Compressor Technology Optimized by Model Range**

Each SD model is equipped with the most suitable compressor type for its capacity range:

- SD 4–30: Reciprocating compressor — proven reliability and long service life
- SD 40–240: Rotary compressor — high efficiency and low energy demand
- SD 320–880: Scroll compressor — low noise, low vibration, simplified piping, and built-in reverse phase protection

### **Eco-Friendly Refrigerants**

Environmentally responsible refrigerants R407C and R134a are used across the SD Series.

Both have Ozone Depletion Potential (ODP) = 0 and deliver excellent performance in full compliance with

current EU environmental standards.

### **Condensers for Every Condition**

- SD 4–9: Static carbon steel condenser without fan — lower energy use, fewer wearing parts, and minimal maintenance.
- SD 12–130: Copper tube and aluminium fin condenser — high cooling capacity and proven reliability.
- SD 180–880: Microchannel aluminium condenser — higher efficiency, lower refrigerant charge, and removable air filter for easy cleaning.

## **INTELLIGENT CONTROL SYSTEM**

### **Smart Hot-Gas Bypass and Condensing Control**

The automatic hot-gas bypass valve prevents evaporator freezing during no-load or partial-load conditions and maintains constant heat exchanger temperature.

Condensing control is achieved via precision sensors:

- Dry Smart (SD 4–9): LED dew point display and basic alarms
- Dry Plus (SD 12–80): Temperature-based fan control with RS485 connection
- Dry Pro (SD 100–880): Pressure-based fan control with advanced diagnostics

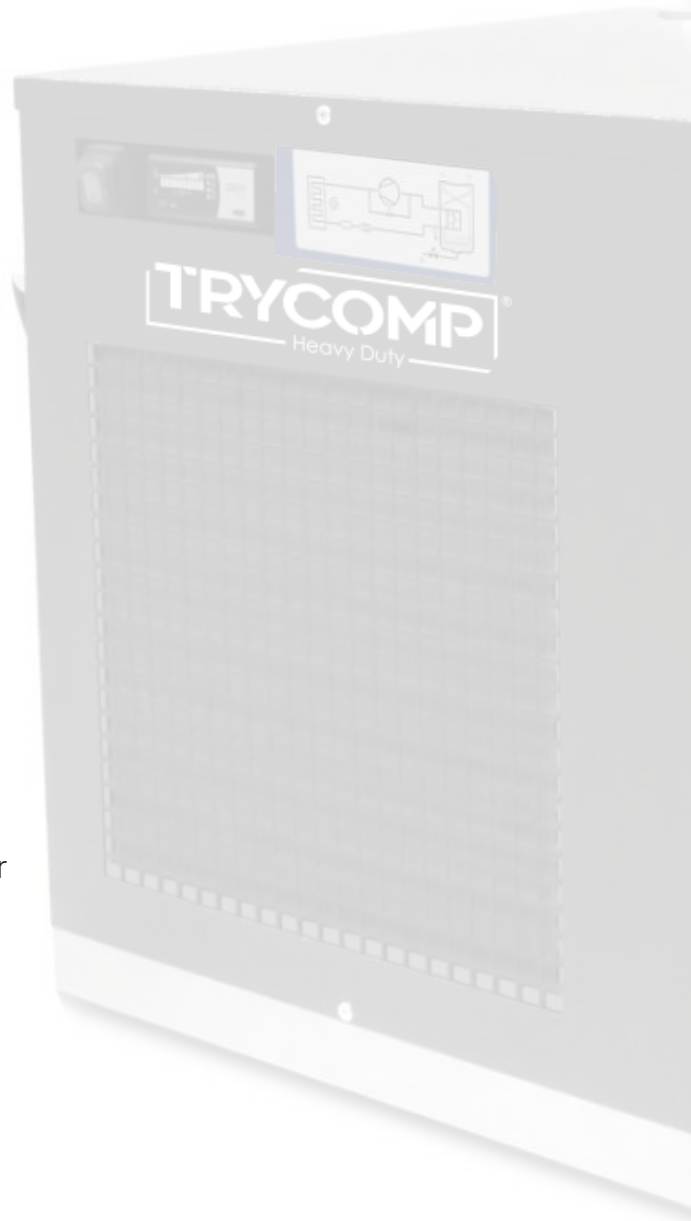
### **Advanced Electronic Controller**

- LED bar dew point indication
- Adjustable high and low dew point alarms
- Working hours counter and sensor fault alarms
- Adjustable condensate drain ON/OFF timing and manual test button
- Zero-loss drain (optional) and RS485 communication port for remote monitoring

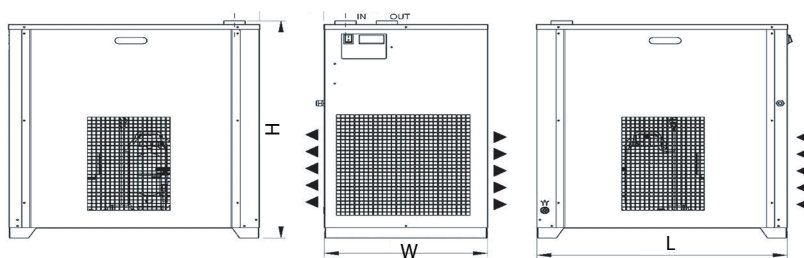


## COMPACT SERIES

- 100% INSPECTION
- Quality control on incoming material
- Air circuit strength & leak test
- Refrigerant circuit strength & helium leak test (allowed max 1 g/year)
- Electronic vacuum measurement
- High accuracy automatic refrigerant charging equipment
- Electrical test according to EN 60204
- Final functional test including:
  - Hot gas by pass valve setting
  - Pressure switch setting
  - Dew point temperature check
  - Drainer proper functioning check
- Final leak test with refrigerant electronic sniffer
- Brazed joint protection
- All assembly & test step are recorded on QCP.



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MODEL	CAPACITY		CONNECTION	POWER	MAX. PRESSURE BAR	GAS	Weight (kg)	Dimensions H*W*L
	Lit/min	M3/h						
SD 4	400	24	G ½"	1/230/50	16	R 134 a	17	439*331*423
SD 9	900	54	G ½"	1/230/50	16	R 134 a	19	439*331*423
SD 12	1200	72	G 1"	1/230/50	16	R 134 a	37	497*351*450
SD 18	1800	108	G 1"	1/230/50	16	R 134 a	37	497*351*450
SD 23	2300	138	G 1"	1/230/50	16	R 134 a	40	497*351*450
SD 30	3000	180	G 1"	1/230/50	16	R 134 a	52	554*451*594
SD 40	4200	252	G 1 1/2"	1/230/50	16	R 407 c	60	559*451*594
SD 60	6000	360	G 1 1/2"	1/230/50	16	R 407 c	85	871*512*784
SD 80	8100	486	G 1 1/2"	1/230/50	16	R 407 c	95	872*512*784
SD 100	10500	630	G 1 1/2"	1/230/50	16	R 407 c	97	872*512*784
SD 130	13000	780	G 2"	1/230/50	16	R 407 c	118	876*512*784
SD 180	18000	1080	G 2"	1/230/50	16	R 407 c	164	1077*688*908
SD 210	21000	1260	G 2 1/2"	1/230/50	16	R 407 c	189	1077*688*908
SD 240	24000	1440	G 2 1/2"	3/400/50	16	R 407 c	198	1077*688*908
SD 320	32000	1920	FLANGE DN 80	3/400/50	16	R 407 c	279	1168*740*1176
SD 440	44000	2640	FLANGE DN 80	3/400/50	16	R 407 c	295	1168*740*1176
SD 640	64000	3840	FLANGE DN 100	3/400/50	16	R 407 c	439	1728*876*1588
SD 880	88000	5280	FLANGE DN 100	3/400/50	16	R 407 c	487	1728*876*1588

Correction factor for operating pressure changes:

Inlet air pressure [barg]	4	5	6	7	8	10	12	14	16
Correction factor	0.77	0.86	0.93	1.00	1.05	1.14	1.21	1.27	1.33

Correction factor for ambient temperature changes:

Ambient temperature [°C]	≤ 25	30	35	40	45
Correction factor	1.00	0.95	0.88	0.79	0.68

Correction factor for inlet air temperature changes:

Air temperature [°C]	≤ 30	35	40	45	50	55
Correction factor	1.11	1.00	0.81	0.67	0.55	0.45

Correction factor for outlet air dew point changes:

Dew Point [°C]	3	5	7	10
Correction factor	1.00	1.09	1.19	1.37

Subject to technical modification without notice. Errors not excluded. Software Version: 1.5\_01-2021



## INDUSTRIAL COMPRESSED AIR & GAS SOLUTIONS

**Your vision is our commitment.**

*Reach out to us today, to explore the great possibilities.*

A brand by **ARNIKA**  
—COMPANY—

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