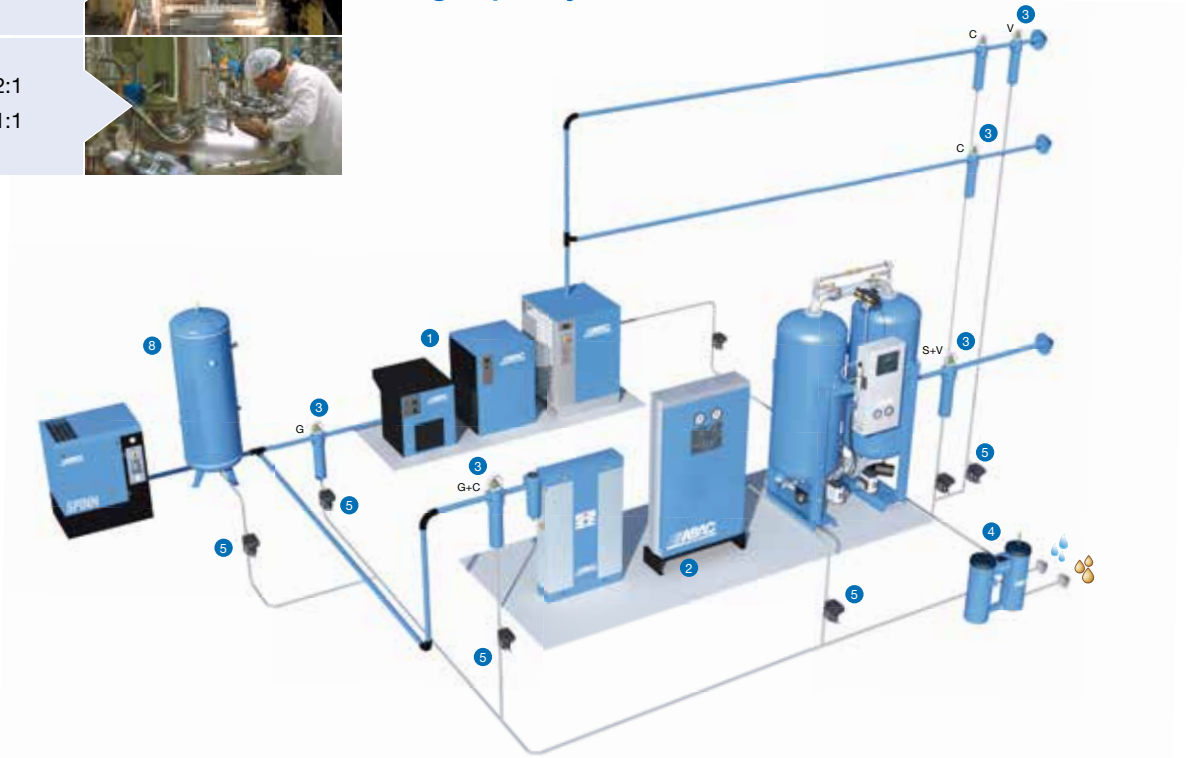


<b>ISO 8573-1</b> Dust-water-oil	<b>Applications</b>
Class 1:4:1	
Class 1:4:2	
Class 2:2:1 Class 2:1:1	

# Quality air

To increase your business, your productivity, quality and efficiency.

The solution for transforming compressed air into high quality air.



A compressor collects the humidity and contaminants from the suctioned air; during compression, these particles get combined with the used oil inside the compressor. All these impurities might cause the equipment downstream to corrode, leading to potential costly downtimes and reducing the efficiency and the service life of the equipment used. To reduce this negative impact, ABAC developed a complete range of products that can ensure the quality of the air, increasing the efficiency, productivity and service life of the equipment and instruments used.

Without quality air solution	Customers benefits	With quality air solutions
The water/dust ends up in the system	The dust/water resulted from the compression process is eliminated	Immediate removal
High risk	Compressed air system clean and protected against rust	Ensured
High risk	A clean air network reduces leakage	Ensured
Shorter	The life span of your operation process (machines / equipment, etc.)	Longer
Risky	Safe use and longer service life of pneumatic equipment	Ensured
High	Cost of maintenance of your air network (corrosion), operation process and potential downtime	Reduced
Worse	Quality of the final product And possibility of product withdrawal	Better
Variable	Operating costs control	Stable
Lower	Your productivity	Higher
Potential	Freezing (in the piping/air network)	Impossible

## Compressed air as per standard ISO 8573-1:2010

Purity class	Solid particles Number of particles per m <sup>3</sup>			Water pressure dew point		Total oil * Concentration mg/m <sup>3</sup>
	0.1 - 0.5 µm	0.5 - 1.0 µm	1.0 - 5.0 µm	°C	°F	
0	As indicated by the user or by the manufacturer of the equipment, and however higher than Class 1,					
1	≤ 20,000	≤ 400	≤ 10	≤ -70	≤ -94	≤ 0.01
2	≤ 400,000	≤ 6,000	≤ 100	≤ -40	≤ -40	≤ 0.1
3	-	≤ 90,000	≤ 1000	≤ -20	≤ -4	≤ 1
4	-	-	≤ 10,000	≤ 3	≤ 37.4	≤ 5
5	-	-	≤ 100,000	≤ 7	≤ 44.6	-
6	≤ 5 mg/m <sup>3</sup>			≤ 10	≤ 50	-

\* Liquid, aerosol and steam.

## Refrigeration dryers

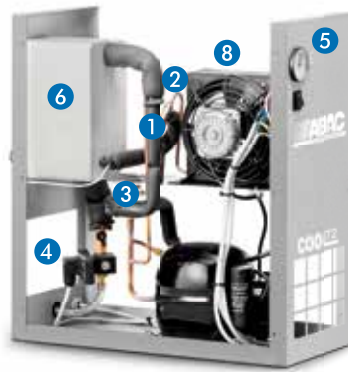
# COOL Series

The COOL series allows reaching a pressure dew point of 5° C.



### Components

- 1- Capillary tube
- 2- Refrigerant filter
- 3- Hot gas by-pass valve
- 4- Timer drain
- 5- Control panel
- 6- Air/refrigerant and air/air heat exchanger
- 7- Refrigerant compressor
- 8- Refrigerant condenser



Type	Part number	Max working pressure bars	Air treatment capacity		Electrical power W	Voltage V/Hz/ph	Gas inlet/outlet connections	Dimensions mm L x W x H	Weight Kg	Refrigeration gas type
			l/min	m³/h						
COOL 21	4102001778	16	350	21	126	230/50/1	3/4" M	233 x 559 x 561	19	R 134 a
COOL 36	4102001779	16	600	36	126	230/50/1	3/4" M	233 x 559 x 561	19	R 134 a
COOL 51	4102001780	16	850	51	163	230/50/1	3/4" M	233 x 559 x 561	19	R 134 a
COOL 72	4102001781	16	1200	72	228	230/50/1	3/4" M	233 x 559 x 561	20	R 134 a
COOL 110	4102001782	16	1825	110	293	230/50/1	3/4" M	233 x 559 x 561	25	R 134 a
COOL 129	4102001783	16	2150	129	380	230/50/1	3/4" M	233 x 559 x 561	27	R 134 a
COOL 180	4102001849	16	3000	180	419	230/50/1	1" F	233 x 559 x 561	30	R 134 a
COOL 216	4102002070	16	3600	216	664	230/50/1	1" F	310 x 706 x 994	52	R 404 A
COOL 246	4102002071	13	4100	246	767	230/50/1	1' 1/2" F	310 x 706 x 994	57	R 404 A
COOL 312	4102002072	13	5200	312	865	230/50/1	1' 1/2" F	310 x 706 x 994	59	R 404 A
COOL 390	4102002073	13	6500	390	1028	230/50/1	1' 1/2" F	310 x 706 x 994	80	R 404 A
COOL 462	4102002074	13	7700	462	1242	230/50/1	1' 1/2" F	310 x 706 x 994	80	R 404 A

Ambient temperature				
°C	25	30	35	40
A	1.00	0.92	0.84	0.80

### Reference conditions:

- Working pressure: 7 bar (100 psi)
- Operating temperature: 35 °C
- Ambient temperature: 25 °C
- Pressure dewpoint: +5 °C +/-
- Also available at 60Hz and in different voltages

### Limit conditions:

- Working pressure:
  - 16 bar COOL 21-216
  - 13bar COOL 246-462
- Operating temperature: 50 °C
- min./max. ambient temperature: +5 °C; +40 °C

Operating temperature					
°C	30	35	40	45	50
A	1.24	1.00	0.82	0.69	0.58

Flow rate correction factors for different conditions than those indicated as reference

Formula for determining the correction factor:  $K = A \times B \times C$

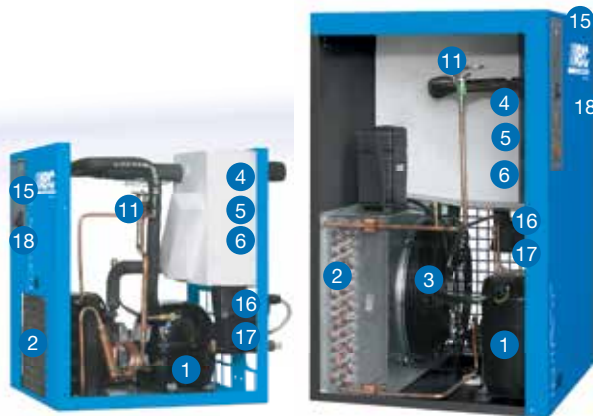
Operating pressure												
bars	5	6	7	8	9	10	11	12	13	14	15	16
C	0.90	0.96	1.00	1.03	1.06	1.08	1.10	1.12	1.13	1.15	1.16	1.17



## Refrigeration dryers

### DRY Series

Refrigeration dryers can remove all the humidity from the compressed air, ensuring constant efficiency.



- 1 Refrigerant compressor driven by an electric motor, cooled using refrigerant fluid and protected against overheating.
- 2 Refrigerant condenser air-cooled and with a large exchange surface for high thermal exchange.
- 3 IP 54 motor-driven ventilator for the condenser cooling air flow.
- 4 Air/refrigerant evaporator with high thermal exchange and low leakage rates.
- 5 Highly efficient condensate separator
- 6 Air-air heat exchanger with high thermal exchange and low load losses.
- 7 Refrigerant fluid separator
- 8 Maximum level pressure switch
- 9 Service valve
- 10 Fan control pressure switch
- 11 Hot gas bypass valve controls the refrigerant capacity under all load conditions preventing any formation of ice within the system.
- 12 Refrigerant fluid filter
- 13 Capillary tube
- 14 Service valve
- 15 Control panel
- 16 Filter that collects the impurities, protecting the system
- 17 Automatic eco-friendly condensate drain, that can prevent any accidental discharge of the compressed air.

Type	Part number	Max pressure bars	Flow rate		Electrical power W	Voltage V/Hz/ph	Connections gas/DIN	Dimensions mm L x W x H (mm)	Weight kg
			l/min	m³/h					
DRY 20	4102000740	16	333	20	130	230/50/1	3/4" M	350 x 500 x 450	19
DRY 25	4102000741	16	417	25	130	230/50/1	3/4" M	350 x 500 x 450	19
DRY 45	4102000742	16	750	45	164	230/50/1	3/4" M	350 x 500 x 450	19
DRY 60	4102000743	16	1000	60	190	230/50/1	3/4" M	350 x 500 x 450	20
DRY 85	4102000744	16	1417	85	266	230/50/1	3/4" M	350 x 500 x 450	25
DRY 130	4102000745	16	2167	130	284	230/50/1	3/4" M	350 x 500 x 450	27
DRY 165	4102000746	13	2750	165	609	230/50/1	1" F	370 x 500 x 764	44
DRY 210	4102000747	13	3500	210	673	230/50/1	1" F	370 x 500 x 764	44
DRY 250	4102002718	13	4167	250	793	230/50/1	1 1/2" F	460 x 560 x 789	53
DRY 290	4102002719	13	4833	290	870	230/50/1	1 1/2" F	460 x 560 x 789	60
DRY 360	4102002720	13	6000	360	1072	230/50/1	1 1/2" F	460 x 560 x 789	65
DRY 460	4102002721	13	7667	460	1190	230/50/1	1 1/2" F	580 x 590 x 899	80
DRY 530	4102002722	13	8833	530	1446	230/50/1	1 1/2" F	580 x 590 x 899	80
DRY 690	4102001584	13	11500	690	1319	230/50/3	2" F	735 x 898 x 962	128
DRY 830	4102001585	13	13833	830	1631	400/50/3	2" F	735 x 898 x 962	146
DRY 1040	4102001586	13	17333	1040	1889	400/50/3	2" F	735 x 898 x 962	158
DRY 1260	4102001587	13	21000	1260	2110	400/50/3	2" F	735 x 898 x 962	165

Item number	Item description
4101000653	Filter support bypass DRY20 - DRY130
4101000652	Filter support DRY20 - DRY130

Reference conditions:

Operating pressure: 7 bars

Operating temperature: 35 °C

Ambient temperature: 25 °C

Pressure dew point: +5 °C +/-1

Also available at 60Hz and in different voltages

Limit conditions:

Operating pressure:

16 bar DRY 20-130 - 13 bar DRY 165-1260

Operating temperature: 55 °C

min./max. ambient temperature: +5 °C; +45 °C

Correction factor Formula for determining the correction factor:  $K = A \times B \times C$

Flow rate correction factors for different conditions than those indicated as reference

Ambient temperature					
°C	25	30	35	40	45
A	1.00	0.92	0.84	0.80	0.74 (DRY 20-DRY 530)
A	1.00	0.91	0.81	0.72	0.62 (DRY 690-DRY 1260)

Operating temperature						
°C	30	35	40	45	50	55
B	1.24	1.00	0.82	0.69	0.58	0.45 (DRY 20-DRY 530)
B	1.00	1.00	0.82	0.69	0.58	0.49 (DRY 690-DRY 1260)

Operating pressure												
bars	5	6	7	8	9	10	11	12	13	14	15	16
C	0.90	0.96	1.00	1.03	1.06	1.08	1.10	1.12	1.13	1.15	1.16	1.17 (DRY 20-DRY 530)
C	0.90	0.97	1.00	1.03	1.05	1.07	1.09	1.11	1.12 (DRY 690-DRY 1260)			

# The world of ABAC



## Care. Trust. Efficiency.

### Care.

Care is what service is all about: professional service by knowledgeable people, using high-quality original parts.

### Trust.

Trust is earned by delivering on our promises of reliable, uninterrupted performance and long equipment lifetime.

### Efficiency.

Equipment efficiency is ensured by regular maintenance. Efficiency of the service organization is how Original Parts and Service make the difference.

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