

BECAUSE
IMPROVEMENT
NEVER
STOPS



ADQ 21-7200
REFRIGERANT DRYERS

STRONG PERFORMANCE IN QUALITY AIR

You need a dryer to produce the quality air that safeguards your production. It must also be reliable and keep your operational costs low. The ALUP ADQ 21-7200 is the premium refrigerant dryer that delivers on all your requirements. Efficient and powerful, the ADQ gives you that best-in-class ALUP performance you count on every day.



1. EASY INSTALLATION & OPERATION

- Compatible with any compressor technology.
- Compact footprint saves valuable floor space.
- Easy installation with simple standard connections.
- Refrigeration technology requires little maintenance.
- Easy-to-use controller allows performance monitoring.

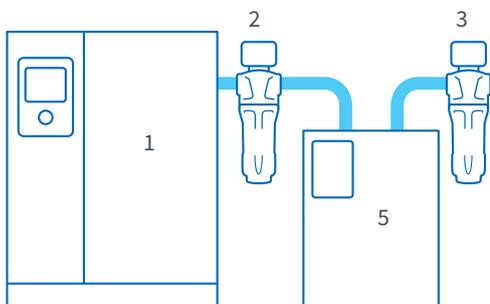
2. RELIABLE & EFFICIENT PERFORMANCE

- Eliminates liquid water from your air system.
- Helps reduce your power consumption.
- Robust and suitable for many conditions and applications.

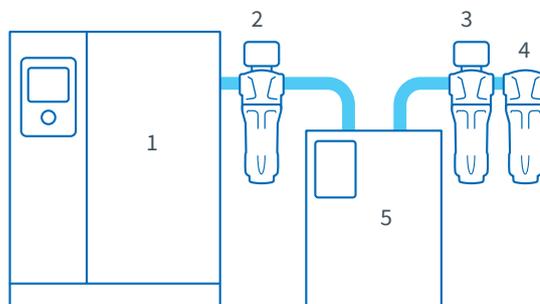
3. ADVANCED REFRIGERANT SOLUTIONS

- Low refrigerant gas load.
- New microchannel condenser requires lower gas load (ADQ 1440-7200).
- Refrigerant gas with low GWP.

TYPICAL INSTALLATIONS



High quality air with reduced dew point
(air purity to ISO 8573-1: class 1:4:2)



High quality air with reduced dew point and oil
concentration (air purity to ISO 8573-1: class 1:4:1)

1. Compressor with aftercooler
2. G filter
3. C filter
4. V filter
5. Refrigerant dryer

Vertical receiver is always recommended.

ADQ 21-1080



PERFORMANCE

- As low as Class -;4; - according to ISO 8573-1:2010.
- Low pressure drop.
- Robust and proven components.
- Smallest footprint and simple layout ensure easy installation.
- Very little maintenance required.
- Lowest operating power consumption.

No-loss drain

The ADQ comes as standard with a robust drain, specifically developed for demanding refrigerant dryer applications. Because it discharges condensate only when needed, no valuable compressed air is wasted and condensate is purged properly.

ENGINEERING

- 1 **Refrigerant compressor:** driven by an electric motor, cooled with refrigerant fluid and protected against thermal overload.
- 2 **Refrigerant condenser:** air-cooled and with a large exchange surface for high thermal exchange.
- 3 **Motor-driven fan:** for the condenser cooling air flow.
- 4 **3-in-1 heat exchanger:** with high-efficiency operation to minimize pressure drop and footprint.
- 5 **Hot gas bypass valve:** controls the refrigerant capacity under all load conditions to prevent ice formation in the system.
- 6 **Control panel:** monitors performance and displays all relevant information.
- 7 **Free contacts:** as standard for the ADQ 600-1080 for remote start/stop and general alarm.



OPTIONS ADQ 21-110

Bypass valve and filter support*

Allows the system to operate using the filters during maintenance or malfunction of the dryer, thus avoiding any downtime.

Filter support*

Allows two filters to be installed on the rear side of the dryer, reducing overall dimensions and installation costs.

* Filters are not included in the option.



ADQ 1440-7200



PERFORMANCE

- As low as Class -;4; - according to ISO 8573-1:2010.
- Low pressure drop.
- High-efficiency dryer reduces CO₂ emissions.
- Best-in-class microchannel refrigerant condenser lowers gas charge.
- Refrigerant is CFC-free.

Compact size

Thanks to its sophisticated evaporator and condenser design, the new ADQ is surprisingly small to fit in the tightest spaces.

ENGINEERING

- 1 Scroll refrigerant compressor:** scroll technology delivers a stable performance with industry-leading efficiency and COP.
- 2 Refrigerant condenser:** microchannel design ensures a smaller physical and environmental footprint.
- 3 Air-air exchanger:** designed for high thermal exchange and low load losses.
- 4 Air/refrigerant evaporator:**
 - 1 for ADQ 1440-4200, 2 for ADQ 5040-7200.
 - up to 25% lower pressure drop.
 - reduces dryer size.
- 5 Hot gas bypass valve:** controls the refrigerant capacity under all load conditions to prevent ice formation.
- 6 Control panel:** ensures easy, advanced control and monitoring.
- 7 Free contacts:** allow for remote start/stop, general alarm and drain alarm.



TECHNICAL SPECIFICATIONS

According to ISO 7183:2007

Model	Air treatment capacity			R410A - 50Hz		R513A - 50Hz		R513A - 60Hz		Inlet/outlet connections	Dimensions (mm) A x B x C	Weight up to kg
				Power consumption	Voltage	Power consumption	Voltage	Power consumption	Voltage			
	l/min	m³/h	cfm	W	V/Ph/Hz	W	V/Ph/Hz	W	V/Ph/Hz	Gas/DN		
ADQ 21	350	21	12,4	-	-	130	230/1/50	170	230/1/60	3/4" M	493 x 350 x 450	19
ADQ 36	600	36	21,2	-	-	164	230/1/50	172	230/1/60	3/4" M	493 x 350 x 450	19
ADQ 51	850	51	30	-	-	190	230/1/50	222	230/1/60	3/4" M	493 x 350 x 450	20
ADQ 72	1200	72	42,4	-	-	266	230/1/50	306	230/1/60	3/4" M	493 x 350 x 450	25
ADQ 110	1800	108	63,6	-	-	284	230/1/50	364	230/1/60	3/4" M	493 x 350 x 450	27
ADQ 141	2350	141	83	-	-	674	230/1/50	726	230/1/60	1" F	497 x 370 x 764	44
ADQ 180	3000	180	106	-	-	716	230/1/50	763	230/1/60	1" F	497 x 370 x 764	44
ADQ 216	3600	216	127	631	230/1/50	933	230/1/50	590	230/1/60	1" 1/2 F	557 x 460 x 789	62
ADQ 246	4100	246	145	705	230/1/50	933	230/1/50	727	230/1/60	1" 1/2 F	557 x 460 x 789	60
ADQ 312	5200	312	184	905	230/1/50	933	230/1/50	745	230/1/60	1" 1/2 F	557 x 460 x 789	64
ADQ 390	6500	390	230	969	230/1/50	1276	230/1/50	1315	230/1/60	1" 1/2 F	587 x 580 x 899	82
ADQ 462	7700	462	272	1124	230/1/50	1276	230/1/50	1325	230/1/60	1" 1/2 F	587 x 580 x 899	92
ADQ 600	10000	600	353	1540	400/3/50	1912	400/3/50	2021	460/3/60	2" F	1070 x 805 x 962	157
ADQ 720	12000	720	424	1980	400/3/50	1912	400/3/50	2341	460/3/60	2" F	1070 x 805 x 962	170
ADQ 900	15000	900	530	2010	400/3/50	2629	400/3/50	2511	460/3/60	2" 1/2 F	1070 x 805 x 962	176
ADQ 1080	18000	1080	636	2770	400/3/50	2629	400/3/50	3334	460/3/60	2" 1/2 F	1070 x 805 x 962	188
ADQ 1440	24000	1440	848	3500	400/3/50	3108	400/3/50	4490	460/3/60	3" M	1005 x 1132 x 1399	285
ADQ 1800	30000	1800	1059	3690	400/3/50	3485	400/3/50	5020	460/3/60	3" M	1005 x 1121 x 1596	350
ADQ 2100	35000	2100	1236	4550	400/3/50	4179	400/3/50	6820	460/3/60	3" M	1005 x 1121 x 1596	361
ADQ 2700	45000	2700	1589	6097	400/3/50	4970	400/3/50	7880	460/3/60	DN 100	1005 x 1121 x 1826	447
ADQ 3000	50000	3000	1766	6540	400/3/50	6358	400/3/50	9640	460/3/60	DN 100	1005 x 1531 x 1826	573
ADQ 3740	62400	3744	2204	7100	400/3/50	6150	400/3/50	9750	460/3/60	DN 100	1005 x 1531 x 1826	630
ADQ 4200	70000	4200	2472	7290	400/3/50	6256	400/3/50	9870	460/3/60	DN 100	1005 x 1531 x 1826	630
ADQ 5040	84000	5040	2966	8260	400/3/50	7344	400/3/50	11700	460/3/60	DN 150	1455 x 1979 x 1826	1004
ADQ 5940	99000	5940	3496	10200	400/3/50	8463	400/3/50	13580	460/3/60	DN 150	1455 x 1979 x 1826	1010
ADQ 7200	120000	7200	4238	12180	400/3/50	12113	400/3/50	16970	460/3/60	DN 150	1455 x 1979 x 1833	1116

Reference conditions:

- **Operating pressure:** 7 bar (100 psi)
- **Inlet temperature:** 35°C
- **Room temperature:** 25°C
- **Pressure dew point:** +4°C +/- 1
- Available in different voltages and frequency values.

Operating limit conditions:

- **Max. operating pressure:**
16 bar (232 psi) (ADQ 21 up to 110)
14 bar (203 psi) (ADQ 141 up to 7200)
- **Max. inlet temperature:**
55°C (60°C for ADQ 600-7200)
- **Min./Max. ambient temperature:**
+5°C; 43°C (+5°C; 46°C for ADQ 600-7200)

Optional for ADQ (21-110):

- bypass + filter support
- filter support

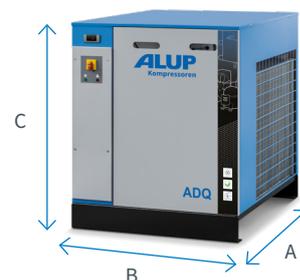
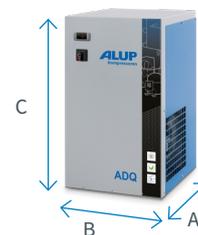
Correction factors to be used for site conditions outside of normal reference conditions (1) stated above = A x B x C

Room temperature	°C	25	30	35	40	43	46
	A	1	0,91	0,81	0,72	0,67	0,62

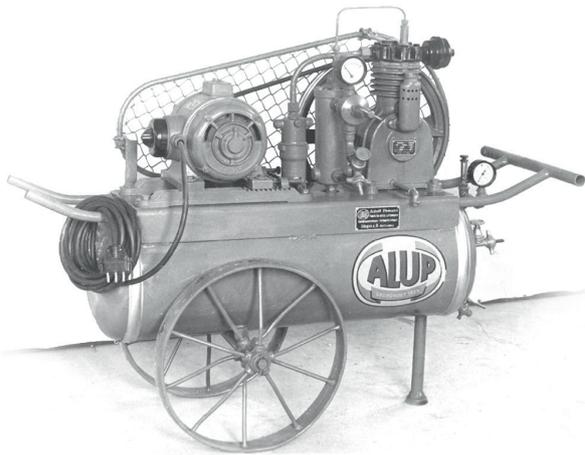
Inlet temperature	°C	25	30	35	40	46	50	55	60
	B	1,1	1,05	1	0,82	0,69	0,58	0,49	0,42

Operating Pressure	bar	6	7	8	10	13	14	15	16
	C	0,97	1	1,03	1,07	1,12	1,15	1,16	1,17

The new flow rate value can be obtained by dividing the current or real flow rate by the correction related to the real operation conditions.



ALUP'S HERITAGE



Founded in Germany in 1923, ALUP derives its name from the automotive products that were manufactured in the mechanical workshop in Köngen where the company came into existence: Auto-Luft-Pumpen. ALUP developed its first piston compressor just two years later. In 1980, rotary screw compressors were added to its product range.

The experience and expertise the company gained each year, coupled with a spirit of innovation, has led to today's high-quality product offer. The name ALUP Kompressoren has become synonymous with innovative technology blended with a strong sense of tradition. To this day, ALUP Kompressoren is operating out of the heart of Baden-Württemberg, where it all began nearly a century ago.

**DRIVEN BY TECHNOLOGY,
DESIGNED BY EXPERIENCE**

Discover what happens when passion for technology meets hands-on industrial experience: Designs that are easier to install and maintain, allowing you to focus on your job. Our extensive product range features the right machine for you – including the options that meet your performance requirements perfectly. High energy efficiency ensures return on investment and reduces your carbon footprint. And, because customer proximity is one of our hallmarks, you will always be one step ahead when your needs change.



1923 1925

Founded in
Germany

First piston
compressor

1980

First rotary
screw compressors

today

Innovative
technology



Contact your local ALUP Kompressoren representative



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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