Products, Concepts, Solutions

Built on the needs of the customer

For almost 100 years we from ALUP have produced quality compressors.

With our innovative system concepts we offer customised solutions for almost all ranges of application.

Our endeavour lies not only in supplying compressors, we offer ourselves as a competent system provider, who is able to offer a solution from the compressed air producer to the last compressed air consumer.

That does not only apply to the consultation and installation phase of your new compressor(s), but naturally continues in all interests of service, maintenance and visualisation.

Challenge us!

Screw compressors

- Constant speed
  4 – 400 kW/
  5 – 13 bar
- Variable speed controlled and direct drive
  16 – 260 kW/
  5 – 13 bar
- Oil-free, with water injection
  4 – 250 kW/
  5 – 10 bar

Piston compressors

- Oil-free, up to 10 bar
  0.75 – 12 kW
- For normal pressure
  up to 10 bar
  1.5 – 15 kW
- For medium pressure
  up to 15 bar
  1.5 – 15 kW
- For high pressure
  up to 35 bar
  2.2 – 11 kW
- As a Booster for an input pressure up to 15 bar and an output pressure up to 40 bar
  2.2 – 15 kW

Turbo compressors

- Oil-free, up to 9 bar
  65 – 370 kW

Complete Accessories

- Refrigeration dryers
  0.16 – 145 m^3/min
- Desiccant dryers
  0.08 – 145 m^3/min
- Activated carbon adsorbers
  0.08 – 145 m^3/min
- Filters,
  all particle sizes
  0.08 – 380 m^3/min
- Complete Condensate management
  up to 120 m^3/min

Control, regulate, monitor

- Lead-lag control
- Consumption-dependant control
- Visualisation
  (we bring your compressed air to the PC)
- Tele-monitoring
  (the Hotline of your compressed air station)

Your specialist

www.alup.com

ALUP Kompressoren

a company of the Abac Group

Leaflet_PISTON_gb_03_2003

ALUP Kompressoren

Piston Compressors

Volume range:
235 – 2565 l/min

Intelligence, Innovation, Reliability

variable modular system

operationally reliable

low speeds

long operating life of valves

low noise emission

robust and durable

State-of-the-art compressed air technology

ALUP stands for a century of experience in compressor development and production.

This comprehensive know-how is particularly reflected in our piston compressor series, a compressor system for use under the toughest conditions in skilled trades applications as well as high-tech industries.

This piston compressor program from ALUP offers you the ultimate in robust reliability, oil-free and oil-lubricated. Regardless of whether you work in low-pressure, mid-pressure, or high-pressure ranges.

Our products reflect state-of-the-art technology according to the latest research applicable in the field; it goes without saying that they are all manufactured according to the ISO 9001 norms and conform to CE Directives.

intelligent compressed air ... everywhere ■ ■ ■ intelligent compressed air ... everywhere ■ ■ ■ intelligent compressed air ... everywhere ■ ■ ■

The ideal solution for handcraft and commercial applications

The HLE compressors from ALUP offer the optimal entry-level model for reliable compressed air supply.

They can be used everywhere to supply small amounts of compressed air either centrally or locally.

The top HLE-S series also gives you a super sound-insulated system with a sound pressure level of only 68 dB(A).

The "HLE package" includes:

- ready-for operation, filled with oil, connecting cable
- complete fittings and safety devices
- dry air filter with air-intake grid
- robust metal V-belt protection screen
- high-quality pressure switch for automatic operation
- tank drain
- cylinder of grey cast iron as well as specially designed steel valves for long compressor operating life
- as of 5.5 kW delivery possible with mounted delta-star starter (incl. main switch and running-time meter)

HLE on tank

HLE-S sound-insulated

HLE on tank (9/11 bar)

Type	Tank volumes l	Max. discharge pressure bar	Suction volume l/min	Motor power kW	Speed 1/min	Length cm	Width cm	Height cm	Weight kg	Compressed air connection G"
HLE 040912-50 R[1]	50	**9**	367	2,2	1200	86	38	71	50	1/2
HLE 040912-90 R[1]	90	**9**	367	2,2	1200	107	39	80	69	1/2
HLE 040912-150	150	**9**	367	2.2	1050	138	43	105	85	1/2
HLE 050912-200	200	**9**	424	3.0	1450	150	45	110	125	1/2
HLE 041122-270	270	**11**	436	4.0	1250	152	59	115	157	1/2
HLE 071122-500	500	**11**	653	4.0	1370	203	68	140	275	1/2
HLE 081122-270	270	**11**	827	5.5	1450	152	59	126	210	1/2
HLE 081122-500	500	**11**	827	5.5	1450	203	68	140	275	1/2
HLE 081122-270[2]	270	**11**	827	5.5	1450	152	59	126	220	1/2
HLE 081122-500[2]	500	**11**	827	5.5	1450	203	68	140	285	1/2
HLE 121122-270[2]	270	**11**	1002	7.5	1300	152	59	126	210	1/2
HLE 121122-500[2]	500	**11**	1002	7.5	1300	203	68	140	325	1/2

HLE-S sound-insulated (11 bar)

Type	Max. discharge pressure bar	Suction volume l/min	Motor power kW	Speed 1/min	Length cm	Width cm	Height cm	sound pressure dB(A)	Weight kg	Compressed air connection G"
HLE 07122 S	**11**	653	4.0	1370	138	70	82	68	220	3/4
HLE 08122 S	**11**	827	5.5	1450	138	70	82	68	265	3/4
HLE 08122 S[2]	**11**	827	5.5	1450	138	70	82	68	270	3/4
HLE 12122 S[2]	**11**	1002	7.5	1300	138	70	82	68	275	3/4

Air flow as per ISO 1217 annex C
Sound pressure level as per DIN 45 635 T13, 1m distance
[1] on wheels displaceable
[2] compressor with star-delta switch cabinet

Quality consciousness for commercial and industrial applications ... as built-in compressor ... on base frame ... on tank

The well-conceived modular HL series offers the solution to all kinds of applications even under the toughest industrial conditions up to 35 bar.

This equipment sets new standards with regard to quality, operational reliability, service life and operator convenience.

ALUP-HL pistons are renown for their efficient production of compressed air, also in 3-shift continuous operation.

The freestanding cylinders of grey cast iron have large cooling vanes and a powerful ventilator V-belt pulley, providing a highly effective cooling system for the lowest system temperatures and highest compressed air quality.

Further significant advantages of the HL concept are:

- low speed and piston speed
- large intake and pressure lines

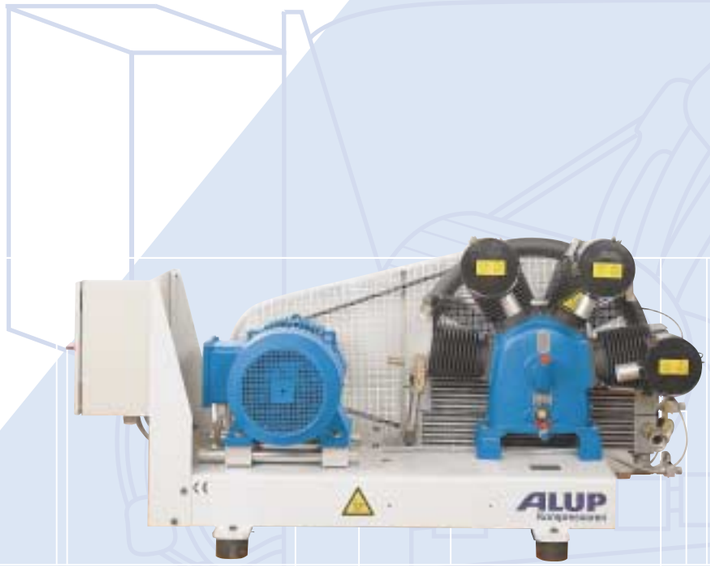
for high total system efficiency.

The standard scope of delivery includes:

- up to 5.5 kW direct start-up with mechanical relief valve as well as ON/OFF switch (star-delta start-up optional)
- as of 7.5 kW automatic star-delta starter with electromagnetic relief valve and running-time meter
- electromagnetic safety valve and non-return valve
- spiral-ribbed pipe cooler or aftercooler
- metal protective grid for belt
- pressure gauge for tank system
- control flange for tank system
- motor tensioning device with parallel guides
- non-return valve
- running-time meter (only in connection with star-delta starter)
- dry air intake filter

Further accessories:

- oil level control (only in connection with star-delta starter)
- rubber buffers
- flexible connecting hose



HL on base frame

HL on tank

HL on base frame (10/15/35 bar)

Type	Max. discharge pressure bar	Suction volume l/min	Air flow l/min	Number of cylinders	Motor power kW	Speed 1/min	Length cm	Width cm	Height cm	Weight kg	Compressed air connection G"
HL 081012	**10**	693	512	2	4.0	660	114	54	71	130	1/2
HL 091012	**10**	909	665	2	5.5	866	114	54	71	160	1/2
HL 131013	**10**	1346	985	3	7.5	985	135	57	75	210	3/4
HL 181013	**10**	1790	1338	3	11.0	1135	135	57	75	230	3/4
HL 211014	**10**	1941	1456	4	11.0	815	168	60	78	320	1
HL 221014	**10**	2227	1640	4	15.0	925	168	60	78	330	1
HL 251024	**10**	2565	2160	4	15.0	840	190	69	88	410	1 1/2
HL 051522	**15**	515	420	2	4.0	975	114	54	71	135	1/2
HL 081523	**15**	810	675	3	5.5	770	135	57	75	165	3/4
HL 101523	**15**	1020	845	3	7.5	960	135	57	75	165	3/4
HL 131523	**15**	1296	1075	3	11.0	1220	135	57	75	185	3/4
HL 151524	**15**	1625	1360	4	11.0	910	168	60	78	320	1
HL 201524	**15**	2090	1695	4	15.0	1170	168	60	78	340	1
HL 221524	**15**	2335	1960	4	15.0	765	190	69	88	410	1 1/2
HL 023522	**35**	210	160	2	2.2	675	98	41	68	90	1/2
HL 033522	**35**	280	225	2	3.0	900	98	41	68	95	1/2
HL 043522	**35**	400	292	2	4.0	780	114	54	71	145	1/2
HL 053522	**35**	500	380	2	5.5	975	114	54	71	155	1/2
HL 083523	**35**	800	525	3	7.5	765	135	57	75	220	1/2
HL 103523	**35**	1050	710	3	11.0	1000	135	57	75	220	1/2

HL on tank (10/15/35 bar)

Typ	Tank volumes l	Max. discharge pressure bar	Suction volume l/min	Air flow l/min	Number of cylinders	Motor power kW	Speed 1/min	Length cm	Width cm	Height cm	Weight kg	Compressed air connection G"
HL 081012-350	350	**10**	693	512	2	4.0	660	114	54	71	130	1/2
HL 091012-350	350	**10**	909	665	2	5.5	866	114	54	71	160	1/2
HL 131013-500	500	**10**	1346	985	3	7.5	985	135	57	75	210	3/4
HL 181013-500	500	**10**	1790	1338	3	11.0	1135	135	57	75	230	3/4
HL 211014-750	750	**10**	1941	1456	4	11.0	815	168	60	78	320	1
HL 221014-750	750	**10**	2227	1640	4	15.0	925	168	60	78	330	1
HL 051522-350	350	**15**	515	420	2	4.0	975	114	54	71	135	1/2
HL 081523-500	500	**15**	810	675	3	5.5	770	135	57	75	165	3/4
HL 101523-500	500	**15**	1020	845	3	7.5	960	135	57	75	165	3/4
HL 131523-500	500	**15**	1296	1075	3	11.0	1220	135	57	75	185	3/4
HL 151524-750	750	**15**	1625	1360	4	11.0	910	168	60	78	320	1
HL 201524-750	750	**15**	2090	1695	4	15.0	1170	168	60	78	340	1
HL 023522-250	250	**35**	210	160	2	2.2	675	98	41	68	90	1/2
HL 043522-500	500	**35**	400	292	2	4.0	780	114	54	71	145	3/4
HL 053522-500	500	**35**	500	380	2	5.5	975	114	54	71	155	3/4
HL 083523-500	500	**35**	800	525	3	7.5	765	135	57	75	220	3/4
HL 103523-500	500	**35**	1050	710	3	11.0	1000	135	57	75	220	3/4

Air flow as per ISO 1217 at 8 bar operating pressure for systems with 10 bar
at 12 bar operating pressure for systems with 15 bar
at 30 bar operating pressure for systems with 35 bar

Quality consciousness for commercial and industrial applications ... also with super sound insulation

CK

The CK series is based on the modular principle of the HL pistonrange and moreover offers the advantage of super sound insulation.

The sound insulation results in an extremely low sound pressure level of 63 – 67 dB(A), making these compressors especially suited for use where people are at work.

The particular installation avoids the costs of long pipeline systems and consequent loss of pressure.

Forced ventilation within the housing provides a temperature of the discharge compressed air which is only 10°C above the room temperature.

CFC-free foam layered with a stable lattice insert is used as sound insulation material. This material is non-combustible, and non-sensitive to dust and oil.

The standard scope of delivery corresponds to the HL series.

CK sound-insulated

CK (10/15 bar)

Type	Tank volumes l	Max. discharge pressure bar	Suction volume l/min	Air flow l/min	Number of cylinders	Motor power kW	Speed 1/min	Length cm	Width cm	Height cm	Sound pressure level dB(A)	Weight kg	Compressed air connection G"
CK 081012-350	350	**10**	693	512	2	4.0	660	145	99	151	62	430	1/2
CK 091012-350	350	**10**	909	665	2	5.5	866	145	105	171	63	451	1/2
CK 131013-500	500	**10**	1346	985	3	7.5	985	157	105	171	64	570	3/4
CK 181013-500	500	**10**	1790	1338	3	11.0	1135	157	105	171	66	616	3/4
CK 051522-350	350	**15**	515	420	2	4.0	975	145	94	151	64	3213	1/2
CK 081523-500	500	**15**	810	675	3	5.5	770	157	105	171	64	465	3/4
CK 101523-500	500	**15**	1020	845	3	7.5	960	157	105	171	66	500	3/4
CK 131523-500	500	**15**	1296	1075	3	11.0	1220	157	105	171	67	641	3/4

Air flow as per ISO 1217 at 8 bar operating pressure for systems with 10 bar
at 12 bar operating pressure for systems with 15 bar
Sound pressure level as per DIN 45 635 T13, 1m distance

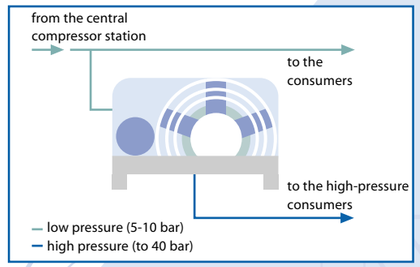
Full speed ahead to highest pressure

BOOSTER

The Booster series in the power range 2.2 – 15 kW represents a comprehensive product mix of piston compressors whose main area of application is the post-compression of compressed air.

Boosters are employed wherever already pre-compressed air of up to10 bar is available, or they are fed by a normal compressor on the intake side, and compress the air to the desired higher discharge pressure of maximal 40 bar in a second compression procedure – and this in a manner which is simple, safe, and efficient.

The use of V-belt driven, air-cooled piston compressors makes it possible to generate the proper highest pressure level without having to invest in a separate decentralized compressor system or in a seperate high-pressure network.



Function schematics Booster

ALUP Boosters feature a compact design and a clear, service-friendly construction.

They are known for their efficient production of compressed air and long service life, also in 3-shift continuous operation.

The slowly running (speeds of up to 600 to 860 min-1) air-cooled compressors can be adapted to almost any kind of operating conditions due to their modular construction. The standard version is designed for pre-pressures between 5 and 10 bar. Other pre-pressures upon request.

Booster on base frame

Booster (20/35/40 bar)

Type	max. pre-pressure bar	max. discharge pressure bar	Air flow as per ISO 1217 at discharge pressure… 15 bar	20 bar	25 bar	30 bar	35 bar	40 bar	Motor nominal power in kW at discharge pressure… 15 bar	20 bar	25 bar	30 bar	35 bar	40 bar	Length Width Height mm	Compressed air connection G"
Booster 2-42-55	5.00	**35**	440	420	410	400	390	–	2.2	2.2	3.0	3.0	3.0	–	760 425 570	1/2
Booster 2-42-70	5.00	**20**	560	540	–	–	–	–	2.2	3.0	–	–	–	–	760 425 570	1/2
Booster 2-42-74	5.00 7.50 10.00	**40**	590 920 1,205	565 890 1,180	550 860 1,150	530 840 1,135	520 815 1,085	480 785 1,070	3.0 3.0 3.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 5.5 5.5	4.0 5.5 7.5	5.5 5.5 7.5	1,140 540 715	1/2
Booster 3-42-74	5.00 7.50 10.00	**40**	1,300 1,980 2,590	1,230 1,910 2,530	1,190 1,840 2,480	1,140 1,800 2,440	1,110 1,755 2,330	1,060 1,700 2,300	5.5 5.5 5.5	7.5 7.5 7.5	7.5 11 11	11 11 11	11 11 15	11 11 15	1,350 575 755	3/4

The direct-drive industrial solution

The AKK, AEK and AGK series are air-cooled, single or double-stage compressors with direct drive. They guarantee quality excellence, total reliability, and long-term high efficiency.

The modular concept as

- compressor aggregate to be built in
- as base plate mounted version for freestanding installation
- as compressed air system with diverse horizontal or vertical tanks (also with coupled refrigeration dryer)
- as dual system
- with or without sound-insulation box

and the graduated performance steps allow for an efficient use of the compressor, adjusted to the respective current requirements.

The scope of delivery of this series includes:

- intermittent control (on-and-off) with adjustable pressure switch
- safety valve
- non-return valve
- pressure gauge
- motor protection with mechanical start-up valve
- as of 4 kW star-delta starter incl. motor protection
- as of 4 kW solenoid valve for start-up relief

Additional options:

- standstill heating
- electronic condensate drain
- as of 2.2 kW special intake filter for diverse ambient conditions

... equipment assembly on base frame

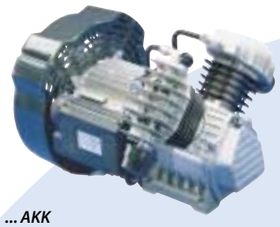
... on tank with coupled refrigeration dryer

... sound-insulated on tank

AKK,
AEK / AGK

AKK (10 bar)

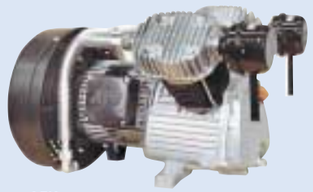
Type	Max. discharge pressure bar	Suction volume l/min	Air flow l/min	Motor power kW	Speed 1/min
AKK 235-D	**10**	235	130	1.5	1450
AKK 235-W	**10**	235	130	1.5	1450
AKK 350-D	**10**	350	205	2.2	1450
AKK 350-W	**10**	350	205	2.2	1450



... AKK

AEK (10 bar)

Type	Max. discharge pressure bar	Suction volume l/min	Air flow l/min	Motor power kW	Speed 1/min
AEK 461	**10**	460	302	2.2	1400
AEK 601	**10**	600	410	3.0	1400
AEK 851	**10**	740	600	3.8	1400



... AEK

AGK-N (10 bar)

Type	Max. discharge pressure bar	Suction volume l/min	Air flow l/min	Motor power kW	Speed 1/min
AGK-N 271	**10**	270	210	1.5	1400
AGK-N 421	**10**	420	335	2.2	1400
AGK-N 551	**10**	545	446	3.0	1400
AGK-N 751	**10**	740	594	4.0	1400
AGK-N 1001	**10**	950	760	5.5	1400
AGK-N 1301	**10**	1280	1050	7.5	1400

... AGK-N

AGK-H (15 bar)

Type	Max. discharge pressure bar	Suction volume l/min	Air flow l/min	Motor power kW	Speed 1/min
AGK-H 271	**15**	270	196	1.5	1400
AGK-H 421	**15**	420	280	2.2	1400
AGK-H 551	**15**	545	389	3.0	1400
AGK-H 751	**15**	740	510	4.0	1400
AGK-H 1001	**15**	950	665	5.5	1400
AGK-H 1301	**15**	1280	906	7.5	1400

... AGK-H

AKK / AEK / AGK series: effective output measured as per ISO 1217
at 8 bar for 10 bar systems
at 12 bar for 15 bar systems
Sound pressure level as per DIN 45635 T13, 1m distance
Nominal voltage: 230/400 V ~ 3/50 Hz,
D = 3-phase AC 230/400 V ~ 3/50 Hz
W = alternating current (AC) 230 V ~ 1/50 Hz
Dimensions and weights differ depending on the selected variant.

The direct-driven industrial solution … also oil-free

Oil-free pistons of the AKK-O and AGK-O series are used wherever absolutely no residual oil is permissible in the compressed air.

The following features distinguish the ALUP run-dry compressors and guarantee high efficiency and long service life:

- all pressure tanks galvanized
- good mass balance
- low piston speed
- excellent cooling
- compressor directly flanged with motor
- frictionless, noncorroding valves
- no-maintenance storage with synthetic high-temperature fat
- compression rings and piston guide made of filled Teflon
- cylinder made of special AL alloy with wear resistant finish

This series is available in the well-conceived modular structural principle as:

- compressor equipment assembly to be built in
- as equipment assembly on base frame for freestanding installation
- as compressed air system with diverse horizontal or vertical tanks (also with coupled refrigeration dryer)
- as dual system
- with or without sound-insulation box

Scope of delivery and options correspond to the AKK, AEK, AGK series.

AKK-O (7 bar)

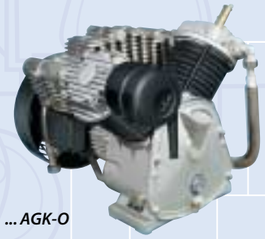
Type	Max. discharge pressure bar	Suction volume l/min	Air flow l/min	Motor power kW	Speed 1/min
AKK-O 100-D	**7**	110	60	0.75	1400
AKK-O 100-W	**7**	110	60	0.75	1400
AKK-O 236-D	**7**	230	144	1.10	1400
AKK-O 236-W	**7**	230	144	1.10	1400

AGK-O (10 bar)

Type	Max. discharge pressure bar	Suction volume l/min	Air flow l/min	Motor power kW	Speed 1/min
AGK-O 271	**10**	270	205	1.5	1400
AGK-O 421	**10**	420	322	2.2	1400
AGK-O 551	**10**	545	441	3.0	1400
AGK-O 751	**10**	740	568	4.0	1400

AKK-O / AGK-O series: effective output measured as per ISO 1217
Sound pressure level as per DIN 45 635 T13, 1m distance
Nominal voltage: 230/400 V ~ 3/50 Hz,
D = 3-phase AC 230/400 V ~ 3/50 Hz
W = alternating current (AC) 230 V ~ 1/50 Hz
Dimensions and weights differ depending on the selected variant.

... AKK-O



... AGK-O

Total flexibility You have the choice!

The A-Tower series offers you the chance to configure your piston compressor to individually fit your own internal needs yourself. Whether

- oil-free or oil-lubricated,
- with a single equipment assembly or up to 3 assemblies for generating compressed air,

you can decide whether to cover your air flow needs

- in increments, thus optimally adapting to the actual current compressed air requirement, or
- maintain redundant capacity with the provision of further compressors/emergency compressors.

The advantages of the A-Tower lie in its modular design. The sound-insulated housing provides space for plug-in modules for up to 3 piston equipment assemblies of the AGK/AGK-O series.

No matter which design variant you select, you get ALUP piston compressors of top-notch quality, engineered for 100 % active running time and hence totally geared to the hard demands of the industry. Make use of the opportunity to configure your compressor yourself.
Upgrades (up to max. 3 equipment assemblies) can naturally be implemented later upon request.

Purchased today, completed tomorrow – individually according to your needs.

The standard scope of delivery for this series comprises:

- Base load selective switching
- Safety valves per equipment assembly
- Running-time meter per equipment assembly
- Non-return valve per equipment assembly
- On/Off switch per equipment assembly
- Pressure gauge
- Zero-voltage contact

Additional options also available.

A-Tower fitted with …		Max. discharge pressure bar	Intake power l/min Number of equipment assemblies 1	2	3	Air flow l/min Number of equipment assemblies 1	2	3	Nominal motor power kW Number of equipment assemblies 1	2	3	Speed per equipment assembly 1/min	Length Width Height mm	Weight kg Number of equipment assemblies 1	2	3	Compressed air connection G"
AGK-N-271	oil-lubricated	10	270	540	810	210	420	630	1.5	3.0	4.5	1400	1275	352	394	436	1"
AGK-N-421	oil-lubricated	10	420	840	1260	335	670	1005	2.2	4.4	6.6	1400	790	375	440	505	1"
AGK-N-551	oil-lubricated	10	545	1090	1635	446	892	1338	3.0	6.0	9.0	1400	1795	378	446	514	1"
AGK-N-751	oil-lubricated	10	740	1480	2220	594	1188	1780	4.0	8.0	12.0	1400		388	466	544	1"
AGK-H-271	oil-lubricated	15	270	540	810	196	392	588	1.5	3.0	4.5	1400	1275	352	394	436	1"
AGK-H-421	oil-lubricated	15	420	840	1260	280	560	840	2.2	4.4	6.6	1400	790	375	440	505	1"
AGK-H-551	oil-lubricated	15	545	1090	1635	389	778	1167	3.0	6.0	9.0	1400	1795	378	446	514	1"
AGK-H-751	oil-lubricated	15	740	1480	2220	510	1020	1530	4.0	8.0	12.0	1400		388	466	544	1"
AGK-O-271	oil-free	10	270	540	810	205	410	615	1.5	3.0	4.5	1400	1275	350	390	430	1"
AGK-O-421	oil-free	10	420	840	1260	322	644	966	2.2	4.4	6.6	1400	790	373	436	409	1"
AGK-O-551	oil-free	10	545	1090	1635	441	882	1323	3.0	6.0	9.0	1400	1795	378	446	514	1"
AGK-O-751	oil-free	10	740	1480	2220	568	1136	1704	4.0	8.0	12.0	1400		386	462	538	1"

effective output measured according to ISO 1217 annex C; at 8 bar for 10 bar systems, at 12 bar for 15 bar systems