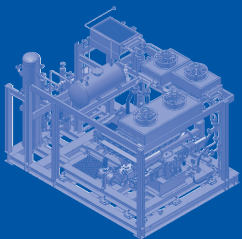
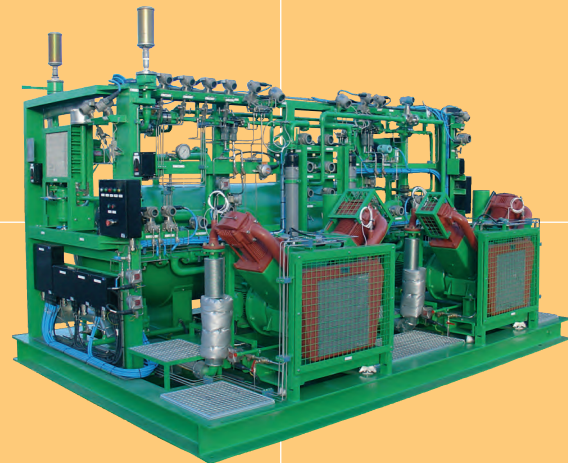
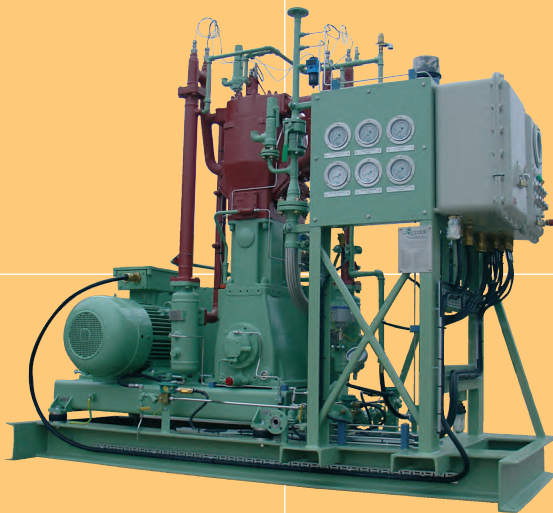
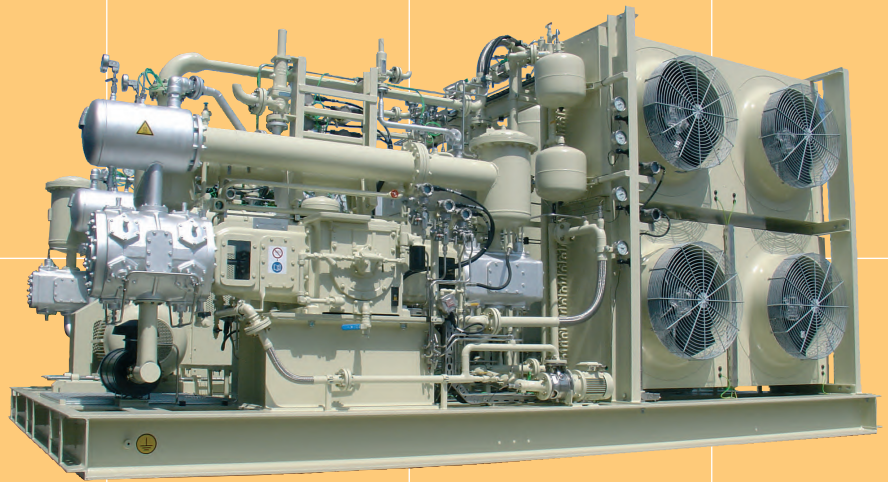


piston compressors



piston compressors

AIR COMPRESSOR PACKAGES WITH PISTON COMPRESSORS

The following piston compressors are manufactured and supplied by Airpack Nederland B.V.:

- Horizontal piston compressors, oil free and oil lubricated
- Vertical piston compressors, oil free and oil lubricated
- V type compressors, oil free and oil lubricated

We are specialized in providing this equipment for hazardous areas, desert/tropical/artic environments and earthquake sensible areas.

The compressor(s) will be driven via a coupling, gearbox, V-belt, an electric motor, diesel engine or turbine. Accessories like oil- and air coolers (forced by cooled air or cooled water), oil- and water pumps in duplex or single configuration, oil- and air filters in duplex or single configuration, pressure vessels, separators, pulsation dampers, control panels, PLC's, instruments, valves etc. can be applied to all materials, types and can be made available to market.

For small compressed air or gas applications we apply V-type or vertical compressors while for larger applications horizontal compressors will be used. Both oil free and lubricated piston compressors are available.

The motion work i.e. crankshaft and bearings require lubrication in any case. A double seal prevents any oil entering into the cylinders.

Compressors with small capacities will be air cooled and the compressors with larger capacities will be water cooled by closed or open systems.

AIRPACK OPTIONS

- Compressor drive by LV, MV or HV electric motor, diesel engine or turbine
- Stainless steel components like enclosure panels, oil system, process piping, coolers and separators (e.g. offshore applications)
- ATEX explosion proof, suitable for operation in Zone 1 or Zone 2 environment
- Control by redundant and/or SIL certified PLC with HMI (human machine interface) for operation via touch screen
- Hydrogen Sulfide (H₂S) compressor intake filters
- Winterization enclosure, for extreme low temperatures (-45°C)
- Tropicalization for extreme high ambient temperature up to 60°C
- Control by DCS (distributed control system)
- Vibration monitoring system by 4-20 mA detectors or sophisticated Benly Nevada monitoring system
- Provision of complete closed cooled water system with water chiller (if required)



AIR COMPRESSOR PACKAGES WITH PISTON COMPRESSORS

ADVANTAGES OF HORIZONTAL PISTON COMPRESSORS

The horizontal compressors are balanced opposed and have the following advantages:

1. **Balanced opposed**

The horizontal reciprocating compressors are basically composed of two opposed cylinder centrelines.

Each line is operated by two adjacent crankpins opposed at 180°C. The staggering of the crankpins is calculated in order to obtain equal compression forces at each line.

The pistons and motion work of same line have equivalent masses.

2. **Axial torque without reactions on bearings**

Whether in single or multi-stage compressors, the forces resulting from compression and from the inertia of the moving parts are always balanced in the two cylinders of the same line.

Their resultant forces are equal and produce an axial torque without reaction on the bearings.

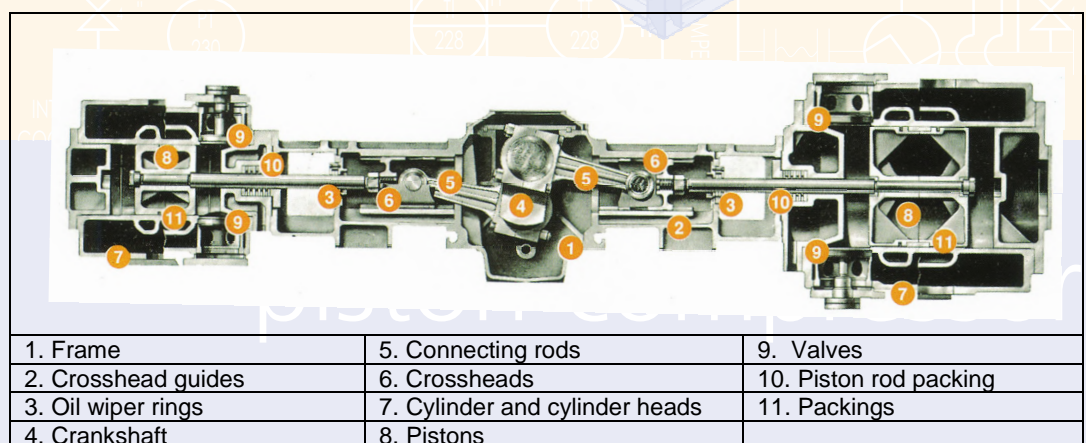
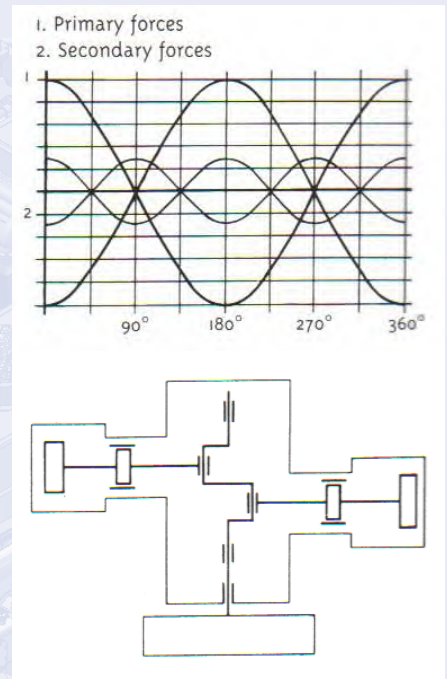
3. **Balanced lines**

The two pistons of the same line move in opposite directions.

Primary and secondary inertia or acceleration forces counterbalance one another and eliminate any vibration or knocking.

4. **Water cooled cylinders**

Discharge temperatures are within the limits of API-680. On request the units can be equipped with a closed cooled water system.



AIR COMPRESSOR PACKAGES WITH PISTON COMPRESSORS

OIL FREE PISTON COMPRESSORS

The available different configurations along with the details are mentioned in the tables below.

a) Oil free piston compressors:

Model	Capacity [Nm ³ /hr]	Pressure [Bar(g)]	Number of Stages	Maximum compressor speed [rpm]	Cylinder Arrangement
AL-20	20	8-15	2	750	vertical
AL-65	65	8-15	2	750	vertical
AL-115	115	8-15	2	750	vertical
AL-135	135	8-15	2	750	vertical
AL-175	175	8-15	2	750	vertical
AL-235	235	8-15	2	750	vertical
AL-270	270	8-15	2	750	vertical
AL-320	320	8-15	2	750	vertical
AP-115	135	8-15	2	1000/1500	V-type
AP-130	235	8-15	2	1000/1500	V-type
AP-195	195	8-15	2	1000/1500	V-type
AP-390	390	8-15	2	1000/1500	V-type
AP-515	515	8-15	2	1000/1500	V-type
HA-550-LT	550	8-15	2	750	horizontal
HA-800-LT	800	8-15	2	750	horizontal
HA-1060-LT	1060	8-15	2	750	horizontal
HA-1450-LT	1450	8-13	2	750	horizontal
HA-1865-LT	1865	8-10	2	750	horizontal
HA-2100-LT	2100	8-10	2	750	horizontal
HA-2700-LT	2700	8-10	2	750	horizontal
HA-5400-LT	5400	8-10	2	750	horizontal
HA-350-LT-3	350	18	3	750	horizontal
HA-575-LT-3	575	18	3	750	horizontal
HA-1550-LT-3	1550	18	3	750	horizontal
HA-1800-LT-3	1800	18	3	750	horizontal

Special constructions can be offered on request.

piston compressors

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Worldwide air and gas package manufacturer



AIR COMPRESSOR PACKAGES WITH PISTON COMPRESSORS

LUBRICATED PISTON COMPRESSORS

b) Lubricated piston compressors:

Model	Capacity [m ³ /hr]	Pressure [Bar(g)]	Number of Stages	Maximum compressor speed [rpm]	Cylinder arrangement
LB-140	140	8	2	1500	V-type
LB-230	234	8	2	1500	V-type
LB-300	296	8	2	1500	V-type
LB-400	396	8	2	1500	V-type
LB-465	468	8	2	1500	V-type
LB-600	594	8	2	1500	V-type
MB-180	184	10	2	1000	V-type
MB-230	222	10	2	1500	V-type
MB-300	294	10	2	1000	V-type
MB-375	368	10	2	1000	V-type
MB-450	442	10	2	1000	V-type
MB-600	603	10	2	1500	V-type
HB-140	136	15	2	1000	V-type
HB-230	204	15	2	1500	V-type
HB-300	271	15	2	1000	V-type
HB-400	406	15	2	1500	V-type

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