

Chillers

► Cooling system

In the anodizing process the temperature of tanks (such as anodizing, electrocolouring, etching) is of vital importance if quality is to be obtained.

Aluengineering dimensions its refrigerating systems in relation to the actual needs of the customer taking into consideration all the issues required to determinate the power supply (production volume, process, local temperature, etc, etc.)



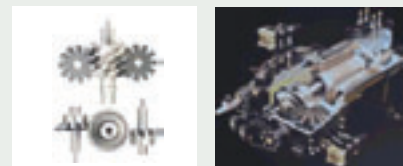
Cooled Screw Chiller

General features

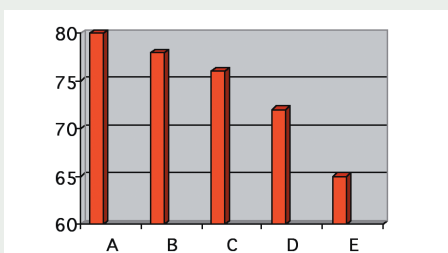
- Cooling Capacity 200 ÷ 2000 kW
- HFC 134a ecological refrigerant
- "Frame 4" single screw compressor
- Step less capacity control
- Electronic expansion valve
- Low noise and super quiet version down to 65 dBA at 1 meter

New single screw compressor

Design philosophy takes great advantages in performances and reliability. Single screw compressor has a balanced compression mechanism which eliminates the screw rotor load in both the radial and axial directions, and results in bearing life 3-4 times greater than twin screw compressor. At the same time, noise and vibrations are the lowest in the market. Oil injection is used to improve COP at high condensing pressure.



A record: 65 dBA at 1 meter distance



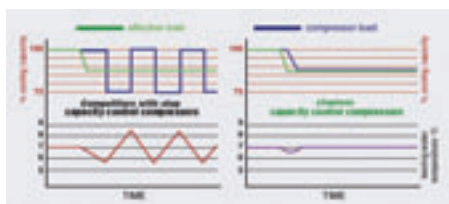
ALS "E" chiller line includes 5 different noise level versions: A – B – C – D - E. Single screw compressor technology, high quality soundproof cabinets, variable speed fans, flexible pipes and a great assembly accuracy, result in extremely low noise levels down to 65 dBA at 1 meter distance, according to ISO 3744. Critical noise requirements can be satisfied using ALS "E" chiller line, without any need to install heavy and expensive additional sound barriers around the units.

HFC 134a Ecological refrigerant

Aluengineering's tradition has always been very sensitive to the environment protection and beside our objective to prove reliable and efficient units, we have decided to drive our choice of HFC 134a refrigerant, with a low impact on the global warming potential but able to offer:

- ▶ No impact on Ozone layer (ODP=0)
- ▶ Reduced TEW I with a minor global warming potential value
- ▶ Certified high thermodynamic efficiency
- ▶ No problem in handling and using this refrigerant

Perfect water temperature control for total thermal comfort



Perfect water temperature control is only achievable by compressor with step less capacity control. Aluengineering has introduced infinitely variable capacity control technology on all single screw compressors range, to follow perfectly the cooling load and ensure a constant evaporator leaving water temperature (EWLT), without any fluctuations from the required set-point value for total thermal comfort.



Microtech II C Plus control

- ▶ Display of all functioning parameters
- ▶ Limiting device to avoid current absorption exceeding the contract
- ▶ Soft Load function able to prevent from unnecessary stress during the unit start up

Air Cooler Screw Chiller

Technical data

		163.2	178.2	196.2	212.2	229.2	241.2	279.3	296.3	312.3	327.3	344.3	358.3	426.4	460.4	495.4
Cooling capacity	kW	584	640	700	761	817	886	988	1057	1109	1166	1226	1322	1520	1641	1772
COP		3.00	3.03	3.12	3.12	3.11	3.15	3.05	3.15	3.11	3.11	3.11	3.14	3.11	3.12	3.15
Screw compressor	No.	2	2	2	2	2	2	3	3	3	3	3	3	4	4	4
Refrigerant Circuits	No.	2	2	2	2	2	2	3	3	3	3	3	3	4	4	4
Min Capacity reduction	%	12.5	12.5	12.5	12.5	12.5	12.5	8.3	8.3	8.3	8.3	8.3	8.3	6.25	6.25	6.25
Unit Length	Mm	5310	5310	5310	6210	6210	6210	7400	8270	8270	9200	9200	9200	11000	11900	11900
Unit width	Mm	2230	2230	2230	2230	2230	2230	2230	2230	2230	2230	2230	2230	2230	2230	2230
Unit height	mm	2520	2520	2520	2520	2520	2520	2520	2520	2520	2520	2520	2520	2520	2520	2520

