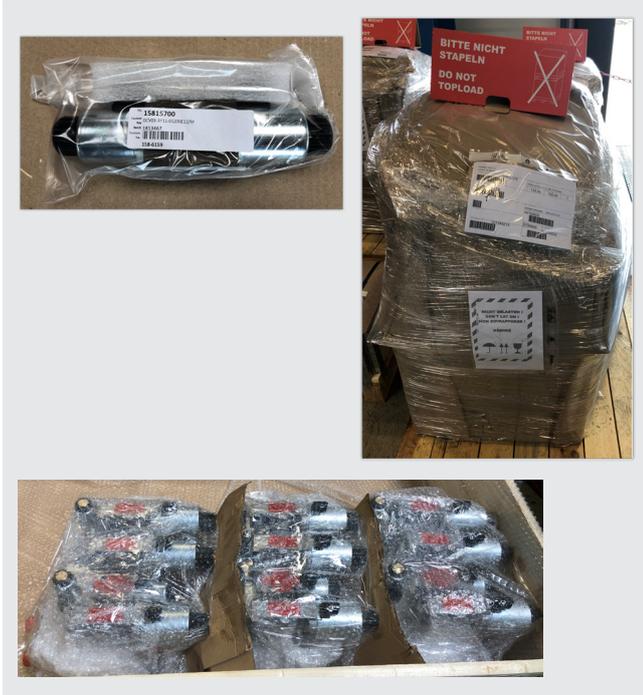


Packaging and the subsequent storage of products ARGO-HYTOS



Product groups and used packing material

Serially produced hydraulic valves are standardly packed into PE bags which are vacuumed and then edge sealed. Valves with bodies are carefully fitted with plastic transport plates. Vacuum packing of the valves prevents access of air, dirt and moisture increasing their protection during storage. Undamaged transport plates can be returned to the manufacturer.

Hydraulic blocks and powerpacks are packed so that they are protected against mechanical damage, contamination and corrosion during transportation. In cases of shipping by sea special packages containing Vapour Phase Corrosion Inhibitors (VpCI) are used. There are also many possibilities to customize packaging. All of the packaging materials used are recyclable and environmentally friendly.

None of the methods of packaging the product during transport can guarantee sufficient protection for subsequent longer storage by the customer.

Products should only be stored in a dry place with a relative humidity of up to 65 %, at a temperature between 0 °C and + 30 °C. Beware of rapid temperature changes and any possible condensation of air humidity on the surface of metal parts. The interiors of valves, blocks and circuits must be suitably protected against environmental moisture and dirt, for example by means of inlet plugs or cover plates. Pollution may cause the device to malfunction.

Maximum storage times are not precisely determined and depend on specific product types.

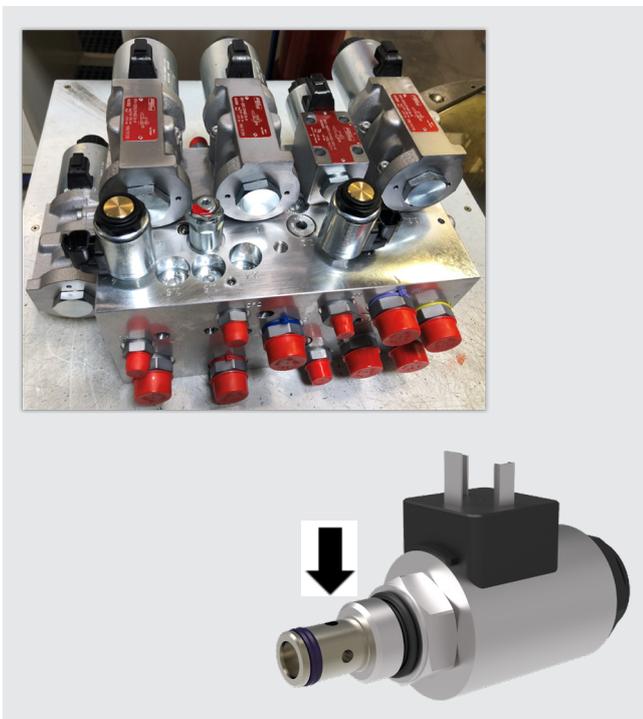
Limiting factors for the duration of storage are:

- > Product material
- > Anti-corrosion surface treatment of the product and the presence of unprotected surfaces
- > Packing method
- > Storage conditions
- > The presence of seals in the product

When storing, it should be taken into account that even some coated products may have parts without anti-corrosion surface treatment, parts that, when installed in the hydraulic circuit, operate in hydraulic oil, for example, steel housing for in-built valves. For longer storage we recommend additional protection of unprotected surfaces.

Products with declared set-parameters, especially proportional valves, may show set-parameter deviations at startup which will disappear after running-in (after rinsing with clean oil and loosening parts).

After a prolonged period of storage, we recommend checking the product for corrosive damage, replacing seals and flushing the product with clean oil before connecting it to the hydraulic circuit. (Residual hydraulic oil may chemically decompose in the product as a result of atmospheric oxygen and moisture.)



Seals are used in almost all products.

Seal storage conditions are specified in the ISO 2230 standard – Rubber products – Storage instructions: Seals should be stored:

- › In covered, dry and tempered rooms at temperatures +15 to 25 °C, away from direct sources of heat
- › Protected from weather effects, direct sunlight and ultraviolet radiation
- › Undeformed, on a clean, flat surface in the original packaging
- › Out of contact with oil and chemical substances

Rubber group	Abbreviation of chemical name according to ISO 1629	Chemical composition	Storage period
A	Polyurethane AU	Polyurethane rubber	5 years
B	NBR	Nitrile butadiene rubber	7 years
C	FKM / FPM (Viton)	Fluoropolymer elastomer	10 years

However, taking into account that the total lifetime of a seal is the sum of shelf life and usage period of the product, we recommend limiting seal storage time to a maximum of two years.



Filter cartridges, as spare parts for filters, should be stored in original packaging for a maximum of four years at a temperature of 0 to + 25 °C and relative air humidity of 65 %.

In accordance with DIN -7716 Rubber products – Storage requirements. After this period, the properties of binding materials and others may change undesirably.

Screen elements having metal fabrics are an exception. When stored correctly, they can be kept longer than four years thanks to their robust design and long lifetime.

The cartridges are sealed in plastic foil, protected from dust and moisture. The cardboard box protects the cartridge from mechanical damage and facilitates type identification.

INFO

ARGO-HYTOS filter elements are delivered in a film tube to avoid dirt ingress during shipment and storage. **High quality cardboard boxes** guarantee safe transport and storage / handling. The **label used** bears a **QR code**, serves as a **closure seal** and thus ensures the new / unopened product condition.

Note:

Detail information regarding the storage of filter elements you can find in info sheet 00.335.