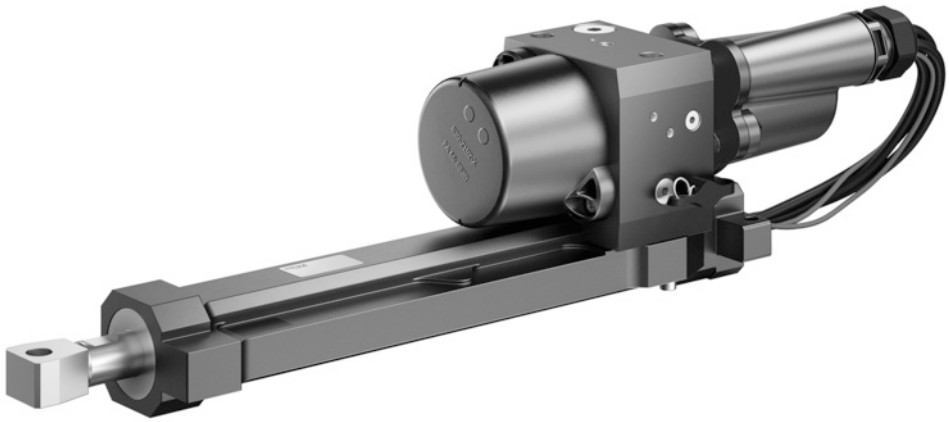
Compact hydraulic drive type ResQ-Lift

Product documentation

Operating pressure p_{max}:	230 bar
Flow rate Q_{max}:	6 l/min



D 6006
10-2024-1.0 en

HAWE HYDRAULIK

Printing date / document generated on: 2024-10-17

Table of Contents

1 Overview – Compact hydraulic drive type ResQ-Lift

Electro-hydraulic actuators are fully pre-assembled systems comprising a hydraulic power pack, valve block and differential cylinder.

The heart of the ResQ-Lift is a compact hydraulic power pack with a brushless motor for dynamic movement. A double-acting cylinder is flanged onto the hydraulic power pack. This removes the need for tubes that could get trapped in the kinematics. The device holder contains a patented manual valve for emergency operation.

Compact hydraulic drive type ResQ-Lift

Features and advantages

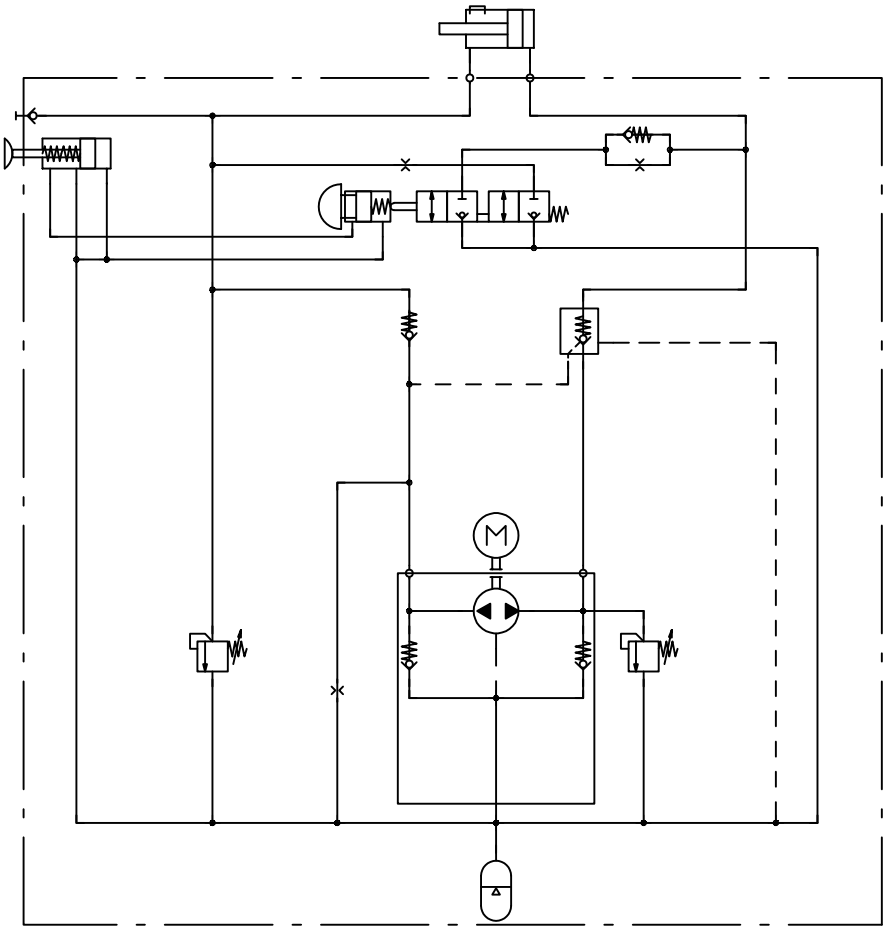
- Plug & play
- Highly integrated unit (lightweight, compact and closed hydraulic system)
- Adjustable and highly dynamic
- Gradual, stepless adjustments
- High cylinder load (max. 15,800 N)
- Built-in emergency function (lowering without power)
- High system efficiency for longer battery life
- Flexible installation situations/easier integration thanks to:
  - Variable position of device holder on cylinder if requested by customer
  - Cable outlet available on any side
  - Cable length and plugs based on customer requirements (optional)

Intended applications

- Rescue stretchers
- Industrial shearing drives
- Door operation

2 Available versions

Circuit symbol



Ordering example

ResQ	15	-305	-36

2.4 "Motor voltage"

2.3 "Stroke"

2.2 "Thrust"

2.1 "Basic type"

2.1 Basic type

Type	Description	Pressure p_{max} (bar)	Flow rate Q_{max} (l/min)
ResQ	Electro-hydraulic actuator	230	6

2.2 Thrust

Coding	Description
12	12 kN with motor A50
15	15 kN with motor A60

2.3 Stroke

Coding	Stroke (mm)
305	▪ 305 mm (standard) ▪ Optional: 176 - 305 mm

2.4 Motor voltage

Coding	Description
24	Optional: 24 V DC
36	36 V DC

3 Parameters

3.1 General data

Designation	Compact hydraulic drives
Design	Electro-hydraulic actuator
Model	Compact hydraulic power pack with flanged-on cylinder
Installation position	any
Emergency actuation	Via a plunger (opens an internal bypass)
Cylinder extension speed	Max. 100 mm/s
Thrust	Max. 15,800 N
Hydraulic fluid	Hydraulic fluid TITAN CHF11S Not suitable for water-based fluids and native oils (HETG). Not suitable for HETG such as rapeseed oil and water-glycol solutions, e.g. HFA and HFC.
Cleanliness level	**ISO 4406** 17/15/12
Temperatures	Environment: approx. -30 to +60°C Motor: max. 110°C (internal)

3.2 Pressure and volumetric flow

Operating pressure	Max. 230 bar (with safety factor 3 against bursting)
Flow rate	Max. 6 l/min

3.3 Weight

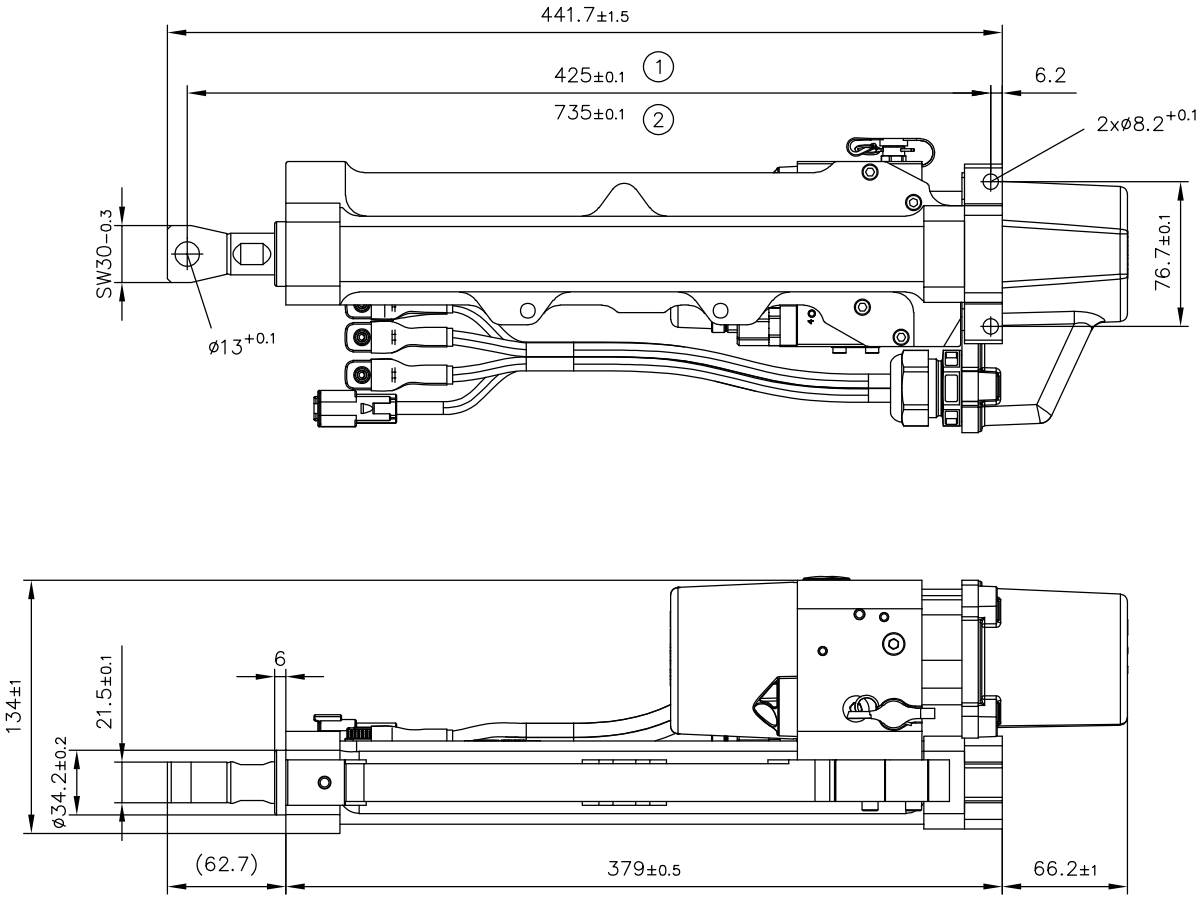
with motor	A50: Max. 6.1 kg (with stroke 305 mm) A60: Max. 6.5 kg (with stroke 305 mm)

3.4 Electrical data

Nominal voltage	▪ 36 V DC ▪ Optional: 24 V DC
Current consumption	▪ With motor A50: max. 50 A ▪ With motor A60: max. 70 A
Protection class	IP 66
Motor design	Brushless
Relative duty cycle	S3 - 15% duty cycle based on 2 min.
Temperature sensor	MFSA-105F-3435 (built into motor)

4 Dimensions

All dimensions in mm, subject to change.



1 Retracted
2 Extended

5 Installation, operation and maintenance information

Observe the document B 5488 “General operating instructions for assembly, commissioning, and maintenance.”

5.1 Intended use

This product is intended exclusively for hydraulic applications (fluid technology).

The user must observe the safety measures and warnings in this document.

Essential requirements for the product to function correctly and safely:

- ► All information in this documentation must be observed. This applies in particular to all safety measures and warnings.
- ► The product must only be assembled and put into operation by specialist personnel.
- ► The product must only be operated within the specified technical parameters described in detail in this document.
- ► All components must be suitable for the operating conditions when using an assembly.
- ► The operating instructions for the components, assemblies and the specific complete system must also always be observed.

If the product can no longer be operated safely:

1. Remove the product from operation and mark it accordingly.
   ✓ It is then not permitted to continue using or operating the product.

5.2 Assembly information

The product must only be installed in the complete system with standard and compliant connection components (screw fittings, hoses, pipes, fixtures etc.).

The product must be shut down correctly prior to disassembly (in particular in combination with hydraulic accumulators).

⚠ **DANGER**

Sudden movement of the hydraulic drives when disassembled incorrectly

Risk of serious injury or death

- ► Depressurise the hydraulic system.
- ► Perform safety measures in preparation for maintenance.

5.3 Operating instructions

Observe product configuration and pressure/flow rate.

The statements and technical parameters in this document must be strictly observed.
The instructions for the complete technical system must also always be followed.

NOTICE

- ► Read the documentation carefully before usage.
- ► The documentation must be accessible to the operating and maintenance staff at all times.
- ► Keep documentation up to date after every addition or update.

⚠ **CAUTION**

Overloading components due to incorrect pressure settings.

Risk of minor injury. Parts may burst or fly off, and uncontrolled leakage of hydraulic fluid.

- ▪ Pay attention to the maximum operating pressure of the pump, valves and fittings.
- ▪ Always monitor the pressure gauge when setting and changing the pressure.

Purity and filtering of the hydraulic fluid

Fine contamination can significantly impair the function of the product. Contamination can cause irreparable damage.

Examples of fine contamination include:

- Swarf
- Rubber particles from hoses and seals
- Dirt due to assembly and maintenance
- Mechanical debris
- Chemical ageing of the hydraulic fluid

NOTICE

New hydraulic fluid from the manufacturer may not have the required purity.

Damage to the product is possible.

- ► Filter new hydraulic fluid to a high quality when filling.
- ► Do not mix hydraulic fluids. Always use hydraulic fluid that is from the same manufacturer, of the same type, and with the same viscosity properties.

For smooth operation, pay attention to the cleanliness level of the hydraulic fluid (cleanliness level see Chapter 3, "Parameters").

Additionally applicable document: D 5488/1 oil recommendations

5.4 Maintenance information

Check regularly (at least once a year) by visual inspection whether the hydraulic connections are damaged. If external leakages are found, shut down and repair the system.

Clean the surface of the device regularly (at least once a year) (dust deposits and dirt).

HAWE Hydraulik SE
Einsteinring 17 | 85609 Aschheim/Munich | P.O. Box 11 55 | 85605 Aschheim | Germany
Phone +49 89 379100-1000 | info@hawe.de | www.hawe.com