Product Overview

The HLK-43000 manipulator is a 5 Function rate controlled manipulator making use of an HLK-21020 jaw rotate offering 180 degree rotation on the wrist and a jaw opening range of 90mm (3.5”) and a softline cutting capability of 6mm (1/4”) from the back side of the jaw plates.

This manipulator was specifically developed for use on observation class vehicles to provide manipulation capabilities and is ideal for applications such as debris clearance, rope cutting, biological and geological sampling, archaeological work, salvage and recovery.

Features

- 5 degrees of freedom manipulator
- Compact & lightweight @ 4.2kg (9.24lb)
- Lift of 10Kg at full reach
- Wrist rotate range of 180 deg and a jaw opening of 90mm (3.5")
- Incorporates a 6mm (1/4") soft rope cutter
## Product Specifications

### General
- **Degrees of Freedom**: 5
- **Control Type**: Rate Controlled
- **Materials**: 316 Stainless Steel, 6082 Aluminium, HDPE
- **Seal Materials**: Nitrile/NBR/Buna-N, PTFE
- **Product Finish**: Hard Anodised, Painted
- **Ports**: 1/8" BSPP (ISO 1179) M8x1
- **Dimensions**: Refer to Drawing
- **Weight in Air**: 8.4kg (18.5lb)
- **Weight in Water**: 4.2kg (9.24lb)
- **Maximum Reach**: 660mm (26")
- **Wrist Travel**: 180 Degree
- **Jaw Opening**: 90mm (3.5")

### Hydraulic Performances
- **Max. Working Pressure**: 80bar (1160psi)
- **Flow**: 0.5lpm to 6lpm (0.13gpm to 1.58gpm)
- **Fluid Type**: Mineral: DIN 51524, ISO 11158, ISO 6743-4, Synthetic: Panolin Atlantis, HLP-Synth
- **Viscosity**: 16cSt to 220cSt. VG 22-32 Recommended
- **Fluid Temperature**: 5-60°C (41-140°F)
- **Cleanliness Requirements**: ISO 4406:19/17/14, NAS 1638:8, AS4059:9A/8B/8C

### Performances
- **Wrist Torque**: 8.2Nm @ 80bar (6lbf.ft @ 1160psi)
- **Jaw force**: 124N @ 80bar (27.9lbf @ 1160psi)
- **Soft Rope Cutting Diameter**: 6mm (1/4")
- **Lift at Full Extension**: 10kg (22lb)

### Environmental
- **Operational Depth**: 3000msw (9,840ft)
- **Operating Temperature**: 5-60°C (41-140°F)
- **Storage Temperature**: 0-70°C (32-158°F)
- **Humidity**: 0% to 100% Condensing