

Manipulator Jaw Rotate

The HLK-21020 manipulator jaw rotate was developed specifically for the HLK-43000 mini-manipulator commonly used on small observation class vehicles or can be retrofitted to any system requiring a jaw rotate function or mechanism.

The rotate function utilises a rack and pinion design offering a limited 180° rotation while the jaw function utilises a double acting actuator. The manufacturing of the body uses 6082 aluminium with a 50-micron hard-anodised surface.

The rotate function can deliver a limited range torque of 8.2Nm @ 80bar (6lbf.ft @ 1160psi) while the jaw mechanism can exert a compressive force of 125N @ 80bar (28lbf @ 1160psi).



Features

- 180° rotate function capable of delivering 8.2Nm @ 80bar (6lbf.ft @ 1160psi)
- Jaw force capacity of 125N @ 80bar (28lbf @ 1160psi)
- Soft rope cutting blades available as standard

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Technical Specifications

General

| | |
|--------------------------|--|
| Function | Jaw & Wrist Rotate |
| Materials | 316 Stainless Steel, 6082 Aluminium |
| Product Finish | Hard Anodised |
| Seal Material | Nitrile/NBR/Buna-N |
| Ports | 1/8" BSPP (ISO 1179) |
| Dimensions | (L) 312mm x (W) 108mm x (D) 75mm (12.3" x 4.3" x 3") |
| Weight in Air | 4.5kg (9.9lb) |
| Weight in Water | 3.4kg (7.5lb) |
| Wrist Travel (Degree) | 180° |
| Jaw Opening | 90mm (3.5") |
| T-Handle Groove Diameter | 10mm (3/8") |

Hydraulic Performance

| | |
|--------------------------|---|
| Maximum Working Pressure | 80bar (1160psi) |
| Flow | 0.5lpm to 3lpm (0.13gpm to 0.79gpm) |
| Fluid Type | Mineral: DIN 51524, ISO 11158, ISO 6743-4, ASTM D6158 Synthetic: Panolin Atlantis, HLP-Synth |
| Viscosity | 16cSt to 220cSt. VG 22-32 Recommended |
| Temperature | 5-60°C (41-140°F) |
| Cleanliness Requirements | ISO 4406:19/17/14, NAS 1638:8, AS4059:9A/8B/8C |

Forces

| | |
|------------------------|-----------------------------------|
| Wrist Torque | 8.2Nm @ 80bar (6lbf.ft @ 1160psi) |
| Jaw Force | 125N @ 80bar (28lbf @ 1160psi) |
| Soft Rope Cut Diameter | 6mm (1/4") |

Environmental

| | |
|-----------------------|-----------------------|
| Operational Depth | 6000msw (19,680ft) |
| Operating Temperature | 5-60°C (41-140°F) |
| Storage Temperature | 0-70°C (32-158°F) |
| Humidity | 0% to 100% Condensing |

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SPECIFICATIONS MAY CHANGE WITHOUT PRIOR NOTICE AND ARE SUBJECT TO SYSTEM CONFIGURATION