



New Seven-Function Dexterous Grabber

The Subsea Industry relies on hundreds of Schilling manipulators every day. The ATLAS introduces a new class of manipulator specifically suited to work with today's highest-performing vehicles under the most demanding conditions.

- Extraordinary Lift-to-Weight Ratio
- Premium Seven Function “Dexterous Grabber” Allows for More Effective Positioning while Grasping Wellheads, Panels, or Tools
- Long Reach and High Degree of Dexterity Provides a Large Operating Envelope
- Common Parts Used Throughout Arm to Reduce Needed Spares Inventory
- Built for Durability and Reliability in Harsh Subsea Environments
- Standard Depth Rating of 6,500msw



For nearly 25 years, Schilling has been manufacturing the highest-performing manipulators that have since become the industry standard worldwide. Schilling now introduces the ATLAS, a new class of heavy-duty manipulator known as the dexterous grabber. It has been designed to lift heavy loads, while being lightweight and easy to control. With seven degrees of freedom, a high lift capacity (250kg or 550lb at full extension), and a depth rating of 6,500msw, the ATLAS gives operators the freedom and strength to perform a wider range of heavy-duty jobs in harsh subsea environments.

ATLAS SPECIFICATIONS

General Description

Mode of operation.....Rate Control
 Input deviceRate Hand Controller (Optional)
 Number of functions.....Six plus Grip
 Materials of construction6061-T6 Aluminium,
 Stainless Steel

Manipulator Arm Specifications

All specifications are based on the standard system configuration using Shell Tellus® Oil 32 hydraulic fluid, input pressure of 207 bar (3,000 psi), and available flow of 19.0 lpm (5 gpm).

Depth rating.....6,500msw (21,327fsw)
 Maximum reach1,664mm (65.5in)
 (from azimuth pivot to standard gripper T-bar slot)
 Weight in air.....73kg (160lb)
 Weight in seawater.....50kg (109lb)
 Lift at full extension, nominal.....250kg (550lb)
 Maximum lift, nominal.....500kg (1,100lb)
 Maximum gripper opening, nominal..198mm (7.8in) (Standard Gripper),
 Grip force, nominal.....4,448 N (1,000lbf)
 Wrist torque, nominal.....205 Nm (150ft-lb)
 Wrist rotate, continuous.....360 degrees, 6-35rpm

Manipulator Arm Functions

Actuator Function Range	Type	Nominal Mechanical
Azimuth	Linear	120 degrees
Shoulder pitch	Linear	135 degrees
Elbow pitch	Linear	135 degrees
Wrist pitch	Linear	120 degrees
Wrist yaw	Linear	120 degrees
Wrist rotate	Gerotor	360 degrees
Gripper (Standard)	Linear	198mm (7.8in.)

Approved Hydraulic Fluids

Hydraulic oilAll Common Mineral, Glycol, and Environmentally Friendly Fluids

Hydraulic Requirements

Viscosity10-200 cSt
 Available flow.....5.7-19.0lpm (1.5-5.0gpm)
 Pressure, minimum103bar (1,500psi)
 Pressure, maximum.....207bar (3,000psi)
 Slave arm performance is reduced at less than 3,000psi.
 Hydraulic fluid temperature, max. 54 degrees C (130 degrees F)
 Filtration.....10 microns (25 microns absolute)
 Customer supplied mating fittings required:
 Hose fittings.....4 JIC female, 1/4-inch

Contact the factory about operation at other pressures and flow rates.

Environmental Specifications

Operating temperature-2 to +54 degrees C
 (+28 to +130 degrees F)
 Storage temperature-15 to +71 degrees C
 (+5 to +160 degrees F)
 Humidity.....0% to 100% condensing

ATLAS MANIPULATOR, M-0879, 130-1221, REV.A

SO DEEP, NO ONE COMES REMOTELY CLOSE



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