



Schilling Robotics CONAN 7P Manipulator

**We put you first.
And keep you ahead.**

The CONAN's combination of high strength and low cost make it the manipulator of choice for medium and heavy-work class ROVs. This is a great choice for a seven-function, position-controlled, and high-capacity manipulator system.

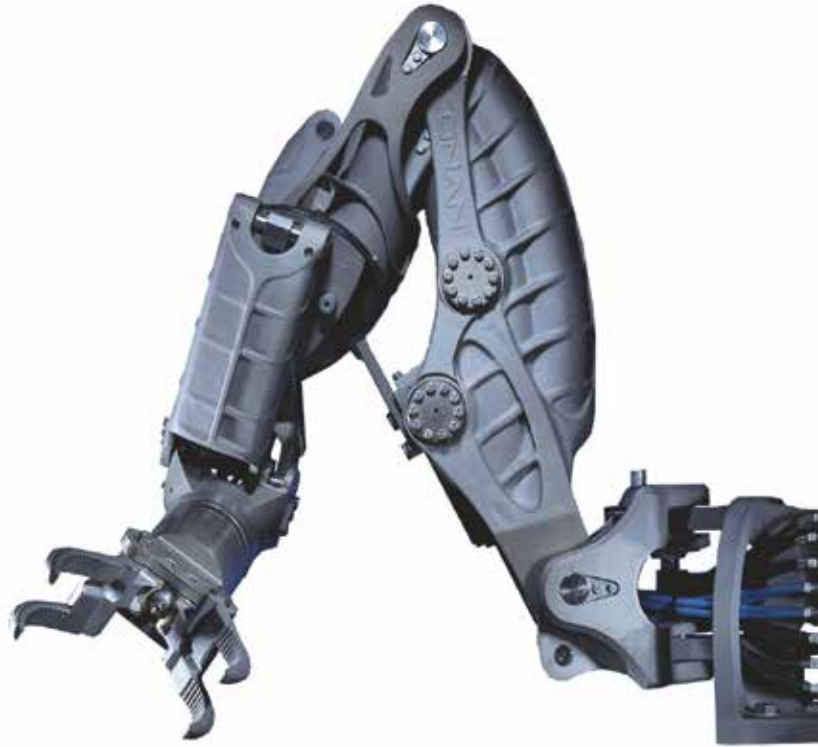
- » High Lift-to-Weight Ratio
- » Seven Functions Provide Effective Operating Envelope
- » Engineered with Component Commonality to Minimize Part Requirements
- » Standard Depth Rating of 3,000msw
- » Fully Self-Contained Arm for Easy Mounting

The CONAN 7P is designed to perform demanding tasks and yet be economical to install, operate, and maintain. It's power, reach, and rugged construction make it the perfect choice for subsea manipulator applications that require a combination of heavy lifting and dexterity. With a maximum lift capacity of 181kg at full extension, it can be used for a wide range of subsea tasks.

To ensure accurate and reliable operation of the CONAN, position sensors are magnetically coupled and sealed inside laser-welded titanium housings for protection. It is designed to be serviced on site and in less-than-ideal working conditions. It is also fitted with oversized joint pivot bearings increase resistance to structural overload.

Trouble-Free Maintenance

The CONAN was engineered specifically to be easily maintainable in the field. This is true for both installation and maintenance. Through-base bolting makes it particularly easy to install. All electronic components and valves are located in enclosures on the manipulator arm, eliminating the need to install and interconnect an external subsea controller or valve package.





CONAN manipulators combine strength and dexterity.

Position-Controlled

The CONAN 7P is ideally suited for applications requiring the accuracy and sophisticated control of a closed-loop, position-controlled manipulator system. The turn-key system includes a manipulator arm with a 152mm parallel-acting titanium gripper, a compact master controller with miniature replica master arm, control electronics, and a hydraulic compensator.

Operation with the miniature replica master arm and portable master controller is simple, comfortable, and intuitive. The master controller also contains function keys for selecting menu options and a display for viewing diagnostic and status information.

Many advanced operational features are standard with the system, including individual joint freeze, position scaling (altering the ratio of master arm movement to manipulator arm movement), password security, programmable stow/deploy routines, individual joint movement limits, incremental gripper movement, individual joint diagnostics, and automatic error checking.

Manipulator Compatibility

To create the best manipulators on the market, we took the most field-proven manipulator technologies and used them repetitively throughout the system. The result is a simple, reliable system with high component commonality that minimizes spare part requirements. Many parts are interchangeable throughout the entire manipulator line: TITAN 4, ATLAS, RigMaster, CONAN, and ORION.

SPECIFICATIONS

Reach	1,806mm
Type	Position Controlled
Functions	7
Materials	Anodized Aluminum, Stainless Steel, Titanium

- » **Arm Specifications**
 Standard Depth: 3,000 msw
 Weight in air: 107kg
 Weight in water: 73kg
 Lift at full extension: 273kg
 Maximum lift, nominal: 159kg
 Standard Gripper Opening: 152mm
 Grip Force, nominal: 4,448N
 Wrist torque, nominal: 205Nm
 Wrist rotate, continuous: 6-35rpm
- » **Actuator Function**
 Azimuth: Linear, 105°
 Shoulder Pitch: Linear, 105°
 Elbow Pitch: Linear 305mm
 Wrist Pitch: Linear, 360°
 Wrist Yaw: Linear, 284mm
- » **Wrist Rotate: Gerotor, 360°**
 Gripper, Standard: Linear, 152mm
- » **Master Controller Specifications**
 Length: 470mm
 Width: 177mm
 Height: 67mm
 Weight: 3.7kg
- » **Hydraulic Requirements**
 Fluid: Mineral, Glycol, or Synthetic
 Viscosity: 10-200 cSt
 Available Flow: 5.7 - 19 lpm
 Max. Pressure: 3,000 psi
- » **Hydraulic fluid temperature**
 Max: 54°C (130 ° F)
 Filtration: 3 microns
 Fluid Cleanliness: ISO 4406 14/11

Options and Accessories

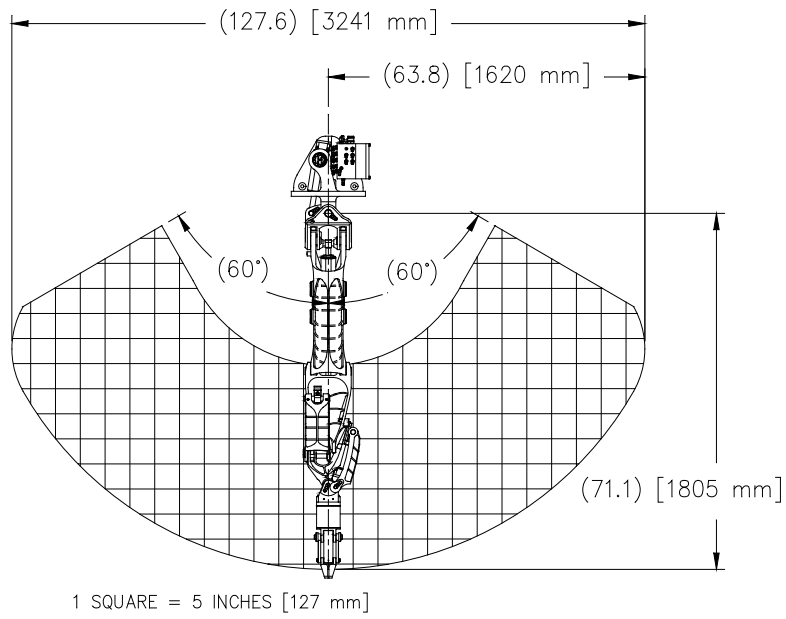
- » 198mm (7.8in) 4-finger Intermeshing Gripper
- » Spares Kit
- » Technician's Tool Kit
- » Dual Manipulator Configuration. Includes two manipulator arms and a single master controller with two replica master arms.
- » 30 degree Offset of Wrist Yaw Range of Motion

SPECIFICATIONS

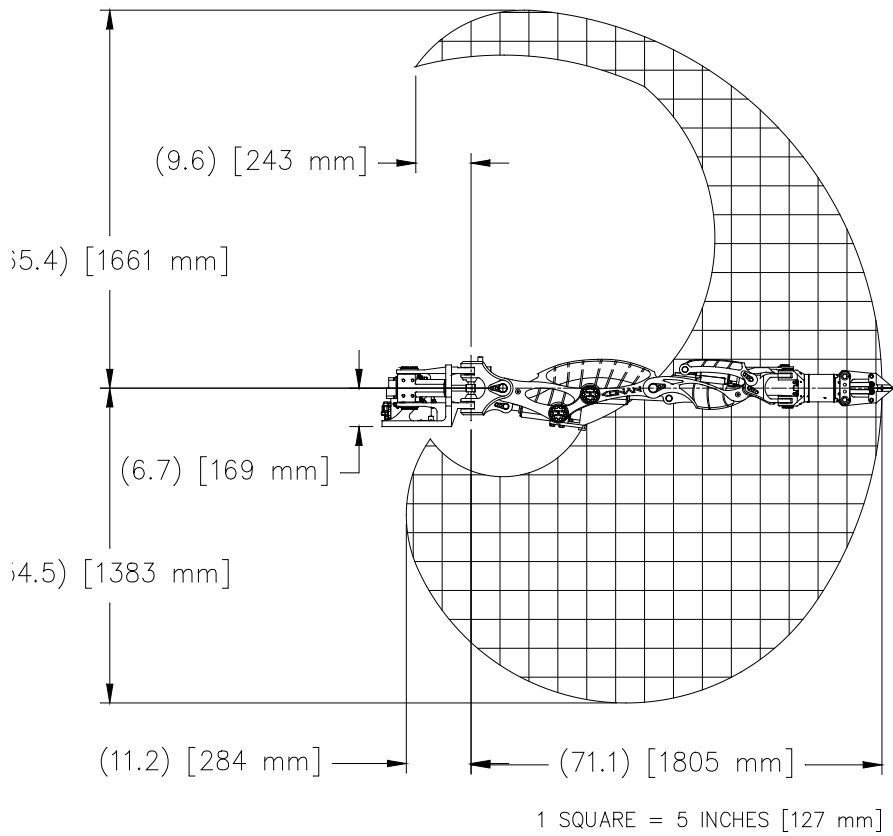
- » Customer Supplied Hose Fittings
Supply Hose: -4 JIC female, 1/4in
Return Hose: 6 JIC female, 3/8in
- » Electrical and Telemetry Requirements
System Supply: 90-260VAC, 50/60Hz
Arm: 24VDC
- » Power Consumption:
Master Controller: 6 W start, 3 W run
Base module: 120 W start , 30 W run
Telemetry: User selectable between RS-422/485 half duplex and RS-232
- » Environmental Specifications
Operating temperature: -2 to +54°C
Storage temperature: -15 to +71°C
(0% to 100% condensing)



The replica master arm ensures comfortable, intuitive operation.

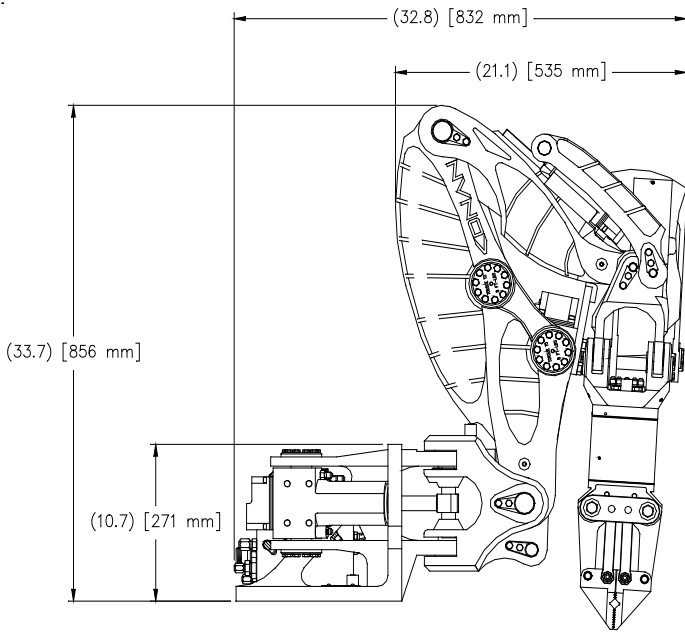


Range of Motion, Top View



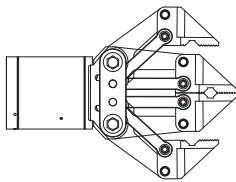
Range of Motion, Side View

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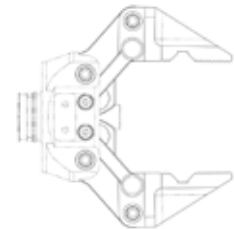


Stow Dimensions

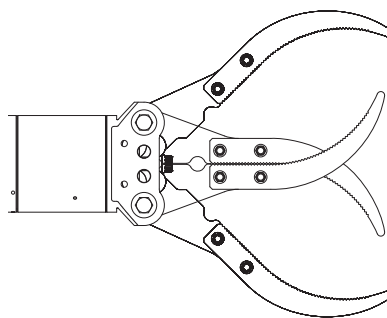
Gripper Options



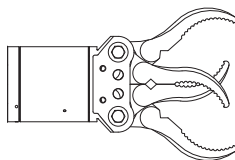
6" Parallel



4" Parallel



7.8" Four Finger Intermeshing



7.8" Four Finger Intermeshing



7.5" Three Finger Intermeshing