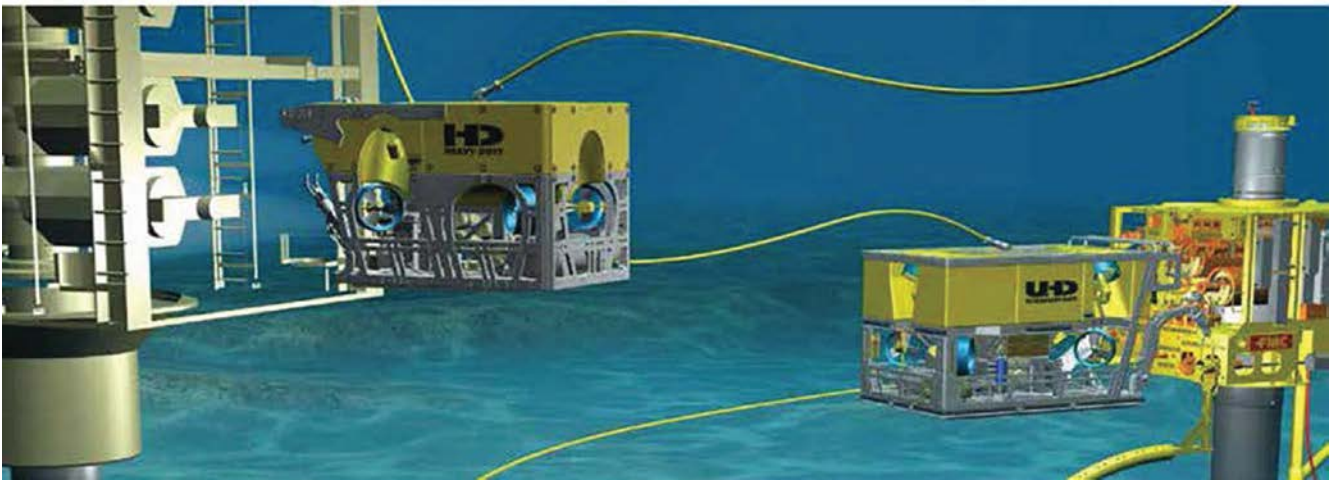


Schilling Robotics Manipulator Systems



Superior Versatility

As subsea Intervention tasks continue to increase in complexity, manipulator systems will continue to be at the forefront, providing the dexterity, strength, and reliability to perform the task at hand. Manipulator arms must range in ability from strong grabber to highly dexterous.

Performance and Efficiency

Schilling Robotics' was founded in 1985 delivering its first manipulator in 1986 and capturing the subsea manipulator market by 1988, today over 3,000 manipulator systems have been delivered. Now an industry standard, Schilling Robotics' manipulators are deployed on virtually every work-class ROV in the world with further systems deployed on electric ROV's and other submersibles including research and exploration submarines.

Service and Support

ROV's and Submersibles operate in a global arena and to support this arena Schilling Robotics has strategically placed support centres to provide assistance and support to the client and its operations. Its product centres provide product training, technical support, and an inventory of spare parts. Whether help is needed on-site or offshore, our highly trained field support engineers are experienced in assisting customers.

Options and Accessories

With our large range of manipulator options, that task capabilities are limited only by your project requirements.

- Various Grippers
 - Spares Kits
 - Tool Kits
- Extended Depth Ratings
- Dual Manipulator Configurations

TITAN 4

The TITAN 4 has the dexterity and accuracy necessary to perform the fine movements needed for complex tasks. When this ability is combined with the manipulator's reach (1,922mm), payload capacity (122kg at full extension), depth rating (up to 7,000msw), and large operating envelope, the TITAN 4 offers unparalleled performance in a wide range of subsea applications.



ATLAS 7R

The ATLAS 7R is a new class of heavy-duty, seven-function grabber that has been designed to lift heavy loads, while being lightweight and easy to control. With six 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.



CONAN 7P

The CONAN 7P is designed to perform demanding tasks and yet be economical to install, operate, and maintain. Its power, reach, and rugged construction make it the perfect choice for subsea manipulator applications that require a combination of heavy lifting and dexterity.



RigMaster

The RigMaster is a five-function, rate-controlled, heavy-lift grabber arm that can be mounted on a wide range of subsea ROVs. It is engineered for the strength needed to withstand the industry's harsh and repetitive needs day after day. The grabber arm can be used to grasp and lift heavy objects or to anchor the ROV by clamping the gripper around a structural member at the work site.



ORION 7P, 7R, or 4R

The ORION's compact size, light weight, and excellent payload capacity make it the system of choice for light and medium work-class ROVs. The arm's structural segments are fabricated from hard-anodized extruded aluminum for strength and corrosion resistance. Deepwater tasks are no problem for these arms.



Manipulator Comparison Chart

| | TITAN 4 | ATLAS 7R MASTER | CONAN 7P | ORION 7R/P | RIG | ORION 4R |
|-----------------------|---|--|--|---|---|-------------------------------------|
| Category | Heavy work | Heavy work | Heavy work | Medium work | Medium work | Medium work |
| Power Source | Hydraulic | Hydraulic | Hydraulic | Hydraulic | Hydraulic | Hydraulic |
| Control Source | Position | Rate | Position | Position or rate | Rate | Rate |
| Functions | 7 | 7 | 7 | 7 | 5 | 4 |
| Materials | Primarily Titanium | Anodized Aluminum & Stainless steel | Anodized Aluminum & Stainless steel | Anodized Aluminum & Stainless steel | Anodized Aluminum & Stainless steel, Titanium | Anodized Aluminum & Stainless steel |
| Max. Reach | 1,922mm | 1,664mm | 1,806mm | 1,532mm | 1,372mm | 682mm |
| Input Device | Master arm | Rate Hand controller | Master arm | Master arm or Rate controller | Rate hand controller | Rate hand controller |
| Depth Rating Standard | 4,000msw 7,000msw option | 6,500msw | 3,000msw | 6,500msw | 6,500msw | 6,500msw |
| Lift at Full Reach | 122kQ/12701b | 250kg/5501b | 159kg/3501b | 68kg/1501b | 181kg/4001b | 136kg/3001b |
| Weight in Air | 100kg/2211b | 73kg/1601b | 107kg/2351b | 54kg/1201b | 64kg/1421b | 30kg/671b |
| Weight in Water | 78kg/1741b | 50kg/1091b | 73kg/1611b | 38kg/831b | 48kg/110S1b | 21kg/461b |
| Jaw Options | 3F Intermeshing 4F Intermeshing 4in Parallel Acting | 4F Intermeshing 6in Parallel Acting | 4F Intermeshing 6in Parallel Acting | 3F Intermeshing 4in Parallel Acting 6in Parallel Acting | 4F Intermeshing 6in Parallel Acting | 4F Intermeshing |

Corporate

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