

Schilling Robotics Manipulator Systems



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 and precision movements.

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 ROVs and other submersibles, including research and exploration submarines.

Service and Support

ROVs and submersibles operate in a global arena. To support our clients, Schilling Robotics provides a 24/7 helpline, technical support, field support engineers, and comprehensive spares support through its online ordering portal, enabling the customer to price, order and track its shipment through the client's dedicated access portal. Whether help is needed on-site or offshore, our

highly trained field support engineers are experienced in assisting customers.

Options and Accessories

To support client's operational manipulator requirements, Schilling Robotics offers:

- ▶ Multiple gripper configurations
- ▶ Extended depth ratings (subject to manipulator)
- ▶ Dual manipulator configurations (subject to manipulator)
- ▶ Standard and enhanced spares kits
- ▶ Maintenance and repair tool kits

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™ 7P

The Atlas™ 7P is position-controlled arm with joint position sensing (azimuth through wrist) and a servo-control valve pack to provide superior telerobotic performance similar to the TITAN™ 4. With six degrees of freedom, a high lift capacity (250kg or 550lb at full extension), and a depth rating of 6,500msw, the Atlas™ 7P provides operators with a heavy-duty alternative to the TITAN 4.



Atlas™ 7R

The Atlas™ 7R is a 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.



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™ 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 handled with ease with these arms.

Manipulator Comparison Chart

	TITAN™ 4	Atlas™ 7R	Atlas™ 7P	ORION™ 7R/P	RigMaster	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	1.675mm	1.675mm	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	6,500msw	6,500msw	6.500msw	6,500msw
Lift at Full Reach	122kg/1270lb	250kg/550lb	250kg/550lb	68kg/150lb	181kg/400lb	136kg/300lb
Weight in Air	100kg/221lb	73kg/160lb	73kg/160lb	54kg/120lb	64kg/142lb	30kg/67lb
Weight in Water	78kg/174lb	50kg/109lb	50kg/109lb	38kg/83lb	48kg/110lb	21kg/46lb
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
 TechnipFMC PLC
 11740 Katy Freeway
 Houston, Texas 77079 (USA)
 P: +1 281 591 4000

Schilling Robotics LLC
 201 Cousteau Place
 Davis, California 95618 (USA)
 P: +1 530 753 6718