FET | Sub-Atlantic®

Hydraulic Thrusters

FET's Sub-Atlantic™ range of hydraulic thrusters has become the preferred propulsion for ROV's and cable burial/ maintenance vehicles. Working in a highly aggressive environment, they have earned a reputation for reliability, efficiency and exceptional performance.

Sub-Atlantic thrusters are reliable due to a rugged, lightweight construction and a ceramic shaft sealing system. These thrusters also benefit from producing near equal forward/reverse efficiency within a 5% band. The data from our performance testing has been witnessed by DNV to ensure your system performs exactly as expected. These thrusters also benefit from the ability to fit any motor displacement size to any of the four thruster sizes due to the common, one size motor interface. This is advantageous when accurately matching to vehicle hydraulic parameters.

Features

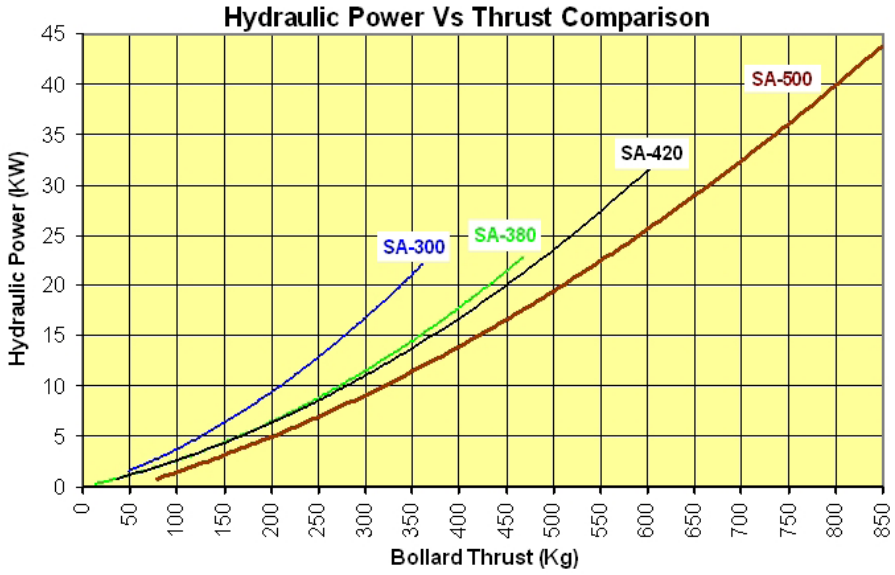
- Proven Reliability – Low Parts Usage
- Efficient
- Forward Reverse Thrust within 5% Band
- Quick-Change Seal Cartridge
- Reliable Ceramic Sealing Surfaces
- Lightweight
- DNV Witnessed Performance
- Easily Retro-Fittable
- 4 Standard Propeller Sizes
- Various Interchangeable Motor Options
- Thruster Guards Available

Available Sizes

Standard range is available in four propeller sizes, SA300, SA380, SA420 & SA500, the designation represents the diameter of the propeller in millimetres. Standard motor sizes are 20, 30, 41, 61, 103 and 119cc. Our Hydraulic motors all have identical mounting interfaces to the thruster body, regardless of the motor displacement. This makes them particularly suitable for interchanging with different propeller sizes to obtain higher running efficiencies. For example, in an application where limited hydraulic power and oil flow are available but maximum thrust is required, an SA-380 thruster (which normally uses a 40cc motor) can be simply fitted with a 30cc motor and be used instead of a SA-300-30. By using the larger propeller, increased efficiency can be achieved without the requirement for more oil flow.

SA300, SA380 and SA420 units are generally used on work class ROV's. SA420 and SA500 generally for cable ROV's.

Options of motor displacement, propeller size, motor manufacturer and mounting style can also be supplied. In certain cases, we can produce specials to customers' requirements.



DNV Witnessed Test Data

When selecting hydraulic Propulsion thrusters for an underwater vehicle design, many highly important considerations such as efficiency, pressure and flow, weight, size and forward/reverse characteristics must be taken into account. Failure to correctly interpret these or use inaccurate data will result in a system with inferior performance and incapable of meeting expectations. During the development phases of the 'SA' range, Sub-Atlantic evaluated various competitors' thruster products. We found that the actual test results weighed and proved to be vastly different from what their data claimed in their technical publications. Sub-Atlantic therefore introduced a policy to ensure that all of our own test performance data was witnessed by a reputable third party certification organisation (DNV). It is this commitment and confidence in our product that will give you peace-of-mind. Remember and ask for independently witnessed test data before you purchase your system or better still, test it yourself.

Sub-Atlantic Part Number And (Drawing Number)	Propeller Diameter	Motor Size	Number of Motor Ports	General Arrgt/Inst Drawing Number	Pedestal Assembly Kit Drawing Number	Motor Assembly Kit Drawing Number	Replacement Motor Part Number	Seal Kit Part Number	Bearing Kit Part Number
SA-PH30020-2 (1182-MAS)	300 mm 11.8"	20cc	2	0283-GA	1181-MAS	2624-MAS-20	0330-MAS-20-OCE2	0286 - MAS-SK	0286 - MAS-BK
SA-PH30030-2 (1182-MAS)		30cc	2	0283-GA	1181-MAS	2624-MAS-30	0330-MAS-30-OCE2		
SA-PH30020-4 (1182-MAS		20cc	4		1181-MAS	2625-MAS-20	2349-MAS-20-OCE2		
SA-PH30030-4 (1182-MAS)		30cc	4		1181-MAS	2625-MAS-30	2349-MAS-30-OCE2		
SA-PH300R20-2 (1724-MAS)	300 mm 11.8"	20cc	2	1412-GA	1670-MAS	2624-MAS-20	0330-MAS-20-OCE2		
SA-PH300R30-2 (1724-MAS)		30cc	2	1412-GA	1670-MAS	2624-MAS-30	0330-MAS-30-OCE2		
SA-PH300R20-4 (1724-MAS)		20cc	4		1670-MAS	2625-MAS-20	2349-MAS-20-OCE2		
SA-PH300R30-4 (1724-MAS)		30cc	4		1670-MAS	2625-MAS-30	2349-MAS-30-OCE2		
SA-PH38020-2 (1747-MAS)	380 mm 15.1"	20cc	2		0286-MAS	2624-MAS-20	0330-MAS-20-OCE2		
SA-PH38030-2 (1747-MAS)		30cc	2		0286-MAS	2624-MAS-30	0330-MAS-30-OCE2		
SA-PH38040-2 (1747-MAS)		40cc	2		0286-MAS	2624-MAS-40	0330-MAS-40-OCE2		
SA-PH38020-4 (1747-MAS)		20cc	4	0313-GA	0286-MAS	2625-MAS-20	2349-MAS-20-OCE2		
SA-PH38030-4 (1747-MAS)		30cc	4		0286-MAS	2625-MAS-30	2349-MAS-30-OCE2		

FET | Sub-Atlantic

Hydraulic Thrusters

FORWARD/REVERSE EFFICIENCY

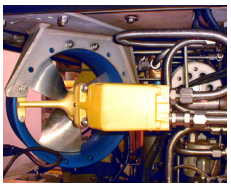
Comparing input power to the output thrust, our forward and reverse curves fall within a 5% band. This is important in a typical vectored configuration as the overall system performance will only be as good as the average forward/reverse thrust. For the same power input, performance exceeds other thrusters on the market.

INNOVATIVE SHAFT SEALING

Thrusters incorporate our proven ceramic wear ring technology. The ceramic ring provides a durable hard surface that prevents wear to the shaft and the resultant seal damage and flooding.

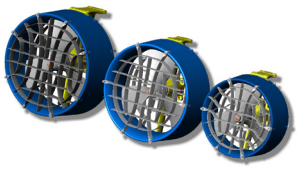
QUICK CHANGE SEAL CARRIER AND EASY AIR BLEEDING

Seals are mounted in a carrier that can be changed in minutes to minimize vehicle downtime. Our thrusters also include 5 logically located bleed screws for quick and easy removal of air during commissioning and operation.



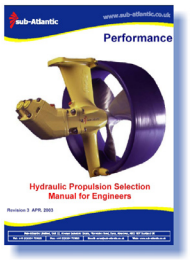
SA-300/1002-(20 OR 30CC)

This is a version of the SA300 with special mountings to fit Innerspace 1002 brackets. This is a particularly useful option for carrying out a quick retrofit on ROV frames with permanently welded thruster brackets.



THRUSTER GUARDS

Economical, efficient and lightweight Guards are available in strong injection and moulded plastic.



ENGINEERS SELECTION MANUAL

Our publication, Hydraulic Propulsion Selection Manual for Engineers, provides extensive data required for the correct selection of your thruster system. It includes pressure/flow curves for different current velocities, installation details; drawings etc. Download this valuable document from our website or request a copy.

Contact Us: Aberdeen: +44 (0) 1224 798660
Houston: +1 713 351 7900
Kirkbymoorside, York +44 (0) 1751 431751
Brazil: +55 22 3737 0690

SU1024.02.2024