

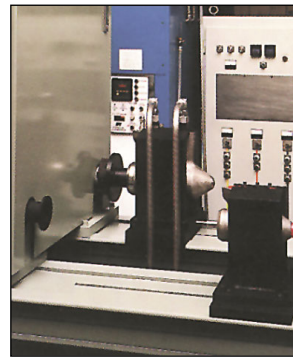
## In-Line Bow & Stern Thrusters



*Available in five sizes and seven power levels for bow and stern applications, the NAIAD<sup>®</sup> In-Line Hydraulic Thruster is an extraordinarily compact unit with high output relative to its tunnel diameter. A unique feature of this design is the highly skewed propeller offering maximum thrust and extremely quiet operation. The thruster housing, propeller and shafting are precision manufactured in AISI 316 stainless steel for superior marine corrosion resistance.*

### **Precision Reliability**

NAIAD In-Line Thrusters are CNC manufactured in-house and each unit is tested under full load on our unique hydraulic dynamometer. More importantly, NAIAD In-Line Thrusters have been field proven in thousands of demanding applications worldwide.



Unlike other thrusters which, if tested at all, are simply cycled, our thrusters are rigorously tested under *full* load on our unique Dynamometer Test Stand. They are cycled in continuously reversing rotation against a propeller shaft load to dynamically test the performance of the bearings, seals and hydraulic motor.

### **Fail-Safe & Environmentally Friendly**

The pressurized region of the In-Line Thruster assembly is isolated from the dual seawater shaft seals to eliminate concerns of hydraulic oil leakage into the environment. The seawater shaft seal cavity is protected from oil leakage by a unique drain pressure control assembly which vents any oil leakage to a controlled outboard path.

### **Pre-Packaged Hydraulics**

Naiad's high-efficiency hydraulic reservoir assemblies are engineered to be extraordinarily compact (less space and weight) due to a unique internal baffling system. System interconnections such as hydraulic fluid supply, filtration, and cooling are conveniently located for easy installation and service. Unlike less sophisticated systems, our proven hydraulic control manifold assemblies are designed, manufactured and tested in our own state-of-the-art facility and include all necessary valves for easy installation with less plumbing. Naiad manifolds save installation labor and have significantly fewer hydraulic interconnections and potential leak points.



## Specifications

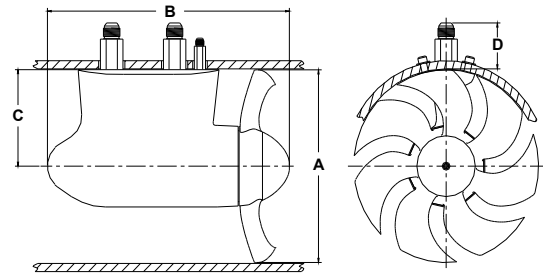
Model	Tunnel I.D. Inches (mm)	Shaft Power HP (kW)	Propeller Thrust* Pounds (kN)	Flow GPM (LPM)	Operating Pressure PSI (Bar)	Weight Pounds (Kg)
8HT	8 (203)	15 (11)	386 (1.72)	11 (41)	2650 (180)	30 (14)
10HT	10 (254)	25 (19)	626 (2.78)	25 (97)	2025 (140)	48 (22)
12HT	12 (305)	38 (28)	940 (4.18)	31 (117)	2500 (170)	74 (34)
16SHT	16 (406)	46 (34)	1278 (5.68)	38 (144)	2500 (170)	128 (58)
16LHT	16 (406)	62 (46)	1565 (6.96)	51 (193)	2500 (170)	128 (58)
20SHT	20 (508)	67 (50)	1868 (8.31)	56 (212)	2500 (170)	240 (109)
20LHT	20 (508)	85 (63)	2188 (9.73)	71 (269)	2500 (170)	240 (109)

\*Theoretical Thrust rating certified by a licensed professional engineer.

## Dimensions

Inches (mm)

Model	A	B	C	D
8HT	7.97 (202)	12.08 (307)	4.00 (102)	2.00 (51)
10HT	9.88 (251)	15.37 (390)	5.00 (127)	3.00 (76)
12HT	11.87 (302)	15.56 (395)	6.00 (152)	3.00 (76)
16SHT	15.87 (403)	18.30 (465)	8.00 (203)	3.38 (86)
16LHT	15.87 (403)	18.30 (465)	8.00 (203)	3.38 (86)
20SHT	19.87 (505)	22.69 (576)	10.00 (254)	3.25 (83)
20LHT	19.87 (505)	22.69 (576)	10.00 (254)	3.25 (83)



All information is accurate at time of printing. Specifications and dimensions are subject to change due to product improvements.

## Reliable Digital Controls

Single-stage or fully variable (proportional) controls. Proportional configuration permits the output of the thruster to be throttled by the operator to be throttled by the operator and features a PLC (Programmable Logic Controller) specifically programmed for the application. Controls are housed in a single, durable enclosure for ease of installation. Easily fitted with numerous joystick controls. Most NAIAD thrusters are powered by a Naiad Integrated Hydraulic System (IHS). The PLC is easily configured to control many ancillary hydraulic shipboard systems.



Spring Centered or Put & Stay



## Outstanding Service and Support

Naiad Dynamics® stands behind every system sold with its superb Limited Warranty. NAIAD® products are supported worldwide by our seven sales and service centers and mobile fleet, and by our Authorized Dealer Network with locations in key regions for fast response and guaranteed satisfaction. Spare parts are usually in-stock and ship within 24 hours, and our state-of-the-art in-house manufacturing facility ensures quick turnaround on parts throughout the life of the system.

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