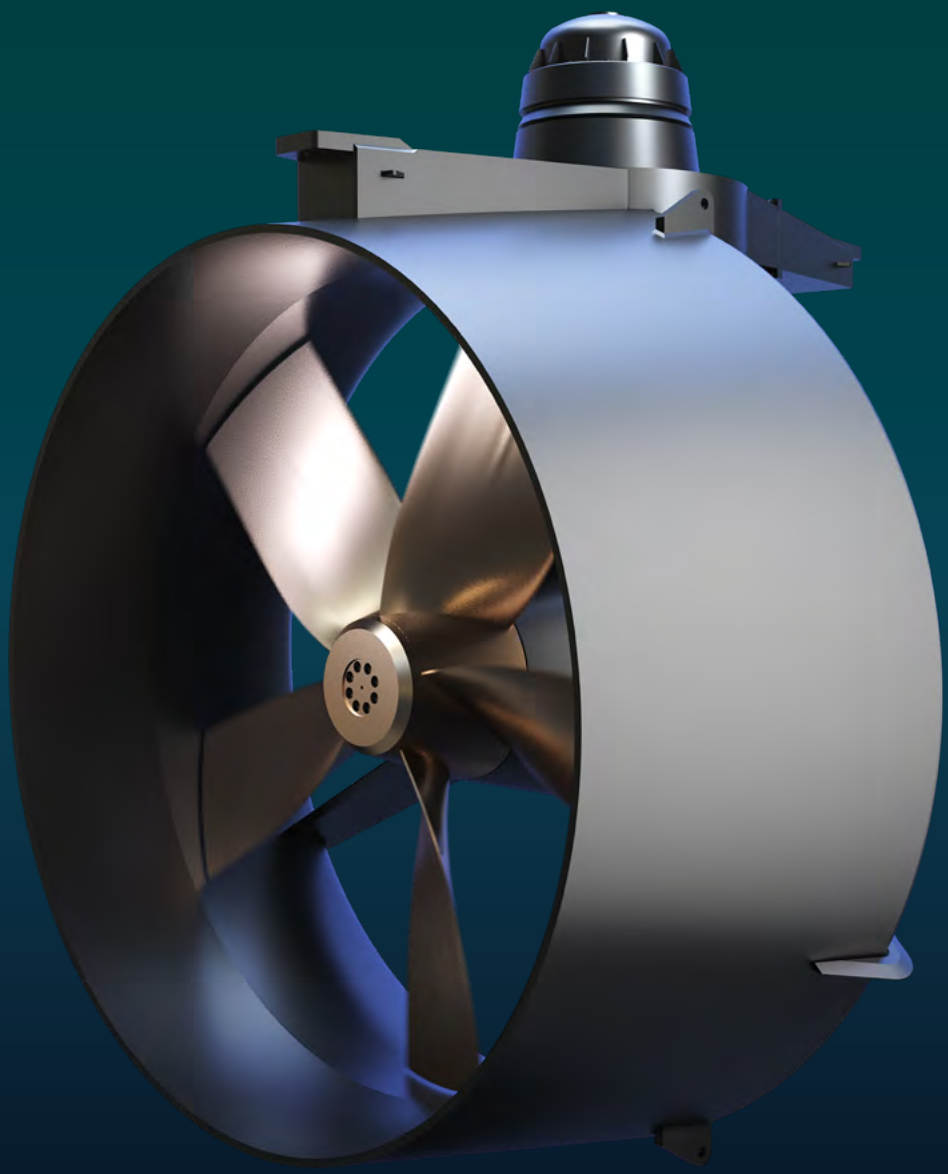
PLEUGER
Part of
FLACKS GROUP

Pleuger Thrusters

Tailor-made Propulsion for Marine Excellence

Azimuth Thrusters
Tunnel Thrusters
Active Rudder/POD-Drives



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since 1929

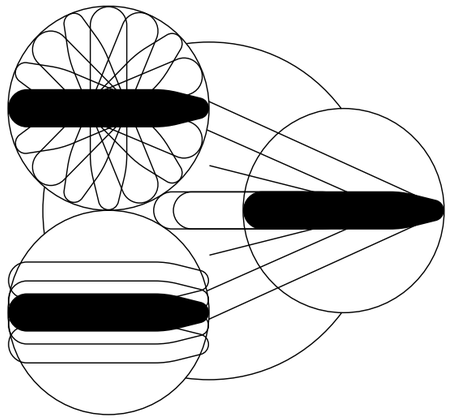
Pleuger Thrusters:

Precision Propulsion for Marine Excellence

With nearly a century of expertise, Pleuger is one of the pioneers in the design, engineering, and manufacturing of propulsion and Manoeuvring systems. Renowned for reliability and longevity, our thrusters, submersible pumps, and plunger pumps operate seamlessly in the world's harshest marine environments.

Our solutions, engineered and manufactured in Germany, cater to customers requiring efficient and specialized propulsion systems for seagoing vessels and offshore platforms. From the early design phases to lifetime support, Pleuger delivers objective engineering expertise, ensuring long-term efficiency and reliability for operators worldwide.

Exceptional Manoeuvrability and stability for vessels and platforms worldwide.



KEY HIGHLIGHTS:

- German-engineered and manufactured for durability, performance and energy efficiency
- Over 2300 thruster systems delivered globally
- Lifetime OEM support and service

Our Thrusters.

Dynamic propulsion for demanding waters.

Exceptional manoeuvrability and stability for vessels and platforms worldwide.

German-engineered and manufactured Thrusters that have set the standard in offshore propulsion for almost 100 years.

PLEUGER has produced over 2,300 Thruster Systems, pioneering designs like the first Transverse and Tunnel Thrusters, Active Rudders, and Azimuth Thrusters, along with numerous upgrades and first-in-class innovations.

APPLICATIONS

- **Marine Vessels**

Achieve superior maneuverability for wind turbine installations, platform supply, and port operations with our Azimuth Thrusters.

- **Offshore rigs**

Enhance dynamic positioning with thrusters designed for semi-submersible rigs and drill ships.

- **Retractable Azimuth Thrusters**

Optimize efficiency by retracting the thruster into the hull when not in use, reducing drag and conserving fuel.

- **Ice-Class Thrusters**

Navigate icy waters confidently with designs meeting icebreaker standards, featuring ducted or un-ducted propellers.

- **Custom Auxiliary Propulsion**

Benefit from bespoke solutions tailored to specific propulsion needs, including applications for naval vessels.

KEY ELEMENTS

- Thrust Unit
- Azimuth Drive
- Prime Mover (Electric or Diesel)
- Hydraulic System (Steering/Lubrication)
- Thruster Control System
- Remote Control System
- Optional upgrades and features are available to enhance performance and meet specialized requirements.

TAILOR-MADE & SPECIALIZED SOLUTIONS

Our dedicated engineering department is specialized in designing tailor-made Thruster and propulsion systems according to the most challenging requirements of customers worldwide. We offer second-to-none customer support and consultancy from the earliest vessel design stage over the whole vessel lifetime.

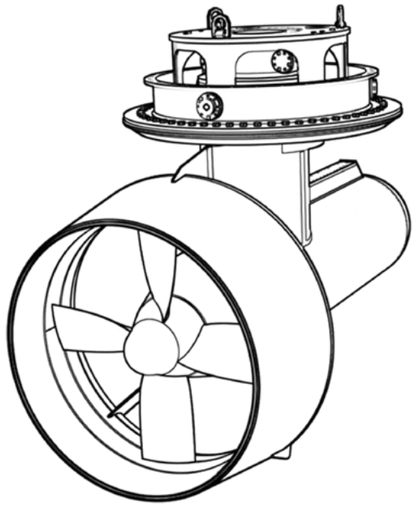
OPTIONAL FEATURES

- Pulling or pushing propellers
- Fixed or controllable pitch propellers
- Bio-degradable lubrication upgrade
- Thruster propeller shaft inclination, co-axial with nozzle to minimize Thrust losses during DP-operations
- L- or Z-drive power train
- Underwater detachability variants:
  - Combined with Azimuth Drive
  - Thrust Unit only
- Ducted or open propeller configurations
- Online Condition Monitoring Update
- Variable draught pressure compensation system for semi-submersible vessels
- Encapsulation Upgrade
- Shock Resistance Upgrade
- Retractability options:
  - Column retraction
  - Capsule retraction
- ICE-Class upgrades
- Electric or Diesel Drive
- Low Area Load Versions (Low Noise / High Efficiency)

ACTIVE RUDDER POD- DRIVE:
COMING BACK - BUILDING ON ITS HERITAGE

Pleuger is redeveloping the Active Rudder as part of a new series of podded thruster systems. Central to this innovation is Pleuger's submersible electric motor, featuring a unique water-filled lubrication and pressure compensation system.

This cutting-edge design eliminates mineral lube oil entirely, making it the world's first pollution-free POD-Drive. Fully compliant with stringent oil spill regulations, the system offers unmatched environmental sustainability.



ECO RANGE

	UNIT					
POWER	kW (hp)	160 (220)	250 (340)	360 (490)	480 (650)	630 (860)
Ø PROPELLER	mm	1000	1250	1500	1750	2000
THRUST	kN	36	57	82	111	145

STANDARD RANGE

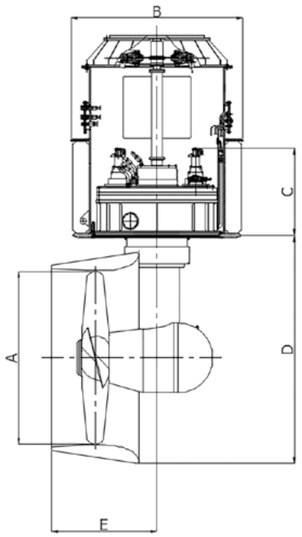
	UNIT					
POWER	kW (hp)	240 (320)	370 (500)	530 (720)	720 (980)	940 (1300)
Ø PROPELLER	mm	1000	1250	1500	1750	2000
THRUST	kN	48	74	107	145	190

MAX. POWER RANGE

	UNIT					
POWER	kW (hp)	280 (380)	430 (580)	620 (840)	840 (1140)	1100 (1500)
Ø PROPELLER	mm	1000	1250	1500	1750	2000
THRUST	kN	53	82	119	161	211

AZIMUTH THRUSTER:
CUSTOMIZABLE AND VERSATILE

Pleuger Azimuth Thrusters are available with fixed-pitch (FPP) or controllable-pitch (CPP) propellers and can be configured as L-Drive or Z-Drive systems to suit specific operational needs.Thruster propeller shaft inclination, co-axial with nozzle to minimize Thrust losses during DP-operations.

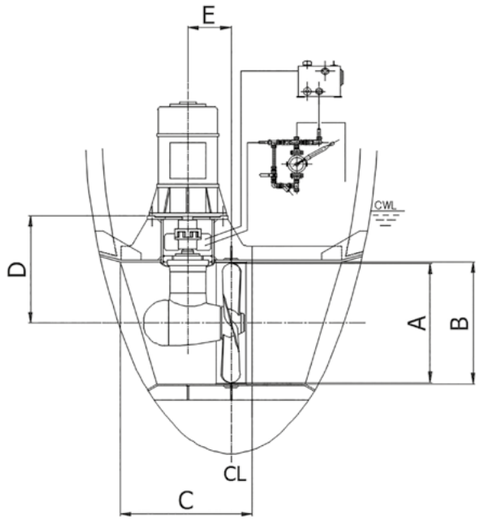


	UNIT	DIM.	WFSD / UNDERWATER MOUNTABLE THRUSTER SERIES				
POWER	kW (hp)		2610 (3500)	3500 (4700)	3200 (4300)	4000 (5360)	3500 (4700)
Ø PROPELLER	mm	A	3400	3500	4000	4100	4600
INPUT SPEED	rpm		720	720	600	600	600
			DIMENSIONS				
RECEPTACLE	mm	B	3200	3200	3200	3200	3200
AZIMUTH DRIVE	mm	C	1680	1680	1680	1680	1680
THRUST UNIT	mm	D	4440	4570	5160	5290	5950
THRUST UNIT	mm	E	2120	2150	2170	2230	2870

	UNIT	DIM.	MAX. POWER RANGE					
POWER	kW (hp)		2000 (2680)	3000 (4020)	3500 (4700)	4000 (5360)	5000 (6700)	6000 (8050)
Ø PROPELLER	mm	A	2800	3400	3500	3800	4200	4400
INPUT SPEED	rpm		720	720	720	600	600	600
			DIMENSIONS					
RECEPTACLE	mm	B	3200	3200	3200	3200	3200	3200
AZIMUTH DRIVE	mm	C	1450	1680	1680	1680	2200	2200
THRUST UNIT	mm	D	3760	4470	4570	4940	5420	5660
THRUST UNIT	mm	E	1450	1760	1810	1970	2160	2280

TUNNEL THRUSTER
EFFICIENT AND ADAPTABLE

Pleuger Tunnel Thrusters are available with fixed-pitch (FPP) or controllable-pitch (CPP) propellers to meet diverse operational needs.



	UNIT	DIM.	MAX. POWER RANGE						
POWER	kW		90	150	250	400	600	750	1000
Ø PROPELLER	mm	A	600	800	1000	1300	1600	1800	2000
INPUT SPEED	rpm	50Hz 60Hz	1500 1800	1500 1800	1500 1800	1500 1800	1500 1800	1500 1800	1000 1200
THRUST APPROX.	kN		13	22	36	56	85	106	139
			DIMENSIONS						
TUNNEL DIAMETER	mm	B	618	820	1022	1329	1632	1838	2040
TUNNEL LENGTH	mm	C	1150	1400	1750	2200	2750	3050	1800
FOUNDATION HEIGHT	mm	D	630	780	920	1100	1360	1490	1630
DIST. PROPELLER/MOTOR CL	mm	E	265	305	365	445	535	615	640

	UNIT	DIM.	MAX. POWER RANGE						
POWER	kW		1300	1600	2000	2500	3000	3500	4000
Ø PROPELLER	mm	A	2300	2600	2900	3200	3500	3800	4000
INPUT SPEED	rpm	50Hz 60Hz	1000 900	750 720	750 720	750 720	600 720	600 720	500 600
THRUST APPROX.	kN		182	226	282	350	420	491	556
			DIMENSIONS						
TUNNEL DIAMETER	mm	B	2342	2646	2948	3252	3554	3858	4064
TUNNEL LENGTH	mm	C	2000	2300	2600	2900	3200	3400	4200
FOUNDATION HEIGHT	mm	D	1920	2130	2380	2620	2870	3110	3300
DIST. PROPELLER/MOTOR CL	mm	E	720	920	1020	1130	1230	1352	1720

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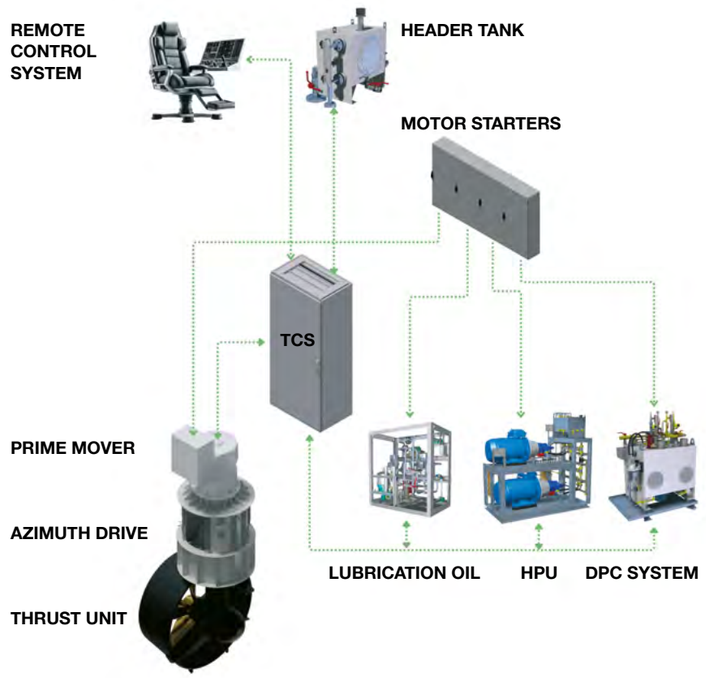
EFFICIENT AND ADAPTABLE
CONTROL SYSTEMS

POWER MEETS PRECISION

Pleuger offers versatile control systems to set operational parameters for our thrusters, ensuring seamless integration and performance.

From basic connection boxes for direct vessel system control to advanced remote and bridge control panels, our flexible designs are tailored to meet any operational need.



SERVICE AND SUPPORT

Pleuger's dedicated service team provides worldwide support for thruster mounting, inspection, training, repair, and overhaul operations. With pre-defined spare part sets and advanced toolkits, we minimize downtime and maximize operational reliability.

SERVICE FEATURES

- Rapid global mobilization
- Standardized spare parts
- OEM-certified tools

CONTACT US

PLEUGER INDUSTRIES
www.pleugerindustries.com
thruster@pleugerindustries.com
+49 40 69 68 9 0

Designs

Reflecting decades of application experience behind their rugged and versatile design, Pleuger Thruster Systems have been installed to vessels operating under the most demanding conditions and performing most fundamental and essential functions for human society around the world.

WFSDZA 420-5400 AZIMUTHING THRUSTERS
WITH ICE CLASS STRENGTHENING, 2019

UF 60-80 ACTIVE RUDDER WITH
50+ YEARS OF ACTIVE DUTY, 1973

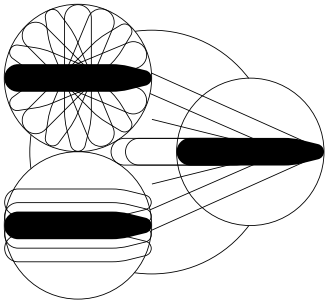
WVSK 340-2200 ENCAPSULATED CPP
AZIMUTHING THRUSTER SYSTEM, 1977

VARIOUS WF-TYPE BOW THRUSTERS FOR
MANOEUVRING AND DP-OPERATIONS, 1981

WVB 200-500 FOR SPECIAL PUMP APPLICATION, 2021

WMSE 60-85 COLUMN RETRACTABLE
AZIMUTHING THRUST UNIT, 1988-1991

Azimuth Thrusters
Tunnel Thrusters
Active Rudder/POD-Drives



PLEUGER Industries GmbH
Friedrich-Ebert-Damm 105 – 22047 Hamburg, Germany

+49 40 69 68 9 0
thruster@pleugerindustries.com

www.pleugerindustries.com

Digital brochure

MADE IN GERMANY

PLEUGER
Part of
FLACKS GROUP