PROPULSION, POSITIONING & MANOEUVRING SYSTEMS

– for any kind of ship

Brunvoll is your single source supplier and takes full responsibility for the Propulsion, Positioning and Manoeuvring system in your vessel.

This saves time and costs!

Each system can be tailor made to meet individual requirements. Our expertise ensures optimized propeller systems designed to handle all challenges of the harsh marine environment.

BRUNVOLL
PRECISION IS OUR PASSION

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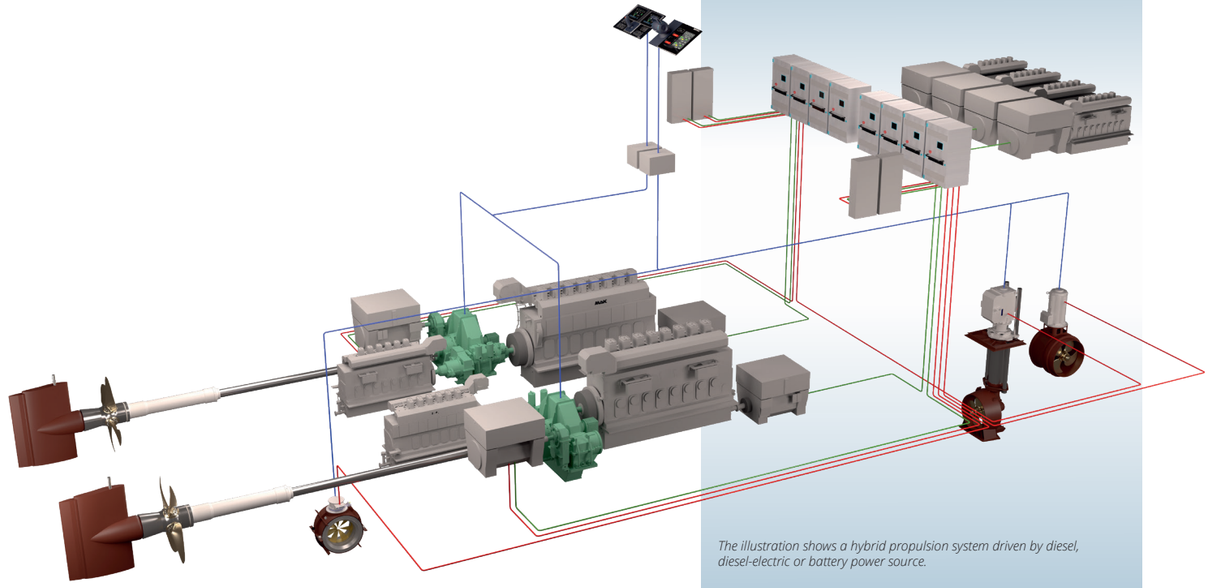
INNOVATIONS SINCE 1912

BRUNVOLL
PRODUCT RANGE



The illustration shows a hybrid propulsion system driven by diesel, diesel-electric or battery power source.

BRUNVOLL INTEGRATED PROPULSION, MANOEUVRING & CONTROL SYSTEM

- PROPELLERS
- GEARBOXES
- AZIMUTH THRUSTERS
- TUNNEL THRUSTERS
- DRIVES
- CONTROL, MONITORING & ALARM SYSTEMS
- CONDITION MONITORING SYSTEMS
- DYNAMIC POSITIONING SYSTEMS

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BRUNVOLL PRODUCT RANGE

The wide product range of Brunvoll gives a unique configuration flexibility of integrated Propulsion, Manoeuvring and Control Systems.

PROPULSION SYSTEMS

PROPELLERS

BRUNVOLL CP PROPELLER RANGE	
Hub Size	520 - 1 950 mm
Propeller diam.	2 000 - 9 000 mm
Power Range	1 000 - 20 000 kW

CP Propellers are optimised for the specific vessel in order to obtain the highest efficiency.
CP Propeller systems with push-pull servo motor either in the gearbox, in the shaft line or in the propeller hub.

Blade design of high skew and normal skew. Propellers are made of NiAl Bronze and stainless steel. Feathering propellers available.
FP Propeller available on request.

AZIMUTH THRUSTERS PULL OPEN PROPELLER

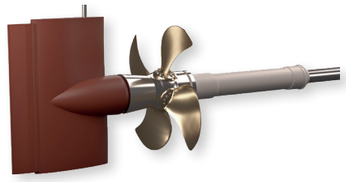
MODELL	PROPELLER DIAMETER MM	POWER RANGE KW
PU 74	1 900 - 2 200	750 - 1 350
PU 93	2 400 - 2 750	1 000 - 1 850
PU 115	2 900 - 3 300	1 900 - 3 500

L and Z Drive, weld-in and well mounted.
The Brunvoll Propulsion Azimuth Thruster with pulling propeller is a highly efficient pulling thruster with reduced building height.

INTEGRATED COSTA PROPULSION (ICP)

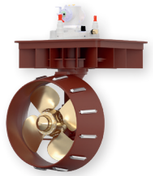
Brunvoll Integrated Costa Propulsion. Twisted leading-edge rudder with Costa bulb and hub cap.

Various rudder types available on request.



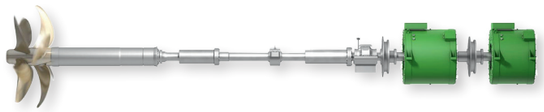
AZIMUTH THRUSTERS PUSH DUCTED PROPELLER

MODELL	PROPELLER DIAMETER MM	POWER RANGE KW
AUP/AWP 63	1 650	400 - 680
AUP/AWP 74	1 900/2 100	750 - 1 350
AUP/AWP 80	2 100	800 - 1 500
AUP/AWP 93	2 400/2 600	1 000 - 1 850
AUP/AWP 100	2 600	1 600 - 2 200
AUP/AWP 115	2 900/3 200	1 900 - 3 500



L and Z Drive, weld-in and well mounted.
The Brunvoll Propulsion Azimuth Thrusters are built for efficient heavy duty propulsion and manoeuvring.

CONTRA ROTATING PROPELLERS (CRP)

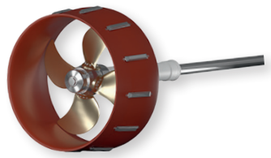


A complete propulsion system with Contra Rotating Propellers in a redundant single screw configuration, approved by DNV for two electric motors. The configuration is Fixed-Pitch monoblock propellers individually driven through a unique shaft-in-shaft system in compliance with IMO DP2. The system can be driven with any type of electric motor.

PROPELLER NOZZLES

Brunvoll High Efficiency nozzle for improved bollard pull and speed.

19A and other nozzle profiles are available.
A ducted propeller gives up to 30% higher thrust at low speed compared to an open propeller.



REDUCTION GEARBOXES

All Brunvoll gearboxes are customised for various operational modes and PTO/PTI functions. The power range depends on rpm and operating conditions. A wide range of gearbox configurations available.

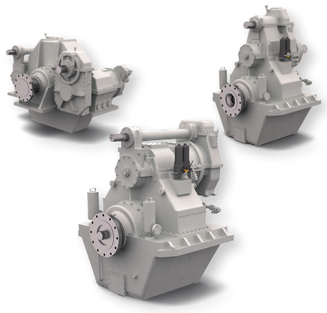
Vertical offset: ACG
Up to - 20 000 kW

Vertical offset, K-type:
Up to - 10 000 kW

Vertical offset 2-speed:
Up to - 15 000 kW

Horizontal offset: ACG
Up to - 30 000 kW

Twin-in Single-out: ACG
Up to - 2 x 15 000 kW



BRUCON DRIVES & CONTROL SYSTEMS

Brunvoll designs and produces complete drive-, control-, monitoring and alarm systems for optimal operational reliability, lifespan and cost efficiency, for the need of different types of ships.

NOTE: Power range may vary due to classification society and service/operation patterns.

MANOEUVRING SYSTEMS

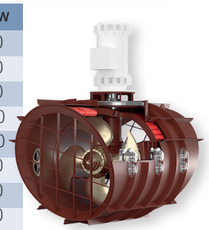
TUNNEL THRUSTERS

MODELL	PROPELLER DIAMETER MM	POWER RANGE KW
FU 37	850	75 - 200
	1000	100 - 250
FU 45	1 225	185 - 300
	1 375	275 - 450
FU 63	1 550	400 - 700
	1 750	600 - 950
FU 74	2 000	800 - 1 400
FU 80	2 250	1 000 - 1 500
FU 93	2 500	1 400 - 2 200
FU 100	2 750	1 800 - 2 500
FU 115	3 000	2 500 - 3 500
FU 135	3 500	3 700 - 5 000

Brunvoll standard Tunnel Thrusters are designed for the most demanding requirements and are used on all types of ships. Power range is based on CP Propeller and one way rotation. Power range for FP Propeller and two way rotation available on request.

LOWNOISE TUNNEL THRUSTERS

MODELL	PROPELLER DIAMETER MM	POWER RANGE KW
FU 37	1 000	100 - 250
FU 45	1 375	200 - 450
FU 63	1 750	400 - 900
FU 74	2 000	800 - 1 400
FU 80	2 250	1 000 - 1 500
FU 93	2 500	1 500 - 2 200
FU 100	2 750	1 800 - 2 300
FU 115	3 000	2 500 - 3 500



The Brunvoll LowNoise Tunnel Thruster design, Resiliently Mounted with full length double tunnel, results in a noise reduction of 11 to 15 dB(A).

This design is typically used on cruise liners, super yachts and offshore vessels where extensive noise suppression is necessary. Available in Shock Resistant design. Power range is based on CP Propeller and one way rotation. Power range for FP Propeller and two way rotation available on request.

RETRACTABLE AZIMUTH THRUSTERS

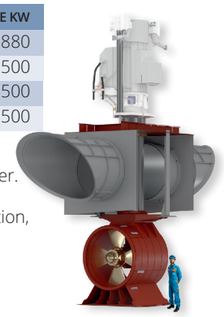
MODELL	PROPELLER DIAMETER MM	POWER RANGE KW
AR 63	1 650	500 - 880
AR 80	2 100	1 000 - 1 500
AR 100	2 600	1 800 - 2 500
AR 115	2 900	2 500 - 3 500

The Brunvoll Retractable Azimuth Thrusters are used for Dynamic Positioning, manoeuvring, slow speed propulsion and as standby/take home propulsion thrusters.

Available in Shock Resistant design.

RETRACTABLE AZIMUTH COMBI THRUSTERS

MODELL	PROPELLER DIAMETER MM	POWER RANGE KW
AR 63	1 650	500 - 880
AR 80	2 100	1 000 - 1 500
AR 100	2 600	1 800 - 2 500
AR 115	2 900	2 500 - 3 500

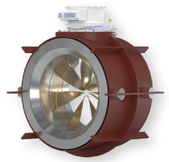


A special version of the Retractable Azimuth Thruster is the Combi-Azimuth/Tunnel Thruster.

This works as a tunnel thruster in upper position, and as an azimuth thruster in lower position.

RIM DRIVEN THRUSTERS (RDT)

MODELL	PROPELLER DIAMETER MM	POWER RANGE KW
RDT 800	800	200
RDT 1000	1 000	300
RDT 1250	1 250	400
RDT 1500	1 500	600
RDT 1800	1 800	1 000
RDT 2100	2 100	1 400



The RDT is electrically driven with a Permanent Magnet (PM) motor, with the motor windings in the stator and where the rotor has a number of permanent magnets.

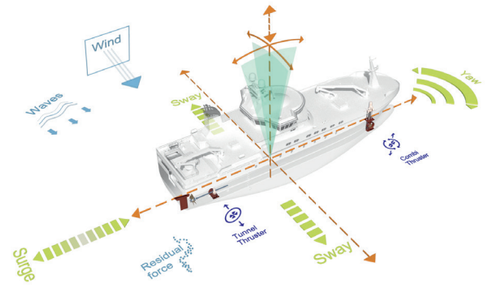
The RDT may be applied for various thruster configurations with a variable speed drive:

- Azimuth main or auxiliary propulsion thruster
- Combined tunnel and azimuth thruster
- Retractable azimuth thruster
- Tunnel thruster

BRUCON DYNAMIC POSITIONING SYSTEM

The BruCon positioning systems control thrusters, propulsion units and rudders in the most efficient and economical way possible. Designed to comply with IMO DP1, DP2 and DP3 requirements.

BruCon DP provide the required functionality for DP operations: Joystick Manual – Joystick Auto Heading – Station Keeping -Waypoint Tracking – Target Tracking – Towing mode – ECO mode



NOTE: Power range may vary due to classification society and service/operation patterns.