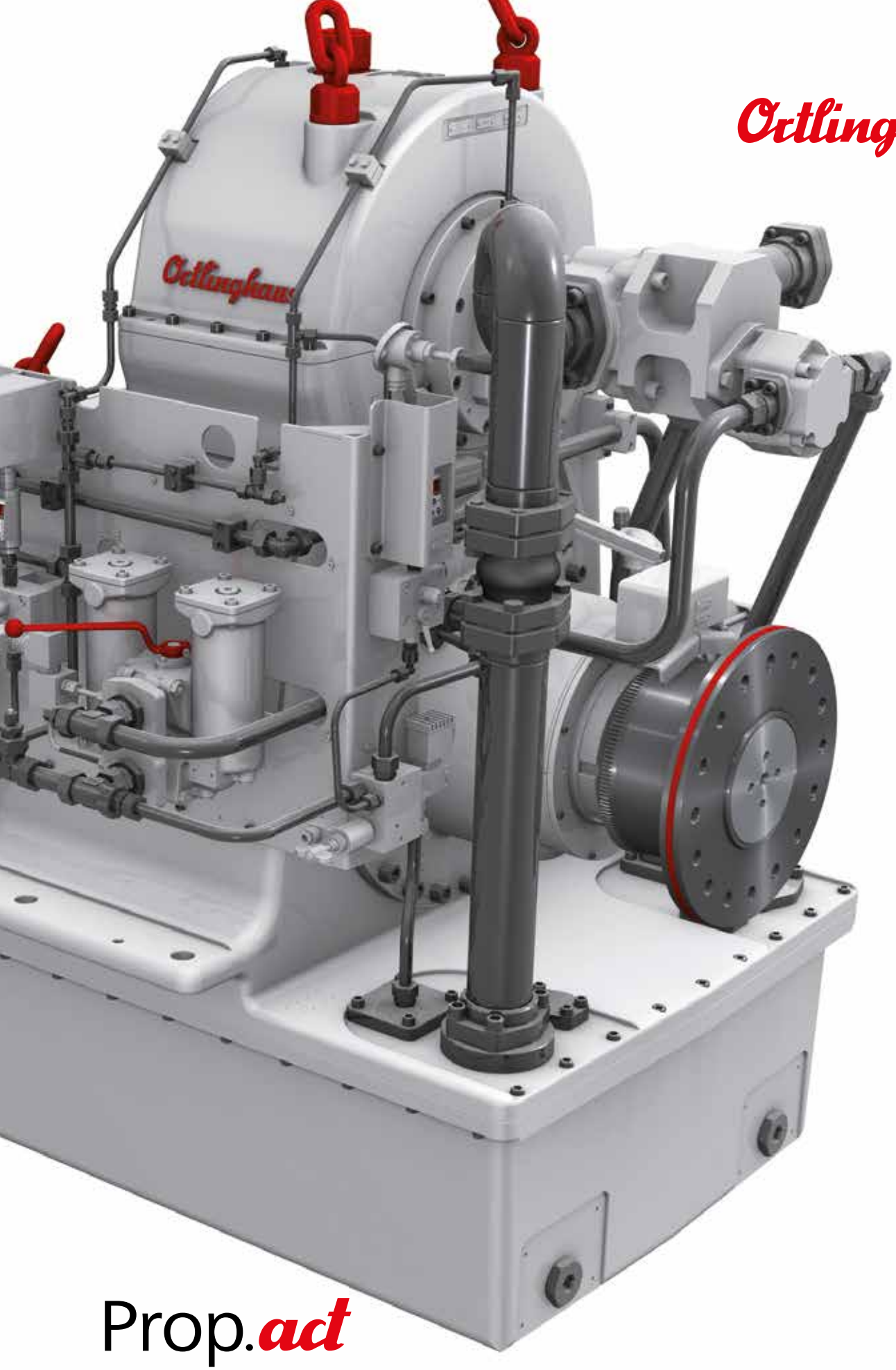
Ortlinghaus

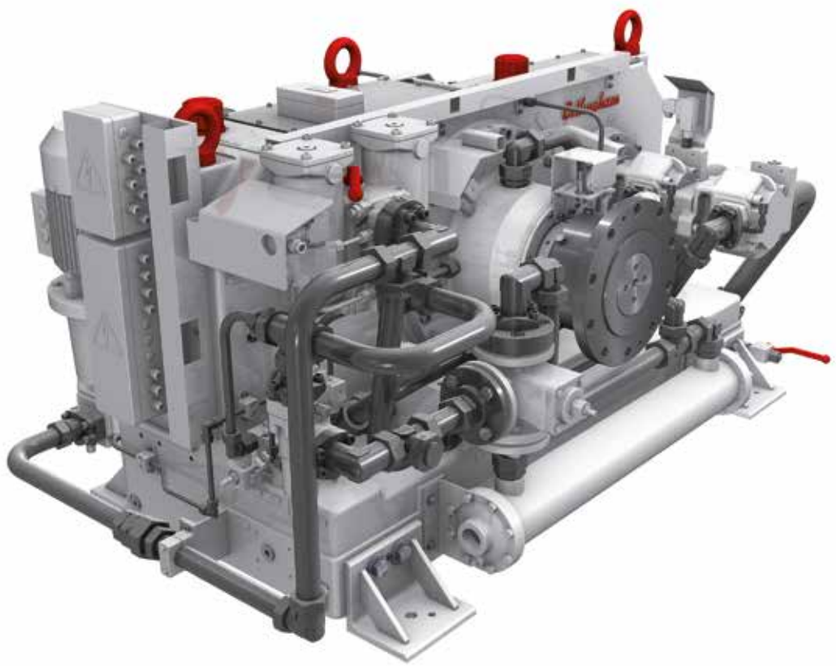


Prop.*act*

Independent Trolling Solution

Variation of propeller rotation at engine idling speed

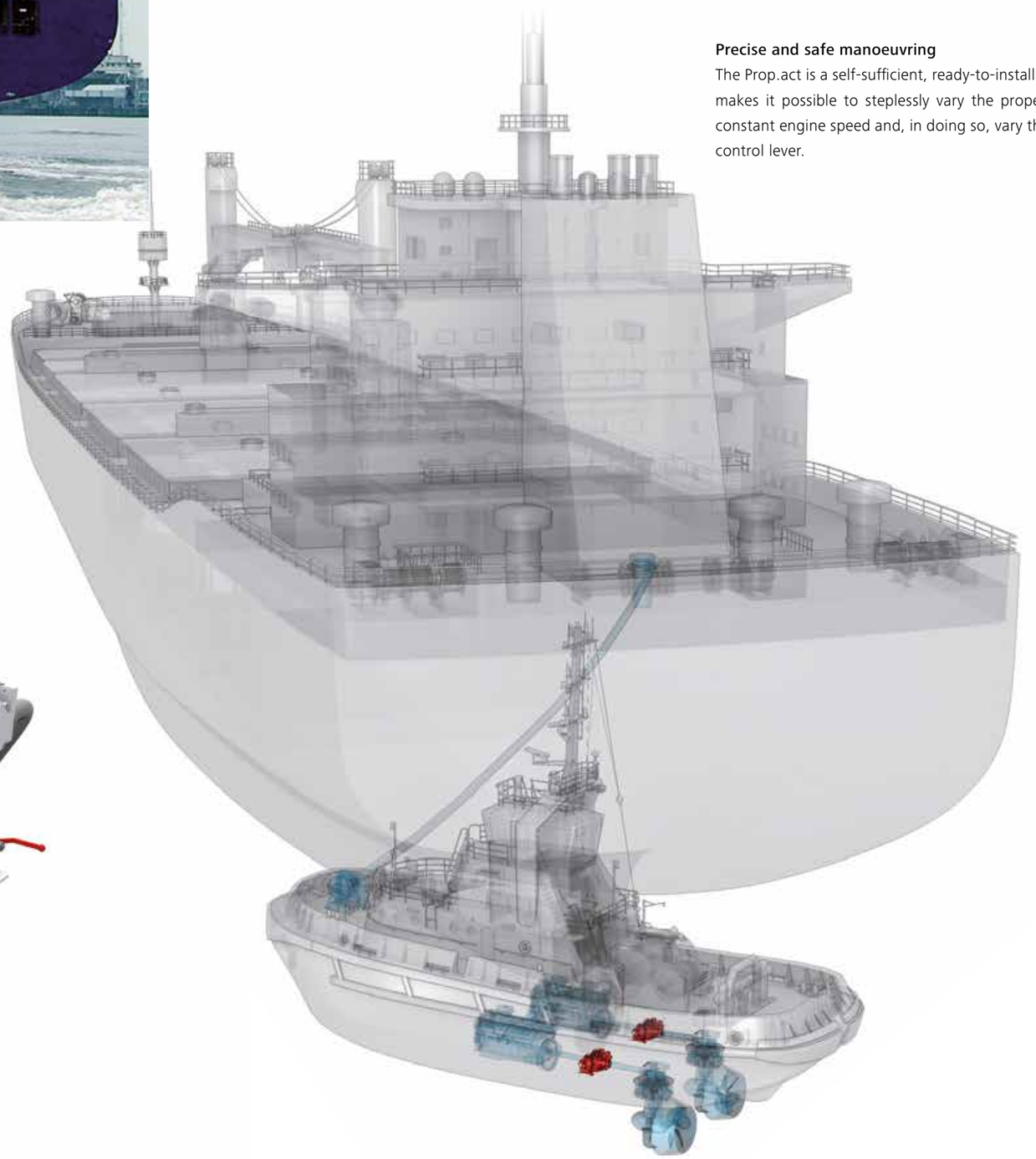
For operation at idling speed, the Prop.act has the benefit of facilitating precise manoeuvring with low thrust while the engine is idling. At the same time, undesired turbulence in the water can be avoided by pulsing the thrust in forwards direction.



Independent Trolling Solution

Precise and safe manoeuvring

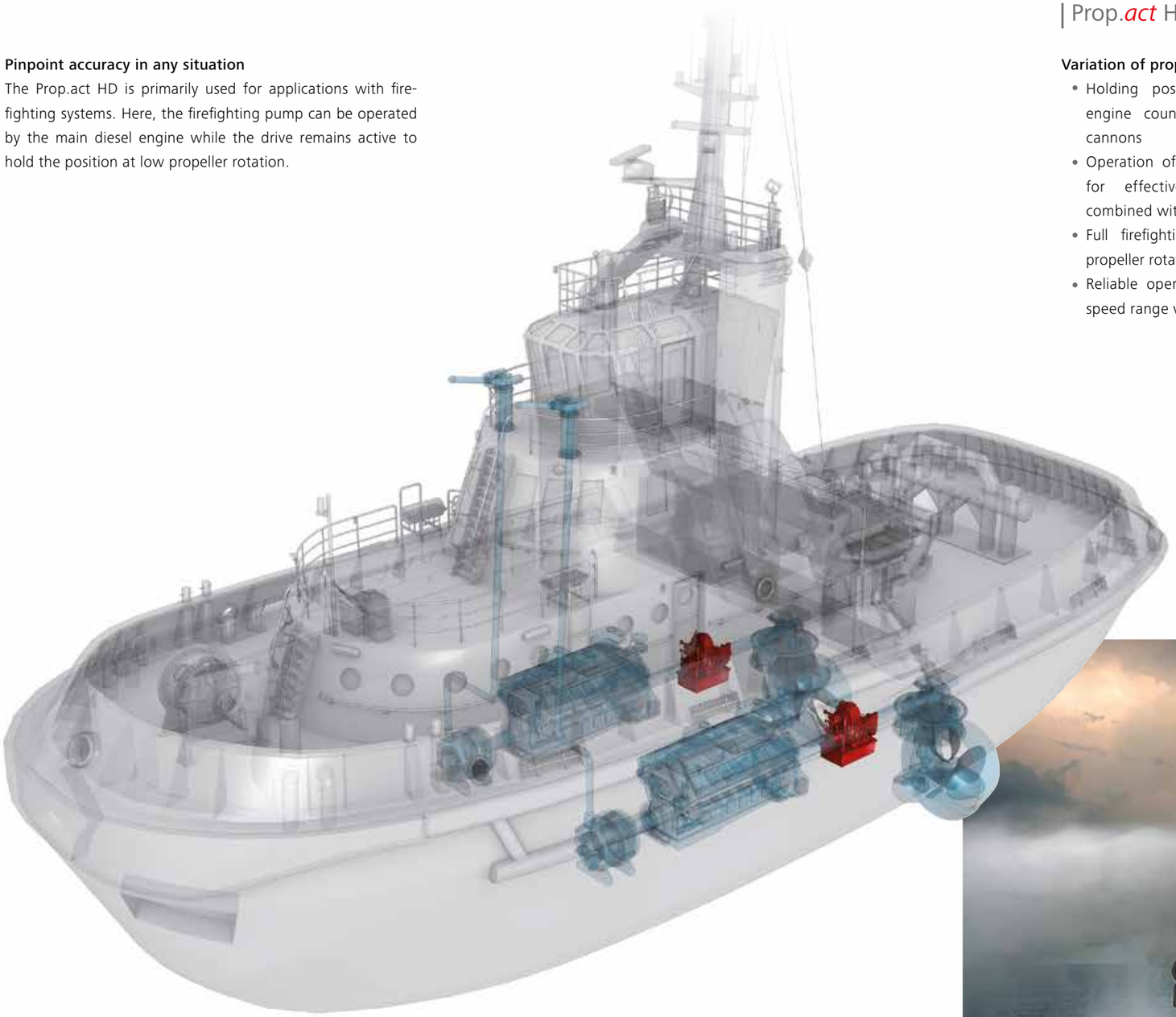
The Prop.act is a self-sufficient, ready-to-install clutch unit that makes it possible to steplessly vary the propeller rotation at constant engine speed and, in doing so, vary the thrust via the control lever.



Firefighting

Pinpoint accuracy in any situation

The Prop.act HD is primarily used for applications with fire-fighting systems. Here, the firefighting pump can be operated by the main diesel engine while the drive remains active to hold the position at low propeller rotation.



| Prop.*act* HD

Variation of propeller rotation at nominal speed

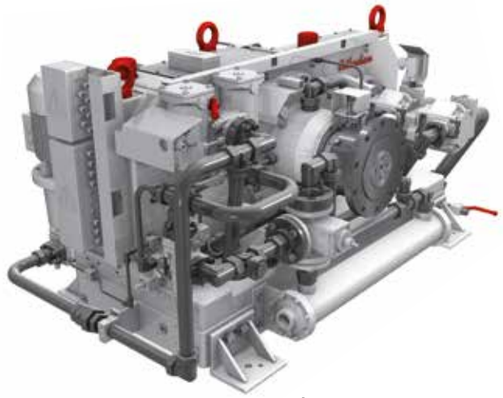
- Holding position (DP) at nominal speed of diesel engine counteracts backlash from firefighting water cannons
- Operation of firefighting pump via main diesel engine for effective deployment of firefighting pumps combined with optimal use of space
- Full firefighting pump output and simultaneous low propeller rotation for holding position via drive system
- Reliable operation of slipping clutch across the whole speed range with aid of system control logic

| Prop.*act* HD

Trolling | Dynamic Positioning

Precise and safe positioning

The Prop.act makes it possible to steplessly vary the propeller rotation at constant engine speed and, vary the thrust via the control lever. The unit is configured for continuous operation and as such can be used for dynamic positioning.



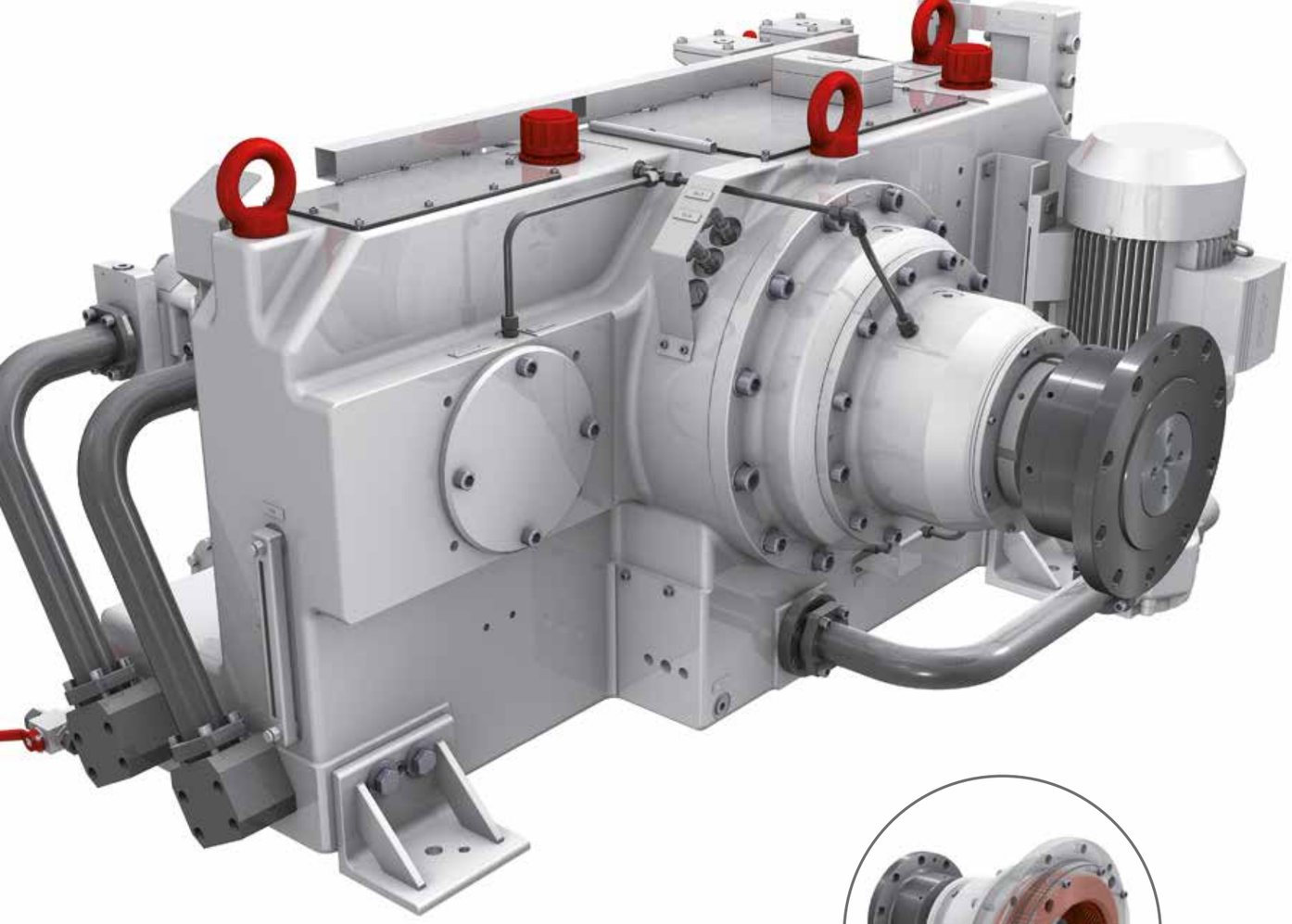
| Prop.*act* MD

Self-sufficient, ready-to-install system solution

Self-sufficient, ready-to-install system solution
The Prop.act is a self-sufficient clutch system which comprises of an operationally ready clutch unit and the Prop.act control system. The unit can be freely positioned in the drive train and is mounted on the floor of the vessel. The engine and rudder propeller can be connected using drive shafts, for example. The Prop.act control system is connected to the ship's control. The supplied cooling system is integrated in the ship's cooling circuit. Free accessibility of the Prop.act facilitates ideal service conditions with a self-sufficient oil circuit, which is adapted optimally to the clutch system.

| Prop.*act* Control Display

Data and setting options
The integrated display provides an overview of all of the necessary details concerning the conditions of the clutch, possible fault messages and also warnings, and it enables adjustment of the parameters.



| Active brake

As shaft brake and for extremely precise variation of propeller rotation

As an option, the Prop.act is offered with a brake that provides two functions:

1. As classic shaft brake for holding the propeller and thereby securing the propeller position to prevent unintended rotation. The braking torque is set at 50 % of the engines' nominal torque. Idling torque from the clutch is suppressed.
2. For variation of propeller rotational speed:
   The trolling range is enhanced.
   By applying a low braking torque, the propeller speed is regulated from zero up to the desired speed.

| Customer - PTO

Additional power supply

The Prop.act is equipped with a power take-off (PTO). The customer can use the PTO, for example, to drive the pump for propeller adjustment.

Features

| Prop.*act* control

Simple integration into vessel control system

We offer the Prop.act as a package complete with a control system. In other words: Our customers do not have to bother with programming or actuation of the components and can completely rely on Ortlinghaus to do this. Integration of our controls in the vessel control system is straightforward, and described on provided integration sheet.

| Electric auxiliary pump

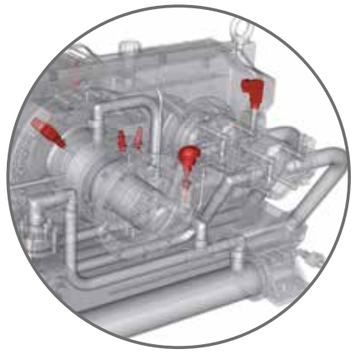
Safe towing also at high sea

Ortlinghaus offers an electric pump that can be run independently of the diesel engine. As desired for towing manoeuvres, for example, the shaft brake can also be used with this pump while the diesel engine is switched off. Clutch operation can be maintained even if the engine speed is lowered below a critical point.

| Sensors

Permanent condition monitoring prevents overload

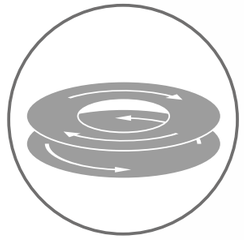
The availability of our units is secured through permanent condition monitoring of all of the relevant components. Monitoring of the units is achieved by recording the speeds, pressures and temperatures. If the permissible parameters are exceeded, our control system prevents an overload.



Full Propeller Control

Extreme continuous slipping

The possibility of continuous slipping makes safe manoeuvring possible even under rough sea conditions and challenging escort manoeuvres.



Simple integration

Straightforward integration of the Prop.act in the drive train is facilitated by free positioning in the drive train between the rudder propeller and engine, together with the control system supplied as an option and the dedicated cooling system.

Safety

The slipping function offers a high level of safety against stalling of the diesel engine. The captain therefore always has a secure drive system at his disposal, allowing fast reactions to loss of drive or control of escorted ships.

Long service life

If deployed correctly, the unit achieves a main service interval of at least 40,000 operating hours.

Sturdy construction

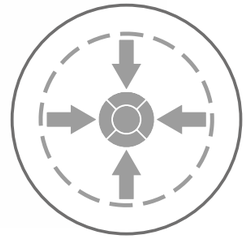
The sturdy construction of the unit offers a high level of operational reliability.

Trolling to speeds close to 0

The slipping function of the clutch in combination with the additional brake makes it possible to vary the propeller speed to almost zero.

Costs

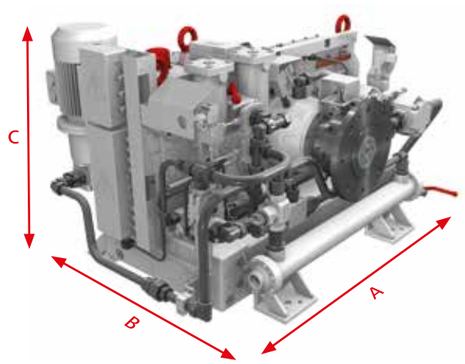
The combination of Prop.act and rudder propeller drive with fixed pitch propeller (FPP) is a cost-effective alternative to controllable pitch propeller (CPP) drives.

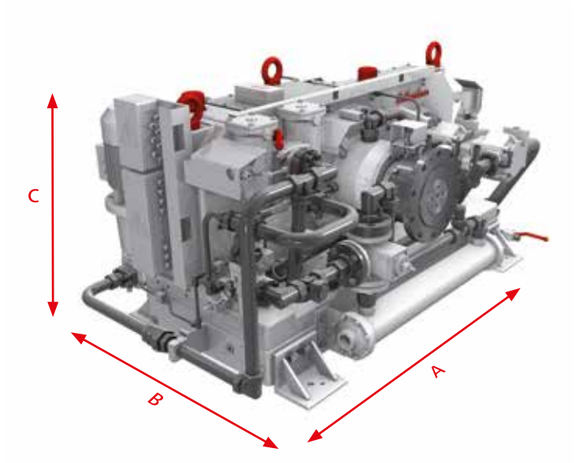


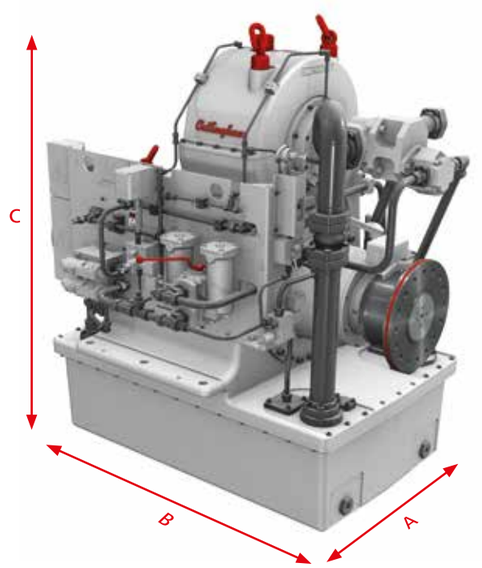
Compact design

This type of installation saves space compared with separate firefighting drives.

Prop.*act* data



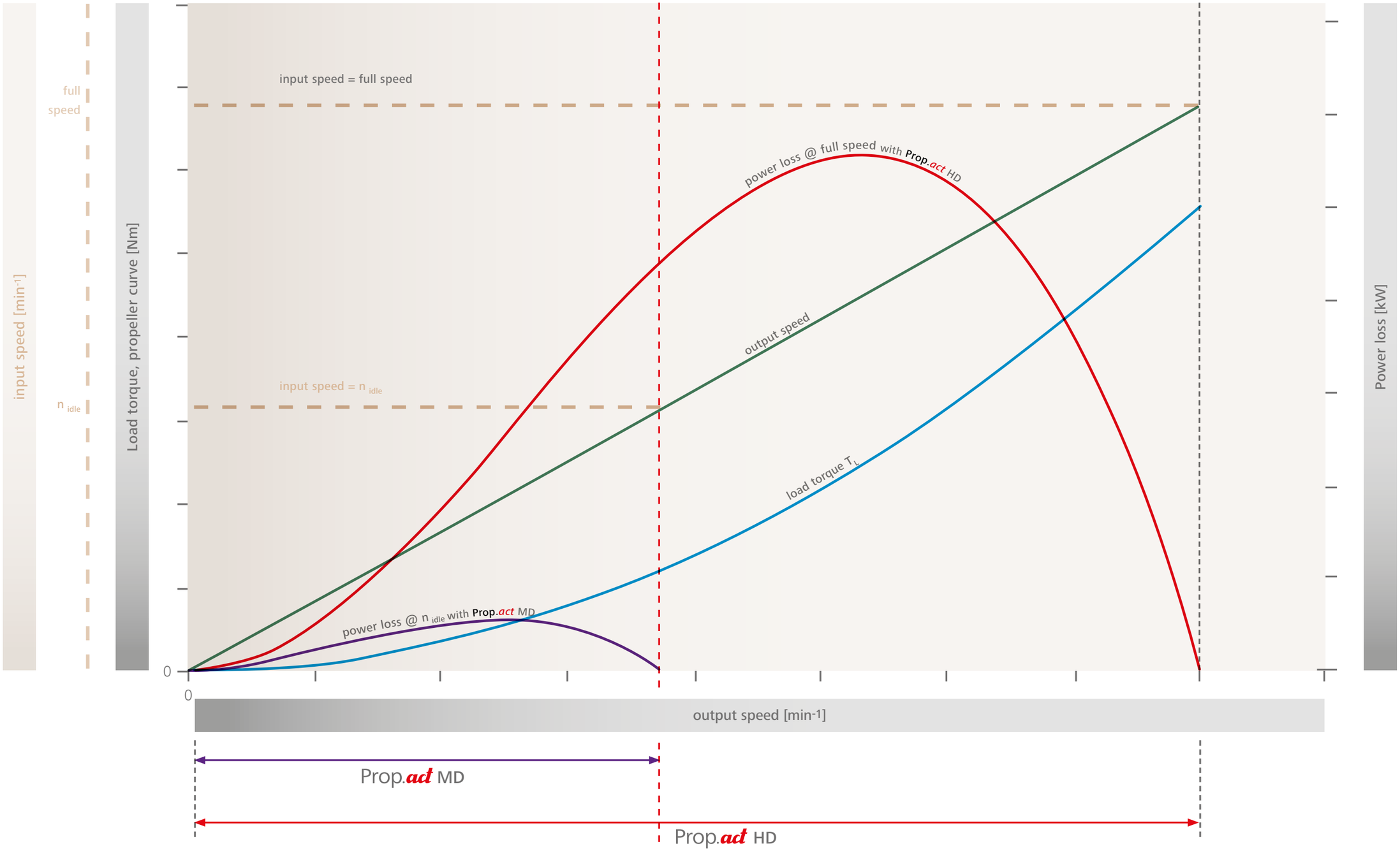




	Prop.*act*		
	66 MD	**72 MD**	**75 HD**
$T_{Mot, nenn}$	15.750 Nm	25.000 Nm	35.650 Nm
P / n - Factor	1,65	2,62	3,7
$n_{nenn, max.}$ - SL	1.800 min^{-1}	1.800 min^{-1}	1.800 min^{-1}
$n_{nenn, max.}$ - ML	1.400 min^{-1}	1.400 min^{-1}	1.000 min^{-1}
$n_{nenn, max.}$ - LL	1.000 min^{-1}	1.000 min^{-1}	750 min^{-1}
Power PTO	40 kW	60 kW	60 kW
Cooling capacity *)	45 kW V_{H2O} =3,5m^3/h; T_{H2O} =38°C	90 kW V_{H2O} =10m^3/h; T_{H2O} =38°C	450 kW V_{H2O} =27m^3/h; T_{H2O} =38°C
Tank oil volume	120 l	190 l	450 l
A	1.370 mm	1.740 mm	1.450 mm
B	1.230 mm	1.440 mm	1.930 mm
C	820 mm	960 mm	1.720 mm
Weight 1)	~1.250 kg	~2.000 kg	~3.900 kg
Weight 2)	~1.450 kg	~2.250 kg	~4.250 kg

*) in dependence of V_{H2O} and $T_{H2O,EIN}$
1) without oil filling, without stand-by pump / brake
2) without oil filling, with stand-by pump / brake

Power loss during slipping



Ortlinghaus

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