

## TECHNICAL SPECIFICATION

### WHITE GILL THRUSTER UNIT 50T3S

UNIT SIZE	:	50" Nominal Bore
UNIT TYPE	:	T3S VERTICAL SHAFT
ROTATION	:	Counter clockwise when viewed from thruster rotor shaft drive connection.
MAIN BODY SHELL	:	Fabricated mild steel BS4360-43A and BS3100-A1 (BS592-A).
MAIN BODY CASTINGS (Non-Structural)	:	Meehanite nodular iron Grade SF to BS2789-27/18% modified elongation.
ROTOR	:	50" o/d, 4-blade, .85 p/d nickel-aluminium-bronze to BS1400-AB2.
ROTOR SHAFT	:	Mild steel to BS 970 Grade 070M20. Fitted with stainless steel sleeves in way of internal bearing and gland and fully protected between sleeves for sea water service with glass fibre & resin bandage.
STEERING SHAFT	:	Ditto as rotor shaft.
DEFLECTOR STUB AXLE	:	Steel forging to BS 970 Grade 080M40 Condition "R".
GEAR WHEEL	:	Phosphor-Bronze to BS1400-PB2C.
PINION	:	Nickel-Alu-Bronze to BS1400-AB2.

## Bearings

R.S. External	:	Oil lubricated spherical roller thrust. Oil lubricated spherical roller radial. Pressure feed lubrication system interlocked into drive start sequence, with duplex electric pressure pumps, lub. oil tank, filter, switches for alarm and shutdown on low pressure, pressure gauge, high temperature alarm.
R.S. Internal	:	Water lubricated rubber or synthetic Orkot TL/M.
S.S. Internal	:	Water lubricated synthetic Orkot TL/M.
S.S. External	:	Grease lubricated spherical roller bearing.
DEFLECTOR	:	Pre-packed grease lubricated taper roller thrust bearings.
ROTOR SHAFT GLAND	:	Water lubricated stuffing box with Beldam Pilot Sternpack 2010 packing.
AIR VENTING	:	Shipyard supply in sea chest, minimum 25 mm bore, with shut-off valve, piped overboard.
CATHODIC PROTECTION	:	14 off Anodes 230 x 75 x 50 galvalum alloy.

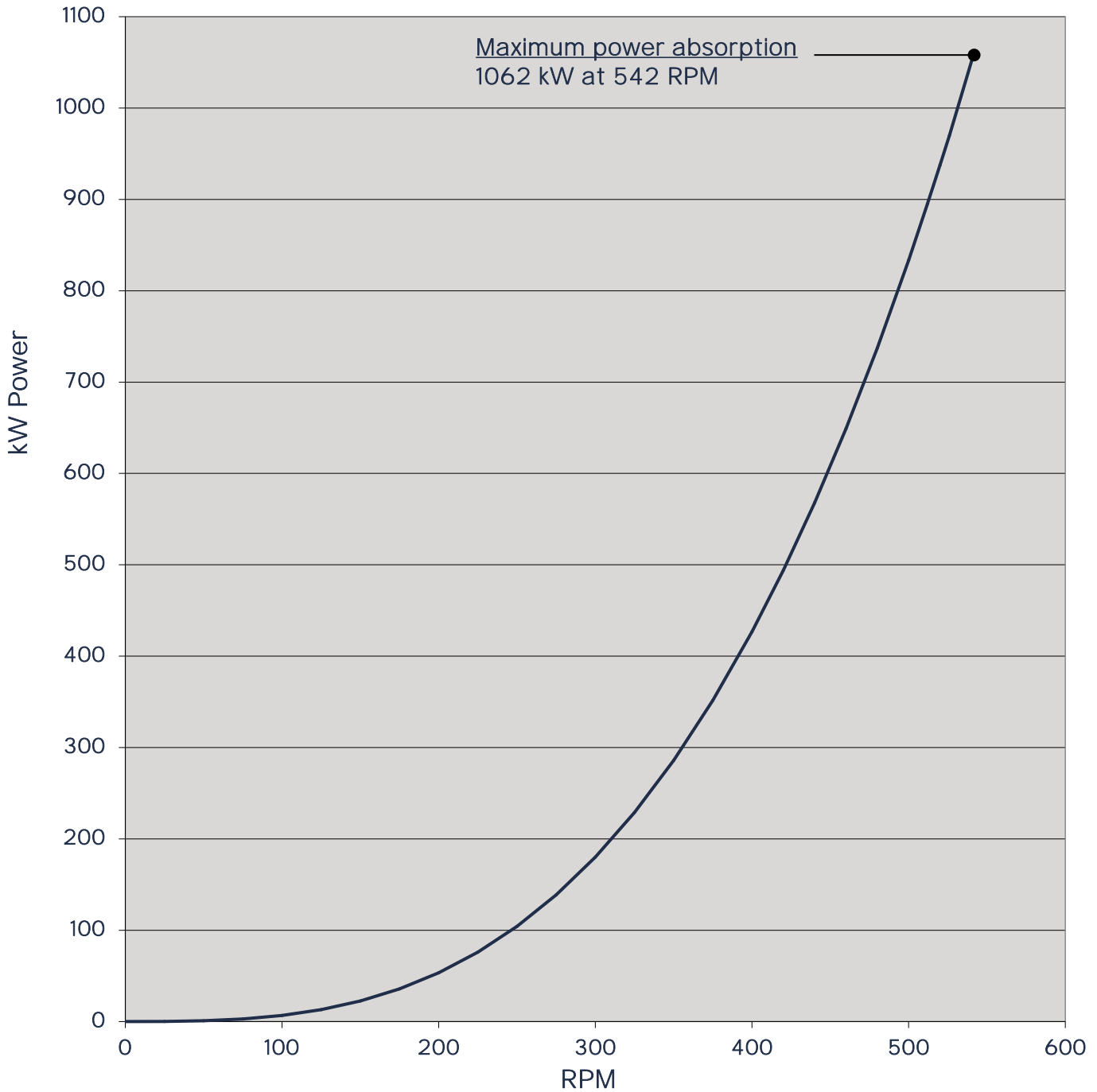
## Painting

External (Exposed to Sea Water)	:	Shot blast preparation then to suit hull paint specification or Tees standard Epilux High Build 218.
Internal (Balance of Thruster)	:	Tees standard or customer requirements.
INLET GRATING	:	Fabricated mild steel (62.5 mm bar spacing), supplied by shipyard, free water intake area 3.20 m <sup>2</sup> minimum.
MAX. STEERING TORQUE	:	89.5 Kg.M (647 lbf.ft.)
DRY WEIGHT (APPROX)	:	9.20 Tonnes



360° PUMP-JET THRUSTERS  
SINCE 1922

## POWER - SPEED CURVE 50T3S THRUSTER



360° PUMP-JET THRUSTERS  
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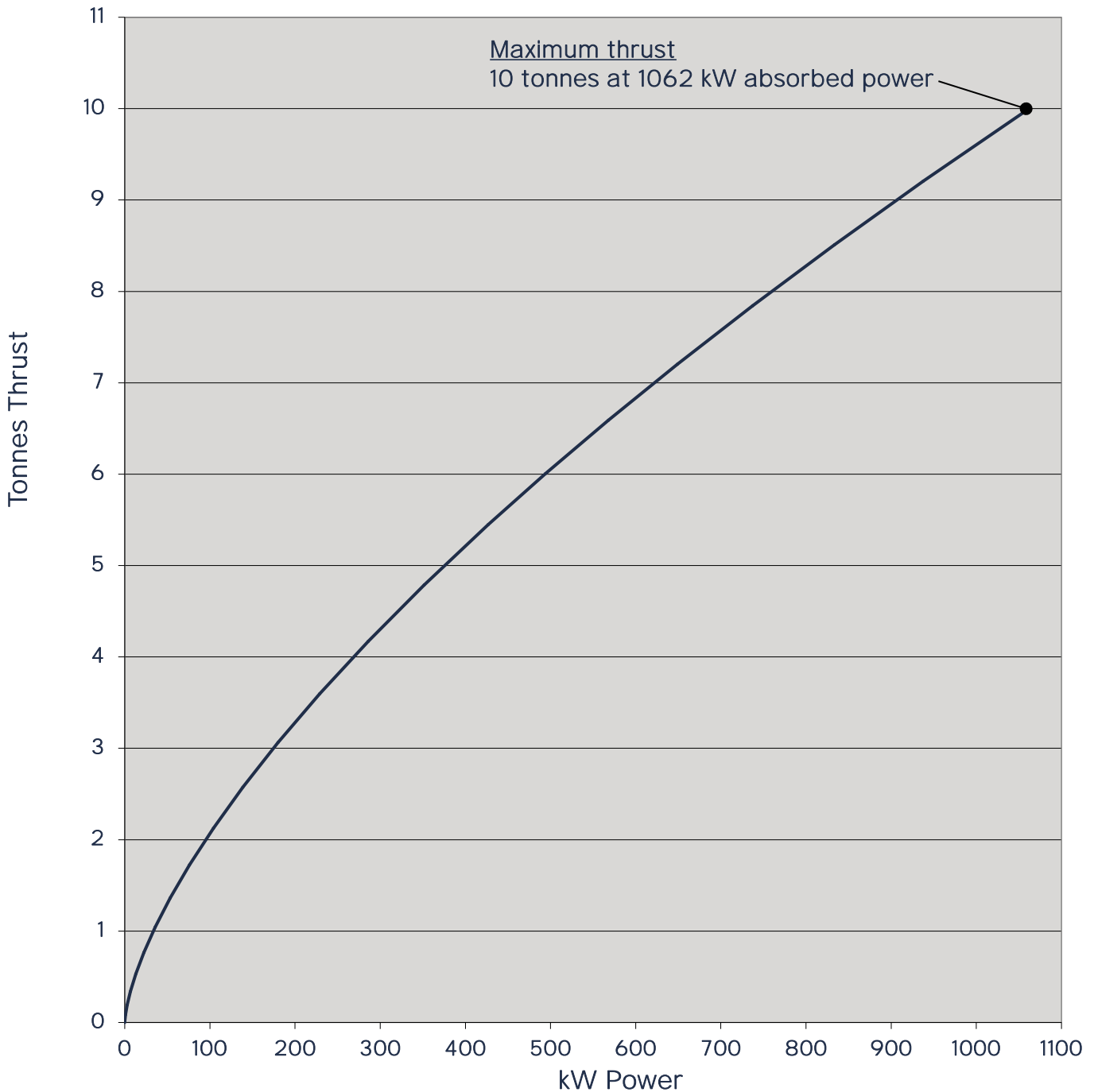
Tees White Gill Thrusters (a product of Tees Components)  
North Skelton, Saltburn-by-the-Sea,  
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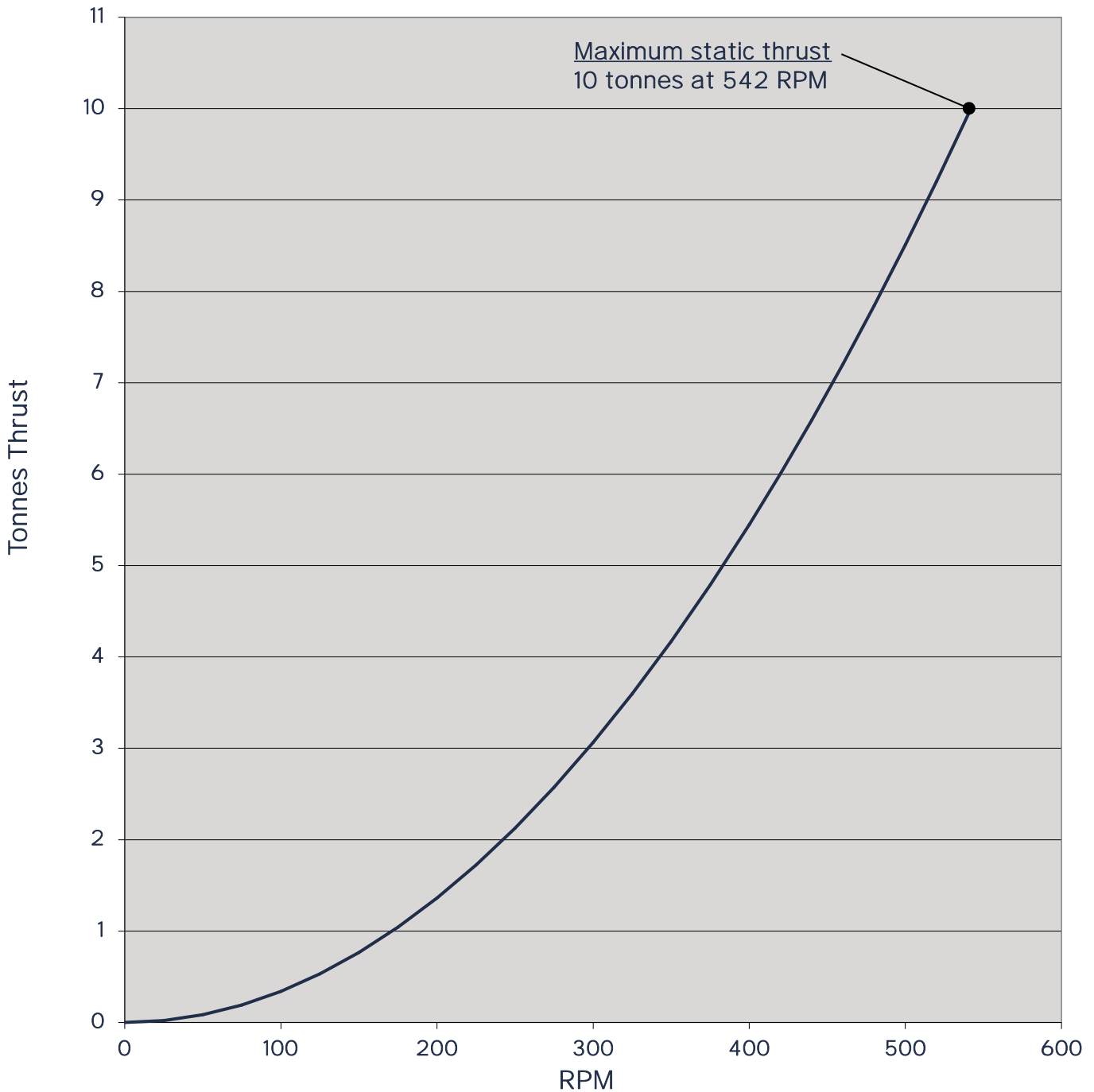
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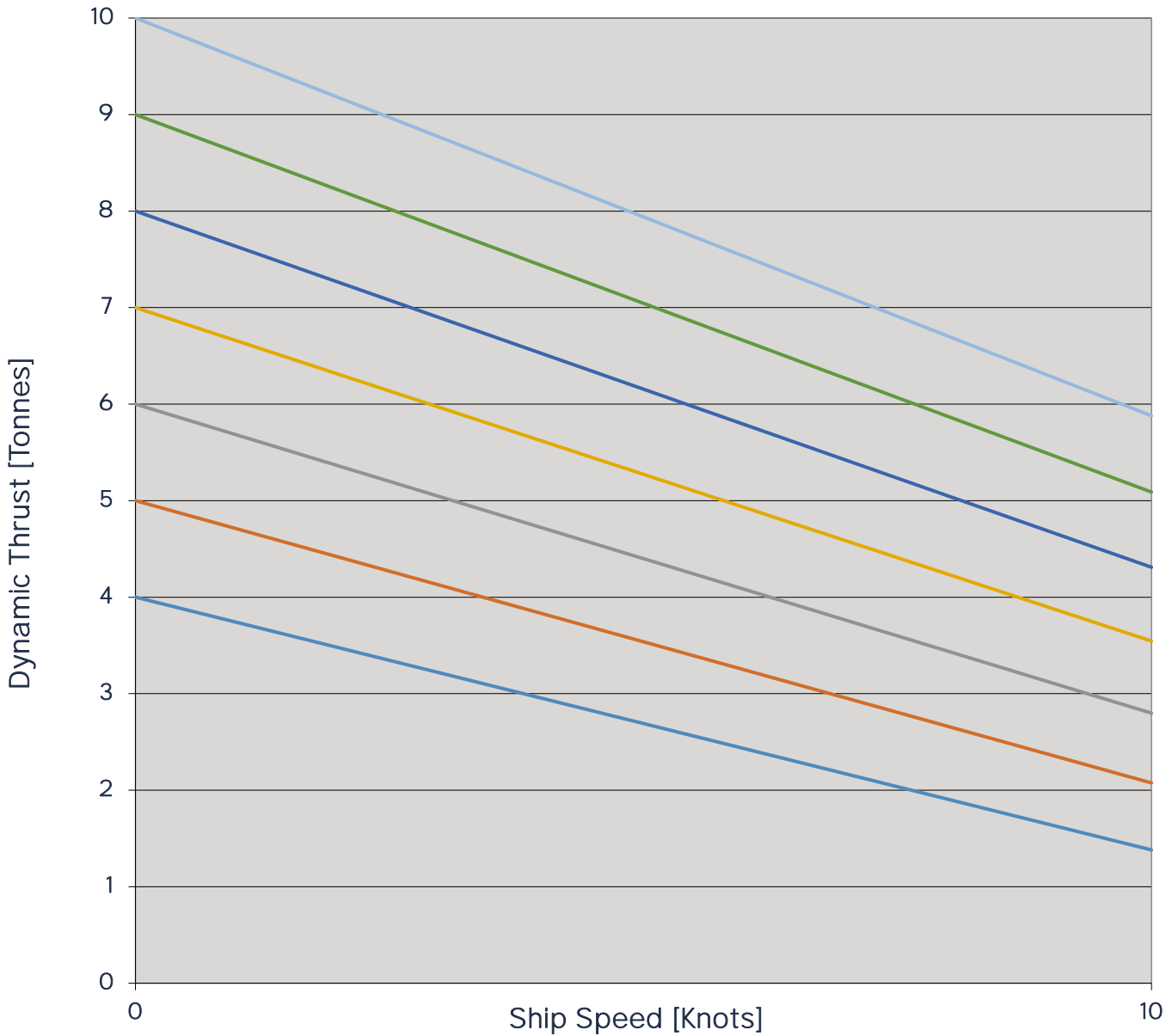
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## THRUST - SPEED CURVE 50T3S THRUSTER



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## DYNAMIC THRUST CURVE 50T3S THRUSTER



— 343 RPM - 269 kW — 383 RPM - 375 kW — 420 RPM - 493 kW — 454 RPM - 621 kW  
— 485 RPM - 759 kW — 515 RPM - 906 kW — 542 RPM - 1062 kW