





# **MARINE PROPELLER**



# PROPELLER MANUFACTURING PROCESS









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### Fixed pitch propeller(Cu3)



High speed passenger ship propeller Diameter:1.1m, weight:120kgs



Large bulk cargo ship propeller Diameter:6.2m, weight:18tons



Large container ship propeller Diameter:4.8m, weight:9tons



High speed passenger ship propeller Diameter:1.6m, weight:500kgs



Large oil tanker propeller Diameter:5.3m, weight:11tons



Large container ship propeller Diameter:5.6m, weight:9.8tons



Propeller Cap fin Diameter:1.3m, weight:900kgs

### Chemical composition

Cu	Al	Mn	Zn	Fe	Ni	Sn	Pb
77-82	7.0-11.0	0.5-4.0	≤1.0	2.0-6.0	3.0-6.0	≤0.1	≤0.03

### Mechanical properties

non-proportional elongation stress (σs0.2)(N/mm2)	tensile strength (σb)(N/mm2)	Elongation δ(%)
≥245	≥590	≥16

Diameter of bronze propeller: less than 7 meters Weight of single bronze propeller: less than 20 tons Produce capacity: 100tons/ month We would like to receive the propeller design or ship data with requirements from customers.

### Controllable pitch propeller(Cu3)







### Controllable Pitch Propeller By Perfect Design

The controllable pitch propellers are made of Ni-Al-Bronze, which is the most commonly used material in the marine propeller fabrication due to its good physical properties and excellent corrosion resistance.

This 4-blade controllable pitch propeller comes with a diameter of 4.2meters, a weight of 5.6 tons and blades polished with popular patterns. The propeller characterizes a high efficiency while low fuel consumption by adjusting the propeller pitch.

The propeller hub and blades are mainly produced with a 5-axis CNC machine to ensure all dimensions be accurate.

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### Fixed pitch Stainless steel propeller(CF3)



Diameter:1714mm Blade quantity:4 Rotation: RH Material: Stainless steel(CF3) Weight:425Kgs

Diameter:1549mm Blade quantity:5 Rotation: LH Material: Stainless steel(CF3) Weight:450Kgs

#### Chemical composition

C%	Si%	Mn%	Р%	S%	Ni%	Cr%
<0.03	<1.0	<2.0	<0.045	<0.030	9.0-12.0	18.0-20.0

#### Mechanical properties

R <sub>P0.2</sub>	Rm	A
N/mm <sup>2</sup>	N/mm²	%
min	min	min
>205	>520	>40

Diameter of stainless steel propeller: less than 3.5meters Weight of single stainless steel propeller: less than 3 tons Produce capacity: 50tons/ month

We would like to receive the propeller design or ship data with requirements from customers.