

ВИНТЫ





FIXED PITCH PROPELLER

Bronze propeller

Custom design is capable



A high-quality bronze propeller is through the molding, melting, casting, machining and polishing of the professional production process, and through a series of high standards of testing processes such as dimension inspection, material testing, flaw detection testing, balance testing, etc., each of our propellers can withstand the inspection of classification societies, and have won unanimous praise from customers.






Specification ability of bronze propeller

| Range of dia.(m) | Range of weight(ton) | No. of Blade | DAR | Material | Class | Class society |
|------------------|----------------------|--------------|------|----------|-------|---|
| 0.6-9 | ≤80 | 3/4/5/6/7 | ≤1.5 | Cu3/Cu4 | S/1/2 | CCS,ABS,BV,RINA,DNV, RMRS, KR, BKI, IRS |

Material of bronze propeller

| Material | Chemical Composition % | | | | | | | | Physical properties | | |
|----------|------------------------|----------|----------|------|---------|---------|------|-------|---|---|---------------|
| | Cu | Al | Mn | Zn | Fe | Ni | Sn | Pb | Yield strength σ _{0.2} N/mm ² | Tensile strength σ _b N/mm ² | Elongation δ% |
| Cu3 | 77-82 | 7.0-11.0 | 0.5-4.0 | ≤1.0 | 2.0-6.0 | 3.0-6.0 | ≤0.1 | ≤0.03 | ≥245 | ≥590 | ≥16 |
| Cu4 | 70-80 | 6.5-9.0 | 8.0-20.0 | ≤6.0 | 2.0-5.0 | 1.5-3.0 | ≤1.0 | ≤0.05 | ≥275 | ≥630 | ≥18 |

Product display

| Pump jet propeller | Surface propeller | Large oil tank propeller | Large bulk cargo ship propeller | Large engineering ship propeller |
|---|---|---|--|---|
|  |  |  |  |  |
| Diameter:0.68m DAR:1.4 No. of blade:5 Material:Cu3 Weight:197kgs | Diameter:0.64m DAR:0.81 No. of blade:6 Material:Cu3 Weight:42kgs | Diameter:5.3m DAR:0.55 No. of blade:4 Material:Cu3 Weight:11ton | Diameter:6.2m DAR:0.75 No. of blade:5 Material:Cu3 Weight:18ton | Diameter:2.8m DAR:0.85 No. of blade:4 Material:Cu3 Weight:2.8ton |

FIXED PITCH PROPELLER

Stainless steel propeller

Custom design is capable



Stainless steel propellers are widely used in inland ships, with the advantages of high strength and strong corrosion resistance. Due to the relatively high hardness of stainless steel material, and stainless steel in the casting process needs heat treatment, resulting in the production of stainless steel propeller is difficult, our company after years of practice and research and development, has a very professional stainless steel propeller production system, can complete the production of stainless steel propeller in batches, in the leading level in China. The products are well recognized by international customers.






Capacity of stainless steel propeller

| Range of dia.(m) | Range of weight(ton) | No. of Blade | DAR | Material | Class | Class society |
|------------------|----------------------|--------------|------|----------|-------|---------------|
| 0.6-8 | ≤50 | 3/4/5 | ≤1.1 | CF3 | 1/2 | CCS,BV,RMRS |

Material of stainless steel propeller

| Material | Chemical Composition % | | | | | | | Physical properties | | |
|----------|------------------------|------|------|--------|-------|----------|-----------|---|---|---------------|
| | C | Si | Mn | P | S | Ni | Cr | Yield strength σ _{0.2} N/mm ² | Tensile strength σ _b N/mm ² | Elongation δ% |
| CF3 | ≤0.03 | ≤1.0 | ≤2.0 | ≤0.045 | ≤0.03 | 9.0-12.0 | 18.0-20.0 | ≥205 | ≥520 | ≥40 |

Product display

| Surface propeller | Fishing boat propeller | Fishing boat propeller | Tugboat boat propeller | Cargo ship propeller |
|---|---|---|---|---|
|  |  |  |  |  |
| Diameter:1625mm DAR:0.5 No. of blade: 4 Material:CF3 weight:420kgs | Diameter:1.55m DAR:0.80 No. of blade: 5 Material:CF3 weight:450kgs | Diameter:1625mm DAR:0.85 No. of blade: 4 Material:CF3 weight:510kgs | Diameter:2032mm DAR:0.8 No. of blade: 4 Material:CF3 weight:800kgs | Diameter:0.9m DAR:0.53 No. of blade: 4 Material:CF3 weight:100kgs |



CONTROLLABLE PITCH PROPELLER

Controllable pitch propeller

Custom design is capable



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

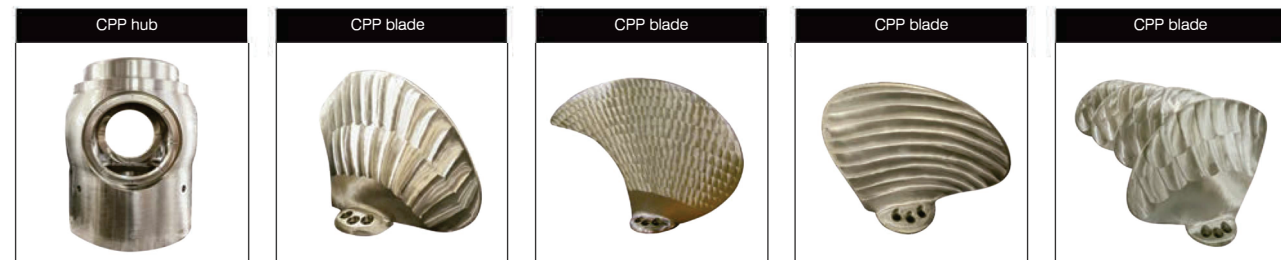
The propeller characterizes a high efficiency while low fuel consumption by adjusting the propeller pitch.

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

Material of CPP

| Material | Chemical Composition % | | | | | | | | Physical properties | | |
|----------|------------------------|----------|----------|------|---------|---------|------|-------|---|---|-----------------------|
| | Cu | Al | Mn | Zn | Fe | Ni | Sn | Pb | Yield strength $\sigma_{0.2}$ N/mm ² | Tensile strength σ_b N/mm ² | Elongation $\delta\%$ |
| Cu3 | 77-82 | 7.0-11.0 | 0.5-4.0 | ≤1.0 | 2.0-6.0 | 3.0-6.0 | ≤0.1 | ≤0.03 | ≥245 | ≥590 | ≥16 |
| Cu4 | 70-80 | 6.5-9.0 | 8.0-20.0 | ≤6.0 | 2.0-5.0 | 1.5-3.0 | ≤1.0 | ≤0.05 | ≥275 | ≥630 | ≥18 |

Product display



We can also provide the complete CPP system.

ENERGY SAVING DEVICE

Vortex Absorbed Fin

Custom design is capable



Technical Support comes from **CMES-TECH**

Hydrodynamic Mechanism

Rectify the strong downstream from propeller blade trailing edge and breakup the hub vortex;

Produce force;

Reduce propeller shaft torque by 2%~3% and increase thrust by over 1%~2%

Vortex Absorbed Fin is attached with small fins on the boss cap. Vortex Absorbed Fin mainly recovers the energy loss of propeller hub vortex in propeller downstream. The geometry shape of Vortex Absorbed Fin is very simple, and Vortex Absorbed Fin can be installed behind the propeller easily as original boss cap, which rotates together with the propeller. Vortex Absorbed Fin can save fuel consumption by 2%-5% as operating at the same speed.

Pre-Shrouded Vanes

Custom design is capable



Technical Support comes from **CMES-TECH**

Hydrodynamic Mechanism

Produce additional thrust by duct;

Produce pre-swirled inflow to propeller by pre-swirl vanes and reduce rotational loss in resulting propeller slipstream,

Improve propeller efficiency by equalizing inflow to the propeller and increasing the flow velocity towards the inner radius of the propeller;

Suppress the flow separation near the stern of the vessel, and recover the pressure on the surface of the stern.

Pre-Shrouded Vanes consists of a wake improving duct combined with several pre-swirl vanes positioned ahead of propeller. Pre-Shrouded Vanes can correct the flow into the propeller which essentially reduces the rotational losses in the propeller slipstream and increase the flow velocity towards the inner radius of the propeller. The expected power reduction of Pre-Shrouded Vanes is in the range of 3% to 8%.