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For Immediate Release.

HydroComp, Inc.

# HydroComp PropCad® 2024 What's New

*New updates to Class Thickness Rules including new RMRS ruleset.*

Development in 2024 for HydroComp PropCad offers new technical features and workflow improvements.

## Release Build 2024.0

### Russian Maritime Register of Ships (RMRS) Class Thickness rules

PropCad users rely on PropCad for blade thickness compliance reports for many different classification societies. In addition to the yearly rules updates, PropCad 2024 now introduces the Russian rules for steel ships, including rules for ice class, arctic class, and icebreaker class propellers. Having access to PropCad 2024 ensures your designs meet the latest published rule sets and that you can quickly document the calculations needed for approval.

The screenshot displays the HydroComp PropCad software interface. The main window shows the 'RMRS Thickness Calculation' results for a propeller design. The results are organized into several sections:

- Classification:** Russian Maritime Register of Shipping Edition 2017. Reference: For the Classification & Construction of Sea-Going Ships. Section: Part 7. Class Sec. 2. Blade Thickness. Rule: Fixed pitch propellers.
- Principal Characteristics:**

Propeller type:	Fixed pitch	Right
Blades (B):	5	0.9109
Radius (R):	72.000 in	18.778 in
Pitch:	68.000 in	16.990 in
Tip rake (TR):		1.478 in
Flow angle (FA):		16.66 in
- Material Parameters:**

Type:	Ni-Al bronze (Cu3)
Yield strength (Y):	3554.25 66in2
Ultimate strength (U):	8572.27 66in2
- Section Modifications:**

Section	dComb	dCut	dThick	dChord	dBack	Total pump	Total disp.	U.E. acc. case	U.E. acc. case
1	0.000	0.000	0.000	0.000	0.000	14.098	14.116	0.833	-1.156
2	0.000	0.000	0.000	0.000	0.000	3.786	14.090	4.231	-1.513
3	0.000	0.000	0.000	0.000	0.000	0.077	14.613	3.912	-2.166

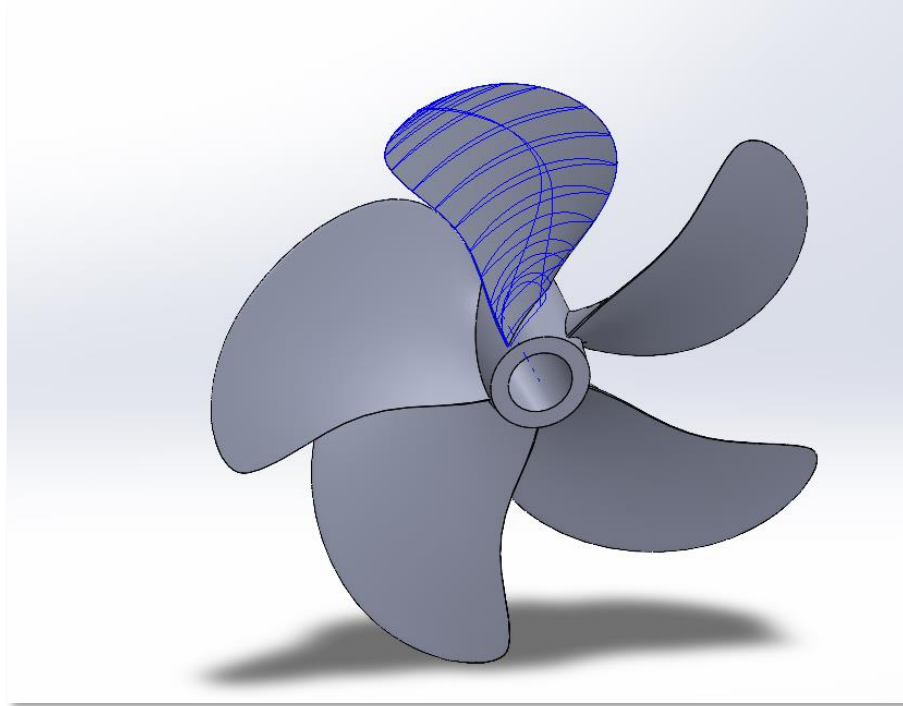
The 'Strength & Materials' dialog box is open, showing the following settings:

- Classification society: RMRS
- Reference: 00.000 (2017)
- Thickness rule: FPP (S.2.1)
- Material type: Ni-Al bronze (Cu3)
- Density: 0.27 lbm/in3
- Yield strength: 3554.25 lbf/in2
- Tensile strength: 8572.27 lbf/in2
- Design power: 1100 hp
- Design shaft RPM: 332 RPM
- Shaft diameter: 8.125 in
- Design thrust: 187 lbf
- Ice class: Icebreaker
- Prop location: KFF crestline
- Prop arrangement: revs
- Propeller revolutions: revs
- Operational factor: revs
- d1 multiplier: revs
- Vessel Wake: Wake variation
- Inflow type: revs
- Inflow angle: deg
- Block coefficient: revs
- Length WL: ft
- Beam WL: ft
- Submerged draft: ft
- Hull depth: ft
- Wake fraction: revs
- Peak wake fluctuation: revs

A 3D model of a propeller is shown in the center of the interface.

## Export Maximum Thickness Curve

To better aid propeller manufacturers with inspection workflows, PropCad users can now visualize and measure the position of maximum thickness using 3D curves on their CAD model. 3D curves for the face and back positions of maximum thickness are especially useful for propeller mold layouts. Currently this is available in Solidworks, Rhino 3D, and other macros exports that support 3D curves.



## About HydroComp PropCad

For additional information, click to: [www.hydrocompinc.com/solutions/propcad](http://www.hydrocompinc.com/solutions/propcad)

## About HydroComp

Since 1984, HydroComp has been a leader in providing hydrodynamic software and services for resistance and propulsion prediction, propeller sizing and design, and forensic performance analysis. Through its unique array of software packages and services, HydroComp now serves over 1400 naval architectural design firms, shipyards, yacht owners, ship operators, propeller designers, universities, and militaries around the globe.

## For more information, please contact:

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