HydroComp, Inc.

April 21, 2021

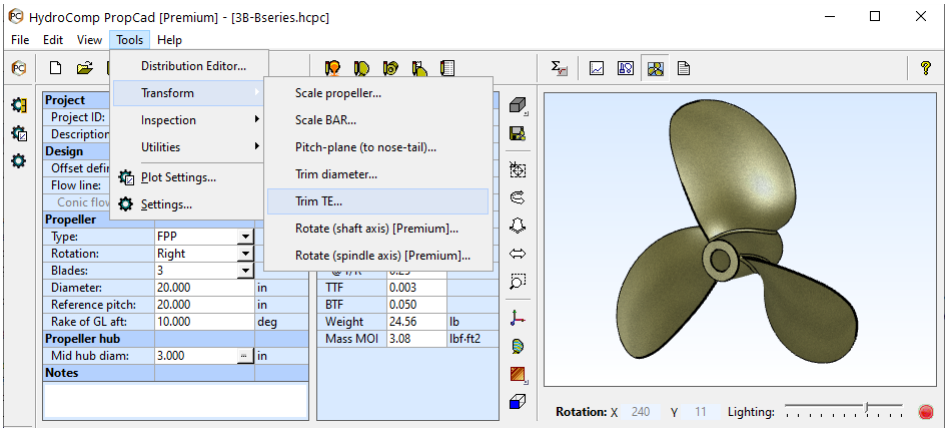
HydroComp PropCad® 2021 Released

New utilities for blade trimming and washback

HydroComp PropCad 2021 is the most powerful version of PropCad to date. PropCad has always been the go-to tool for designing marine propellers, 2D drawings, and 3D CAD models – but new features expand PropCad's role into post-delivery modifications such as blade trimming and trailing edge washback fairing.

PropCad helps engineers and repair professionals accurately plan their cut backs and fairing regions. Reviewing the trimmed geometry in PropCad provides all the critical performance parameters – blade area ratio, mean pitch, and effective blade camber. The trimmed geometry can also be used to generate a new CAD model and 2D drawing of the resulting propeller.

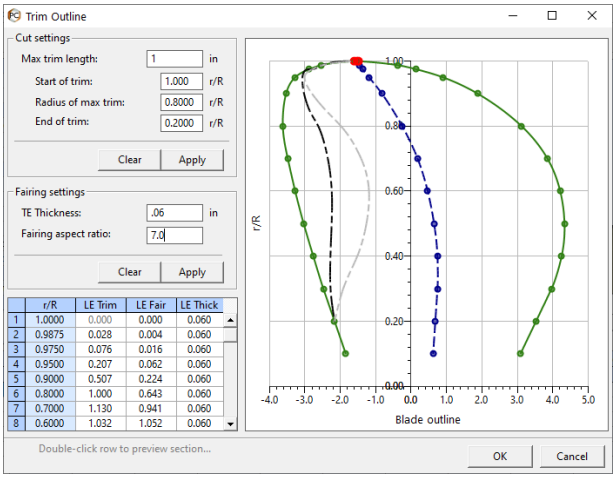
The new trimming utilities can be launched via **Tools | Transformations…**



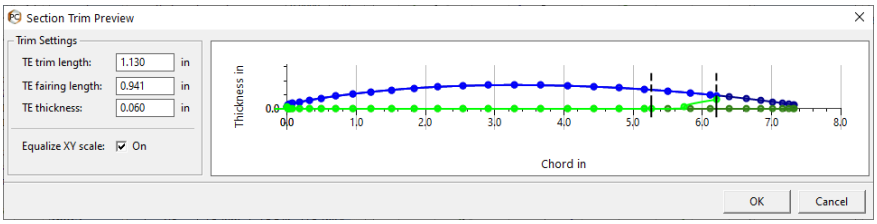
Blade trimming

PropCad supports two modes of trimming the blade: diameter trimming and trailing edge cutbacks. The TE Trim utility allows you to visualize trimming in the expanded outline view. The Trim Settings table provides users with a quick and easy way to generate a smooth trim line. The Fairing Settings and visualization work in a similar fashion, allowing the user to specify the resulting edge thickness in the trimmed region and an aspect ratio (removed thickness/fairing length) to create a smooth region for thickness reduction via surface grinding.

The table contains the trim length, faring length, and remaining edge thickness for each radial section of the propeller. PropCad users have full control of these values, providing them a digital analogy of physical templates.

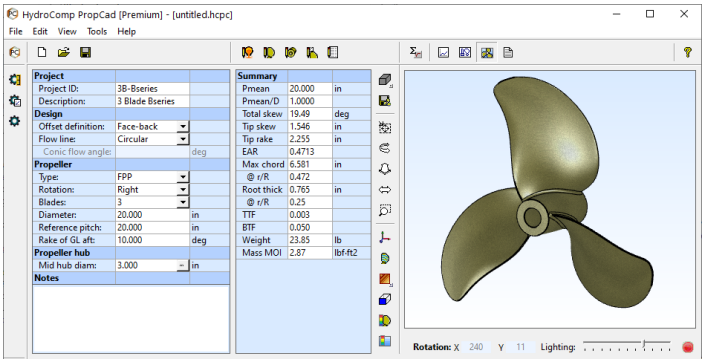


Any of the section cuts can be previewed and modified:



Generate CAD, 2D Drawings, and Reports

After completing the modifications to the blade, the geometry is automatically brought back into PropCad's comprehensive design environment. If any further changes to the propeller are needed, the Parametric Builder and editable Section parameter table provide further control over the design features.



PropCad can export the design to several different CAD formats, including macros for specific CAD programs as well as general purpose exports like IGES. The 2D drawing and PDF reports are customizable with your logo and company information. The 2D drawing can be exported in PDF and DXF formats.

About HydroComp PropCad

For additional information, click to: 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 1200 naval architectural design firms, shipyards, yacht owners, ship operators, propeller designers, universities and militaries around the globe.

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