



PropCad™

Propeller CAD for Design & Manufacturing

What Is PropCad?

PropCad is software for the geometric modeling of marine propellers. It provides all of the tools for the preparation of 2D design drawings, 3D views, construction data, and CAD/CAM file export.

Who Should Use PropCad?

Manufacturers, researchers and designers of marine propellers are the principal users of *PropCad*. Companies large and small from every continent rely on *PropCad* for their propeller modeling needs.

What Propellers Can I Draw With PropCad?

Designs of virtually any type of marine propeller can be prepared with *PropCad*'s comprehensive geometry definition. (*PropCad* will even help prepare drawings for other rotating machinery elements, such as turbine blades and aviation propellers). The easiest way to create a propeller drawing is with *PropCad*'s design wizard – the Builder.

How Does PropCad Builder Work?

Libraries of popular propeller styles (e.g., Gawn, B-series, Kaplan, AU, SK) are included in *PropCad*. Complete propeller geometry can be built by describing a few important objective values. Enter a target blade area ratio, the amount of skew or rake, and thickness rule, for example, and *PropCad* builds all of the propeller's geometry – chord length, thickness, skew, rake, and all section offsets.

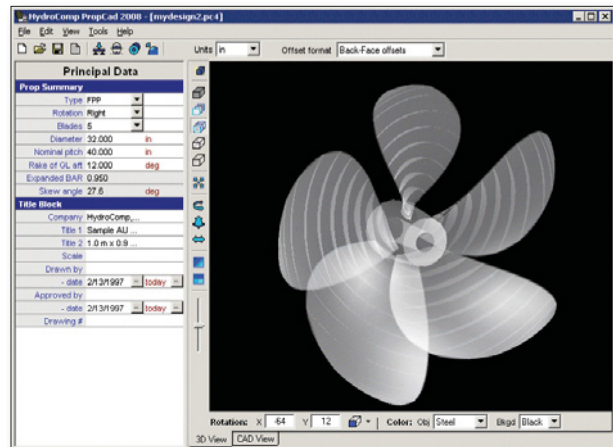
Will PropCad Work With Other Propeller Types?

PropCad geometry data may be completely edited by the user to represent practically any propeller. The Builder can also use this data to simplify the creation of a new model from an existing drawing. *PropCad* files can then be saved as starting “templates” for variants of the basic design.

What Information Is Shown On A PropCad Drawing?

PropCad output includes traditional 2D design drawings, 3D views, and printed tables of 2D and 3D section offsets. The drawing may be viewed, edited, printed, and saved. The design drawing includes expanded, transverse and profile views, pitch distribution, geometric information (e.g., weight and inertia), as well as the basic propeller parameters.

- **Rapid Development With Design Wizards**
- **Supports Any Custom Geometry**
- **Classification Thickness Calculations**
- **Weight And Inertia Properties**
- **Convert Scanned Blade Data Into A Design**



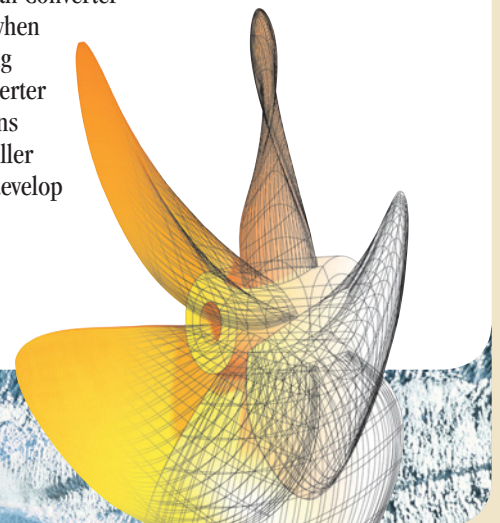
Sample PropCad Screen With 3D View

Can I Export A PropCad Design For Manufacture?

Both 2D and 3D propeller geometry may be exported from *PropCad*. This information is in a variety of formats, and is used for many purposes, such as further CAD development of the hub, rapid prototyping, NC milling, or for CFD and FEA analysis. *PropCad* exports to many popular CAD/CAM software, including Rhino, SolidWorks, SurfCAM, and Mastercam, Pro/E, Unigraphics, and DELCAM.

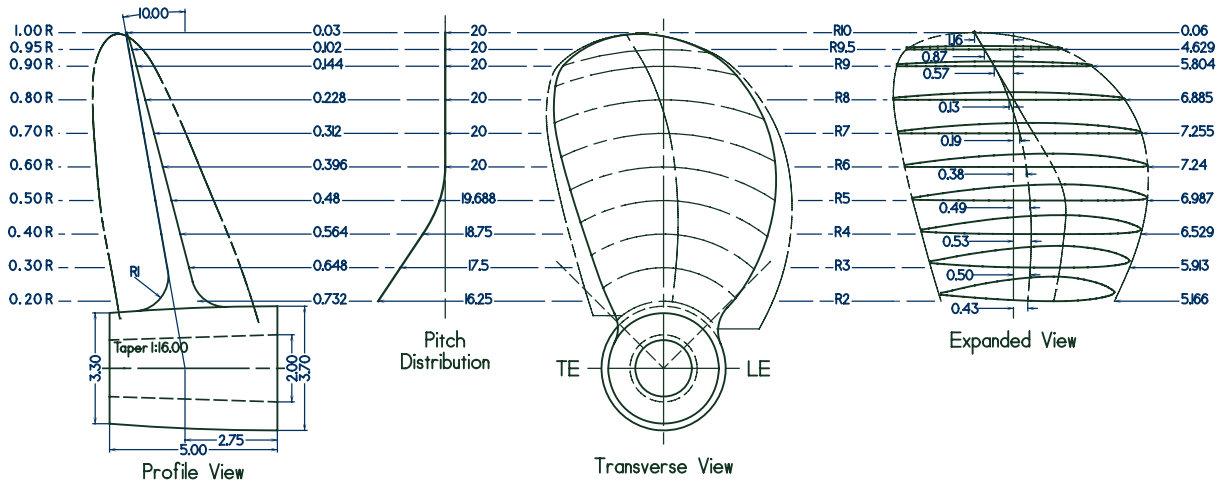
Will PropCad Help Me With My Existing Designs?

The organization of *PropCad* is based on contemporary propeller design practices, so re-creating your designs in *PropCad* is an easy process. You can also look to *PropCad*'s optional Scan Converter utility for those times when you do not have existing design data. Scan Converter lets you take blade scans (as found with a propeller scanning device) and develop a *PropCad* design file.





PropCad™



Technical Specifications

Builder Section shape • Pitch distribution • Blade outline
Parameters Expanded area ratio • Rake & skew angles
 Edge & blade thickness • Hub parameters • Camber
 Shaft diameter & taper • Cup depth & extents

Builder Library AU (MAU) • B-series • Gawn • Kaplan • Modified Gawn
Propellers SK • Custom user-defined geometry files

Thickness Rules ABS • BV/RINA • GL • KR

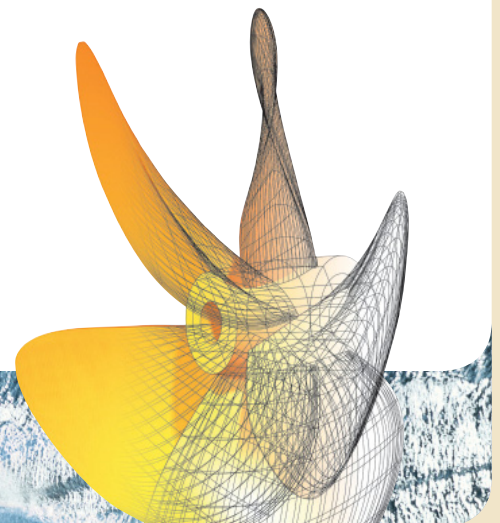
File Exports Drawing: DWG, DXF, GCD, VCD, WMF
 3D data: VRML, IMSA IDF "Prop" entity, PropCad
 offset 3D & mesh files
 CAD/CAM: Rhino, Mastercam, Rhino, SolidWorks, SurfCAM,
 Pro/ENGINEER, Unigraphics, DELCAM

Calculations Total weight • Mass inertia • Added wetted inertia

PROPCAD – FROM CONCEPT TO 3D MODEL

- 2D drawings
- 2D/3D design environment
- Integrated design library
- Rapid design development
- Export to CAD/CAM

To order, please contact HydroComp, Inc.
 or this authorized representative:



For license and ordering information, please contact:

HydroComp, Inc.
 13 Jenkins Court
 Suite 200
 Durham, NH 03824 USA

T: [603] 868-3344
 F: [603] 868-3366
 E: info@hydrocompinc.com
www.hydrocompinc.com