



## DATA SHEET // STANDARD SERIES PROPELLERS

Michigan Standard Series propellers are widely regarded as the industry benchmark. MMPI has the expansive propeller design and analysis capabilities necessary to increase speed, minimize vibration and give a smooth ride. Our aim is to supply vessel owners with propellers that meet or exceed the expectations and objectives of both the designer and boat builder.

# MMPI

MICHIGAN MARINE PROPULSION  
INTERNATIONAL

## MICHIGAN A QUALITY MANUFACTURING PHILOSOPHY

All Michigan propellers are manufactured with particular emphasis on tolerance specification and the philosophy that quality is the cornerstone of economic growth and stability.

## SUPPORT & SERVICE

For new construction, retro fit or for damaged replacement - we have a standard series propeller design that can be supplied direct from our large warehouse inventory for almost every application. In cases where we manufacture to order we work with short production lead times and offer an express service for those very urgent cases. Our own in-house engineering team and propeller designers are based in the USA, Europe and the Middle East and from these strategically located centres are able to support our global network of customers.

Where required we manufacture to comply with all major classification societies. This service includes :

- The preparation and submission of propeller design for plan approval
- Manufacture and independent laboratory endorsement of specified test bars
- A full inspection survey by the relevant agency

## APPLICATIONS

Recreational power boats, sailing yachts, in-shore commercial craft and fishing vessels are all typical examples of the applications that benefit from fitting Michigan standard series propellers.

Each of our propeller models have specific characteristics and features built into the design and relative to its application. For example, in the recreational and pleasure sector we have performance orientated models built with ship speed in mind, whilst other models regard cruising range and fuel economy as the prime consideration. For the professional sector the vessel owner may be looking for maximum thrust, manoeuvrability and acceleration or bollard pull, again we have specific models to match these criteria and in all cases we aim to provide propellers that minimize vibration and give a smooth ride.

## PRODUCT SIZE AND RANGE

We design and supply propellers to a maximum diameter of 3 meters. All are built to the highest applicable industry standards such as ISO484-2 and ISO484-1. Included in our standard series offering is the Gold Line range which is made up of 5 separate designs and regarded by many as the Industry benchmark for small and medium size propellers. Other models such as the

Dyna Jet, Dyna Quad, DJX and DQX combine to make the Michigan Standard series propeller programme the most comprehensive in the world.



## MATERIALS

Our commitment to quality begins long before receipt of the customer order. All raw materials are 100% inspected and certified before acceptance and before release to production.

We build our Standard series propellers in Manganese Bronze (CU1) or in Nickel Aluminium Bronze - NiBrAl (CU3).

The Manganese Bronze alloy is mainly used in less demanding applications that are not under extreme cavitation loading or where high vessel speeds are not a requirement and customers can benefit from the economic advantage of this less expensive material.

We offer the alternative NiBrAl alloy where its superior strength characteristics are required or where vessel performance is a critical factor.

Both alloys are easy to repair and have good resistance to erosion and fatigue stress.

For those special applications we are also able to supply propellers in Aluminium and Stainless Steel.

All our propellers are stamped with individual serial numbers that allow full traceability of the alloy chemical composition and mechanical characteristics.



## WHY FIT A MICHIGAN STANDARD SERIES PROPELLER?

- ▷ More than 4,000 pieces available direct from stock.
- ▷ The world's largest selection of standard propeller designs.
- ▷ Advanced resistance and propulsion calculations.
- ▷ Thrust and bollard pull predictions and propeller efficiency curves.
- ▷ CAD modelling, NC programming & 3D software.
- ▷ Certification of raw materials.
- ▷ Rigorous control of the sand moulding and metal melting processes.
- ▷ CNC high speed propeller finishing.
- ▷ Close tolerance manufacture 100% compliant to globally recognised ISO standards.
- ▷ Modern factory inspection equipment and gauges.

MICHIGAN WHEEL WAS ESTABLISHED OVER 100 YEARS AGO – THE BUSINESS WAS BUILT ON A FUNDAMENTAL PRINCIPLE OF ENGINEERING EXCELLENCE AND EXPERTISE.

TODAY WE CONTINUE TO FOCUS ON THESE VALUES AND SUPPORTED BY OUTSTANDING DESIGN TECHNIQUES AND A DIVERSE PRODUCT RANGE, WE OFFER A PROPELLER AND PROPULSION SERVICE THAT IS GLOBALLY UNRIVALLED.



MICHIGAN MARINE PROPULSION  
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