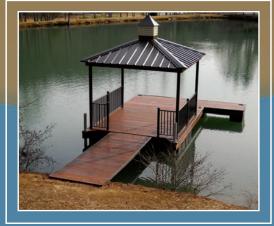




RESIDENTIAL DOCKS









## RESIDENTIAL DOCKS

### Each year, Wahoo Docks manufactures more unique docks than any other dock builder in North America.

Why? It could be luck. Or, it could be because our docks deliver the highest value to our clients, because we have earned a reputation for delivering on what we promise and because we work cooperatively with our customers to achieve their most optimal solution. We understand that a dock is a considerable personal investment and excellence should be expected. We have built our company around having the industry's best engineering talent, manufacturing expertise and operational systems. We combine this with a customer-centric attitude to deliver what we believe you'll find to be the highest quality, best value docks available. So, our position at the top could be happenstance, but we like to think it's the result of exceeding expectations every step of the way.











## SOLUTION FOCUSED

A key ingredient to our success is the collaborative effort within the Wahoo Docks team.

Our products are sold exclusively by a network of certified dealers throughout the country who are equipped with an unparalleled level of knowledge, skill and the cumulative experience from the largest dealer group in the industry. In addition to the impressive background of each of our dealers, continued education is maintained through factory trips, annual network-wide meetings and even written tests. You can be confident that your local professional is an expert in dock design and construction, regional regulatory issues and the latest installation and anchoring practices. These representatives are charged with understanding your vision and goals and ultimately ensuring your complete satisfaction. To this end, we work closely with our partners to support their customer service efforts and provide insight on the latest technical and structural advances in our dock systems.







Wahoo representatives are located throughout North America



Jon and Cindy Pack NGBL Marine Construction Co. Wahoo Dealer Since 2004

Our approach is to deliver the benefits of a superior product—designed by experienced engineers, built in a controlled environment using proprietary components—with outstanding service that is best achieved by local craftsmen with in-depth regional knowledge.

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Aluminum is renowned for its excellent weathering characteristics—a result of its high strength and resistance to oxidation. For wet, marine-based applications, aluminum structural materials are the most effective way to achieve a durable, maintenance-free assembly that will not weather like other popular building materials, specifically steel or wood. Further, aluminum requires no protective coatings such as primer, paint or stain which promotes a healthy marine environment and eliminates costly routine maintenance. In addition, we exclusively use stainless

## Maintenance-Free

It takes less time to do a things right than it does to explain why you did it wrong. —Henry Wadsworth Longfellos

steel hardware and proprietary high density polyethylene (HDPE) and ultra high molecular weight polyethylene (UHMW-PE) auxiliary components to ensure our docks and gangways remain uniquely noise-free. The reality is that docks inherently require on-going attention—from keeping them free from spider webs and animal

nests to moving floating docks with seasonal water fluctuations—but our docks minimize the amount of upkeep required so that more time can be spent enjoying your dock rather than working on it.



My dock is just better than any dock I've ever even been on. It's stronger, quieter, it's more solid. It looks better. I've never had to do anything to it other than wash it down every now and then. Yes, I am pleased with my dock.

We go to great lengths to ensure that our docks look better than any other, both when new and after years of service. The finishing touches that are standard on our docks can only come from a company of our resources, investments in tooling and engineering depth. We use over 35 patented and proprietary extrusions, castings and other components that efficiently enhance the structural integrity of our docks while also making them more attractive and functional. Whether it's our proprietary aluminum railing system that uses 13 unique components for its unsurpassed beauty and safety, our patented DryJoist flooring substructure that adds strength and a seamless ceiling appearance, or the



Beautiful

You see things as they are and ask, 'Why?" I dream things as they never were and ask, 'Why not?" - George Bernard She use of stiff, 4" roof poles that usually eliminates the need for diagonal bracing and add to our dock's overall heft. Our docks offer a wide variety of aesthetic features that simply cannot be found elsewhere.

Wahoo has been superb from start to finish. I feel like you really tried to find the design and features that were best for us and I couldn't be more pleased with the finished product. Our dock is perfect for our needs and we use it more than I even thought we would. We're the envy of the lake!

In short, our docks incorporate substantially more metal and reinforcements than competitive docks and are methodically designed to maximize the strength of the material used. Our rigorous approach to dock design begins with a scientific appreciation for the typical and potential forces exerted on the structure. And, as a

pioneer of the heavy-framed aluminum dock, our empirical experience with aluminum dock construction is second to



Quality is not an act. It is a habit. - Aristotle

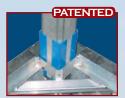
none. What ties this practical and academic

expertise together is our unparalleled use of technology. Each and every structure we build is analyzed using proprietary algorithms to assess potential shortcomings and design enhancements. What all this means is that every dock we produce is ideally designed to achieve maximum durability in the most efficient manner possible.



## CATEGORY 5





#### noise eliminating bushings

HDPE plastic bushings insulate metal to metal contact points on the dock and gangway to eliminate noises typical with traditional floating docks.

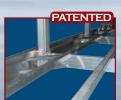




#### 9-inch mainframe

Our mainframe is 34% heavier than the conventional 8" c-channel, is along the vertical axis, along the horizontal axis, and is configured to support bracing components so that welds are reinforced with structural load bearing members.





#### structural interconnections

The structural members of the Category 5 dock dovetail together so that connections are supported by a framework 'seat' and then are welded into place. Because aluminum loses strength when welded, this redundancy adds strength and longevity to the dock and reduces the stress on critical weld points.





#### reinforced roof pole connections

Roof poles are set into gusseted pockets that are shaped into and capture the entire mass of the mainframe and roof channel, creating the stiffest, most durable connection possible - even stronger than a welded joint.





#### premium boat protection

We offer three bumper packages to tailor your dock to your specific boat and preference. Our heavy duty P-bumper surrounds the decking edges but customers can opt for our custom pole bumpers that contour the roof poles for maximum strength, or our proprietary 12" mainframe bumper that covers the entire mainframe face for maximum protection.





#### rigid roof structure

Our roof structure is a latticework of heavy gauge material which adds stiffness and strength to the overall dock. We use 8" tall, 3/16" thick c-channel as the main supports and interconnect these with 2" tubing. Moreover, our roof pole receivers are integrated into the framework to create the most rigid, safest connections possible.





#### engineered railing system

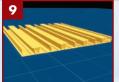
Our railing system is comprised of 13 custom components in three color options to create a uniquely stiff and durable structure with an unparalleled finished appearance.





#### reinforced corners

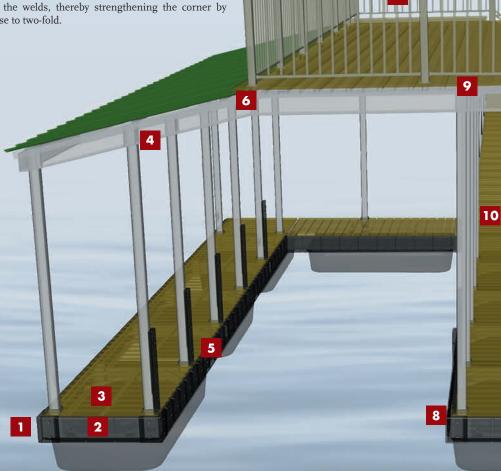
Our corner bracket is a full 14 pounds/foot extrusion which acts to strengthen the most critical locations on the dock and to secure roof poles. They eliminate the otherwise butt-welded corner found on many competitive docks, the cast corners, which are significantly more brittle than extrusions and produce weaker welds on others and, most importantly, the corner incorporates flanges that fit into the mainframe to buttress the channel and minimize the dependency on the welds, thereby strengthening the corner by close to two-fold.





#### **DryJoist protection**

Our optional DryJoist roofing underlay provides many benefits—it is stiff and strong to strengthen the roof structure, it provides a flat, bead board look from below and it supports the use of any type of decking on the upper level.



#### WORLD CLASS ENGINEERING

Wahoo is owned by engineers who have a great appreciation for the forces that affect a floating structure that is stressed 24/7. Each and every dock is individually designed by an engineer and supported by our proprietary design software and the experience of designing more unique docks than any other dock company in North America.

#### STATE OF THE ART WELDING

100% of the welding on a Wahoo dock is performed in a controlled environment by skilled professionals using the latest MIG welding equipment.



heavy duty hinge

14

11

Our proprietary piano hinge is stronger, safer and

quieter than the hinge on any competitive dock. The

hinge pin is co-extruded with an HDPE plastic sheath

to insulate the metal-to-metal contact and keep the

hinge secure and quiet for the lifetime of the dock.

19





gusset reinforcements The gusset reinforcements complement the uniquely stout components of the Category 5 due to their interlocking arrangement with the surrounding components and the sheer number of supports.

12

17

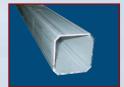




#### maintenance free decking

We engineered AridDek aluminum decking specifically to compliment the features of our docks-it's durable, maintenance free and perfect for harsh marine environments. In addition, we offer IPE natural hardwood decking and a selection of synthetic decking options.





#### 4" octagonal roof supports

Our roofs are supported by 4" octagonal poles which are 35% heavier than the traditional 3" poles used by competitors. The primary benefit of this, in addition to the design enhancement, is that each pole is 126% stiffer, adding significantly to the rigidity and durability of our docks.





#### stronger gangways

Proprietary extrusions on our gangways offer an ergonomically friendly top rail while enhancing the strength by 27% compared to similar style gangways.



# PATENTED

#### through-bolted roof supports

We secure each roof support with four or six 3/8" diameter stainless steel bolt and nylon locknut combinations to ensure a tight, durable connection that will never loosen over time.





#### finished trim work

The Category 5 has no peer for attention to detail. From the custom pole feet that cover decking cuts, to the proprietary bumpers, gangway components and estate quality railing, the Category 5 provides the most complete and finished looking dock available.





#### premium components

The Category 5 incorporates the same premium component parts that have always been a hallmark of a Wahoo dock. From entirely stainless steel hardware to the use of PermaFloat floatation, our docks are built to maintain their like-new appearance for many years.





#### flexible appearance

The appearance of the Category 5 can be tailored to suit individual tastes. With color options for the roof poles, railing and roofing, multiple decking options and a wide variety of custom dock configurations to choose, new dock owners can design a dock that is uniquely their own.

### 19 obstruction free desian

rigidity of Category 5 components and connections and the stiffness of our 4" roof poles



allow us to eliminate diagonal brace obstructions in most standard dock configurations and still provide the stiffest aluminum dock available.



Wahoo uses only 6061-T6 marine grade aluminum for all structural components, which provides 20% stronger welds than the more popular and less expensive grades used on most competitive docks.

#### CUSTOM COMPONENTS

Wahoo has invested heavily in custom components such as aluminum extrusions, bumpers, castings, fasteners, decking and trim to make our docks as economical and strong as possible and to create a dock that has a finish that would rival an estate home.

# CAT3 WAHOO DOCKS

The Wahoo Category 3 series is the highest value boat dock available. It is designed using the same engineering principles and many of the same components as our industry leading dock, the Category 5, but is made with less material and finish components and is more in line with the features of other aluminum docks on the market. This allows us to offer a dock similar in price to competitive aluminum dock brands but with significantly greater strength and feature benefits. In essence, it embodies the Wahoo quality, service and brand at a price that works with any dock budget.

Make no mistake, the Category 3 is suitable for most marine environments. It utilizes our patented extruded corners and 4" roof posts and post receivers and has a substantial 10" deep mainframe channel. In addition, all roof poles are insulated with our UHMW-PE bushings to ensure the Category 3 series docks are just as quiet and pleasant to own as our Category 5 series.



# Affordable Quality

Quality is never an accident; it is always the result of high intention, sincere effort, intelligen direction and skillful execution; it represents the wise choice of many alternatives. —William A. Foster

#### The Wahoo Attention to Detail







#### **Common Cat 3 Upgrades**



Painted Picket Railing

Mill Finish Picket Railing



Painted Poles



Wahoo Frame Bumpers



Premium Decking

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#### **Similarities to Cat 5**

- same engineering principles and design team
- uses Wahoo Patented corner extrusions
- incorporates 4" octagonal posts and post receivers and post covers
- uses Wahoo proprietary gangway and hinge
- 100% stainless steel fasteners
- incorporates Wahoo patented UHMW-PE bushings for noise reduction
- same renowned Wahoo support before, during and after purchase
- most accessories, color options and upgrades available on the Cat 5 are available on the Cat 3 series
- same grade of structural aluminum 6061-T6

#### **Differences from Cat 5**

- less structural aluminum designed for light to moderate environmental conditions
- less floatation less overall dock weight requires less floatation
- less stiff overall stiffness of dock equivalent to competitive docks
- 2-line handrail standard on upper deck optional upgrade to picket railing



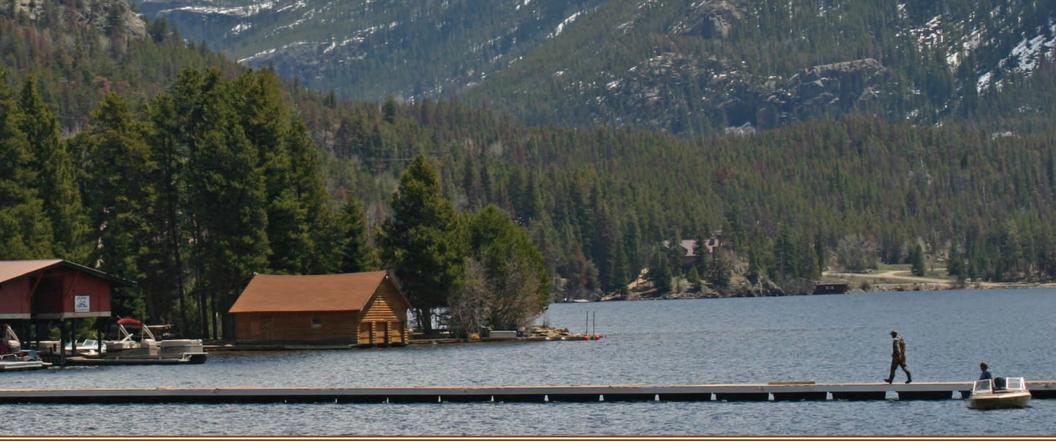


Wahoo really is in a class by itself. As an engineer, my opinion may be skewed but Wahoo has done an outstanding job of creating a dock that is stronger by orders of magnitude relative to the many others I looked at with a minimal amount of additional material. It is the goal of any good engineer and it is refreshing to see the innovative things they've done. My decision to buy from Wahoo was a no-brainer even though it did cost more... and I'm cheap!

### **Comparison with Competitive Docks**

- stronger even the Cat 3 uses more metal than most competitive docks and the patented design, corner connections, 4" roof posts and post receivers create a more durable dock than can be found elsewhere
- more enjoyable the Cat 3 uses the same low maintenance materials as the Cat 5 and our patented bushings make Wahoo docks the quietest on the water
- competitively priced the Cat 3 is the most affordable Wahoo dock avaliable and is usually priced within 5% - 10% of other aluminum docks





### STATE OF THE ART TECHNOLOGY

#### **Engineering Leader**

The engineering features on a Wahoo dock are present long before our MIG welding begins.

Our goal is to engineer and deliver maximum value to our clients through extensive feature benefits and cost management. We achieve this through our methodical approach to material selection, the development and application of patented and proprietary component parts and our unique design principles. These design parameters are incorporated into in-house developed software that calculates the optimal structural configuration for each and every dock we deliver.

Wahoo Docks is widely regarded as the industry leader for quality, innovation and customer satisfaction, and this honor is ultimately the result of our holistic approach which begins with the deepest engineering infrastructure in the industry.

#### **DOTS:** Design & Order Tracking System

At the heart of our operations is an in-house developed, state-of-the-art computer software system, DOTS. This technology enables us to accurately schedule every project and efficiently manage our inventory and shipping logistics—no small feat considering we build and ship more unique docks than anyone in the country. More impressively, DOTS uses our proprietary algorithms to design each and every dock we build, render 2- and 3-dimensional models for our engineers to analyze, and create manufacturing and installation schematics to ensure that each and every dock we deliver meets Wahoo Docks' quality standards.



#### **OPERATIONS MANAGEMENT**

- Pricing
- Scheduling
- Shipping
- Inventory Management
- Project Management

#### DESIGN AND STRUCTURAL ANALYSIS

- Creates each component of the dock system in a 3-D space environment
- Examines the impact, influence and interaction between each component
- Creates 2- and 3-D models for visual and finite element analysis
- Identifies potentially insufficient spatial relationships and design problems
- Provides 100% accurate manufacturing documentation

#### **FLOATATION ANALYSIS**

- Developed in-house, specifically for our docks
- Calculates requirements for exact amount and placement of floatation
- Ensures stable, balanced dock displacement

#### ALUMINUM OXIDATION

#### **STEEL OXIDATION (RUST)**

#### **WOOD DECAY**



**Exposure:** Aluminum naturally reacts with oxygen in the environment.





IDEAL MATERIALS



**Exposure:** The iron component of steel reacts with the environment to form what is commonly known as rust.



Result: Rust is permeable to air and to continue to corrode internally-even after a

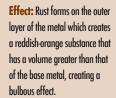


The key to designing long lasting, maintenance free dock systems is an understanding and appreciation for the

structural, mechanical and chemical properties of the component parts, how they interact, and recognizing the external forces the dock will encounter. Starting here, we can engineer our docks to maximize durability

and longevity in the most cost effective manner. - HEAD ENGINEER, Max Volk P.E.

water, allowing the metal surface layer of rust has formed.





**Exposure:** Wood in a marine environment is subjected to moisture and repeated cycles of intense wetting and drying.



Result: The moist environment fosters the growth of fungi and the wet/dry cycles cause the wood to swell and shrink.



Effect: Fungus eats away at the wood structure and the swelling/shrinking cycles cause the wood to split, crack, check and warp.

#### **Maintenance Free Materials**

- STRUCTURAL MEMBERS: 6061-T6 marine grade aluminum has a similar tensile strength as steel, yet offers better versatility and is significantly more resistant to corrosion.
- FASTENERS AND HARDWARE: Stainless steel hardware is highly compatible with aluminum and adds strength and stiffness.
- BUMPERS AND BUSHINGS: HDPE and UHMW-PE plastics provide a durable, long lasting insulation barrier that protects boat-to-dock contact and silences metal-to-metal contact on the structure.

#### **Benefits**

- EXCELLENT WEATHERING: A Wahoo Dock simply will not rust or experience material structural degradation from weathering.
- LONGEVITY: The structural integrity and aesthetic beauty of our docks remain consistent over time, unlike docks made with other materials where oxidation and decay have a significant effect on their appearance and durability.
- HIGH VALUE: Our unique, proprietary extrusions and castings are designed to deliver strength where needed and to give maximum design flexibility and aesthetic appeal.
- WIDELY SUITABLE: Because of their resistance to corrosion, our docks are suitable for coastal and inland projects.

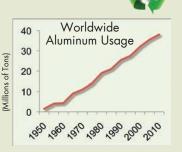
#### **Fun Facts**

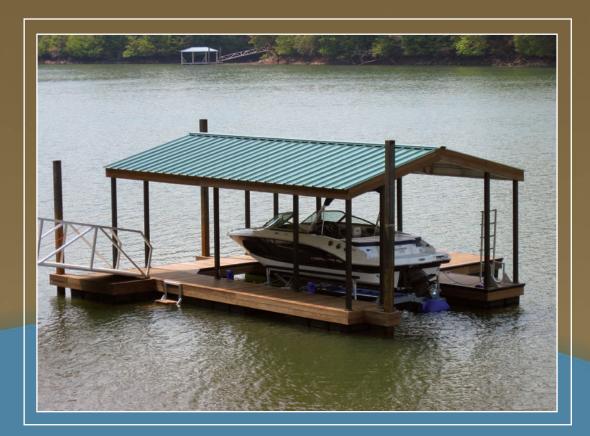
- PLENTIFUL: Aluminum is the third most abundant element in the earth's crust - comprising eight percent.
- A GREEN METAL: By using just 5% of the energy required for extraction, recycled aluminum can be remelted to produce metal with exactly the same properties as primary aluminum.





















WChoo Docks

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