



COMMERCIAL DOCKS









Commercial Docks

Each year Wahoo Docks manufactures more unique docks than any other dock builder in North America. We have grown over 20-fold in the last half decade alone and our commercial docks have been a large factor in this growth. Why? Because our docks deliver the highest value to our clients, because we have earned a reputation for doing what we promise and because we work with each of our clients to achieve their most optimal solutions. It is the commercial customer, with a large investment at stake, who demands excellence in their dock provider. This customer most appreciates our meticulous approach to engineering, manufacturing and project management. They entrust us to provide a dock that will maximize their investment with a high degree of certainty about the final result.







Marinas



Wahoo Docks has been building marinas for over twenty years. We have built docks for the world's largest inland marina, coastal marinas and probably some of the world's smallest marinas. However, as the price of marine-grade aluminum has dropped relative to the price of steel over the last several years, our docks have become more popular than ever with marina owners. The lower maintenance requirements, durability and enhanced appearance of our docks are features that appeal to marina owners looking for an edge against competitive facilities. In short, our docks offer a cost effective way to establish any marina as the premier provider of docking services in its market.







PROPERTY SPECIFIC

Developers frequently determine specifications for the personal docks of the waterfront landowners in their developments that are more rigorous than those of the governing regulatory agency. Attributes such as the layout or roof style of the docks or special coloring schemes can be standardized to create a uniform shoreline look. In some cases, Wahoo Docks is specified as the sole-source provider for such docks because of the quality and consistency of our docks, our reliability, our co-marketing support and because the Wahoo Docks brand adds value to the project.

Property Specific Community Docks

- Standardized design facilitates regulatory approval
- Dock availability for property enhances value
- Profit potential to developer on sale of each dock
- · Consistent quality reliability ensures satisfaction
- Maintains attractive & uniform community image
- Eliminates extreme & low end docks from the development



MULTI-SLIP

Waterfront developments typically feature property specific docks for each property adjacent to the water and/or a Communit Dock with multiple slips, often to provide boat access for property owners without direct water frontage. Because our docks uniquely blend aesthetic appeal, durability and low maintenance, we are a natural fit with developers looking to showcase their property in the best light possible. In addition, our reliability and the comprehensive approach we take with each project makes us an invaluable partner. This allows our clients to focus their efforts on their areas of expertise, which in most cases is not boat docks.

Multi-Slip Community Docks

- Slip availability enhances property value
- Profit potential from sale of limited slips
- Single dock reduces regulatory process required for same number of individual docks
- Flexible design can create common areas for residents



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Docks designed for public access have become increasingly common with the rise in popularity of recreational activities on public waterways. Each year, we work with a wide range of public and private organizations to design and install docks that are uniquely tailored to their location and desired utility. Because of our broad experience and our knowledge of the safety, regulatory and practical matters as they relate to public use docks, the value we bring to our public access clients is far more than solely as a provider of their docking products.

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Solution Focused



Wahoo Docks approaches its commercial dock relationships in a holistic manner. We take responsibility for each project's success and work closely with our clients to understand their objectives and to provide guidance drawn from the experience of scores of other similar projects. Our aim is to provide solutions to our clients, rather than be a component supplier for a project that may or may not best perform its desired function. This philosophy is part of Wahoo Docks – our products, our operations, our client attention – and is what we believe has driven our reputation as the premier provider of docks in North America.







"Wahoo Docks constructed the perfect marina addition to our Lake Blackshear Resort. We were looking for an upscale marina product that fit the look and feel of our resort. Wahoo Docks listened to our perspective and collaborated with our design team to develop the wonderful new facility. The product delivered was of high quality and met all of our expectations. Years into the marina's operation, the docks look as good today as the day we opened." — special Assistant to THE COMMISSIONER, DEPARTMENT OF NATURAL RESOURCES. *Bob Newsome*



INDUSTRY LEADING TECHNOLOGY

State of the Art Engineering

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. Our docks are beyond peer because of our methodical approach to material selection, the development and application of our patented and proprietary component parts and our unique design principles. Wahoo Docks is widely regarded as the industry leader for quality, innovation and customer satisfaction and this honor is the result of our holistic approach to the business of delivering docks.

DOTS: Design & Order Tracking System At the heart of our operations is an in-house, state of the art computer software system, DOTS. This technology enables us to ensure accurate scheduling, efficient project and inventory management 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 it to 2- and 3dimensional models for our engineers to analyze, and creates 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

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

FLOATATION ANALYSIS

- Developed in-house, finite element analysis of any floating structure
- Calculates exact amount and placement of floatation
- Ensures stable, consistent dock displacement

Maintenance Free Materials: Exceptional Performance

- **STRUCTURAL MEMBERS:** 6061-T6 marine grade aluminum has similar tensile strength to steel and significantly better longevity properties.
- FASTENERS AND HARDWARE: Stainless steel has high compatibility with aluminum yet adds strength, hardness and longevity.
- BUMPERS AND BUSHINGS: HDPE and UHMW-PE plastics provide a durable, long lasting insulation barrier between boat-to-dock contact and metal-to-metal contact on the structure.

Benefits

- EXCELLENT WEATHERING: Wahoo dock systems simply will not rust or experience material, structural or aesthetic degradation.
- LONGEVITY: Our structures will remain solid throughout their lifetime without continual

- upkeep, unlike similar galvanized structures where rust will erode and degrade bolted connections.
- **HIGH VALUE**: The longevity and aesthetic advantages of a Wahoo Dock maximizes your return on investment and minimizes maintenance.

Flexible Designs

- 35+ PATENTED AND PROPRIETARY COMPONENTS: Wahoo Docks has invested heavily to tailor extrusions and castings that maximize strength and appearance.
- ALUMINUM BENEFITS: The formability and high tensile strength of aluminum allow our engineered designs to be tailored for any water-based structure – from large marina projects to public fishing platforms.
- WIDELY SUITABLE: Wahoo docks are suitable for coastal or inland projects because of their resistance to corrosion.

ALUMINUM OXIDATION

Exposure: Aluminum naturally reacts with oxygen in the environment.

Result: Aluminum Oxide is one of the hardest substances on earth, naturally occuring as Rubies and Sapphires. This barrier prevents further oxidation giving aluminum its renown properties for longevity.

> Effect: Aluminum Oxide is formed on the exposed surface, creating a dull, opaque appearance over time.

Exposure: The iron within steel reacts with the environment to form what is commonly

known as rust.

Result: Rust is permeable to air and water, allowing the metal to continue to corrode internally - even after a surface layer of rust has formed.

STEEL

(RUST)

OXIDATION

Effect: Rust forms on the outermost layer of the metal which creates a reddish-orange substance that has a volume greater than that of the base metal, creating a bulbous effect.

IDEAL MATERIALS

The key to designing long lasting, maintenance free commercial docks is understanding and appreciating the structural, mechanical and chemical properties of each component part, how they interact, and what 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, Michael Lyle



WAHOO DOCKS: Classic Dock System





Extensive Gusseting

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Secure Roof Attachments



BRACING

Heavy Duty Roof Structure

A - Extensive Gusseting

• Wahoo Docks utilizes generous and thoughtfully placed gusset reinforcements throughout their docks to supplement welded connections wherever high stresses can occur.

• Gusset reinforcement locations: all high-stress weld areas, gangway hinges, section-to-section connections.

B - Secure Roof Attachments

Roof poles are cut into and secured down the full face of the mainframe to reinforce the highest stress areas of the dock.
– conventional docks 'butt-weld' the roof posts to the top of the mainframe for faster manufacturing but creating a significantly more fragile joint.

• Each roof pole is secured to a stub with a 3/8" stainless steel bolt and nylon lock nut, ensuring that our docks will never lose

their stiffness. – many competitive dock builders use tech screws to secure the roof poles to the stubs, these slacken and reduce rigidity of the dock over time.

• 100% of the welding is performed by skilled welders using the MIG welding process in a highly controlled environment. – welds performed 'in the field' are weak & short lived due to variable environmental conditions that affect sensitive equipment settings & necessary gas shielding.

C - Heavy Duty Roof Structure

• The foundation for each roof system is the use of our 8" x 2 ¼" x 3/16" c-channel, the same c-channel used in our mainframe. This stiff, durable extrusion, combined with other components to form a latticework, creates an incredibly strong roof structure and provides support to the main level of our docks.

• Wahoo Docks uses a c-channel to achieve strength and rigidity in the roof system as

opposed to a truss system, which is less expensive but provides lower utility. The use of our channel facilitates additional space for boat clearance with lower eave height and provides better boat protection.

D - Bracing

• Functional placement, recreational real estate is not obstructed.

• 3" x 3" posts brace for durability and are secured with 3/8" stainless steel bolts & locknuts that have been thru-bolted to maintain an indefinitely solid joint connection & eliminate the shearing or loosening of bolts.

COMPARISON: Classic vs. Category 5

	CLASSIC	CAT 5
Mainframe	8" x 3/16" c-channel	9" x 3/16" proprietary shape
Roof Pole	3" square post	4" octagonal post
Roof Pole Connections	stubs welded into frame – 3/8" s/s bolt connection	proprietary pockets interlocked & welded into frame
Roof Framing	8" x 3/16" c-channel	8" x 3/16" c-channel
Structural Material	6061-T6 series marine grade aluminum	6061-T6 series marine grade aluminum
Roof Bracing	3" square post with 3/8" s/s bolt connection	typically not required - 3" square post when needed
Hardware	all stainless steel bolts and screws	all stainless steel bolts and screws
Mainframe Construction	extensive gusseting for enhanced strength	interlocking components for enhanced strength

WAHOO DOCKS: Category 5 Dock System



A - Interlocking Framework

Each structural member physically supports, is supported by, or interlocks with neighboring components. Wahoo Docks' patented designs and associated component assembly dramatically reduces the stress on the welds, which is the most common failure location on competitive docks.

The as-welded strength for 6000-Series aluminum is significantly less than the tempered, non-heat affected shape. The Category 5 Dock counters this feature by incorporating welds that secure structural members rather than bear weight and stress. – conventional steel and aluminum docks utilize welds as the primary connection method between structural members – The Category 5 Dock System uses the structural arrangement of the components to bear the stress.

B - Strong, Stiff Roof/Mainframe Connectivity

• 4" diameter roof poles are secured inside pockets that are built into both the mainframe and roof frame through their interlocking structural design and reinforced with gussets and cross-bracing.

• The end result is an incredibly strong dock that distributes stresses evenly throughout the entire structure. - conventional steel and aluminum docks butt-weld roof poles to the mainframe and roof frame, producing brittle and weak connections at a dock's most vulnerable locations.

C - Solid Structural Components

• 4" octagonal roof poles on the Category 5 Dock are **35% heavier** and **126% stiffer** than conventional 3" diameter aluminum roof poles and connect to the dock through heavy duty (12 pounds/foot), highly engineered pockets. The rigid roof poles typically eliminates the need for diagonal bracing, but when they are required, the post's 3" face receives 3" diameter brace for added strength.

• 9" mainframe is a proprietary shape that is 34% heavier and 49% stiffer than conventional 8" C-channel mainframes. The design provides a stable platform for stringers, gussets and cross-bracing to support and interact at optimal locations. The unique profile is shaped to be mated with corner brackets, eliminating mitered and welded corners that are common on conventional docks.

D - Noise Eliminating Bushings

• HDPE plastic bushings insulate metal-to-metal contact points throughout the dock, making the Category 5 Dock the most quiet dock available.

• Bushings surround the pool pole to insulate against friction between the pole and sleeve, often the center for noise on conventional docks.

• The bushing for our hinge pin insulates the pin from its outer housing which is another common area for noise to occur on a dock.



I NTERLOCKING Framework

STRONG, STIFF ROOF

CONNECTIVITY

MAINFRAME



SOLID Structural Components

Marinas











Community Docks













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