The Metal Shark 45 Defiant is a welded aluminum monohull pilothouse specially designed for law enforcement, port security, fire rescue, and pilot boat missions. The vessel shown above has been configured for military patrol. Like all Metal Sharks, the 45 Defiant may be customized to meet virtually any mission requirement. Regardless of configuration and equipment, the 45 Defiant serves as an extremely stable, dependable, and highly capable platform that is well suited for both coastal and offshore missions.
**Hull Design:** The 45 Defiant features a proven Metal Shark hull design that has been engineered and built to precise tolerances. To achieve its superior hull life rating of 30+ years, the vessel’s hull, deck, and pilothouse structure are composed entirely of heavy, welded plates of premium-grade 5086 aluminum alloy. The hull has been specifically balanced and will steer a straight course and turn predictably and safely without chine hooking or other unnatural turning behaviors. The 45 Defiant may be equipped with straight-shaft inboards, water jets, or pod propulsion systems.
Deck Layout: At the heart of the 45 Defiant’s crew-friendly design is a spacious deck arrangement offering wide-open work spaces and allowing for easy, surefooted passage from bow to stern. The vessel layout may be custom configured to meet specific mission requirements, but regardless of configuration careful consideration is given to the placement of grab rails and footholds. All belowdecks machinery spaces are easily accessed via large water-tight deck hatches, and walkways feature low-level LED lighting for nighttime operation. Heavy duty rubrails provide protection during alongside maneuvers, and urethane sheathed foam collar fendering systems are available.
**Pilothouse:** The most immediately apparent advancement in Metal Shark’s Defiant pilothouse design is the use of pillarless glass to substantially enhance visibility. The result is a near elimination of the dangerous blind spots which are an unfortunate drawback of conventional pilothouse vessels. Large spotter windows allow the crew to see overhead aircraft. Further, the 45 Defiant’s quickly opening side and aft pilothouse doors offer added flexibility and greatly facilitate communication when docking or maneuvering alongside another vessel. The cabin space is fully configurable for any mission profile, with multiple options for crew seating, dining and lounge areas. Options include shock mitigating captain’s chairs, settee and dinette, galley and chart tables/desk areas.
**Helm:** The 45 Defiant features a massive dash area that easily accommodates all controls, instruments, and navigation equipment, allowing for easy operation of the vessel and all onboard systems. The elevated helm affords an outstanding view; facilitating navigation and maneuvering in multi-vessel and/or fire fighting operations.
Crew Accommodations: Below-decks, crew quarters may be custom-configured to suit virtually any mission profile. Shown here is a 45 Defiant cabin featuring galley with freshwater sink, cooktop, and microwave, forward wraparound dinette that converts to v-berth, and enclosed head with sink, hot water shower, and marine toilet.
Custom Capability: The 45 Defiant may be custom configured to suit a wide range of mission profiles. Shown here in pilot layout, the vessel features 360-degree flush decks, forward boarding platform, pilot-specific windshield with large overhead windows, and man-overboard recovery area with Jason’s cradle.

Pilot Version Shown: Pilots will exit the cabin through the centerline aft door and will walk around the cabin, via 360-degree flush decks to the foredeck, always within easy reach of handrails. Oversized port and starboard side walkways provide easy access forward and aft. An optional bow boarding platform enables safe and easy transit from the vessel to other boats at sea.
Fire Rescue: The 55 Defiant shown above employs the same proven hull design as the 45 Defiant and serves as an example of a vessel equipped for fire rescue and port security. To meet the customer’s fire fighting requirements, Metal Shark employed twin Darley fire pumps driven by PTO from the main engines. Water is pumped to an oversized main where it is distributed via electronic valves to three RF-controlled monitors. In this configuration, the vessel delivers water flow of up to 10,000 gallons per minute. Two 5” hydrant outlet locations, an additional 2.5” hydrant outlet, and a 300-gallon foam reservoir provide maximum flexibility across the widest possible range of firefighting scenarios.
By engaging the thrust-reversing hydraulic buckets on water-jet equipped 45 Defiants, operators can bring the vessel to a full stop within three boat lengths as shown above. For other mission requirements, Defiant-class vessels may be equipped with straight inboards, surface drives, or pod propulsion units.
45 Defiant pilothouse configured with seating for six. Multiple seating configurations available.
An example of Metal Shark’s meticulous military-spec wiring. All wiring connections are easily accessible, labeled, and tightly secured with service loops provided for easy field repair.
Side by side comparison shot of Metal Shark 45 Defiant (patrol configuration) and 55 Defiant (port security / fire rescue configuration).