

# Experience Seamless Ocean Exploration with the MPV Christina Busch—Busch Marine's Premier All-in-One Mission Solution





# Why Choose Busch Marine?

Eliminate the hassle of coordinating multiple suppliers and piecing together separate systems. The MPV Christina Busch from Busch Marine Inc. is your comprehensive, turnkey answer for ocean research, combining critical components you need into one ready-to-launch vessel. With its 25,000lbs Nautilus crane, 4,000lbs Launch and Recovery System (LARS), Dynamic Positioning, and advanced three-point anchoring, everything required for deploying, retrieving, and stabilizing heavy or sensitive equipment is already on board—no need to source or integrate extra gear.

The vessel's onboard laboratory allows you to analyze data as it's collected. The included tender boat, two 6000M Remotely Operated Vehicles (ROVs), and a 6000M towable research vessel provides unmatched versatility and access to both shallow and deep environments—all without the delays and costs of renting or adapting outside equipment.

You'll also find a suite of advanced scientific and sub-sea tools, including hyperspectral imaging systems enhanced by AI-assisted learning, ensuring that every aspect of your mission is supported from the moment you set sail. By offering a complete package—meticulously designed to work together—Busch Marine Inc. saves you precious time, minimizes loading costs and logistical complexity, and reduces budget overruns. With the MPV Christina Busch, you're free to focus entirely on discovery, confident that every tool, system, and support is already in place to make your expedition an outstanding success.

With Busch Marine, you don't have to spend a week or more loading and installing equipment from multiple vendors-it's already onboard.



120' DP Multi Purpose Offshore Support Vessel



MPV Christina Busch is an advanced platform for scientific discovery. Our dynamically positioned vessel facilitates oceanographic, biological, cultural heritage, and geophysical research by serving as a mobile work platform and laboratory.

Outfitted with sophisticated technology, ocean-going satellite communications, and comfortable living quarters, MPV Christina Busch enables multidisciplinary teams to conduct high-caliber research while on the open sea.

- Hyperspectral Imaging with AI-Assisted Learning
- Marine Habitat Restoration
- Geology & Mineralogy
- Climate Studies
- Resource Assessment
- Environmental Monitoring
- Photogrammetry
- Cultural Heritage
- Marine Ecology



**Vessel Accommodations** 



















# **MacArtney Mermac R10 Winch**



The winch system is an electrically driven winch ensuring robust and advanced handling systems which safely control the launch, operation and recovery of work class and inspection ROV systems. The winch is extremely dependable, offers high performance and is easy to use. Its design is compact and consists of modular systems. Several components are standardised, making it easy to specify, adapt or upgrade to the performance and capacity required.



#### **Vessel Description**

#### MAIN CHARACTERISTICS

VESSEL NAME: CHRISTINA BUSCH FLAG PORT OF REGISTRY: USA GROSS TONNAGE: 99 TONS

#### **VESSEL DIMENSIONS**

LENGTH: 120' BEAM: 26' DEPTH: 9'

CLEAR DECK SPACE: 70'X25' DECK LOAD: 100 TONS

#### **PROPULSION**

MAIN ENGINES: DETROIT DIESEL

MODEL: 16V92 MAX HP: 1200 HP STEERING: HYDRAULIC

**REDUCTION GEARS: TWIN DISC** 

MODEL: 527

STERN CONTROL: YES SPEED: 12 KNOTS

**BOW THRUSTER: 200 HP** 

PROPELLERS: 2

#### **ELECTRONICS**

RADARS: 3 FURUNO RADIOS: 2 VHF, 1SSB FATHOMETER: YES

INTERNET: STARLINK GLOBAL O-G GPS: 3 COMNAV, FURUNO, GARMIN

NAVTEC: YES PLOTTER: YES ECDIS: FURUNO

DYNAMIC POSITIONING: DP BEIER RADIO SYSTEMS

#### **CAPACITIES**

FUEL CAPACITY: 32,000 GALLONS POTABLE WATER: 2,000 GALLONS BALLAST WATER: 65,000 GALLONS

FIRE MONITOR: YES ANCHOR WINDLASS: YES

ANCHOR: YES (3 POINT ANCHOR

SYSTEM)

#### **GENERATORS**

MAKE: 3

MODEL: 2-DD 371 40 KW, 1-CAT 3406 260

ΚW

HORSEPOWER: 120 HP, 375 HP VOLTAGE: 110, 208, 415, 416

#### **SPECIAL EQUIPMENT**

25,000 lb Nautilus crane, man-rated 4,000 lb Launch and Recovery System

HPU FOR DECK GEAR

MACARTNEY R10 FIBEROPTIC WINCH WITH 17,000'

**CABLE** 

BADGER, CHASE/SURVEY BOAT-8X18X2, 30 KNOTS

Full selection of diving equipment Edgetech 4200 Side-scan sonar MAGNETICS MAGNETOMETER

Survey grade GPS

SonarWiz mosaicing software

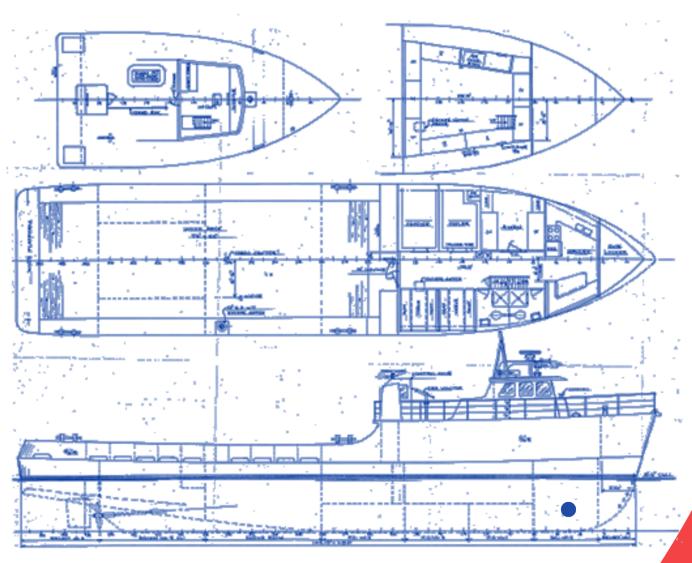
Tracklink USBL

Photogrammetry software

Two 6000M ROVs



**Vessel Drawings** 



\*Crane and LARS not shown



# **Survey and Chase Boats**



#### Somerset III

SIZE: 30" X 11'6" X 3' ENGINES: 2 CRUSADER

454 350HP

Full navigation equipment 2 Davits for equipment 10,000 lb equipment winch 1,000' cable reel 110 v ac inverter

Galley with microwave and refrigerator

Bathroom

2 bunks

30 knots top speed TriAxle trailer Weight 17,000lbs

Road towable

#### Badger

SIZE: 18' X 8' X 2'

ENGINES: Mercruiser I/O 230 Full Navigation Equipment

30 knots max speed

1996 EZ LOADER Boat Trailer

Weight 4,600 lbs Road towable





# **Deep Ocean Surveyor**

Key Features and Instrumentation

Non-Invasive, Low Disturbance Towable Research Vessel 6000M Depth Rated Hyperspectral Imaging System with AI-Assisted Learning Still and Video Cameras

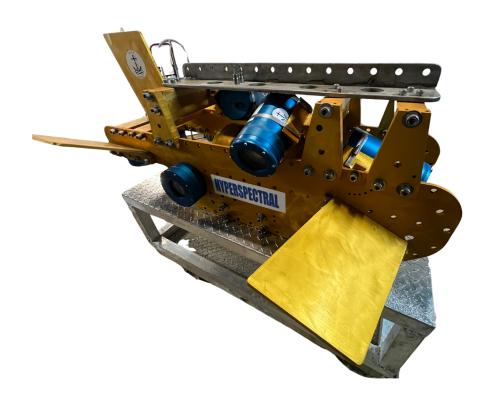
Proprietary 2700K - 6500K Lighting Array

Photogrammetry

Side Scan Sonar

Altimeter and Automatic Altitude Hold

**Electromagnetic Conductivity** 





# **Deep Ocean Prospector**

Key Features and Instrumentation

Work Class Dredge ROV
6000M Depth Rated
Venturi Dredge
Specimen Sample Collector Tray
Sediment Classification System
Hyperspectral Imaging System
with AI-Assisted Learning
Still and Video Cameras
Electromagnetic Conductivity
Photogrammetry
Scanning Sonar



Altimeter and Automatic Altitude Hold Schilling Conan 7F Manipulator-250 lb Extended Horizontal Lift Capacity, Interchangeable Grips Proprietary 2700K - 6500K Lighting Array



# **Light Work-Class 6000M ROV**

**Key Features and Instrumentation** 

Light Work-Class ROV 6000M Depth Rated

Exail ARM 5e Manipulator with 27kg Extended Horizontal lift

Capacity, Interchangeable Grips

Unique 360° Maneuvering System

Detachable Marine Habitat Restoration and Remediation Skids

Proprietary Multi-Temperature Lighting Array

Altimeter and Automatic Altitude Hold

Hyperspectral Imaging System with AI-Assisted Learning

Still and Video Cameras

Electromagnetic

Conductivity

Photogrammetry

Scanning Sonar





# PC1201 1000' 3-Person Certified Submersible

**Key Features and Instrumentation** 

Classification: +A1 Manned Submersible by the American Bureau of Shipping (ABS)

PC1201 comes complete with a 20-foot workshop/ spares container equipped with everything necessary to support operations either from a vessel or in a remote location. PC1201 has a wide array of optional equipment, from seven function manipulators to high resolution color imaging sonar.

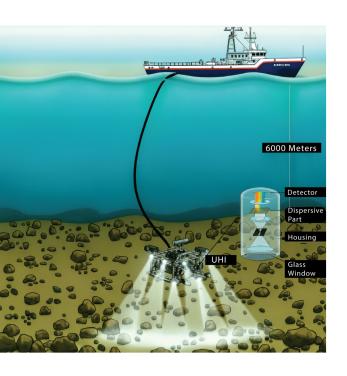


This highly maneuverable craft is powered entirely by Lithium batteries housed in external pods. The submarine accommodates two passengers and a pilot and uses a main propulsion motor and four thrusters for excellent maneuvering capability. It is equipped with powerful LED underwater lights to enhance viewing in deep/dark water or to bring out the natural colors not seen with ambient light at depth.

Visit www.BuschMarine.com for a comprehensive specifications and capabilities list.



# **Underwater Hyperspectral Imaging (UHI)**



Our UHI system, lights, and 4k RGB camerals allow us to see the sea bed and water column with unprecedented insight.

By towing our Deep Ocean Surveyor or operating our Deep Ocean Sampler, we can identify the composition of the sea floor, from minerals to organic life, in situ.

Simplistically, Underwater Hyperspectral Imaging is like a super-powered camera that sees the ocean and all below it, in way more detail than your eyes or a regular camera can, by capturing a unique "fingerprint" of light for everything it looks at.

This ability to "see the invisible" has tons of practical uses underwater:

- Geology and Mineralogy: Surveying of mineral sands, manganese nodule fields, sediment composition, and mineral deposits.
- Resource Assessment: Evaluation of seabed minerals and site suitability studies. Surveys for precise habitat mapping, metric assessments, and temporal change detection across complex seafloor terrains.
- Environmental Monitoring: Detection of pollution, environmental impact assessments, and disaster response (e.g., oil spills, submarine landslides).
- Underwater Infrastructure Inspection and Maintenance: Identify cracks, biofouling, pitting, etc. on oilrigs, platforms, submerged infrastructure for maintenance and repair.



# Rental Equipment Available

For Individual Rental

- Edgetech 4200 Side-Scan Sonar
- Magnetometer
- 4k TV Cameras
- Pivot Navigator ROV
- AC-RO50 ROV
- ROV Testing Pool with current at our facilities in Plainwell Michigan

Contact us today for pricing and availability.