

Nemo 100



The base model **Nemo 100 - Tourist** is an autonomous submarine vehicle for two or three people. It is designed for tourism purposes in designated diving sites for depths that are readily accessible to scuba divers.

The "explorer" (lat.: explorator) takes you on an underwater quest. The model **Nemo 100 - Explorer** is an autonomous submarine vehicle for two people. It is designed to be launched both from the shoreline and from ships in the open sea.

TECHNICAL INNOVATION

- Large, pressure-proof acrylic glass domes enable the people sitting in the submarine to have a perfect view of the underwater world. The additional dome at the lower front end gives a good view to the ground. This makes the navigation near the ground easy.
- An on-board computer monitors all safety-related data and controls the emergency systems.
- Due to the dimensions and weight the submarine can be easily "trailered" by the most cars.

DIVING TECHNOLOGY

The design for "Nemo 100" follows the basic principle that has prevailed and proven itself in larger submarines.

The passenger cabin is an enclosed pressure vessel made of boiler steel. As a result, the internal pressure stays the same at every water depth level, equal to the atmospheric pressure that we are accustomed to on the surface of the water. The diving and regulation cells and the trimming equipment take in the surrounding water and discharge it without contamination. The cells are purged using compressed air. Additionally, the trimming and regulating cells can be cleared with a high-pressure pump.

The air conservation system is based on CO, purification and controlled oxygen feed.

PROPULSION

Direct propulsion is generated by the propellers of two electric motors. Batteries installed in the interior are used for current supply. The batteries run gas-free and are leak-proof. The operation of the rudder is based on an electropneumatic principle. Operation of the motors, the elevator and the aileron is realized by means of a multifunctional joystick.

SECURITY

The model series "Nemo 100" is equipped with all safety standards currently available. With regard to pressure, each submarine will be tested for twice the intended water depth levels. There are several autonomously functioning emergency-surfacing systems, as well as rescue diving gear available for driver and copilots to be used in the event of an emergency exit. Sensors monitor the composition of breathable air, and the diving depth.

If the measured data exceeds the specified values, a safety switching device will commence emergency surfacing.



SPECIFICATION

Dimensions

Length 395 cm (app. 155 in)
 Width 180 cm (app. 70 in)
 Height 155 cm (app. 61 in)
 Weight 1700 kg (app. 3750 lb)
 Pressure hull 100 cm diameter (app. 39 in)

General

N 100-T Model Nemo Tauchtouristik GmbH & Co. KG Builder Crew pilot plus one passenger Internal cabin pressure 1013,25 hPa (ca.1 bar) Payload 240 kg (app. 530 lb) Speed app. 3.0 knots Maximum operating depht 30 m (app. 33 yd) Weight (ready to dive) 2000 kg (app. 4412 lb) Operational autonomy up to 10 hours

Electrical

Board voltage
Propulsion
Power:
Main battery
24 volt
2 x 1000 W
4 kWh (Pb-Gel)

Dive Tec

Dive tanks
 Trim- and ballast tanks
 Compressed air capacity
 Air reserve
 External Internal
 4 x 12 litre (200 bar)
 1 x 7 litre (200 bar)

Life Support

System
 Survival period
 Oxygen system with CO₂ purification minimum 24 hours

1,2 kWh (Pb-Gel)

Emergency Equipment

Emergency auto control system time and data controlled
O₂, CO₂, depth, pressure, temperature battery capacity

Self contained breathing apparatus (2x)

Manual drop weight release

Reserve battery

- Emergency switch (2x)
- Emergency battery 1,2 kWh/24 volt
- Manual location buoy release

Optional Equipment

Integrated battery charger, Multifunction joystick, Seats (hight adjustable), Fluid-compass, Analogue and digital depth display , Battery capacity display



SPECIFICATION

Dimensions

Length app. 500 cm (197 in)
Width 180 cm (app. 70 in)
Height 155 cm (app. 61 in)
Weight app. 2700 kg (5956 lb)
Pressure hull 100 cm diameter (app. 39 in)

General

N 100-T/3 Model Builder Nemo Tauchtouristik GmbH & Co. KG Crew pilot plus two passenger Internal cabin pressure 1013,25 hPa (ca.1 bar) Payload 360 kg (app. 530 lb) Speed app. 3.0 knots . Maximum operating depht 30 m (app. 33 yd) Weight (ready to dive) app. 3000 kg (app. 6618 lb)

Operational autonomy app. 3000 kg (

Electrical

Board voltage
Propulsion
Power:
24 volt
2 x 1000 W

Main battery 4 kWh (Pb-Gel) Reserve battery 1,2 kWh (Pb-Gel)

Dive Tec

Dive tanks
 Trim- and ballast tanks
 Compressed air capacity
 Air reserve
 External Internal
 4 x 12 litre (300 bar)
 1 x 7 litre (300 bar)

Life Support

System
 Survival period
 Oxygen system with CO₂ purification minimum 24 hours

Emergency Equipment

Emergency auto control system time and data controlled

Monitoring data O₂, CO₂, depth, pressure, temperature battery capacity

Self contained breathing apparatus (3x)

- Manual drop weight release
- Emergency switch (3x)
- Emergency battery 1,2 kWh/24 volt
- Manual location buoy release

Optional Equipment

Integrated battery charger, Multifunction joystick, Seats (hight adjustable), Fluid-compass, Analogue and digital depth display , Battery capacity display



SPECIFICATION

Dimensions

395 cm (app.155 in) Length Width 180 cm (app. 70 in) Height 155 cm (app. 61 in) 1700 kg (app. 3750 lb) Weight Pressure hull 100 cm diameter (app. 39 in)

General

Model N 100-E Nemo Tauchtouristik GmbH & Co. KG Builder Crew pilot plus one passenger Internal cabin pressure 1013,25 hPa (ca.1 bar) Payload 240 kg (app. 530 lb) Speed app. 5.0 knots Operating depht 50/100*m (app. 55/110* yd) Weight (ready to dive) 2000 kg (app. 4412 lb)

up to 10 hours

Electrical

24 volt Board voltage Propulsion 2 x 1400 W Power:

Main battery 6 kWh (Li-Mn) Reserve battery 0,6 kWh (Li-Mn)

Dive Tec

Dive tanks External Trim- and ballast tanks Internal Compressed air capacity 4 x 12 litre (300 bar) Air reserve 1 x 7 litre (300 bar)

Life Support

Oxygen system with CO, purification System Survival period 96 hours

Emergency Equipment

Emergency auto control system time and data controlled Monitoring data O₂, CO₂, depth, pressure, temperature battery capacity Self contained breathing apparatus (2x)

Manual drop weight release

Operational autonomy

Emergency switch (2x)

Emergency battery 1,2 kWh/24 volt

Manual location buoy release

Optional Equipment

Integrated battery charger, Multifunction joystick, Seats (hight adjustable), Flux-Gatecompass, Analogue and digital depth display, Battery capacity display, External lights, Intercom system, Fill level display for the trim- and ballast tanks, Sonar, VHF-Radio, Acoustic underwater communication, GPS-Plotter