



Compact, affordable, and built to the highest industry safety standards, the PCCI Hyperbaric System's 6203D and 8003D TBM Manlocks are designed for installation on Tunnel Boring Machine Shields. These Manlocks are typically binocular in shape however, they can be customized to accommodate customer needs. Our Manlocks are specifically designed to facilitate entry and exit out of the TBM.

PHS Manlocks are typically rated for up to 6 occupants (3 per lock) however, they can be tailored to fit specific occupancy needs.

Normal pressure ranges for commonly used applications range from 30 psig (~2 bar) to 147 psig (~10 bar).

NOTEABLE FEATURES of PCCI Hyperbaric Systems (PHS) TBM MANLOCKS

- Easy to use controls, non-dependant on electricity for basic operation.
- Typically binocular in shape but can be customized to accommodate customer needs.
- 8 BIBS stations for occupants decompression.
- Primary & Back-up communication & lighting systems.
- Manlock interiors are protected with 3 kinds of functionally independent fire suppression systems.
- Compliant with PVHO-1, OSHA where applicable.
- Designed & built in USA-American made craftsmanship, highest quality standard - brass plumbing throughout.
- Built exclusively for the tunneling industry.
- Designed for easy handling & transportation crated in re-usable shipping container.
- Fold-Up Inner & Outer Lock benches allow for ease of movement within Manlock.
- Optional custom modifications are available.

SPECIFICATIONS

Models 6203D • 8003D

Chamber Capacity:

IL: Max (3) persons, seated plus (1) spare OL: Max (3) persons seated plus (1) spare

System Performance:

Operating Pressure (Internal): Typically designed for operating pressure 4 Bar (58psig);
can be customized for higher pressure up to 10 bar (~147 psig).

Design Pressure/MAWP: Typically 4.41 bar (64psig).

Hydro Test Pressure: 5.73 bar (83.2 psig).

**Note: RSI Manlocks are typically rated for up to 6 occupants (3 per lock) however, they can be tailored to fit specific occupancy needs.*

Basic Configuration: Binocular Shape

Overall Length: 1975 mm (77.75 in)

Overall Width: 2257 mm (88.96 in)

Overall Height: 1720 mm (67.73 in)

Doors: (Model 6203D is equipped with 4 manways and 5 hatches/doors).

Chamber to shield (Front) Entry: (1) Round door, 700 mm (27.5 in) diameter clear opening.

Center bulkhead Entry: (2) Round doors, 600 mm (~23.5 in) diameter clear opening.

Each lock to Exterior (Rear Entry): (1) Round 600 mm (~23.5 in) diameter clean door for entry to each lock (2 doors).

Clear Head Room: 152 mm (60 in)

Windows/Viewports: (5) Five viewports are provided in doors are constructed with PVHO-1 grade acrylic.

Lighting: Internal 12 VDC LED lights with additional emergency back up 12 VDC

Meet requirements of CAL/OSHA Class 1, Div. 2 requirements.

Lighting conduits, junction box and electrical panels air purged for enhanced safety.

Standard Seating: Flip-up type bench seating, designed for maximum capacity of 3 occupants in each lock.

Weight: Approximate weight of the 6302D Manlock is 7,272 kgs (16,000 lbs.).

BIBS Stations (Oxygen Inhalation Equipment):

IL-4 Stations OL-4 Stations

Fire Fighting/Suppression System:

Deluge System (Primary): NFPA 99 compliant water based deluge system provided in both IL & OL.

Handline System (Backup): Designed to discharge min. of 5 gallons/min of water (at 50 psig pressure differential)

NFPA 99 compliant water based handline system provided in both IL & OL.

Handheld Fire Extinguishers (2nd level back-up): One (1) extinguisher is provided in each lock (IL & OL).

O2 Analysis: Dedicated oxygen analyzer monitors Oxygen levels in both locks.

Communications:

Primary: IL & OL each contain one (1) talk back speaker to serve as communication to the outside only.

Back Up: IL & OL Mine Phone is located in each lock to serve as communication with outside Manlock and between both locks.

Additional options are available on request:

Pressure Chart Recorder

BIBS Breathing Masks

Communication Headsets

On-Site Set Up Assistance

Scheduled Maintenance

All PHS hyperbaric systems are designed to fully meet the current edition of all applicable codes including:

ASME PVHO-1; "Safety Standards for Pressure Vessels for Human Occupancy" (latest edition)

ASME Section VIII, Division I, "Unfired Pressure Vessels" (latest edition)

OSHA Guideline for Compressed Air Quality Standards 1926-803 and WAC 296 - 36

CA/OSHA CLASS 1, Div. 2 requirements where applicable.

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**Note: Specifications are subject to change without prior notice*

