



Compact, affordable, and built to the highest industry safety standards, the PCCI Hyperbaric Systems 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 occupants 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-dependent 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 PVH0-1, 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 & transportatio11 crated in re-usable shipping container.*
- *Fold-Up Inner & Outer Lock benches allow for ease of movment within Manlock*
- *Optional custom modifications are available.*

SPECIFICATIONS

Models 6203D • 8003D

Chamber Capacity:

IL: Max 3 persons, seated OL: Max 3 persons seated

System Performance:

Operating Pressure (Internal): 4 Bar (58psig)
Design Pressure/MAWP 4.41 bar (64psig)
Hydro Test Pressure: 5.73 bar (83.2 psig)

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 constructed with PVHO-1grade 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 locks.
Handline System (Backup): Designed to discharge min. of 5 gallons/min of water (at 50 psig pressure degerential)
NFPA 99 compliant water based handline system provided in both locks
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 available on request

Pressure Chart Recorder
BIBS Breathing Masks
Communication Headsets
On-Site Set Up Assistance
Scheduled Maintenance

All PCCI 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.

**It is policy of PCCI Hyperbaric Systems to operate in conformance with ISO 9001:2008 Quality Management Systems (QMS) and to provide for continual improvement to the QMS.*

300 North Lee Street • Suite 201
Alexandria, Virginia 22314 USA
Telephone • 703-229-1096
Email • RDixit@pccii.com
PCCIHyperbarics.com

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

