

# TECHData

## MATERIAL SPECIFICATION SHEET

### MANABLOC<sup>®</sup> Manifold Control Unit

#### SCOPE:

This specification designates requirements for the Vanguard MANABLOC Manifold Plumbing Control Unit. The MANABLOC water distribution system supplies water to individual plumbing fixtures through dedicated ports and distribution lines. Each port (outlet) is equipped with a built-in on/off valve to provide control for each fixture. The MANABLOC has separate hot and cold water inlets and ports to manage the entire plumbing system. Each port comes complete with necessary fitting hardware to connect Vanguard Vanex PEX directly to the port. This hardware features the patented Lock-In retaining device which secures the tubing in the port and, when assembled properly, reduces the risk of a connection blow-off. Supply connections and fixture transition fittings are not included with the unit but are available separately.

#### MATERIAL:

The modular MANABLOC sections are molded from polysulfone (PLS) plastic. This material is used extensively in the medical industry and is highly resistant to hot water, chlorine and other chemicals typically found in potable water systems. The seal between the manifold sections is accomplished with high-grade O-rings. The sections are then contained by six (6) metal tie rods which have been adjusted at the factory for optimum tension. The other plastic components are made from engineering plastics chosen specifically for each purpose. The stiffener used in the port compression fittings is 304 stainless steel.

#### MARKING AND CERTIFICATION:

MANABLOC units are marked with the product name, unit part number, material designation, production date and marks of third party certifications by NSF International (NSF-pw) to ASTM F877 and ANSI/NSF standards 14 and 61, Wernock Hersey and is listed with IAPMO as meeting the requirements of the Universal Plumbing Code™.

#### RECOMMENDED USES:

The MANABLOC is recommended for use in hot and cold potable water distribution systems in single and multifamily dwellings, as well as multiple unit structures (apartments, condos, hotels, motels etc.). Maximum pressure/temperature rating is 100 psi @ 180°F. The MANABLOC is not to be used directly inline with domestic recirculation loops.

#### HANDLING AND INSTALLATION:

The MANABLOC shall be installed in accordance with Vanguard installation instructions and in compliance with local plumbing and building codes.

#### CAPACITIES AND K-FACTORS:

Specifications	English Units	SI
Main Waterway (each side)	1 1/4"	31.8mm
Main Inlet/Outlet Connection	1" Special Thread	-
Fixture Ports	3/8" CTS and 1/2" CTS (1/2" OD and 5/8"OD)	9.5mm and 12.7mm (12.7mm OD and 15.9mm OD)
Fixture Port Rating (each) (@ 8 FPS tubing velocity)	3/8" - 2.5 GPM 1/2" - 4 GPM	3/8" - 9.5 LPM 1/2" - 15.1 LPM
Fixture Port Pressure Drop (@ Rated Flow)	3/8" - 2 PSI 1/2" - 3.4 PSI	3/8" - .14 BAR 1/2" - .23 BAR
Fixture Port K-Factor	3/8" - .35 1/2" - .21 (PSI=KxGPM <sup>2</sup> )	3/8" - 1.66 x 10 <sup>-3</sup> 1/2" - 9.997 x 10 <sup>-4</sup> (BAR=KxLPM <sup>2</sup> )
Main Bore Flow Capacity (each side)	31 GPM	117.3 LPM
Main Bore Through Feed K Factor (36 Ports with "Y" Block)	0.012 (PSI=KxGPM <sup>2</sup> )	56.98x10 <sup>-6</sup> (BAR=KxLPM <sup>2</sup> )
WSFU Capacity (each side) (1995 IPC, table E102)	60	-

## MANABLOC® Quality Control

All MANABLOC manifold control units are factory assembled and pretested prior to delivery to the field. Vanguard utilizes protective packaging to reduce risk of damage during shipping and storage. MANABLOC manifolds are not intended to be fabricated or disassembled in the field. MANABLOC manifolds are intended for potable water use only.

Illustration is Model MXBD6. See product catalog for other configurations.

**Port Caps for Unused Ports (Optional)**

RXPC3 - 3/8" Port Comp. Cap

MBPC4 - 1/2" Port Comp. Cap


