Certificate Number: 16-HS1497412-PDA 16/JUN/2016



## Confirmation of Product Type Approval

Please refer to the "Service Restrictions" shown below to determine if Unit Certification is required for this product.

This certificate reflects the information on the product in the ABS Records as of the date and time the certificate is printed.

Pursuant to the Rules of the American Bureau of Shipping (ABS), the manufacturer of the below listed product held a valid Manufacturing Assessment (MA) with expiration date of 28/SEP/2019. The continued validity of the Manufacturing Assessment is dependent on completion of satisfactory audits as required by the ABS Rules.

And; a Product Design Assessment (PDA) valid until 25/MAY/2021 subject to continued compliance with the Rules or standards used in the evaluation of the product.

The above entitle the product to be called Product Type Approved.

The Product Design Assessment is valid for products intended for use on ABS classed vessels, MODUs or facilities which are in existence or under contract for construction on the date of the ABS Rules used to evaluate the Product.

ABS makes no representations regarding Type Approval of the Product for use on vessels, MODUs or facilities built after the date of the ABS Rules used for this evaluation.

Due to wide variety of specifications used in the products ABS has evaluated for Type Approval, it is part of our contract that; whether the standard is an ABS Rule or a non-ABS Rule, the Client has full responsibility for continued compliance with the standard.

## Product Name: Pump, Centrifugal, Self-Priming Model Name(s): FMX100

Presented to:
MP PUMPS INC.
34800 BENNETT DRIVE
United States

Intended Service:	Marine Air Conditioning, Bilge Systems, Fire Systems, Cooling Water Systems, General Service and Sanitary Systems.		
Description:	Self-Priming Centrifugal Pump with 1.0" NPT Connections Pump can be pedestal mounted or close coupled. Stainless Steel Construction. Size: 1.0"x 1.0" (Suction & Discharge) Impeller Diameter 4.0" Impeller Material: Stainless Steel		
Ratings:	Speed: 3500 RPM Flow Capacity: up to 50 GPM Total Head: up to 58 feet of water		
Service Restrictions:	Unit Certification is required for this product if the Pumps are used for services listed in Steel Vessels Rules 4-6-1/7.3.1, hydrostatic and Capacity testing is to be performed to the satisfaction of the Surveyor as indicated in Steel Vessels Rules 4-6-1/7.3.2 a), b). i) Pumps used for Bilge and Ballast System are to be Self-priming type or connected to a priming system as indicated in Steel Vessels Rules 4-6-4/5.5.2 c) ii) Where exposed to Pressure greater than that for which it is to be designed for, it is to be protected by suitable Relief Valves as per Steel Vessels Rules 4-6-2/9.9.2		
Comments:	i) The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product. ii) Motors are not included in this PDA.		
Notes / Documentation:	Dwg. No. 35027, Rev. C, Retaining Ring Dwg. No. 34033, Rev. C, Impeller Dwg. No. 35026, Rev. A, Wear Plate Dwg. No. 35025, Rev. B, Gasket Dwg. No. 35024, Rev. A, Cover - Mach. Dwg. No. 38166, Rev. B, Adaptor Dwg. No. 39280, Rev, Electric motor (ABLE) Dwg. No. 39294, Rev, Housing - Mach. Dwg. No. 39460,		

	Rev, Housing - Mach. FMX 100 Dwg. No. 39462, Rev, Impeller FMX 100 Dwg. No. 39464, Rev. A, Suction Cover Dwg. No. 39465, Rev. A, Flapper Dwg. No. 39528, Rev, IEC Electric Motor Frame Dwg. No. 39529, Rev. A, General Arr. FMX 100 Dwg No. NA., Rev, FMX100 MS			
Term of Validity:	This Product Design Assessment (PDA) Certificate 16-HS1497412-PDA, dated 26/May/2016 remains valid until 25/May/2021 or until the Rules or specifications used in the assessment are revised (whichever occurs first). This PDA is intended for a product to be installed on an ABS classed vessel, MODU or facility which is in existence or under contract for construction on the date of the ABS Rules or specifications used to evaluate the Product. Use of the Product on an ABS classed vessel, MODU or facility which is contracted after the validity date of the ABS Rules and specifications used to evaluate the Product, will require re-evaluation of the PDA. Use of the Product for non ABS classed vessels, MODUs or facilities is to be to an agreement between the manufacturer and intended client.			
ABS Rules:	2016 Steel Vessels Rules: 1-1-4/7.7, 1-1-Appendix 3, 4-6-1/7.3.1, 4-6-1/7.3.2, 4-6-5/7.3.1; 2016 Mobile Offshore Drilling Unit Rules: 1-1-4/9.7, 1-1-A2, 1-1-A3, 6-1-6/7.3.2			
National Standards: International Standards: Government Authority: EUMED:				
Others:	None			
Model Certificate	Model Certificate No	Issue Date	Expiry Date	
PDA	16-HS1497412-PDA	31/MAY/2016	25/MAY/2021	
		Jan	me Delooch ABS Programs	
ABS has used due diligence in the preparation of this certificate and it represents the information on the product in the ABS Records as of the date and time the certificate was printed. Type Approval requires Drawing Assessment, Prototype Testing and assessment of the manufacturer's quality assurance and quality control arrangements. Limited circumstances may allow only Prototype Testing to satisfy Type Approval. The approvals of Drawings and Products remain valid as long as the ABS Rule, to which they were assessed, remains valid. ABS cautions manufacturers to review and maintain compliance with all other specifications to which the product may have been assessed. Further, unless it is specifically indicated in the description of the product; Type Approval does not necessarily waive witnessed inspection or survey procedures (where otherwise required) for products to be used in a vessel, MODU or facility intended to be ABS classed or that is presently in class with ABS. Questions regarding the validity of ABS Rules or the need for supplemental testing or inspection of such products should, in all cases, be addressed to ABS.				