Certificate No:
TAP00002RN

TYPE APPROVAL DESIGN CERTIFICATE

This is to certify:

That the Water Treatment Units

with type designation(s)
HM45, HM60, HM100, HM130, HM 150, HM 190, HM Custom

Issued to
Hydropath Technology Limited
Nottingham, **United Kingdom**

is found to comply with
DNV rules for classification – Ships Pt.4 Ch.6 Piping systems
DNV rules for classification – Ships Pt.4 Ch.8 Electrical installations

Application :

Prevention and removal of limescale and biofouling in water systems, typically in heat exchangers and fresh water generators.

Max. working temp.:	**up to +55°C (environment)**
Design pressure:	**not applicable.**

Issued at **Hamburg** on **2023-09-26**

This Certificate is valid until **2028-09-25** .

for **DNV**

DNV local unit: **UK & Ireland CMC & VMC**

Approval Engineer: **Hagen Markus**

Sven Klinger
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.

Product description

Electronic water conditioners for preventing of limescale and biofouling in piping systems.

Main (electrical) components:
- Hydro flow unit (Transducer)
- Spike inhibitor / surge protector / In Box
- Connection cable, Hydropath specification: SOOW

Power supply:	100-230 V AC / 50-60 Hz
Degree of protection:	IP 68 (Transducer) IP 66 (In box)

Environmental conditions:

Operating temperature:	-20°C up to +55°C

Application/Limitation

Prevention and removal of limescale and biofouling in marine vessel water systems, typically in heat exchangers and freshwater generators.

Limitation

This Type Approval Design Certificate is not valid for designs, components, equipment, systems or products which are subject to classification by DNV.

This Type Approval covers design(s) only. i.e. the Type Approval is not valid for the final product but may be used as basis for obtaining a product certificate.

Type Approval documentation

Tests carried out

- Tests for protection against water BS EN 60529: 1992 +A2: 2013
- EMC tests EN 55014-1, EN 55014-2, EN 61000 series, EN 62233
- IEC 60335-1 Safety of household and similar electrical appliances

Marking of product

The products are marked with a name plate as follows:

Scope	Example
manufacturer name	
model name	
serial number	
power supply ratings	
IP degree of protection	

Periodical assessment

Not applicable.

End of certificate