

National Standards Commission



Certificate of Approval

No 5/6A/88

Issued under Regulation 9
of the
National Measurement (Patterns of Instruments) Regulations

This is to certify that an approval for use for trade has been granted in respect of the

M.S. Industries Model MS1P Driveway Flowmeter

submitted by **M.S. Industries Pty Ltd**
15 Robert Street
Bellevue WA 6056.

Signed and sealed by a person authorised under
Regulation 9 of the National Measurement
(Patterns of Instruments) Regulations to exercise
the powers and functions of the Commission under
this Regulation.

J. Birch

CONDITIONS OF APPROVAL

This approval is subject to review on or after 1/6/95.

This approval expires in respect of new instruments on 1/6/96.

Instruments purporting to comply with this approval shall be marked NSC No 5/6A/88 and only by persons authorised by the submittor.

It is the submittor's responsibility to ensure that all instruments marked with this approval number are constructed as described in the drawings and specifications lodged with the Commission and with the relevant Certificate of Approval and Technical Schedule. Failure to comply with this Condition may attract penalties under Section 19B of the National Measurement Act and may result in cancellation or withdrawal of the approval, in accordance with the Commission's Document 106.

The Commission reserves the right to examine any instrument or component of an instrument purporting to comply with this approval.

Auxiliary devices used with this instrument shall comply with the requirements of General Supplementary Certificates Nos S1/0 and/or S2/0, as appropriate.

DESCRIPTIVE ADVICE

Pattern: approved 11/5/90

- An M.S. Industries model MS1P driveway flowmeter.

Technical Schedule No 5/6A/88 describes the pattern and variant 1.

FILING ADVICE

The documentation for this approval comprises:

Certificate of Approval No 5/6A/88 dated 31/7/90

Technical Schedule No 5/6A/88 dated 31/7/90 (incl. Test Procedure)

Figures 1 to 3 dated 31/7/90



5/6A/88

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TECHNICAL SCHEDULE No 5/6A/88

Pattern: M.S. Industries Model MS1P Driveway Flowmeter.

Submitter: M.S. Industries Pty Ltd
15 Robert Street
Bellevue WA 6056.

1. Description of Pattern

An M.S. Industries model MS1P single or dual driveway flowmeter approved for use in locally-authorised applications.

1.1 Features

The model MS1P (Figures 1 to 3) has the following components or features:

- A Dresser-Wayne hydraulic system including a pump with integral gas separator.
- A Dresser-Wayne model P6521 2-piston meter approved for use up to 50 L/min.
- A Production Engineering model Retron 80 driveway flowmeter indicator (as described in the documentation of NSC approval No S101A).
- A preset facility, where a Bestobell solenoid valve is electronically controlled by the Retron 80 indicator to ensure correct termination of preset deliveries.

If the preset facility is not fitted the instrument is known as a model MS1.

- Any Commission-approved ZVA nozzle.

1.2 Sealing and Verification Provision

Provision is made for the application of a verification mark. The meter calibration is sealed.

1.3 Markings

Instruments are marked with the following data, together in one location:

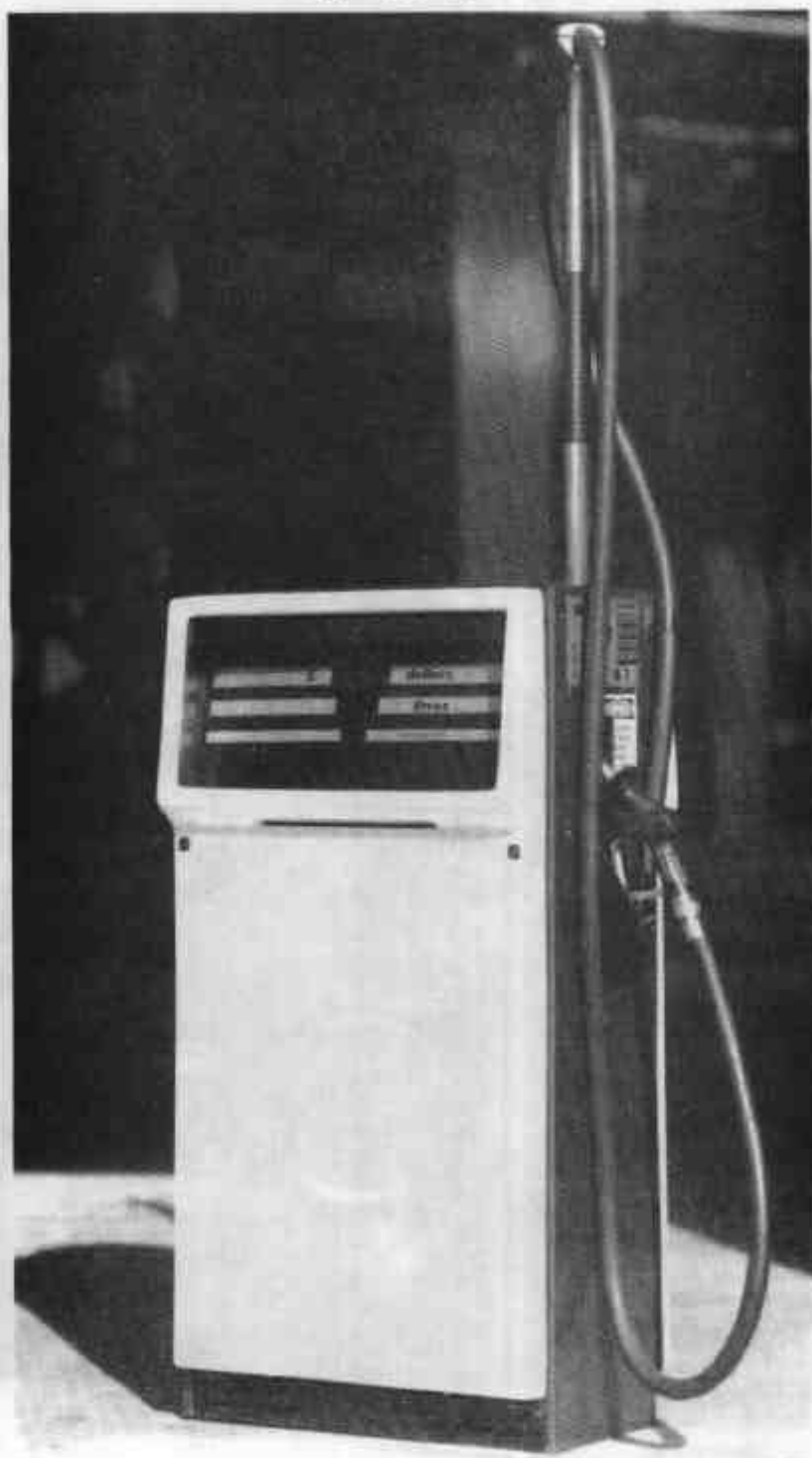
Manufacturer's name or mark	
Model number	
Serial number	
NSC approval number	NSC No 5/6A/88
Maximum flow rate L/min
Minimum flow rate L/min
Liquid temperature range	5°C to 40°C
Maximum operating pressure kPa
Approved for use with (products)

TEST PROCEDURE

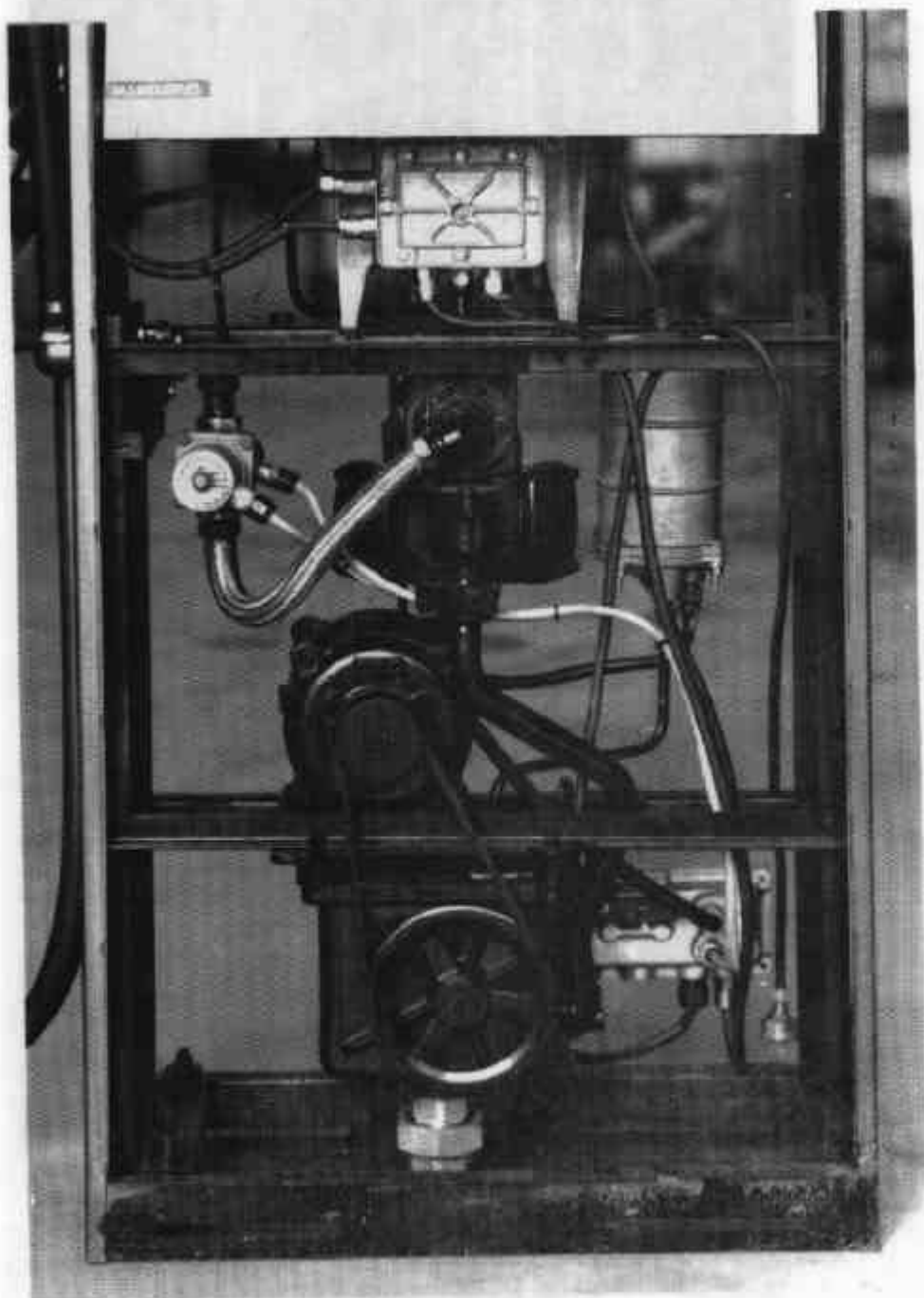
Instruments should be tested in accordance with any tests included in the approval documentation for indicator, and in accordance with any relevant tests specified in the Inspector's Handbook.

Maximum Permissible Errors at Verification/Certification

The maximum permissible error applied during a verification test from normal flow rate to the minimum flow rate specified in the Certificate of Approval or Technical Schedule is $\pm 0.3\%$.



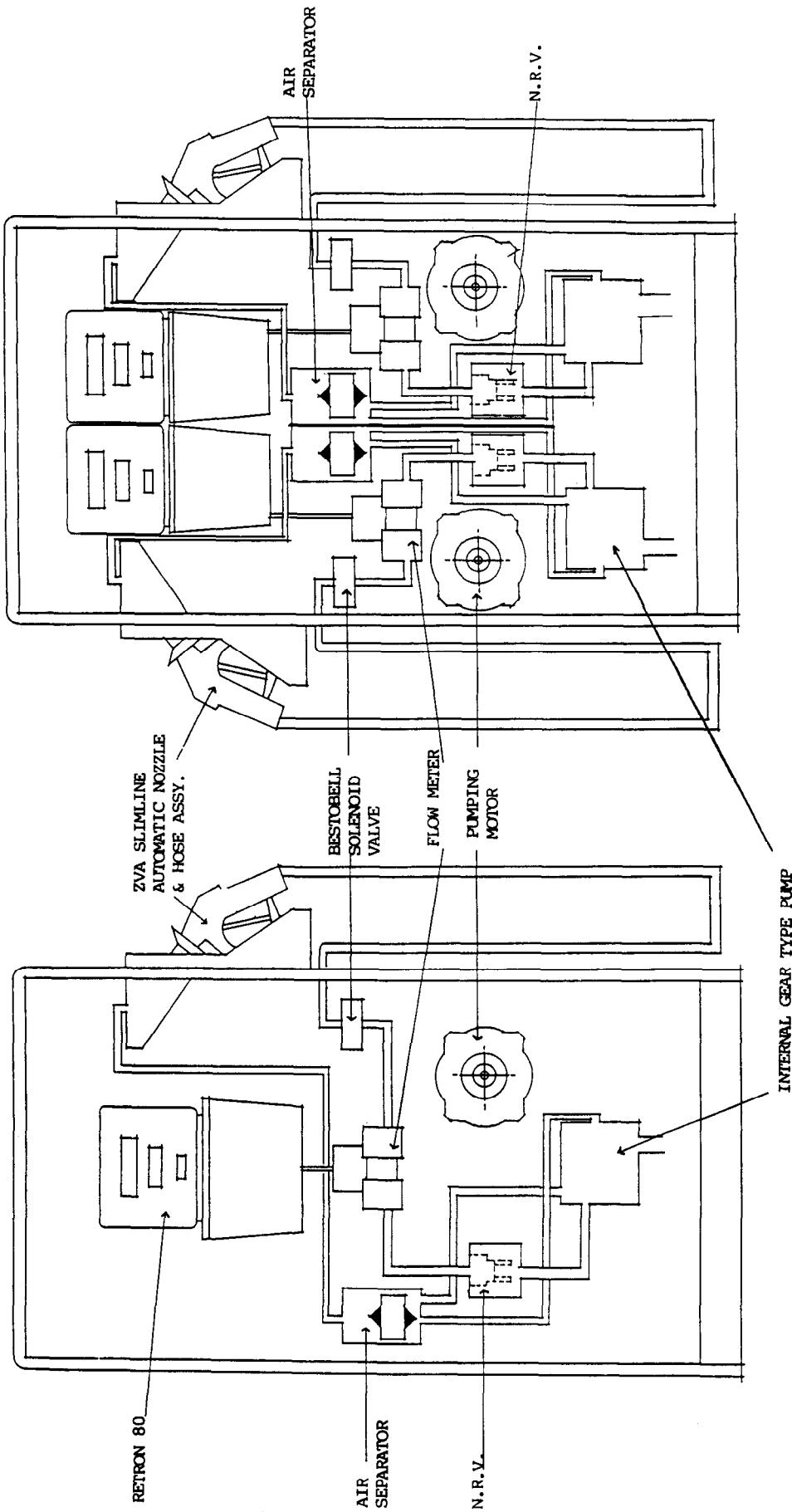
M. S. Industries Model MS1P



With Covers Removed

Figure 5/6A/88 - 3

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Showing Single and Dual Hydraulics