

Advanced Bubbler System

**AIR FORCE
MODEL HS-40
Model HS-40/3100
Model HS-40/3100A**

Special points of interest:

- Innovative, Maintenance Free Gas Purge System for Water Level Measurement
- Inbuilt Air Compressor
- 2 Litre Receiver Tank for Superior Purging Capability
- Maximum water head 30m (100 ft)
- Zinc plated steel enclosure, powder coated grey
- Low Power Consumption
- True bubbler system – can be used with or without a Gas Chamber Orifice
- User adjustable bubble rate
- Inbuilt WL3100 Pressure Transducer
- Maintenance free for up to 5 years

INTRODUCTION

The HS-40 Gas Purge Compressor has been designed to replace conventional nitrogen gas bottle supply to bubbler units/gas purge systems for measuring water level in dams, rivers, canals and tanks with up to 30 mH₂O (100 ft).

The HS-40/3100 & HS-40/3100A, with the inbuilt WL3100 pressure transducer, allows the measurement of water to an accuracy of ±0.02% F.S.



2 litre Receiver Tank with manual purge valve



*Zinc Plated Steel Enclosure
Powder Coated Grey
400x300x180mm*

In-built WL3100/WL3100A for models HS-40/3100 & HS-40/3100A



HS-40DO , Dual Orifice is also available.



**Air Force
Advanced Bubbler System
Model HS-40**

Inside this issue:

Special point of interest	1
Introduction	1
Photos	1
Specifications	2

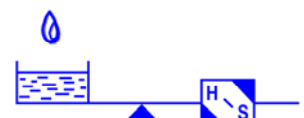
**Designed & Manufactured
By
Hydrological Services Pty Ltd**

Address:

48-50 Scrivener Street
Liverpool, NSW, 2170, Australia
Ph. 61 2 9601 2022 Fax. 61 2 9602 6971
Web: www.hydrologicalservices.com
Email: sales@hydrologicalservices.com



Distributed By:



Specifications

Enclosure:	Zinc plated steel enclosure, powder coated grey
Operating Temperature Range:	-40°C to +70°C For models HS-40 and HS-40/3100A -20°C to +70°C For HS-40/3100
Power:	
Operating Voltage:	12V DC Nominal
Maximum Current:	15 Amps
Average Current Draw:	Approx 21mA (26 bubbles/min) Approx 12mA (10 bubbles/min)
Battery Size:	When the HS40 is used with a WL3100 (avg consumption 3.3mA), a 12V DC Sealed Lead Acid battery with no solar will have the following life : <u>Using Standard orifice</u> 38 Ah battery 26 bubbles/min at orifice (100 bubbles/min) 65 days (2 months) 18 Ah battery 26 bubbles/min at orifice (100 bubbles/min) 31 days (1 months) <u>Using GCOI-P orifice</u> 38 Ah battery 10 bubbles/min at orifice (38 bubbles/min) 132 days (4.3 months) 18 Ah battery 10 bubbles/min at orifice (38 bubbles/min) 62 days (2 months)
Solar:	5 Watt Solar panel recommended (2 Watt Solar panel absolute minimum)
Low Battery cut-out:	11.0 V DC
Battery recharge recovery:	12.0V DC
Operation:	Up to 30m (100') of head (water pressure) with 200 metres (600 ft) of river line (orifice) and 300 metres (900ft) of river line (GCO).
Compressor:	When the tank pressure falls to 400kPa, the compressor will turn on and pump the tank back up to 750kPa - this takes approximately 1 minute. At 26 bubbles/min at orifice – compressor turns on every 18 hrs At 10 bubbles/min at orifice – compressor turns on every 46 hrs
Dryer:	Twin mist separators
Orifice:	HS40 available in single orifice or dual orifice (to order an HS-40 with a dual orifice just add "DO" at the end of the part No.).
Dimensions :	300mm(W) x 400mm (H) x 180mm(D)