

# Pressurisation



# Avon range of Booster Pump Sets

RYCROFT PRESSURISATION OFFERS A COMPLETE RANGE OF BOOSTER SETS COMPRISING OF SINGLE AND MULTI PUMP UNITS. THE AVON RANGE COVERS FLOW RATES OF UP TO 41.5M<sup>3</sup>/h AND PRESSURES UP TO 80M. PUMP MANIFOLDS ARE AVAILABLE IN COPPER, STAINLESS STEEL, GALVANISED OR UPVC MATERIALS.

The standard **AVON** package incorporates the following items:

- Single pump
- Control Panel (IP54) to IEE Regulations
- 1 x Pressure switch
- 2 x Isolating ball valves
- 1 x Non return valve
- 1 x Pressure gauge
- 1 x Accumulator
- Purpose built folded steel base
- Automatic or Manual operation

The standard **AVON TWIN** pump packages incorporate the following components:

- Twin pump
- Control Panel (IP54) to IEE Regulations complete with the following:  
Indicators for – Power On, Pump tripped, Low water Microprocessor, Pump starters and overloads, Low water reset button. Hand/Off/Auto selector switch for each pump
- 1 x Pressure transducer and indicator gauge
- 4 x Isolating ball valves
- 2 x Non return valves
- 1 x Pressure gauge
- 1 x Accumulator
- Purpose built folded steel base.

The standard **AVON TRIPLE** pump packages incorporate the following components:

- Three pump
- Control Panel (IP54) to IEE Regulations complete with the following:  
Indicators for – Power On, Pump tripped, Low suction Microprocessor, Pump starters and overloads, Low suction reset button. Hand/Off/Auto selector switch for each pump
- 1 x Pressure transducer
- 6 x Isolating ball valves
- 3 x Non return valves
- 1 x Pressure gauge
- 1 x Accumulator
- Purpose built folded steel base

## Optional extras for AVON booster sets:

Anti-vibration mountings, flexible couplings, specific customer requirements, pressure reducing valve.



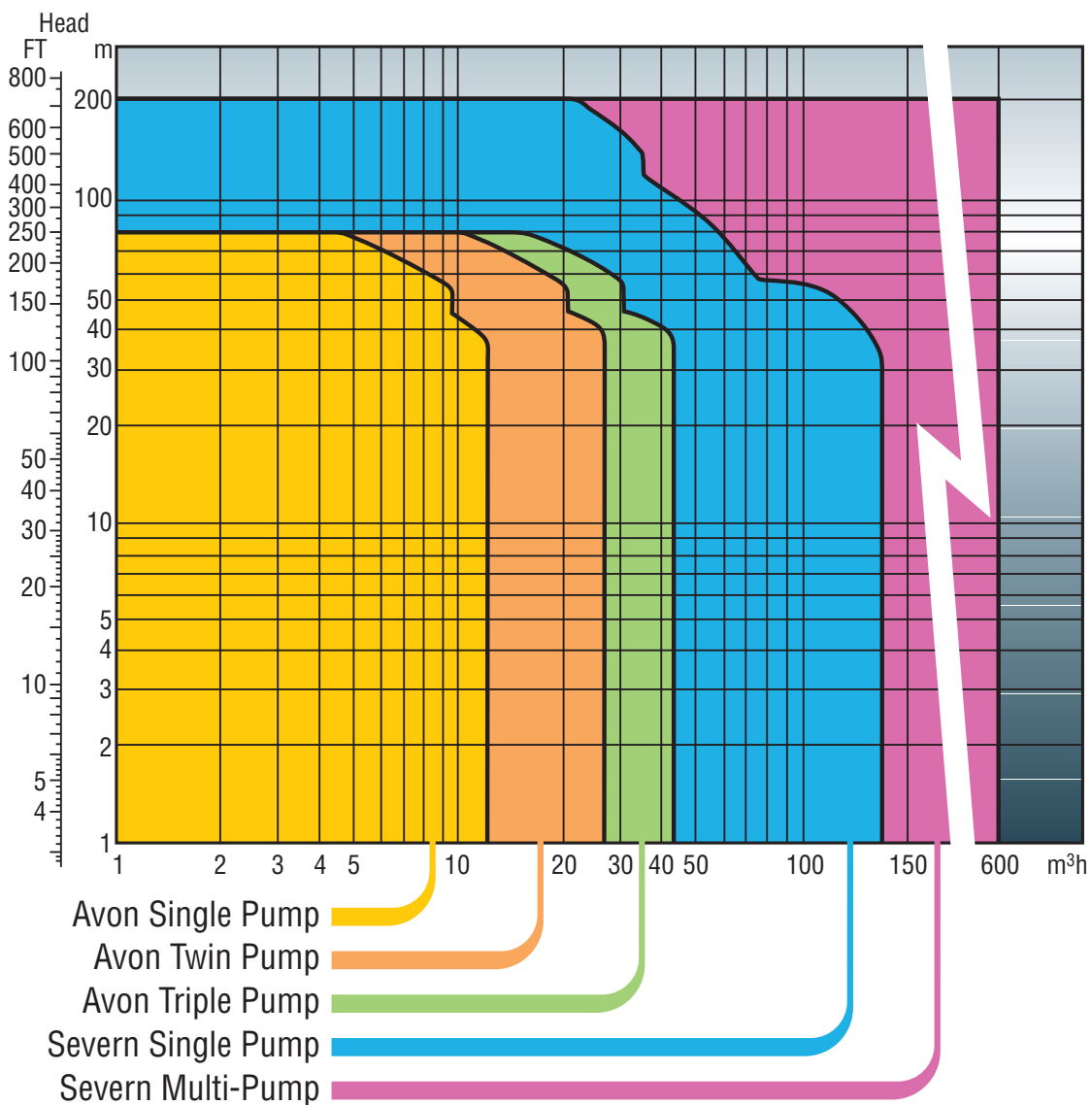
# Severn range of Booster Pump Sets

For larger duties the **SEVERN** range of booster sets can be used. The Severn range of booster sets are offered in single and multi-pump configurations incorporating the following components.

- Control Panel (IP54) to IEE Regulations complete with the following:  
Indicators for – Power On, Pump tripped, Low water Micro-processor, Pump starters and overloads, Low water reset button. Manual override.
- Frequency convertor (variable pump motor speed)
- Pump isolating ball valves

- Pump non-return valves
- Pressure indicator
- Purpose-built folded steel base
- Anti-vibration mountings
- Automatic pump change over on fault conditions
- Remote ON/OFF

The diversity of the control features enable the Severn range of booster pumps to meet requirements for constant or differential pressure control systems. Traditional fixed speed motors are also available.



# Pennine, Derwent Spill and Nitro-unit Pressurisation sets

THE EXTENSIVE RYCROFT RANGE OF PRESSURISATION EQUIPMENT COVERS APPLICATIONS FOR BOTH CHILLED AND HOT WATER SYSTEMS.

The **PENNINE** unit is an economic packaged pressurisation set capable of controlling system pressure and water make up requirements. Working pressures of up to 6 Bar g and temperatures of 90°C can be accommodated. (115°C with the use of a thermal buffer vessel). Single and twin pump arrangements are available.

The standard **PENNINE** unit incorporates the following components:

- Pressurisation pump
- Pump isolating valve
- Pressure indicator
- Pressure adjustment switch
- Purpose-built folded steel base
- Accumulator vessel
- Pressure regulator
- 20 litre make-up tank with a type A air gap

When required an IP 54 rated control panel can be supplied complete with following:

- Indicators for Power On, Pump tripped
- Hand/Off/Auto selector switch
- Door interlocked isolator
- Volt-free common alarm

## Optional extras:

- System expansion vessel
- Low level make-up float switch
- Audible alarm
- Pressure regulating valve

**DERWENT SPILL** units provide control of pressurised systems in excess of the normal Pennine packages. This unit can accommodate rapid changes in contraction and expansion. During periods of excessive expansion the system water can be accommodated into a spill tank.

**DERWENT SPILL** systems incorporate the following components:

- Pressure vessel
- Pressurisation pumps
- Pressure switches
- Pressure gauges
- Pump isolating valves
- Spill tank
- Control panel complete with:
- Volt free common alarm

Indicators for Power On,  
Low pressure, High pressure  
Hand/Off/Auto selector switch  
Door interlocked isolator

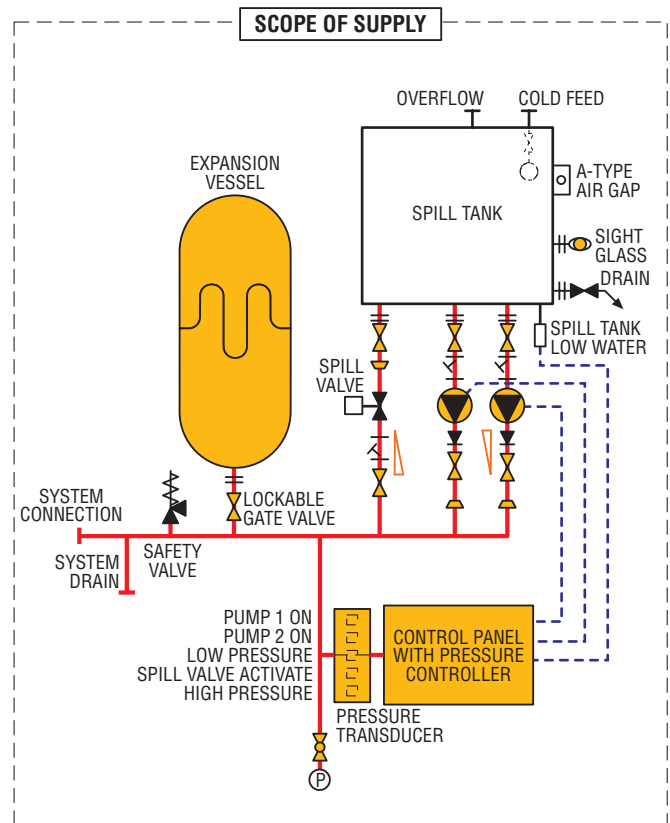
## Optional extras:

- Low level make up flow switch
- Audible alarm
- Specific specification requirements
- Dual pump

## Pennine Unit



## Derwent Spill Unit



# Nitro-Unit

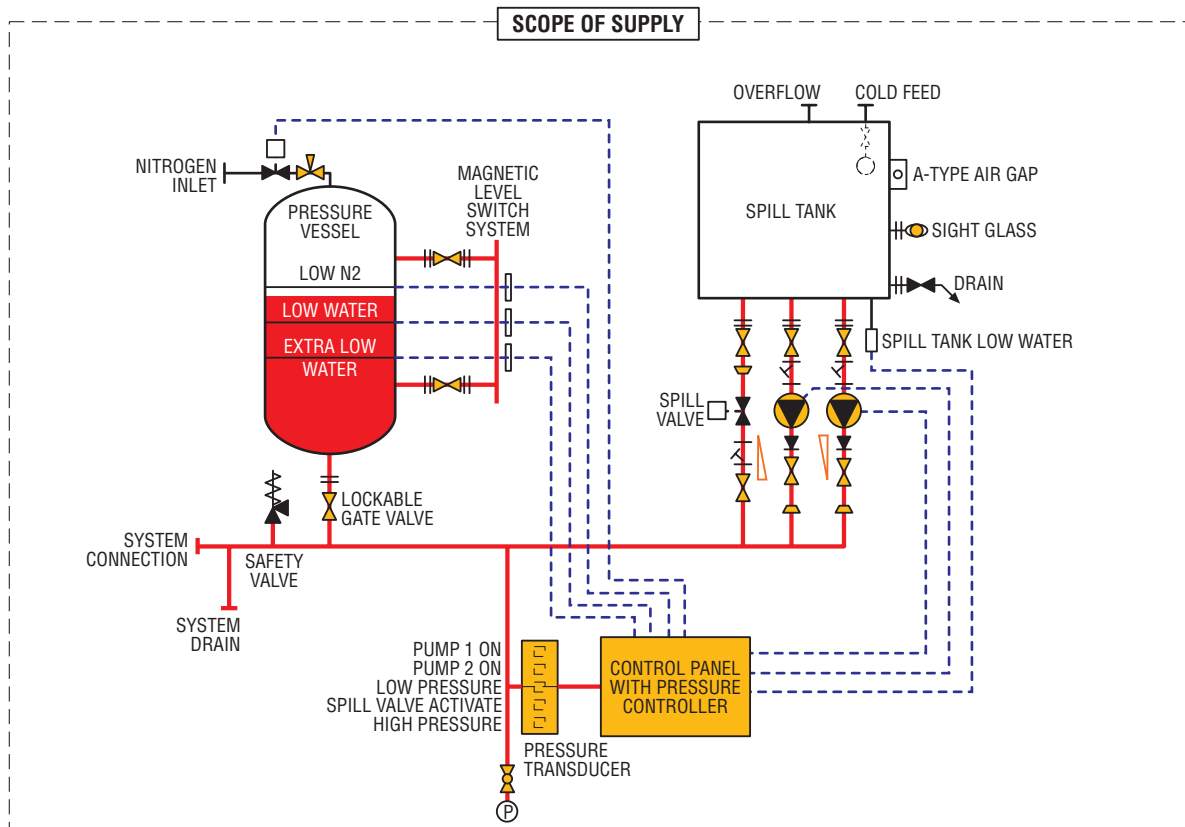
THE **NITRO-UNIT** PROVIDES AN EFFICIENT AND SAFE MEANS OF PRESSURE CONTROL. THE OPERATION OF THE PACKAGE IS TO CREATE A PRESSURISED CUSHION OF NITROGEN BEHIND THE EXPANDING WATER OF THE SYSTEM UNTIL MAXIMUM PRESSURE IS ACHIEVED. THEREAFTER THE CONDITIONS ARE AUTOMATICALLY CONTROLLED TO COPE WITH THE NORMAL FLUCTUATIONS OF TEMPERATURE RISE AND FALL TOGETHER WITH REPLENISHMENT OF WATER, AS REQUIRED, FOR THE NORMAL LOSSES IN THE SYSTEM. **NITRO-UNITS** ARE DESIGNED TO MEET SPECIFIC PROJECT REQUIREMENTS.

The **NITRO-UNIT** is supplied as a complete package incorporating the following components:

- Pressure vessel to BS 5500
- Duplicate pressurisation pumps (cascade operation)
- Pressure switches
- Nitrogen supply solenoid valve (Nitrogen supplied by customer).
- Safety valve
- Spill valve

- Spill tank
- Level gauge
- Control Panel (IP 55) to IEE Regulations incorporating the following:

Indicators for – Power On, Pump tripped, High pressure, Low pressure, Low water Hand/Off/Auto selector switch for each pump.



Unit	System Volume L	Temperature Range °C
Pennine	42 500	90 Std. 115 c/w Buffer vessel
Derwent Spill	450 000	115
Nitro-Unit	450 000	160

For specifications falling outside of the standard range please contact our sales department.

## Commissioning and Servicing Contracts

Rycroft offer both commissioning and servicing contracts on all pressurisation products. Please contact our Customer Service Department for more information.

- SUPAPAC Plate Heat Exchangers
- Shell and Tube Heat Exchangers
- COMPAC Plate Heat Exchanger Packages
- MAXIMISER Semi-Storage Calorifiers
- Calorifiers/Cylinders
- Unvented Packages
- Pressurisation
- Electric Water Heaters
- Rycroft Process Solutions



**Rycroft**  
HEATING THE WORLD'S WATER



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Rycroft reserve the right to alter the specifications without prior notice.