Rectangular Troughs

Code	Capacity litres	Length mm	Width mm	Depth mm	Mass kg	Item Code
RB 200	200 (44gal)	1300	710	380	280	05519
RB 300	300 (66gal)	1900	710	380	366	05520
RB 400	400 (90gal)	2740	710	380	525	05521
Pig Feed	83 (18gal)	1000	400	230	70	05525
Goat Water	167 (37gal)	2000	400	230	140	05528

Circular Troughs

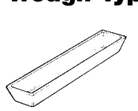
Code*	Capacity litres	Width mm	Diameter	Depth	Mass kg	Item Code
CB 100	100 (22gal)	800	1300	380	235	05500
CB 500	500 (110gal)	1694	1484	380	470	05502
CB 750	750 (165gal)	2024	1794	380	680	05503
CB 1000	1000 (220gal)	1857	1634	600	854	05504
CB 1500	1500 (330gal)	2235	2000	600	1034	05505
CB 2500	2500 (550gal)	2749	2500	600	1474	05506
CBH 150	150 (33 gal)	900	900	400	278	05523

*Includes Valve Chamber

Notes:

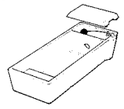
- All dimensions external
- Water troughs, supply piping, fittings and valves are all priced individually. A check should be made with your nearest Humes Sales Centre for current details.
- Ballcock sold separately.

Trough Types & Specifications

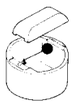


Pig feed/goat water trough

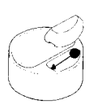
RB 200 Double-ended Trough



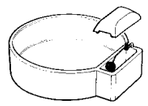
RB 300/400 Trough



CB 100



CBH 150 Horse Trough



CB 500-2500

Pressure Conversion Table

Bar	Metres Head	KPA	PSI
6	60	600	87
9	90	900	130
12	120	1200	173
16	160	1600	232

Things to consider

- How much water does your stock/crop require to maximise production?
- Why spend money on genetics, animal health and pasture management if you don't provide enough water?
- How effective is your current water system?
  – Pumping costs
  – Ability to provide peak demand requirements
  – Maintenance costs
  – Ability to meet future requirements
  – Labour requirements
- System Design – have you considered
  – Peak water demand
  – Length of pipeline
  – Pump duty
  – Changes in height
  – Maximum working pressure of pipe
  – Bloat treatment
  – Installation methods
  – Choice of pipeline materials
  – Type of fittings to be used

Desired outcome

A system designed around specific requirements which maximise production for economic development and running costs

Useful Information

Water requirements of the average New Zealand farm (approximate daily consumption rates)

Animals	Litres/Head/Day	Peak Flow Litres/Head/Hour
Sheep		
Ewes	4	0.40
Lambs	2.5	0.25
Cattle		
Cows in milk	70	14.0
Beef Cattle	45	7.5
Calves	25	4.2
Horses		
Working	54	5.4
Grazing	36	3.6
Pigs		
Brood Sows	25	2.5
Mature Pigs	10	1.0

Source: MAF

Stock Water Systems
Designed to meet your farm needs

Effective Stock Water Systems

There is a lot more to designing an effective stock water system than meets the eye. It is important to ensure that the correct water volume and pressure is delivered to the trough at the right time. High pressure systems do not mean high flow systems.

The best type of stock water system is a low pressure, high flow system. If designed correctly this ensures that high volumes of water are delivered to stock when required. Low pressure systems promote the longevity of components such as valves, fittings and pipelines.

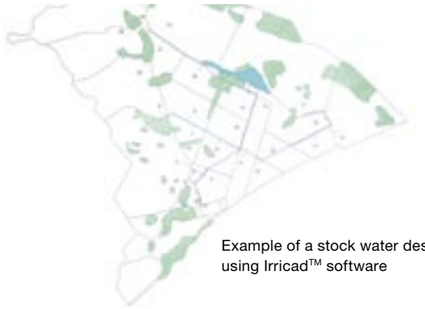
It is a well known fact that high pressure systems can cause water hammer and subsequent breakages. Land elevation can cause water pressures to run outside designed parameters unless allowed for in the design stage. If no consideration for land elevation is made then this may result in excess pressures or negative pressures.

Dairy cows require up to 70 litres of water per day. At peak times, troughs can quickly empty causing frustrated cows to damage ball cocks and troughs.

The Humes team of Rural Territory Managers are trained in carrying out expert stock water designs. Utilising Irricad™ design software Humes can design an effective stock water system to satisfy the demands of your farm.

Design

When carrying out a stock water design, Humes Rural Territory Managers consider such variables as stocking rates, herd split, stock management practices, water source, pump running costs, land elevation and ultimately trough size and trough placement in the paddocks. All these variables need to be considered to ensure the correct volume of water is delivered to the trough when it is needed. This includes water being delivered to multiple paddocks simultaneously without compromising the performance of the system. Negative pressures can easily occur if consideration is not given to these variables. Humes Rural Territory Managers use Irricad™ design software to ensure that a stock water system is not over-designed or under-designed. This means you can have complete confidence in your stock water system.

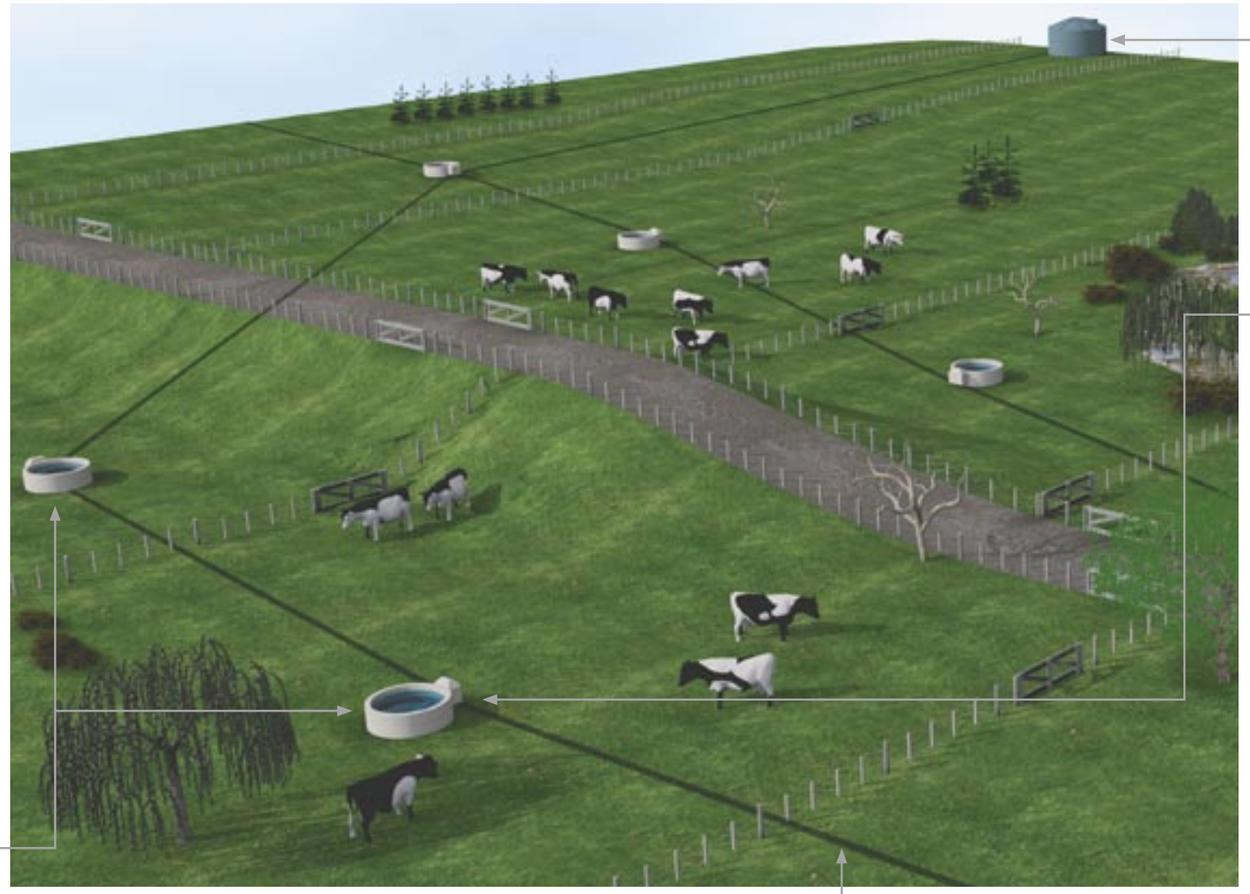


Example of a stock water design using Irricad™ software

Troughs

Humes reinforced concrete troughs have been designed to answer many of the problems facing farmers by conventional stock watering systems. Problems such as trough water back siphoning into the stock water system/ water tank and stock damaging exposed pipes and fittings.

All Humes troughs have the water supply connection under the trough which prevents damage to the supply line and fittings. The ballcock is housed in a separate chamber with a concrete cover. Even the pipe that feeds the ballcock runs up inside the wall of the trough to keep it protected from stock.



Features

- Sizes and shapes to suit most applications
- Quick and easy to maintain
- Fully reinforced with steel bars or fibres
- Concrete cover over valve chamber
- Curved top edges to prevent injury
- Lamb steps supplied standard on rectangular troughs
- All troughs supplied with brass fittings top and bottom
- Pipe work, ballcock and float are protected from stock to prevent damage
- Ballcock valve is mounted above the water to prevent back-siphoning and resulting water contamination

Pipes

Humes offers the entire range of rural water reticulation pipe to suit all farm applications. This includes medium density polyethylene (MDPE) from 6 Bar to 16 Bar including Greenline and Redline. MDPE offers superior hydraulic flow characteristics over traditional LDPE pipes meaning the pipe line can deliver more water for the same diameter pipe. Humes has popular Alkathene and low density polyethylene options from 3.5 Bar to 9 Bar to match existing pipe in the ground. Humes also has PVC pipe up to 18 Bar for those high pressure pipelines.

Water Tanks

Humes offers a range of water tanks, from concrete to plastic. The size range covers tanks from 500 litres up to 30000 litres. A water tank is a pivotal component for water storage in a stock water system.

Fittings

Humes has a large range of rural water fittings including straight couplers, tees, elbows, reducers and tapping saddles to suit Alkathene, low density polyethylene and medium density polyethylene.

Plastic compression fittings such as Plasson and Marley Metric are rated to 16 Bar and are specifically designed for use with medium density polyethylene. These fittings offer excellent joint security without distorting the pipe and have the added advantage of no inserts to restrict the flow.

Humes offer a range of pressure reducing valves, non return valves, ball valves to suit all types of rural water pipe. Fittings can impede hydraulic flows of the water pipe so correctly selected fittings are essential.

Other Services

Pipe dispensing trailers can be provided subject to availability to assist in uncoiling polyethylene pipe. This is a time saving alternative to uncoiling by hand.

Moleploughs can be provided subject to availability to install polyethylene pipe. Moleploughing is a quick and efficient method of installation.

Stock Water Systems
Designed to meet your farm needs

Freephone 0800 502 112 **www.humes.co.nz**