BEDFORD PUMPS LTD.

+44 (0)1234 852071
sales@bedfordpumps.co.uk
www.bedfordpumps.co.uk

Bedford Pumps Siphon Breaker Valves provide savings for Hong Kong Government

Carbon Reduction * Energy Savings * Capital Gains * Least Whole Life Cost

These sustainability issues are high on every company's agenda at the present time. Have you considered how you can meet these objectives with very little outlay? Simply take advantage of nature, with Bedford Pumps' range of Siphon Breaker Valves.

Siphonic assistance is not a new concept and has been in use in Land Drainage pumping applications for decades, but is often overlooked on other pumping applications. Bedford Pumps have been manufacturing a range of Siphon Breaker Valves for many years, designed to ensure that the pump will fully prime the system and allow siphonic head recovery to take place.

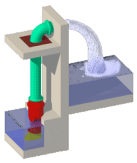
The Water Services Department in Hong Kong have recently embraced this concept and realised that the benefits of siphonic recovery translate directly into cost savings.

Bedford Pumps have supplied a number of Siphon Breaker Valves to WSD for use at Fresh Water Service Reservoirs which are situated in remote areas on the outskirts of Hong Kong. The initial enquiry from WSD was to prevent reverse flow when the pump is stopped, but the benefits of a Siphonic system are much wider reaching than that:

- Savings on power consumption can be considerable as the reduction in head results in a proportional decrease in power absorbed
- When a Siphon Breaker Valve is in use, no further valves are required, resulting in capital cost savings
- The elimination of the NRV and sluice valve not only reduces the capital cost of the installation but consequently the friction loss in the system, thereby affording additional reduction in running costs
- Automatic air release is an integral feature of the siphon breaker valve
- Maintenance costs are eliminated as the operation is maintenance-free

Benefits of the system are recouped whenever the plant is running. In the case of this application the plant is running continuously, resulting in substantial cost savings.

So take advantage of nature, with a slight modification to the pipework design and the installation of a siphon breaker valve.
Why do this? When you could be doing this ...



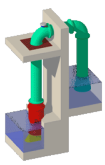


Fig 1. Reservoir in Hong Kong

Fig 2. Siphon Breaker Valves from Bedford Pumps

A Siphon Breaker Valve is effectively a small paddle operated butterfly valve fitted with an extended spindle. The valve is normally open so that when the pump starts air in the pipeline is emitted through the valve until the rising water column acts against the paddle attached to the end of the spindle and closes the valve. Once closed, the pipeline becomes primed and a siphon is established. Forward direction of flow maintains the pressure on the paddle keeping the valve closed and maintaining the siphon. The siphon is broken when the pump stops; the reverse flow acts on the paddle and opens the valve, thereby destroying the vacuum in the pipe and preventing continuous reverse flow through the pump.