Safeguarding earth's priceless blue gold

Piping systems from Georg Fischer are used at every stage of the water cycle

Schaffhausen, 6 February 2008

Like a traveller in the desert, the first thing a Mars probe looks for when it lands on the red planet is water, because life can only exist where there is water. In everyday life we don't need to spend long looking for water. We take it for granted: water comes out of the tap, and one way or another it disappears again down the drain. However, to intervene in the natural cycle of water to make it usable for our purposes requires a lot of effort. The entire water supply and wastewater disposal system has to meet ever higher and more specific standards – and that includes piping systems and their key elements.

Only one drop in every 400,000 is drinking water

For poets and ecologists alike, water is "blue gold"– and good quality water is indeed worth its weight in gold. Purely in terms of area, there is more water than land on the Earth. However, only just under three percent of this is fresh water. And of that amount only 0.03 % can be used as drinking water.

Groundwater in ecologically intact regions can be purified for drinking relatively easily. In more polluted regions, though, the treatment of groundwater can be nearly as costly as desalinating seawater – about one Swiss franc per 1000 litres. In many parts of the world there are also fears about whether there will be enough water available at all in the future. According to one prestigious expert report (Fischer and Heilig, 1997), two thirds of the world's population are threatened by water shortage by 2050.

Bearing in mind that a good half of water is lost in poor supply networks, it is obvious that it's never too early to start preparing for the future.

Facing ever new challenges

GF Piping Systems encompasses the entire water cycle for humans in all its pathways and all its forms. The requirements for piping elements for hot water in the home, for example, are different from those for water at normal temperature in large-area distribution networks.

Water used in industrial processes sometimes contains chemicals added intentionally (e.g. for acid baths). An analysis of domestic waste water can also be highly revealing to the chemist, even down to showing what the top-selling pills of the moment are. Not even ultra-pure water such as is needed in the pharmaceutical industry is absolutely benign. Indeed, it is so aggressive that specially resistant plastics have to be used, together with flawless joints, in order to prevent bacteria from breeding.

The next time you turn on the tap, spare a thought for the long and complex journey the water has taken. And of course GF Piping Systems is there to ensure that you can continue to take clean water – and the disposal of waste water – for granted.

The bottom line

Water – the source of economic development

"Ensuring the supply of clean water is emerging as one of the key challenges of this century. At Georg Fischer, we specialise in offering solutions both for water treatment and for water supply."

Nabil El Barbari, Head Industry and Utilities at GF Piping Systems

Our product range

Everything for specialized water management

In every form

The comprehensive system expertise of GF Piping Systems for the water cycle includes all key elements: fittings, ball cocks, valves, etc., as well as measurement and control technology. It also includes integrated joining processes, e.g. fittings containing welding wires that can be joined in situ simply by passing an electric current through them.

In the most suitable materials, with the main emphasis today on plastics

Short selection: examples of individualized applications

PVC-U (rigid PVC) PP-H (polypropylene)	e.g. water treatment area: physiologically harmless, resistant to disinfectants, etc.
PE Polyethylene	e.g. water supply over long distances: light and elastic (earthquake regions!)
PB Polybuthylene	e.g. drinking water piping in the home: pressure-resistant and heatable without problem
ABS Acrylonitrile butadiene styrene	e.g. for central air-conditioning and cooling systems: extreme impact resistance at low temperature
PVDF Fluoroplastics	e.g. circulation of industrial ultra-pure water: absolute minimum washout, can be welded without a groove

Mobility

Successful whatever the direction of flow

Privatized or state-owned? No matter, as long as it's GF!

The 1990s saw the large-scale privatization of the water supply sector. Today, this trend is being reversed again in places. Either way, GF Piping Systems is equally at home, whether for projects for private partners such as Thames Water or for EU-funded programmes, e.g. for the city of Palermo.

Production is flowing back into Switzerland

Thanks to highly efficient state-of-the-art technology, GF Piping Systems is able to increase production in Switzerland again. PVC fittings production in Europe is now centred in Schaffhausen.

«Adding Quality to People's Lives»

Health for the whole world

Healthier water – healthier world

People with access to clean water can count themselves fortunate. Half of the hospital beds in the world are filled by patients suffering from water-borne diseases.

Civilization and nature in harmony

A good water supply increases the standard of living – careful disposal and treatment of waste water helps keep the environment healthy.

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