The municipal nursery cultivates the entire range of plants for Roubaix’ flower displays, including a number of exotic plants such as orchids, bromeliads and cacti.

Large amounts of high-quality water are required to irrigate all these plants, among them some very delicate species.

Rainwater irrigates Roubaix’ municipal glasshouses

Quite naturally came the idea of using rainwater for the plants grown in glasshouses. Rainwater is perfect for watering plants, as it is free from chlorine and lime. An added bonus is the large roof area of the glasshouses. Precipitation hits an area of 2000 m² from where the water is led to twenty cisterns of 10 m³ each. These 200 m³ of rainwater cover the nursery’s monthly water requirements.

Pumping the water from these cisterns to the entire irrigation system is KSB’s task. At the order of the engineering contractor Eaux de France, KSB supplied a Surpresschrom SIC pressure boosting unit, equipped with three vertical Movitec 18/6 high-pressure pumps, selected for a flow rate of 30 m³/h and a pressure of 6.5 bar. This is the first time a rainwater harvesting system of this scale has been installed in France.
KSB’s all-in solution included the required accessories and protection equipment. A solenoid valve with non-return function prevents the cistern water from mixing with tap water. Whenever the water level in the cisterns drops below a minimum, the irrigation system automatically switches to tap water. Also, a pressure vessel has been installed to exclude the risk of pressure surges. This KSB product is a technical reference for rainwater utilisation and clearly outlines the benefits of such a system: water quality up, water costs down.

Technical details

- Customer: Roubaix City Council
- Engineering contractor: Eaux de France
- Scope of supply:
  Surpresschrom SIC pressure boosting unit (equivalent to Hyamat K) with three vertical Movitec 18/6 high-pressure pumps, flow rate 30 m³/h, pressure 6.5 bar
- Commissioned: Spring 2007

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