Spinach Feeding Bischofszell AG

**Application market**  
Food

**Market segment**  
Fruit & Vegetable

**Pumped medium**  
Carrier fluid (water) with spinach

**Pump product**  
Bearing Frame

**Country**  
Switzerland

**Challenge**
Leaf spinach is delivered by the producers in specially designed basins. After cleaning, the spinach is to be fed to the blanching machine on the third floor of the factory building. During blanching, the spinach is separated from the carrier liquid and the water is to be reused. A production quantity of 5'000 kg raw leaf spinach with a water quantity of 300 m³ per hour is to be achieved.

**Solution**
The spinach is fed to the blanching machine by a multi-stage feeding system. The vegetables arrive – after cleaning – at the feeder to add the required water and is finally pumped with a three-stage pumping system over the considerably large difference in height. The pump system consists of three F-type Screw Centrifugal Pumps connected in series to overcome the large delivery head. The conveying device required for feeding the pumps was additionally supplied from Hidrostal.

**Benefits**
The challenge was solved satisfactorily, the high requirements in food production could be fulfilled:

→ Gentle handling of vegetable in this demanding food production process without losses in quality

**Quantity of units sold**
3 pumps in series + 1 feeder

**Pump type**
I08F-M07 + I1S10

**Motor data**
11 kW / 6pole / 50 Hz / 400 V / IEC frame size 160 + belt drive, shaft speed 550 rpm

**Material combination**
Cast iron pump body and wear parts with Bronze impeller  
Feeder of stainless steel

**Duty point**
Flow : 85 litres per second / Head : 24 meters (overall)

**In operation since**
2008