Potato washing plant No. 1

Market segment	Food
Application market	Fruit & Vegetables
Pumped medium	Water & Potatoes
Pump product	Bearing frame
Country	Sweden

Challenge

After harvesting, at the start of the processing stage, the potatoes are covered with large amounts of dirt, stones, and soil. To maintain quality and ensure that the applicable high requirements for products in the food processing industry are met, the potatoes must not only be cleaned well and efficiently, but also handled gently during further processing. All this places particularly high demands on the pump, which conveys and circulates the water during the cleaning and rinsing processes.

Solution

The **Hidrostal Screw Centrifugal Pump** has a large free ball passage so that the potatoes can be fed unhindered. Gentle conveying is guaranteed and the water with a high dirt and grime content can be easily removed during the cleaning process. If required, the pump impellers and other wear parts are made of wear-resistant materials that can withstand even the toughest conditions.

Benefits

The selected materials and the large free ball passage allow largest amounts of dirt, stones, and soil to be pumped, which prevents blockages and premature pump failures. The challenge was solved to the full satisfaction of the customer.

- → Gentle handling of the potatoes without damage and without loss of quality
- → No pump blockages and only little wear on the pump wear parts
- → Little maintenance and service costs, correspondingly low life cycle costs

Quantity of units sold	28	
Pump type	[a1] B02Q-H01 + BCM1X-G112 [a3] E125-HL1R + EDM1X-M132Q	[a2] D04R-MMN1R + DCM1X-G112 [b] B050-H03R + BCM1X-G112
Motor data	[a1] IEC fame size 112 / 3 kW / 4-pole [a3] IEC fame size 132 / 4 kW / 6-pole	[a2] IEC fame size 112 / 3 kW / 4-pole [b] IEC fame size 112 / 3 kW / 4-pole
Material combination	[a] Cast iron pump body and wear parts with ductile iron impeller [b] Cast iron pump body, Hidrohard wear parts and Duplex stainless-steel impeller	
Duty point	[a1]Flow [metric]: 10.8 liters per second / Head: 15 m Flow [US]: 171 US gallons per minute/Head: 49 ft [a3]Flow [metric]: 50 liters per second / Head: 4.3 m Flow [US]: 793 US gallons per minute/Head: 14.1 ft	[a2]Flow [metric]: 22.0 liters per second / Head: 7 m Flow [US]: 349 US gallons per minute/Head: 23 ft [b] Flow [metric]: 10.8 liters per second / Head: 15 m Flow [US]: 171 US gallons per minute/Head: 49 ft
In operation since	2020	