

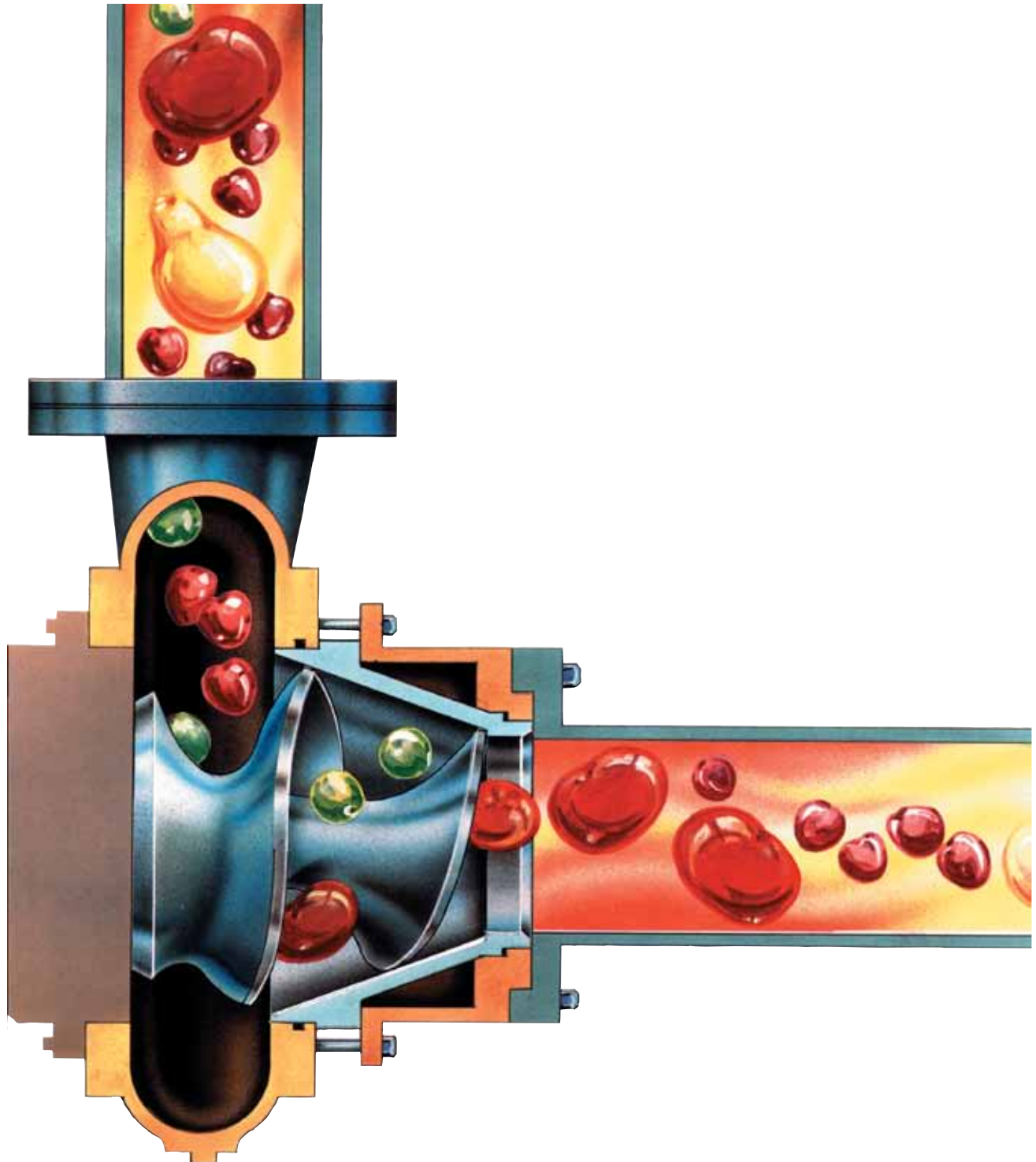
WEMCO-HIDROSTAL

Screw Centrifugal Pumps

Food Industry Pumps

Move Delicate Products Without Damage

Excellent
Power & Industrial
Solutions



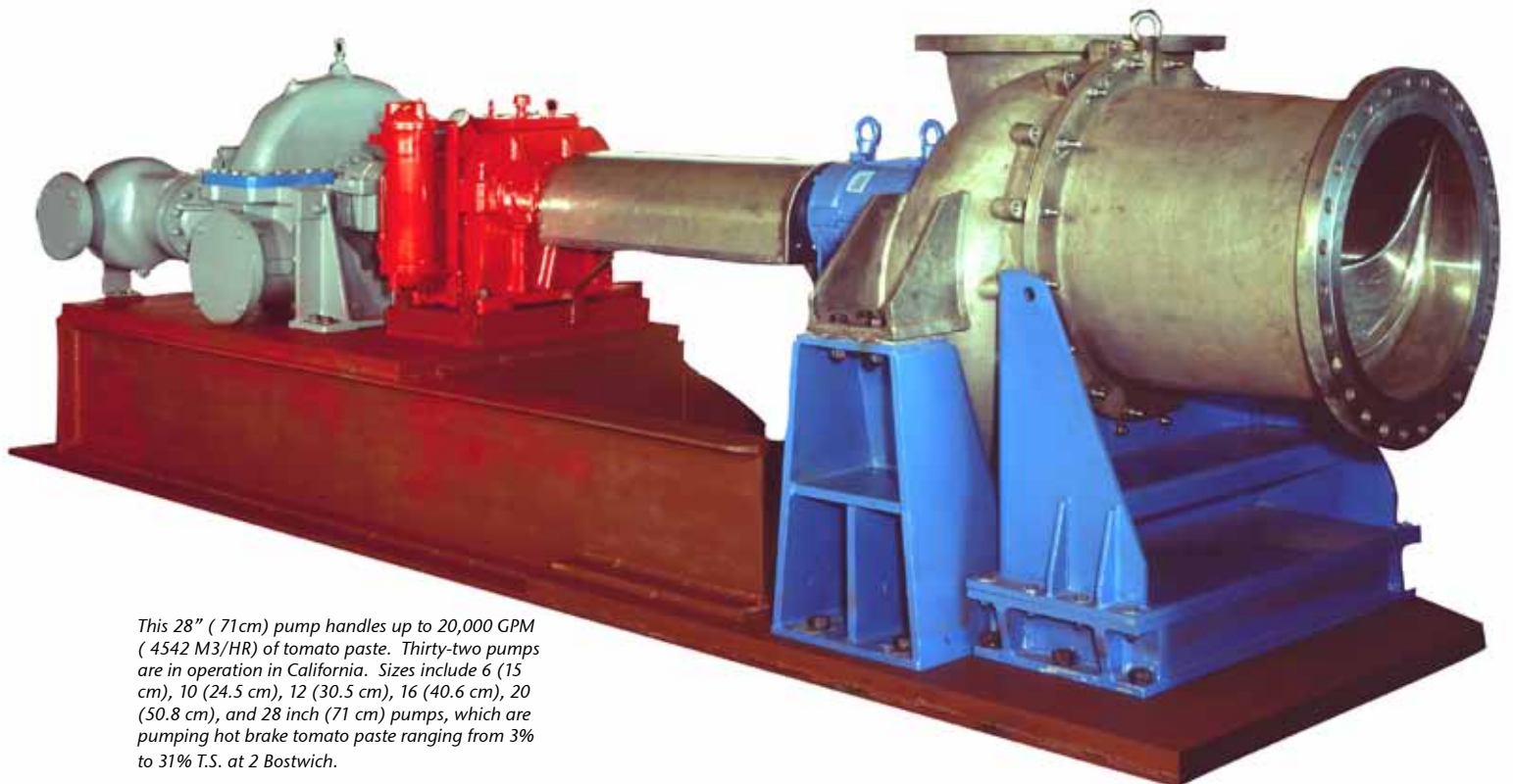
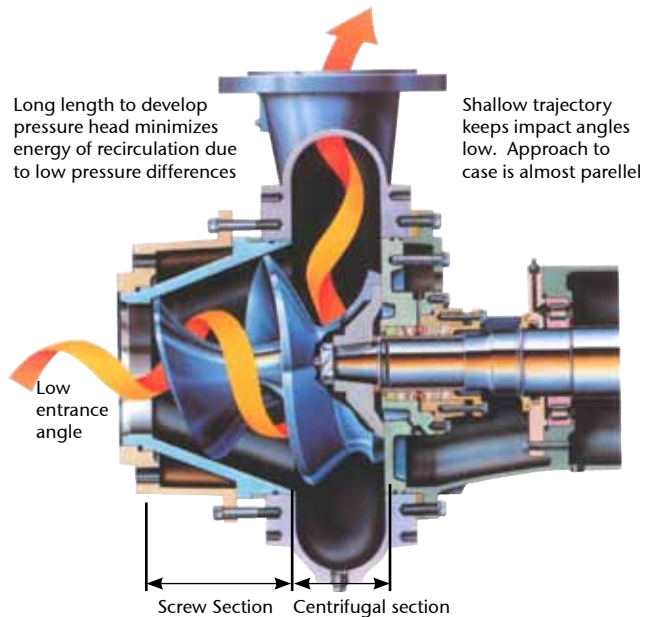
WEMCO®-Hidrostral® Pumps

- Move Delicate Products Without Damage
- Pumps Thickened Tomato & Fruit Pastes
- Evaporator Circuits
- Flume Systems
- Waste Streams

The screw-centrifugal impeller of the Wemco®-Hidrostral® pump, with its open channel impeller design, combines the gentle action of a screw pump and the high-flow rates and efficiencies of a centrifugal pump. This unique, single-vane impeller consists of both a screw section and a centrifugal section, and blends the best features of both to create a pump that minimizes shear and emulsification caused by hydraulic recirculation and droplet impact against the internal pump components.

As a bonus, this design provides a large, open channel from suction to discharge, allowing it to easily pump trash and debris without choking or clogging.

Combined, the screw-centrifugal action makes the Wemco®-Hidrostral® the best centrifugal alternative for colg-free, low-shear/low-emulsification pumping at the most economical installation and operation cost.



This 28" (71 cm) pump handles up to 20,000 GPM (4542 M3/HR) of tomato paste. Thirty-two pumps are in operation in California. Sizes include 6 (15 cm), 10 (24.5 cm), 12 (30.5 cm), 16 (40.6 cm), 20 (50.8 cm), and 28 inch (71 cm) pumps, which are pumping hot brake tomato paste ranging from 3% to 31% T.S. at 2 Bostwich.

Gentle Handling of Food Products

Wine Production

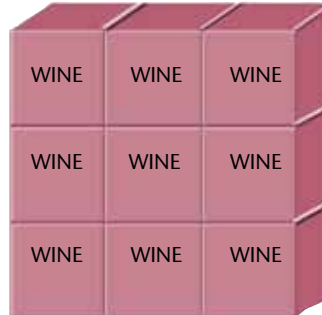
In pumping from the crusher to storage, side by side test results comparing the Wemco®-Hidrostal® pump versus a paddle pump clearly shows an increase in the free-run yield.

The delicate handling characteristics of the screw-centrifugal pump were clearly demonstrated when whole berries were discharged after they had gone unharmed through the pump.



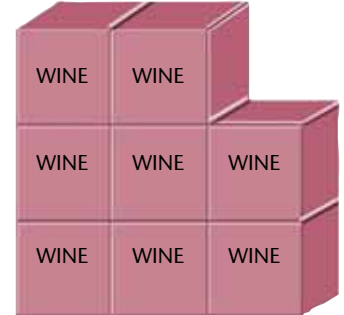
WEMCO®-Hidrostal Pump vs. the competition in gentle handling

Free-Run Yield
137.9 GPT



Finished Product Pumped by WEMCO®-Hidrostal® Pump

Free-Run Yield
129.9 GPT



Finished Product Pumped by Traditional Paddle Pump

Cranberry Harvesting

Originally, cranberry harvesting was done by hand with farm laborers moving through dry bogs, bending down with a cranberry scoop and picking the fruit from low, ground hugging vines. This laborious, back-breaking method of harvesting was practiced until the mid 1950's when the Massachusetts farmers realized that flooding the bogs with at least 6 inches of water over the vines would cause some of the berries to float to the surface. They reasoned that, if all the berries could be removed from the vines and float, harvesting would be less tedious and production could be substantially increased. A machine was designed to move through the flooded fields with a rotating reel which gently removes the fruit from the vine.

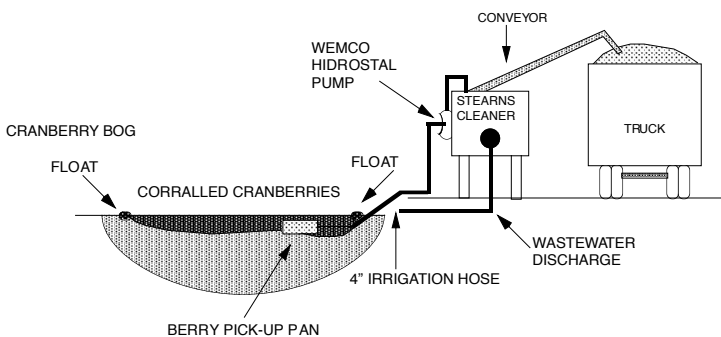
After the berries are released from the vine and are floating free, they are gathered together by a specially designed floating fence. The workers wade through the bog collecting or corralling the berries to one side of the bog, occupying approximately 1/20th of the bog's flooded surface with berries about 4 to 6 inches (10 to 15 cm) thick. This thick mass of fruit is then moved to the berry pickup pan, which is set just below the water's surface. A four inch (10 cm) irrigation hose is connected to the pick-up pan, which in turn

is connected to the suction of a WEMCO®-Hidrostal® harvesting pump, which pumps the berries, along with any floating debris to a Stearns Cleaner.

The berries are separated from the floating debris, and washed and discharged into the waiting trucks to be taken to a nearby processing plant.

There the WEMCO®-Hidrostal® pump Model E5K was chosen for its demonstrated ability to pump the fragile cranberries with virtually no damage or degradation, as well as to handle the trash and debris that inevitably ends up in the flow stream.

The unique screw-centrifugal design of the WEMCO®-Hidrostal® pump is key to its gentle handling characteristics. The single channel design minimizes contact with pump surfaces and has proven to be effective in other food industry applications as well. The pump gently conveys foodstuffs that require delicate handling and is used in wineries to move grapes, in canneries to convey whole vegetables, and is even used in the transportation of live fish. Other food applications include viscous, heavy fruit or tomato paste from evaporators.



WEMCO®-HIDROSTAL® works hard in the food industry from harvest to flume to waste cleanup...

Pumping Solids

- Potatoes
- Beets
- Sugar Beets
- Cranberries
- Nuts
- Whole Tomatoes
- Apples

Pumping Delicate Products

- Live Fish
- Sliced Tomatoes
- Grapes/Must
- Vegetable Processing
- Olives
- Cherries

Pumping Thick Liquids

- Tomato Paste - 31%
- Tomato Catsup
- Concentrated Fruit Juices
- Jams, Jellies
- Soup
- Corn Syrup
- Brewing Malts

Non-Food Pumping Duties In the Plant

- Clean up
- Waste streams



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