



Upgrading Your Mechanically Deboned Meat Cooling System



THE WILLIAMS - CARVER COMPANY, INC.

4001 MISSION RD P.O. BOX #3140

KANSAS CITY, KS 66103-0140

Office (913) 236-4949 Fax (913) 236-9331

www.williamscarver.com

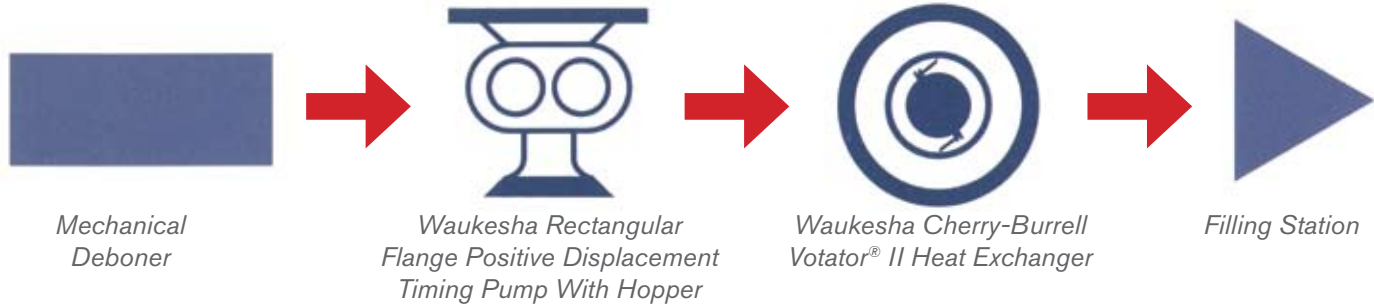


Efficiency and Economy

Waukesha Cherry-Burrell products and components increase efficiency and lower costs!

Scraped Surface Heat Exchangers cool mechanically deboned meat efficiently and economically.

The Votator® II Scraped Surface Heat Exchanger and the Waukesha Universal I Series Rectangular Flange PD Pump combine to make an effective, high performance cooling system.



Process System Features

- Cools meat rapidly and efficiently
- Capacities to 19,000 pounds per hour (8600 Kg per hour) with one timing pump
- Meets 3A and USDA equipment specifications
- Equipment can be easily opened for cleaning and inspection
- Power overload circuitry provides freeze up protection

- Capacities up to 6500 pounds per hour (3000 Kg/Hr) per heat exchange cylinder
- Typical cooling requirement: 55°F to 38°F/35°F (13°C to 3/2°C)

Equipment Requirements

- Waukesha Universal I Series Rectangular Flange - positive displacement timing pump
- Votator® II Horizontal or Vertical scraped surface heat exchanger

Process Parameters

- Cooling using direct expansion or liquid overfeed ammonia or other refrigerants

Universal I Rectangular Flange (R.F.) Model PD Pump

- Rectangular inlet port
 - 316 stainless steel
 - Overcomes bridging, cavitation
 - Gravity fed from connected hopper
- Universal gear case adapts to side feed arrangement for auger feeding
- Patented Waukesha “88” alloy rotors
 - Extremely close running clearances
 - Minimizes galling or seizing
 - Minimizes power loss
 - Extends pump life
 - Meets requirements of USDA and 3A
- Versatile seal choices: Single “O” ring, double “O” ring with flush, single mechanical, double mechanical with flush
- Quick and easy disassembly for thorough COOP (Clean Out Of Place) cleaning



| Model Size | Inlet Size | | | Outlet Size | Max gpm at 100 rpm* |
|------------|---------------------|----------------------|----------------------|-------------|---------------------|
| | Width & Length (IN) | Flange Area (Sq. IN) | Throat Area (Sq. IN) | | |
| 14 RF | 1.50 x 4.75 | 6.6 | 3.7 | 1.5" | 1.3 |
| 34 RF | 1.75 x 6.75 | 11.8 | 9.1 | 2.0" | 6 |
| 64 RF | 2.25 x 8.81 | 19.8 | 16.1 | 2.5" | 15 |
| 134 RF | 2.97 x 9.25 | 27.5 | 22.0 | 3.0" | 25 |
| 224 RF | 3.87 x 11.0 | 42.6 | 38.8 | 4.0" | 52 |

*100 rpm is recommended max speed for this application.

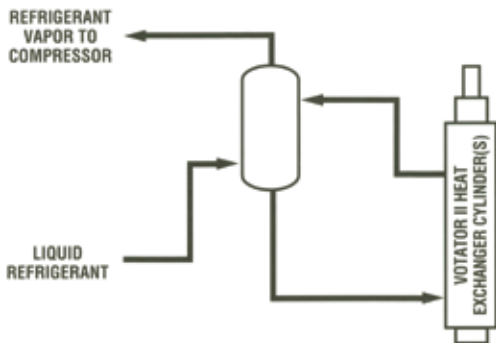
Efficiency and Economy

Votator® II Scraped Surface Heat Exchanger

- Available for **Horizontal** or **Vertical** installation
- Easy to install
- Maintenance Features:
 - Boltless V-Lock heads for quick disassembly
 - Hydraulic lift on Vertical design for removal of mutator shaft
 - Mutator shaft with unique pins for quick and easy blade replacement
 - Mechanical shaft seals on both product ports
 - Self-aligning drive spline on mutator shaft
 - Dependable gear motor drives
- Product cylinder pressure ratings of 600 and 800 psig @ 400°F (42 and 56 bar @ 204°C)
- Chrome plated nickel or enhanced 316 stainless steel heat transfer tubes
- Stainless steel or solid plastic scraper blades
- Double o-ring sealed heat transfer tube can be replaced without disconnecting media piping or removing cylinder jacket
- 3A, USDA compliant design, and constructed in accordance with ASME code



Versatile Votator® II Refrigeration Systems

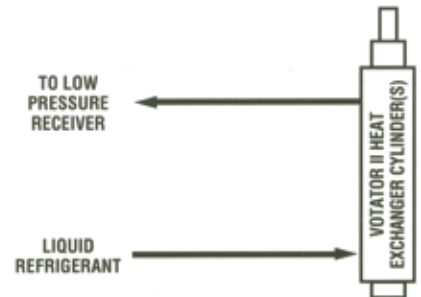


Gravity Refrigeration

Proven and reliable design that is the most economical option in terms of equipment cost for multiple cylinders, horizontal or vertical, when liquid overfeed is not available. Local accumulator may be mounted on roof directly above Votator installation to minimize ammonia in the processing area.

Liquid Overfeed

Ideal choice for horizontal or vertical installations where a low pressure refrigeration receiver can be maintained in the compressor room with a pumping system to provide a continuous supply of refrigerant to the Votator® II heat exchangers.



Hoppers

The hopper is the vessel that connects to the rectangular flange on the pump. It feeds the product that flows into the inlet on the pump.

| Model | Capacity LBS (KG) |
|----------|-------------------|
| 014, 024 | 250 (113) |
| | 500 (227) |
| 034 | 250 (113) |
| | 500 (227) |
| | 1000 (454) |
| | 1500 (680) |
| 064, 134 | 250 (113) |
| | 500 (227) |
| | 1000 (454) |
| | 1500 (680) |
| 224 | 500 (227) |
| | 1000 (454) |



Hopper connected to a Rectangular Flange PD Pump.

Website

For technical details on products and services available from SPX Process Equipment, contact us at www.spxprocessequipment.com.

Download specific technical product information including:

- Brochures
- Data sheets
- Maintenance Manuals

Other Waukesha Cherry-Burrell Processing Equipment:



CR Mixers



Colloid Mill



Shear Pump

SPX®

PROCESS EQUIPMENT

Your local contact:



THE WILLIAMS - CARVER COMPANY, INC.

4001 MISSION RD P.O. BOX #3140

KANSAS CITY, KS 66103-0140

Office [913] 236-4949 Fax [913] 236-9331

www.williamscarver.com

SPX Process Equipment

611 Sugar Creek Road

Delavan, WI 53115

Phone: (262)728-1900 or (800) 252-5200 Fax: (262) 728-4904 or (800) 252-5012

E-mail: wcb@spx.com

For more information about our worldwide locations, approvals, certifications, and local representatives, please visit www.spxpe.com.

SPX Corporation reserves the right to incorporate our latest design and material changes without notice or obligation.

Design features, materials of construction and dimensional data, as described in this bulletin, are provided for your information only and should not be relied upon unless confirmed in writing.