

## APV Triple Effect Five Stage Evaporation System with Essence Recovery

Mfg: APV

Model:

Stock No.: CMCS01.200

Serial No.:

APV Three Effect Five Stage Evaporation System with Essence Recovery. Rising-Falling Film plate and frame heat exchangers. Product infeed was 40,000 lbs per hour at 6% total solids. Final product outfeed: 10,000 lbs per hour at 24% solids. Water removal rate: 30,000 lbs per hour. Previously installed at a major USA food processing plant in Ohio.

### Equipment List:

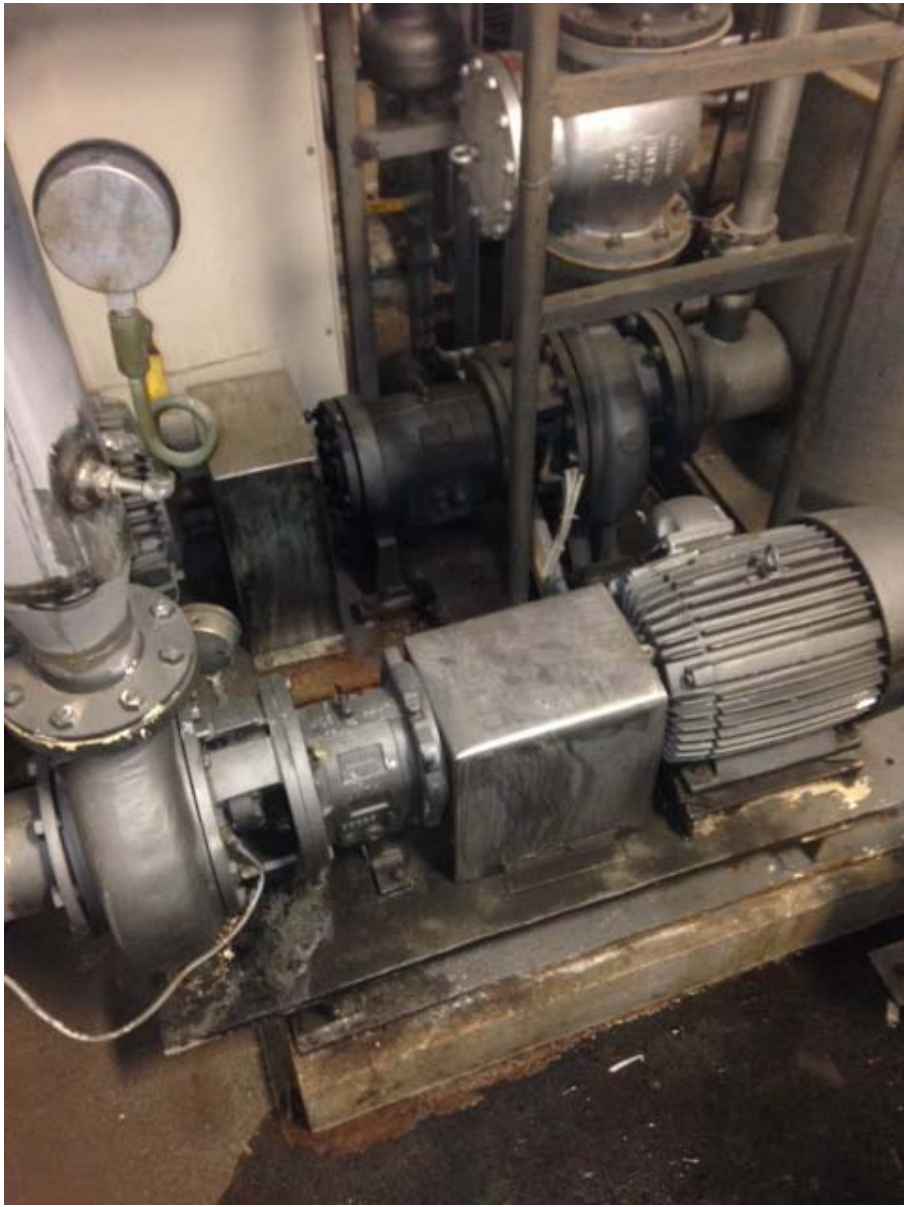
- Dual Supply Tanks – Product Feed 40,000 lbs/hr @ 6% T.S.
- Feed Balance Tank
- 1<sup>st</sup> Effect FF Plate/Frame Heat Exchanger (88 plates, falling film)
- 2<sup>nd</sup> Effect RFF Plate/Frame Heat Exchanger Type P-E 1741 (230 plates, rising falling film)
- 3<sup>rd</sup> Effect 3-A RFF Plate/Frame Heat Exchanger Type P-E 1742 (144 plates, rising falling film)
- 3<sup>rd</sup> Effect 3-B RFF Plate/Frame Heat Exchanger Type P-E 1740 (148 plates, rising falling film)
- Vapor Separators: 72", 54", 48", 42"
- Thermo-Compressor
- Spray Condenser
- Essence Recovery System
- Maselli Brix Meter UR-24
- Dynatrol Density Meter
- Waukesha Centrifugal Pumps: 2045, 2045 (both 5 HP)
- SIHI Vacuum Pump LPHY 3708
- Goulds brand pumps: 3196 MTX, 3196 XLT-X
- Alfa Laval Pumps: LKH35MFG18T, LKH35MFG18T-L-, LKH10MFG18T, LKH20M156FSS2U, LKH20M158FSS2US, LKH35M180FSS2US, LKH25M167FSS--, LKH25M175FSS2, LKH10M130FSS2ES
- 90 PSI Steam Input
- Final product outfeed: 10,000 lbs per hour at 24% solids

























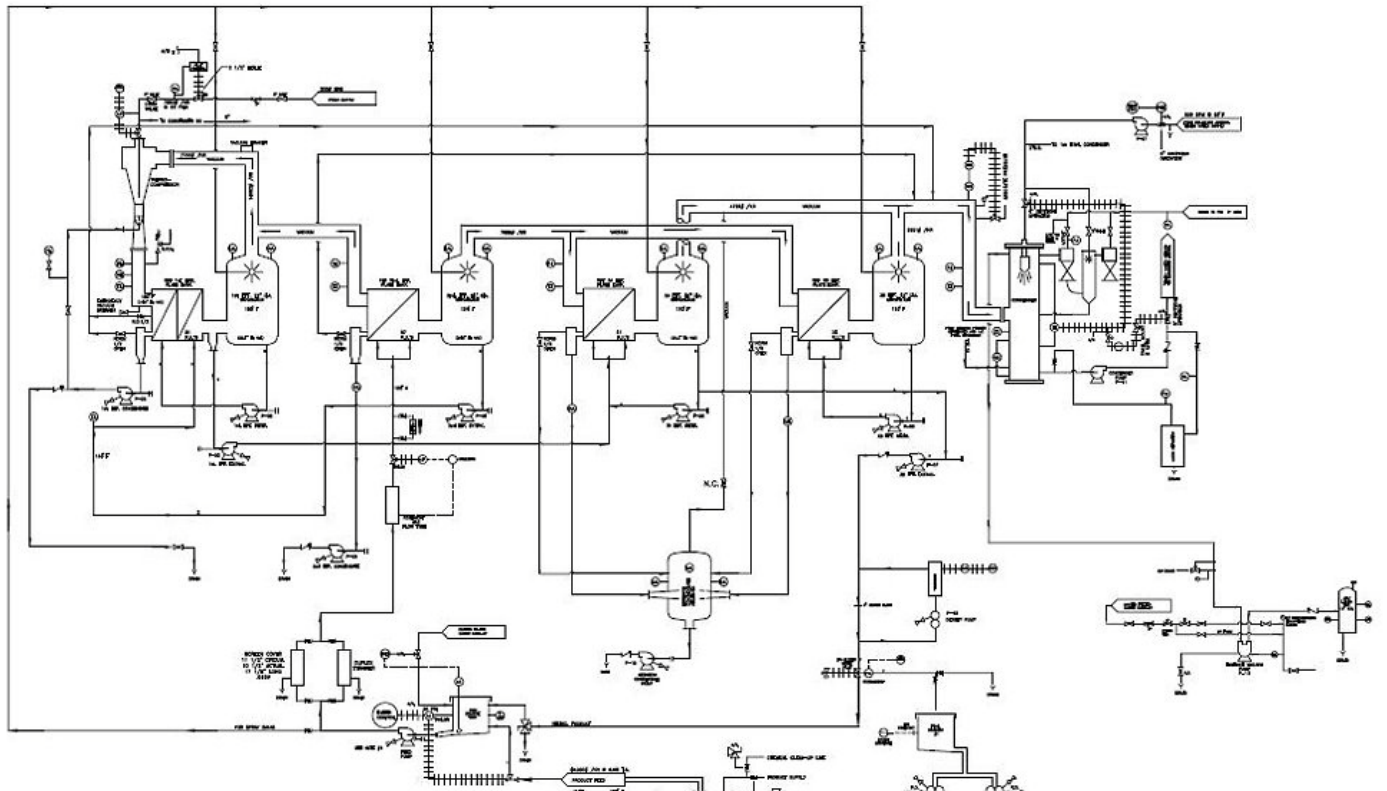






# FLOW SCHEMATIC FOR TRIPPLE EFFECT FIVE STAGE EVAPORATOR WITH ESSENCE RECOVERY

TOWER WATER CONDENSATE, CONDENSATE, PRODUCT FEED, SERVICE FEED, INSTRUMENT AIR, ELECTRICAL SIGNAL, FUSED GALVANY, STOP, WELD MADE-UP, PAINT, SEALS, GASKETS, AND/OR



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| TOWER WATER<br>CONDENSATE<br>CONDENSATE<br>PRODUCT FEED<br>SERVICE FEED<br>INSTRUMENT AIR<br>ELECTRICAL SIGNAL<br>FUSED GALVANY<br>STOP<br>WELD MADE-UP<br>PAINT, SEALS<br>GASKETS, AND/OR | GATE VALVE<br>GLIDE VALVE<br>BUTTERFLY VALVE<br>CHECK VALVE<br>SILENCE VALVE<br>CONTROL VALVE | REMOTE MOUNTED INSTRUMENT<br>INSTRUMENT MOUNTED ON PANEL FACE<br>INSTRUMENT MOUNTED ON PANEL FACE<br>MAGNETIC FLOW TUBE (NOISE SHIELD) | A/S = REGULATED SERVICE FEED OR AIR SUPPLY<br>A/S = CLEAN AIR OR SERVICE AIR SUPPLY<br>Y = OTHER<br>N.C. = NONE<br>L.G. = LEADED GLASS<br>T.I. = TEMP. INDICATOR<br>P.I. = PRESSURE INDICATOR<br>P.I.C. = PRESSURE INDICATOR CONTROL<br>P.T. = PRESSURE TRANSDUCER<br>L.C. = LEVEL CONTROL<br>S.S. = SEAT LOSS<br>L.T. = LEVEL TRANSDUCER<br>NOTE - SEAL WEDS FOR ALL PUMPS EXCEPT P-11 & P-12, P-13 |
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