

CASE STUDY

DAIRY PROCESSING FACILITY



MARCRRAFT
CUSTOM HVAC SYSTEMS

MARCRRAFT CUSTOM HVAC SYSTEMS MANUFACTURES 7 OUTDOOR ROOFTOP UNITS FOR DAIRY PROCESSING FACILITY

APPLICATION:..... Dairy Processing Facility

LOCATION:..... Michigan

CUSTOM HVAC SYSTEMS:..... 7 Outdoor Rooftop HVAC Systems

MARCRRAFT TOTAL SOLUTION

The Dairy Processing Facility was in need of an HVAC system that had a completely washdown capable interior and components. MarCraft Custom HVAC Systems provided the customer with 7 AHUs of similar design but varying capacity, all with a stainless steel washdown interior.

NOTEWORTHY

- The customer creates ultra-filtered milk products using soft filters to concentrate the milk, making it higher in protein and calcium, while filtering out natural sugars.



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CASE STUDY

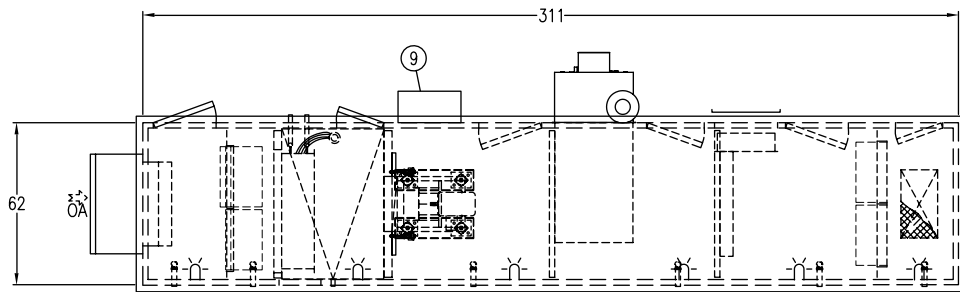
DAIRY PROCESSING FACILITY

WASHDOWN CONSTRUCTION

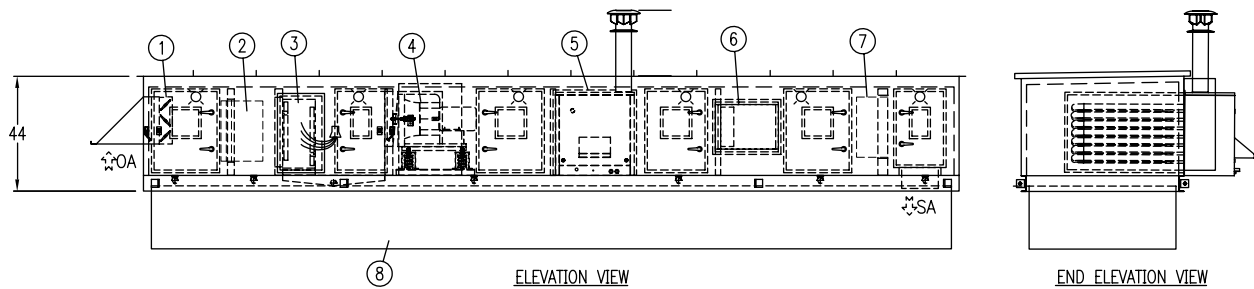
- 316SS floorpans with 304SS walls & ceiling
- Interior wall liners on inside of floor pan lip
- Feather bends on interior liner seams
- Floor drains in every compartment

SPECIFICATIONS

- 7 - Outdoor Rooftop HVAC Systems
- 3 - 13,000 CFM Units
- 1 - 11,600 CFM Unit
- 1 - 2,400 CFM Unit
- 1 - 2,700 Unit
- 1 - 4,710 CFM Unit



PLAN VIEW



ELEVATION VIEW

END ELEVATION VIEW

- | | | |
|----------------------------|--------------------------|-----------------------------|
| 1. OA Damper | 4. Supply Fan Assembly | 7. Final Filter Bank |
| 2. Combination Filter Bank | 5. Indirect Fired Burner | 8. Roof Curb |
| 3. DX Cooling Coil Bank | 6. Electric Heat Coil | 9. Variable Frequency Drive |

UNIT MATERIALS

- 316SS floor pans (flood tested)
- 304SS interior walls & ceilings
- Galvanized exterior coated with epoxy primer and 2 coats of MarCraft gray air-dry enamel
- Brake-formed 12ga galvanized roof curbs

COMPONENTS

- Low leakage Tamco 1000-SW dampers for extra corrosion resistance
- Clip-free filter frames in 304 stainless steel
- DX cooling coils
- Direct-drive plenum fans (1 per AHU) with industrial epoxy coating and airflow measuring stations
- Indirect-fired heat with all air-side heat exchanger components made from 304SS
- Washdown-duty electric heating coils
- HEPA filters
- Stainless steel walk grate over floor duct connections
- Factory-installed NEMA 3R VFD & power panel
- Single-point power connection with main unit disconnect



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