

CASE STUDY FACTORY



MARCRRAFT
CUSTOM HVAC SYSTEMS

MARCRRAFT CUSTOM HVAC SYSTEMS PROVIDES 2 AIR HANDLING UNITS FOR BABY CARE PRODUCT FACTORY

APPLICATION:..... Baby Care Products Factory

LOCATION:..... Pennsylvania

CUSTOM HVAC SYSTEMS:..... TWO OUTDOOR ROOFTOP AHUS

MARCRRAFT TOTAL SOLUTION

MarCraft provided two Outdoor rooftop systems that were identical, but mirrored. These units are some of the largest systems that MarCraft has built. The facility is a factory making baby care products, such as diapers, as well as makes paper towels and toilet paper.

NOTEWORTHY

- The AHUs made for this factory are identical, but mirrored.
- The units are some of the largest units that Marcraft has made.



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(800) 325-1303

11880 Dorsett Road,
St. Louis, MO 63043

MarCraftHVAC.com

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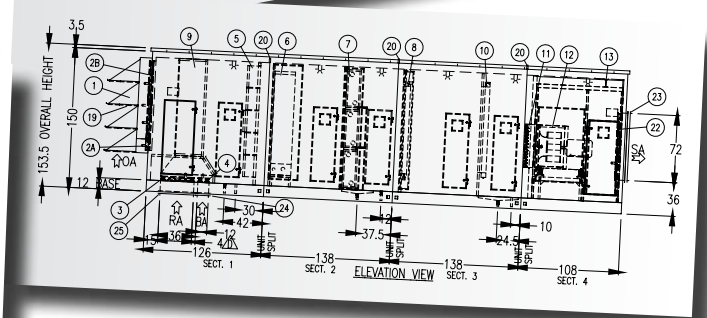
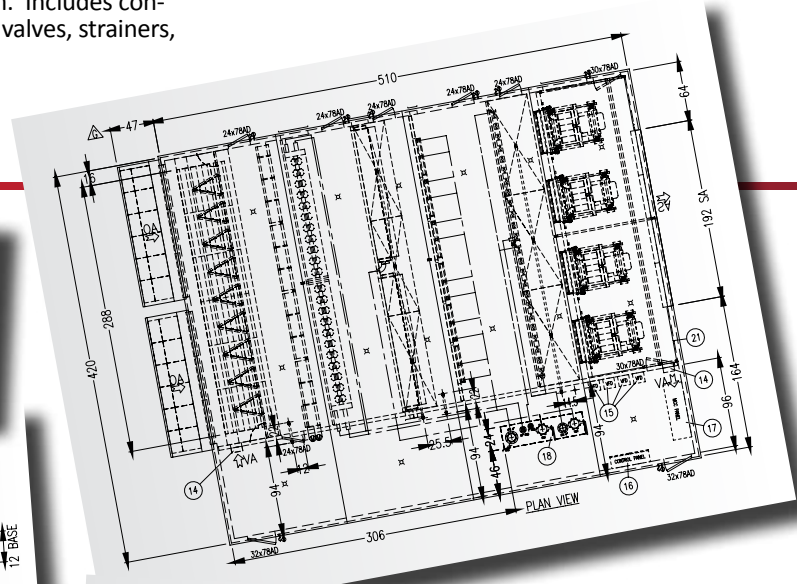
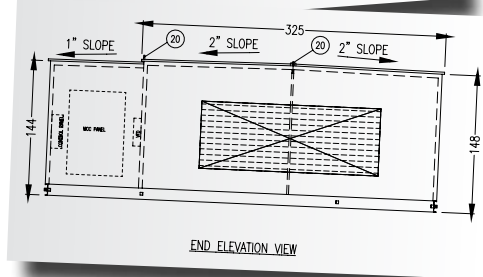
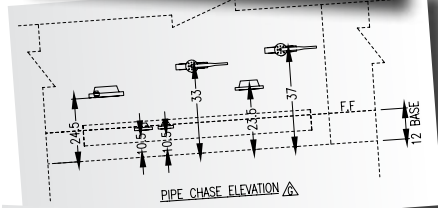
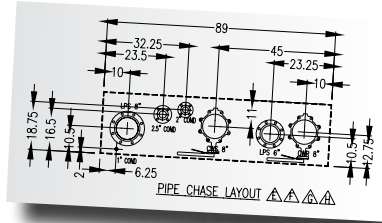
HVAC SYSTEMS SPECIFICS:

CONSTRUCTION

- Factory installed chilled water system of stainless steel Victaulic construction. Includes 3-way control/bypass valve, redundant strainer system, balance and isolation valves, thermometers, and pressure gauges.
- Factory installed steam piping system. Includes control valves, block and bleed isolation valves, strainers, and traps.
- Factory installed enthalpy based temperature and humidification control system
- Motor Control Center with VFD's

SPECIFICATIONS

- (2) Outdoor rooftop AHU's with vestibule.
- 125,000 cfm each



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|------------------------------------|------------------------------------|----------------------------------|---|
| 1. OA Hood Assembly | 7. Cooling Coil Bank | 14. Vestibule Ventilation Damper | 21. Acoustic Target Panels (Fan Section Only) |
| 2A. Min OA Damper | 8. Re-Heat Steam Heating Coil Bank | 15. Variable Frequency Drive | 22. Supply Air Damper |
| 2B. OA Damper | 9. Air Mixing Columns | 16. Control Panel | 23. Supply Air Companion Flange |
| 3. RA Damper | 10. Humidifier | 17. Motor Control Center Panel | 24. Baghouse Air companion flange |
| 4. Baghouse Air Damper | 11. Fan Inlet Damper | 18. Pipe Chase | 25. Return air companion flange |
| 5. Combination Filter Bank | 12. Supply Fan Assembly | 19. OA Mist Eliminator Media | |
| 6. Pre-Heat VIFB Heating Coil Bank | 13. Component Removal Beam | 20. Safety Tie Off Point | |

UNIT MATERIALS

- Perimeter members – C12 x 20.7 Structural Steel
- Cross Members – C6 x 8.2 w/ C12 x 20.7 full height as required
- Under Liner – 22 GA. Galvanized
- Insulation – Polyurethane spray foam system, 4in thick, (R6.5/in)
- Floor Pan – 3/16in Aluminum tread-plate floor pan
- Exterior Finish – Mill finish aluminum w/ Marcraft grey painting base
- Exterior – 0.050 embossed aluminum
- Interior – 0.080 aluminum
- Panel size – 4in thick, max 16in wide
- Insulation – 4in R-13 polyurethane spray foam system, (R6.5/in)
- Exterior Fasteners – Stainless Steel
- Interior Fasteners – Stainless Steel
- Exterior Sealant – Co-Polymer Adhesive sealant
- Interior sealant – Co-polymer adhesive sealant
- Interior safe-off walls – Aluminum w/ SST CW coil and humidifier safe off
- 1/4in thermal break – Entire unit
- Perforated liner – Perforated 22 GA 304 Stainless Steel (Supply Fan Section Only)
- Perforated area insulation – 1in 1.5# un-faced insulation w/4-MIL Polyethylene sub-liner

AIRSTREAM COMPONENTS

- OA Hoods with cleanable prefilter
- Filters (Pre and Final)
- Preheat VIFB steam heating coils
- Mixing section for OA/RA/Recycled Air with integral air mixing columns
- Chilled water cooling coils
- Reheat steam heating coils
- Humidifier
- Supply Fans (4 per unit) with inlet isolation dampers



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