



Process Control & Engineering, Inc.
Monarch Design Company

Fluid Handling Systems

PCE Monarch provides design and build for many types of fluid handling systems, ranging from traditional applications to more stringent requirements such as sanitary, explosion proof, high viscosity etc. We also provide turn-key solutions for such systems if the customer so desires. Our experience of past twenty-five years with different materials such as paint, electrocoat, acids, alkaline solutions, glycol, sludge water etc. has prepared us for the most challenging applications.

Our expertise covers:

- Baseline field evaluation of existing systems and requirements for proposed modifications.
- Engineering calculations of requirements for process parameters such as flow, pressure, viscosity etc.
- Design of storage, bulk delivery and blending systems.
- Design and build mixing and temperature control systems.
- Design of piping for delivery of the material.
- Design of compressed air distribution systems.
- System balance and final baseline of the system.
- Visual aids for processes.

Our experience of past twenty five years includes:

- Engineering design and bid package preparation for all processes in a new paint shop
- Engineering design and bid package preparation coordinating with automation and spraybooth manufactures for introduction of new product in a paint shop.
- Design of various paint mix rooms, tote delivery systems and paint delivery systems.
- Paint Conditioning systems to satisfy stringent temperature demands while conserving energy.
- DI and RO water generation systems for applications in phosphate, electrocoat and part washer applications.
- Filtration and centrifugal separator systems for removal of a variety of solid contaminants in phosphate systems, part cleaners and washers.
- Bulk storage and distribution systems for high use materials.
- Updates to process specifications.

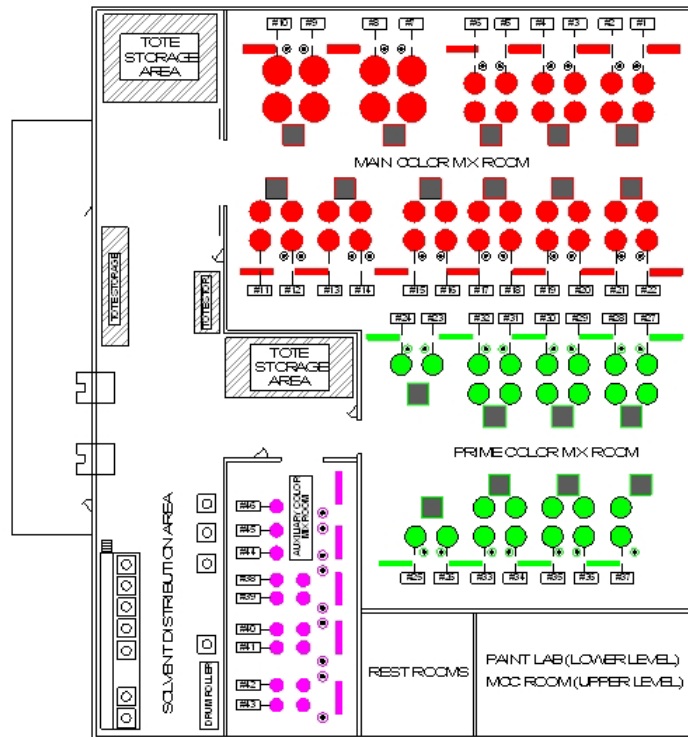
We are a forward thinking engineering company and we invest in development of new technologies. We have a proprietary design for mixing of fluids with zero shear, thus preserving original properties of the fluids.

We believe that there are ample opportunities for transfer-of-technology to apply this knowledge to other industries such as waste treatment, food and beverage industry, chemical industry and bulk material suppliers to various industries.



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Paint Mix Room and Delivery Systems



Paint mix room layout including, basecoat, prime, auxiliary, and solvent systems.



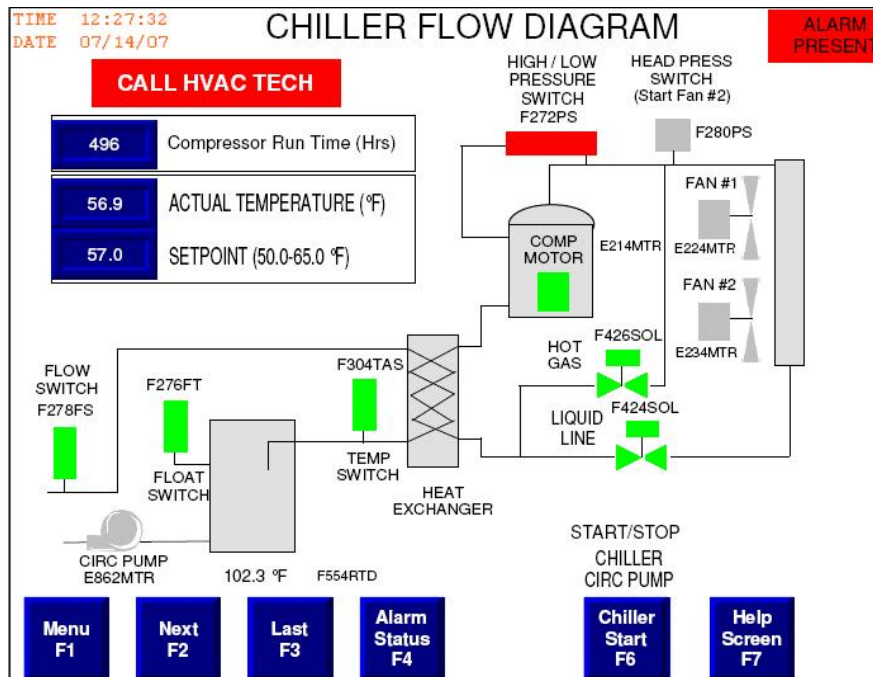
Design of various paint mixing and delivery systems.

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Paint Conditioning and Support Systems



Design & Control of Skid Mounted paint temperature control system.



Design and Integration of PLC based temperature control systems



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Phosphate & E-Coat Support Systems



Design & Layout of Filter press for removal of micron size contaminants.



Design & Integration of Centrifugal Separators for micron size particulate removal.



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Bulk Storage and Delivery Systems



Glycol bulk storage, pumping, and metering system for antifreeze.

Paint Spraybooth Fluid Support Systems



Purge collection system for recycling of excess liquids.

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