

# Internal Gear Pumps for Paint & Coatings



# EnviroGear® Pumps for Paint & Coatings Applications

Paint & Coatings manufacturers are looking to increase plant profitability by controlling cost, optimizing uptime, and complying with stringent regulations. EnviroGear® E Series and G Series Internal Gear Pumps are reliable and affordable solutions that meet and exceed the operational and safety demands of a modern paint & coatings facility.



E Series Magnetically Coupled Seal-Less Internal Gear Pump



G Series Internal Gear Pump

# Challenges of Paint & Coatings Applications

EnviroGear overcomes unique operational challenges in the safest, most efficient and profitable way possible .

## Emissions Control

### CHALLENGE-

- Government regulation and compliance with standards regarding control of Volatile Organic Compounds (VOCs)

### ENVIROGEAR SOLUTION

**E Series:** One fluid chamber seal-less design eliminates leak points, ensuring containment of harmful VOCs

**G Series:** Universal bracket design accommodates a wide range of sealing options for improved seal integrity



## Productivity

### CHALLENGE

- Optimize speed and uptime to maximize plant production

### ENVIROGEAR SOLUTION

**E Series:** Robust, patented between-the-bearings support system eliminates the damaging effects of cantilevered loads, resulting in optimized uptime and unmatched reliability

**G Series:** Built to the highest standards of quality and reliability for long life and minimal maintenance



## Plant Safety

### CHALLENGE

- Protect the welfare of site personnel and surrounding communities and environment

### ENVIROGEAR SOLUTION

**E Series:** Leak-free design contains hard-to-seal crystallizing, thermosetting or viscous fluids in 24/7 continuous-process applications, helping to eliminate exposure of site personnel to harmful chemicals



## Cost Control

### CHALLENGE

- Raw Materials
- Energy
- Capital Investment
- Maintenance

### ENVIROGEAR SOLUTION

#### E Series:

- Leak-free design protects against loss of high-value fluids
- Seven-part design allows for ease of maintenance

**G Series:** Interchangeable with up to 95% of competitive models, with no need to modify piping, driver, baseplate or coupling.



## Paint and Coatings Fluids

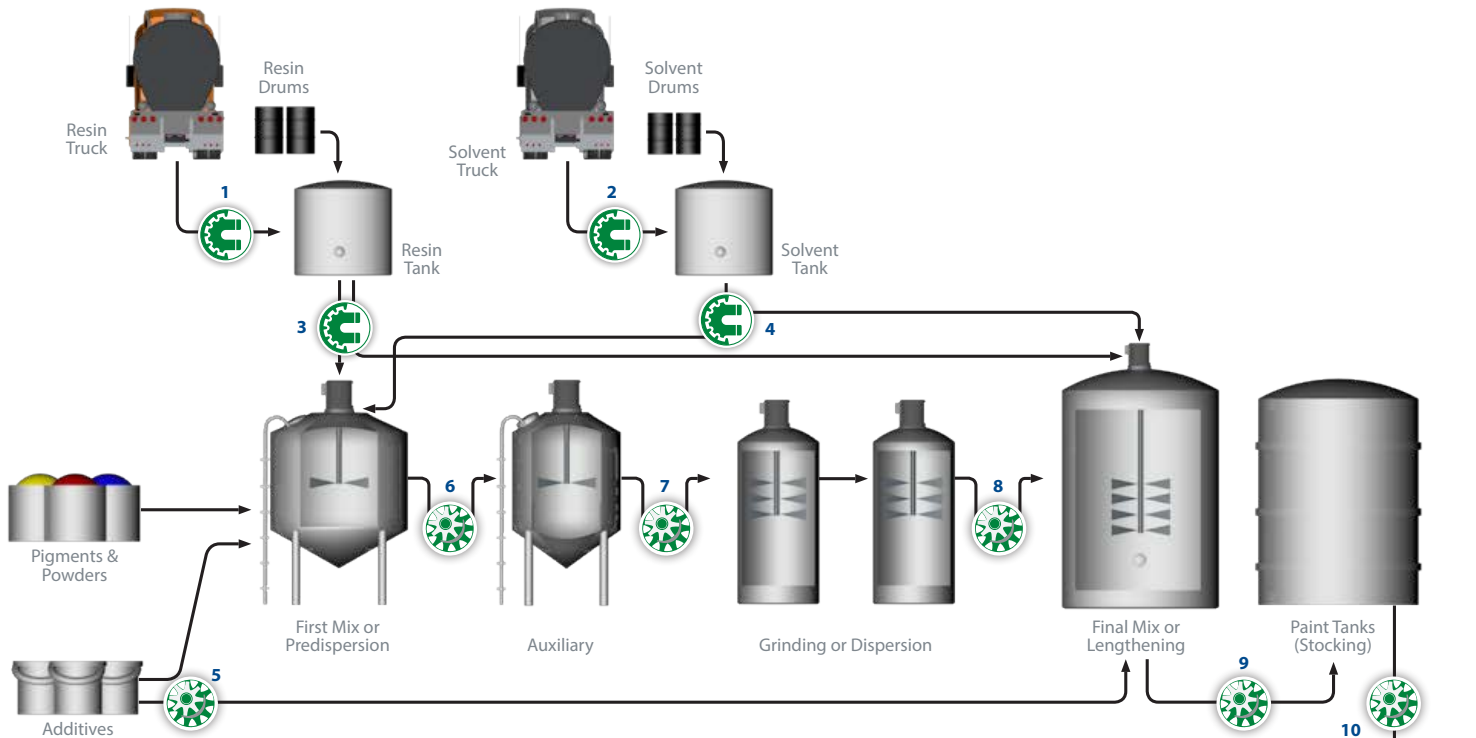
Three types of fluids are most commonly handled in Paint & Coatings manufacturing:

### BINDERS

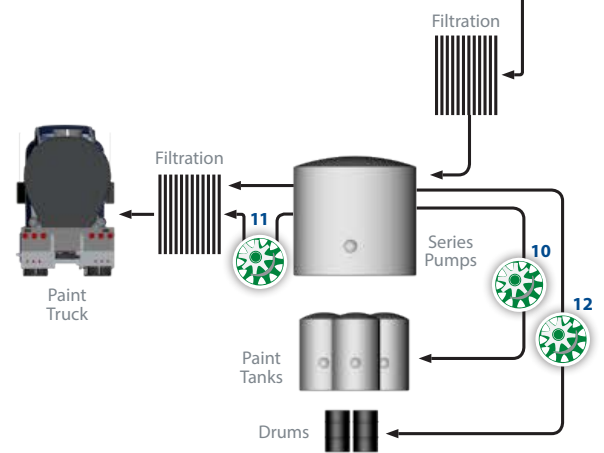
- Acrylics
- Alkyds
- Aminoplasts
- Cellulosics
- Epoxies
- Chloro- and Fluorocarbons
- Natural Plant Oils
- Phonetics
- Polyesters
- Polyurethanes
- Silicones
- Vinyls

# Process Map

EnviroGear® E Series and G Series Internal Gear Pumps can be used across a wide range of Paint & Coatings applications. Traditional manufacturing processes are ideal for G Series pumps, while E Series pumps are the perfect choice for use in applications where optimized safety, cost control and regulatory compliance are significant factors.



Location	Process	Recommended Pump*	Alternative Pump
1	Resin Unloading	E Series	G Series
2	Solvent Unloading	E Series	G Series
3	Resin Loading to Mixer	E Series	G Series
4	Solvent Transfer to Mixer	E Series	G Series
5	Additive Transfer to Mixer	G Series	E Series
6	Product Transfer to Auxiliary Tank	G Series	E series
7	Product Transfer to Grinding/Dispersion Tank	G Series	E Series
8	Transfer to Final Mixer/Lengthening Tank	G Series	E Series
9	Transfer to Stocking Tank	G Series	E Series
10	Transfer to Small Tanks	G Series	E Series
11	Transfer to Transports	G Series	E Series
12	Transfer to Drums	G Series	E Series



## SOLVENTS

- Petroleum Hydrocarbons
  - Aliphatics, aromatics, alcohols, ketones and esters
- Chlorinated Hydrocarbons
  - Methylene chloride, 1,1,1-trichloroethane
- Water
  - Deionized
- Oxygenated
  - Glycol ethers: 2-ethoxyethanol, 2-butoxyethoxethanol
- Terpene
  - Turpentine, pine oil, dipentane

## ADDITIVES

- Thickeners/Rheology Modifiers
- Surfactants
- Biocides
- Defoamers
- Co-solvents
- Catalysts
- Flame Retardants
- Friction Reducers
- Plasticizers
- Thickeners



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