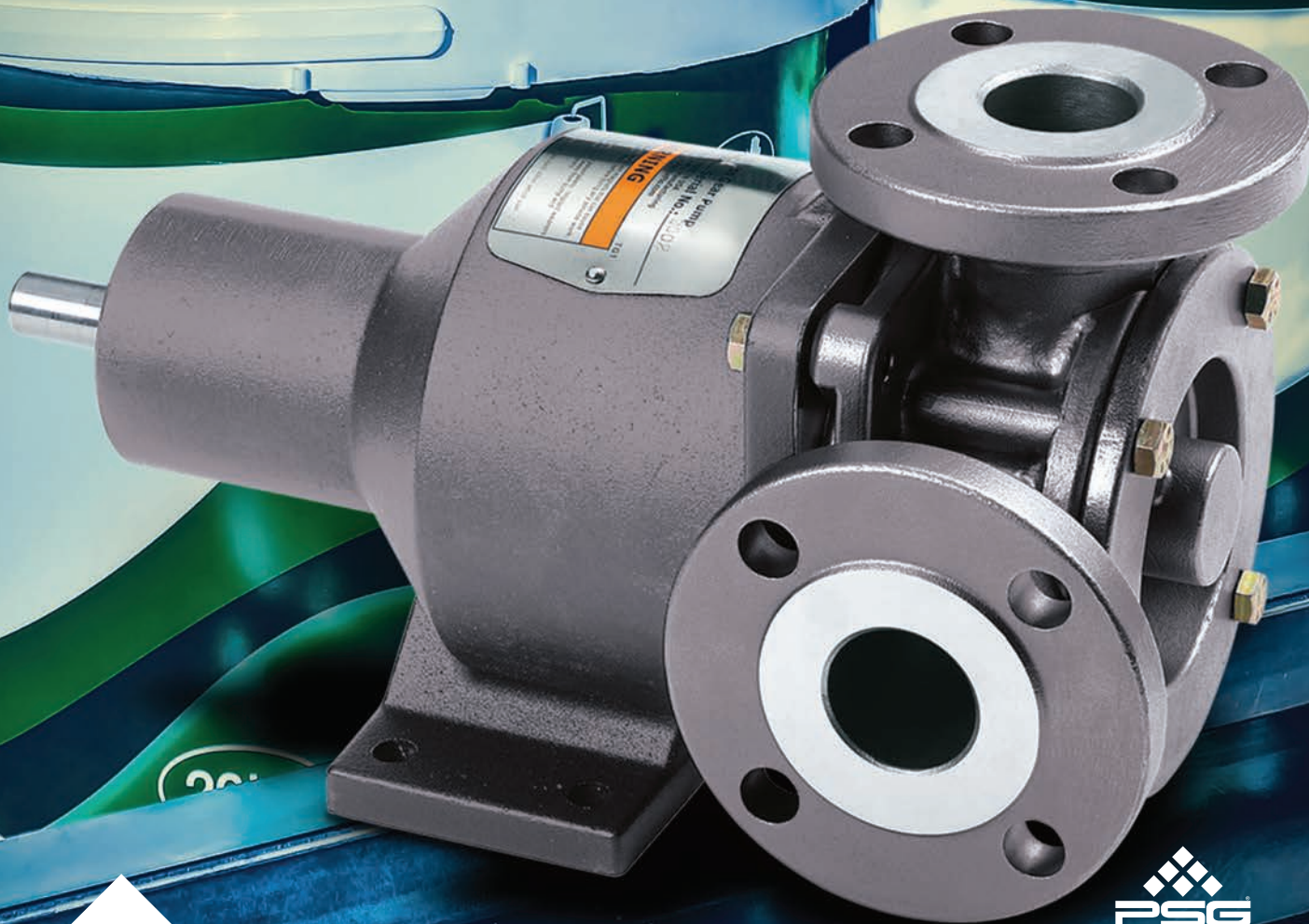


Paint & Coatings

INTERNAL GEAR PUMPS | PRODUCT BROCHURE



Blackmer

Where Innovation Flows



Blackmer Gear Pumps for Paint & Coatings Applications

Paint & Coatings manufacturers are looking to increase plant profitability by controlling cost, optimizing uptime, and complying with stringent regulations. Blackmer® 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

Blackmer Gear Pumps overcome 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)

BLACKMER GEAR PUMP 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

BLACKMER GEAR PUMP 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, surrounding communities and the environment

BLACKMER GEAR PUMP SOLUTION

E Series:

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



Cost Control

CHALLENGE

- Raw Materials
- Energy
- Capital Investment
- Maintenance

BLACKMER GEAR PUMP 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

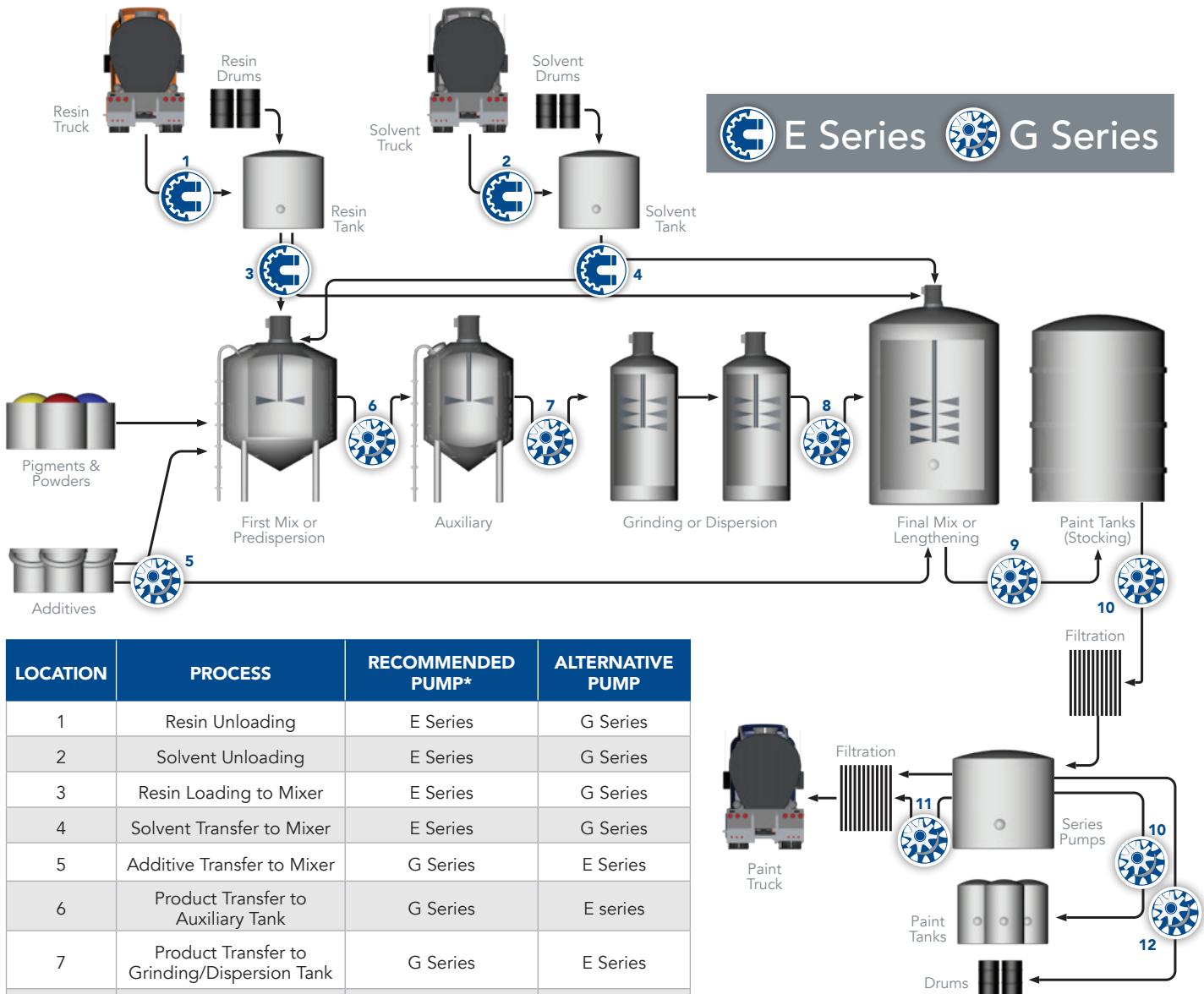
Three types of fluids are most commonly handled in Paint & Coatings manufacturing:

BINDERS

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

Process Map

Blackmer® 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-butoxyethanol
- 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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