SPM Liquid Filler Selection Chart

Filler Type	SPM PF20-CA Precision Piston	SPM LF90CA / LF90ST Overflow	SPM MP90-NG Metering Pump (Gear Pump)	SPM FBW Fill-By-Weight System
Filling Principle	Volumetric piston	Level (overflow)	Volumetric (positive displacement gear pump)	Gravimetric (fill-by-weight)
Fill Control	Volume-based	Level-based (cosmetic fill)	Volume-based	Weight-based (scale feedback)
Best For Product Type	Low to very high viscosity	Low viscosity liquids	Low to high viscosity liquids	Variable density or bulk liquids
Typical Applications	Creams, gels, sauces, oils, slurries	Water, beverages, corrosive chemicals,	Chemicals, oils, syrups, solvents	Chemicals, paints, food oils, bulk liquids, slurries
Fill Accuracy	±0.5% typical	Depends on container consistency	High volumetric accuracy	Good (1%) depending on system
Viscosity Range	Very wide (thin → very thick)	Low- Medium viscosity	Moderate to high viscosity	Wide (independent of viscosity/density)
Foaming Products	Excellent (with diving nozzles)	Fair	Excellent (with diving nozzles)	Good (controlled flow + scale feedback)
Container Types	Bottles, jars, tubes	Rigid containers (uniform appearance)	Plastic or rigid containers	Pails, jugs, bottles, drums
Fill Range	1 mL – 1 L (more with multi-stroke	100 mL – 10 L	Application dependent	Broad (lab scale → bulk containers)
Speed	High	Moderate	High	Moderate (depends on heads)
Key Advantage	Best all-around versatility, XP ready	Perfect visual fill consistency	High-speed precision across viscosities	Most economical way to fill large volumes
Limitations	Mechanical volume changes	Not accurate by volume	Higher cost than overflow	Not effective for smaller containers