ESCO FFH System

Filler Fed Head

ESCO’s patented mixing technology is a unique improvement in the production of filled systems.

Filler Fed (FFH) Mix Head

Edge-Sweets Company
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ESCO FFH System

Filler Fed Head

ESCO's FFH system overcomes the challenges of costly bulk storage and pre-blending facilities along with the problems of settling, viscosity increases, separation and agglomeration which have all contributed to the limits of batch blend systems. Fillers are metered and mixed continuously without batching.

Blending

Advantages:

- Shear rate independent of filler feed rate insures complete and thorough mixing
- Filler ratios can be changed on the fly
- Blends of fillers can be utilized
- Filler types can be changed on the fly
- High filler ratios are possible
- Total output rates can be changed on the fly without altering filler ratio
- Limited residence time prevents separation, agglomeration, and time for filler to react adversely with the liquids
- Minimum particle damage
- Virtually any free flowing filler has the possibility of use in the FFH.

High volumes of dry filler can be added to the system. We have processed the following fillers:

- Reground scrap rubber and rigid and flexible PU
- Cellulose
- Carbon black
- Expancel micro spheres
- Rubber tire crumb
- Phosphorescent minerals
- Chopped EVA scrap
- Mineral fillers such as calcium carbonate, silicon carbide, silica sand, aluminum hydroxide, alumina, phosphorescent minerals, barium sulphate, and abrasive particles like garnet and silicon carbide
- Metallic particles
- Glass micro balloons, peat moss, expandable graphite, perlite, mica, fly ash, melamine (ground and unground),

Features

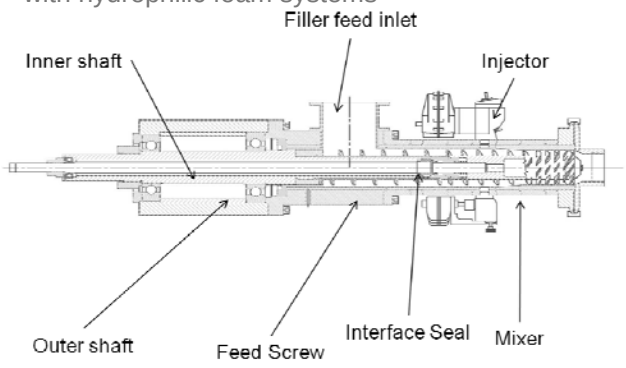
- Capable of handling multi-component liquid streams.
- Polyurethanes, epoxies, and polyesters can be processed.
- Can be used as a pre-blender or final mixer, but there's no need to pre-blend; the Filler Fed mix head is designed for incorporating a wide range of solid fillers directly into multi-component systems.
- One or two filler streams can be processed.
- Each chemical stream has its own recirculation/ calibrate valve at the head.
- Model 2.75 FFH handles multiple chemical and filler streams.
- Model 3.25 FFH system is equipped with a gravimetric feeder to meter the filler.
- Nominal volumetric output rates:
  - 2.75 FFH nominal maximum output of 7 gallons/min (28.5 liters/min)
  - 3.25 FFH nominal maximum output of 12 gallons/ min (53 liters/min)

Optional

Optional computer control stores recipe for easy set-up. Flow meter control on pump drives is also available. ESCO tailors the system to meet your needs.

Inside the FFH

- Filler is introduced into the feed screw and transferred to the mixing section
- Liquid streams are injected into the filler stream at the top of the mixing section
- Solvent is introduced above the mixing section for thorough clean out
- Slide gate valve is available for light fillers to seal off feeder from solvent air stream
- FFH is equipped with a silicon carbide/tungsten carbide hard surface mechanical seal for long life in abrasive applications
- Inner wall of FFH can be lined with UHMW-PE liners for wear resistance or chrome/stainless steel for use with hydrophilic foam systems



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