



Meter Mix Dispense

| BARREL, DRUM & PAIL EMPTYING |



RAM EMPTYING &
TRANSFER SYSTEMS



Fluid Research RAM emptying and transfer systems provide accurate dispensing from barrels, drums and pails in standard and custom sizes.

We use progressing cavity pump technology to provide the most efficient dispense possible, with continuous flow, no pulsation and low shear.

We specialize in highly viscous materials and our RAM mounted pumps are used with open-top, plain or channel drums, barrels and pails. The RAM systems can supply the material directly to one and two-part meter mix systems, manual dispensing systems and/or booster pump stations.

The pump and follower plate manage highly viscous products over 1 million cPs. A wiper ring seals the inner walls of the drum to remove the maximum amount of material resulting in less than 1% waste.

Fluid Research RAM systems are easy to install and integrate into robotics or an automation cell. The pail rams may be table mounted and adapted to almost any work environment. Variable speed AC motors mean you can configure the flow, automatically or manually, to any rate needed. Our RAM systems ensure smooth, high speed dosing of either abrasive or non-filled materials. Safety systems include a valve that will lock the cylinder in place in case of air pressure failure, not allowing the pump to fall under its own weight.

Typical industrial applications include dispensing epoxies, silicones, sealants, adhesives, paints, polymers and polyurethanes. In the food industry we can transfer fruit and vegetable purees, concentrates and pastes, peanut butter, honey, jams, butter, meat, dough, fats and more. Applications in the pharmaceutical and cosmetic industries include transferring mascara, petroleum jelly, creams, lotions, toothpaste, lip gloss, waxes and glycerine among other products.



5 Gallon Drum

Accurate and Efficient Conveyance of Highly Viscous Materials

With Fluid Research RAM systems, you can convey highly viscous materials reliably and accurately. In the process, you reduce waste, clean up time, manual material handling, and potential health and safety hazards while increasing operating efficiency and your bottom line.

Standard Features

- Available for custom sized containers as well as standard sizes including 1, 5 and 55 gallon and 20, 50 and 200 liter configurations
- Pulsation-free
- Variable speed control for specified flow rate
- Dual pressure pneumatic raising and lowering of pump and follower plate
- Integral anti-drop safety valve
- Pressure up to 350 psi
1 million cPs plus <1% residual material
- Low level detection
- Variable AC drive
- Barrel/drum/pail de-airing valve

Available Options

- Pressure sensor feedback control
- Dosing control
- Heated dispense lines
- Drum/pail heating system
- All stainless components for food grade dispensing

Fluid Research RAM system highlights:

- ▼ Pump down motion requires minimal downward pressure on the pumped material resulting in clean and complete container emptying
- ▼ No mess and less than 1% of material remains in standard pail or drum
- ▼ Metering, dosing and dispensing applications use our exclusive Smart Ram™ control system to assure precise fluid control
- ▼ Systems are easily adapted to cartridge filling, robotic dispensing, form in place gaskets, or your unique process
- ▼ Volumetric pumping at low discharge pressure creates almost no shear to fluid
- ▼ Positioning guides allow efficient drum or pail changes
- ▼ Low life cycle costs combined with easy serviceability



5 Gallon & 30 Liter Pail

About Fluid Research

Fluid Research is a recognized leader in the engineering and manufacturing of meter mix and dispense equipment for both single and plural component reactive materials including epoxy, polyurethanes, silicones, acrylics, adhesives, paints, pastes, abrasive materials, pharmaceuticals, food products and more.

FR equipment is used in potting, encapsulation, coating, resin transfer molding (RTM), structural bonding, gasket forming, filter manufacturing, doming and sealing operations, and many other applications. FR serves a variety of industries including electrical, electronic, medical/pharmaceutical, aerospace, marine, white goods, leisure, food, communications, automotive and other markets.

FR customers range in size from Fortune 500 customers to small, niche market organizations. FR specializes in both standardized equipment as well as highly customized systems for complex applications. Contact us for more information or a quote.

