

## HYDRAULIC RAM MIXERS

The Hydraulic Ram (HR) Mixers are designed and built for full scale production. Its adjustable mixer height allows for a variety of batch sizes and viscosities.

The high fluid velocities make it ideal for creating homogeneous suspensions and typical emulsions from 1- 10 microns.

### Standard Features:

- High quality stainless steel
- #4 Sanitary Polish (approx. 32 Ra)
- Clean-In-Place (CIP) design
- Dry running lip seal
- Can be operated dry
- No submerged bearings or bushings
- Interchangeable mixing heads
- Hydraulic ram piston with infinite mixer height adjustment
- Certified UL 508A, 698A/B/C shop for integrating electrical controls, PLC touch screen displays, and ingredient automation
- Interlocking safety switches

### Optional Features:

- Stainless Steel\* or XP Motor
- Higher electro-polish finish available
- Single or double mechanical seals
- Can be fitted with special heads
- Dual or triple shaft designs
- Decks and platforms associated stairs and railings
- Rotating mixing assembly for multiple tanks
- Vacuum rated vessels
- Tanks and vessels for use with mixers



\*Available up to 20HP



## MIXER HEADS

The design of each Turbon head simultaneously draws product from both the top and bottom of the batch while dispersing product rapidly throughout the tank. The unique mixing head provides great horizontal and vertical batch flow, ensuring that the product will be evenly sheared and dispersed.

**HEAD A** The model "A" head is designed for rapid powder dispersion, dissolution, and emulsions. It features a cage-like shear element which helps disperse agglomerated particles and standardizes the consistency of the batch.

**HEAD B** The model "B" head is designed for applications such as, mixing salad dressings, thick emulsions, or other viscous products. It features a large diameter, toothed disk, which enhances the flow characteristics of the batch.

**HEAD C** The model "C" head is designed for applications where high flow and lower shear are required. It features a smooth disk which can easily blend shear sensitive products.

## Ram Mixer Height and Standard Batch Sizes

Head Size	Max Batch Size (Gal.)	HP Range	Mixer Head Down <sup>1</sup>	Mixer Head Up <sup>2</sup>	Shaft Clearance <sup>3</sup>
HR-03	300	3 - 15	16"	56"	26"
HR-04	500	5 - 20	16"	68"	26"
HR-05	1,000	10 - 30	19"	74"	33"
HR-06	2,000	20 - 60	30"	90"	37"
HR-07	4,000	50 - 125	29"	98"	43.5"
HR-08	8,000	125 - 200	32"	118"	53.5"
HR-10	12,000	200 - 300	32"	130"	54"

<sup>1</sup> Distance from work head to floor when ram mixer is down.

<sup>2</sup> Distance from work head to floor when ram mixer is up.

<sup>3</sup> Distance from center of mixer shaft to front of ram.

Standard Scott Turbon® HR Mixer models along with typical volumes and horsepower requirements. Information provided for reference only.

## TYPICAL MIXING

### Applications

- Dispersion
- De-agglomeration
- Dissolution
- Suspension
- Reaction acceleration
- Particle size reduction
- Homogenization
- Emulsification

### Industries

- Food & Beverage
- Pharmaceutical & Biotech
- Cosmetic & Personal Care

### Advantages of using hydraulic ram mixers:

- Floor mounted or portable
- Use with multiple tanks
- Simplifies cleaning and maintenance
- Ability to secure portable tanks to mixer for safety
- Meets 3-A Sanitary Standards
- Process batch sizes from 75 to 12,000 gallons
- Horsepower ranges from 3 to 250

