

# HIGH PERFORMANCE INDUSTRIAL MIXERS B-SERIES



ENGINEERED MIXING TECHNOLOGY

# MIX WITH CONFIDENCE

## High-performance Mixers

Brawn Mixers are engineered to meet the most demanding applications, from lab-scale to production-scale integrated systems. Brawn Mixer's experience provides solutions that are effective, reliable, and cost-competitive.

Built for any environment, Brawn Mixers can handle many tank configurations with complex process requirements. Whether it's blending, solids suspension, gas dispersion, heat transfer, or high viscosity, Brawn Mixer can meet the challenge.

We're ready to help you select the ideal products, provide technical expertise, and ensure smooth start-up, all to improve your productivity and process performance.

- Mix low-viscosity volumes through 5,000-plus gallons
- Drives through 5 HP available
- Multiple mounting options including a horizontally and vertically adjustable clamp design.
- Impellers specifically designed for your unique application with a wide selection of metal alloys and corrosion/abrasion-resistant coatings to withstand a broad spectrum of chemical compounds and slurries.
- Custom mixing systems:
  - Tanks
  - Controls
  - Support Structures
  - Installation, start-up and commissioning supervision
  - Pumps and Piping



Clamp Mount, Open Tank

## Our Experience Runs Deep

Our collaborative approach to solving your mixing challenges is based on a proven track record of experience in delivering highly engineered, reliable products and technical expertise.

Every mixer we manufacture represents thousands of applications in a variety of industries, including:

- **Chemical Processing**
- **Fermentation/Distillation**
- **Food, Beverage, and Nutraceuticals**
- **Health, Beauty, and Cosmetics**
- **Paint and Coatings**
- **Pharmaceutical and Life Science**
- **Water and wastewater treatment**



Beam Mount, Open Tank



# B-SERIES MIXERS

- Designed for continuous service
- Typical mixer life exceeds 10 years of service
- Can be mounted angular off-center and achieve effective mixing without baffles
- A variety of mounting flanges are available including Tri-Clamp, ANSI, DIN or custom
- Right-angle gear drives for low headroom or tight space requirements

## B-SERIES FEATURES

### Direct Drive – Small Volume Mixing

- High-strength, washdown duty aluminum housing
- Drive shaft independently supported with two sealed, permanently lubricated bearings
- Oversized bearings for long mixer life
- Motor and drive shaft flexibly coupled for superior shock load protection
- Electric motor: 1/3 to 5HP standard. Washdown and inverter duty (1/2 to 2HP), 1750, 1150 and 850 RPM options. Explosion-proof available.
- Air motor available: washdown duty, variable speed, dry-running or lubricated

### Gear Drive – Large Volume Mixing

#### Direct Drive features plus:

- High-strength, washdown duty aluminum gear housing
- Parallel and right-angle configurations
- 350 RPM standard output speed. 44 to 435 RPM options available
- Gear drive and drive shaft flexibly coupled for superior shock load protection

#### Gearing

- Helical or Worm configurations

#### Lubrication

- Food grade standard, lubed for life

#### Output Shaft

- Solid high-strength steel
- Gearbox shaft sealed by a double lip FKM oil seal

## PLATE MOUNT

For open tank configurations



## CLOSED TANK

For mechanical seal, stuffing box or lip seal designs

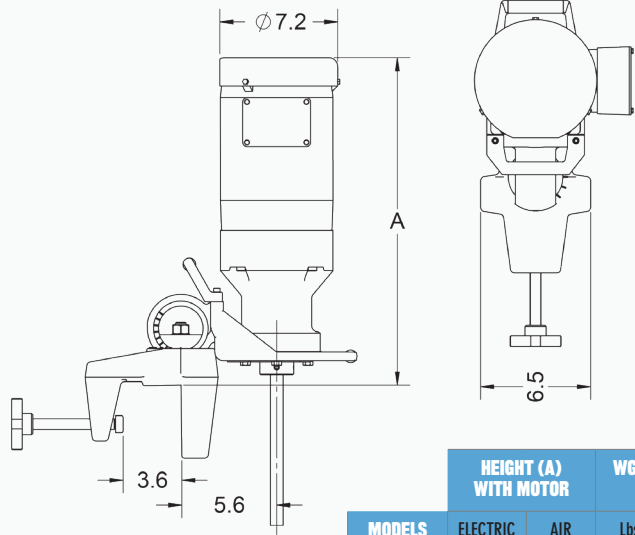


# OPEN TANK CONFIGURATIONS

- Ideal for open-tops or lids with close-clearance shaft opening

## Clamp Mount

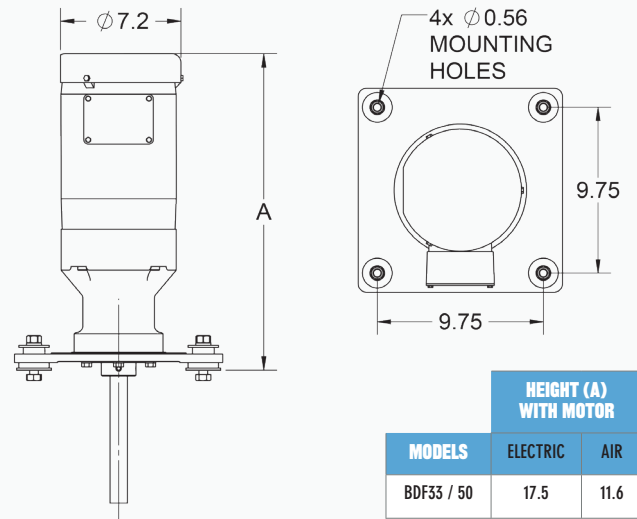
DIRECT DRIVE



MODELS	HEIGHT (A) WITH MOTOR		WGT Lbs
	ELECTRIC	AIR	
BD33 / 50	18.5	12.6	46 / 48
BD75	18.5	13.2	51
BD100 / 150	19.4	13.2	56 / 60
BD200	20.4	14.6	67
BD300	21.2	15.8	75

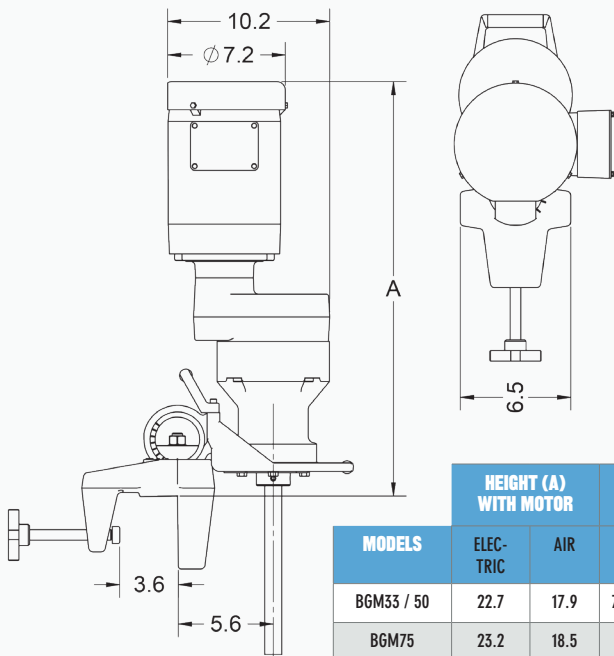
WGT is complete electric mixer less shaft & impeller(s)

## Plate Mount



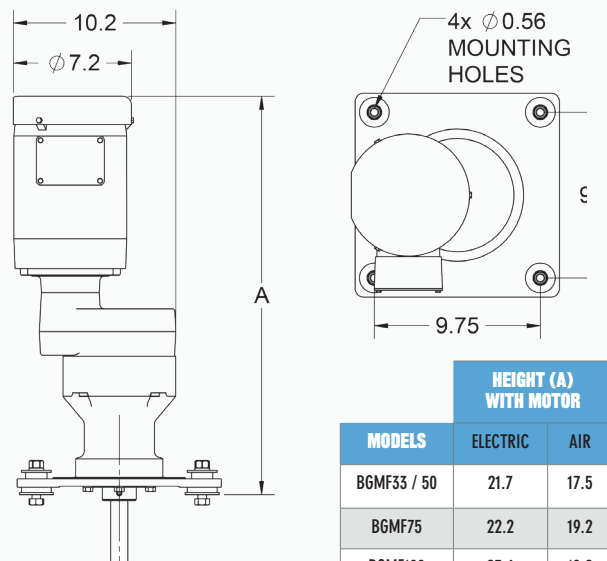
MODELS	HEIGHT (A) WITH MOTOR	
	ELECTRIC	AIR
BDF33 / 50	17.5	11.6
BDF75	17.5	12.2
BDF100 / 150	18.4	12.2
BDF200	19.4	13.6
BDF300	20.2	14.8
BDF500	22.6	14.8

GEAR DRIVE



MODELS	HEIGHT (A) WITH MOTOR		WGT Lbs
	ELECTRIC	AIR	
BGM33 / 50	22.7	17.9	77 / 84
BGM75	23.2	18.5	87
BGM100	24.6	18.5	87
BGM150	25.1	18.5	91
BGM200	26.1	19.9	99

WGT is complete electric mixer less shaft & impeller(s)



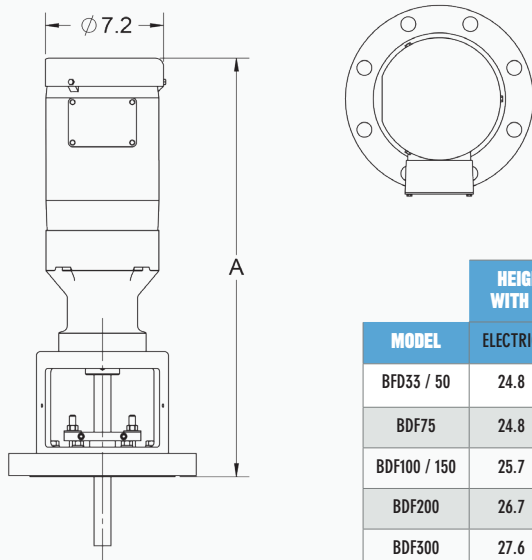
MODELS	HEIGHT (A) WITH MOTOR	
	ELECTRIC	AIR
BGMF33 / 50	21.7	17.5
BGMF75	22.2	19.2
BGMF100	23.6	19.2
BGMF150	24.1	20.8
BGMF200	25.1	20.8
BGMF300	25.6	22.0
BGMF500	27.0	22.0

# CLOSED TANK CONFIGURATIONS

- Cost effective configuration for low-pressure sealed tank applications.
- 15 psi standard. Higher pressures available.
- Packing material options: food-grade, pharmaceutical, chemically resistant, high-temperature.

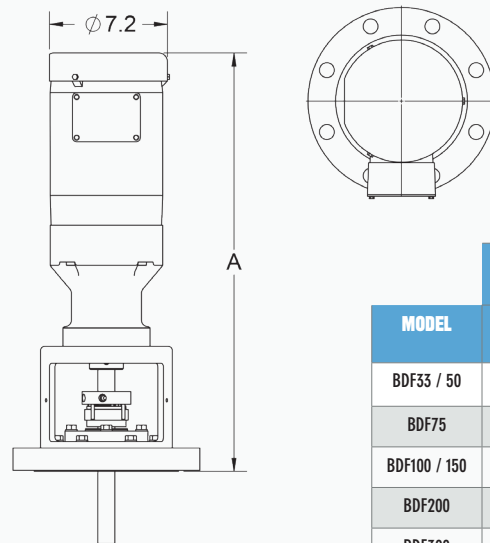
- Single seals: 150psi / 250F at 350 rpm standard.
- Double seals: 250psi / 300F at 350 rpm standard. Others available.
- Lubrication systems available where required.

## Low Pressure Stuffing Box (LPSB)



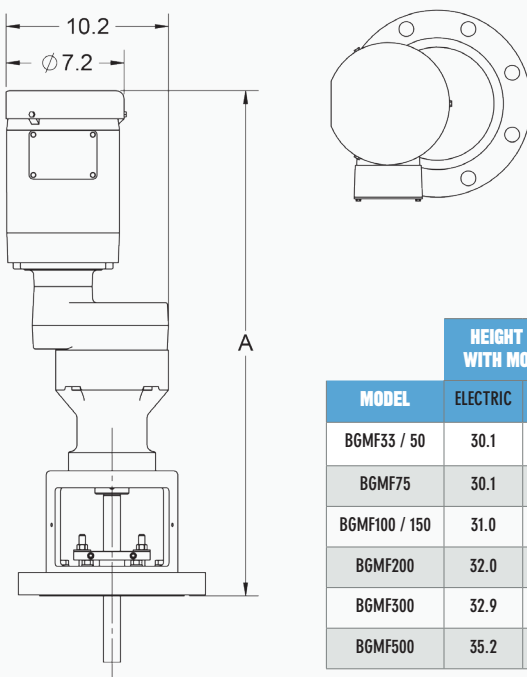
MODEL	HEIGHT (A) WITH MOTOR	
	ELECTRIC	AIR
BFD33 / 50	24.8	18.9
BDF75	24.8	19.5
BDF100 / 150	25.7	19.5
BDF200	26.7	20.9
BDF300	27.6	22.1
BDF500	29.9	22.1

## Mechanical Seal

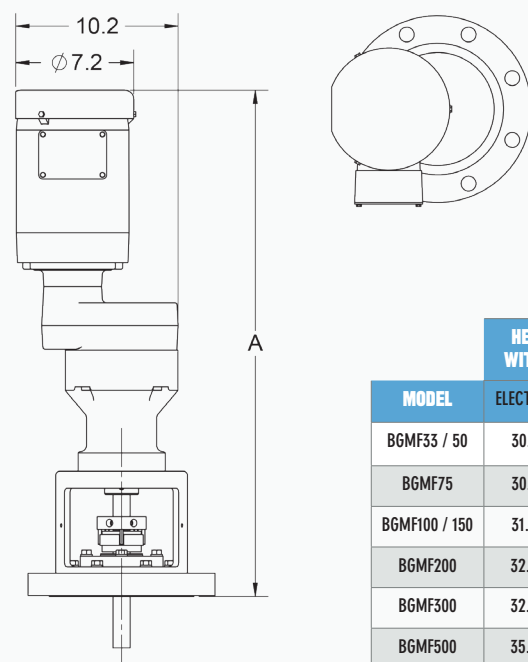


MODEL	HEIGHT (A) WITH MOTOR	
	ELEC-TRIC	AIR
BDF33 / 50	24.8	18.9
BDF75	24.8	19.5
BDF100 / 150	25.7	19.5
BDF200	26.7	20.9
BDF300	27.6	22.1
BDF500	29.9	22.1

DIRECT DRIVE



MODEL	HEIGHT (A) WITH MOTOR	
	ELECTRIC	AIR
BGMF33 / 50	30.1	24.2
BGMF75	30.1	24.8
BGMF100 / 150	31.0	24.8
BGMF200	32.0	26.2
BGMF300	32.9	28.4
BGMF500	35.2	28.4



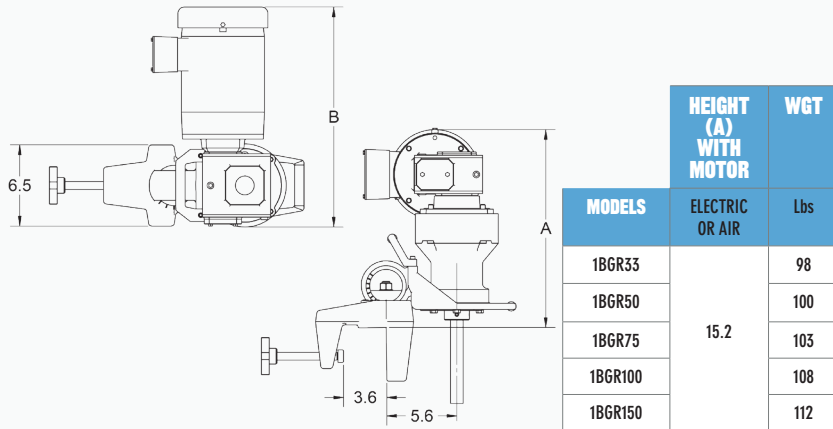
MODEL	HEIGHT (A) WITH MOTOR	
	ELECTRIC	AIR
BGMF33 / 50	30.1	24.2
BGMF75	30.1	24.8
BGMF100 / 150	31.0	24.8
BGMF200	32.0	26.2
BGMF300	32.9	28.4
BGMF500	35.2	28.4

GEAR DRIVE

# RIGHT ANGLE CONFIGURATIONS

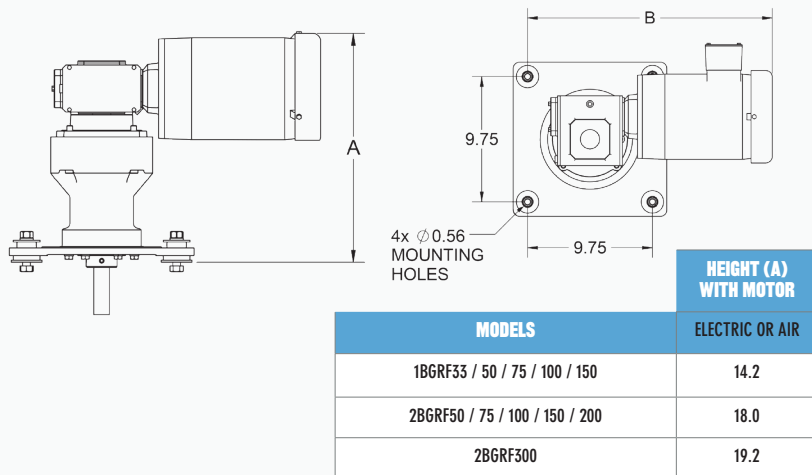
- For confined-space applications

## BGR Clamp Mount

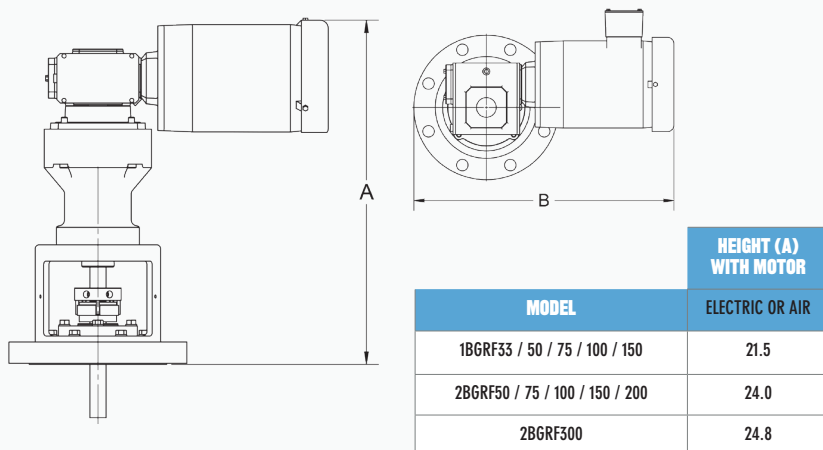


WGT is complete electric mixer less shaft & impeller(s)

## BGR Plate Mount



## BGR Mechanical Seal



## OPTIONS



Quick Connect Drive



Drum Lid Mount



Control Panels

# WE GO BEYOND MIXERS

Many applications require more than just a mixer; they require big-picture thinking and support. Here's how we can help you achieve your goals:

## Applications Engineering Support

The Brawn Mixer Applications Support Group can offer a fresh perspective on your application using sophisticated analytical tools to help you solve any mixing challenge, from routine to next generation.

### ● Lab Testing

We have an integrated wet and dry lab facility that allows us to test viscosity, analyze particle distribution and conduct mixing studies. National Bulk Equipment (NBE), a renowned leader in industrial material handling, shares the facility enabling an effective integration of wet and dry systems testing.

### ● Scale-up Designs

For pilot and bench systems, our application engineers can provide designs needed to incorporate whole-line process operations for scale-up.

### ● Computational Fluid Dynamics

Brawn Mixer uses computational fluid dynamics (CFD) technology to effectively model agitation in a wide variety of impeller and vessel configurations. Tank and mixer geometry are defined through solid modeling, and rotating frame (steady-state) or sliding mesh (transient) analysis is used to evaluate mixing performance based on fluid properties. Typical deliverables are velocity vector mapping (figure 1), mass fraction analysis (figure 2), and/or mixing simulation videos.

## Project Management

For custom-engineered projects, you'll work with a single point of contact from the Brawn Mixer Project Management Group who will work closely with you to ensure optimum product selection, and on-time and on-budget delivery.

We're committed to working with you to reduce costly and time-consuming slow start-ups and production inefficiencies.

### ● Integration and Control Services

For organizations with a high degree of process automation, we offer system integration including mixers, tanks, mounting structures, pumps, and comprehensive controls packages based on your entire process upstream and downstream.

### ● Compliance Documentation Support

Our best-in-class technical writing team can work with you to document performance, quality, and compliance. Brawn Mixer has experienced technical writers on staff to meet the stringent documentation requirements for FDA and other compliance-regulated industries.

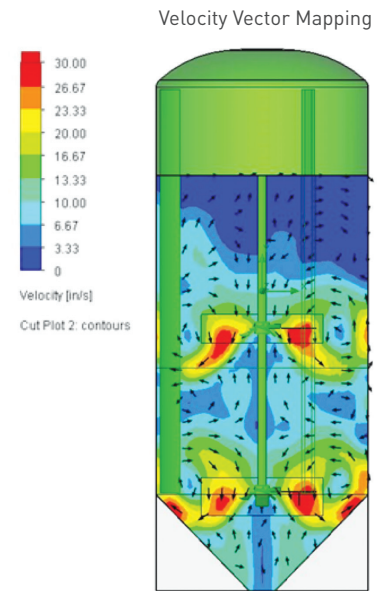


Figure 1

Mass Fraction Analysis

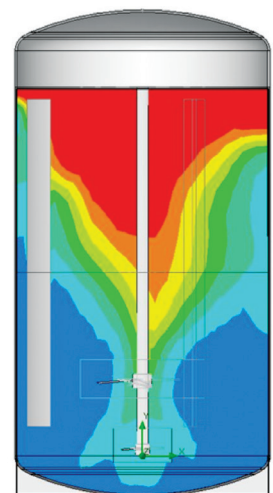


Figure 2



## ABOUT BRAWN MIXER

With performance-driven expertise in process engineering and mechanical design, Brawn Mixer has been manufacturing high-quality industrial mixers and mixing systems for liquids since 1993. Located in Holland, Michigan, we bring the advanced products, technical knowledge, and operational support in industrial liquid mixing you need to succeed.



### We Are an NBE Company

With the additional support of our of our sister company, National Bulk Equipment, you can also take advantage of extended services for maximizing total line throughput from installations with engineered structural design to automation for process control, communication, sensing, monitoring, and reporting.

**[nbe-inc.com](http://nbe-inc.com)**



**ENGINEERED MIXING TECHNOLOGY**

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