

OVERHEAD MIXERS

Overhead Mixers Selection Guide



Model	101	102	105	103	103A	103X
Horsepower of Motor	1/75	1/75	1/80	1/12	1/12	1/12
Type of Speed Control	Electronic	Electronic	N/A - On/Off Switch	Electronic	Electronic	N/A - On/Off Switch
Number of Output Shafts	1	2	1	1	1	1
Speed Range, Direct Drive	500 to 7500rpm	500 to 7500rpm	1550rpm	1000 to 7500rpm	1000 to 7500rpm	7500rpm
10:1	N/A	50 to 750rpm	N/A	N/A	N/A	N/A
60:1	N/A	N/A	N/A	N/A	N/A	N/A
Torque, Direct Drive	0.15 in-lbs	0.15 in-lbs	0.5 in-lbs	0.7 in-lbs	0.7 in-lbs	0.7 in-lbs
10:1	N/A	1 in-lbs	N/A	N/A	N/A	N/A
60:1	N/A	N/A	N/A	N/A	N/A	N/A
Electrical Specifications, Volts	120 AC	120 AC	120 AC	120 AC	120 AC	120 AC
Amps	0.33	0.33	0.77	1.3	1.3	1.3
Overall Usage Rating	Light	Light	Light	Light-Medium	Light-Medium	Light-Medium
Type of Chuck	Collet, Model 192	Collet Model 193	Collet, Model 192	Collet Model 193	Collet Model 193	Collet Model 193
Recommended Paddles	150, 153A, 155, 165	151, 153B, 156, 161, 166	150, 153A, 155, 165	151, 153B	151, 153B	151, 153B



Model	134-2	138	4136	409
Horsepower of Motor	1/18	1/8	1/6	1/4
Type of Speed Control	Transi-Stir	Transi-Stir	Transi-Stir	Transi-Stir
Number of Output Shafts	3	2	2	1
Speed Range, Direct Drive	500 to 7500rpm	500 to 7500rpm	1000 to 5000rpm	50 to 500rpm
10:1	50 to 750rpm	50 to 750rpm	100 to 500rpm	N/A
60:1	10 to 125rpm	N/A	N/A	N/A
Torque, Direct Drive	0.5 in-lbs	1.2 in-lbs	1.5 in-lbs	25 in-lbs
10:1	4.7 in-lbs	12 in-lbs	15 in-lbs	N/A
60:1	15 in-lbs	N/A	N/A	N/A
Electrical Specifications, Volts	120 AC	120 AC	120 AC	120 AC
Amps	1.1	2.2	2.5	1.8
Overall Usage Rating	Medium-Heavy	Heavy	Heavy	Heavy
Type of Chuck	Adjustable, Model 191D	Collet, Model 193 & Adjustable, Model 191D	Collet, Model 193 & Adjustable, Model 191D	Adjustable, Model 191L
Recommended Paddles	All	All	All	All

Three components that make up an Overhead Mixer system:

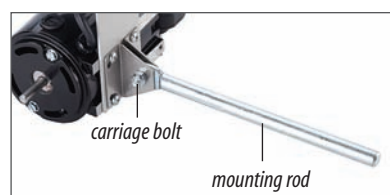
1. Motor Unit



2. Mixing Paddle



3. Support Stand and Holder



All mixers include an 8" (20.3cm) **mounting rod with carriage bolt** and wrench for mounting motor to support stands, except the model 409 (429) mixer that only includes an 8" (20.3cm) mounting rod. An additional holder is required to attach the motor's mounting rod to a support stand. Support stands and holders sold separately.



133	104	104A	104X	107	107SC	134-1
1/12	1/18	1/18	1/18	1/30	1/30	1/18
Transi-Stir	Electronic	Electronic	N/A - On/Off switch	N/A - On/Off switch	Electronic	Transi-Stir
1	2	2	2	1	1	2
500 to 750rpm N/A N/A	1000 to 750rpm 100 to 750rpm N/A	1000 to 750rpm 100 to 750rpm N/A	750rpm 750rpm N/A	1600rpm N/A N/A	100 to 1600rpm N/A N/A	500 to 750rpm 50 to 750rpm N/A
0.7 in-lbs N/A N/A	0.5 in-lbs 4.7 in-lbs N/A	0.5 in-lbs 4.7 in-lbs N/A	0.5 in-lbs 4.7 in-lbs N/A	1.3 in-lbs N/A N/A	1.3 in-lbs N/A N/A	0.5 in-lbs 4.7 in-lbs N/A
120 AC 1.3	120 AC 1.1	120 AC 1.1	120 AC 1.1	120 AC 1.2	120 AC 1.2	120 AC 1.1
Light-Medium	Light-Medium	Light-Medium	Light-Medium	Medium	Medium	Medium
Collet, Model 193	Collet, Model 193	Collet, Model 193	Collet, Model 193	Collet, Model 193	Collet, Model 193	Adjustable, Model 191D
151, 153B	All 5/16" Accessory Shafts *	All 5/16" Accessory Shafts *	All 5/16" Accessory Shafts *	151, 152, 153B, 156, 166	151, 152, 153B, 156, 166	All

* Be sure the accessory shaft is 5/16" in diameter to fit Model 193 Collet Chuck.

How to Select an Overhead Mixer

Review the following information to help you select the appropriate motor and accessories for your unique applications.

Paddle Selection

- Viscosity of the sample
- Volume of the sample
- Size and shape of mixing vessel and vessel opening
- Speed needed to achieve proper mixing
- Paddle depth for effective mixing
- Paddle material: stainless steel, PTFE, or glass; may be dependent on the nature of the material being mixed
- Fluid flow: axial, radial

Motor Selection

- Mixing speed
- Viscosity
- Duty Rating:
 - Light Duty:
 - Ideal for low viscosity materials
 - Volumes under 10 gallons
 - Medium Duty:
 - Multi-purpose units designed for various mixing tasks
 - Gear reduction shaft provides more torque for higher viscosity mixing
 - Direct drive shaft is ideal for lower viscosity and high speed mixing
 - Heavy Duty:
 - Designed for high viscosity applications or large batch mixing
 - Gear reduction provides the torque required for more difficult mixing applications

Speed Control

- Basic:
 - Provides variable speed control throughout the entire speed range
 - Available top mounted or remotely attached
- Standard:
 - Provides stepless, variable speed control
 - Maintains set speed even under changing viscosity or load

Support Stands and Holders

- Support stands are not included with motors
- Available in a variety of lengths
- Standard Holder supports the supplied rod for mounting most mixers
- Heavy-Duty Holder accommodates a wider range of sizes and is sturdier thus decreasing vibration

Chucks

- Adjustable Jacobs style:
 - Not recommended for high speed mixing
- Precision Collet style:
 - Used when motor shaft and accessory shaft are the same diameter
 - Recommended when running at higher speeds
- Glass Rod:
 - Required chuck when using glass mixing rods
 - Designed to eliminate wobble and vibration common with glass mixing rods
 - Nylon inserts help maintain the integrity of glass mixing rods

OVERHEAD MIXERS

Light Duty Mixers

- General purpose mixers
- Economical, compact, and durable
- Up to 7500rpm

For low viscosity mixing. These light duty mixers offer low torque for general purpose mixing and have a continuous duty rating. Mixers include collet chuck and 8" (20.3cm) mounting rod with carriage bolt and wrench for mounting motor to support stands. **Support stands and holders sold separately.**



Model 101

- Top mounted Basic Speed Control
- Compact and economical for light duty mixing
- Offers a single shaft, direct drive motor
- Mixes up to five gallons of water

Model 102

- Top mounted Basic Speed Control
- Provides increased torque with 10:1 gear reduction
- Offers the capability of two mixing shafts for multiple applications and added versatility
- Mixes up to two gallons of light weight oils

Model 105

- Economic, light duty batch mixer without speed control offers a fixed speed of 1550rpm.
- An internal overload feature shuts down motor when it becomes too hot.
- Mixes five gallons of water.
- Adjusta-Speed Control (part number 115) upgrade available for this model (Sold separately)

Specifications

Model	101	102	105
Horsepower	1/75	1/75	1/80
Speed Range, Direct Drive	500 to 7500rpm	500 to 7500rpm	1550rpm
10:1	N/A	50 to 750rpm	N/A
Torque, Direct Drive	0.15 in-lbs	0.15 in-lbs	0.5 in-lbs
10:1	N/A	1 in-lbs	N/A
Electrical	120 volt, 0.33 amps	120 volt, 0.33 amps	120 volt, 0.77 amps
Shaft Size	1/4" (6.4mm)	5/16" (7.9mm)	1/4" (6.4mm)
Chuck Type	Collet	Collet	Collet
Overall Dimensions (L x W x H)	5 x 4.5 x 8" (12.7 x 11.4 x 20.3cm)	6.5 x 8.5 x 7" (16.5 x 21.6 x 17.8cm)	5 x 4.5 x 4" (12.7 x 11.4 x 10.2cm)
Ship Weight	4.6lbs (2.1kg)	5.1lbs (2.3kg)	4.6lbs (2.1kg)
Part Number	101	102	105
Price	\$317.00	\$440.00	\$220.00

- Ideal for high speed dispersion up to 7500rpm
- Direct drive
- Continuous duty

Compact design for low torque, high speed mixing. Perfect units for low viscosity mixing. Each is configured with different speed control options. Mixers include collet chuck and 8" (20.3cm) mounting rod with carriage bolt and wrench for mounting motor to support stands. **Support stands and holders sold separately.**



Model 103

- Table mounted Basic Speed Control
- The speed control is remotely attached by a 42" (107cm) cord
- This control can be placed on a counter top or shelf close to the stirring apparatus

Recommended accessory shafts:
151, 153B



Model 103A

- Top mounted Basic Speed Control
- Compact, sturdy design

Recommended accessory shafts:
151, 153B



Model 103X

- An economical 7500 rpm fixed speed mixer
- Powered with an on/off switch
- Adjusta-Speed Control (part number 115) upgrade available for this model (Sold separately)

Recommended accessory shafts:
151, 153B



Model 133

- Top mounted Standard Speed Control
- The perfect mixer for emulsions that require high speeds and more torque
- Maintains constant speed even when viscosity changes

Recommended accessory shafts:
151, 153B

Specifications				
Model	103	103A	103X	133
Horsepower	1/12	1/12	1/12	1/12
Speed Range, Direct Drive	1000 to 7500rpm	1000 to 7500rpm	7500rpm	500 to 7500rpm
10:1	N/A	N/A	N/A	N/A
Torque, Direct Drive	0.7 in-lbs	0.7 in-lbs	0.7 in-lbs	0.7 in-lbs
10:1	N/A	N/A	N/A	N/A
Electrical	120 volt, 1.3 amps	120 volt, 1.3 amps	120 volt, 1.3 amps	120 volt, 1.3 amps
Shaft Size	5/16" (7.9mm)	5/16" (7.9mm)	5/16" (7.9mm)	5/16" (7.9mm)
Chuck Type	Collet	Collet	Collet	Collet
Overall Dimensions (L x W x H)	5 x 4.4 x 8" (12.7 x 11.2 x 20.3cm)	5 x 4.4 x 8" (12.7 x 11.2 x 20.3cm)	5 x 4.4 x 8" (12.7 x 11.2 x 20.3cm)	5 x 4.4 x 8" (12.7 x 11.2 x 20.3cm)
Ship Weight	4.6lbs (2.1kg)	4.6lbs (2.1kg)	4.6 lbs (2.1kg)	4.6lbs (2.1kg)
Part Number	103	103A	103X	133
Price	\$425.00	\$409.00	\$333.00	\$500.00

OVERHEAD MIXERS

Medium Duty Mixers

- Durable and rugged multi-purpose mixers
- Wide range of speeds
- Moderate torque

The 104 models are medium duty, multi-purpose mixers that offer more power. All of these units offer two mixing shafts for versatility. The high speed drive shaft mixes emulsions. The low speed drive shaft handles high viscosity mixing. Mixers include collet chuck and 8" (20.3cm) mounting rod with carriage bolt wrench for mounting motor to support stands. **Support stands and holders sold separately.**



Model 104

- Table mounted Basic Speed Control
- The speed control is remotely attached by a 42" (107cm) cord
- Dual shafts add versatility



Model 104A

- Top mounted Basic Speed Control
- Compact design saves space
- Dual shafts add versatility



Model 104X

- Economic dual shaft mixer without speed control
- Outfitted with an on/off switch
- Speeds of 7500 or 750rpm
- Adjusta-Speed Control (part number 115) upgrade available for this model (Sold separately)

Specifications

Model	104	104A	104X
Horsepower	1/18	1/18	1/18
Speed Range, Direct Drive	1000 to 7500rpm	1000 to 7500rpm	7500rpm
10:1	100 to 750rpm	100 to 750rpm	750rpm
Torque, Direct Drive	0.5 in-lbs	0.5 in-lbs	0.5 in-lbs
10:1	4.7 in-lbs	4.7 in-lbs	4.7 in-lbs
Electrical	120 volt, 1.1 amps	120 volt, 1.1 amps	120 volt, 1.1 amps
Shaft Size	5/16" (7.9mm)	5/16" (7.9mm)	5/16" (7.9mm)
Chuck Type	Collet	Collet	Collet
Overall Dimensions (L x W x H)	6.5 x 8.5 x 4" (16.5 x 21.6 x 10.2cm)	6.5 x 8.5 x 7" (16.5 x 21.6 x 17.8cm)	6.5 x 8.5 x 4" (16.5 x 21.6 x 10.2cm)
Ship Weight	5.1lbs (2.3kg)	5.1lbs (2.3kg)	5.1lbs (2.3kg)
Part Number	104	104A	104X
Price	\$645.00	\$619.00	\$504.00

- **Direct drive**
- **Brushless motors**
- **Fan cooled**

The 107 models are comprised of a single shaft construction to maintain quiet mixing. This product line mixes large amounts of low viscous solutions when equipped with two Model 152A propellers. Both models have a continuous duty rating. Mixers include collet chuck and 8" (20.3cm) mounting rod with carriage bolt and wrench for mounting motor to support stands. **Support stands and holders sold separately.**



Model 107

- An economical mixer with a fixed speed of 1600rpm
- Utilizes an on/off switch
- Ideal for batch mixing
- Adjusta-Speed Control (part number 115) upgrade available for this model (Sold separately)

Recommended accessory shafts:
151, 152, 153B, 156, 166



Model 107SC

- Table mounted Basic Speed Control
- The speed control is remotely attached by a 42" (107cm) cord
- Offers a variable speed option
- Useful for working under a fume hood

Recommended accessory shafts:
151, 152, 153B, 156, 166

Specifications		
Model	107	107SC
Horsepower	1/30	1/30
Speed Range, Direct Drive	1600rpm	100 to 1600rpm
10:1	N/A	N/A
Torque, Direct Drive	1.3 in-lbs	1.3 in-lbs
10:1	N/A	N/A
Electrical	120 volt, 1.2 amps	120 volt, 1.2 amps
Shaft Size	5/16" (7.9mm)	5/16" (7.9mm)
Chuck Type	Collet	Collet
Overall Dimensions (L x W x H)	5.5 x 5.5 x 4" (13.4 x 13.4 x 10.2cm)	5.5 x 5.5 x 4" (13.4 x 13.4 x 10.2cm)
Ship Weight	4.6lbs (2.1kg)	4.6lbs (2.1kg)
Part Number	107	107SC
Price	\$301.00	\$409.00

Propeller shafts, paddles and blades are sold separately. See pages, 76-80 for options.

OVERHEAD MIXERS

Heavy Duty Mixers

- **Durable and rugged, extremely versatile high viscosity mixers**
- **High torque**
- **Maintains constant speed**

This product line offers the power and versatility required for viscous mixing. Heavy Duty Mixers offer higher horsepower and greater torque over available speed ranges for difficult mixing jobs. Each mixer maintains constant speed even when the viscosity changes. Mixers are fitted with an adjustable Jacobs style chuck that accepts any accessory shaft. Mixers include adjustable chuck and 8" (20.3cm) mounting rod with carriage bolt and wrench for mounting motor to support stands. **Support stands and holders sold separately.**



Model 134-1

- Top mounted Standard Speed Control
- Heavy duty power at an economical price
- Offers higher torque over a wide speed range
- Perfect for mixing emulsions that require high speed and torque
- Mixes light oils at speeds of 50 to 750rpm

Model 134-2

- Top mounted Standard Speed Control
- Features a unique triple shaft design
- Extremely powerful and versatile
- Offers high torque for slow speed mixing
- Mixes small quantities of high viscosity materials

Recommended Accessory Shafts:

All

Recommended Accessory Shafts:

All

Specifications

Model	134-1	134-2
Horsepower	1/18	1/18
Speed Range, Direct Drive	500 to 7500rpm	500 to 7500rpm
10:1	50 to 750rpm	50 to 750rpm
60:1	N/A	10 to 125rpm
Torque, Direct Drive	0.5 in-lbs	0.5 in-lbs
10:1	4.7 in-lbs	4.7 in-lbs
60:1	N/A	15 in-lbs
Electrical	120 volt, 1.1 amps	120 volt, 1.1 amps
Shaft Size	5/16" (7.9mm)	5/16" (7.9mm)
Chuck Type	Adjustable	Adjustable
Overall Dimensions (L x W x H)	6.5 x 8.5 x 7" (16.5 x 21.6 x 17.8cm)	6.5 x 8.5 x 7" (16.5 x 21.6 x 17.8cm)
Ship Weight	5.1lbs (2.3kg)	5.1lbs (2.3kg)
Part Number	134-1	134-2
Price	\$709.00	\$806.00

- **Powerful permanent magnet gear motors**
- **Maintains constant speed**
- **High torque**

Powerful DC permanent magnet motors deliver power and reliability for high viscosity mixing. Each mixer maintains constant speed even when the viscosity changes. The mixers are fitted with an adjustable Jacobs style chuck that accepts any accessory shaft. Model 138 (238) and 4136 mixers include collet and adjustable chucks and 8" (20.3cm) mounting rod with carriage bolt and wrench for mounting motor to support stands. The model 409 (429) mixer includes adjustable chuck and 8" (20.3cm) mounting rod for mounting motor to support stands. **Support stands and holders sold separately.**



Model 138 (238)

- Top mounted Standard Speed Control
- This dual shaft mixer offers high torque at all speeds
- Dual shafts add versatility
- Features a permanent magnet and high output motor



Model 4136

- Top mounted Standard Speed Control
- Ideal for difficult applications
- This dual shaft mixer contains multiple speed ranges with excellent torque
- Features a permanent magnet and high output motor
- Mixes high viscous materials like oils, grease, and gels



Model 409 (429)

- Top mounted Standard Speed Control
- The powerhouse of Overhead Mixers
- This single shaft mixer creates maximum torque
- Features permanent magnet and high output motor
- The perfect unit for mixing tar and epoxy-like materials

Specifications			
Model	138	4136	409
Horsepower	1/8	1/6	1/4
Speed Range, Direct Drive	500 to 7500rpm	1000 to 5000rpm	50 to 500rpm
10:1	50 to 750rpm	100 to 500rpm	N/A
Torque, Direct Drive	1.2 in-lbs	1.5 in-lbs	25 in-lbs
10:1	12 in-lbs	15 in-lbs	N/A
Electrical	120 volt, 2.2 amps	120 volt, 2.5 amps	120 volt, 1.8 amps
	230 volt, 2.2 amps	N/A	230 volt, 1.8 amps
Shaft Size	5/16" (7.9mm)	5/16" (7.9mm)	3/4" (19mm)
Chuck Type	Collet and Adjustable	Collet and Adjustable	Adjustable
Overall Dimensions (L x W x H)	6.5 x 8.5 x 7" (16.5 x 21.6 x 17.8cm)	6.5 x 8.5 x 7" (16.5 x 21.6 x 17.8cm)	6.5 x 8.5 x 7" (16.5 x 21.6 x 17.8cm)
Ship Weight	6.3lbs (2.9kg)	6.3lbs (2.9kg)	5.1lbs (2.3kg)
Part Number	138 (120V) 238 (230V)	4136 N/A	409 (120V) 429 (230V)
Price	\$888.00 (120V) \$946.00 (230V)	\$910.00 N/A	\$1,280.00 (120V) \$1,442.00 (230V)

OVERHEAD MIXERS

Chucks / Holders



Collet Chuck

This precision collet type chuck is used when the motor shaft and accessory shaft are the same diameter

- The precision collet chuck is true running and is the preferred choice when running at high speeds
- Made of stainless steel

Description	Part Number	Price
Fits 1/4" (6.4mm) diameter motor shafts	192	\$58.00
Fits 5/16" (7.9mm) diameter motor shafts	193	\$58.00



Adjustable Chuck

- These products should be ordered based upon the diameter of the motor shaft you are using
- Each adjustable Jacobs style chuck can accommodate accessory shafts from 1/16" to 3/8" diameter
- Includes chuck key

Description	Part Number	Price
Fits 1/4" (6.4mm) diameter motor shafts	191C	\$73.00
Fits 5/16" (7.9mm) diameter motor shafts	191D	\$73.00
Fits 3/4" (19mm) diameter motor shafts	191L	\$218.00



Glass Rod Chuck

This aluminum chuck holds glass mixing rods

- Eliminates wobbling and vibration problems associated with glass mixing rods
- Accepts 1/4", 5/16", or 3/8" diameter motor shafts
- Equipped with nylon inserts needed for 0.24", 0.31" and 0.39" diameter mixing rods

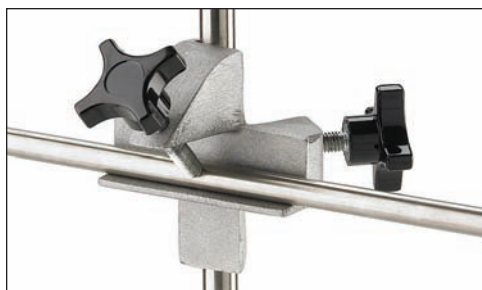
Description	Part Number	Price
Fits 1/4" (6.4mm) diameter motor shafts	199A	\$83.00
Fits 5/16" (7.9mm) diameter motor shafts	199B	\$83.00
Fits 3/8" (9.5mm) diameter motor shafts	199C	\$83.00



Standard Support Holder

- Strong stainless steel construction
- Equipped with over-sized, easy to grip knobs for precise tightening
- Accommodates 1/2" (12.7mm) diameter shaft of a motor mounting rod and 5/8" (15.9mm) diameter support stand rod

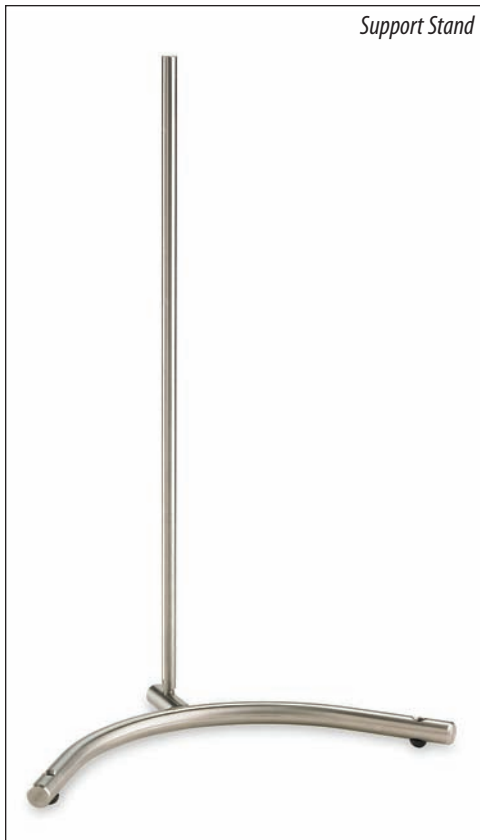
Description	Part Number	Price
Standard Support Holder	110B	\$52.00



Heavy-Duty Holder

- Comprised of a sturdy aluminum alloy with a brushed finish
- Accommodates all shafts from 1/4" (6.4mm) diameter to 1" (25.4mm) diameter
- Equipped with over-sized, easy to grip knobs for precise tightening
- Supports rods on a 4" (101.6mm) long surface to prevent vibrations

Description	Min. to Max. Grip Size	Part Number	Price
Heavy-Duty Holder	1/4 to 1" (6.4 to 25.4mm)	112	\$68.00



Support Stands

- Made entirely of 303 stainless steel.
- Durable base can accommodate vessels up to 18" (45.7cm) in diameter within the "U".
- Base area is 17.75" (45.1cm) across x 10.5" (26.7cm) deep overall.
- The stainless steel support rod is 5/8" (15.9mm) in diameter and is screwed to the support base.
- Two additional threaded holes in the base legs accommodate rods, enabling the stand to support two mixers.

The "U" shape of the base should be turned from the mixing apparatus when the two outside rods are in use. This balances the weight, preventing the base from tipping.

Description	Part Number	Price
Support Stand with 23" (58.4cm) Rod	110-23	\$216.00
Support Stand with 28" (71.1cm) Rod	110	\$228.00
Support Stand with 36" (91.4cm) Rod	110-36	\$261.00
Support Stand with 40" (101.6cm) Rod	110-40	\$277.00
Support Stand with 48" (121.9cm) Rod	110-48	\$291.00
Support Stand with 60" (152.4cm) Rod	110-60	\$321.00

Support Stand Stabilizer Knobs

- Support Stand Stabilizer Knobs can be added to the two additional threaded holes in the base legs to secure the stand to a bench top.

Description	Part Number	Price
Support Stand Stabilizer Knobs (2 per pack)	110C	\$43.00



Heavy-Duty Support Stands

- Four point cast iron base.
- Designed to accommodate vessels up to 12" (30.5cm) in diameter to sit close to the support rod.
- Rubber cushion on each of the four corners.
- Base area is 16.5" (41.9cm) across x 12" (30.5cm) deep overall.
- Ideal for Heavy-Duty Mixers.

Description	Part Number	Price
Heavy-Duty Support Stand with 23" (58.4cm) Rod	916232	\$239.00
Heavy-Duty Support Stand with 28" (71.1cm) Rod	916233	\$252.00
Heavy-Duty Support Stand with 36" (91.4cm) Rod	916234	\$288.00
Heavy-Duty Support Stand with 40" (101.6cm) Rod	916235	\$306.00
Heavy-Duty Support Stand with 48" (121.9cm) Rod	916236	\$322.00
Heavy-Duty Support Stand with 60" (152.4cm) Rod	916237	\$355.00

Replacement Support Rods

Description	Diameter	Part Number	Price
18" (45.7cm) Stainless Steel Rod	0.63" (16mm)	110A-18	\$72.00
23" (58.4cm) Stainless Steel Rod	0.63" (16mm)	110A-23	\$79.00
28" (71.1cm) Stainless Steel Rod	0.63" (16mm)	110A	\$87.00
36" (91.4cm) Stainless Steel Rod	0.63" (16mm)	110A-36	\$110.00
40" (101.6cm) Stainless Steel Rod	0.63" (16mm)	110A-40	\$128.00
48" (121.9cm) Stainless Steel Rod	0.63" (16mm)	110A-48	\$139.00
60" (152.4cm) Stainless Steel Rod	0.63" (16mm)	110A-60	\$154.00

OVERHEAD MIXERS

Accessories

Propeller Shafts

- All stainless steel 303/304 construction
- 15° pitched blades
- Axial flow
- Various shaft lengths and diameters with permanent 2" or 3.5" 3-blade propeller for every mixing need
- PTFE coating available



2" Propeller Shafts, stainless steel

Blade Dia.	Shaft Dia.	Shaft Length	Part Number	Price
2" (51mm)	1/4" (6.4mm)	12" (305mm)	150	\$26.00
2" (51mm)	1/4" (6.4mm)	18" (457mm)	150L	\$31.00
2" (51mm)	1/4" (6.4mm)	24" (610mm)	150XL	\$35.00
2" (51mm)	5/16" (7.9mm)	12" (305mm)	151	\$26.00
2" (51mm)	5/16" (7.9mm)	18" (457mm)	151L	\$31.00
2" (51mm)	5/16" (7.9mm)	24" (610mm)	151XL	\$35.00



2" Propeller Shafts, PTFE coated

Blade Dia.	Shaft Dia.	Shaft Length	Part Number	Price
2" (51mm)	1/4" (6.4mm)	12" (305mm)	150T	\$108.00
2" (51mm)	1/4" (6.4mm)	18" (457mm)	150LT	\$112.00
2" (51mm)	1/4" (6.4mm)	24" (610mm)	150XLT	\$125.00
2" (51mm)	5/16" (7.9mm)	12" (305mm)	151T	\$107.00
2" (51mm)	5/16" (7.9mm)	18" (457mm)	151LT	\$113.00
2" (51mm)	5/16" (7.9mm)	24" (610mm)	151XLT	\$125.00



3.5" Propeller Shafts, stainless steel

Blade Dia.	Shaft Dia.	Shaft Length	Part Number	Price
3.5" (89mm)	5/16" (7.9mm)	12" (305mm)	152	\$38.00
3.5" (89mm)	5/16" (7.9mm)	18" (457mm)	152L	\$42.00
3.5" (89mm)	5/16" (7.9mm)	24" (610mm)	152XL	\$48.00
3.5" (89mm)	5/16" (7.9mm)	30" (762mm)	152XXL	\$55.00
3.5" (89mm)	3/8" (9.5mm)	12" (305mm)	154	\$35.00
3.5" (89mm)	3/8" (9.5mm)	18" (457mm)	154L	\$42.00
3.5" (89mm)	3/8" (9.5mm)	24" (610mm)	154XL	\$48.00
3.5" (89mm)	3/8" (9.5mm)	30" (762mm)	154XXL	\$55.00



3.5" Propeller Shafts, PTFE coated

Blade Dia.	Shaft Dia.	Shaft Length	Part Number	Price
3.5" (89mm)	5/16" (7.9mm)	12" (305mm)	152T	\$135.00
3.5" (89mm)	5/16" (7.9mm)	18" (457mm)	152LT	\$146.00
3.5" (89mm)	5/16" (7.9mm)	24" (610mm)	152XLT	\$161.00
3.5" (89mm)	5/16" (7.9mm)	30" (762mm)	152XXLT	\$187.00
3.5" (89mm)	3/8" (9.5mm)	12" (305mm)	154T	\$135.00
3.5" (89mm)	3/8" (9.5mm)	18" (457mm)	154LT	\$146.00
3.5" (89mm)	3/8" (9.5mm)	24" (610mm)	154XLT	\$161.00
3.5" (89mm)	3/8" (9.5mm)	30" (762mm)	154XXLT	\$187.00

* Additional and custom sizes are available. Call customer service for more information.



Propeller Blades

- Made of stainless steel
- Customize propeller to the shaft of your choice
- Attach several blades for increased agitation
- Axial flow
- Blades come on a bushing with a stainless steel hex-head screw and allen key for attaching to mixing shafts

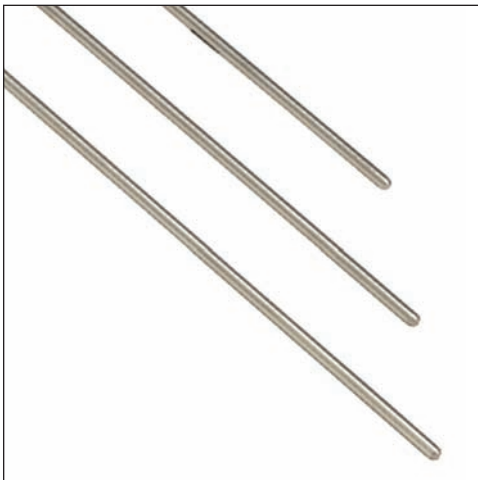
Blade Dia.	Fits Shaft Dia.	Part Number	Price
1" (25mm)	1/4" (6.4mm)	987406	\$35.00
2" (51mm)	1/4" (6.4mm)	153A	\$35.00
2" (51mm)	5/16" (7.9mm)	153B	\$35.00
3.5" (89mm)	5/16" (7.9mm)	152A	\$37.00
3.5" (89mm)	3/8" (9.5mm)	154A	\$37.00



High Speed Dispersion Blades

- Designed for high speed dispersion
- These blades tear particles apart and disperse them uniformly throughout the sample
- Constructed of stainless steel with welded bushing and a set screw for mounting on mixer shafts

Blade Dia.	Fits Shaft Dia.	Part Number	Price
3" (76mm)	5/16" (7.9mm)	987407	\$286.00
3" (76mm)	3/8" (9.5mm)	987408	\$286.00



Mixing Shafts

- Made of stainless steel
- Add propeller blades to these shafts to customize a propeller shaft
- Increase agitation with multiple blades on one shaft

Shaft Dia.	Shaft Length	Part Number	Price
1/4" (6.4mm)	6" (152mm)	180	\$12.00
1/4" (6.4mm)	12" (305mm)	180A	\$16.00
1/4" (6.4mm)	18" (457mm)	180L	\$21.00
1/4" (6.4mm)	24" (610mm)	180XL	\$27.00
1/4" (6.4mm)	30" (762mm)	180XXL	\$36.00
1/4" (6.4mm)	36" (914mm)	180XXXL	\$43.00
5/16" (7.9mm)	6" (152mm)	181	\$12.00
5/16" (7.9mm)	12" (305mm)	181A	\$16.00
5/16" (7.9mm)	18" (457mm)	181L	\$21.00
5/16" (7.9mm)	24" (610mm)	181XL	\$27.00
5/16" (7.9mm)	30" (762mm)	181XXL	\$36.00
5/16" (7.9mm)	36" (914mm)	181XXXL	\$43.00
3/8" (9.5mm)	6" (152mm)	182	\$12.00
3/8" (9.5mm)	12" (305mm)	182A	\$16.00
3/8" (9.5mm)	18" (457mm)	182L	\$21.00
3/8" (9.5mm)	24" (610mm)	182XL	\$27.00
3/8" (9.5mm)	30" (762mm)	182XXL	\$36.00
3/8" (9.5mm)	36" (914mm)	182XXXL	\$43.00

OVERHEAD MIXERS

Accessories



Extension Sleeves

- Comprised of precision bored stainless steel tubing
- Mixing paddles are joined to shafts of the same diameter to increase the paddle length
- Connect the mixing paddle directly to the motor shaft by using the extension sleeve in place of a chuck

Description	Part Number	Price
Fits 1/4" (6.4mm) Diameter Motor Shafts	170	\$54.00
Fits 5/16" (7.9mm) Diameter Motor Shafts	171	\$54.00
Fits 3/8" (9.5mm) Diameter Motor Shafts	172	\$67.00



Swivel Blade Paddles

- Mixes the contents of narrow-mouthed vessels
- Radial flow
- Constructed of durable stainless steel
- Swivel blade is attached to the shaft
- The blade measures 2W x 0.5H" (51 x 13mm)

Shaft Dia.	Shaft Length	Part Number	Price
0.25" (6.4mm)	12" (305mm)	165	\$34.00
0.25" (6.4mm)	18" (457mm)	165L	\$38.00
0.25" (6.4mm)	24" (610mm)	165XL	\$48.00
5/16" (7.9mm)	12" (305mm)	166	\$34.00
5/16" (7.9mm)	18" (457mm)	166L	\$38.00
5/16" (7.9mm)	24" (610mm)	166XL	\$48.00
3/8" (9.5mm)	12" (305mm)	167	\$34.00
3/8" (9.5mm)	18" (457mm)	167L	\$38.00
3/8" (9.5mm)	24" (610mm)	167XL	\$48.00



Chain Paddles

- An efficient option for mixing the contents of narrow-necked containers
- Fits openings as small as 5/8" (15.9mm)
- Blends suspensions and mixes both low and high viscosity liquids
- Constructed entirely of stainless steel
- Shafts vary in diameter and length
- Swing diameter of chain is approximately 3" (76mm)

Shaft Dia.	Shaft Length	Part Number	Price
1/4" (6.4mm)	12" (305mm)	155	\$28.00
1/4" (6.4mm)	18" (457mm)	155L	\$32.00
1/4" (6.4mm)	24" (610mm)	155XL	\$34.00
5/16" (7.9mm)	12" (305mm)	156	\$28.00
5/16" (7.9mm)	18" (457mm)	156L	\$32.00
5/16" (7.9mm)	24" (610mm)	156XL	\$36.00
3/8" (9.5mm)	12" (305mm)	157	\$28.00
3/8" (9.5mm)	18" (457mm)	157L	\$32.00
3/8" (9.5mm)	24" (610mm)	157XL	\$34.00



Beater Paddles

- Designed for high torque, heavy duty mixers
- Paddle design inhibits incorporation of air, making it suitable for stirring shampoos and other foaming liquids
- Constructed of stainless steel and available with PTFE coating
- Radial flow
- Small paddle blade is 4.5L x 3W" (114.3 x 76.2mm), large paddle blade is 5.5L x 4W" (139.7 x 101.6mm)

Size	Shaft Dia.	Shaft Length	Part Number	Price
Small, Stainless Steel	5/16" (7.9mm)	12" (305mm)	162S	\$86.00
Small, Stainless Steel	5/16" (7.9mm)	18" (457mm)	162SL	\$89.00
Large, Stainless Steel	5/16" (7.9mm)	12" (305mm)	162	\$86.00
Large, Stainless Steel	5/16" (7.9mm)	18" (457mm)	162L	\$89.00
Large, Stainless Steel	5/16" (7.9mm)	24" (610mm)	162XL	\$96.00
Small, PTFE Coated	5/16" (7.9mm)	12" (305mm)	162ST	\$167.00
Small, PTFE Coated	5/16" (7.9mm)	18" (457mm)	162SLT	\$171.00
Large, PTFE Coated	5/16" (7.9mm)	12" (305mm)	162T	\$167.00
Large, PTFE Coated	5/16" (7.9mm)	18" (457mm)	162LT	\$171.00
Large, PTFE Coated	5/16" (7.9mm)	24" (610mm)	162XLT	\$175.00



U-Shaped Paddles

- Designed for high viscosity materials or large batch mixing
- Constructed of stainless steel and available with PTFE coating
- Radial flow
- Recommended for high torque, heavy duty mixers
- Paddle blade is 4.5L x 4.5W" (114 x 114mm)

Description	Shaft Dia.	Shaft Length	Part Number	Price
Stainless Steel	3/8" (9.5mm)	18" (457mm)	987409	\$166.00
Stainless Steel	3/8" (9.5mm)	24" (610mm)	987410	\$178.00
PTFE Coated	3/8" (9.5mm)	18" (457mm)	987411	\$290.00
PTFE Coated	3/8" (9.5mm)	24" (610mm)	987412	\$319.00



Solid Glass Mixer Paddles

- Ideal for very sensitive samples
- Constructed of chemical-resistant borosilicate glass and precision ground and polished
- Radial flow
- Requires Glass Rod Chuck to attach to mixer

Blade Dia.	Shaft Dia.	Shaft Length	Part Number	Price
2.5" (64mm)	3/8" (9.5mm)	12" (305mm)	987420	\$215.00
2.5" (64mm)	3/8" (9.5mm)	18" (457mm)	987421	\$219.00
2.5" (64mm)	3/8" (9.5mm)	24" (610mm)	987422	\$225.00
3.5" (89mm)	3/8" (9.5mm)	12" (305mm)	987423	\$251.00
3.5" (89mm)	3/8" (9.5mm)	18" (457mm)	987424	\$256.00
3.5" (89mm)	3/8" (9.5mm)	24" (610mm)	987425	\$261.00

Don't see the length of the shaft you need? Gives us a call, we have other sizes in stock.

OVERHEAD MIXERS

Accessories



Zig-Zag Paddles

- Stainless steel durability
- The zig-zag shape of this rod promotes mixing of heavy fluids like paints, pastes, and creams
- Offers different shaft diameters and lengths
- Available with PTFE coating

Description	Shaft Dia.	Shaft Length	Part Number	Price
Stainless Steel	1/4" (6.4mm)	12" (305mm)	160	\$25.00
Stainless Steel	1/4" (6.4mm)	18" (457mm)	160L	\$29.00
Stainless Steel	1/4" (6.4mm)	24" (610mm)	160XL	\$40.00
Stainless Steel	5/16" (7.9mm)	12" (305mm)	161	\$25.00
Stainless Steel	5/16" (7.9mm)	18" (457mm)	161L	\$29.00
Stainless Steel	5/16" (7.9mm)	24" (610mm)	161XL	\$40.11
PTFE Coated	1/4" (6.4mm)	12" (305mm)	160T	\$106.00
PTFE Coated	1/4" (6.4mm)	18" (457mm)	160LT	\$112.00
PTFE Coated	1/4" (6.4mm)	24" (610mm)	160XLT	\$120.00
PTFE Coated	5/16" (7.9mm)	12" (305mm)	161T	\$106.00
PTFE Coated	5/16" (7.9mm)	18" (457mm)	161LT	\$112.00
PTFE Coated	5/16" (7.9mm)	24" (610mm)	161XLT	\$120.00



Coil Impellers

- Constructed of stainless steel and designed for durability
- Radial flow
- Rotating coils force the solution outward from the coil, creating a vacuum that pulls the particles through the coil, effectively reducing and dispersing the sample, ideal for dissolving powders
- Bow-Tie Coils: Ideal for lower viscosity fluids
- Straight Coils: Ideal for higher viscosity materials and larger solids

Coil Type	Coil Length	Shaft Dia.	Shaft Length	Part Number	Price
Bow-Tie	1.5" (38mm)	5/16" (7.9mm)	12" (305mm)	987426	\$47.00
Bow-Tie	2.5" (64mm)	5/16" (7.9mm)	12" (305mm)	987427	\$58.00
Bow-Tie	3.5" (89mm)	3/8" (9.5mm)	12" (305mm)	987428	\$90.00
Bow-Tie	4.5" (114mm)	3/8" (9.5mm)	18" (457mm)	987429	\$112.00
Straight	1.5" (38mm)	5/16" (7.9mm)	12" (305mm)	987430	\$47.00
Straight	2.5" (64mm)	5/16" (7.9mm)	12" (305mm)	987431	\$58.00
Straight	3.5" (89mm)	3/8" (9.5mm)	12" (305mm)	987432	\$90.00
Straight	4.5" (114mm)	3/8" (9.5mm)	18" (457mm)	987433	\$112.00



Adjusta-Speed Control

- Excellent upgrade for units with no speed control
- Solid state, electronic, voltage control varies speed steplessly over the motor's range
- Ideal for use with models 105, 103X, 104X, and 107

Description	Part Number	Price
Adjusta-Speed Control	115	\$216.00