ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Find the *Cole-Parmer MasterFlex* at our website: ***Click HERE***

Barnant

MIXING EQUIPMENT



REGISTERED ISO 9001

Barnant Company

28W092 Commercial Avenue • Barrington Illinois 60010
1-800-637-3739 • Fax: 1-847-381-7053
Web Site: http//www.barnant.com • E-mail: barnant@barnant.com

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Facts About Mixing

Mixing is an interdependent function of several variable factors all leading to end result... movement of fluids in predetermined volumes. The interdependent factors are: motor size, motor speed, propeller or paddle size, material viscosity and the volume of the containment vessel. The allowable volume is a function of how fast the user wants to mix the materials. In general, the larger the volume, the larger the propeller. The greater the horsepower required to efficiently turn over the material.

Mixers can be characterized by horsepower, speed and torque. Speed is measured in revolutions per minute (rpm), while torque is the rotational force delivered by the mixer in inch-pounds or inch-ounces. Speed, torque and horse power are related by the following equation:

$$\text{Torque} = \frac{\text{HP x 63025}}{\text{rpm}}$$

This helps to explain why low speed mixers generally provide much higher torque capability for a given horsepower.

The amount of horsepower you need depends on the volume, viscosity and size of propeller required to efficiently mix your materials.

Viscosity is the "thickness" of a liquid or its ability to flow. The unit of measure is centipoise. Viscosity of most liquids varies inversely with temperature. Three terms describe fluid behavior according to viscosity and stirring action. The viscosity of **Newtonian** fluids such as water remains constant regardless of agitation. Viscosity decreases in **thixotropic** fluids such as vegetable oil. Viscosity increases with **dilatant** fluids such as clay. High-speed, low-torque units with small propellers are suitable for small volumes of low viscosity fluids. Highly viscous materials require the increased torque of higher horsepower mixers or reduced gear mixers.

The diameter of the propeller or paddle also affects torque load on mixer. The power needed to rotate a propeller is related to its diameter and speed.

$$\text{Power} = \text{rpm}^3 \times \text{Diameter}^5$$

A small increase in speed and especially propeller diameter will cause a great increase in the power required for mixing operation. Propellers and paddles determine circulation in a vessel. Propellers with an angled blade move fluid parallel to the stirrer shaft. Straight-bladed propellers throw fluid away from the stirring axis, creating a vortex.

$$\text{Flow} = K(\text{rpm}) \times (\text{Propeller Diameter})^3$$

Changing the propeller diameter affects the ability of the mixer to promote flow or mixing. Changing the same propeller from a $1\frac{1}{2}$ inch diameter to a 3 inch increases the flow by a factor of 8.

Our catalog offers numerous possibilities to suit your application and budget. The technical specifications included with each mixer and our Sizing Tables (pages 18-19) will assist you in making your selection.

Positioning a mixer in a cylindrical tank

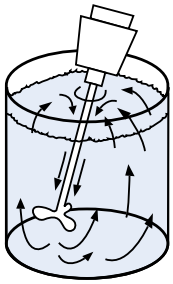


Figure 1.
Aim the shaft off center and avoid vortexing; allows strong top to bottom turnover. Best position for most mixing and blending.

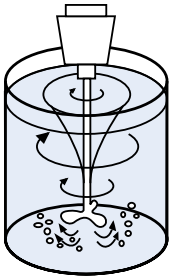


Figure 2.
Center stirrer that has a paddle or straight-blade prop and create vortexing, which speeds up dispersion and dissolution of light liquids and hard-to-wet powders.

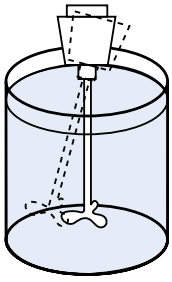


Figure 3.
If you first need to dissolve light powders, center the stirrer to create a vortex. Then, reposition the stirrer at an angle to maintain a uniform suspension or to blend in other fluids.

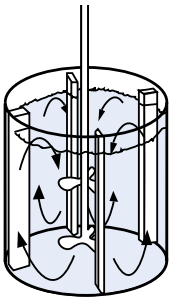


Figure 4.
Tank baffles prevent vortexing from center-mounted stirrers with straight-blade propellers. Four vertical baffles should be equidistant around the circumference of the tank. Baffle width should be $\frac{1}{12}$ the diameter of the tank.

Table of Contents

Facts About Mixing	2
Laboratory Mixers	3
Laboratory / Industrial Mixers	4-5
Microprocessor Lab / Industrial Mixers	6-7
Mixer Accessories	8-10
Sizing Your Mixer	11

See Page 10 for Ordering Information on our NEW – "Liquid Mixing" Guide Book

The information contained on this data sheet(s) is not intended for specific application purposes. Barnant reserves the right to make changes to products and specifications at any time without prior notice.

Barnant Mixers

Barnant is proud to offer you these high-quality, variable-speed mixers featuring full-range performance characteristics. For your convenience,our general-purpose and dual-shaft mixers accept a wide variety of propellers, shafts, and other accessories.



General-purpose mixer 700-5400

General-purpose mixer

- **Mixes low-viscosity fluids at high speeds – up to 10,000 rpm**

Use our general-purpose mixer for your routine, low-viscosity, laboratory mixing. This direct-drive mixer delivers speeds from 500 to 10,000 rpm. (**NOTE:** Not recommended for fuming corrosive materials – use 700-5410 dual-shaft mixer instead.)

Fuse protected, universal type motor has a compact speed controller conveniently attached. This solid-state controller provides exact speed setting within its 20:1 speed adjustment range. Potentiometer controls both on/off and variable speed settings for single direction mixing.

Mixer accepts a 5/16 to 3/8" dia stirring shaft. Mixer comes with shaft; propeller*; 6" L mounting rod; a Jacobs-type chuck with key; and a 6 ft, three-wire cord with grounded plug.

Specifications and ordering information

Type	General-purpose mixer
Cat. no.	700-5400
Speed range	500 to 10,000 rpm
Max torque	9.5 in-oz (up to 5000 rpm)
Motor	1/20 hp
Shaft size	5/16" to 3/8"
Dimensions	5 5/8"W x 4 1/4"H x 3 3/8"D
Power	115 VAC, 50/60 Hz
Shpg wt	5 lbs (2.3 kg)

Accessories

1578-05 Transformer, for 230 VAC operation

Dual-shaft mixer 700-5410

2 Year Warranty



Mixer shown with optional shaft and propeller. Order separately. See pages 8-11.

Dual-Shaft mixer

- **Direct-drive shaft offers high-speeds from 50 to 5000 rpm**
- **Gear-reduction shaft provides high 140 in-oz torque from 3 to 250 rpm**

Our versatile, dual-shaft mixer allows both high-speed and high-torque mixing either small or large volumes. Use the direct-drive shaft for your high-speed, low-viscosity mixing, or just switch to the gear-reduction shaft for your high-viscosity mixing needs.

Rugged, permanent-magnet TENV gear motor has permanently lubricated ball bearings. Gear reduction ratio is 20:1.

Solid-state controller offers precise speed control with a 100:1 adjustment range. Separate forward / off / reversing switch and speed dial provide repeatable speed settings. Features exceptional line voltage regulation – controller maintains a constant speed under changing loads (critical for materials that change viscosity and mix progresses). A 6 ft cord connects the motor and controller; locate the controller away from corrosive spills or splashes.

Both drives accept a 5/16 to 3/8" stirring shaft; order shaft, propeller, and other accessories separately on pages 8-11. Mixer comes supplied with a 6" L mounting rod; a Jacobs-type chuck with key (for use on either drive); and 6 ft, three-wire cord with grounded plug.

*** 12"L x 3/8" dia stainless steel shaft and 1 3/8" dia stainless steel propeller.**

Specifications and ordering information

Type	Dual-shaft mixer
Cat. no.	700-5410
Speed range	Direct-drive shaft: 50 to 5000 rpm Gear-shaft: 3 to 250 rpm
Max torque	Direct-drive shaft: 7 in-oz Gear-shaft: 140 in-oz
Motor	1/25 hp
Shaft size	5/16" to 3/8"
Dimensions	Motor: 5 3/4"H x 3 1/2"dia Controller: 7"W x 3 3/16"H x 4 7/8"D
Power	115 VAC, 50/60 Hz
Shpg wt	7 lbs (3.2 kg)

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Modular Mixing Systems

- **Modular system offers full mixing versatility**
- **Mixing speeds from 2 rpm up to 6000 rpm**

We've made the Barnant Heavy-duty mixer even better! Our modular Heavy-duty mixer system allows you the flexibility to create the best system for your mixing applications. System components are sold separately so you can tailor your system to meet your mixing needs. Simply start with a solid-state speed controller, add one more of the four mixing heads depending on your speed and torque requirements, and select a shaft and propeller depending on your vessel and fluid. For our full line of shafts and propellers, see pages 8-11.

Speed Controller

Solid-state controller offers precise speed control with a 100:1 adjustment range. A separate "forward / off / reverse" switch works independently from the speed control dial – allowing you to repeat mixer speed settings from one run to the next. An LED indicates when power is on. Motor speed is maintained within 10% despite changes in line power or torque load conditions. Speed stability is critical for materials that change viscosity as mixing progresses.

Remote controller is connected to the mixer head via a 6 ft three-wire cord – keeps electronics away from hazardous spills or splashes. Controller measures 7"W x 3 3/16"H x 4 7/8"D. Choose a controller depending on your power supply; each includes a 6 ft power cord (with grounded plug for 115 VAC model.

Mixer Heads

These rugged mixer heads feature TENV, permanent magnet DC motors with permanently lubricated ball bearing construction. Choose from four models depending on your desired speed range.

The low-speed, high-torque models feature a Jacobs-type chuck that accepts mixing shafts from 5/8" to 3/8" dia.

The high-speed, low-torque models incorporate a hollow through shaft and a precision, stainless steel hand-tightened collet. This design lets you quickly position the mixing propeller at any depth within the container – without moving the mixer head. Plus, it minimizes shaft "wobble" at higher speeds or with longer shaft lengths.

All mixer heads are equipped with an integral adjustable-tilt mounting assembly; permits the rotation of the mixer head from 0° to 30° for proper placement of shaft and propeller. Heads measure approximately 11 1/2"H x 3 5/8"dia. Each model comes supplied with appropriate chuck and 6 ft, three-wire cord with grounded plug.



Low-speed, high-torque mixer heads have Jacobs-type chuck

Adapt four mixing heads to a single speed controller

Order mixing shaft and propeller separately. See pages 8-11

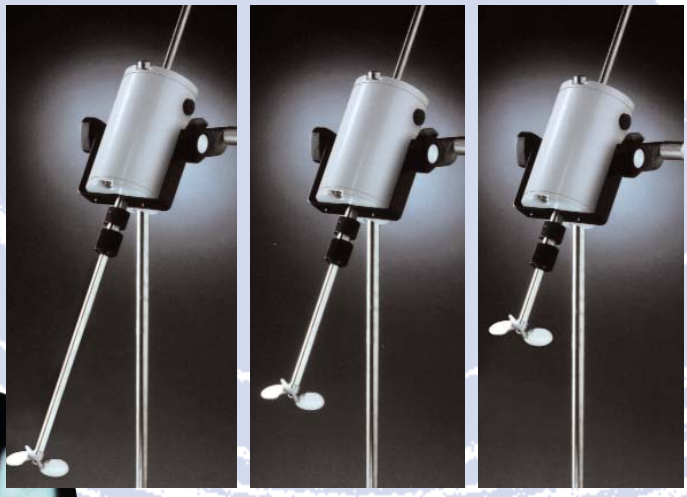
2 Year Warranty

Controller is UL Listed and CSA Approved

Mixer Heads

High-speed, low-torque mixer heads have through-shaft precision collet (see photos at right)





Through shaft design lets you position the propeller at any depth within the vessel without having to move the mixer head

750-0210/750-0215 high-torque mixer head provides a speed range of 2 to 180 rpm with 1/15 hp PMDC gear motor. Maximum torque is 340 in-oz. Includes Jacobs type chuck that accepts mixing shafts up to 3/8" dia.

750-0220/750-0225 General-purpose high-torque mixer head has a speed range of 9 to 900 rpm with 1/15 hp PMDC gear motor. Maximum torque is 70 in-oz. Includes Jacobs type chuck that accepts mixing shafts up to 3/8" dia.

750-0230/750-0235 General-purpose/through shaft mixer head offers a speed range of 23 to 2300 rpm with 1/10 hp PMDC motor. Through shaft design lets you position the propeller without moving the mixer head. Maximum torque is 45 in-oz. Accepts **only** 3/8" dia.

750-0240/750-0245 High speed-high shear/through shaft mixer head delivers speeds from 60 to 6000 rpm with 1/10 hp PMDC motor. Through shaft lets you position the propeller without moving the mixer head. Maximum torque is 17 in-oz. Accepts **only** 3/8" dia shafts.

2 Year Warranty

Ordering Information

Variable speed controller

Cat. no.	Voltage	Shpg wt
750-0202	115 VAC, 50/60 Hz	4 lbs (1.8 kg)
750-0207	230 VAC, 50/60 Hz	4 lbs (1.8 kg)

Catalog Number		Speed range	Maximum torque	Shpg wt lbs (Kg)
115 VAC, 50/60 Hz	230 VAC, 50/60 Hz			
1/15 hp motor with Jacobs-type chuck				
750-0210	**750-0215**	2 to 180 rpm	340 in-oz	8 (3.6)
750-0220	**750-0225**	9 to 900 rpm	70 in-oz	8 (3.6)
1/10 hp motor with adjustable through-shaft precision collet				
750-0230	**50002-35**	23 to 2300 rpm	45 in-oz	8 (3.6)
750-0240	**750-0245**	60 to 6000 rpm	17 in-oz	8 (3.6)

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Microprocessor Mixing Systems

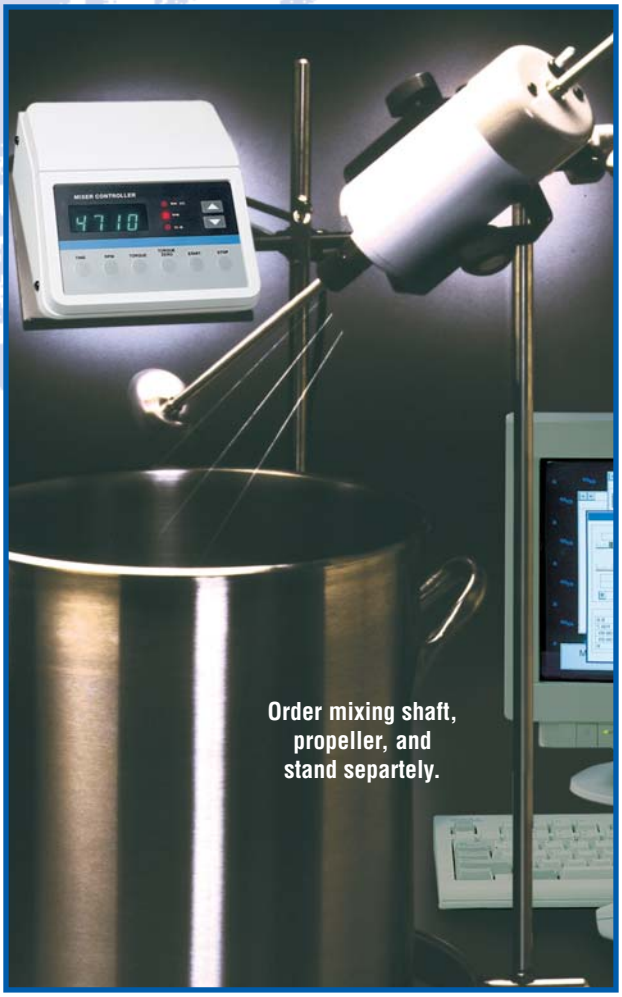
- **Process control – local or remote via RS232**
- **Modular design for full mixing versatility**
- **Precise control of mixing speed within ± 0.2% – despite changes in viscosity, temperature and power**

Advance your mixing technology with our new Microprocessor mixer system. Our mixers are completely microprocessor-controlled, computer-compatible, and packed with features you won't find anywhere else.

This modular system allows you the flexibility to create the best system for your applications. Mixer components are sold separately so you can tailor a system to meet your mixing needs. Simply start with the new mixer controller, add one of the four mixing heads depending on your speed and torque requirements, and select a shaft and propeller depending on your vessel and fluid. **For our full line of shafts and propellers, see pages 8-11.**

For your advanced mixing applications, team your computer with our Microprocessor mixer system. Our 7550-70 software and 7550-64 RS-232-C interface cable, allows you to directly control and view mixing parameters through your computer. For technical details, call us at 1-800-637-3739. Ask for our Mixer specialist.

Control our new Microprocessor mixer system from the electronic-controller or directly from your computer



About the Microprocessor controller

The membrane keypad provides precise control of mixing speed within ± 0.2% – despite changes in viscosity, temperature, or power line voltage. This is especially advantageous when mixing dilatant or thixotropic fluids. Monitor torque, set high and low torque limits, or measure and control differential torque with the torque zero function. The convenient timer allows you to reproduce mixer runs of up to 100 minutes. All set points and actual values are displayed on the 4 digit vacuum fluorescent readout. Set parameters are stored in memory as long as line power is maintained.

The controller is connected to the mixer head by a 6 ft cable – out of reach of spills or splashes. Microprocessor circuitry automatically identifies the particular mixing head in operation, and sets the appropriate limits for that motor. Controller operates on 115 VAC, 50/60 Hz; includes a 6 ft power cord with grounded plug.

750-4530 Microprocessor mixer controller. Measures 6 1/2"W x 3 1/2"H x 7 3/4"D. Shpg wt 3 lbs (1.4 kg)

750-4535 Microprocessor Mixer controller for 230 VAC 50/60 Hz.

2 Year Warranty



Press the RPM key to display the last adjusted mixer shaft speed. To change, use the INCREMENT and DECREMENT keys. Can adjust while running.

Press the TIME key to display the last countdown setting. Change time using the INCREMENT and DECREMENT keys. Countdown starts when you press the START key. Can adjust while running.

Press the TORQUE key to read the current value, along with the high and low limits. To change the torque limits, use the INCREMENT and DECREMENT keys until a new limit is displayed. The mixer will automatically stop when the pre-set limits are reached.

Press TORQUE ZERO key to zero the torque with propeller running in free air or a reference fluid. Use this measured value for better repeatability in subsequent batches.

Four-digit vacuum fluorescent display shows selected mixing time, mixing time remaining, rpm, and torque values.

Illuminated status lights indicate function being displayed – time, rpm, or torque. A flashing time or torque light and audible alarm indicate that a limit condition has been reached.

Press INCREMENT and DECREMENT keys to change set parameters (speed, time, and torque limits).

The mixer shaft automatically stops at the end of a timed run or if a preset torque limit is reached. Press STOP key at any time to stop rotation of the mixer shaft.

Press START key to operate mixer shaft. It will stop automatically when the time countdown reaches zero.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Choosing Your Mixer Head

Choose from four versatile mixer heads. Each features a TENV, permanent magnet DC motor with permanently lubricated ball bearing construction and optical encoder that transmits motor speed data to the controller.

The low-speed, high-torque models feature a new Jacobs-type precision chuck.

The high-speed, low-torque models incorporate a hollow through shaft and precision stainless steel hand-tightened collet. Simply loosen the collet and adjust the mixing shaft to change propeller depth. Through shaft design also minimizes shaft wobble that occurs at higher speeds.

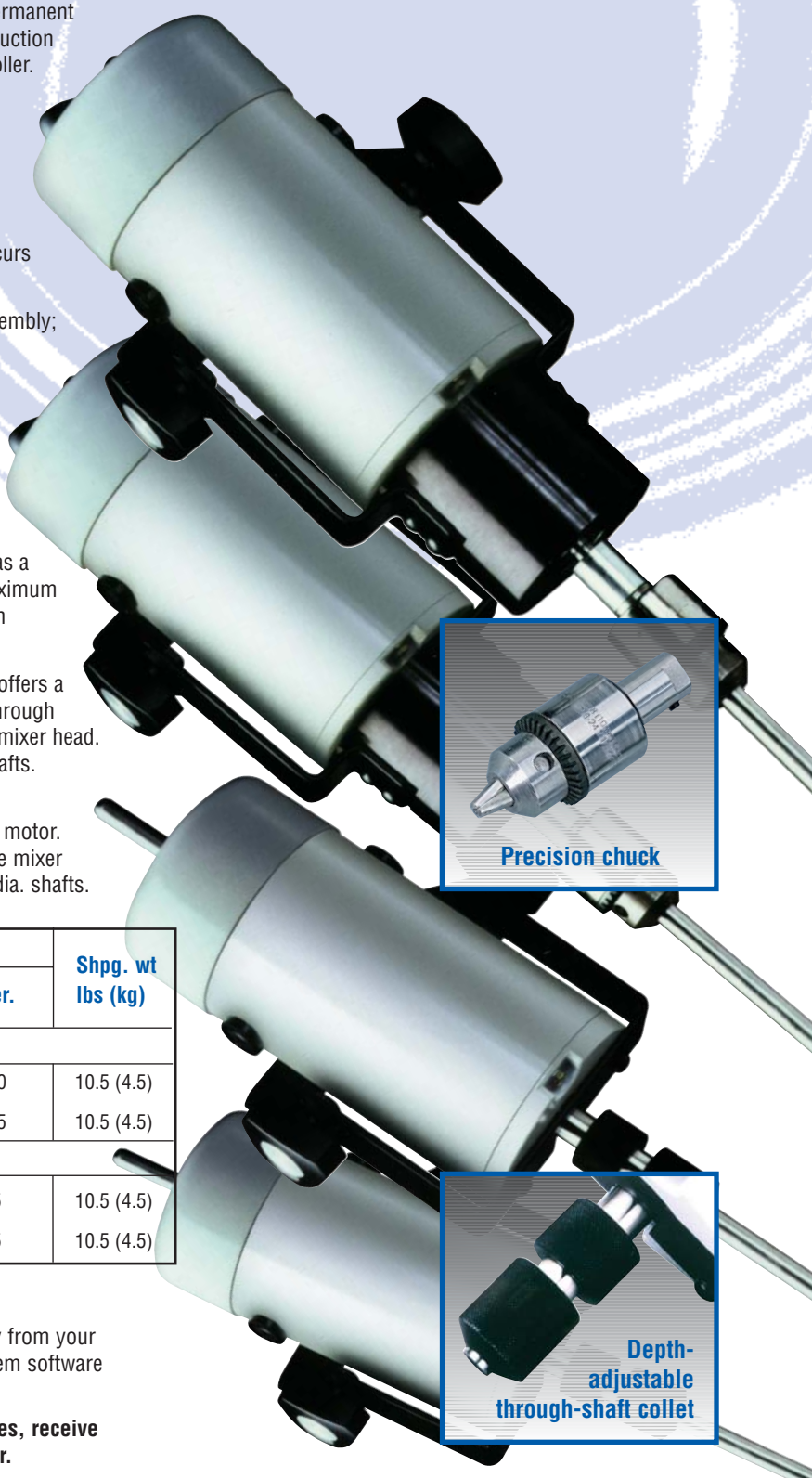
All mixer heads are equipped with an adjustable-tilt mounting assembly; permitting rotation of mixer head from 0˚ to 30˚. **Order shafts, propellers and accessories separately. See pages 8-11.** Heads measure 11 1/2"H x 3 5/8"dia.

745-5031/745-5315 High-torque mixer head provides a speed range of 3 to 180 rpm with 1/15 hp PMDC gear motor. Maximum continuous torque is 70 in-oz. Includes Jacobs-type precision chuck that accepts mixing shafts up to 3/8"dia.

745-5032/745-5325 General-purpose high-torque mixer head has a speed range of 20 to 900 rpm with 1/15 hp PMDC gear motor. Maximum continuous torque is 70 in-oz. Includes new Jacobs type precision chuck that accepts mixing shafts up to 3/8"dia.

745-5033/745-5335 General-purpose/through shaft mixer head offers a speed range of 60 to 2300 rpm with 1/10 hp PMDC gear motor. Through shaft design lets you position shaft/propeller without moving the mixer head. Maximum continuous torque is 45 in-oz. Accepts **only** 3/8"dia. shafts.

745-5034/745-5345 High speed-high sheer/through shaft mixer head delivers speeds from 150 to 6000 rpm with a 1/10 hp PMDC motor. Through shaft lets you position shaft/propeller without moving the mixer head. Maximum continuous torque is 17 in-oz. Accepts **only** 3/8"dia. shafts.



Precision chuck

Depth-adjustable through-shaft collet

Catalog Number		Speed range	Torque (in-oz)		Shpg. wt lbs (kg)
115 VAC, 50/60 Hz	230 VAC, 50/60 Hz		Cont.	Inter.	
1/15 hp gear motor with new Jacobs type precision chuck					
745-5031	745-5315	3 to 180 rpm	340	510	10.5 (4.5)
745-5032	745-5325	20 to 900 rpm	70	105	10.5 (4.5)
1/10 hp motor with adjustable through-shaft precision collet					
745-5033	745-5335	60 to 2300 rpm	45	65	10.5 (4.5)
745-5034	745-5345	150 to 6000 rpm	17	25	10.5 (4.5)

Let your computer run the system

Monitor and control from one to sixteen mixing systems remotely from your PC. Use our 7550-64 RS-232-C interface cable and 7550-70 system software program to interface your mixing system to a host computer.

Execute mixing commands, perform sequential/control processes, receive and store report completion data directly through your computer.

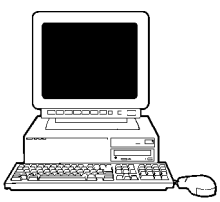
For your combination mixing and pumping applications–call us for details on how you can link your mixer to our Masterflex computerized pump drives.

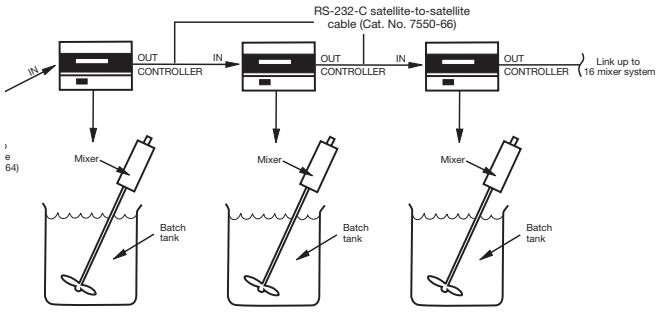
Software program and interface cables sold separately bel

7550-72 Software, mixer control; works with WINDOWS v or later. 3 1/2" disk format. Requires RS-232 cable below.

7550-64 Servodyne RS-232-C interface cable, connects mixer system to an IBM PC/XT/AT or 100% compatible.

7550-66 Satellite cable, for daisy-chaining mixer to mixer or mixer to Masterflex® drive system.





IBM PC/XT/AT are TM International Business Machines Corp. Masterflex is a Reg TM Cole-Parmer Instrument Co.
Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Sizing Guide

Guide to selecting proper mixing impeller

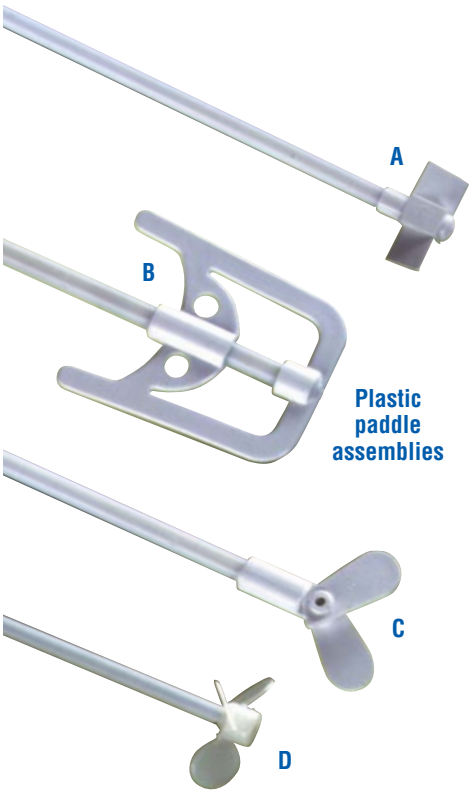
Viscosity (centipoise)	Type of Material (ambient temp)		Type of impeller
1.0 cps	Water Kerosene Gasoline	Blood Citric Acid Sulfuric Acid	Propellers Pitched Blade Turbine
100 cps	SAE 10 Oil SAE 20 Oil	Starch Solution Olive Oil	Propellers Pitched Blade Turbine
250 cps	SAE 40 Oil Cough Syrup	Spar Varnish	Propellers Pitched Blade Turbine Disc Radial Turbine
500 cps	Glucose Latex Paint	SAE 50 Oil Peanut/corn Oil	Propeller Disc Blade Turbine Chain Paddle
1000 cps	Castor Oil Catsup Glycerine	Yogurt SAE 70 Oil	Disc Blade Turbine Chain Paddle Zig-Zag Paddle

Mixer Accessories

Paddle assemblies

Use these plastic paddle assemblies for mixing most acids and corrosive solutions. Plastic-coated steel assemblies provide better chemical resistance than stainless steel alone. Choose from three plastics according to the chemical compatibility of your solutions – polypropylene polyethylene, or Teflon® PTFE.

Cat. no.	Material	Shaft Dimensions	Max paddle dia
A) Fixed, dual-bladed paddle assembly – for mixing medium viscosity liquids			
6367-10	Polypropylene	5/16"dia x 13 13/16"L	1 5/8"dia
B) U-shaped, bladed paddle assembly – for mixing viscous liquids			
6367-20	Polypropylene	5/16"dia x 13 13/16"L	2 5/8"dia
C) Swing-out, dual-bladed paddle assembly – for use in narrow-necked vessels			
6367-40	Polypropylene	5/16"dia x 13 13/16"L	2 3/8"dia
6367-60	Polypropylene	5/16"dia x 13 13/16"L	4"dia
D) Three-bladed paddle assembly – for general purpose mixing			
4449-06	Teflon PTFE	5/16"dia x 10"L	2"dia
4449-10	Teflon PTFE	5/16"dia x 18"L	2"dia



Plastic paddle assemblies

Teflon® stirring blades and glass stirring shafts

E) Teflon stirring blades are reversible to match the shape of your round- or flat-bottom vessels.

Cat. no.	Blade length
4740-20	2 3/8"
4740-30	3"
4740-40	4"
4740-50	5 1/2"

F) Glass stirring shafts are ground and polished for smooth rotation. Made of borosilicate glass.

Cat. no.	Blade length	Shaft dia
4740-14	14 1/2"	3/8"
4740-15	20"	3/8"
4740-17	25"	3/8"
4740-19	30"	3/8"



Teflon® blade with glass shaft

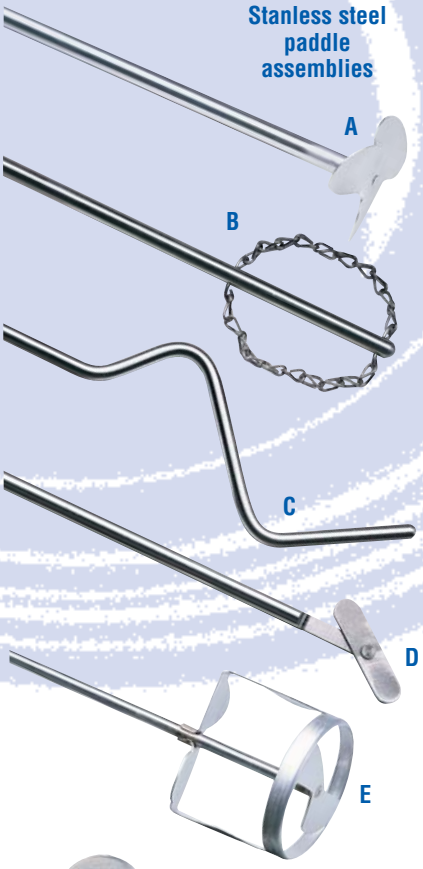
Teflon – Reg TM E.I. du Pont de Nemours & Co.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Mixing Accessories

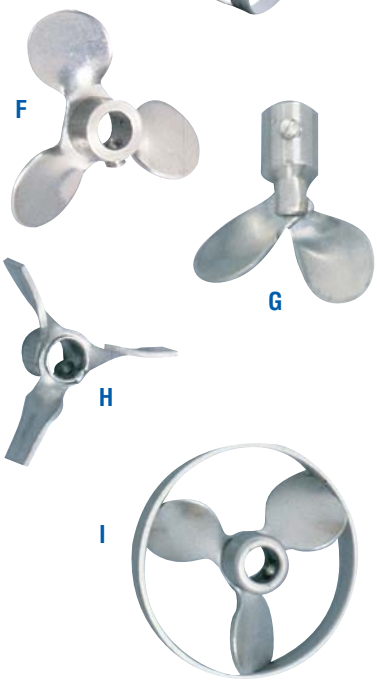
316 stainless steel paddle assemblies

Description	Shaft dimentions	Use with mixer models	Catalog number
A) Three -bladed paddles. For general-purpose stirring. 2" max paddle diameter.	5/16" dia x 10"L	700-5400, -5410	**4352-00**
	5/16" dia x 18"L	700-5400, -5410	**4449-08**
B) Chain paddles. For use with medium-viscosity fluids. Approx 3" max paddle diameter.	5/16" dia x 10"L	700-5400, -5410	**4356-00**
C) Zig-zag paddles. For medium- to high-viscosity fluids. Approx 2 1/2" max paddle diameter.	5/16" dia x 10"L	700-5400, -5410	**4358-00**
D) Swivel paddles. For use in narrow-necked vessels. Approx 2" max paddle diameter.	5/16" dia x 10"L	700-5400, -5410	**4361-00**
E) High-efficiency paddle assembly. For mixing highly viscous liquids and semisolids. Approx 3 3/4" max paddle diameter.	3/8" dia x 21"L	All	**4541-20**



316 stainless steel propellers

Description	Bore diameter	Paddle diameter	Catalog number
F) Three -bladed propellers. For general-purpose stirring. Use alone or mount several on a single shaft for thorough agitation.	5/16"	1"	**4553-60**
	5/16"	1 1/2"	**4553-62**
	5/16"	2"	**4553-64**
	3/8"	2"	**4553-65**
	5/16"	3"	**4553-68**
G) Folding propellers. For use in narrow-necked vessels.	5/16"	2" max (11/16" folded)	**4543-00**
H) Turbine propeller. For airless stirring in deep containers.	5/16"	2"	**4544-00**
	3/8"		**4544-10**
I) Ring guard propeller. Protects dip tubes or sensors located in your stirring vessel.	5/16"	2"	**4545-00**





316 stainless steel shafts

Description	Shaft dimentions	Use with mixer models	Catalog number
J) Stirring shafts. The 3/8" -dia shafts are machined on one end to also accept 5/16" -bore diameter propellers.	5/16" dia x 12"L	700-5400, -5410	**4553-50**
	3/8" dia x 12"L	All	**4553-52**
	3/8" dia x 18"L	700-5400, -5410	**4553-55**
	3/8" dia x 18"L	All	**4553-57**
	3/8" dia x 24"L	All	**4537-10**
	3/8" dia x 30"L	All	**4538-10**

Accessories

Clamps and stands

750-0180 tank clamp. Mount your mixing system directly onto an open top tank or container (see our plastic tanks on page 11). Clamp secures a mixer head and the 750-0182 pivot mount controller support sold below. Mounts to containers with wall thicknesses up to 1 1/2".



Controller supports

Controller supports let you mount your controller adjacent to the mixer head. Use the dual rod clamp (included in the 745-5090) to secure your controller to the 704-3440 support stand. Or mount our 750-0182 pivot mount support directly to the 750-0180 tank clamp.

745-5090 support platform, rack mount controller adjacent to the mixer head.

750-0182 pivot mount controller support, bolts controller to the support for additional security. Features a hinged rod – lets you adjust controller angle for easy access.





Support stand and clamps

704-3440 support stand, has a corrosion-resistant electro-polished cast steel base and a 303 stainless steel rod measuring 5/8" diameter x 28" high. Order dual rod clamps to support mixer heads. Both legs of base accept extra screw-in support rod.

704-3450 Extra screw-in support rod.

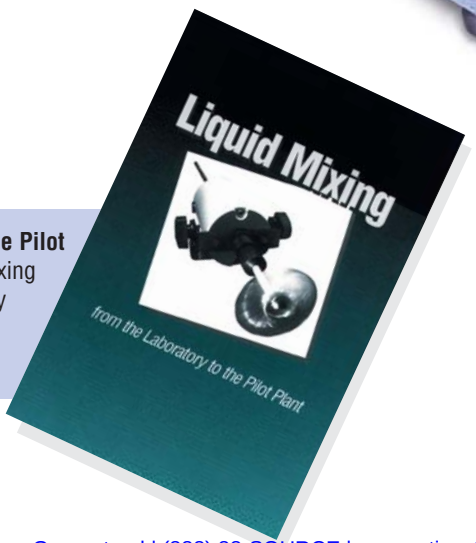
4560-24 Heavy duty dual rod clamp, 316 stainless steel construction.

8047-20 aluminum construction dual rod clamp.





700-0290 Liquid Mixing...From the Laboratory to the Pilot Plant, a practical guide book discusses important mixing parameters – how to size a mixer, scale-up, and many more. Includes easy-to -use sizing tables, glossary and appendix with useful reference information.



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Sizing Your Mixing System

In order to ensure successful operation of mixer in a specific application, it is necessary to select the proper size mixer, operating speed and propeller. Our catalog offers numerous possibilities. Therefore, we have prepared a series of reference tables, as guides, to assist youin your selection process.

How to use our tables

The models shown represent a minimum recommendation, and obviously, a mixer rated for higher torque values or viscosities can also be selected. Our tables are composed to reflect 80% of the individual unit's peak capacity. Find the viscosity you are mixing along the left-hand side of the charts; find the volume along the top. The model numbers designated in the box where the two parameters intersect represent our base recommendations. Depending on your exact needs, several possibilities exist. Page numbers for additional information on that mixer are listed in parenthesis next to each model.

Laboratory mixers

For Smaller Volumes (Less than 1 Gallon)

Any of our Laboratory Mixers will provide superior mixing in volumes less than 1 gallon, and depending upon the model selected, operating speed and prop selection, will mix viscosities up to 2000 centipoise and higher. For processing fluids with viscosities less than 100 cps, all of our direct drive, high speed mixers will provide satisfactory results. For viscosities above 100 cps we generally recommend a high torque, lower speed mixer.

For Larger Volumes

Use the table below to select the appropriate model.

Number in parenthesis denotes page number.

Typical Materials to be Mixed	Viscosity (cps)	Vessel Volume Range (gallons)				
		Less than 1 gallon	1-5	6-10	11-25	26-35
Water Kerosene Toluene Blood Citric acid Sulfric	1.0	All mixers (3 thru 7)	All mixers (3 thru 7)	All mixers (3 thru 7)	750-0240 (5) 745-5034 (7)	750-0240 (5) 745-5034 (7)
SAE 10 Oil SAE 20 Oil Olive Oil Starch solution	100	All mixers (3 thru 7)	700-5410 (3) 750-0240 (5) 745-5034 (7)	750-5410 (3) 750-0230 (5) 745-5033 (7)	750-0230 (5) 745-5033 (7)	
SAE 40 Oil Cough syrup Spar varnish	250	700-5410 (3) 750-0240 (5) 745-5034 (7)	700-5410 (3) 750-0230 (5) 745-5033 (7)	750-0230 (5) 745-5033 (7)	750-0230 (5) 745-5033 (7)	
Latex paint SAE 50 Oil Glucose	500	700-5410 (3) 750-0230 (5) 745-5033 (7)	700-5410 (3) 750-0230 (5)	750-0220 (5) 745-5032 (7)		
Caster oil SAE 70 Oil Glycerine Yogurt	1000	750-5410 (3) 750-0230 (5)	750-0220 (5) 745-5032 (7)			
Catsup White glue Molasses (A)	2000	750-0210 (5) 745-5031 (7)				





Barnant Company

28W092 Commercial Avenue • Barrington Illinois 60010
1-800-637-3739 • Fax: 1-847-381-7053
Web Site: http//www.barnant.com • E-mail: barnant@barnant.com

The information contained on this data sheet(s) is not intended for specific application purposes. Barnant reserves the right to make changes to products and specifications at any time without prior notice.

8/00

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP