

## 2015 Emerson Material and Parts Prices (Water Pump)

All materials sold by length or by unit (each).

Materials must be ordered through Emerson section of MAE 2250 order form. Orders will be available for pickup in Emerson 2-3 days after submission.

### Aluminum Bars

Description	Material	Unit	Price
1/4" x 1" (max length 10")	6061 T6	in	\$ 0.14
1/4" x 2.25" (max length 10")	6061 T6	in	\$ 0.36
1/2" x 2 1/4" (max length 12")	6061 T6	in	\$ 0.73
1/2" x 4" (max length 10") (base)	6061 T6	in	\$ 1.18
3/4" x 3/4" x 6"	6061 T6	each	\$ 1.50
1" x 2" (max length 10")	6061 T6	in	\$ 1.18
2" x 2" x 3"	6061 T6	each	\$ 4.50
2 1/4" x 2 1/4"	6061 T6	in	\$ 1.50

### Rods & Shafts

Description	Material	Unit	Price
1/4" Diameter Steel Rod	1012 Steel	in	\$ 0.10
1/2" Diameter Steel Rod	1012 Steel	in	\$ 0.23
3/4" Diameter x 6" Aluminum Rod	6061 T6	each	\$ 2.50
1 7/8" Diameter Plastic Rod (piston) (max length 9")	PVC Type II	in	\$ 0.86
2" Diameter x 3" Aluminum Rod	6061 T6	each	\$ 3.00

### Hardware & Plumbing

Description	Material	Unit	Price
1/4 - 20 threaded rod	steel	ft	\$ 1.02
1/4 - 20 x 3/4" cap screw	steel	each	\$ 0.15
1/4 - 20 x 1" cap screw	steel	each	\$ 0.17
1/4 - 20 hex nuts	steel	each	\$ 0.06
1/4" flat washers	steel	each	\$ 0.02
1/2" ID X 13/16" OD x 1/2" depth self-aligning bronze bushings*	bronze	each	\$ 3.00
1/2" ID x 5/8" OD x 1/2" depth lubricated bronze bushings	bronze	each	\$ 0.60
1/4" lock washers	steel	each	\$ 0.02
Brass pipe fittings (3/8" barbed x 1/4"NPT)	brass	each	\$ 1.43
Plastic tubing (3/8" dia)	PVC	ft	\$ 0.31
Tee connectors (3/8" barbed)	plastic	each	\$ 0.95
1/2" hardened steel spheres	steel	each	\$ 0.08
3/32" gasket (10A-40A durometer)	neoprene	sq in	\$ 0.06

### Machined Parts & Services

Description	Material	Unit	Price
Machined End Caps	6061 T6	each	\$ 1.00
Bored Cylinder, 4"	6061 T6	each	\$ 1.00
Extra 1/4" x 11.75" x 11.75" Acrylic Sheet**	Cast Acrylic	each	\$ 5.00

### Miscellanea

Joe can sometimes provide unusual/unlisted parts and stock. If he has what you're looking for, he will sell it to you. Send an email to [am859@cornell.edu](mailto:am859@cornell.edu) with the price and what was purchased. Do not use for trivial things like bolts.

See Joe  
for Quote

\* 5 degrees of angular freedom and steel retainers; low binding/friction.

[Drawing](#)

\*\* All groups start with one sheet. If purchased, extra sheets will be used for cutting your team's laser orders. If you want to machine your acrylic, submit a laser order for a piece the size you need.