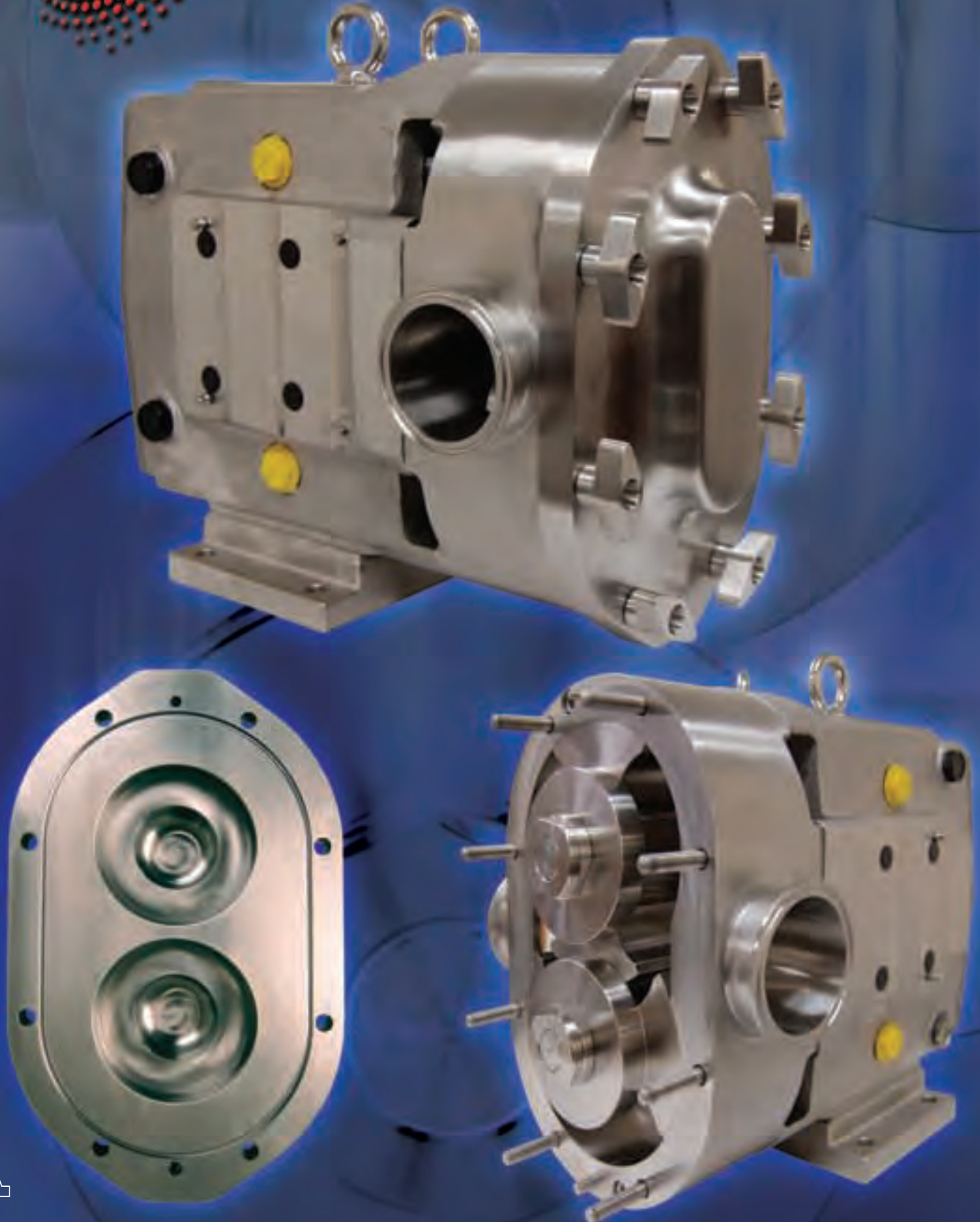


Ampco Pumps Company

Ampco's
ZP Series Pumps



ZP Series PUMPS

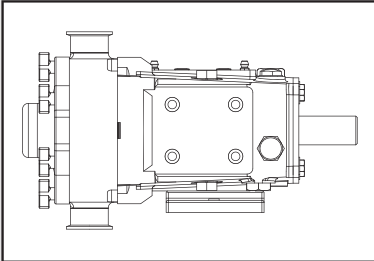
ZP1 and ZP2 pumps are dimensionally and hydraulically interchangeable with competing brands. Visit our website at www.ampcopumps.com for a part number cross reference list.

Both ZP1 and ZP2 models can be rebuilt with over-sized rotors to extend the pump's useful life. Ampco offers several rebuild options. A complete rebuild, with new shafts, gears, bearings and rotors includes a one year factory warranty.

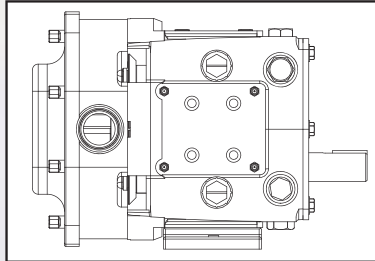
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MOUNTING POSITIONS

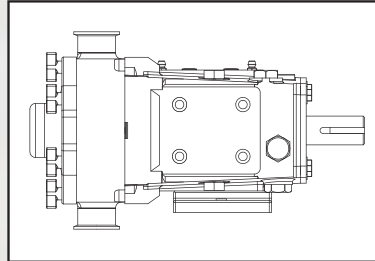
Side Mount Left Hand



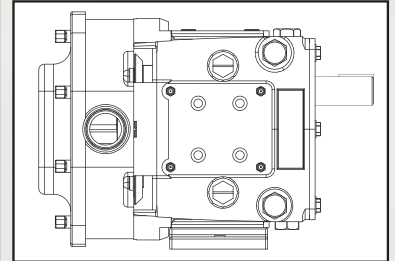
Lower Drive



Side Mount Right Hand



Upper Drive



PERFORMANCE

- Capacity Range: 0.1 to 310 gpm (0.02 to 70.4 m³/hr)
 - Pressure Range: up to 500 psi/ 34 Bar
 - Temperature Range: -40°F to +300°F (-40°C to +150°C)
Note: Hot clearances required for high temp operation
 - Viscosity Range: 28 to 910,000 SSU (1 to 200,000 cSt)
Note: Consult factory for application greater than 910,000 SSU/200,000 cSt
 - Chocolate clearances available

Take advantage of Ampco's ZP2 Series for reduced clean-up time and inline cleanability.



Standard in each new pump is a stainless steel gear case, providing high-resistance to corrosion and compatibility with caustic agents

Tapered roller bearings to maintain axial forces for equal support in both directions

Stainless steel bearing retainer prevents corrosion and enhances bearing protection

Original Alloy 88 material rotors with nongalling appeal to maintain tight tolerances. Optional clearances available

Helical Timing Gears for increased load carrying capacity and reduced noise

Solid 316L stainless steel shafts on small pumps and 17-4PH on larger pumps, providing twice the tensile strength of 316L

Separate oil chamber for gears using anti-microbial lube as standard



Sightglass Oil Plug

Gear housing designed to mount pump in four positions

Sealed cleanout plugs protect and extend bearing life

Threaded grease Zirks for easy replacement

Offering o-ring and mechanical seals to meet all your changing application needs

Cast solid 316L cover

Pump housing is constructed of 316L stainless steel and machined and polished to conform with 3A Standards

All stainless steel hardware prevents corrosion and stripped bolts



COMPARISON CHART

| COMPONENT | AMPCO PUMPS | Waukesha Cherry Burrell | Wright Flow Technologies |
|---------------------------------|-------------|-------------------------|--------------------------|
| Stainless Gear Case | ✓ | ✗ | ✗ |
| Stainless Bearing Retainers | ✓ | ✗ | ✓ |
| 17-4PH H1150 Shafts | ✓ | ✗ | ✓ |
| Helical Gears | ✓ | ✗ | ✓ |
| 4 Way Mounting | ✓ | ✗ | ✓ |
| Multiple Access Grease Fittings | ✓ | ✗ | ✓ |
| Threaded Grease Fittings | ✓ | ✗ | ✗ |
| Solid Wave Spring | ✓ | ✗ | ✓ |
| Antimicrobial Lubricant | ✓ | ✗ | ✓ |
| 6 Oil Fill Plugs | ✓ | ✓ | ✗ |
| Oil Sight Glass | ✓ | ✓ | ✗ |
| Gasketed Clean-out Plugs | ✓ | ✗ | ✗ |

AVAILABLE OPTIONS



Rectangular Flange Inlet

TECHNICAL DATA

ZP1 Pump Performance

| Model | Nominal Capacity | | Displacement | | Max. Differential Pressure | | Temperature Range | | Standard Connection Size | | Optional Connection Size | | Max. Speed |
|---------|------------------|--------------------|-------------------|--------------|----------------------------|-----|-------------------|--------------|--------------------------|-----|--------------------------|-----|------------|
| | GPM | M ³ /hr | Gallons / 100 rev | Liters / rev | PSI | Bar | °F | °C | in. | mm | in. | mm | Rev / min |
| ZP1 6 | 6.0 | 1.3 | 0.8 | 0.030 | 200 | 14 | -40° to 300° | -40° to 150° | 1½" | 40 | 1" | 25 | 800 |
| ZP1 15 | 9.0 | 2.0 | 1.4 | 0.052 | 200 | 14 | -40° to 300° | -40° to 150° | 1½" | 40 | - | - | 700 |
| ZP1 18 | 17.0 | 3.8 | 3.0 | 0.110 | 200 | 14 | -40° to 300° | -40° to 150° | 1½" | 40 | 2" | 50 | 600 |
| ZP1 30 | 36.0 | 8.2 | 6.0 | 0.230 | 200 | 14 | -40° to 300° | -40° to 150° | 1½" | 40 | 2" | 50 | 600 |
| ZP1 60 | 90.0 | 20.4 | 15.0 | 0.580 | 200 | 14 | -40° to 300° | -40° to 150° | 2.5 | 65 | 3" | 80 | 600 |
| ZP1 130 | 150.0 | 34.1 | 25.0 | 0.960 | 200 | 14 | -40° to 300° | -40° to 150° | 3.0 | 80 | 4" | 100 | 600 |
| ZP1 180 | 230.0 | 52.2 | 38.0 | 1.450 | 200 | 14 | -40° to 300° | -40° to 150° | 4.0 | 100 | - | - | 600 |
| ZP1 220 | 310.0 | 70.4 | 52.0 | 1.980 | 200 | 14 | -40° to 300° | -40° to 150° | 4.0 | 100 | - | - | 600 |



Heating Jacketed Cover

| Model | Nominal Capacity | | Displacement | | Max. Differential Pressure | | Temperature Range | | Rec. Inlet (W x L) | | Outlet | | Max. Speed |
|---------|------------------|--------------------|-------------------|--------------|----------------------------|-----|-------------------|--------------|--------------------|----------------|--------|-----|------------|
| | GPM | M ³ /hr | Gallons / 100 rev | Liters / rev | PSI | Bar | °F | °C | inches | mm | in. | mm | Rev / min |
| ZP1 34 | 24.0 | 5.4 | 6.0 | 0.22 | 200 | 14 | -40° to 300° | -40° to 150° | 1.75 x 6.75 | 44.50 x 171.45 | 2" | 50 | 400 |
| ZP1 64 | 60.0 | 13.6 | 15.0 | 0.57 | 200 | 14 | -40° to 300° | -40° to 150° | 2.24 x 8.82 | 56.90 x 224.03 | 2½" | 65 | 400 |
| ZP1 134 | 100.0 | 22.7 | 25.0 | 0.96 | 200 | 14 | -40° to 300° | -40° to 150° | 2.97 x 9.25 | 75.44 x 234.95 | 3" | 80 | 400 |
| ZP1 224 | 200.0 | 45.4 | 52.0 | 1.97 | 200 | 14 | -40° to 300° | -40° to 150° | 3.87 x 11.00 | 98.30 x 279.40 | 4" | 100 | 400 |

ZP2 Pump Performance

| Model | Nominal Capacity | | Displacement | | Max. Differential | | Temperature Range | | Standard Connection | | Optional Connection | | Max. Speed |
|---------|-------------------|--------------------|-------------------|--------------|-------------------|-----|-------------------|-------------|---------------------|-----|---------------------|-----|------------|
| | GPM | M ³ /hr | Gallons / 100 rev | Liters / rev | PSI | Bar | °F | °C | in. | mm | in. | mm | Rev / min |
| ZP2 6 | 8.0 | 1.8 | 0.8 | 0.030 | 300 | 21 | -40° to 200° | -40° to 93° | 1½" | 40 | 1" | 25 | 800 |
| ZP2 15 | 11.0 | 2.5 | 1.4 | 0.052 | 250 | 17 | -40° to 200° | -40° to 93° | 1½" | 40 | - | - | 700 |
| ZP2 18 | 20.0 | 4.5 | 3.0 | 0.108 | 200 | 14 | -40° to 200° | -40° to 93° | 1½" | 40 | 2" | 50 | 600 |
| ZP2 30 | 36.0 | 8.2 | 6.0 | 0.227 | 250 | 17 | -40° to 200° | -40° to 93° | 1½" | 40 | 2" | 50 | 600 |
| ZP2 45 | 58.0 | 13.2 | 10.0 | 0.366 | 450 | 31 | -40° to 200° | -40° to 93° | 2" | 50 | - | - | 600 |
| ZP2 60 | 90.0 | 20.4 | 15.0 | 0.568 | 300 | 21 | -40° to 200° | -40° to 93° | 2½" | 65 | 3" | 80 | 600 |
| ZP2 130 | 150.0 | 34.1 | 25.0 | 0.946 | 200 | 14 | -40° to 200° | -40° to 93° | 3" | 80 | 4" | 100 | 600 |
| ZP2 180 | 230.0 | 52.2 | 38.0 | 1.450 | 450 | 31 | -40° to 200° | -40° to 93° | 4" | 100 | - | - | 600 |
| ZP2 220 | 310.0 | 70.4 | 52.0 | 1.950 | 300 | 21 | -40° to 200° | -40° to 93° | 4" | 100 | - | - | 600 |
| ZP2 210 | Available in 2011 | | | | | | | | | | | | |
| ZP2 320 | Available in 2011 | | | | | | | | | | | | |
| ZP2 323 | Available in 2011 | | | | | | | | | | | | |

| Model | Nominal Capacity | | Displacement | | Max. Differential Pressure | | Temperature Range | | Rec. Inlet (W x L) | | Outlet | | Max. Speed |
|---------|------------------|--------------------|-------------------|--------------|----------------------------|-----|-------------------|-------------|--------------------|----------------|--------|-----|------------|
| | GPM | M ³ /hr | Gallons / 100 rev | Liters / rev | PSI | Bar | °F | °C | inches | mm | in. | mm | Rev / min |
| ZP2 34 | 24.0 | 5.4 | 6.0 | 0.22 | 250 | 17 | -40° to 200° | -40° to 93° | 1.75 x 6.75 | 44.50 x 171.45 | 2" | 50 | 400 |
| ZP2 64 | 60.0 | 13.6 | 15.0 | 0.57 | 300 | 21 | -40° to 200° | -40° to 93° | 2.24 x 8.82 | 56.90 x 224.03 | 2½" | 65 | 400 |
| ZP2 134 | 100.0 | 22.7 | 25.0 | 0.96 | 200 | 14 | -40° to 200° | -40° to 93° | 2.97 x 9.25 | 75.44 x 234.95 | 3" | 80 | 400 |
| ZP2 224 | 200.0 | 45.4 | 52.0 | 1.97 | 300 | 21 | -40° to 200° | -40° to 93° | 3.87 x 11.00 | 98.30 x 279.40 | 4" | 100 | 400 |



ZP1/ZP2 APPLICATIONS

BAKERY

dough • fats • fruit filling • icing • oils • yeast

BEVERAGES

beer • fruit concentrate • fruit juices • mash

CANDY

chocolate • cocoa butter • corn syrup • gelatin • sugars

CANNED FOODS

baby food • jams • jellies • mayonnaise • potato salad • pudding • relish • stews

COSMETICS

creams • emulsions • jellies • lotions • shampoo • toothpaste

DAIRY

butter • cream • curds • ice cream • margarine • milk • soft cheese • yogurt

DRESSINGS

mayonnaise • many other sauces

FLAVORINGS

concentrates • syrups

INDUSTRIAL

auto paint • inks • latex • polymers

MEATS

broth • fats • gelatin • pet foods • sausage fillings



IN-HOUSE CAPABILITIES



Ampco's state-of-the-art machine shop and finishing department allow us to machine, polish, and weld all of our cast parts in-house. This enables Ampco to keep control of scheduling parts based on customer needs while maintaining the most fully stocked inventory shelves in the industry, ensuring prompt deliveries.

Parts are inspected for quality and appearance before proceeding to the shelves in the warehouse. All pumps are tested prior to shipment.

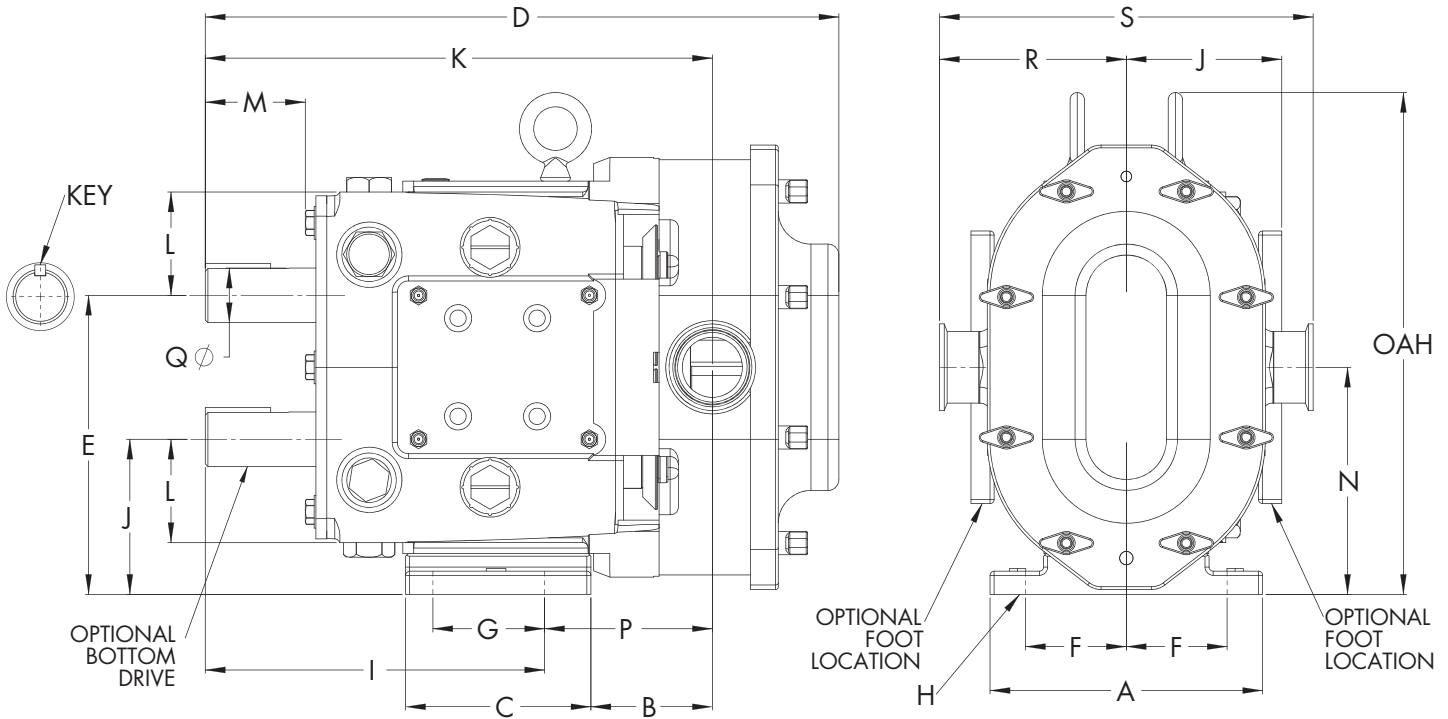


ZP1 Dimensions

| Model | | A | B | C | D | E | F | G | H | I | J | K | L | M | N | PORT SIZE | P | Q | KEY +0.002 -0.000 | R | S | OAH | Weight |
|---------|--------|------|------|------|-------|-------|------|------|-----------|-------|------|-------|------|------|------|-----------|------|-------|-------------------------|------|-------|-------|---------|
| ZP1 6 | inches | 4.75 | 1.95 | 3.75 | 12.04 | 5.50 | 1.94 | 2.31 | .41, SLOT | 6.82 | 2.93 | 9.61 | 2.12 | 2.00 | 4.21 | 1" | 2.79 | 0.875 | 0.1875 | 3.49 | 6.97 | 8.30 | lb. 60 |
| | mm | 121 | 50 | 95 | 306 | 140 | 49 | 59 | 10, SLOT | 173 | 74 | 244 | 54 | 51 | 107 | 25 | 71 | 22.2 | 4.76 | 89 | 177 | 211 | kg. 27 |
| ZP1 15 | inches | 4.75 | 1.95 | 3.75 | 12.04 | 5.50 | 1.94 | 2.31 | .41, SLOT | 6.82 | 2.93 | 9.61 | 2.12 | 2.00 | 4.21 | 1 1/2" | 2.79 | 0.875 | 0.1875 | 3.49 | 6.97 | 8.30 | lb. 60 |
| | mm | 121 | 50 | 95 | 306 | 140 | 49 | 59 | 10, SLOT | 173 | 74 | 244 | 54 | 51 | 107 | 38 | 71 | 22.2 | 4.76 | 89 | 177 | 211 | kg. 27 |
| ZP1 18 | inches | 4.75 | 2.18 | 3.75 | 12.46 | 5.50 | 1.94 | 2.31 | .41, SLOT | 6.82 | 2.93 | 9.84 | 2.12 | 2.00 | 4.21 | 1 1/2" | 3.02 | 0.875 | 0.1875 | 3.55 | 7.09 | 8.30 | lb. 64 |
| | mm | 121 | 55 | 95 | 316 | 140 | 49 | 59 | 10, SLOT | 173 | 74 | 250 | 54 | 51 | 107 | 38 | 77 | 22.2 | 4.76 | 90 | 180 | 211 | kg. 29 |
| ZP1 30 | inches | 6.25 | 2.78 | 4.25 | 14.58 | 6.86 | 2.31 | 2.56 | .41, SLOT | 7.77 | 3.56 | 11.61 | 2.62 | 2.32 | 5.21 | 1 1/2" | 3.84 | 1.25 | 0.250 | 4.25 | 8.50 | 10.29 | lb. 130 |
| | mm | 159 | 71 | 108 | 370 | 174 | 59 | 65 | 10, SLOT | 197 | 90 | 295 | 67 | 59 | 132 | 38 | 98 | 31.8 | 6.35 | 108 | 216 | 261 | kg. 59 |
| ZP1 60 | inches | 8.25 | 4.14 | 5.87 | 18.91 | 9.56 | 3.50 | 4.12 | 0.53 | 10.13 | 5.06 | 15.14 | 3.50 | 2.25 | 7.31 | 2 1/2" | 5.01 | 1.625 | 0.375 | 5.37 | 10.75 | 15.31 | lb. 285 |
| | mm | 210 | 105 | 149 | 480 | 243 | 89 | 105 | 13 | 257 | 129 | 385 | 89 | 57 | 186 | 64 | 127 | 41.3 | 9.53 | 136 | 273 | 389 | kg. 129 |
| ZP1 130 | inches | 8.25 | 4.78 | 5.87 | 19.85 | 9.56 | 3.50 | 4.12 | 0.53 | 10.13 | 5.06 | 15.77 | 3.50 | 2.25 | 7.31 | 3" | 5.65 | 1.625 | 0.375 | 5.37 | 10.75 | 15.31 | lb. 305 |
| | mm | 210 | 121 | 149 | 504 | 243 | 89 | 105 | 13 | 257 | 129 | 401 | 89 | 57 | 186 | 76 | 144 | 41.3 | 9.53 | 136 | 273 | 389 | kg. 138 |
| ZP1 180 | inches | 8.50 | 3.45 | 9.00 | 22.63 | 12.38 | 3.75 | 7.25 | .53, SLOT | 14.05 | 6.38 | 18.25 | 4.50 | 2.75 | 9.38 | 3" | 4.20 | 2.00 | 0.500 | 6.53 | 13.06 | 19.13 | lb. 495 |
| | mm | 216 | 88 | 229 | 575 | 314 | 95 | 184 | 13, SLOT | 357 | 162 | 464 | 114 | 70 | 238 | 76 | 107 | 50.8 | 12.70 | 166 | 332 | 486 | kg. 225 |
| ZP1 220 | inches | 8.50 | 3.69 | 9.00 | 23.37 | 12.38 | 3.75 | 7.25 | .53, SLOT | 14.05 | 6.38 | 18.49 | 4.50 | 2.75 | 9.38 | 4" | 4.44 | 2.00 | 0.500 | 6.63 | 13.25 | 19.13 | lb. 565 |
| | mm | 216 | 94 | 229 | 594 | 314 | 95 | 184 | 13, SLOT | 357 | 162 | 470 | 114 | 70 | 238 | 102 | 113 | 50.8 | 12.70 | 168 | 337 | 486 | kg. 256 |

ZP2 Dimensions

| Model | | A | B | C | D | E | F | G | H | I | J | K | L | M | N | PORT SIZE | P | Q | KEY +0.002 -0.000 | R | S | OAH | Weight |
|---------|--------|------|------|------|-------|-------|------|------|-----------|-------|------|-------|------|------|------|-----------|------|-------|-------------------------|------|-------|-------|---------|
| ZP2 6 | inches | 4.75 | 1.95 | 3.75 | 11.80 | 5.50 | 1.94 | 2.31 | .41, SLOT | 6.82 | 2.93 | 9.61 | 2.12 | 2.00 | 4.21 | 1" | 2.79 | 0.875 | 0.1875 | 3.49 | 6.97 | 8.30 | lb. 56 |
| | mm | 121 | 50 | 95 | 300 | 140 | 49 | 59 | 10, SLOT | 173 | 74 | 244 | 54 | 51 | 107 | 25 | 71 | 22.2 | 4.76 | 89 | 177 | 211 | kg. 25 |
| ZP2 15 | inches | 4.75 | 1.95 | 3.75 | 11.80 | 5.50 | 1.94 | 2.31 | .41, SLOT | 6.82 | 2.93 | 9.61 | 2.12 | 2.00 | 4.21 | 1 1/2" | 2.79 | 0.875 | 0.1875 | 3.49 | 6.97 | 8.30 | lb. 56 |
| | mm | 121 | 50 | 95 | 300 | 140 | 49 | 59 | 10, SLOT | 173 | 74 | 244 | 54 | 51 | 107 | 38 | 71 | 22.2 | 4.76 | 89 | 177 | 211 | kg. 25 |
| ZP2 18 | inches | 4.75 | 2.18 | 3.75 | 12.49 | 5.50 | 1.94 | 2.31 | .41, SLOT | 6.82 | 2.93 | 9.84 | 2.12 | 2.00 | 4.21 | 1 1/2" | 3.02 | 0.875 | 0.1875 | 3.49 | 6.97 | 8.30 | lb. 65 |
| | mm | 121 | 55 | 95 | 317 | 140 | 49 | 59 | 10, SLOT | 173 | 74 | 250 | 54 | 51 | 107 | 38 | 77 | 22.2 | 4.76 | 89 | 177 | 211 | kg. 30 |
| ZP2 30 | inches | 6.25 | 2.78 | 4.25 | 14.58 | 6.86 | 2.31 | 2.56 | .41, SLOT | 7.77 | 3.56 | 11.61 | 2.62 | 2.32 | 5.21 | 1 1/2" | 3.84 | 1.25 | 0.250 | 4.25 | 8.50 | 10.29 | lb. 130 |
| | mm | 159 | 71 | 108 | 370 | 174 | 59 | 65 | 10, SLOT | 197 | 90 | 295 | 67 | 59 | 132 | 38 | 98 | 31.8 | 6.35 | 108 | 216 | 261 | kg. 59 |
| ZP2 45 | inches | 8.25 | 3.86 | 5.87 | 18.56 | 9.56 | 3.50 | 4.12 | 0.53 | 10.13 | 5.06 | 14.86 | 3.50 | 2.25 | 7.31 | 2" | 4.73 | 1.625 | 0.375 | 5.37 | 10.75 | 15.31 | lb. 265 |
| | mm | 210 | 98 | 149 | 471 | 243 | 89 | 105 | 13 | 257 | 129 | 377 | 89 | 57 | 186 | 51 | 120 | 41.3 | 9.53 | 136 | 273 | 389 | kg. 120 |
| ZP2 60 | inches | 8.25 | 4.14 | 5.87 | 19.32 | 9.56 | 3.50 | 4.12 | 0.53 | 10.13 | 5.06 | 15.14 | 3.50 | 2.25 | 7.31 | 2 1/2" | 5.01 | 1.625 | 0.375 | 5.37 | 10.75 | 15.31 | lb. 285 |
| | mm | 210 | 105 | 149 | 491 | 243 | 89 | 105 | 13 | 257 | 129 | 385 | 89 | 57 | 186 | 64 | 127 | 41.3 | 9.53 | 136 | 273 | 389 | kg. 129 |
| ZP2 130 | inches | 8.25 | 4.78 | 5.87 | 20.33 | 9.56 | 3.50 | 4.12 | 0.53 | 10.13 | 5.06 | 15.77 | 3.50 | 2.25 | 7.31 | 3" | 5.65 | 1.625 | 0.375 | 5.37 | 10.75 | 15.31 | lb. 305 |
| | mm | 210 | 121 | 149 | 516 | 243 | 89 | 105 | 13 | 257 | 129 | 401 | 89 | 57 | 186 | 76 | 144 | 41.3 | 9.53 | 136 | 273 | 389 | kg. 138 |
| ZP2 180 | inches | 8.50 | 3.45 | 9.00 | 23.53 | 12.38 | 3.75 | 7.25 | .53, SLOT | 14.05 | 6.38 | 18.25 | 4.50 | 2.75 | 9.38 | 3" | 4.20 | 2.00 | 0.500 | 6.53 | 13.06 | 19.13 | lb. 520 |
| | mm | 216 | 88 | 229 | 598 | 314 | 95 | 184 | 13, SLOT | 357 | 162 | 464 | 114 | 70 | 238 | 76 | 107 | 50.8 | 12.70 | 166 | 332 | 486 | kg. 236 |
| ZP2 220 | inches | 8.50 | 3.69 | 9.00 | 24.27 | 12.38 | 3.75 | 7.25 | .53, SLOT | 14.05 | 6.38 | 18.49 | 4.50 | 2.75 | 9.38 | 4" | 4.44 | 2.00 | 0.500 | 6.63 | 13.25 | 19.13 | lb. 590 |
| | mm | 216 | 94 | 229 | 616 | 314 | 95 | 184 | 13, SLOT | 357 | 162 | 470 | 114 | 70 | 238 | 102 | 113 | 50.8 | 12.70 | 168 | 337 | 486 | kg. 268 |



Please visit www.ampcopumps.com for individual pump curves and dimensional drawings.