

PRIME AIRE® & PRIME AIRE PLUS®

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Priming-Assisted Pumps





Gorman-Rupp has been revolutionizing the pumping industry since 1933. Many of the innovations introduced by Gorman-Rupp over the years have become industry standards.

More than ever, we continue to update our factories, processes, research and development and engineering to ensure that our pumps and systems are among the most reliable and efficient in the world. One of our most successful and innovative lines of pumps has been our self-priming models.

Revolutionary improvements were made in 1963 with the introduction of our T Series[®] self-priming pumps. Since then, continuous improvements to head, flow and efficiency have been made.

In 1996 we introduced our Prime Aire[®] line

of vacuum-/priming-assisted pumps for the construction industry.

Today, Gorman-Rupp priming-assisted pumps are a leading choice for contractors, municipalities and industrial operators throughout the world handling the toughest jobs from sewage bypass to large volume dewatering.

Gorman-Rupp's commitment to our original philosophy of innovation, continuous improvement, unparalleled quality and customer service continues to set us apart from others.

OUR PUMPS DELIVER DECADES OF PERFORMANCE AND VALUE

Gorman-Rupp is committed to meeting your fluid-handling requirements long after installation. The quality manufacturing and testing that goes into every Prime Aire[®] and Prime Aire Plus[®] pump guarantee long-lasting, trouble-free operation. And we provide a two-year warranty and fast parts service to back up our products and ensure your peace of mind.



Value

Prime Aire[®] and Prime Aire Plus[®] pumps boast some of the lowest lifecycle costs in the industry. Because of the quality manufacturing and testing that goes into every Gorman-Rupp product, you benefit from minimal service interruptions and some of the lowest maintenance in the industry. Gorman-Rupp delivers the best ROI by ensuring low operating costs for decades.



Parts And Service

When you need a replacement part for your Prime Aire or Prime Aire Plus pump, you'll have it fast. With tens of thousands of genuine Gorman-Rupp parts and pumps on hand, we fill and ship 99% of parts orders within 24 hours. Should your PA Series® or PAH Series® pump require service, our worldwide network of factory-trained distributors is ready to quickly respond to your needs. With just one number to call for parts and service, it's easy and convenient to keep your equipment performing as it should.



Peace Of Mind

At Gorman-Rupp, we don't just say our pumps are reliable. Unlike standard 90-day or one-year warranties, we guarantee every part and working component of a PA and PAH Series pump for a full two years. With Gorman-Rupp, reliable performance is always guaranteed.

Engine-driven models are available with high-speed wheel kit or DOT trailer with brakes and lighting kit.

GORMAN-RUPP SETS A WHOLE NEW STANDARD IN PRIMING-ASSISTED PERFORMANCE





INDUSTRY-LEADING SUPPORT & WARRANTY

Gorman-Rupp delivers reliable, long-lasting equipment to maximize your ROI and reduce your requirements for service.

Gorman-Rupp stands behind the quality of our priming-assisted pumps to ensure they meet your requirements for the long haul. To maintain industry-leading client satisfaction well beyond product delivery, we offer a variety of services to meet your needs, including:

Training

We provide in-depth training seminars for technical and service personnel in our one-of-a-kind training facility. You'll learn about our products, technologies and how to service your equipment.

Service

Because our equipment is designed for minimum maintenance and ease of service, maintenance is simple and cost-effective to perform in-house, and only minimal resources are required to keep our pumps operating at peak performance.

Our worldwide distribution network is available for service questions and support as well as warranty work. Should you wish to outsource service, our distribution network can provide ongoing service for your pump.

Fast Parts Service

When you need a replacement part for any of our products, you'll have it fast. With the largest pump and parts inventory in the industry at our disposal, we fill and ship most parts orders within 24 hours.

Industry-Leading Warranty

Gorman-Rupp stands behind our products with some of the best warranties in the industry. Our manufacturing processes and rigorous testing standards result in a quality product you can rely on in the toughest applications. We have you covered with warranties up to five years. Visit www.GRpumps.com/warranty for specific warranty information.

All PA Series[®] and PAH Series[®] pumps come standard with a two-year warranty.



POSITIVE RELIABLE PRIMING – TIME AFTER TIME

Dry run capability is designed into the Gorman-Rupp unique primingassisted system. An oversized, oillubricated seal allows the pump to run dry continuously without causing any damage.









Air Compressor Over The Pump

Popular Prime Aire[®] and Prime Aire Plus[®] models are equipped with a "compressor-over-pump" arrangement. This innovative configuration option provides a selfcontained, compact, flexible design and allows for ease of operation and service if necessary.



Impeller Selection

Priming-assisted pumps utilize a variety of impeller types based on your specific application. Many models feature rugged, two-vane, ductile iron, semi-open solids handling impellers that handle up to 4" (101.6 mm) diameter solids. For clean water applications, pump models use higher-efficiency enclosed impellers.

Auto-Start Controls

These controls allow the pump to turn on and off in response to fluctuating liquid levels. A state-of-the-art microprocessor-based digital engine control monitors all engine functions including alarms. The control panel features and easy-to-read 32-character display. It is ideal for conserving fuel, avoiding engine overhauls and comes standard on priming-assisted pump models.



Abrasive-Handling Seal

Most priming-assisted models use oversized, oil-lubricated mechanical seals that are specifically designed for abrasive and/or solids-handling service. Consult the factory for additional seal configurations.

01 | Priming Chamber With Priming Valve

- 02 | Clean Out Access Port
- 03 | Heavy-Duty Ductile Iron Impeller

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- 04 | Cast Iron Or Ductile Iron Body
- **05** | Integrated Oil Chamber
- 06 | Two Lip Seals

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- **07** | Atmospheric Vent
- **08** | Heavy-Duty Alloy Steel Shaft
- 09 | Grease Lubricated Bearings

Model PAH6A60 pictured

Drive Variations



PA Series® Engine driven Shown with optional wheel kit



PA Series® Sound-attenuated clamshell enclosure



PAH Series[®] Engine driven



PA Series® Electric driven

2



PA Series® Sound-attenuated enclosure



PA Series® Sound-attenuated modular enclosure



PA Series[®] & PAH Series[®] Packaged pumping stations



PA Series® ReliaPrime® sound-attenuated back-up system



PAH Series® Electric driven



PAH Series® Pump end

PA Series®

Pump end

PRIME AIRE®

Gorman-Rupp Priming-Assisted Pumps

FEATURES:

- Dry run capability
- Oversized, abrasivehandling mechanical seal
- Standard auto-start control
- A variety of impeller options
- Sound-attenuated and electric-driven configurations available on some models
- Dual-suction side capability (PA6C60 model only)
- Fuel level monitoring system (on Tier IV engine-driven models)

With a variety of sizes and operating ranges, Gorman-Rupp's extensive line of Prime Aire® priming-assisted (dry prime) pumps are hard-working, dependable and ready to tackle the toughest applications including large solids and slurries.

The Prime Aire system uses a venturi compressor priming chamber and priming valve which eliminates the leaks associated with traditional vacuum-assisted pumps. This unique system reduces environmental concerns on sewage bypass operations and also enables the pump to operate under flooded suction conditions without leaking. The positive priming capabilities of the PA Series[®] make it the perfect choice for applications where a large volume of air is in the liquid being pumped, there are intermittent flows or there are long or oversized suction lines. All Prime Aire pumps are configured with EPA Tier compliant engines.



The modular design, featured on several PA Series® pump models, enables the addition/removal of a lightweight, aluminum, acoustically-treated enclosure to the standard fuel base. The enclosure provides excellent corrosion resistance and offers a significant reduction in sound levels (68 dBA at 23'). Gorman-Rupp priming-assisted pumps are the perfect solution for applications where intermittent flow can be a problem. These pumps feature our positive priming system that allows the pumps to run dry continuously without causing damage. The priming system virtually eliminates leaks, reducing environmental concerns and giving the unique capability to operate under flooded-suction staging conditions.

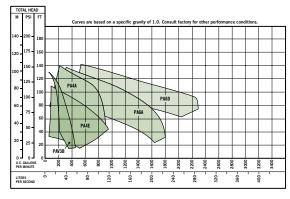


PA SERIES® PUMPS

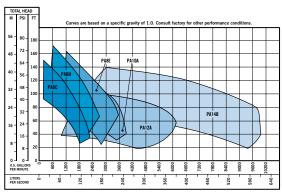
Gorman-Rupp equipment keeps liquids in motion.

Pump Performance Data

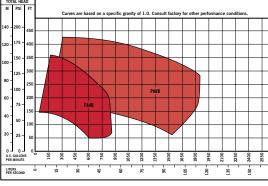
PA Series® - Solids-Handling - 3" - 6"



PA Series® - Solids-Handling - 6"- 14"



PA Series® – High-Head



Prime Aire

Pump Size: 3" (75 mm), 4" (100 mm), 6" (150 mm), 8" (200 mm), 10" (250 mm), 12" (300 mm), 14" (350 mm) Max. Capacity: 9950 GPM (627.8 lps) Max. Solids: 3.5" (88.9 mm) Max. Head: 420' (128.0 m) Materials of Construction: Cast Iron, Ductile Iron

OPERATING RANGES											
MODEL	SIZE (SUC. X DIS.)	MAX. CAPACITY	MAX. HEAD	MAX. SOLIDS	CONSTRUCTION	ENCLOSURE	ENGINE				
SOLIDS-HANDLING											
PAV3B	3" × 3" (75 mm × 75 mm)	450 GPM (28.3 lps)	136′ (41.4 m)	3" (76.2 mm)	Cast Iron	N/A	Yanmar				
PA4A	4" × 4" (100 mm × 100 mm)	930 GPM (58.6 lps)	134′ (40.8 m)	3″ (76.2 mm)	Cast Iron	Modular	Caterpillar, Cummins, Deutz, Isuzu, John Deere				
PA4E	$4^{\prime\prime} \times 4^{\prime\prime}$ (100 mm \times 100 mm)	920 GPM (58.0 lps)	122' (37.2 m)	3″ (76.2 mm)	Cast Iron	Clamshell	Yanmar				
PA6A	6" × 6" (150 mm × 150 mm)	1810 GPM (114.1 lps)	150' (45.7 m)	3″ (76.2 mm)	Cast Iron	N/A	Deutz, John Deere				
PA6C*	6" × 6" (150 mm × 150 mm)	2360 GPM (148.9 lps)	152′ (46.3 m)	3″ (76.2 mm)	Ductile Iron	Sound-attenuated	Caterpillar, Cummins, Deutz, John Deere				
PA6D	6" × 6" (150 mm × 150 mm)	2300 GPM (145.1 lps)	155′ (47.2 m)	3″ (76.2 mm)	Cast Iron	Modular	John Deere				
PA6H	8" × 6" (200 mm × 150 mm)	2650 GPM (167.2 lps)	195′ (59.4 m)	3″ (76.2 mm)	Ductile Iron	Modular	Cummins				
PA8E	8" × 8" (200 mm × 200 mm)	3750 GPM (236.6 lps)	200' (61.0 m)	3″ (76.2 mm)	Ductile Iron	Modular	John Deere				
PA10A	10" × 10" (250 mm × 250mm)	3900 GPM (246.0 lps)	150' (45.7 m)	3.25″ (82.6 mm)	Cast Iron	Sound-attenuated	Cummins, John Deere				
PA12A	12" × 12" (300 mm × 300 mm)	6320 GPM (398.7 lps)	110′ (33.5 m)	3″ (76.2 mm)	Cast Iron	Sound-attenuated	Cummins, John Deere				
PA14B	14" × 14" (350 mm × 350 mm)	9950 GPM (627.7 lps)	155′ (47.2 m)	3.5″ (88.9 mm)	Cast Iron	N/A	John Deere				
HIGH-HEAD											
PA4B	6" × 4" (150 mm × 100 mm)	850 GPM (53.6 lps)	360' (109.7 m)	.41″ (10.4 mm)	Cast Iron	N/A	John Deere				
PA6B	6" × 6" (150 mm × 150 mm)	1900 GPM (119.8 lps)	420' (128.0 m)	.69" (17.5 mm)	Cast Iron	N/A	John Deere				

*Dual-side suction capability featuring a removable coverplate and adjustable/replaceable wearplate.

PRIME AIRE PLUS®

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Increased Head, Increased Flow – Priming-Assisted Pumps

FEATURES:

- Integral seal oil chamber
- Two lip seals and atmospheric vent to assure bearing protection
- Ability to fit other pumping installations
- Fuel level monitoring system (on Tier IV engine-driven models)

PAH Series® Pumps

PAH Series[®] priming-assisted pumps are designed and engineered for the most rugged and demanding mining, construction, municipal, agricultural and industrial applications. All Prime Aire Plus[®] models are backed by an industry leading two-year warranty and are factory tested before they leave our facility.

Prime Aire Plus pumps utilize the same venturi/compressor priming system as the

Prime-Aire product line. Increased head, flow and enhanced maintenance features are additional benefits of the PAH Series line. Models feature sizes up to 16" and are suitable for clear liquids and liquids containing large solids. All Prime Aire Plus pumps are configured with EPA Tier compliant engines or premium efficiency motors.



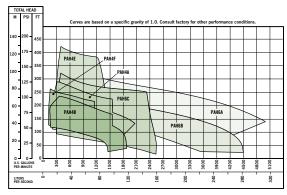
CD4MCu - duplex stainless steel Prime Aire Plus® pumps are available in multiple drive variations including basic units, trailer mounted engine-driven units, or skid mounted electric-driven units and are suitable for corrosive and abrasive liquids containing large solids. Should a problem occur, we have an experienced team of engineers and service technicians available to help trouble-shoot the problem and to offer suggestions on maintaining your equipment for maximum operating performance.

PAH SERIES® PUMPS

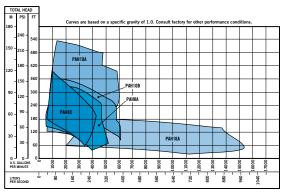
Positive, reliable priming time after time.

Pump Performance Data

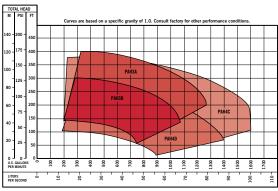
PAH Series® - Solids-Handling - 4" - 6"



PAH Series® - Solids-Handling - 8" - 16"



PAH Series[®] – Clear Liquid-Handling



Prime Aire PLUS^{*} Specifications

Pump Size: 4" (100 mm), 6" (150 mm), 8" (200 mm), 10" (250 mm), 16" (400 mm) Max. Capacity: 15000 GPM (946.4 lps) Max. Solids: 4" (101.6 mm) Max. Head: 575' (175.3 m) Materials of Construction: Cast Iron, Ductile Iron, CD4MCu - Duplex Stainless Steel

OPERATING RANGES											
MODEL	PUMP SIZE (SUC. X DIS.)	MAX. CAPACITY	MAX. HEAD	MAX. SOLIDS	CONSTRUCTION	ENGINE					
SOLIDS-HANDLING											
PAH4A	6" × 4" (150 mm × 100 mm)	2200 GPM (138.8 lps)	310′ (94.5 m)	3″ (76.2 mm)	Ductile Iron, CD4MCu	John Deere					
PAH4B	6" × 4" (150 mm × 100 mm)	1900 GPM (119.8 lps)	245′ (74.6 m)	3″ (76.2 mm)	Ductile Iron, CD4MCu	Cummins, John Deere					
PAH4E	6" × 4" (150 mm × 100 mm)	1550 GPM (97.8 lps)	435' (132.6 m)	3" (76.2 mm)	Ductile Iron	John Deere					
PAH4F	6" × 4" (150 mm × 100 mm)	1600 GPM (100.9 lps)	275' (83.8 m)	3″ (76.2 mm)	Ductile Iron	John Deere					
PAH6A	10" × 6" (250 mm × 150 mm)	5100 GPM (321.8 lps)	355' (108.2 m)	3" (76.2 mm)	Ductile Iron, CD4MCu	John Deere					
PAH6B	10" × 6" (250 mm × 150 mm)	4450 GPM (280.7 lps)	250' (76.2 m)	3″ (76.2 mm)	Ductile Iron, CD4MCu	John Deere					
PAH6C	8" × 6" (200 mm × 150 mm)	2700 GPM (170.3 lps)	348' (106.1 m)	3" (76.2 mm)	Ductile Iron	John Deere					
PAH8A	10" × 8" (250 mm × 200 mm)	5250 GPM (331.2 lps)	340' (103.6 m)	3″ (76.2 mm)	Ductile Iron, CD4MCu	John Deere					
PAH8C	10" × 8" (250 mm × 200 mm)	4275 GPM (269.7 lps)	275′ (83.8 m)	3" (76.2 mm)	Ductile Iron	John Deere					
PAH10A	12" × 10" (300 mm × 250 mm)	6400 GPM (403.8 lps)	575′ (175.3 m)	2" (50.8 mm)	Cast Iron	Caterpillar					
PAH10B	12" × 10" (300 mm × 250 mm)	6100 GPM (384.8 lps)	380′ (115.8 m)	2" (50.8 mm)	Ductile Iron	John Deere					
PAH16A	18" × 16" (450 mm × 400 mm)	15000 GPM (946.4 lps)	205' (65.2 m)	4" (101.6 mm)	Ductile Iron	Caterpillar					
CLEAR LIQUID-HA	CLEAR LIQUID-HANDLING										
РАНЗА	6" × 3" (150 mm × 75 mm)	1275 GPM (80.4 lps)	400′ (121.9 m)	.5″ (12.7 mm)	Ductile Iron	John Deere					
РАНЗВ	6" × 3" (150 mm × 75 mm)	1080 GPM (68.1 lps)	300' (91.4 m)	.5″ (12.7 mm)	Ductile Iron	Cummins, John Deere					
PAH4C	6" × 4" (150 mm × 100 mm)	1600 GPM (100.9 lps)	380′ (115.8 m)	.5″ (12.7 mm)	Ductile Iron	John Deere					
PAH4D	6" × 4" (150 mm × 100 mm)	1450 GPM (91.4 lps)	285′ (86.8 m)	.5" (12.7 mm)	Ductile Iron	Cummins, John Deere					

FLUID-HANDLING EQUIPMENT DESIGNED WITH YOUR NEEDS IN MIND



- ★ Manufacturing Facilities
- Distribution Centers

Gorman-Rupp USA Mansfield, Ohio, USA

Gorman-Rupp Canada St. Thomas, Ontario, Canada Gorman-Rupp Europe Culemborg, Netherlands Gorman-Rupp Belgium Namur, Belgium

Gorman-Rupp Africa Cape Town, South Africa Durban, South Africa Johannesburg, South Africa (Headquarters) Distribution Centers Dubai, United Arab Emirates Grand Prairie, Texas, USA Culemborg, Netherlands

Engineering and manufacturing superiority has been the hallmark of Gorman-Rupp since our inception in 1933. Today we bring our products to life in some of the most efficient, modern and state-of-the-art manufacturing facilities in the world. Gorman-Rupp has a selection of nearly 3,000 pump models, and our world-class team of distributors has worked closely with thousands of end users around the world. We have the proven expertise and the resources to specify, manufacture, test and service your pump, and to ensure reliable performance for the long haul.





GORMAN-RUPP PUMPS

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GRPUMPS.COM



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