AutoPump[®] Catalog

- The Original Automatic Air-Powered Pumps
- Top Choice at Remediation and Landfill Sites Around the World
- Complete Systems

Featuring the AP and AP4⁺ Series

AutoPump Automatic Air-Powered Pumps



Automatic air-powered pumps offer exceptional capabilities in the severe pumping conditions found at many landfill and remediation sites. QED's patented AutoPump originated the automatic air-powered pump concept in 1986 and have lead the industry ever since. AutoPumps were designed specifically to handle difficult conditions reliably and safely, including hydrocarbons, landfill lechates and condensates, solvents, suspended solids, silts, corrosives, and high viscosities, along with high temperatures and frequent starts and stops. Air-powered AutoPumps are proven worldwide at thousands of sites, which is why AutoPumps are the No. 1 choice of professionals based on reliability, durability, performance range and technical support.

The superiority of the AutoPump design is based on four key strengths:

- high clearance fluid pathways
- using air as the motive force
- materials of construction matched to site conditions
- a simple yet rugged operating mechanism

Unlike electric pumps, air-powered AutoPumps use no high-speed motors, bearings or impellers, so AutoPumps don't heat up, sieze up or get ground up. Liquid shearing is typical of electric pumps, creating oil-water emulsions that reduce the performance of downstream treatment equipment. AutoPumps cause far less liquid shearing than electric submersible pumps so downstream treatment systems can perform better. Air-powered also means eliminating the dangers and costs of electricity at and in the well. Finally, AutoPumps actually have a built-in control system - they pump when there is liquid present and shut down when the level is drawn down, without the need for any sensors in the well or controls at the surface.

Application Excellence

Remediation applications and landfill fluids pumping are very challenging. QED is dedicated to providing a comprehensive approach to meeting the specific needs of each site and well, taking into account many factors beyond just flow rate and depth, such as:

- Preferred inlet position- top or bottom
- Pump length to match water column and meet drawdown requirements
- A broad range of materials of construction to match fluid properties and temperature
- Jacketed tubing sets, bundled hose and quick-connect options to ease installation and service
- A wide variety of standard and custom wellhead completions to fit site needs

Experience and Expertise

The AutoPump specialists at QED have unsurpassed experience in both typical and special applications, providing the quality and care that makes a difference. Call us at 1-800-624-2026 for prompt, professional assistance, or visit our web site at www.qedenv.com to access product and application information.

Table of Contents

How AutoPumps Work	2
Why AutoPumps Are Better	3
Guide to AutoPumps Selection	4
Complete Systems	5
Long AP4 + Bottom Inlet Pump	6-9
Short AP4 + Bottom Inlet Pump	10-13
Low-Drawdown AP4 + Bottom Inlet Pump	14-17
Long AP4 ⁺ Top Inlet Pump	18-21
Short AP4 ⁺ Top Inlet Pump	22-25
Low-Drawdown AP4 ⁺ Top Inlet Pump	26-29
Long AP3 Bottom Inlet Pump	30-33
Short AP3 Bottom Inlet Pump	34-37
Long AP3 Top Inlet Pump	38-41
Short AP3 Top Inlet Pump	42-45
Long AP2 Bottom Inlet Pump	46-49
Short AP2 Bottom Inlet Pump	50-53
Long AP2 Top Inlet Pump	54-57
Short AP2 Top Inlet Pump	58-61
Tubing and Hose	62
Well Caps	63
Flow Counters	64
Air Supply	65
Tank-Full Shutoff	66
Application Data Sheet	67
Warranty	Inside Back Cover



Fluid

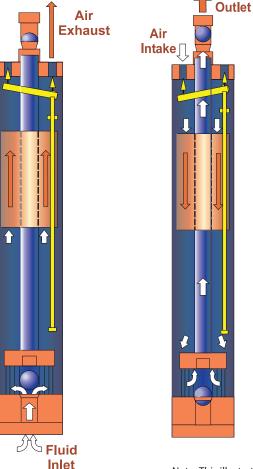
How AutoPumps Work

Fill Cycle

The fluid pushes the inlet check valve open and fluid enters the pump.

As the fluid level rises, air is expelled through the exhaust air valve and the internal float rises to the top of its stroke.

> In this upper position, the float triggers a lever assembly, which closes the air exhaust valve and opens the air inlet allowing air to enter and pressurize the pump.



Discharge Cycle

With the air inlet open, air pressure builds up within the pump body. This causes the fluid inlet check valve to close and forces the fluid to be displaced up and out of the fluid outlet.

As the fluid level falls, the float moves downward to the bottom of its stroke.

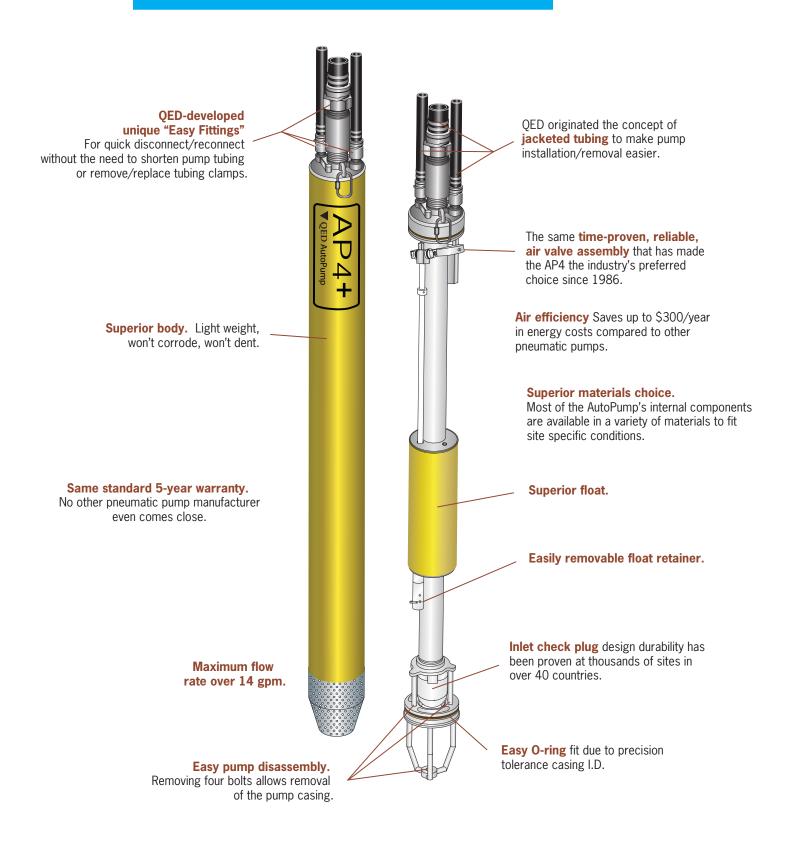
In this lower position, the float triggers the lever assembly to close the air supply and open the air exhaust valve. And a new cycle begins.

Note: This illustration is for a bottom filling format. A top loader is also available with both the inlet and discharge at the top of the pump.

AutoPump Reliability

The AutoPump operating cycle diagrams and explanation above tell just part of the story of AutoPump technology. Engineering an automatic pump to function in clear water is just the start. The real secrets of AutoPump durability and reliability are based on over 18 years of site experience in difficult pumping applications. AutoPumps are designed to resist chemical attack, abrasive wear, mechanical wear, solids deposits, viscous fluids and elevated temperatures. The entire air valve control mechanism has been refined in many subtle ways to survive these severe pumping conditions, using special materials, tolerances, and safety factors to provide years of trouble-free cycling. AutoPumps are the first of their kind, first in design experience, and first in reliability and durability.

Why AutoPumps Are Better



3

Guide to AutoPump Selection

Quick Guide to AutoPump Selection

An important advantage of an AutoPump system is the wide range of choices to truly match site needs. Below is a quick guide to the major configurations and options offered in the AutoPump line, to help you determine which models are best for your project. Of course, you can just call us at 1-800-624-2026, or email us at info@gedenv.com, for fast, personal service by our application specialists.

As a general guideline, pump model selection is usually based on the following primary application criteria. They are presented in the common sequence of consideration, but special site needs may alter the priority.

- Maximum flow and depth pump model, depth, submergence and drive pressure determine the maximum flow rate that can be achieved; see specific pump curves for detailed flow information
- Pump Diameter to fit the well ID; also, larger diameter pumps deliver higher flow rates, all other factors being equal
- Inlet Position top or bottom inlet; a top inlet enhances removal of LNAPLs, while bottom inlets provide the highest flow rates and greatest solids-handling capacity for DNAPL, dissolved and landfill fluids
- Actuation Level minimum height of liquid needed to actuate the pump, also equal to the minimum drawdown level; low-drawdown models are optimized for maximum drawdown
- Materials of construction many models are available in upgraded materials for special applications, such as extremes of pH, suspended solids, high temperatures and aggressive solvents

AutoPumps	Model	Pg#	Inlet Position	Out. Diameter in/cm	Overall Length in/cm	Max. Flow gpm/lpm	¹ Max. Depth ft/m	Act. Level in/cm
3" Bottom Inlet AP Pumps								
Long AP3-Bottom Inlet	Long AP3B	54	Bottom	2.63 / 6.68	52/132	7.3 / 27.6	220/67	31/79
Short AP3-Bottom Inlet	Short AP3B	58	Bottom	2.63 / 6.68	42 / 107	6/22.7	175 / 53.3	22 / 56
3"Top Inlet AP Pumps								
Long AP3-Top Inlet	Long AP3T	62	Тор	3.4/8.64 4	57 / 145	5.4 / 20	220/67	53 / 135
Short AP3-Top Inlet	Short AP3T	66	Тор	3.4 / 8.64 4	47/119	4.8 / 18.1	175 / 53.3	42 / 107
2" Bottom Inlet AP Pumps								
Long AP2-Bottom Inlet	Long AP2B	70	Bottom	1.75 / 4.45	55 / 139	2.3 / 8.82	300/91.4	35 / 89
Short AP2-Bottom Inlet	Short AP2B	74	Bottom	1.75 / 4.45	33/85	2/7.57	300/91.4	20 / 51
2" Top Inlet AP Pumps								
Long AP2-Top Inlet	Long AP2T	78	Тор	1.75 / 4.45	57 / 144	1.9/7.2	300/91.4	52/132
Short AP2-Top Inlet	Short AP2T	82	Тор	1.75 / 4.45	35 / 89	1.6 / 6.0	300/91.4	31/78

¹ Consult for higher flow requirements

² High Pressure Option for 4" AP pumps

³ Optional radial inlet model provides 11.5" / 29 cm actuation level

⁴ Optional 2.63" (6.68cm) OD available

Complete Systems

Complete AutoPump[®] systems offer the greatest assurance of a smooth installation, dependable performance and easy maintenance. Common system components include:

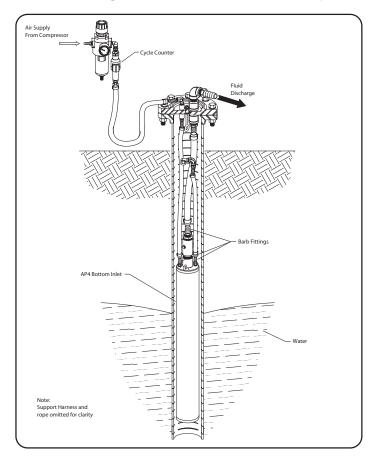
- In-well hose and tubing see page 86
- Barbs, quick-connects and other fitting options see page 87
- Wellhead completion caps and flanges see page 87
- Cycle counters see page 88
- Air system filter/regulators see page 89

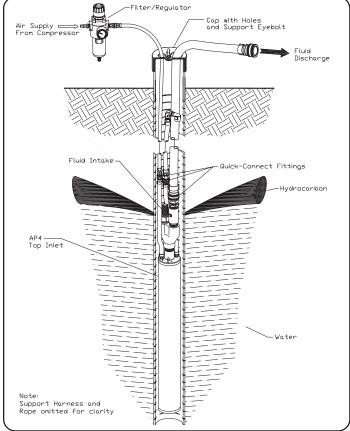
Call or visit www.gedenv.com for prompt assistance with all of the above.

Basic Pump Systems

Basic System Bottom Inlet Pump

Basic System Top Inlet Pump





Bottom Inlet, Long

Max. Flow	14 gpm (60 lpm)*
0.D.	3.5 in (8.9 cm)
Length	53 in. (135 cm)

AP4+B

Advantages

- 1. The original automatic airpowered well pump, proven worldwide over 18 years
- 2. The highest flow rates and deepest pumping capabilities in the industry
- Patented, proven design for superior reliability and durability, even in severe applications
- Handles solids, solvents, hydrocarbons corrosive conditions, viscous fluids and high temperatures beyond the limits of electric pumps
- 5. Five-year warranty



Description

The AP4⁺ Bottom Inlet Long AutoPump provides maximum capabilities and flow in a bottom inlet pump for 4" (100 mm) diameter and larger wells. The base model delivers flow rates up to 14 gpm (53 lpm)*, and optional versions are offered to handle even the most severe remediation and landfill pumping applications. The AP4⁺ Long Bottom Inlet AutoPump is complemented by the most comprehensive selection of accessories to provide a complete system to meet site-specific requirements. Call QED for prompt, noobligation assistance on your pumping project needs.

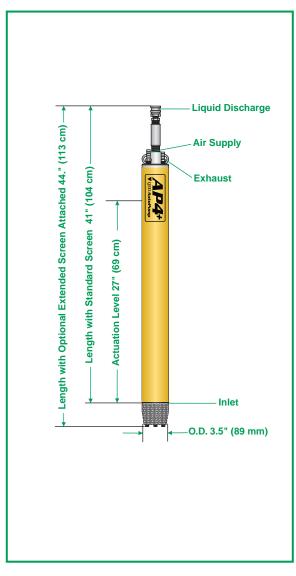
The AutoPump Heritage

The AP4⁺ Bottom Inlet Long AutoPump is part of the famous AutoPump family of original automatic air-powered pumps, developed in the mid 1980s specifically to handle unique pumping needs at remediation and landfill sites. Over the years they've proven their durability at thousands of sites worldwide. AutoPumps are designed to handle difficult pumping challenges that other pumps can't, such as hydrocarbons, solvents, suspended solids, corrosives, temperature extremes, viscous fluids and frequent start/stop cycles. Beyond just the pump, AutoPump systems offer the most complete range of tubing, hose, connectors, wellhead caps and accessories to help your installation go smoothly. This superior pumping heritage, application experience and support back up every AutoPump you put to work on your project.

* Consult for higher flow requirements

Bottom Inlet, Long AP4+B

Pump Dimensions



Specifications & Operating Requirements

Model	4" - Long AP4+ Bottom Inlet
Liquid Inlet Location	Bottom
OD	3.5 in. (8.9 cm)
Length Overall (pump & fittings)	53 in. (135 cm)
Length Overall, w / Extended Screen	56 in. (142 cm)
Weight	16 lbs. (7.3 kg)
Max. Flow Rate	14 gpm (53 lpm) - See Flow Rate Chart*
Pump Volume / Cycle	0.58 - 0.78 gal (2.2 - 3.0L)
Min. Actuation Level	35 in. (89 cm)
Standard Pump	
Max. Depth	250 ft. (76 m)
Air Pressure Range	5 - 120 psi (0.4 - 8.4 kg/cm2)
Air Usage	0.4-1.1 scf / gal. (3.0-8.5 liters of air /
	fluid liter) - See Air usage chart
High Pressure Pump	
Max. Depth	425 ft. (130 m)
Air Pressure Range	5 - 200 psi (0.4 - 14.1 kg/cm2)
Min. Liquid Density	0.7 SpG (0.7 g/cm3)
Standard Construction Materials ¹	
Pump Body	Fiberglass or Stainless Steel
Pump Ends	Stainless Steel, UHMWPE ³ , Brass
Internal Components	Stainless Steel, Viton, Acetal, PVDF ⁴
Tube & Hose Fittings	Brass or Stainless Steel
Fitting Type	Barbs or Quick Connects
Tube & Hose Options	
Tubing Material ²	Nylon
Sizes - Liquid Discharge	1 in. (25 mm) or 1-1/4 in. (32 mm) OD
Pump Air Supply	1/2 in. (13 mm) OD
Air Exhaust	5/8 in. (16 mm) OD
Hose Material	Nitrile
Sizes - Liquid Discharge	3/4 in. (19 mm) or 1 in. (25 mm) ID
Pump Air Supply	3/8 in. (9.5 mm) ID
Air Exhaust	1/2 in. (13 mm) ID
¹ Material upgrades available	³ UHMWPE - Ultra High Molecular Weight Polyethylene
² Applies to QED supplied tubing;	
other tubing sources may not	⁴ PVDF - Polyvinylidene Fluoride

other tubing sources may not conform to QED fittings.

⁴ PVDF - Polyvinylidene Fluoride

Application Limits (Base model)

AP4+ AutoPumps are designed to handle the application ranges described below. For applications outside these ranges, consult QED about AP4 upgrades.

Maximum Temperature: 150°F (65°C) pH Range: 4-9 Solvents and Fuels: diesel, gasoline, JP1-JP6, #2 heating oils, BTEX, MTBE, landfill liquids

*Consult for higher flow requirements

Long and short AP4+ AutoPumps are warranted for five (5) years: 100% materials and workmanship first three (3) years; 50% materials and workmanship for the fourth (4th) and fifth (5th) years.

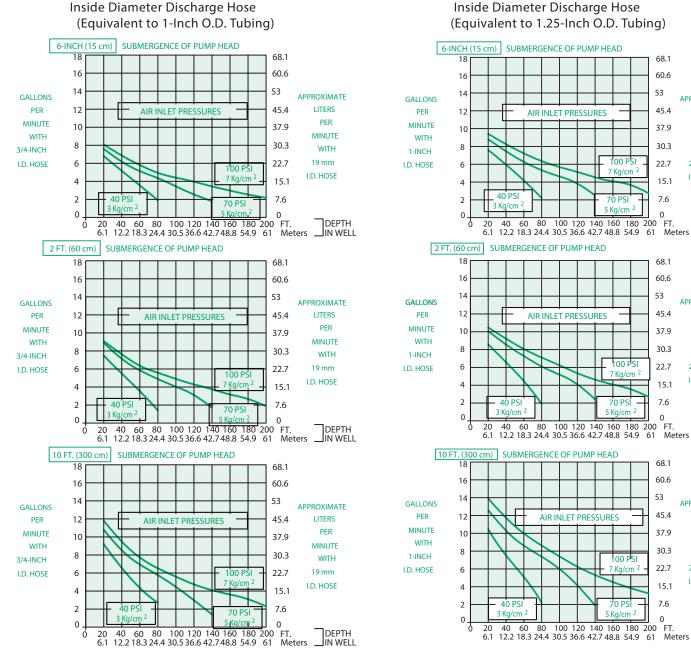
Low-Drawdown AutoPumps are warranted for one (1) year.

7

AP4+B Bottom Inlet, Long

3/4 inch (19 mm)

Flow Rates¹



1 inch (25.4 mm) Inside Diameter Discharge Hose (Equivalent to 1.25-Inch O.D. Tubing)

68.1

60.6

53

45.4

37.9

30.3

22.7

151

7.6

0

68.1

60.6

53

45.4

37.9

30.3

22.7

15.1

7.6

0

68.1

60.6

53

454

37.9

30.3

227

151

7.6

100 PSI

7 Kg/cm

70 PS

 5 Ka/cm^2

100 PSI

7 Ka/cm

70 PS

100 PSI

7 Kg/cm

70 PS

 5 Kg/cm^2

5 Ka/cm

APPROXIMATE

LITERS

PER

MINUTE

WITH

25.4 mm

I.D. HOSE

DEPTH

IN WELL

APPROXIMATE

LITERS

PER

MINUTE

WITH

25.4 mm

I.D. HOSE

APPROXIMATE

LITERS

PER

MINUTE

25.4 mm

I.D. HOSE

DEPTH

IN WELL

WITH

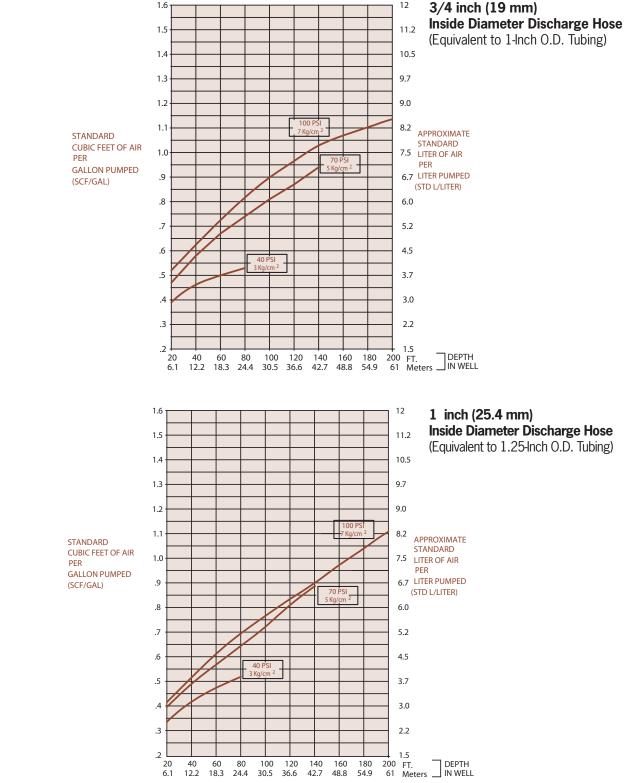
DEPTH

IN WELL

¹FLOW RATES MAY VARY WITH SITE CONDITIONS. CALL FOR TECH NICAL ASSISTANCE.

Bottom Inlet, Long AP4+B

Air Consumption



9

Bottom Inlet, Short

Max. Flow 13 gpm (49 lpm) O.D. 3.5 in (8.9 cm)

AP4+B

Length 41 in. (104 cm)

Advantages

- 1. The original automatic airpowered well pump, proven worldwide over 18 years
- 2. The highest flow rates and deepest pumping capabilities in the industry
- Patented, proven design for superior reliability and durability, even in severe applications
- Handles solids, solvents, hydrocarbons corrosive conditions, viscous fluids and high temperatures beyond the limits of electric pumps
- 5. Five-year warranty



Description

The AP4⁺ Bottom Inlet Short AutoPump provides maximum capabilities and flow in a bottom inlet pump for 4" (100 mm) diameter and larger wells with shorter water columns and/or the need to pump down to lower water levels, compared to full-length pumps. It is offered in optional versions to handle even the most severe remediation and landfill pumping applications, and delivers flow rates up to 13 gpm (49 lpm)*. The AP4 + Short Bottom Inlet AutoPump is complemented by the most comprehensive selection of accessories to provide a complete system to meet sitespecific requirements. Call QED for prompt, no-obligation assistance on your pumping project needs.

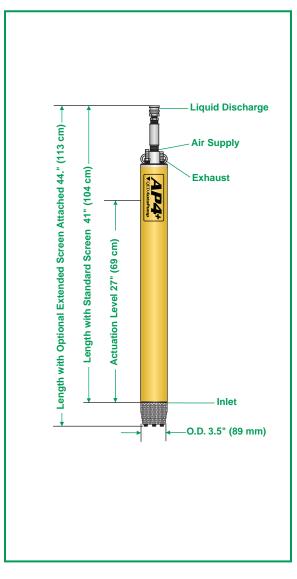
The AutoPump Heritage

The AP4⁺ Bottom Inlet Short AutoPump is part of the famous AutoPump family of original automatic air-powered pumps, developed in the mid 1980s specifically to handle unique pumping needs at remediation and landfill sites. Over the years they've proven their durability at thousands of sites worldwide. AutoPumps are designed to handle difficult pumping challenges that other pumps can't, such as hydrocarbons, solvents, suspended solids, corrosives, temperature extremes, viscous fluids and frequent start/ stop cycles. Beyond just the pump, AutoPump systems offer the most complete range of tubing, hose, connectors, wellhead caps and accessories to help your installation go smoothly. This superior pumping heritage, application experience and support back up every AutoPump you put to work on your project.

* Consult for higher flow requirements

Bottom Inlet, Short

Pump Dimensions



Specifications & Operating Requirements

AP4+B

Model	4" - Short AP4+ Bottom Inlet
Liquid Inlet Location	Bottom
OD	3.5 in. (8.9 cm)
Length Overall (pump & fittings)	41 in. (104 cm)
Length Overall, w / Extended Screen	44 in. (112 cm)
Weight	13 lbs. (5.9 kg)
Max. Flow Rate	13 gpm (49 lpm)* - See Flow Rate Chart
Pump Volume / Cycle	0.22 - 0.36 gal (.83 - 1.36L)
Min. Actuation Level	27 in. (69 cm)
Standard Pump	
Max. Depth	250 ft. (76 m)
Air Pressure Range	5 - 120 psi (0.4 - 8.4 kg/cm2)
Air Usage	0.4-1.5 scf / gal. (1.5 - 5.7 liters of air /
	fluid liter) - See air usage chart
	Ŭ
High Pressure Pump	
Max. Depth	425 ft. (130 m)
Air Pressure Range	5 - 200 psi (0.4 - 14.1 kg/cm2)
Min. Liquid Density	0.7 SpG (0.7 g/cm3)
Standard Construction Materials ¹	5"
Pump Body	Fiberglass or Stainless Steel
Pump Ends	Stainless Steel, UHMWPE ³ , Brass
Internal Components	Stainless Steel, Viton, Acetal, PVDF ⁴
Tube & Hose Fittings	Brass or Stainless Steel
Fitting Type	Barbs or Quick Connects
Tube & Hose Options	
Tubing Material ²	Nvlon
Sizes - Liquid Discharge	1 in. (25 mm) or 1-1/4 in. (32 mm) OD
Pump Air Supply	1/2 in. (13 mm) OD
Air Exhaust	5/8 in. (16 mm) OD
Hose Material	Nitrile
Sizes - Liquid Discharge	3/4 in. (19 mm) or 1 in. (25 mm) ID
Pump Air Supply	3/8 in. (9.5 mm) ID
Air Exhaust	1/2 in. (13 mm) ID
	,
¹ Material upgrades available	³ UHMWPE - Ultra High Molecular Weight Polyethylene
² Applies to QED supplied tubing;	⁴ PVDF - Polyvinylidene Fluoride
other tubing sources may not	-

Application Limits (Base model)

AP4+ AutoPumps are designed to handle the application ranges described below. For applications outside these ranges, consult QED about AP4 upgrades.

Maximum Temperature: 150°F (65°C) pH Range: 4-9 Solvents and Fuels: diesel, gasoline, JP1-JP6, #2 heating oils, BTEX, MTBE, landfill liquids

*Consult for higher flow requirements

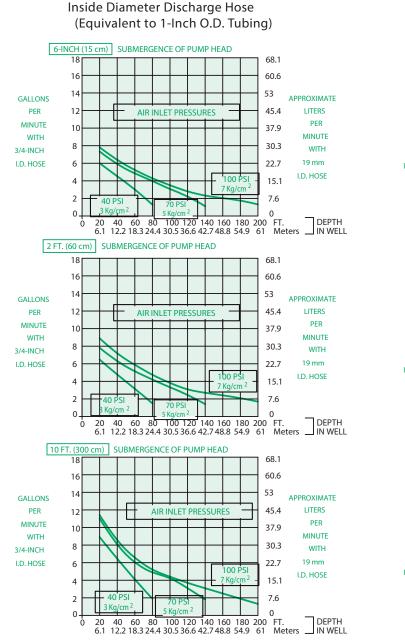
Long and short AP4+ AutoPumps are warranted for five (5) years: 100% materials and workmanship first three (3) years; 50% materials and workmanship for the fourth (4th) and fifth (5th) years.

conform to QED fittings.

Low-Drawdown for the AutoPumps are warranted for one (1) year.

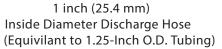
Bottom Inlet, Short

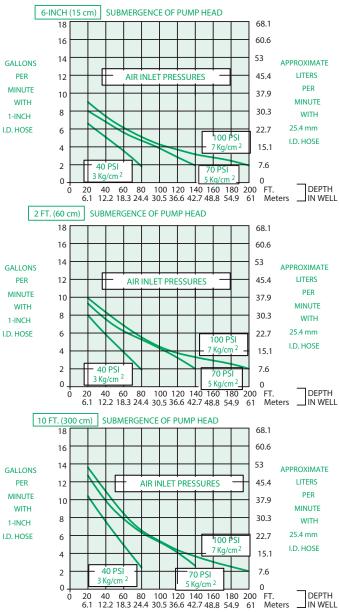
Flow Rates¹



AP4+B

3/4 inch (19 mm)



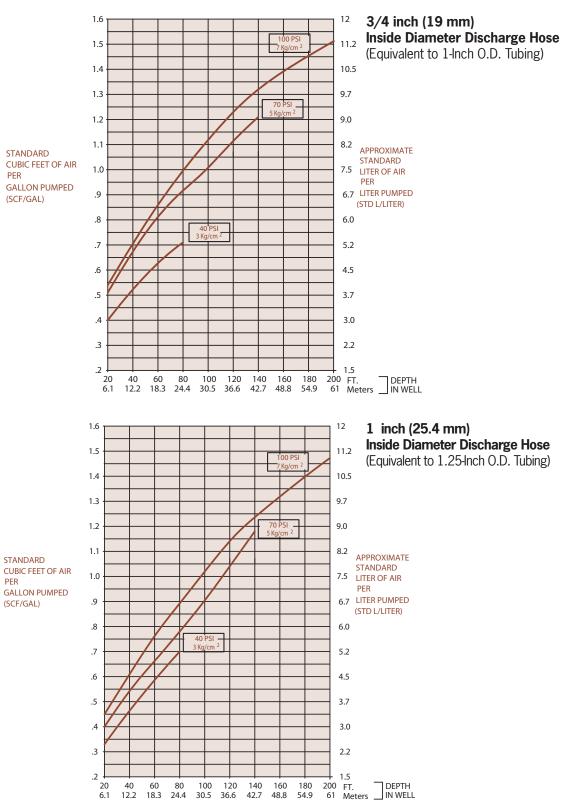


¹FLOW RATES MAY VARY WITH SITE CONDITIONS. CALL FOR TECH NICAL ASSISTANCE.

Bottom Inlet, Short AP4+B

Air Consumption





LDAP4+B

AutoPump

Low-Drawdown, Bottom Inlet

Max. Flow	7.0 gpm (26.5 lpm)
0.D.	3.5 in (8.9 cm)
Length	25 in. (63.5 cm)

Advantages

- 1. The original automatic airpowered well pump, proven worldwide over 18 years
- 2. The highest flow rates and deepest pumping capabilities in the industry in a low drawdown bottom-fill pump
- Patented, proven design for superior reliability and durability, even in severe applications
- 4. Handles solids, solvents, hydrocarbons corrosive conditions, viscous fluids and high temperatures beyond the limits of electric pumps
- 5. One-year warranty



Description

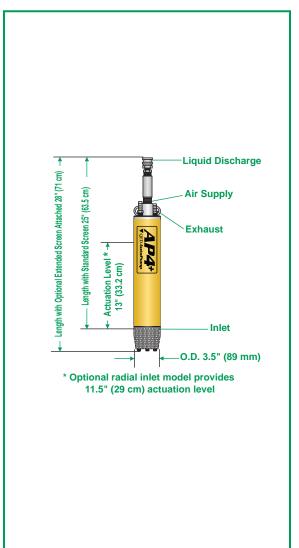
The AP4 + Low-Drawdown Bottom Inlet AutoPump provides maximum capabilities and flow in a bottom inlet pump for 4" (100 mm) diameter and larger wells with very short water columns and/or the need to pump down to as low as 11.5 inches (29 cm) above the bottom. It is offered in optional versions to handle even the most severe remediation and landfill pumping applications, and delivers flow rates up to 7 gpm (26.5 lpm). The AP4 + Low Drawdown Bottom Inlet AutoPump is complemented by the most comprehensive selection of accessories to provide a complete system to meet site specific requirements. Call QED for prompt, no-obligation assistance on your pumping project needs.

The AutoPump Heritage

The AP4⁺ Low-Drawdown Bottom Inlet AutoPump is part of the famous AutoPump family of original automatic airpowered pumps, developed in the mid 1980s specifically to handle unique pumping needs at remediation and landfill sites. Over the years they've proven their durability at thousands of sites worldwide. AutoPumps are designed to handle difficult pumping challenges that other pumps can't, such as hydrocarbons, solvents, suspended solids, corrosives, temperature extremes, viscous fluids and frequent start/stop cycles. Beyond just the pump, AutoPump systems offer the most complete range of tubing, hose, connectors, wellhead caps and accessories to help your installation go smoothly. This superior pumping heritage, application experience and support back up every AutoPump you put to work on your project.

Low-Drawdown, Bottom Inlet

Pump Dimensions



Specifications & Operating Requirements

Model	4" - Low-Drawdown AP4+ Bottom Inlet	
Liquid Inlet Location	Bottom (standard plug type check valve)	
OD	3.5 in. (8.9 cm)	
Length Overall (pump & fittings)	25 in. (63.5 cm)	
Length Overall, w / Extended Screen	28 in. (71.1 cm)	
Weight	11 lbs. (5.0 kg)	
Max. Flow Rate	7 gpm (26.5 lpm)	
Pump Volume / Cycle	0.11 - 0.16 gal (.4261L)	
Max. Depth	250 ft. (76 m)	
Air Pressure Range	5 - 120 psi (0.4 - 8.4 kg/cm2)	
Min. Actuation Level	13 in. (33.2 cm) standard outlet	
	11.5 in. (29 cm) w/ radial inlet	
Air Usage	.32 - 2.86 scf/gal (2.2 - 21.5 liters of air/fluid	
	liter) See air usage chart	
Min. Liquid Density	0.7 SpG (0.7 g/cm3)	
Standard Construction Materials ¹		
Pump Body	Fiberglass or Stainless Steel	
Pump Ends	Stainless Steel, UHMWPE ³ , Brass	
Internal Components	Stainless Steel, Viton, Acetal, PVDF ⁴	
Tube & Hose Fittings		
Fitting Type		
Tube & Hose Options		
Tubing Material ²	Nylon	
Sizes - Liquid Discharge	1 in. (25 mm) or 1-1/4 in. (32 mm) OD	
Pump Air Supply	1/2 in. (13 mm) OD	
Air Exhaust	5/8 in. (16 mm) OD	
Hose Material		
Sizes - Liquid Discharge	3/4 in. (19 mm) or 1 in. (25 mm) ID	
Pump Air Supply	3/8 in. (9.5 mm) ID	
Air Exhaust	1/2 in. (13 mm) ID	
¹ Material upgrades available ² Applies to QED supplied tubing;	³ UHMWPE - Ultra High Molecular Weight Polyethylene	

¹Material upgrades available ²Applies to QED supplied tubing; other tubing sources may not conform to QED fittings.

⁴ PVDF - Polyvinylidene Fluoride

LDAP4+B

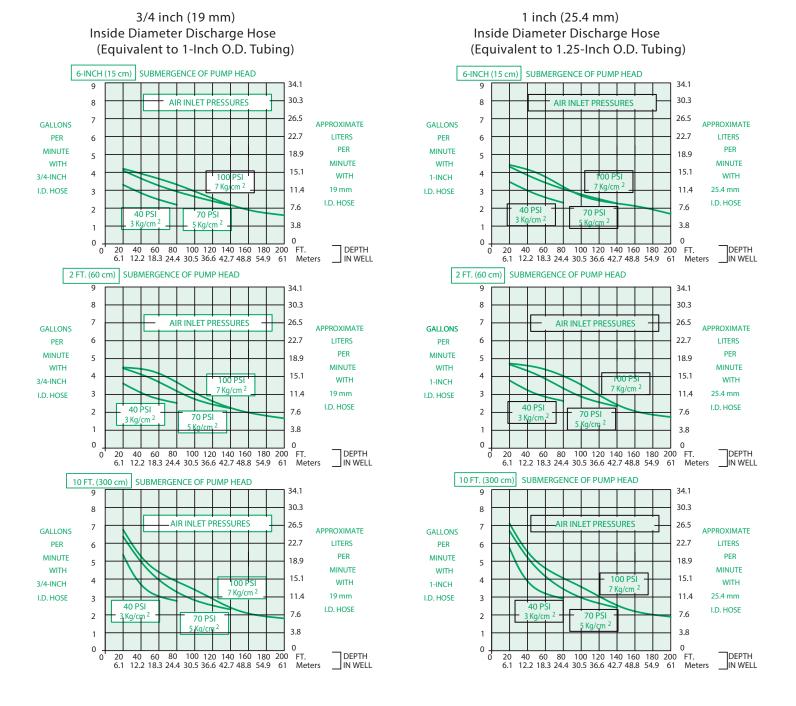
Application Limits (Base model)

AP4+ AutoPumps are designed to handle the application ranges described below. For applications outside these ranges, consult QED about AP4 upgrades.

Maximum Temperature: 150°F (65°C) pH Range: 4-9 Solvents and Fuels: diesel, gasoline, JP1-JP6, #2 heating oils, BTEX, MTBE, landfill liquids Low-Drawdown AP4+ AutoPumps warranted for one (1) year: 100% materials and workmanship.

Low-Drawdown, Bottom Inlet

Flow Rates¹



¹FLOW RATES MAY VARY WITH SITE CONDITIONS. CALL FOR TECH NICAL ASSISTANCE.

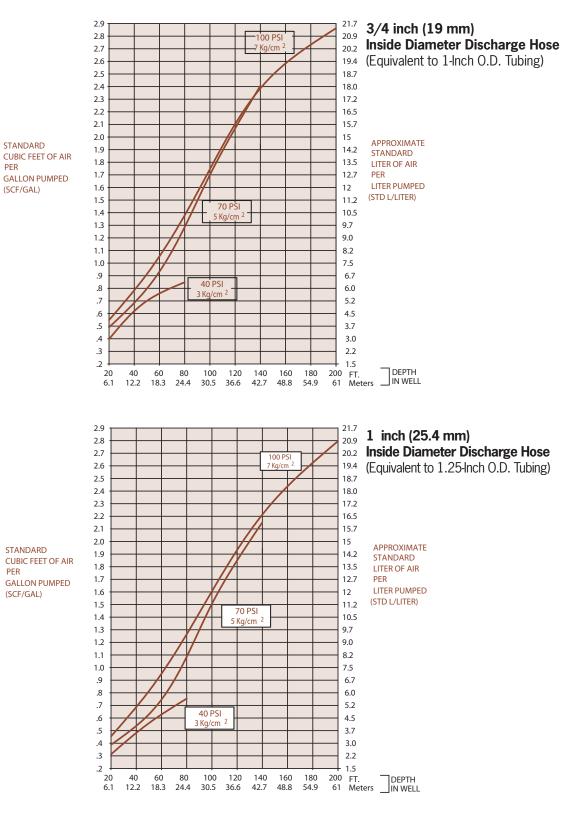
LDAP4+B

Low-Drawdown, Bottom Inlet

LDAP4+B

Air Consumption





Top Inlet, Long

Max. Flow	10 gpm (38 lpm)
0.D.	3.5 in (8.9 cm)
Length	57 in. (145 cm)

P4+T

Advantages

- 1. The original automatic airpowered well pump, proven worldwide over 18 years
- 2. The highest flow rates and deepest pumping capabilities in the industry
- Patented, proven design for superior reliability and durability, even in severe applications
- Handles solids, solvents, hydrocarbons corrosive conditions, viscous fluids and high temperatures beyond the limits of electric pumps
- 5. Five-year warranty



Description

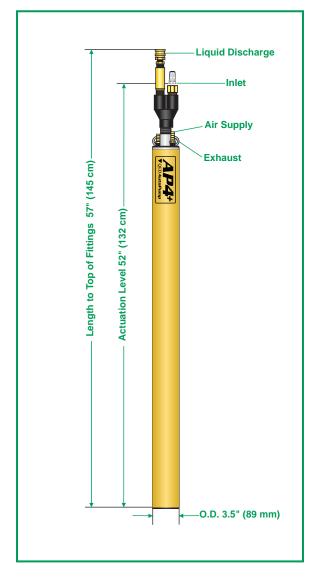
The AP4⁺ Top Inlet Long AutoPump provides maximum capabilities and flow in a top inlet pump for 4" diameter and larger wells needing an elevated inlet, such as pumping total fluids from wells contaminated with LNAPLs. It is offered in optional versions to handle even the most severe remediation and landfill pumping applications, and delivers flow rates up to 10 gpm^{*}. The AP4⁺ Long Top Inlet AutoPump is complemented by the most comprehensive selection of accessories to provide a complete system to meet site-specific requirements. Call QED for prompt, noobligation assistance on your pumping project needs.

The AutoPump Heritage

The AP4⁺ Top Inlet Long AutoPump is part of the famous AutoPump family of original automatic air-powered pumps, developed in the mid 1980s specifically to handle unique pumping needs at remediation and landfill sites. Over the years they've proven their durability at thousands of sites worldwide. AutoPumps are designed to handle difficult pumping challenges that other pumps can't, such as hydrocarbons, solvents, suspended solids, corrosives, temperature extremes, viscous fluids and frequent start/ stop cycles. Beyond just the pump, AutoPump systems offer the most complete range of tubing, hose, connectors, wellhead caps and accessories to help your installation go smoothly. This superior pumping heritage, application experience and support back up every AutoPump you put to work on your project.

Top Inlet, Long AP4+T

Pump Dimensions



Specifications & Operating Requirements

Model	4" - Long AP4+ Top Inlet	
Liquid Inlet Location	Тор	
OD	3.5 in. (8.9 cm) OD	
Length Overall (pump & fittings)	57 in. (145 cm) OD	
Weight	18 lbs. (8.7 kg)	
Max. Flow Rate	10 gpm (38 lpm) - See Flow Rate Chart	
Pump Volume / Cycle	0.58 - 0.78 gal (2.2 - 3.0L)	
Min. Actuation Level	52 in. (132 cm)	
Standard Pump		
Max. Depth	250 ft. (76 m)	
Air Pressure Range	5 - 120 psi (0.4 - 8.4 kg/cm2)	
Air Usage	0.35-1.1 scf / gal. (3.0-8.4 liters of air / fluid lite	
High Pressure Pump		
Max. Depth	425 ft. (130 m)	
Air Pressure Range	5 - 200 psi (0.4 - 14.1 kg/cm2)	
Min. Liquid Density	0.7 SpG (0.7 g/cm3)	
Standard Construction Materials ¹		
Pump Body	Fiberglass or Stainless Steel	
Pump Ends	Stainless Steel, Acetal, Brass	
Internal Components	Stainless Steel, Viton, Acetal, PVDF ³	
Tube & Hose Fittings	Brass or Stainless Steel	
Fitting Type	Barbs or Quick Connects	
Tube & Hose Options		
Tubing Material ²	Nylon	
Sizes - Liquid Discharge	1 in. (25 mm) or 1-1/4 in. (32 mm) OD	
Pump Air Supply	1/2 in. (13 mm) OD	
Air Exhaust	5/8 in. (16 mm) OD	
Hose Material	Nitrile	
Sizes - Liquid Discharge	3/4 in. (19 mm) or 1 in. (25 mm) ID	
Pump Air Supply	3/8 in. (9.5 mm) ID	
Air Exhaust	1/2 in. (13 mm) ID	
¹ Material upgrages available	³ PVDF - Polyvinylidene Fluoride	
² Applies to QED supplied tubing; other tubing sources may not		

Standard Application Limits (standard model)

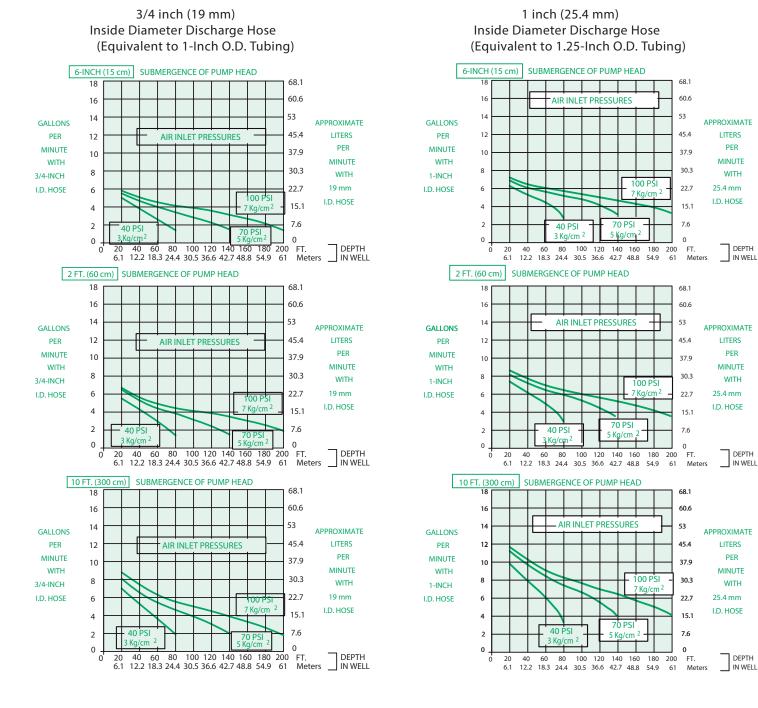
AP4+ AutoPumps are designed to handle the application ranges described below. For applications outside these ranges, consult QED.

Maximum Temperature: 150°F (65°C) pH Range: 4-9 Solvents and Fuels: diesel, gasoline, JP1-JP6, #2 heating oils, BTEX, MTBE, landfill liquids

AP4+ AutoPumps are warranted for five (5) years: 100% materials and workmanship for the first three (3) years; 50% materials and workmanship for the fourth (4th) and fifth (5th) years.

AP4+T Top Inlet, Long

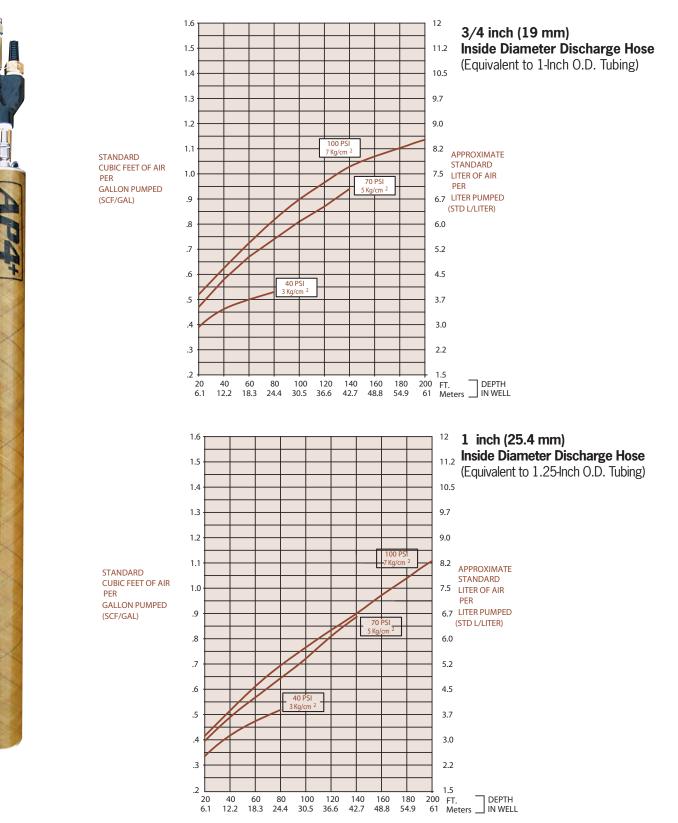
Flow Rates ¹



¹FLOW RATES MAY VARY WITH SITE CONDITIONS. CALL FOR TECH NICAL ASSISTANCE.

Top Inlet, Long AP4+T

Air Consumption



Top Inlet, Short

Max. Flow 9 gpm (34 lpm)

0.D. 3.5 in (8.9 cm)

AP4+T

Length 42 in. (107 cm)

Advantages

- 1. The original automatic airpowered well pump, proven worldwide over 18 years
- 2. The highest flow rates and deepest pumping capabilities in the industry
- 3. Patented, proven design for superior reliability and durability, even in severe applications
- 4. Handles solids, solvents, hydrocarbons corrosive conditions, viscous fluids and high temperatures beyond the limits of electric pumps
- 5. Five-year warranty



Description

The AP4⁺ Top Inlet Short AutoPump provides maximum capabilities and flow in a top inlet pump for 4" (100 mm) diameter and larger wells with shorter water columns and the need for an elevated inlet, such as pumping total fluids from wells contaminated with LNAPLs. It is offered in optional versions to handle even the most severe remediation and landfill pumping applications, and delivers flow rates up to 9 gpm (34 lpm)*. The AP4+ Short Top Inlet AutoPump is complemented by the most comprehensive selection of accessories to provide a complete system to meet site-specific requirements. Call QED for prompt, noobligation assistance on your pumping project needs.

The AutoPump Heritage

The AP4⁺ Top Inlet Short AutoPump is part of the famous AutoPump family of original automatic air-powered pumps, developed in the mid 1980s specifically to handle unique pumping needs at remediation and landfill sites. Over the years they've proven their durability at thousands of sites worldwide. AutoPumps are designed to handle difficult pumping challenges that other pumps can't, such as hydrocarbons, solvents, suspended solids, corrosives, temperature extremes, viscous fluids and frequent start/ stop cycles. Beyond just the pump, AutoPump systems offer the most complete range of tubing, hose, connectors, wellhead caps and accessories to help your installation go smoothly. This superior pumping heritage, application experience and support back up every AutoPump you put to work on your project.

Top Inlet, Short

Pump Dimensions



AP4+T

	· · · ·	-
	Model	4" - Short AP4+ Top Inlet
	Liquid Inlet Location	Тор
	OD	3.5 in. (8.9 cm)
	Length Overall (pump & fittings)	42 in. (107 cm)
	Weight	17 lbs. (7.8 kg)
	Max. Flow Rate	9 gpm (34 lpm) - See Flow Rate Chart
	Pump Volume / Cycle	0.22 - 0.36 gal (.83 - 1.36L)
Liquid Discharge	Min. Actuation Level	37 in. (94 cm)
a a a a a a a a a a a a a a a a a a a	Standard Pump	
Inlet	Max. Depth	250 ft. (76 m)
	Air Pressure Range	5 - 120 psi (0.4 - 8.4 kg/cm2)
5	Air Usage	0.35-1.5 scf / gal. (2.4-11.3 liters of air /
Vitrantion Level 37" (94 cm)		fluid liter) - See Air Usage Chart
	High Pressure Pump	
Exhaust	Max. Depth	425 ft. (130 m)
S 5	Air Pressure Range	5 - 200 psi (0.4 - 14.1 kg/cm2)
Length to Top of Fittings 4 Actuation Level 37" (94 cm)	Min Liquid Density	$0.7 \text{ Spc} (0.7 \text{ m/sm}^2)$
7" (94	Min. Liquid Density	0.7 SpG (0.7 g/cm3)
	Standard Construction Materials ¹	
e d	Pump Body	Fiberglass or Stainless Steel
	Pump Ends	Stainless Steel, Acetal, Brass
ation at the second sec	Internal Components	Stainless Steel, Viton, Acetal, PVDF ³
ti ii	Tube & Hose Fittings	Brass or Stainless Steel
¥ L	Fitting Type	Barbs or Quick Connects
	Tube & Hose Options	
	Tubing Material ²	Nylon
	Sizes - Liquid Discharge	1 in. (25 mm) or 1-1/4 in. (32 mm) OD
	Pump Air Supply	1/2 in. (13 mm) OD
	Air Exhaust	5/8 in. (16 mm) OD
	Hose Material	Nitrile
	Sizes - Liquid Discharge	3/4 in. (19 mm) or 1 in. (25 mm) ID
	Pump Air Supply	3/8 in. (9.5 mm) ID
	Air Exhaust	1/2 in. (13 mm) ID
	¹ Material upgrages available ² Applies to QED supplied tubing; other tubing sources may not conform to QED fittings.	³ PVDF - Polyvinylidene Fluoride
	ę - 61	

Standard Application Limits (standard model)

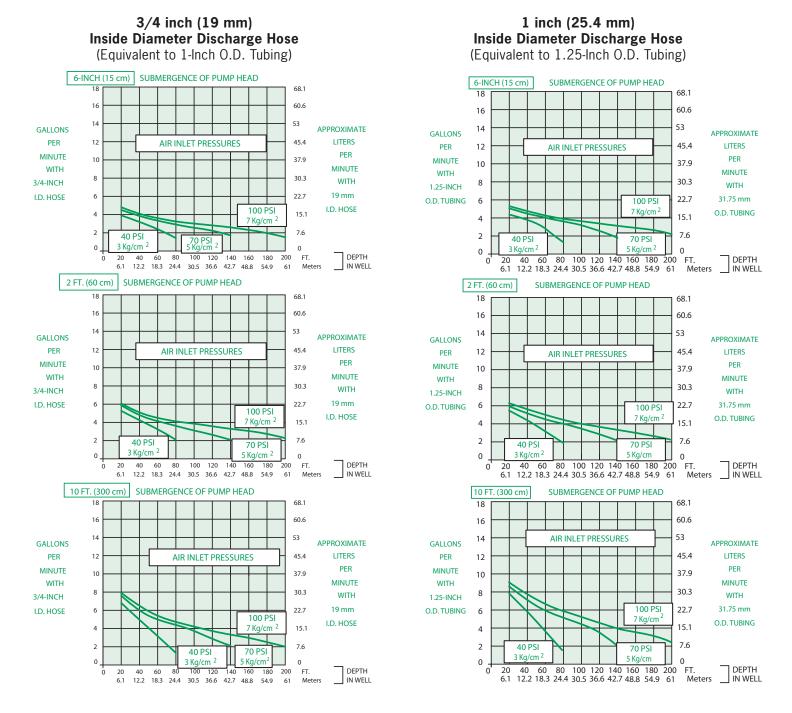
AP4+ AutoPumps are designed to handle the application ranges described below. For applications outside these ranges, consult QED.

Maximum Temperature: 150°F (65°C) pH Range: 4-9 Solvents and Fuels: diesel, gasoline, JP1-JP6, #2 heating oils, BTEX, MTBE, landfill liquids AP4+ AutoPumps are warranted for five (5) years: 100% materials and workmanship for the first three (3) years; 50% materials and workmanship for the fourth (4th) and fifth (5th) years.

Low-Drawdown AutoPumps are warranted for one (1) year.

AP4+T Top Inlet, Short

Flow Rates¹



¹FLOW RATES MAY VARY WITH SITE CONDITIONS. CALL FOR TECHNICAL ASSISTANCE.

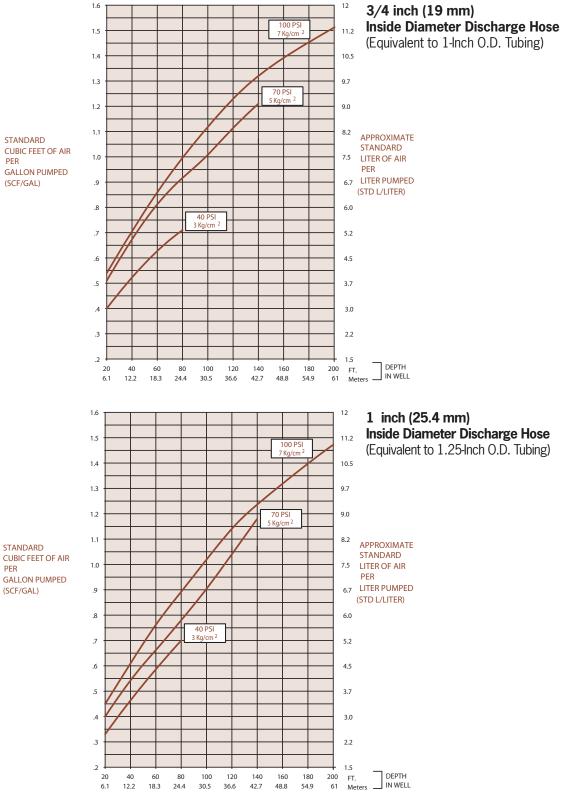
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Top Inlet, Short AP4+T

Air Consumption



PER



Low-Drawdown, Top Inlet

Max. Flow 6.4 gpm (24 lpm)

JAP4+T

0.D. 3.5 in (8.9 cm)

Length 29 in. (74 cm)

Advantages

- 1. The original automatic airpowered well pump, proven worldwide over 18 years
- 2. The highest flow rates and deepest pumping capabilities in the industry in a low drawdown top-fill pump
- 3. Patented, proven design for superior reliability and durability, even in severe applications
- 4. Handles solids, solvents, corrosive conditions, viscous fluids and high temperatures beyond the limits of electric pumps
- 5. One-year warranty



Description

The Low-Drawdown AP4⁺ Top Inlet AutoPump provides maximum capabilities and flow in a top inlet pump for 4" (100 mm) diameter and larger wells with very short water columns and/or the need to pump down to as low as 24 inches (62 cm) above the bottom. It is offered in optional versions to handle even the most severe remediation and landfill pumping applications, and delivers flow rates up to 6.4 gpm (24 lpm). The Low Drawdown AP4⁺ Top Inlet AutoPump is complemented by the most comprehensive selection of accessories to provide a complete system to meet site-specific requirements. Call QED for prompt, noobligation assistance on your pumping project needs.

The AutoPump Heritage

The Low-Drawdown AP4⁺ Top Inlet AutoPump is part of the famous AutoPump family of original automatic air-powered pumps, developed in the mid 1980s specifically to handle unique pumping needs at remediation and landfill sites. Over the years they've proven their durability at thousands of sites worldwide. AutoPumps are designed to handle difficult pumping challenges that other pumps can't, such as solvents, suspended solids, corrosives, temperature extremes, viscous fluids and frequent start/stop cycles. Beyond just the pump, AutoPump systems offer the most complete range of tubing, hose, connectors, caps and accessories to help your installation go smoothly. This superior pumping heritage, application experience and support back up every AutoPump you put to work on your project.

Low-Drawdown, Top Inlet

Pump Dimensions



LDAP4+T

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	Model	4" - Low-Drawdown AP4+ Top Inlet
	Liquid Inlet Location	Тор
	OD	3.5 in. (8.9 cm)
	Length Overall (pump & fittings)	29 in. (74 cm)
	Weight	11 lbs. (5.0 kg)
	Max. Flow Rate	6.4 gpm (24 lpm)
	Pump Volume / Cycle	0.11 - 0.16 gal (.4261L)
	Max. Depth	250 ft. (76 m)
	Air Pressure Range	5 - 120 psi (0.4 - 8.4 kg/cm2)
	Min. Actuation Level	24 in. (62 cm)
iguid Discharge	Air Usage	.31 - 2.85 scf/gal (2.2 - 21.5 liters of air/
		fluid liter) see air usage chart
Inlet	Min. Liquid Density	0.7 SpG (0.7 g/cm3)
Iniet		· · · · ·
	Standard Construction Materials ¹	
	Pump Body	Fiberglass or Stainless Steel
Air Supply	Pump Ends	Stainless Steel, Acetal, Brass
	Internal Components	Stainless Steel, Viton, Acetal, PVDF ³
Exhaust	Tube & Hose Fittings	Brass or Stainless Steel
	Fitting Type	Barbs or Quick Connects
		•
	Tube & Hose Options	
	Tubing Material ²	Nylon
	Sizes - Liquid Discharge	1 in. (25 mm) or 1-1/4 in. (32 mm) OD
	Pump Air Supply	1/2 in. (13 mm) OD
	Air Exhaust	5/8 in. (16 mm) OD
O.D. 3.5" (89 mm)	Hose Material	Nitrile
0.0. 0.0 (00 mm)	Sizes - Liquid Discharge	3/4 in. (19 mm) or 1 in. (25 mm) ID
	Pump Air Supply	
	Air Exhaust	1/2 in. (13 mm) ID
	¹ Material upgrages available	³ PVDF - Polyvinylidene Fluoride
	² Applies to QED supplied tubing;	
	other tubing sources	
	may not conform to QED fittings.	
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Standard Application Limits (standard model)

Length to Top of Fittings 29" (74 cm)

Actuation Level 24" (62 cm)

AP4

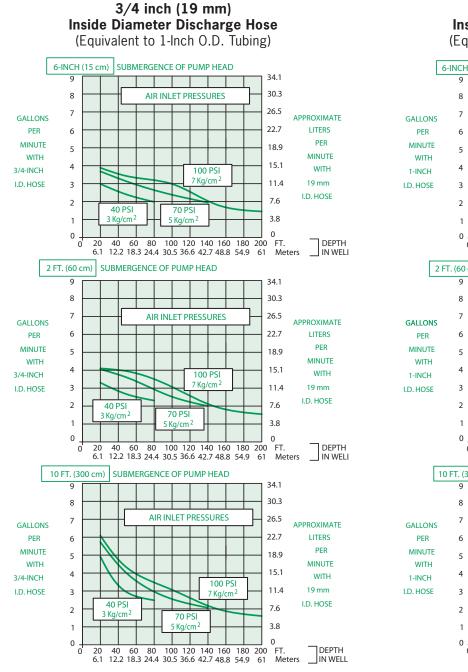
AP4+ AutoPumps are designed to handle the application ranges described below. For applications outside these ranges, consult QED.

Maximum Temperature: 150°F (65°C) pH Range: 4-9 Solvents and Fuels: diesel, gasoline, JP1-JP6, #2 heating oils, BTEX, MTBE, landfill liquids

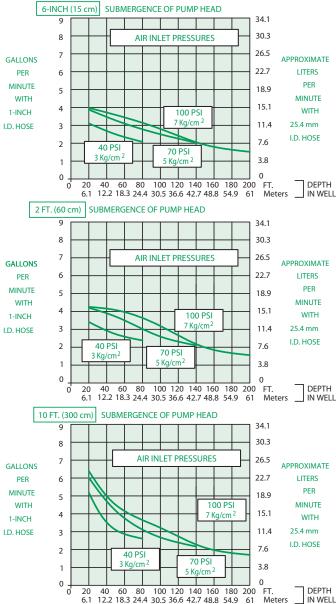
Low-Drawdown AP4+ AutoPumps are warranted for one (1) year: 100% material and workmanship.

LDAP4+T Low-Drawdown, Top Inlet

Flow Rates¹



1 inch (25.4 mm) Inside Diameter Discharge Hose (Equivalent to 1.25-Inch O.D. Tubing)

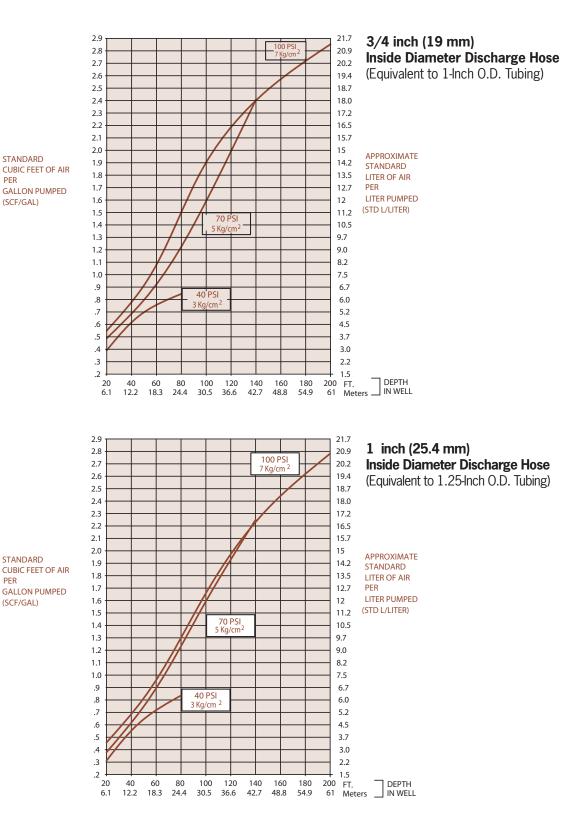


¹ FLOW RATES MAY VARY WITH SITE CONDITIONS. CALL FOR TECHNICAL ASSISTANCE.

Low-Drawdown, Top Inlet LDAP4+T

Air Consumption





Bottom Inlet, Long

Max. Flow 7.3 gpm (27.6 lpm)

AP3B

0.D. 2.63 in (6.68 cm)

Length 52 in. (132 cm)

Advantages

- 1. Based on the original automatic air-powered well pump, proven worldwide over 18 years
- 2. Competitive flow rates and pumping capabilities
- 3. Patented, proven design for superior reliability and durability
- 4. Handles solids, some solvents, hydrocarbons and corrosive conditions beyond the limits of electric pumps
- 5. Two-year warranty



Description

The AP3B Bottom Inlet Long AutoPump is designed for moderate-duty remediation pumping applications with well casings 3" (75 mm) diameter and larger. Call QED for prompt, no-obligation assistance on your pumping project needs.

The AutoPump Heritage

The AP3B Bottom Inlet Long AutoPump is part of the famous AutoPump family of original automatic air-powered pumps, developed in the mid 1980s specifically to handle unique pumping needs at remediation and landfill sites. Over the years they've proven their durability at thousands of sites worldwide. AutoPumps are designed to handle difficult pumping challenges that other pumps can't, such as solvents, suspended solids, corrosives, temperature extremes, viscous fluids and frequent start/stop cycles. Beyond just the pump, AutoPump systems offer the most complete range of tubing, hose, connectors, caps and accessories to help your installation go smoothly. This superior pumping heritage, application experience and support back up every AutoPump you put to work on your project.

Bottom Inlet, Long

Pump Dimensions



AP3B

		Model	3" - Long AP3 Bottom Inlet
		Liquid Inlet Location	Bottom
		OD	2.63 in. (6.68 cm)
		Length Overall (pump & fittings)	52 in. (132 cm)
	Liquid Discharge	Length Overall, w / Extended Screen	57 in. (145 cm)
	Liquid Discharge	Weight	11 lbs. (5.0 kg)
ĺ		Max. Flow Rate	7.3 gpm (27.6 lpm) - See Flow Rate Chart
Į		Pump Volume / Cycle	0.23 - 0.32 gal (0.87 - 1.21L)
	Air Supply	Max. Depth	220 ft. (67 m)
d		Air Pressure Range	5 - 100 psi (0.4 - 7.0 kg/cm2)
	Exhaust	Min. Actuation Level	31 in. (79 cm)
	Exhaust	Air Usage	0.33-1.45 scf / gal. (2.5-10.8 liters of air /
I			fluid liter) - See Air Usage Chart
		Min. Liquid Density	0.7 SpG (0.7 g/cm3)
		Standard Construction Materials	
		Pump Body	Fiberglass or Stainless Steel
_		Pump Ends	Stainless Steel, UHMWPE ² , Brass
E I		Internal Components	Stainless Steel, Viton, Acetal, Nylon
2		Tube & Hose Fittings	Brass or Stainless Steel
- 8		Fitting Type	Barbs or Quick Connects
<u>a</u>		Fitting Type	
ev ev		Tube Options	
Actuation Level 31" (79 cm)		Tubing Material	Nylon
		Sizes ¹ - Liquid Discharge	3/4 in. (19 mm) or 1 in. (25 mm) OD
_		Pump Air Supply	1/2 in. (13 mm) OD
		Air Exhaust	5/8 in. (16 mm) OD
- 1		¹ Applies to QED supplied tubing;	² UHMWPE - Ultra High Molecular Weight Polyethylen
		other tubing sources may not conform to QED fittings.	
	Inlet ∢O.D. 2.63" (6.68 cm)		
	0.0. 2.03 (0.00 CIII)		
tended sc	reen adds 5"		

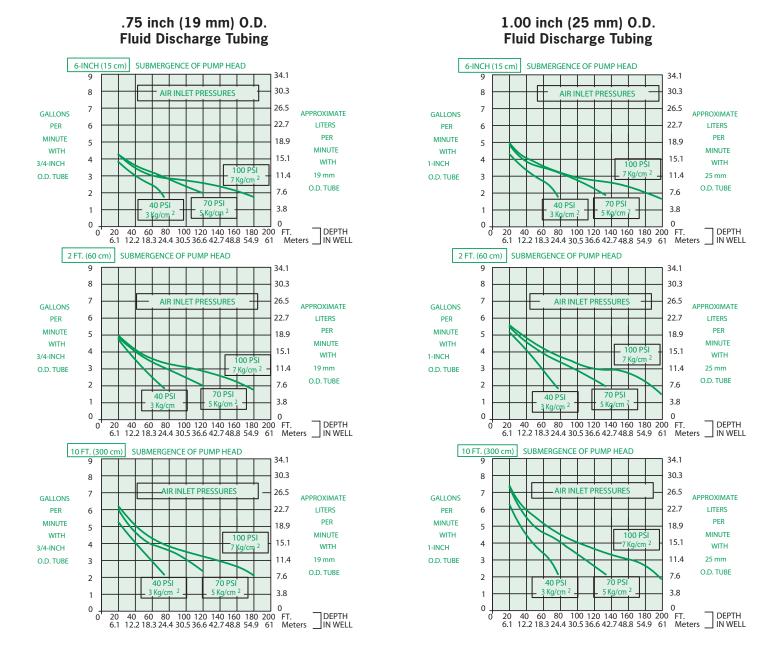
Application Limits

AP3 AutoPumps are designed to handle the application range described below. For applications outside this range, consider the AP4 and AP2 models.

Maximum Temperature: 120°F (49°C) pH Range: 4-9 Some solvents and Fuels: gasoline, diesel fuel, BTEX, MTBE AP3 AutoPumps are warranted for two (2) years: 100% materials and workmanship.

AP3B Bottom Inlet, Long

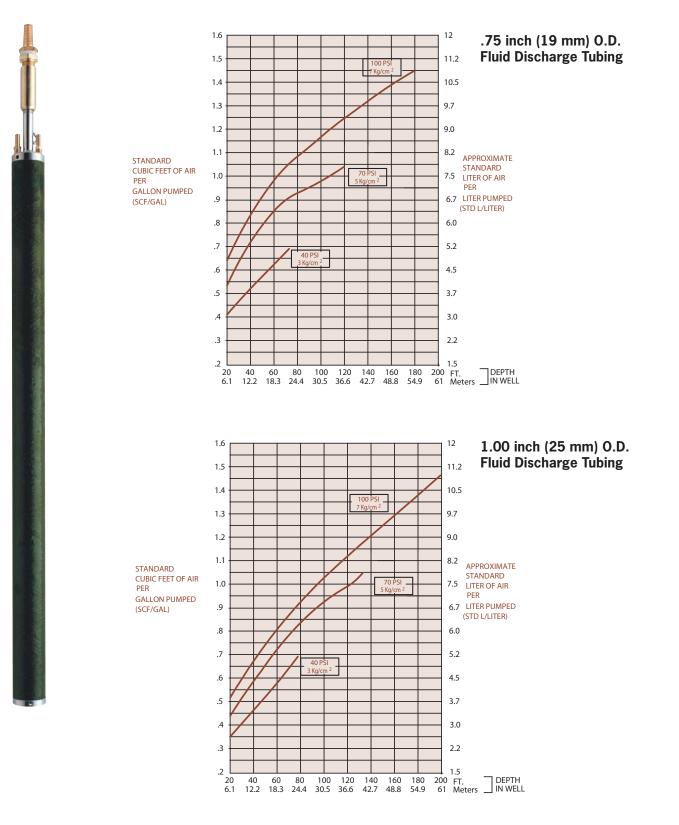
Flow Rates¹



¹ FLOW RATES MAY VARY WITH SITE CONDITIONS. CALL FOR TECHNICAL ASSISTANCE.

Bottom Inlet, Long AP3B

Air Consumption



33

Bottom Inlet, Short

Max. Flow 6.0 gpm (22.7 lpm)

AP3B

0.D. 2.63 in (6.68 cm)

Length 42 in. (106.6 cm)

Advantages

- 1. Based on the original automatic air-powered well pump, proven worldwide over 18 years
- 2. Competitive flow rates and pumping capabilities
- 3. Patented, proven design for superior reliability and durability
- 4. Handles solids, some solvents, hydrocarbons and corrosive conditions beyond the limits of electric pumps
- 5. Two-year warranty



Description

The AP3 Bottom Inlet Short AutoPump is designed for moderate-duty remediation pumping applications with well casings 3" (75 mm) diameter and larger. It is designed for wells having shorter water columns and/or the need to pump down to lower water levels, compared to full-length pumps. Complete system components such as tubing and hose sets, well caps, and flow counters are available for the AP3 Long Bottom Inlet AutoPump. Call QED for prompt, noobligation assistance on your pumping project needs.

The AutoPump Heritage

The AP3 Bottom Inlet Short AutoPump is part of the famous AutoPump family of original automatic air-powered pumps, developed in the mid 1980s specifically to handle unique pumping needs at remediation and landfill sites. Over the years they've proven their durability at thousands of sites worldwide. AutoPumps are designed to handle difficult pumping challenges that other pumps can't, such as solvents, suspended solids, corrosives, temperature extremes, viscous fluids and frequent start/stop cycles. Beyond just the pump, AutoPump systems offer the most complete range of tubing, hose, connectors, caps and accessories to help your installation go smoothly. This superior pumping heritage, application experience and support back up every AutoPump you put to work on your project.

Bottom Inlet, Short

Pump Dimensions

Specifications & Operating Requirements

23B

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	sharmen a sharmed	
	Model	3" - Short AP3 Bottom Inlet
	Liquid Inlet Location	Bottom
	OD	2.63 in. (6.68 cm)
	Length Overall (pump & fittings)	42 in. (107cm)
	Length Overall, w / Extended Screen	47 in. (117cm)
	Weight	10 lbs. (4.5 kg)
	Max. Flow Rate	
	Pump Volume / Cycle	
Liquid Discharge	Max. Depth	175 ft. (53.3 m)
	Air Pressure Range	5 -80 psi (0.4 - 5.6 kg/cm2)
E I	Min. Actuation Level	22 in. (56 cm)
6 Air Supply	Air Usage	0.35 - 1.6 scf / gal. (2.6-12.0 liters of air /
		fluid liter) - See Air Usage Chart
Length with Standard Screen 42" (107 cm) el 22" (55.9 cm)	Min. Liquid Density	0.7 SpG (0.7 g/cm3)
8	min. Elquid Density	0.7 500 (0.7 5/6115)
Š	Standard Construction Materials	
ai a	Pump Body	Fiberglass or Stainless Steel
	Pump Ends	Stainless Steel, UHMWPE*, Brass
3 (Internal Components	Stainless Steel, Viton, Acetal, Nylon
	Tube & Hose Fittings	Brass or Stainless Steel
222	Fitting Type	Barbs or Quick Connects
	• •	·
	Tube Options	
	Tubing Material	Nylon
1	Sizes ¹ - Liquid Discharge	3/4 in. (19 mm) or 1 in. (25 mm) OD
ě.		1/2 in. (13 mm) OD
	Air Exhaust	5/8 in. (16 mm) OD
Actuation Level 22" (55.9 cm)		
	¹ Applies to QED supplied tubing;	² UHMWPE - Ultra High Molecular Weight Polyethyler
——→	other tubing sources may not	
	conform to QED fittings.	
extended screen adds 5"		

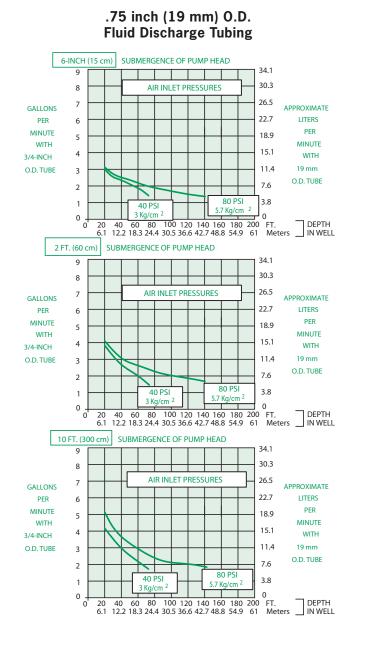
Application Limits

AP3 AutoPumps are designed to handle the application ranges described below. For applications outside this range, consider the AP4 and AP2 models.

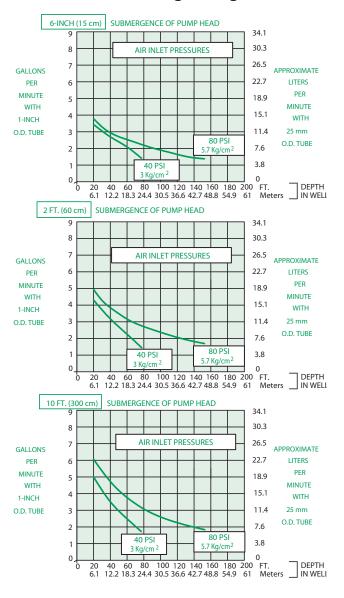
Maximum Temperature: 120°F (49°C) pH Range: 4-9 Solvents and Fuels: gasoline, diesel fuel, BTEX, MTBE AP3 AutoPumps are warranted for two (2) years: 100% materials and workmanship.

AP3B Bottom Inlet, Short

Flow Rates¹



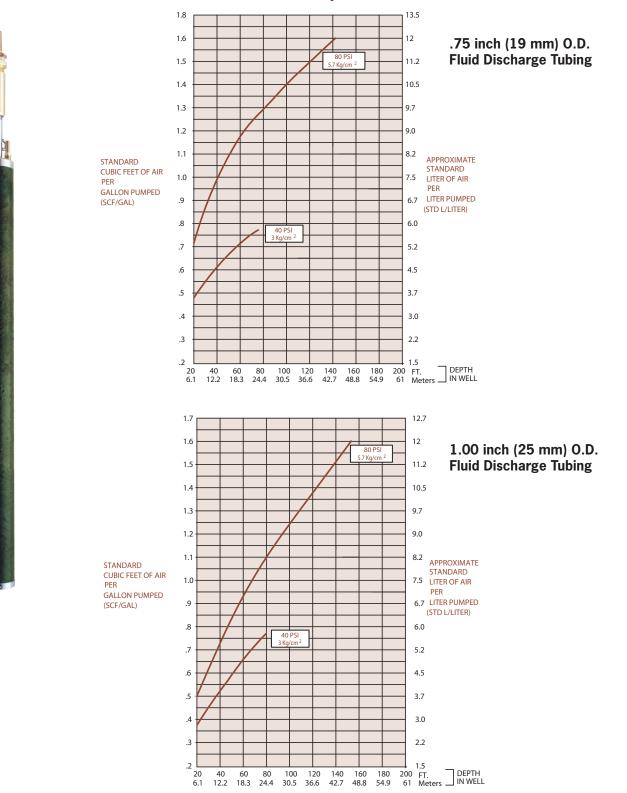
1.00 inch (25 mm) 0.D. Fluid Discharge Tubing



¹ FLOW RATES MAY VARY WITH SITE CONDITIONS. CALL FOR TECHNICAL ASSISTANCE.

Bottom Inlet, Short AP3B

Air Consumption



AP3T Top Inlet, Long

Max. Flow 5.4 gpm (20 lpm)

0.D. 3.4 in (8.64 cm)

- Optional O.D. 2.6 in (6.68 cm)
 - Length 57 in. (145 cm)

Advantages

- 1. Based on the original automatic air-powered well pump, proven worldwide over 18 years
- 2. Competitive flow rates and pumping capabilities
- 3. Patented, proven design for superior reliability and durability
- 4. Handles solids, some solvents, hydrocarbons and corrosive conditions beyond the limits of electric pumps
- 5. Two-year warranty



Description

The AP3T Top Inlet Long AutoPump is designed for moderate-duty remediation pumping applications with well casings 3" (7.62 cm) diameter and larger using available 2.63 inch (6.68 cm) inlet. It is designed for applications requiring an elevated inlet, such as pumping total fluids from wells contaminated with LNAPLs. Call QED for prompt, no-obligation assistance on your pumping project needs.

The AutoPump Heritage

The AP3T Top Inlet Long AutoPump is part of the famous AutoPump family of original automatic air-powered pumps, developed in the mid 1980s specifically to handle unique pumping needs at remediation and landfill sites. Over the years they've proven their durability at thousands of sites worldwide. AutoPumps are designed to handle difficult pumping challenges that other pumps can't, such as solvents, suspended solids, corrosives, temperature extremes, viscous fluids and frequent start/stop cycles. Beyond just the pump, AutoPump systems offer the most complete range of tubing, hose, connectors, caps and accessories to help your installation go smoothly. This superior pumping heritage, application experience and support back up every AutoPump you put to work on your project.

Top Inlet, Long

AP3T

Pump Dimensions

Specifications & Operating Requirements

	84	2" Long AD2 Top late
	Model	3" - Long AP3 Top Inlet
	Liquid Inlet Location	Top
	OD Length Overall (pump & fittings)	3.4 in. (8.64 cm) (2.63 in. Available) 57 in. (145 cm)
Liquid Discharge	Weight	11.5 lbs. (5.3 kg)
	Max. Flow Rate	5.4 gpm (20.4 lpm) - See Flow Rate Chart
Inlet	Pump Volume / Cycle	0.23 - 0.32 gal (0.87 - 1.21L)
	Max. Depth	220 ft. (67 m)
Inlet O.D. 3.4" (8.64 cm)	Air Pressure Range	5 - 100 psi (0.4 - 7.0 kg/cm2)
Also Available (2.63" (6.68 cm)	Min. Actuation Level	53 in. (135 cm)
Air Supply	Air Usage	0.41 -1.59 scf / gal.(3.0 - 11.9 liters of air /
		fluid liter) - See Air Usage Chart
Exhaust		
145	Min. Liquid Density	0.7 SpG (0.7 g/cm3)
Length to Top of Fittings 57" (145 cm) Actuation Level 53" (135 cm)		
C C C	Standard Construction Materials	
322 322 322 322 322 322 322 322 322 322	Pump Body	Fiberglass or Stainless Steel
	Pump Ends	Stainless Steel, Acetal, Brass
55 53 F	Internal Components Tube & Hose Fittings	Stainless Steel, Viton, Acetal, Nylon Brass or Stainless Steel
b do	Fitting Type	Barbs or Quick Connects
Length to Top of Fittings 57' Actuation Level 53" (135 cm)	Tube Options	
	Tubing Material	Nylon
A Ci Pe	Sizes ¹ - Liquid Discharge	3/4 in. (19 mm) or 1 in. (25 mm) OD
	Pump Air Supply	1/2 in. (13 mm) OD
	Air Exhaust	5/8 in. (16 mm) OD
	¹ Applies to QED supplied tubing;	
	other tubing sources may not	
	conform to QED fittings.	

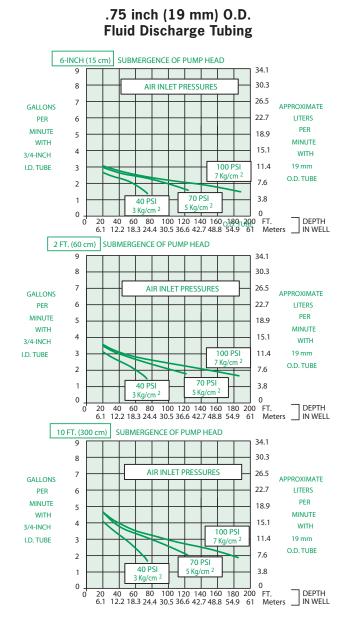
Application Limits

AP3 AutoPumps are designed to handle the application ranges described below. For applications outside this range, consider the AP4 and AP2 models.

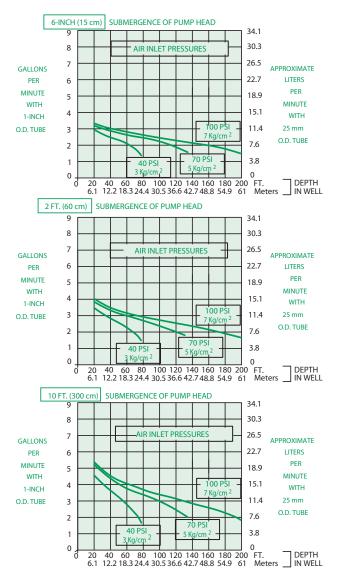
Maximum Temperature: 120°F (49°C) pH Range: 4-9 Solvents and Fuels: gasoline, diesel fuel, BTEX, MTBE AP3 AutoPumps are warranted for two (2) years: 100% materials and workmanship.

AP3T Top Inlet, Long

Flow Rates¹



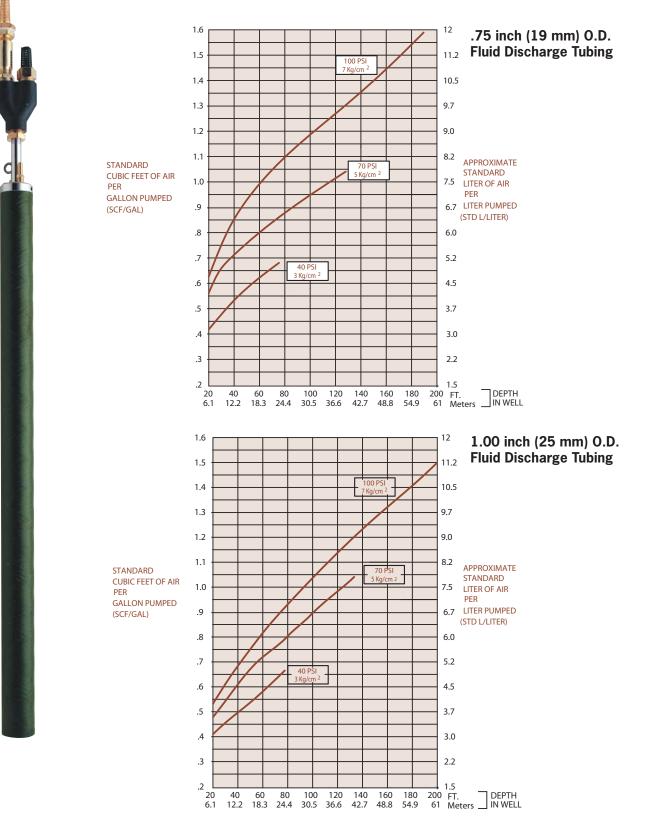
1.00 inch (25 mm) 0.D. Fluid Discharge Tubing



¹ FLOW RATES MAY VARY WITH SITE CONDITIONS. CALL FOR TECHNICAL ASSISTANCE.



Air Consumption



Top Inlet, Short

Max. Flow 4.8 gpm (18.1 lpm)

0.D. 3.4 in (8.64 cm)

AP3T

Length 47 in. (119 cm)

Advantages

- 1. Based on the original automatic air-powered well pump, proven worldwide over 18 years
- 2. Competitive flow rates and pumping capabilities
- 3. Patented, proven design for superior reliability and durability
- 4. Handles solids, some solvents, hydrocarbons and corrosive conditions beyond the limits of electric pumps
- 5. Two-year warranty



Description

The AP3T Top Inlet Short AutoPump is designed for moderate-duty remediation pumping applications with well casings 3" (7.62 cm) diameter and larger using available 2.63 inch (6.68 cm) inlet. It is designed for applications requiring an elevated inlet, such as pumping total fluids from wells contaminated with LNAPLs. Call QED for prompt, no-obligation assistance on your pumping project needs.

The AutoPump Heritage

The AP3T Top Inlet Short AutoPump is part of the famous AutoPump family of original automatic air-powered pumps, developed in the mid 1980s specifically to handle unique pumping needs at remediation and landfill sites. Over the years they've proven their durability at thousands of sites worldwide. AutoPumps are designed to handle difficult pumping challenges that other pumps can't, such as solvents, suspended solids, corrosives, temperature extremes, viscous fluids and frequent start/stop cycles. Beyond just the pump, AutoPump systems offer the most complete range of tubing, hose, connectors, caps and accessories to help your installation go smoothly. This superior pumping heritage, application experience and support back up every AutoPump you put to work on your project.

Top Inlet, Short

AP3T

Pump Dimensions



Model 3" - Short AP3 Top Inlet Liquid Inlet Location Top OD 3.4 in. (8.64 cm) (2.63 in. Available) 47 in. (119 cm) Weight 100 Max. Flow Rate 4.8 gpm (18.1 lpm) - See Flow Rate Chart Pump Volume / Cycle 0.08 - 0.015 gal (.30 - 0.57L) Max. Depth 175 ft. (53.3 m) Air Dage 0.43 - 16 scf / gal.(32 - 12.0 litters of air / fluid liter) - See Air Usage Chart Min. Actuation Level 4.2 in. (107 cm) Air Usage 0.43 - 16 scf / gal.(32 - 12.0 litters of air / fluid liter) - See Air Usage Chart Min. Liquid Density 0.7 SpG (0.7 g/cm3) Standard Construction Materials Pump Body Fiberglass or Stainless Steel Stainless Steel, Acetal, HDPE, Brass Stainless Steel, Viton, Acetal, Nylon Tube & Hose Fittings Fiberglass or Stainless Steel Stainless Steel Viton, Acetal, Nylon Stainless Steel Viton, Acetal, Nylon Stainless Steel Viton, Acetal, Steel Fitting Type Barbs or Quick Connects Tube Options Tubing Material Nylon ViApples to QED supplied tubing; other tubing sources may not ordform to QED fittings.			
OD 3.4 in. (8 64 cm) (2.63 in. Available) Length Overall (pump & fittings) 47 in. (119 cm) Weight 10 lbs. (4.5 kg) Max. Flow Rate 4.8 gpm (18.1 lpm) - See Flow Rate Chart Pump Volume / Cycle 0.08 - 0.15 gal (.30 - 0.57 L) Max. Dept 175 ft. (5.3.3 m) Air Pressure Range 5-80 psi (0.4 - 5.6 kg/cm2) Air Supply Air Supply Airs Available 2.63" (6.68 cm) Air Supply Exhaust 0.7 SpG (0.7 g/cm3) Standard Construction Materials 0.7 SpG (0.7 g/cm3) Standard Construction Materials Stainless Steel, Viton, Acetal, Mylon Tube & Hose Fitting Type Barbs or Quick Connects Tube Options Tubing Material Nylon Sizes' - Liquid Discharge 3/4 in. (19 mm) or 1 in. (25 mm) OD Pump Body Pump Ends Stainless Steel Stainless Steel Stainless Steel OB Stainless or Quick Connects Up of the tubing sources may not conform to QED fittings. 0/4 in. (19 mm) OD 'A fin. (19 mm) OD 'Again. (16 mm) OD			
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Liquid Discharge Liquid Disch			
Liquid Discharge Liquid Discharge Inlet Inlet Inlet Air Pressure Range Jair Samply Standard Construction Materials Pump Body Fibreglass or Stainless Steel Standard Construction Materials Pump Body Fibreglass or Stainless Steel Stainless Steel, Viton, Acetal, Nylon Tube Options Tube Options Tube Options Sizes' - Liquid Discharge 3/8" (9 mm) or 1 in. (25 mm) OD Pump Air Supply Sizes' - Liquid Discons Sizes' - Liquid Discharge 3/8" (9 mm) or 1 in. (25 mm) OD Pump Air Supply 1/2 in. (107 cm) Air Supply 5/8" (9 mm) O.D. Pump Eds Stainless Steel Fiberglass or Stainless Steel Stainless Steel, Acetal, Mylon Barks or Quick Connects Tube QPtions Tube QPtions Sizes' - Liquid Discharge 3/4 in. (19 mm) or 1 in. (25 mm) OD Pump Air Supply 1/2 in. (13 mm) OD <th></th> <td></td> <td></td>			
Liquid Discharge Inlet Inlet Inlet Air Pressure Range 5.80 psi (0.4 - 5.6 kg/cm2) Min. Actuation Level 42 in. (107 cm) Air Usage 0.43 - 1.6 scf / gal.(3.2 - 12.0 liters of air / fluid liter) - See Air Usage Chart Air Supply Exhaust 3/8" (9 mm) O.D. Standard Construction Materials Pump Body Fiberglass or Stainless Steel Stainless Steel, Actal, HDPE, Brass Internal Components Stainless Steel, Viton, Acetal, Nylon Tube Qbitons Tube Qbitons Tube Qitons Sizes' - Liquid Discharge 3/4 in. (19 mm) or 1 in. (25 mm) OD Pump Air Supply 1/2 in. (13 mm) OD Air Exhaust 3/4 in. (16 mm) OD 1/2 Applies to QED supplied tubing; other tubing sources may not conform to QED fittings.			
Liquid Discharge Air Pressure Range S -80 psi (0.4 - 5.6 kg/cm2) Air Usage Air Usage Air Supply Air Supply Exhaust 3/8" (9 mm) O.D. Standard Construction Materials Pump Body Fiberglass or Stainless Steel Pump Ends Stainless Steel, Viton, Acetal, ND/er, Brass Stainless Steel, Viton, Acetal, ND/er, Brass Stainless Steel, Viton, Acetal, ND/on Tube & Hose Fitting Tube Options Tubing Material Nylon Sizes ¹ - Liquid Discharge 3/4 in. (19 mm) or 1 in. (25 mm) OD Air Exhaust 5/8 in. (16 mm) OD ¹ Applies to QED suppled tubing; other tubing sources may not conform to QED fittings.			
Air Pressure Range Inlet Inlet Inlet O.D. 3.4" (8.64 cm) Also Available 2.63" (6.68 cm) Air Supply Exhaust 3/8" (9 mm) O.D. Air Supply Exhaust Standard Construction Materials Pump Body Fiberglass or Stainless Steel Pump Ends Stainless Steel, Acetal, HDPE, Brass Stainless Steel, Acetal, HDPE, Brass Stainless Steel, Acetal, HDPE, Brass Stainless Steel, Acetal, HVIon Tube & Hose Fittings Tube & Hose Fittings Tube Options Tubing Material Sizes ¹ - Liquid Discharge Pump Air Supply 1/2 in. (13 mm) OD ¹ Applies to QED supplied tubing; other tubing sources may not conform to QED fittings.		Pump Volume / Cycle	0.08 - 0.15 gal (.30 - 0.57L)
Inlet Min. Actuation Level 42 in. (107 cm) Air Usage 0.43 - 1.6 scf / gal.(3.2 - 12.0 liters of air / fluid liter) - See Air Usage Chart Also Available 2.63" (6.68 cm) Min. Liquid Density 0.7 SpG (0.7 g/cm3) Air Supply Exhaust 3/6" (9 mm) O.D. Standard Construction Materials Pump Ends Fiberglass or Stainless Steel Pump Ends Stainless Steel, Acetal, HDPE, Brass Internal Components Stainless Steel, Acetal, HDPE, Brass Tube & Hose Fittings Brass or Stainless Steel Fitting Type Barbs or Quick Connects Tube Options 3/4 in. (19 mm) or 1 in. (25 mm) OD Pump Air Supply 1/2 in. (13 mm) OD Air Exhaust 5/8 in. (16 mm) OD ¹ Applies to QED supplied tubing; other tubing sources may not conform to QED fittings.	Liquid Discharge		
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Air Usage 0.43 -1.6 sct / gal.(3.2 - 12.0 liters of air / fluid liter) - See Air Usage Chart Min. Liquid Density 0.7 SpG (0.7 g/cm3) Air Supply Exhaust 3/8" (9 mm) O.D. Standard Construction Materials Pump Body Fiberglass or Stainless Steel Pump Ends Stainless Steel, Acetal, HDPE, Brass Internal Components Stainless Steel, Acetal, HDPE, Brass Internal Components Stainless Steel, Acetal, Nylon Tube & Hose Fittings Brass or Quick Connects Tube Options Tubing Material Nylon Sizes ¹ - Liquid Discharge 3/4 in. (19 mm) or 1 in. (25 mm) OD Pump Air Supply 1/2 in. (13 mm) OD Air Exhaust 5/8 in. (16 mm) OD ¹ Applies to QED supplied tubing; other tubing sources may not conform to QED fittings.	Inlet		
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Also Available 2.63" (6.68 cm) Air Supply Exhaust 3/8" (9 mm) O.D. Min. Liquid Density 0.7 SpG (0.7 g/cm3) Standard Construction Materials Pump Body Fiberglass or Stainless Steel Stainless Steel, Acetal, HDPE, Brass Internal Components Stainless Steel, Viton, Acetal, Nylon Tube & Hose Fittings Brass or Ouck Connects Tubing Material Nylon Sizes ¹ - Liquid Discharge 3/4 in. (19 mm) or 1 in. (25 mm) OD Pump Air Supply 1/2 in. (13 mm) OD Air Exhaust 5/8 in. (16 mm) OD ¹ Applies to QED supplied tubing; other tubing sources may not conform to QED fittings.			fluid liter) - See Air Usage Chart
Air Supply Exhaust 3/6" (9 mm) O.D. Standard Construction Materials Pump Body Fiberglass or Stainless Steel Pump Ends Stainless Steel, Acetal, HDPE, Brass Internal Components Stainless Steel, Viton, Acetal, Nylon Tube & Hose Fittings Brass or Stainless Steel Fitting Type Barbs or Quick Connects Tubing Material Nylon Sizes ¹ - Liquid Discharge 3/4 in. (19 mm) or 1 in. (25 mm) OD Pump Air Supply 1/2 in. (13 mm) OD ¹ Applies to QED supplied tubing; other tubing sources may not conform to QED fittings.			
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Pump Ends Stainless Steel, Acetal, HDPE, Brass Internal Components Stainless Steel, Viton, Acetal, Nylon Tube & Hose Fittings Brass or Stainless Steel Fitting Type Barbs or Quick Connects Tube Options Nylon Sizes1 - Liquid Discharge 3/4 in. (19 mm) or 1 in. (25 mm) OD Pump Air Supply 1/2 in. (13 mm) OD Air Exhaust 5/8 in. (16 mm) OD ¹ Applies to QED supplied tubing; other tubing sources may not conform to QED fittings.	Exhaust 3/8" (9 mm) O.D.	Pump Body	Fiberglass or Stainless Steel
Tube & Hose Fittings Brass or Stainless Steel Fitting Type Barbs or Quick Connects Tube Options Tubing Material Nylon Sizes ¹ - Liquid Discharge 3/4 in. (19 mm) or 1 in. (25 mm) OD Pump Air Supply 1/2 in. (13 mm) OD Air Exhaust 5/8 in. (16 mm) OD ¹ Applies to QED supplied tubing; other tubing sources may not conform to QED fittings.		Pump Ends	Stainless Steel, Acetal, HDPE, Brass
Fitting Type Barbs or Quick Connects Tube Options Nylon Sizes¹ - Liquid Discharge 3/4 in. (19 mm) or 1 in. (25 mm) OD Pump Air Supply 1/2 in. (13 mm) OD Air Exhaust 5/8 in. (16 mm) OD ¹ Applies to QED supplied tubing; other tubing sources may not conform to QED fittings.		Internal Components	Stainless Steel, Viton, Acetal, Nylon
Tube Options Tubing Material Nylon Sizes1 - Liquid Discharge 3/4 in. (19 mm) or 1 in. (25 mm) OD Pump Air Supply 1/2 in. (13 mm) OD Air Exhaust 5/8 in. (16 mm) OD ¹ Applies to QED supplied tubing; other tubing sources may not conform to QED fittings.		Tube & Hose Fittings	Brass or Stainless Steel
Tubing Material Nylon Sizes ¹ - Liquid Discharge 3/4 in. (19 mm) or 1 in. (25 mm) OD Pump Air Supply 1/2 in. (13 mm) OD Air Exhaust 5/8 in. (16 mm) OD ¹ Applies to QED supplied tubing; other tubing sources may not conform to QED fittings.		Fitting Type	Barbs or Quick Connects
Tubing Material Nylon Sizes ¹ - Liquid Discharge 3/4 in. (19 mm) or 1 in. (25 mm) OD Pump Air Supply 1/2 in. (13 mm) OD Air Exhaust 5/8 in. (16 mm) OD ¹ Applies to QED supplied tubing; other tubing sources may not conform to QED fittings.			
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Pump Air Supply 1/2 in. (13 mm) OD Air Exhaust 5/8 in. (16 mm) OD ¹ Applies to QED supplied tubing; other tubing sources may not conform to QED fittings.			
Air Exhaust 5/8 in. (16 mm) OD ¹ Applies to QED supplied tubing; other tubing sources may not conform to QED fittings.			
¹ Applies to QED supplied tubing; other tubing sources may not conform to QED fittings.			
other tubing sources may not conform to QED fittings.		Air Exhaust	5/8 in. (16 mm) OD
other tubing sources may not conform to QED fittings.			
conform to QED fittings.			
Body O.D. 2.63" (6.68 cm)		conform to QED fittings.	
Body O.D. 2.63" (6.68 cm)			

Application Limits

AP3 AutoPumps are designed to handle the application ranges described below. For applications outside this range, consider the AP4 and AP2 models.

Maximum Temperature: 120°F (49°C) pH Range: 4-9 Solvents and Fuels: gasoline, diesel fuel, BTEX, MTBE AP3 AutoPumps are warranted for two (2) years: 100% materials and workmanship.

AP3T Top Inlet, Short

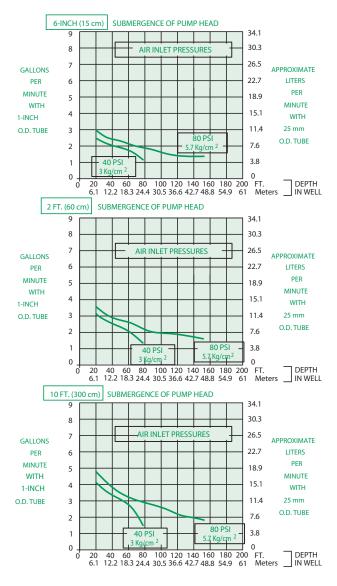
Flow Rates¹

6-INCH (15 cm) SUBMERGENCE OF PUMP HEAD 34.1 9 30.3 8 AIR INLET PRESSURES 7 26.5 GALLONS APPROXIMATE 22.7 LITERS PER б PER MINUTE 18.9 5 WITH MINUTE 15.1 4 WITH 3/4-INCH 11.4 O.D. TUBE 3 19 mm O.D. TUBE 7.6 2 80 PSI 38 1 40 PS 5.7 K<u>g/cm</u> 2 3 Ka/cm l₀ 0 20 40 60 80 100 120 140 160 180 200 FT. 6.1 12.2 18.3 24.4 30.5 36.6 42.7 48.8 54.9 61 Meters DEPTH IN WELL 2 FT. (60 cm) SUBMERGENCE OF PUMP HEAD 9 34.1 30.3 8 7 26.5 AIR INLET PRESSURES APPROXIMATE GALLONS PER 6 22.7 LITERS PER MINUTE 5 18.9 MINUTE WITH 4 15.1 WITH 3/4-INCH 11.4 3 19 mm O.D. TUBE O.D. TUBE 2 7.6 1 40 PSI 80 PSI 3.8 3 <u>Kg/c</u> 5.7 Kg/cm 0 0 20 40 60 80 100 120 140 160 180 200 FT. 6.1 12.2 18.3 24.4 30.5 36.6 42.7 48.8 54.9 61 Meters IN WELL 10 FT. (300 cm) SUBMERGENCE OF PUMP HEAD 34.1 9 8 30.3 AIR INLET PRESSURES 7 26.5 APPROXIMATE GALLONS 22.7 LITERS PER 6 MINUTE PER 18.9 5 WITH MINUTE 15.1 4 WITH 3/4-INCH 11.4 19 mm O.D. TUBE 3 O.D. TUBE 2 7.6 80 PS 3.8 40 PS 1 3 Ka/cm² 0 0 20 40 60 80 100 120 140 160 180 200 FT. 6.1 12.2 18.3 24.4 30.5 36.6 42.7 48.8 54.9 61 Meters IN WELL

.75 inch (19 mm) O.D.

Fluid Discharge Tubing

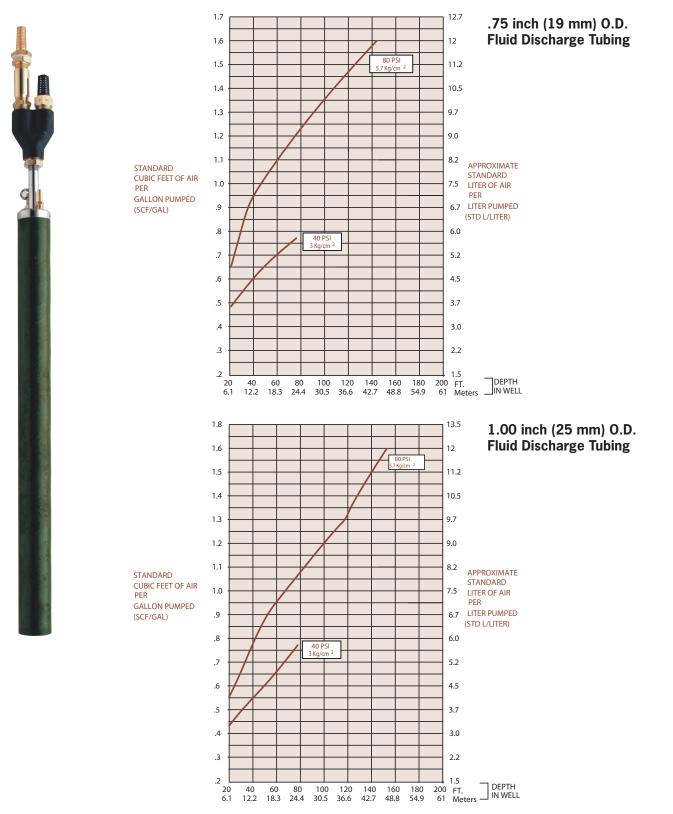
1.00 inch (25 mm) O.D. Fluid Discharge Tubing



¹ FLOW RATES MAY VARY WITH SITE CONDITIONS. CALL FOR TECHNICAL ASSISTANCE.

Top Inlet, Short AP3T

Air Consumption



45

Bottom Inlet, Long

Max. Flow 2.3 gpm (8.8 lpm)

O.D. 1.75 in (4.45 cm)

AP2B

Length 55 in. (139 cm)

Advantages

- 1. The original 2" automatic airpowered well pump, proven worldwide over 15 years
- 2. The industry leader in reliability, durability, flow rate and depth capability in an automatic pump for 2-inch wells
- 3. Handles solids, hyrocarbons, solvents, corrosive conditions, viscous fluids and landfill liquids
- 4. One-year warranty

Description

The AP2 Bottom Inlet Long AutoPump provides maximum capabilities and flow in a bottom inlet pump for 2" (50 mm) diameter wells. It is offered in optional versions to handle even severe remediation and landfill pumping applications, and delivers flow rates up to 2.3 gpm (8.8 lpm). The AP2 Long Bottom Inlet AutoPump is complemented by the most comprehensive selection of accessories to provide a complete system to meet site-specific requirements. Call QED for prompt, no-obligation assistance on your pumping project needs.

The AutoPump Heritage

The AP2 Bottom Inlet Long AutoPump is part of the famous AutoPump family of original automatic air-powered pumps, developed in the mid 1980s specifically to handle unique pumping needs at remediation and landfill sites. Over the years they've proven their durability at thousands of sites worldwide. AutoPumps are designed to handle difficult pumping challenges that other pumps can't, such as solvents, suspended solids, corrosives, temperature extremes, viscous fluids and frequent start/stop cycles. Beyond just the pump, AutoPump systems offer the most complete range of tubing, hose, connectors, caps and accessories to help your installation go smoothly. This superior pumping heritage, application experience and support back up every AutoPump you put to work on your project.

Bottom Inlet, Long

Pump Dimensions

Length Overall, with Screen 55" (140 cm)

Actuation Level 35" (88.9 cm)



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	Model	2" - Long AP2 Bottom Inlet
	Liquid Inlet Location	Bottom
	OD	1.75 in. (4.45 cm)
Linuid Dischanne	Length Overall (pump & fittings)	55 in. (139 cm)
—Liquid Discharge	Length Overall, w / Extended Screen	57 in. (144 cm)
Exhaust	Weight	7.8 lb (3.6 Kg)
	Max. Flow Rate	2.3 gpm (8.8 lpm) - See Flow Rate Chart
Air Supply	Pump Volume / Cycle	0.14 - 0.17gal (0.53 - 0.64 L)
	Max. Depth	300 ft (91.4 m)
	Air Pressure Range	5 - 130 psi (0.4 - 9.2 kg/cm2)
	Min. Actuation Level	35 in. (88.9 cm)
	Air Usage	0.38 -1.45 scf / gal. (2.8 - 10.8 liters of air / fluid liter)
		See Air Usage Chart
	Min. Liquid Density	0.7 SpG (0.7 g/cm3)
	· · ·	
	Standard Construction Materials ¹	
	Pump Body	Stainless Steel
	Pump Ends	Stainless Steel
	Internal Components	Stainless Steel, Viton, PVDF ³
	Tube & Hose Fittings	Brass or Stainless Steel
	Fitting Type	Barbs or Quick Connects
	Tube & Hose Options	
	Tubing Material	Nylon
	Sizes ² - Liquid Discharge	5/8 in. (16 mm) OD
	Pump Air Supply	3/8 in. (9.5 mm) OD
	Air Exhaust	1/2 in. (13 mm) OD
	Hose Material	Nitrile
	Sizes - Liquid Discharge	1/2 in. (13 mm) ID
	Pump Air Supply	1/4 in (6.4 mm) ID
	Air Exhaust	3/8 in. (9.5 mm) ID
	¹ Material upgrades available ² Applies to QED supplied tubing; other tubing sources may not conform to QED fittings.	³ PVDF - Polyvinylidene Fluoride

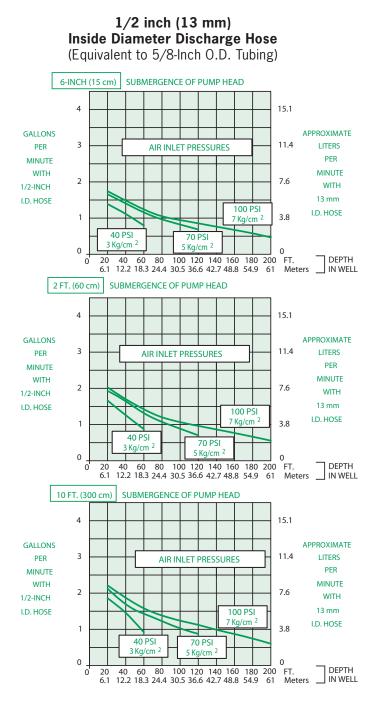
Application Limits (base model)

Base model AP2 AutoPumps are designed to handle the application ranges described below. For applications outside this range, consult QED about AP2 upgrades.

Maximum Temperature: 150°F (65°C) pH Range: 4-9 Solvents and Fuels: diesel, gasoline, JP1-JP6, #2 heating oils, BTEX, MTBE, landfill liquids AP2 AutoPumps are warranted for one (1) year: 100% materials and workmanship.

AP2B Bottom Inlet, Long

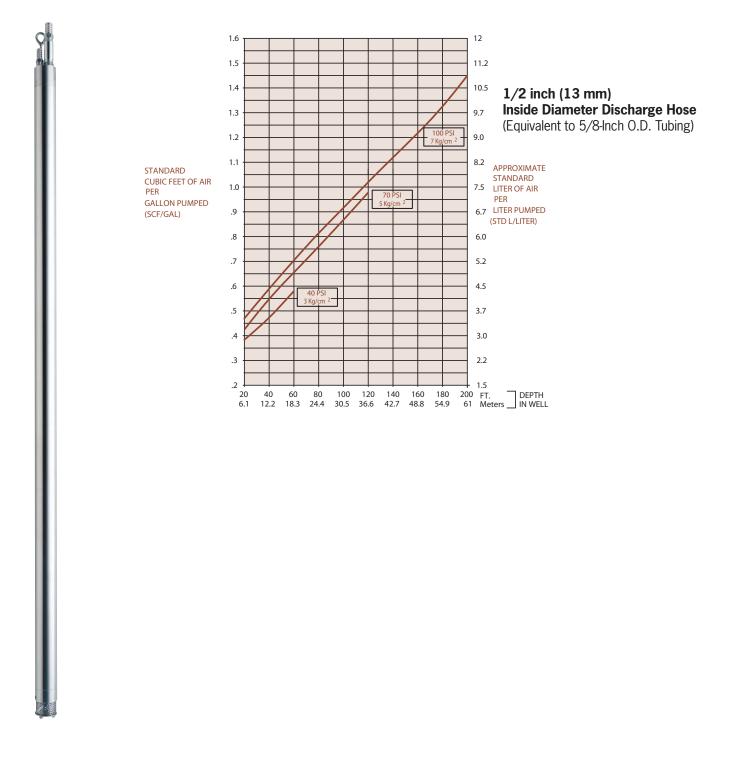
Flow Rates¹



¹ FLOW RATES MAY VARY WITH SITE CONDITIONS. CALL FOR TECHNICAL ASSISTANCE.

Bottom Inlet, Long AP2B

Air Consumption



Bottom Inlet, Short

Max. Flow 2.0 gpm (7.6 lpm)

0.D. 1.75 in (4.45 cm)

AP2B

Length 33 in. (85 cm)

Advantages

- 1. The original 2" automatic airpowered well pump, proven worldwide over 15 years
- 2. The industry leader in reliability, durability, flow rate and depth capability in an automatic pump for 2-inch wells
- 3. Handles solids, hyrocarbons, solvents, corrosive conditions, viscous fluids and landfill liquids
- 4. One-year warranty

Description

The AP2 Bottom Inlet Short AutoPump provides maximum capabilities and flow in a bottom inlet pump for 2" (50 mm) diameter wells. It is offered in optional versions to handle even severe remediation and landfill pumping applications, and delivers flow rates up to 2.0 gpm (7.6 lpm). The AP2 Short Bottom Inlet AutoPump is complemented by the most comprehensive selection of accessories to provide a complete system to meet site-specific requirements. Call QED for prompt, no-obligation assistance on your pumping project needs.

The AutoPump Heritage

The AP2 Bottom Inlet Short AutoPump is part of the famous AutoPump family of original automatic air-powered pumps, developed in the mid 1980s specifically to handle unique pumping needs at remediation and landfill sites. Over the years they've proven their durability at thousands of sites worldwide. AutoPumps are designed to handle difficult pumping challenges that other pumps can't, such as solvents, suspended solids, corrosives, temperature extremes, viscous fluids and frequent start/stop cycles. Beyond just the pump, AutoPump systems offer the most complete range of tubing, hose, connectors, caps and accessories to help your installation go smoothly. This superior pumping heritage, application experience and support back up every AutoPump you put to work on your project.

Bottom Inlet, Short

Pump Dimensions

Length Overall, with Screen 33" (84 cm)



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	Model	2" - Short AP2 Bottom Inlet
	Liquid Inlet Location	Bottom
	OD	1.75 in. (4.45 cm)
	Length Overall (pump & fittings)	33 in (85 cm)
	Length Overall, w / Extended Screen	35. in (89cm)
	Weight	5.4 lb (3.6 Kg)
	Max. Flow Rate	2.0 gpm (7.6 lpm)
Liquid Discharge	Pump Volume / Cycle	0.05 - 0.08 gal (0.19 - 0.30 L)
	Max. Depth	300 ft (91.4 m)
Exhaust	Air Pressure Range	5 - 130 psi (0.4 - 9.2 kg/cm2)
Air Supply	Min. Actuation Level	20 in. (51 cm)
	Air Usage	.39-2.58 scf/gal (2.9-19.3 liters of air/fluid lite
		see air usage chart
	Min. Liquid Density	0.7 SpG (0.7 g/cm3)
	Standard Construction Materials ¹	
	Pump Body	Stainless Steel
	Pump Ends	Stainless Steel
	Internal Components	Stainless Steel, Viton, PVDF ³
	Tube & Hose Fittings	Brass or Stainless Steel
	Fitting Type	Barbs or Quick Connects
	Tube & Hose Options	N I
	Tubing Material	Nylon
	Sizes ² - Liquid Discharge	5/8 in. (16 mm) OD
	Pump Air Supply	3/8 in. (9.5 mm) OD
	Air Exhaust	1/2 in. (13 mm) OD
	Hose Material	Nitrile
	Sizes - Liquid Discharge	1/2 in. (13 mm) ID
o Inlet	Pump Air Supply	1/4 in (6.4 mm) ID
	Air Exhaust	3/8 in. (9.5 mm) ID
→ O.D. 1.75" (4.45 cm)	¹ Material upgrades available ² Applies to QED supplied tubing; other tubing sources may not conform to QED fittings.	³ PVDF - Polyvinylidene Fluoride

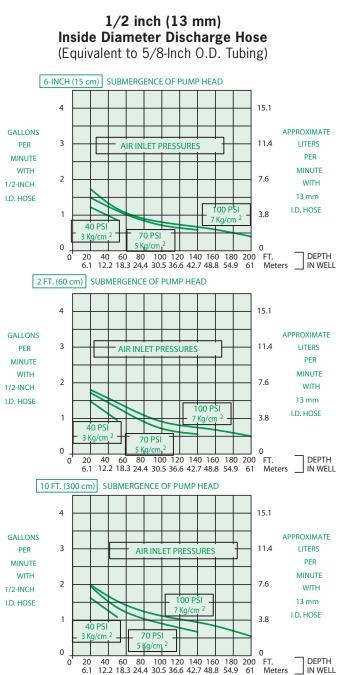
Application Limits (base model)

Base model AP2 AutoPumps are designed to handle the application ranges described below. For applications outside this range, consult QED about AP2 upgrades.

Maximum Temperature: 150°F (65°C) pH Range: 4-9 Solvents and Fuels: diesel, gasoline, JP1-JP6, #2 heating oils, BTEX, MTBE, landfill liquids AP2 AutoPumps are warranted for one (1) year: 100% materials and workmanship.

AP2B Bottom Inlet, Short

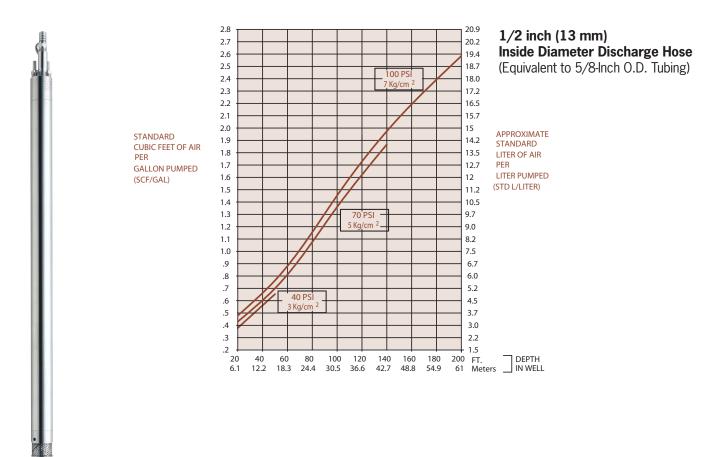
Flow Rates¹



¹ FLOW RATES MAY VARY WITH SITE CONDITIONS. CALL FOR TECHNICAL ASSISTANCE.

Bottom Inlet, Short AP2B

Air Consumption



AP2T Top Inlet, Long

Max. Flow 1.9 gpm (7.2 lpm)

O.D. 1.75 in (4.45 cm)

Length 57 in. (144 cm)

Advantages

- 1. The original 2" automatic airpowered well pump, proven worldwide over 15 years
- 2. The industry leader in reliability, durability, flow rate and depth capability in an automatic pump for 2-inch wells
- 3. Handles solids, hyrocarbons, solvents, corrosive conditions, viscous fluids and landfill liquids
- 4. One-year warranty

Description

The AP2 Top Inlet Long AutoPump provides maximum capabilities and flow in a top inlet pump for 2" (50 mm) diameter wells requiring an elevated inlet, such as pumping total fluids from wells contaminated with LNAPLs. It is offered in optional versions to handle even severe remediation and landfill pumping applications, and delivers flow rates up to 1.9 gpm (7.2 lpm). The AP2 Long Bottom Inlet AutoPump is complemented by the most comprehensive selection of accessories to provide a complete system to meet site-specific requirements. Call QED for prompt, no-obligation assistance on your pumping project needs.

The AutoPump Heritage

The AP2 Top Inlet Long AutoPump is part of the famous AutoPump family of original automatic air-powered pumps, developed in the mid 1980s specifically to handle unique pumping needs at remediation and landfill sites. Over the years they've proven their durability at thousands of sites worldwide. AutoPumps are designed to handle difficult pumping challenges that other pumps can't, such as solvents, suspended solids, corrosives, temperature extremes, viscous fluids and frequent start/stop cycles. Beyond just the pump, AutoPump systems offer the most complete range of tubing, hose, connectors, caps and accessories to help your installation go smoothly. This superior pumping heritage, application experience and support back up every AutoPump you put to work on your project.

Top Inlet, Long

Pump Dimensions



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		-
	Model	2" - Long AP2 Top Inlet
	Liquid Inlet Location	Тор
	OD	1.75 in. (4.45 cm)
↑ O	Length Overall (pump & fittings)	57 in. (144 cm)
Liquid Discharge	Weight	7.8 lbs. (3.6 kg)
Inlet	Max. Flow Rate	1.9 gpm (7.2 lpm) - See Flow Rate Chart
	Pump Volume / Cycle	0.14 - 0.17 gal (0.53 - 0.64l)
	Max. Depth	300 ft (91.4 m)
• Air Supply	Air Pressure Range	5 - 130 psi (0.4 - 9.2 kg/cm2)
	Min. Actuation Level	52 in. (132 cm)
	Air Usage	0.38 -1.57 scf / gal.(2.8 - 11.7 liters of air /
<u>e</u>		fluid liter) - See Air Usage Chart
5 J	Min Liquid Density	$0.7 \text{ Spc} (0.7 \text{ c/sm}^2)$
14	Min. Liquid Density	0.7 SpG (0.7 g/cm3)
	Standard Construction Materials ¹	
	Pump Body	Stainless Steel
	Pump Ends	Stainless Steel
	Internal Components	Stainless Steel, Viton, PVDF ³
52 J	Tube & Hose Fittings	Brass or Stainless Steel
b s s s s s s s s s s s s s s s s s s s	Fitting Type	Barbs or Quick Connects
- Length to Top of Fittings 57" (144 cm) Actuation Level 52" (132 cm)		
÷ c	Tube & Hose Options	
ngt lati	Tubing Material	Nylon
	Sizes ² - Liquid Discharge	5/8 in. (16 mm) 0D
	Pump Air Supply	3/8 in. (9.5 mm) OD
	Air Exhaust	1/2 in. (13 mm) OD
	Hose Material	Nitrile
	Sizes - Liquid Discharge	1/2 in. (13 mm) ID
	Pump Air Supply	1/4 in (6.4 mm) ID
	Air Exhaust	3/8 in. (9.5 mm) ID
	¹ Material upgrages available	³ PVDF - Polyvinylidene Fluoride
	² Applies to QED supplied tubing;	
	other tubing sources may not	
	conform to QED fittings.	
<u>↓ ↓</u> •		

Application Limits (base model)

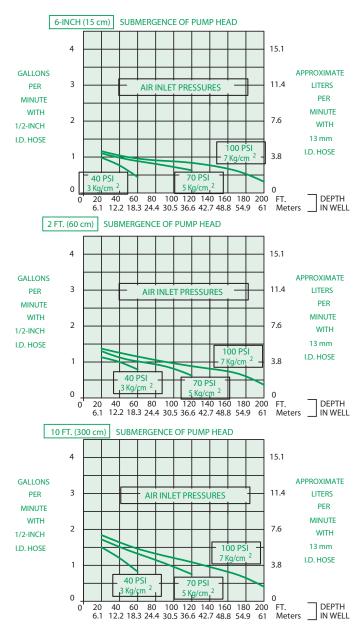
Base model AP2 AutoPumps are designed to handle the application ranges described below. For applications outside this range, consult QED about AP2 upgrades.

Maximum Temperature: 150°F (65°C) pH Range: 4-9 Solvents and Fuels: diesel, gasoline, JP1-JP6, #2 heating oils, BTEX, MTBE, landfill liquids AP2 AutoPumps are warranted for one (1) year: 100% materials and workmanship.

AP2T Top Inlet, Long

Flow Rates¹

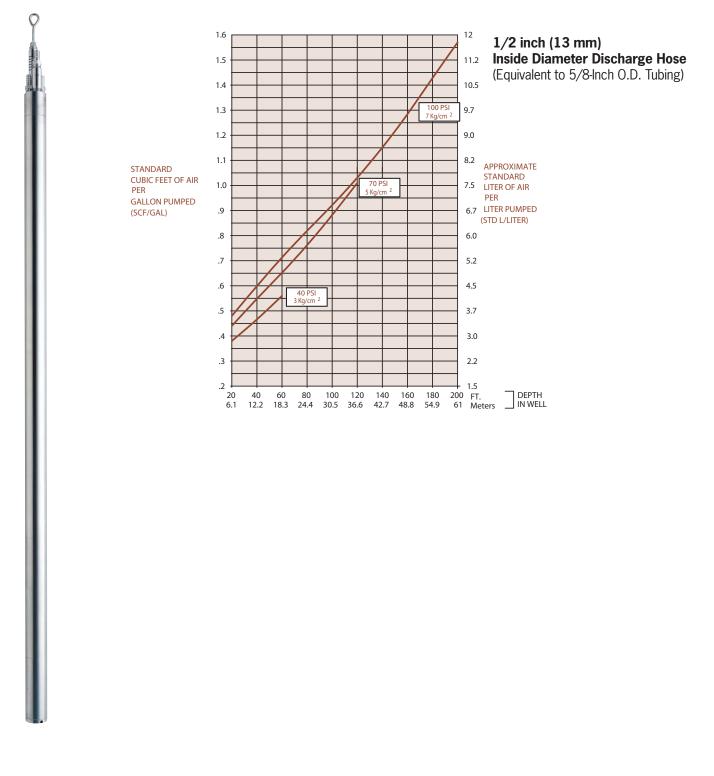
1/2 inch (13 mm) Inside Diameter Discharge Hose (Equivalent to 5/8-Inch O.D. Tubing)



¹ FLOW RATES MAY VARY WITH SITE CONDITIONS. CALL FOR TECHNICAL ASSISTANCE.

AutoPump® Top Inlet, Long AP2T

Air Consumption



AP2T Top Inlet, Short

Max. Flow 1.6 gpm (6 lpm)

0.D. 1.75 in (4.45 cm)

Length 35 in. (89 cm)

Advantages

- 1. The original 2" automatic airpowered well pump, proven worldwide over 15 years
- 2. The industry leader in reliability, durability, flow rate and depth capability in an automatic pump for 2-inch wells
- 3. Handles solids, hyrocarbons, solvents, corrosive conditions, viscous fluids and landfill liquids
- 4. One-year warranty



Description

The AP2 Top Inlet Short AutoPump provides maximum capabilities and flow in a top inlet pump for 2" (50 mm) diameter wells having shorter water columns and/or the need to pump down to lower water levels, compared to full-length pumps. It is designed for applications requiring an elevated inlet, such as pumping total fluids from wells contaminated with LNAPLs. It is offered in optional versions to handle even the most severe remediation and landfill pumping applications, and delivers flow rates up to 1.6 gpm (6 lpm). The AP2 Long Bottom Inlet AutoPump is complemented by the most comprehensive selection of accessories to provide a complete system to meet site-specific requirements. Call QED for prompt, no-obligation assistance on your pumping project needs.

The AutoPump Heritage

The AP2 Top Inlet Short AutoPump is part of the famous AutoPump family of original automatic air-powered pumps, developed in the mid 1980s specifically to handle unique pumping needs at remediation and landfill sites. Over the years they've proven their durability at thousands of sites worldwide. AutoPumps are designed to handle difficult pumping challenges that other pumps can't, such as solvents, suspended solids, corrosives, temperature extremes, viscous fluids and frequent start/stop cycles. Beyond just the pump, AutoPump systems offer the most complete range of tubing, hose, connectors, caps and accessories to help your installation go smoothly. This superior pumping heritage, application experience and support back up every AutoPump you put to work on your project.

Top Inlet, Short

Pump Dimensions



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	Model	2" - Short AP2 Top Inlet
	Liquid Inlet Location	Тор
	OD	1.75 in. (4.45 cm)
	Length Overall (pump & fittings)	35 in. (89 cm)
	Weight	5.7 lbs (2.6 kg)
	Max. Flow Rate	1.6 gpm (6.0 lpm)
		- · · · 8 (• · • · · ,
\uparrow O	Pump Volume / Cycle	.0508 gal (.1930 I)
Liquid Discharge	Max. Depth	300 ft (91.4 m)
	Air Pressure Range	5 - 130 psi (0.4 - 9.2 kg/cm2)
	Min. Actuation Level	
	Air Usage	0.39 - 2.59 scf/gal (2.9 - 19.3 liters/fluid liter)
S o Air Supply	All Obuge	See air usage chart
	Min. Liquid Density	0.7 SpG (0.7 g/cm3)
	with Elquid Density	
S E	Standard Construction Materials ¹	
<u>3</u> #	Pump Body	Stainless Steel
E E I I	Pump Ends	Stainless Steel
	Internal Components	Stainless Steel, Viton, PVDF ³
	Tube & Hose Fittings	Brass or Stainless Steel
9 <u>-</u>	Fitting Type	Barbs or Quick Connects
- Length to Top of Fittings 35" (89 cm) Actuation Level 31" (79 cm)	Traing Type	
euč	Tube & Hose Options	
	Tubing Material	Nylon
	Sizes ² - Liquid Discharge	5/8 in. (16 mm) OD
	Dump Air Supply	3/8 in. (9.5 mm) OD
	Air Exhaust	1/2 in. (13 mm) OD
	Hose Material	Nitrile
	Sizes - Liquid Discharge	1/2 in. (13 mm) ID
	Pump Air Supply	1/4 in (6.4 mm) ID
	Air Exhaust	3/8 in. (9.5 mm) ID
	¹ Material upgrages available	³ PVDF - Polyvinylidene Fluoride
	² Applies to QED supplied tubing;	
	other tubing sources may not	
	conform to QED fittings.	
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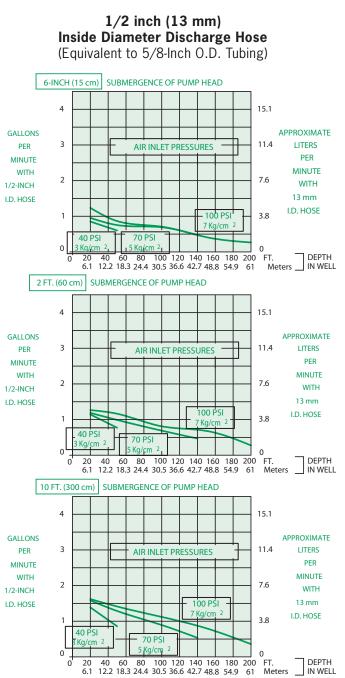
Application Limits (base model)

Base model AP2 AutoPumps are designed to handle the application ranges described below. For applications outside this range, consult QED about AP2 upgrades.

Maximum Temperature: 150°F (65°C) pH Range: 4-9 Solvents and Fuels: diesel, gasoline, JP1-JP6, #2 heating oils, BTEX, MTBE, landfill liquids AP2 AutoPumps are warranted for one (1) year: 100% materials and workmanship.

AP2T Top Inlet, Short

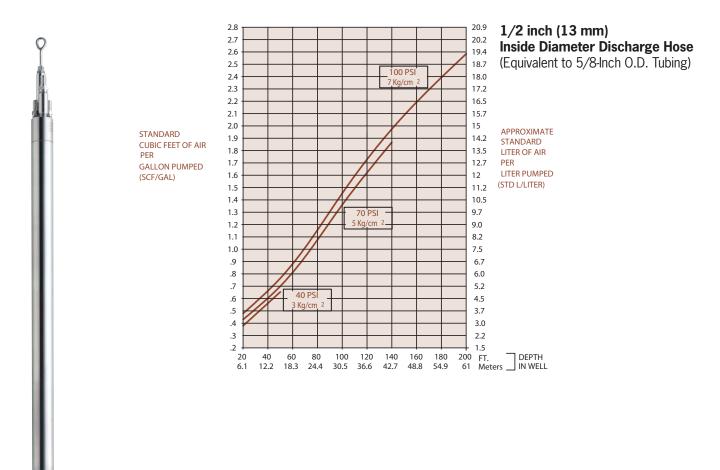
Flow Rates¹



¹ FLOW RATES MAY VARY WITH SITE CONDITIONS. CALL FOR TECHNICAL ASSISTANCE.

AutoPump® Top Inlet, Short AP2T

Air Consumption



Tubing & Hose





Model	Туре	Material	Liquid Discharge Size	Air Suppy Size	Exhaust Size	Maximum Pressure	Maximum Depth	Minimum Bend Radius
HIFLOTUBE	Jacketed 3-Tube set	Nylon 12	1.25" OD	1/2" OD	5/8"OD	200 PSI	400 feet	8"
		-	(32 mm)	(13 mm)	(16 mm)	(14 kg/cm ²	(122 m)	(20 cm)
STDTUBE	Jacketed 3-Tube set	Nylon 12	1" OD	1/2" OD	5/8"0D	200 PSI	400 feet	7"
			(25.4 mm)	(13 mm)	(16 mm)	(14 kg/cm ²)	(122 m)	(18 cm)
AP2TUBE	3-Tube set	Nylon 12	5/8" OD	3/8"OD	1/2"0D	200 PSI	400 feet	2.5"
			(16 mm)	(9.5 mm)	(13 mm)	(14 kg/cm ²)	(122 m)	(6.5 cm)
HIPSIHOSE	3-hose set	Nitrile	1" ID	3/8"ID	1/2"0D	300 PSI	600 feet	8"
			(25.4 mm)	(9.5 mm)	(13 mm)	(21 kg/cm ²)	(183 m)	(20 cm)
HIFLOHOSE	3-hose set	Nitrile	1" ID	3/8"ID	1/2"0D	100 PSI	200 feet	8"
			(25.4 mm)	(9.5 mm)	(13 mm)	(7 kg/cm ²)	(61 m)	(20 cm)
STDHOSE	3-hose set	Nitrile	3/4" ID	3/8"ID	1/2"0D	300 PSI	600 feet	7"
			(13 mm)	(9.5 mm)	(13 mm)	(21 kg/cm ²)	(183 m)	(18 cm)
AP2HOSE	3-hose set	Nitrile	1/2" ID	1/4"ID	3/8"ID	300 PSI	600 feet	5"
			(13 mm)	(6 mm)	(9.5 mm)	(21 kg/cm ²)	(183 m)	(13 cm)
		l		I				

Advantages

- All dimensions of QED tube, hose and fittings are carefully designed and controlled to ensure high flow capacity, easy assembly, high pullout strength and leak-tight connections
- Innovative jacketed nylon tubing is highly regarded by experienced users for its light weight, smooth profile and ease of handling
- QED offers an unmatched range of connector fitting options to make installation and maintenance easier and more efficient

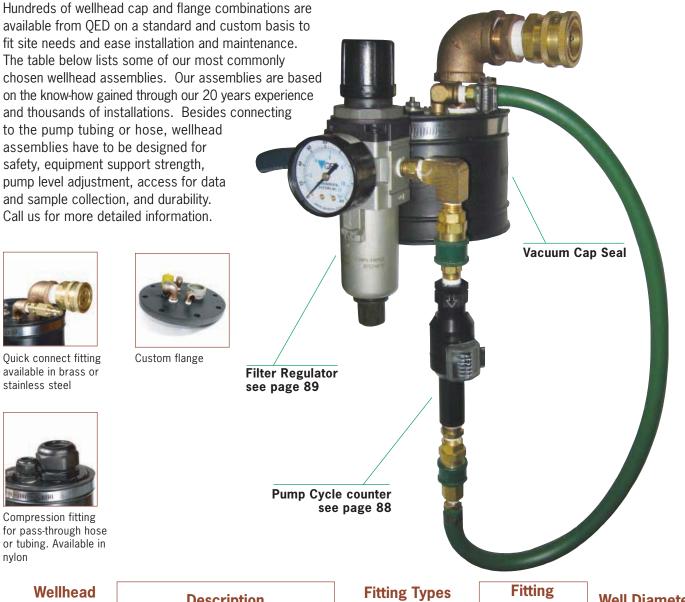
QED offers the choice of jacketed nylon tubing or hose sets for downwell use, and single tubes and hoses for surface runs to fit each project's needs. The jacketed nylon tubing is an exclusive developed by QED that encloses all of the nylon tubes inside a strippable nylon outer cover, a convenient package designed to provide lighter weight, increased chemical resistance, smoother handling and a smaller profile in the well. For applications where the tighter bend radius of hose is preferred, hose sets are offered in several sizes. Other hose and tube materials are available for special applications.

The choice of hose and tube connection fittings used on pumps, caps and other components can make an important difference in the ease and quality of installation and service on your project. That's why QED offers a variety of connecting fitting types and materials, including quick-connects in both brass and stainless steel.

Note: All QED tube, hose and fitting combinations are engineered specifically to provide user safety, high pullout strength, ease of installation, and leak tight connections for maximum assurance that the pumping system goes in right and stays trouble-free. It is especially important that the mating diameters and the tolerances of fittings, tubes and hoses be carefully controlled to ensure a fit that is snug yet doesn't damage the hose or tube due to excessive stretching. Don't trust your project to general purpose tubing, hose, and fittings that weren't specifically designed to work together.

AutoPump Well Caps

Vacuum seal well cap with brass quick connects, filter regulator and pump cycle counter



Wellhead Assembly	Description	Fitting Types (hose & tubing)	Fitting Materials	Well Diameters
Open-hole cap	Non-sealing cap with open pass- through holes for hoses; allows easy pump height adjustment with support rope/cable	No fittings		2", 4", 6", custom (50, 100, 150 mm)
Slip	Non-sealing cap with fittings for connection to air supply and liquid discharge lines	quick-connects, compression fittings	Brass, SS, poly	2", 4", 6", custom (50, 100, 150 mm)
Vacuum Seal	Sealing cap with fittings for connection to air supply and liquid discharge lines	quick-connects, compression fittings	Brass, SS, poly	2", 4", 6", custom (50, 100, 150 mm)
Flange	Sealing flange with fittings for connection to air supply and liquid discharge lines	quick-connects, compression fittings	Brass, SS, poly	Custom

Flow Counters

Cycle Counter

The Cycle Counter detects and displays each AutoPump cycle via the pulse of air that occurs in the supply line. Since the liquid volume delivered by each pump cycle is relatively consistent for a given well condition, the total liquid volume delivered can be monitored with these cycle counts. An important advantage of the Cycle Counter method is its long-term reliability and low maintenance, since it requires no contact with the pumped fluid and no extra components in the liquid flow path. Cycle Counters can also be ordered with an electronic pulse output to support automated flow data collection.



Cycle Counter Specifications Type: Magnetic piston/spring Readout: Direct digital (remote option), non-resettable Maximum Pressure: 200 psi (14 kg/cm²) End options: NPT, barb, quick connect

Air Supply

Filter regulators

Filter regulators are recommended for each pump at the wellhead to economize on system air consumption, allow control of pump flow rate, and reduce service needs caused by air system debris and contaminants. These high quality filter regulators are coated on the inside to prevent corrosion from condensed moisture. All QED well caps and flanges include mounting provisions for these filter regulators, and other mounting options are available.

Compressor Sizing

A compressed air supply is required to power AutoPumps. Estimation of the fluid flow rates and air consumption of the AutoPumps and sizing the fluid lines, air lines, and air compressor involves a number of factors. Our application specialists are ready to assist you.

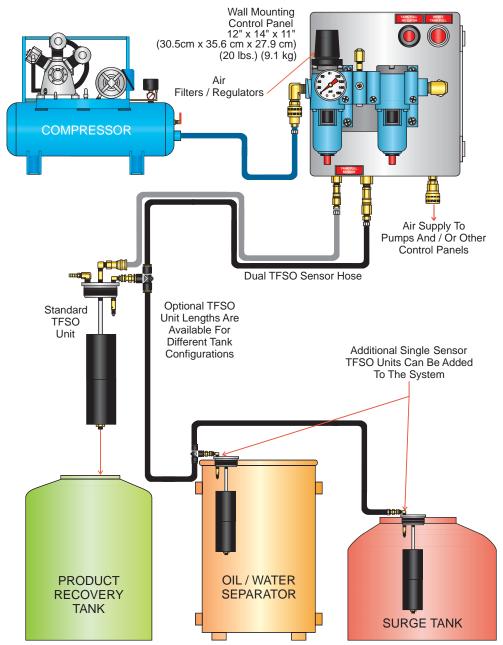
The flow rates and air consumption for the AutoPumps can be compared by using the charts provided in this catalog for each model. The flow rate and air use curves in this catalog are based on pumping to atmospheric pressure at the wellhead, and do not take into account any liquid piping system backpressures due to elevation changes or fluid friction.

Finally, there are some initial guidelines for air compressors. Most importantly, follow all application guidelines of the compressor manufacturer. A piston compressor may be a start / stop type or a constant run type. The tank (receiver) must be large enough, particularly for the start / stop type. The motor should not turn on more times an hour than recommended by the manufacturer. And start/stop compressors are typically assigned a 50% maximum duty cycle, meaning that the compressor is sized to provide twice the maximum air demand of the entire AutoPump system.

Rotary screw compressors are designed for constant operation, and so are sized to just slightly exceed the maximum air supply requirement; it is recommended that rotary screw compressors not be grossly oversized because some types may be damaged by continued operation at low partial capacity.

Tank Full Shutoffs

Dual-Sensor Tank-Full Shut-Off (TFSO) System



QED's Tank-Full Shutoff senses when your recovery tank is full and automatically shuts off the pump air supply. It is all pneumatic for safety, and includes two independent level detection methods for failsafe operation. The Tank-Full Shutoff threads into standard 2" NPT fittings on drums and tanks.

Tank Full Shutoff Specifications:

Power Supply: Fully pneumatic **Level Sensor Type:** Dual; Bubbler tube and float switch **Air Usage:** 0.7 scfm @ 80 psi (19.8 lpm @ 5.6 kg/cm²) **Tank Connection:** 2-inch male NPT

Application Data Sheet

CUSTOMER INFORMATION SITE INFORMATION Name: TW: TW: Train TW: TW: Ster Name: TW: TW: TW: TW: TW: Ster Name: TW: TW: TW: TW: TW: Ster Name: TW: TW: TW: TW: TW: Ster Name: TW: TW: Ster Name: TW: TW: Ster Name: TW: TW: TW: TW: TW: Ster Name: TW: TW: TW: TW: TW: TW: TW: TW: TW: TW: TW: Ster Name: TW: TW: TW: TW: TW: TW: TW: TW: TW: TW: TW: TW: <	A division of Severn T ent Laboratori 30x 3726 • Ann Arbor, MI • 4810 -624-2026 • FAX (734) 995-117		om		QED USE ONLY	Today's Date Quote Number Sales Order Number	
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	npany:			Project Ref: _			
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The information provided on this form will be kept confidential by QED.

Notes

Warranty

QED AutoPump Warranty Period Summary

Following is a summary of the warranty periods only for QED AutoPumps and accessories; **this IS NOT the complete warranty**. Contact QED for a copy of the complete warranty

- **1. AP4+ AutoPumps (Long and Short lengths; Top- and Bottom-Inlets)** warranted for five (5) years: 100% materials and workmanship; AP4+ Low-Drawdown AutoPumps[®] warranted for one (1) year: 100% materials and workmanship.
- **2. AP3 AutoPumps (Long and Short lengths; Top- and Bottom-Inlets)** warranted for two (2) years: 100% materials and workmanship.
- **3.** AP2 AutoPumps (Long and Short lengths; Top- and Bottom-Inlets) warranted for one (1) year: 100% materials and workmanship.
- **4.** Hoses, Tubing, Fittings, Well Caps and Flanges warranted for one (1) year: 100% materials and workmanship. There will be no warranty for application or material compatibility.
- **5.** Pneumatic Data Modules / Logic Control Panels warranted for one (1) year: 100% materials and workmanship.
- 6. Parts and Repairs

warranted for ninety (90) days: 100% materials and workmanship; when repairs are performed by QED or its appointed agent; from date of repair or for the full term of the original warranty, whichever is longer. Separately sold parts are warranted for ninety (90) days: 100% materials and workmanship.

Beyond the Pumps...

Success with a pumping system involves more than just the pumps. Over 20 years of specialized air-powered pumping experience on thousands of sites with a broad range of applications and groundwater issues has allowed us to develop unequalled expertise and problem solving capabilities.

QED technical experts will work with you on identifing the relevant site information to assure meeting your remediation and landfill pumping objectives. The equipment will be selected to meet your site-specific application.

Accessories

- Downwell hose and tubing
- An array of connectors and fittings for ease of installation and service
- · Mix of wellhead assemblies to meet site-specific needs
- Fluid discharge and air supply piping layouts and components
- Tank-full shut-off and other safety items and features
- Pump cycle counters
- Custom requirements

Authorised distributor

In Australia:

For customer service, call 1300-735-292 To email an order, ordersau@thermofisher.com To order online: thermofisher.com

In New Zealand:

For customer service, call 0800-933-966 To email an order, ordersnz@thermofisher.com To order online: thermofisher.com

