

Environmental Pumps

Grundfos Redi-Flo4™ Environmental Submersible Pumps

Grundfos Redi-Flo4™ submersible pumps are constructed of virgin PTFE and stainless steel to handle the rigors of contaminated groundwater pumping. Ideal for sampling and continuous operation in remediation applications. Grundfos Redi-Flo4™ Environmental submersibles meet EPA guidelines for environmental equipment and have been proven through extensive use in the field to be the industry choice.

FEATURES

- For applications in 4 inch (10 cm) diameter and larger wells.
- Efficient purging/remediation to depths of 524 feet (160 m).
- Flow rates of up to 45 GPM (170 LPM) for purging and remediation.
- Stainless steel and PTFE are the only materials used in the Redi-Flo4 submersible pump ends.
- Features built-in check valve to prevent back-flow into the well once the pump is shut down.
- User friendly cable guard aids in the installation of motor lead.
- Variable speed pump applications available.
- Variable speed controller can run both Redi-Flo2® and Redi-Flo4™ pumps.

OPERATION

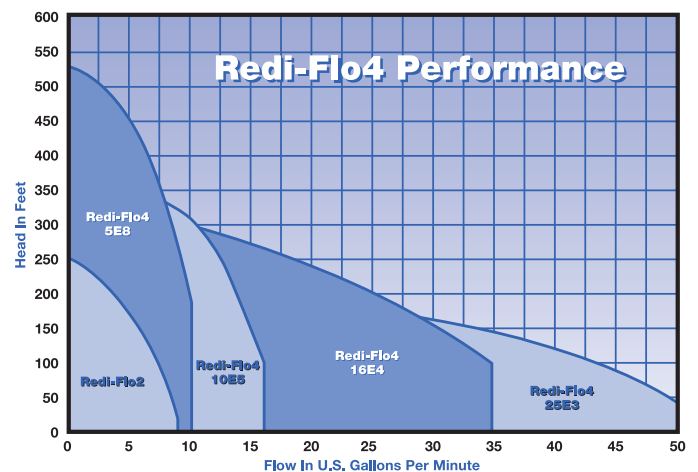
Typical clean-up operations include groundwater sampling and water table depression techniques to concentrate and remove floating contaminants. With correct placement of the recovery well and proper sizing of the depression pump, the water table is depressed to stop and reverse the movement of the contamination plume. Once isolated, the contaminant is removed for treatment, re-use, or proper disposal. Redi-Flo4 pumps are designed for reliable operation in toxic environments.



Geotech is a Certified Grundfos Master Distributor



Redi-Flo4™ Submersible Pump



Redi-Flo4™ Performance Curves

CALL GEOTECH TODAY (800) 833-7958

Geotech Environmental Equipment, Inc.

2650 East 40th Avenue • Denver, Colorado 80205

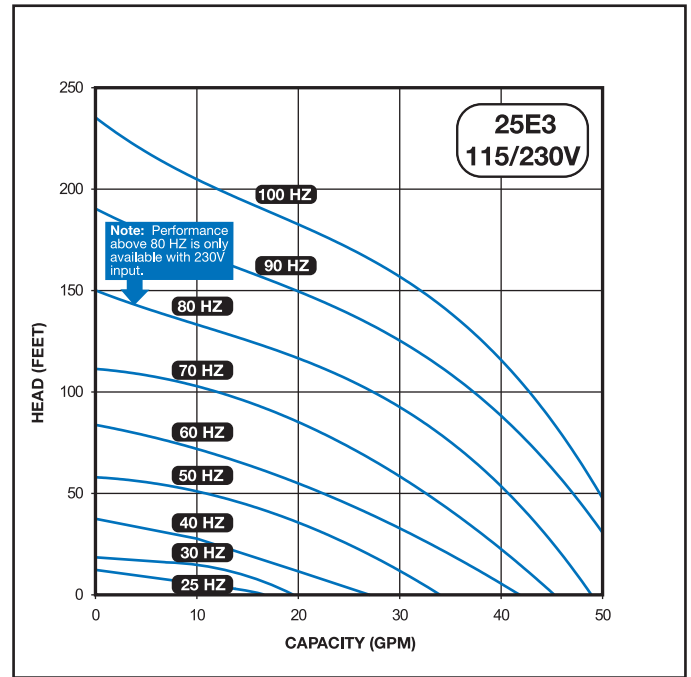
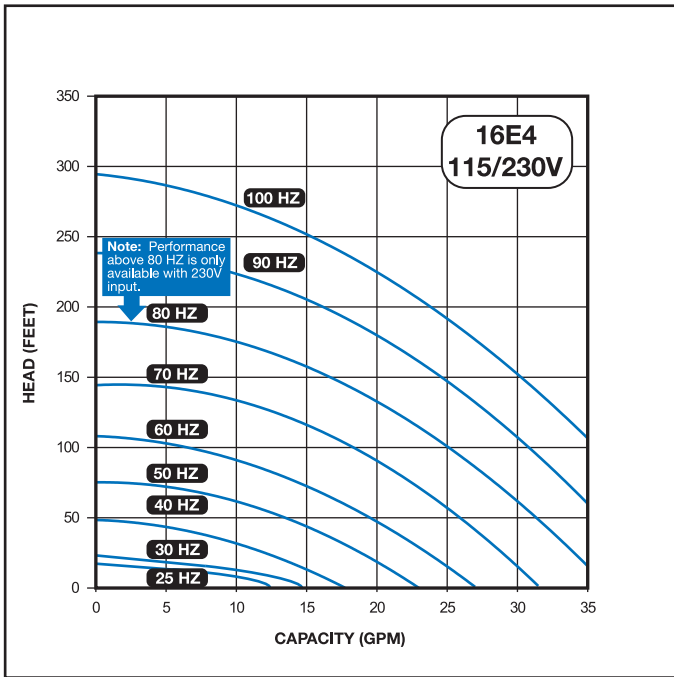
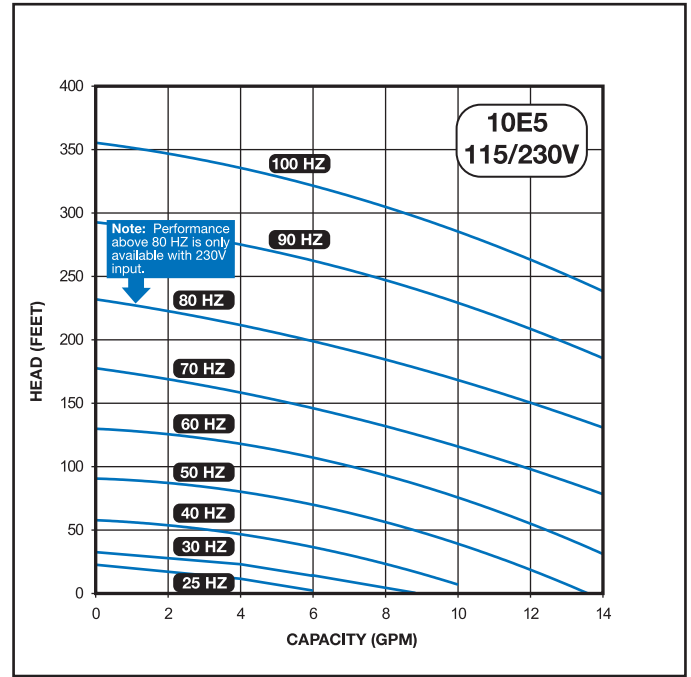
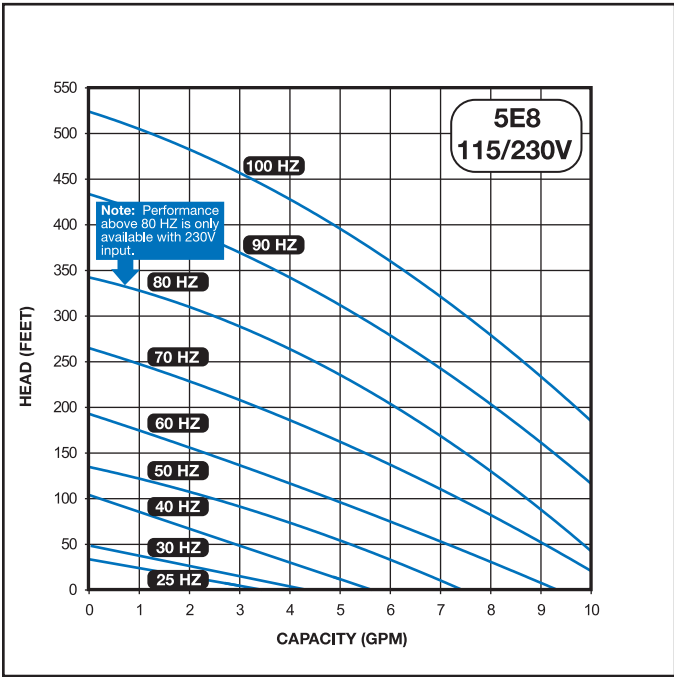
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Environmental Pumps

Grundfos Redi-Flo4™ Environmental Submersible Pumps

SPECIFICATIONS FOR VARIABLE SPEED PUMPS*



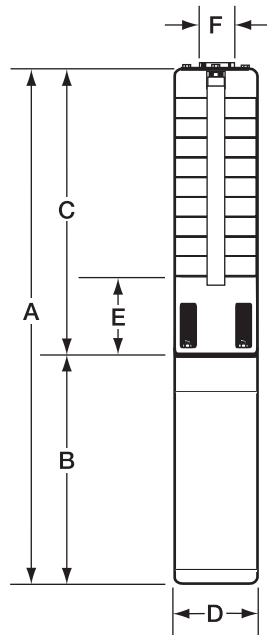
* Requires Variable Speed Frequency Drive (VFD) and motor.

Grundfos Redi-Flo4™ 5E Technical Data

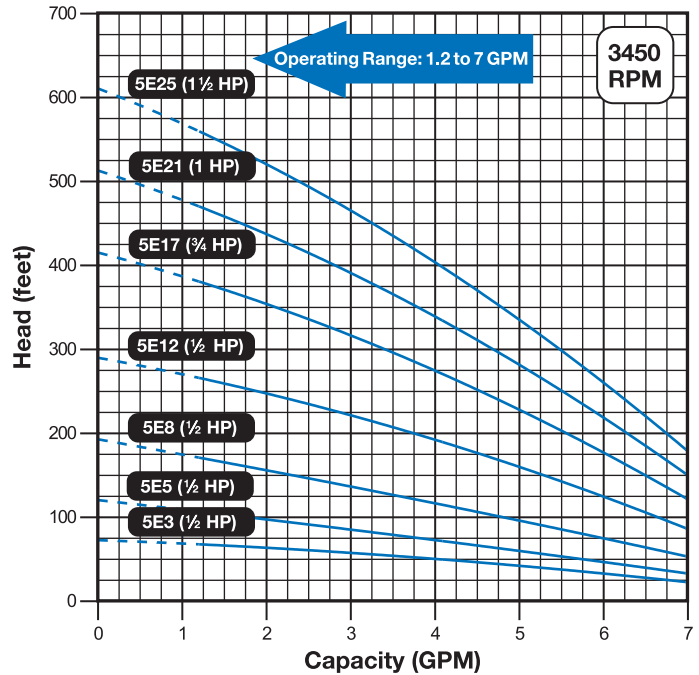
MATERIALS OF CONSTRUCTION

Description	Material
Redi-Flo4 Pump End	
Check Valve Housing, Check Valve, Diffuser Chamber, Impeller, Suction Interconnector, Inlet Screen, Pump Shaft, Straps, Cable Guard, Priming Inducer	304 SS
Check Valve Seat	304 SS & PTFE
Impeller Seal Ring	PTFE
Coupling	316/431 SS
Intermediate Bearings	PTFE
Grundfos Environmental Motor	
NEMA Top, Studs & Fasteners, Stator Housing, Fill Plug Screw	304 SS
Nuts	316 SS
Sand Slinger	FPM
Shaft Extension	431 SS
Diaphragm	FPM
Fill Plug Washer	PTFE
Grundfos Environmental Motor Leads	
Connector Sleeve	304 SS
Connector Potting	Scotch Cast #4® Epoxy w/FPM Cap
Connector Plug	FPM
Lead Insulation	PTFE
Conductor	Stranded Copper, 12 AWG

NOTES: Specifications are subject to change without notice. Scotch Cast #4® is a registered trademark of 3M Company.



PERFORMANCE CURVES



TECHNICAL SPECIFICATIONS

Flow Range:	1.2 to 7 U.S. GPM (4.5 to 26.5 LPM)
Motors:	Grundfos MS402E Environmental Submersible Motor (Standard)
Maximum Operating Temperature	104°F (40°C)
Maximum Submergence Pressure	220 psi (15.2 bar)
Maximum Number of Starts Per Hour	100
Minimum Recommended Flow Past Motor	0.25 ft./sec. (7.6 cm/sec.)

NOTE: Franklin Pollution Recovery Motor is optional.

Discharge Size:	1" NPT
Installation:	Unit to be installed vertically for submerged operation.

ELECTRICAL DATA, DIMENSIONS, AND WEIGHTS*

Pump Type	HP	Motors SF	PH	Volts	Overall Length A	Motor Length B	Pump End Length C	Maximum Diameter D	Inlet E	Disch. Pipe Size (NPT) F	Net Weight Lbs. (kg)†	Shipping Weight Lbs. (kg)†
5E3	1/2	1.60	1	230	19 3/8" (49.2cm)	10 13/16" (27.5cm)	8 9/16" (21.7cm)	3 3/32" (10cm)	3 1/4"	1"	24 (10.8)	26 (11.8)
5E5	1/2	1.60	1	230	21 1/8" (53.7cm)	10 13/16" (27.5cm)	10 5/16" (26.2cm)	3 3/32" (10cm)	3 1/4"	1"	25 (11.3)	27 (12.2)
5E8	1/2	1.60	1	230	23 5/16" (59.8cm)	10 13/16" (27.5cm)	12 3/4" (32.4cm)	3 3/32" (10cm)	3 1/4"	1"	27 (12.2)	28 (12.7)
5E12	1/2	1.60	1	230	26 13/16" (68.1cm)	10 13/16" (27.5cm)	16" (40.6cm)	3 3/32" (10cm)	3 1/4"	1"	28 (12.7)	29 (13.1)
5E17	3/4	1.50	1	230	31 7/16" (79.8cm)	11 3/8" (28.9cm)	20 3/16" (51.3cm)	3 3/32" (10cm)	3 1/4"	1"	31 (14)	32 (14.5)
5E21	1	1.40	1	230	35 7/16" (90cm)	12" (30.5cm)	23 7/16" (59.5cm)	3 3/32" (10cm)	3 1/4"	1"	33 (15)	35 (15.9)
5E25	1 1/2	1.30	1	230	40 5/16" (102.4cm)	13 9/16" (34.4cm)	26 3/4" (67.9cm)	3 3/32" (10cm)	3 1/4"	1"	35 (15.9)	37 (16.8)

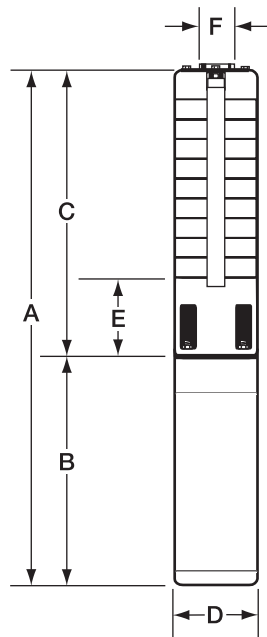
*Data for Grundfos MS402E motors.
†Does not include motor leads.

Grundfos Redi-Flo4™ 10E Technical Data

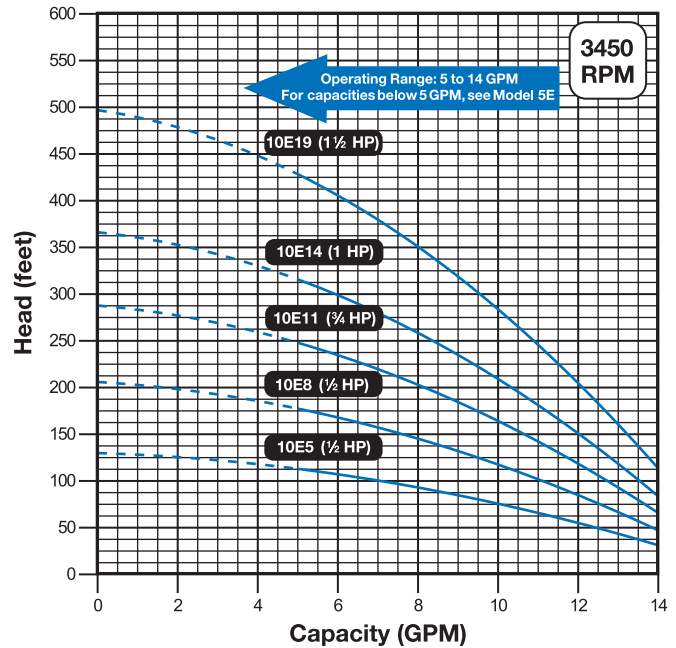
MATERIALS OF CONSTRUCTION

Description	Material
Redi-Flo4 Pump End	
Check Valve Housing, Check Valve, Diffuser Chamber, Impeller, Suction Interconnector, Inlet Screen, Pump Shaft, Straps, Cable Guard, Priming Inducer	304 SS
Check Valve Seat	304 SS & PTFE
Impeller Seal Ring	PTFE
Coupling	316/431 SS
Intermediate Bearings	PTFE
Grundfos Environmental Motor	
NEMA Top, Studs & Fasteners, Stator Housing, Fill Plug Screw	304 SS
Nuts	316 SS
Sand Slinger	FPM
Shaft Extension	431 SS
Diaphragm	FPM
Fill Plug Washer	PTFE
Grundfos Environmental Motor Leads	
Connector Sleeve	304 SS
Connector Potting	Scotch Cast #4® Epoxy w/FPM Cap
Connector Plug	FPM
Lead Insulation	PTFE
Conductor	Stranded Copper, 12 AWG

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PERFORMANCE CURVES



TECHNICAL SPECIFICATIONS

- Flow Range:** 5 to 14 U.S. GPM (19 to 53 LPM)
- Motors:** Grundfos MS402E Environmental Submersible Motor (Standard)
 - Maximum Operating Temperature: 104°F (40°C)
 - Maximum Submergence Pressure: 220 psi (15.2 bar)
 - Maximum Number of Starts Per Hour: 100
 - Minimum Recommended Flow Past Motor: 0.25 ft./sec. (7.6 cm/sec.)
- NOTE:** Franklin Pollution Recovery Motor is optional.
- Discharge Size:** 1¼" NPT
- Installation:** Unit to be installed vertically for submerged operation.

ELECTRICAL DATA, DIMENSIONS, AND WEIGHTS*

Pump Type	Motors				Overall Length A	Motor Length B	Pump End Length C	Maximum Diameter D	Inlet E	Disch. Pipe Size (NPT) F	Net Weight Lbs. (kg)†	Shipping Weight Lbs. (kg)†
	HP	SF	PH	Volts								
10E5	½	1.60	1	230	21 ½" (53.7cm)	10 ⅜" (27.5cm)	10 ⅝" (26.2cm)	3 ⅜" (10cm)	3 ¼"	1 ¼"	25 (11.3)	26 (11.8)
10E8	½	1.60	1	230	23 ⅞" (59.8cm)	10 ⅜" (27.5cm)	12 ¾" (32.4cm)	3 ⅜" (10cm)	3 ¼"	1 ¼"	26 (11.8)	28 (12.7)
10E11	¾	1.50	1	230	26 ⅞" (67.5cm)	11 ⅜" (28.9cm)	15 ⅜" (38.6cm)	3 ⅜" (10cm)	3 ¼"	1 ¼"	28 (12.7)	30 (13.6)
10E14	1	1.40	1	230	29 ⅞" (75.4cm)	12" (30.5cm)	17 ⅞" (45cm)	3 ⅜" (10cm)	3 ¼"	1 ¼"	31 (14)	32 (14.5)
10E19	1½	1.30	1	230	35 ⅜" (89.5cm)	13 ⅞" (34.4cm)	21 ⅜" (55.4cm)	3 ⅜" (10cm)	3 ¼"	1 ¼"	35 (15.9)	37 (16.8)

*Data for Grundfos MS402E motors.
†Does not include motor leads.

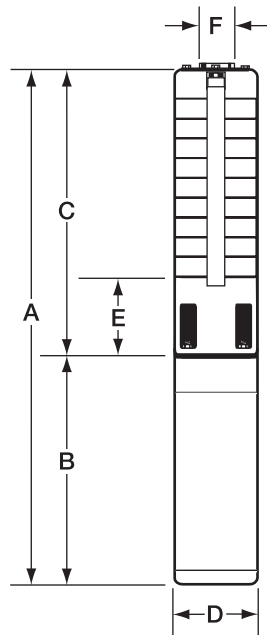
Environmental Pumps

Grundfos Redi-Flo4™ 16E Technical Data

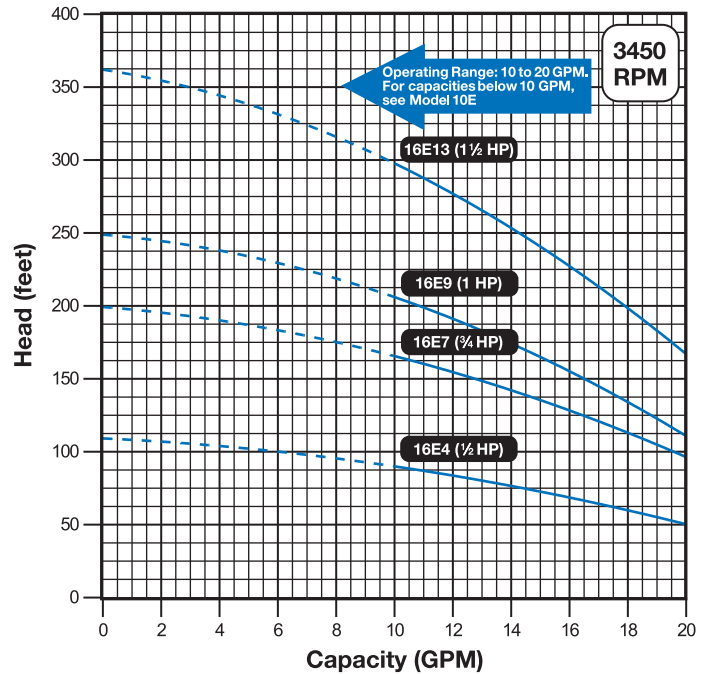
MATERIALS OF CONSTRUCTION

Description	Material
Redi-Flo4 Pump End	
Check Valve Housing, Check Valve, Diffuser Chamber, Impeller, Suction Interconnector, Inlet Screen, Pump Shaft, Straps, Cable Guard, Priming Inducer	304 SS
Check Valve Seat	304 SS & PTFE
Impeller Seal Ring	PTFE
Coupling	316/431 SS
Intermediate Bearings	PTFE
Grundfos Environmental Motor	
NEMA Top, Studs & Fasteners, Stator Housing, Fill Plug Screw	304 SS
Nuts	316 SS
Sand Slinger	FPM
Shaft Extension	431 SS
Diaphragm	FPM
Fill Plug Washer	PTFE
Grundfos Environmental Motor Leads	
Connector Sleeve	304 SS
Connector Potting	Scotch Cast #4® Epoxy w/FPM Cap
Connector Plug	FPM
Lead Insulation	PTFE
Conductor	Stranded Copper, 12 AWG

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PERFORMANCE CURVES



TECHNICAL SPECIFICATIONS

Flow Range:	10 to 20 U.S. GPM (38 to 75 LPM)
Motors:	Grundfos MS402E Environmental Submersible Motor (Standard)
	Maximum Operating Temperature 104°F (40°C)
	Maximum Submergence Pressure 220 psi (15.2 bar)
	Maximum Number of Starts Per Hour 100
	Minimum Recommended Flow Past Motor 0.25 ft./sec. (7.6 cm/sec.)
NOTE:	Franklin Pollution Recovery Motor is optional.
Discharge Size:	1¼" NPT
Installation:	Unit to be installed vertically for submerged operation.

ELECTRICAL DATA, DIMENSIONS, AND WEIGHTS*

Pump Type	HP	Motors SF	PH	Volts	Overall Length A	Motor Length B	Pump End Length C	Maximum Diameter D	Inlet E	Disch. Pipe Size (NPT) F	Net Weight Lbs. (kg)†	Shipping Weight Lbs. (kg)†
16E4	½	1.60	1	230	20 ¼" (51.4cm)	10 ⅜" (27.5cm)	9 ⅞" (24cm)	3 ⅜" (10cm)	3 ¼"	1 ¼"	25 (11.3)	27 (12.2)
16E7	¾	1.50	1	230	23 ¼" (59cm)	11 ⅜" (28.9cm)	11 ⅞" (30.2cm)	3 ⅜" (10cm)	3 ¼"	1 ¼"	27 (12.2)	28 (12.7)
16E9	1	1.40	1	230	25 ⅞" (65cm)	12" (30.5cm)	13 ⅞" (34.4cm)	3 ⅜" (10cm)	3 ¼"	1 ¼"	28 (12.7)	30 (13.6)
16E13	1½	1.30	1	230	30 ⅞" (77.3cm)	13 ⅞" (34.4cm)	16 ⅞" (42.9cm)	3 ⅜" (10cm)	3 ¼"	1 ¼"	33 (15)	34 (15.4)

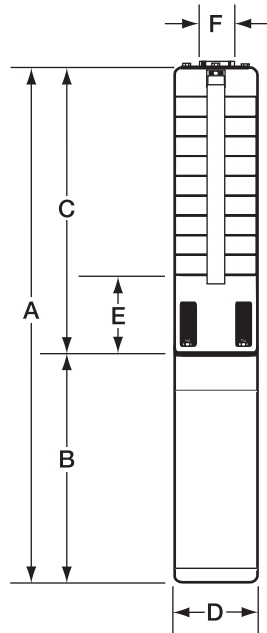
*Data for Grundfos MS402E motors.
†Does not include motor leads.

Grundfos Redi-Flo4™ 25E Technical Data

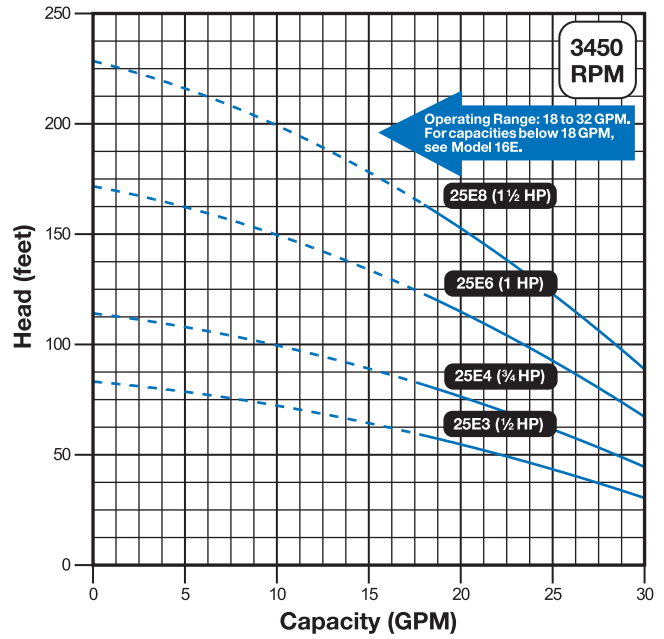
MATERIALS OF CONSTRUCTION

Description	Material
Redi-Flo4 Pump End	
Check Valve Housing, Check Valve, Diffuser Chamber, Impeller, Suction Interconnector, Inlet Screen, Pump Shaft, Straps, Cable Guard, Priming Inducer	304 SS
Check Valve Seat	304 SS & PTFE
Impeller Seal Ring	PTFE
Coupling	316/431 SS
Intermediate Bearings	PTFE
Grundfos Environmental Motor	
NEMA Top, Studs & Fasteners, Stator Housing, Fill Plug Screw	304 SS
Nuts	316 SS
Sand Slinger	FPM
Shaft Extension	431 SS
Diaphragm	FPM
Fill Plug Washer	PTFE
Grundfos Environmental Motor Leads	
Connector Sleeve	304 SS
Connector Potting	Scotch Cast #4® Epoxy w/FPM Cap
Connector Plug	FPM
Lead Insulation	PTFE
Conductor	Stranded Copper, 12 AWG

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PERFORMANCE CURVES



TECHNICAL SPECIFICATIONS

- Flow Range:** 18 to 32 U.S. GPM (68 to 121 LPM)
- Motors:** Grundfos MS402E Environmental Submersible Motor (Standard)
 - Maximum Operating Temperature: 104°F (40°C)
 - Maximum Submergence Pressure: 220 psi (15.2 bar)
 - Maximum Number of Starts Per Hour: 100
 - Minimum Recommended Flow Past Motor: 0.25 ft./sec. (7.6 cm/sec.)
- NOTE:** Franklin Pollution Recovery Motor is optional.
- Discharge Size:** 1 1/2" NPT
- Installation:** Unit to be installed vertically for submerged operation.

ELECTRICAL DATA, DIMENSIONS, AND WEIGHTS*

Pump Type	HP	Motors SF	PH	Volts	Overall Length A	Motor Length B	Pump End Length C	Maximum Diameter D	Inlet E	Disch. Pipe Size (NPT) F	Net Weight Lbs. (kg)†	Shipping Weight Lbs. (kg)†
25E3	1/2	1.60	1	230	19 3/8" (49.2cm)	10 13/16" (27.5cm)	8 9/16" (21.7cm)	3 3/32" (10cm)	3 1/4"	1 1/2"	24 (10.8)	25 (11.3)
25E4	3/4	1.50	1	230	20 13/16" (52.9cm)	11 3/8" (28.9cm)	9 7/16" (23.9cm)	3 3/32" (10cm)	3 1/4"	1 1/2"	25 (11.3)	27 (12.2)
25E6	1	1.40	1	230	23 1/16" (58.6cm)	12" (30.5cm)	11 1/16" (28.1cm)	3 3/32" (10cm)	3 1/4"	1 1/2"	27 (12.2)	29 (13.1)
25E8	1 1/2	1.30	1	230	26 5/16" (66.8cm)	13 3/16" (34.4cm)	12 3/4" (32.4cm)	3 3/32" (10cm)	3 1/4"	1 1/2"	28 (12.7)	30 (13.6)

*Data for Grundfos MS402E motors.
†Does not include motor leads.