

Redi-Flo

Redi-Flo Variable Performance Pumping Systems



**The Optimal Pumping Solution for Sampling and
Remediating Contaminated Groundwater**



GRUNDFOS



Leaders in Pump Technology

The Unique Features of the Redi-Flo VFD:



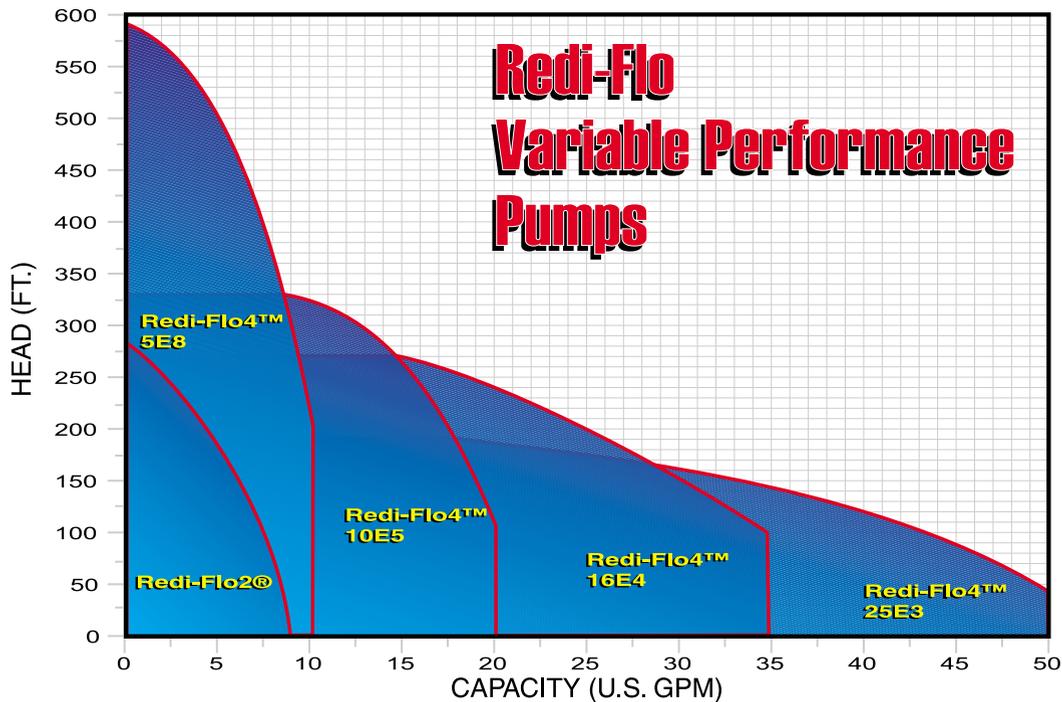
- **Precise Flow Control** — The ten-turn potentiometer provides greater control over the pump's discharge flow rate for better accuracy and precision during sampling.
- **Wide Performance Range** — Instead of operating according to one performance curve, the Redi-Flo VFD allows for coverage of a range of performances and can function at any point of operation within that range.
- **Motor Protection** — The Redi-Flo VFD will protect the Redi-Flo Variable Performance Pumps from adverse motor conditions such as, over-and-under-voltage, over-current, and groundfault.
- **Dual Input Power Capability** — Either 120V or 230V, single-phase AC input power is accommodated simply by changing the power cord terminations.
- **Dual Functionality** — The Redi-Flo VFD can be easily switched to operate either the *Redi-Flo2*[®] pump or the *Redi-Flo4*[™] Variable Performance Pumps.
- **Remote, Automatic Operation** — The Redi-Flo VFD can be remotely operated and controlled by an external 4-20 mA signal from a device like a pressure transducer or flow meter. With the use of a PID, along with a pressure transducer or flow meter, the Redi-Flo Variable Performance Pumps can maintain a constant draw down within the well, or maintain a constant flow rate from the pumps.
- **Dry-Run Protection** — The Redi-Flo VFD can be configured to protect pump and motor from experiencing a prolonged “dry-run” condition. The drive can be automatically restarted after a specified delay.

Grundfos Environmental Products

Models	Well Size	Discharge Size*	Flow Range GPM	Heads To: (Ft.)
Redi-Flo2® Variable Performance Pump				
MP1	2"	½"	100 ml/min - 9	250
Redi-Flo4™ Variable Performance Pumps				
5E8	4"	1"	100 ml/min - 10	590
10E5	4"	1¼"	100 ml/min - 20	375
16E4	4"	1¼"	100 ml/min - 35	318
25E3	4"	1½"	100 ml/min - 50	235

*Female NPT

Performance



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Available from:

Performance curves and technical information listed as a range only and subject to change without notice. Consult a Grundfos product submittal data sheet for exact pump specifications.

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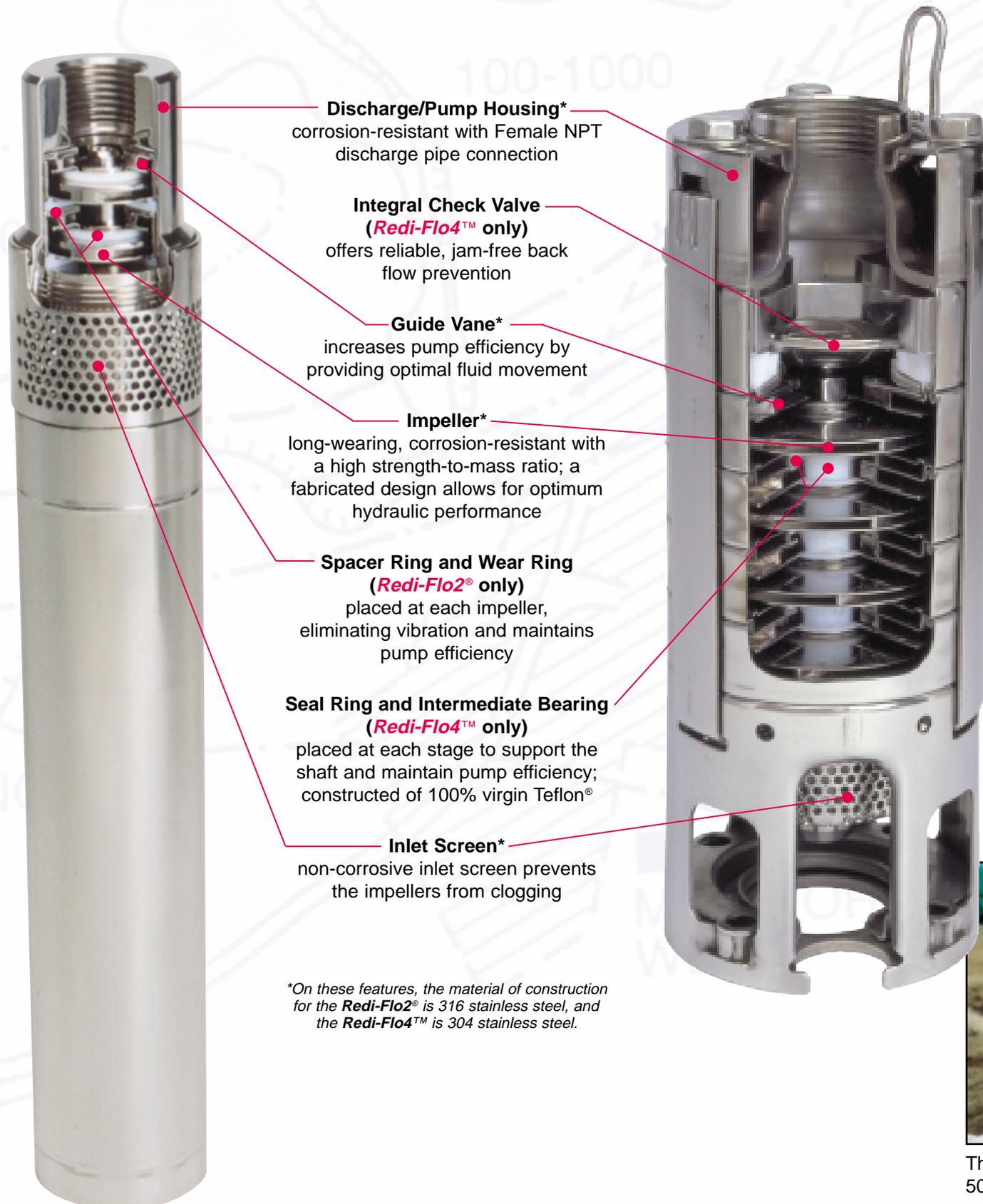
Redi-Flo2[®] and Redi-Flo4[™] Variable Performance Pumps

The **Redi-Flo2[®]** Variable Performance Pump combines state-of-the-art technology into a light, compact and yet powerful submersible pump for precise, accurate and reproducible groundwater sampling. Designed for long-term reliability in dedicated monitoring wells, the **Redi-Flo2[®]** provides optimal sample quality with either traditional purging prior to sampling, or low draw-down passive sampling when operated with the new Redi-Flo VFD.

Study after study has shown the **Redi-Flo2[®]** Variable Performance Pump is the ideal sampling device for representative groundwater samples.



Smooth, continuous, uninterrupted discharge flow rate is possible with the **Redi-Flo2[®]**.



Discharge/Pump Housing*
corrosion-resistant with Female NPT discharge pipe connection

Integral Check Valve (Redi-Flo4[™] only)
offers reliable, jam-free back flow prevention

Guide Vane*
increases pump efficiency by providing optimal fluid movement

Impeller*
long-wearing, corrosion-resistant with a high strength-to-mass ratio; a fabricated design allows for optimum hydraulic performance

Spacer Ring and Wear Ring (Redi-Flo2[®] only)
placed at each impeller, eliminating vibration and maintains pump efficiency

Seal Ring and Intermediate Bearing (Redi-Flo4[™] only)
placed at each stage to support the shaft and maintain pump efficiency; constructed of 100% virgin Teflon[®]

Inlet Screen*
non-corrosive inlet screen prevents the impellers from clogging

On these features, the material of construction for the **Redi-Flo2[®] is 316 stainless steel, and the **Redi-Flo4[™]** is 304 stainless steel.*

The **Redi-Flo4[™]** Variable Performance Pumps are submersibles constructed of virgin Teflon[®] and stainless steel to handle the rigors of contaminated groundwater monitoring and continuous operation in remediation applications. The **Redi-Flo4[™]** Variable Performance Pumps are designed to operate in 4 inch and larger wells to depths of 590 feet. The **Redi-Flo4[™]** pumps have a built-in check valve to prevent back-flow in the well after the pump is shut down. A user-friendly cable guard aids in the ease of variable length motor lead installation.



The **Redi-Flo4[™]** provides up to 50 gallons per minute for purging and remediation.

The Redi-Flo Variable Frequency Drive

The Redi-Flo Variable Frequency Drive (VFD) has been uniquely designed to operate and protect the **Redi-Flo2®** Variable Performance Groundwater Sampling Pump and the **Redi-Flo4™** Variable Performance Sampling/Remediation Pumps. Due to the revolutionary electronics within the Redi-Flo VFD, the operator can easily change between the **Redi-Flo2®** Pump or the **Redi-Flo4™** Variable Performance Pumps by simply turning a knob. With the turn of another knob, the operator can precisely control the discharge flow rate from the pump from a maximum of 50 gallons per minute to a minimum of 100 milliliters per minute, to depths to 590 feet of head.

Unlike most variable frequency drives, the Redi-Flo VFD is compatible with either 120V or 230V single-phase, AC input power. The operator can simply change the terminations of the power cord to accommodate the different voltages.

The Redi-Flo VFD can also be operated in the “Automatic Mode” in which the drive’s output frequency is directly related to a 4-20 milliamp input signal.

