

Top 6: A Beginner's Guide to Myers Submersible Well Pumps

Introduction

The kitchen faucet sputtered, the shower went lukewarm, and within minutes the house went silent—no water, no pressure, no plan. If you've ever lived on a private well, you know that moment too well. A submersible well pump is not a "nice to have." It's your home's beating heart. When it stops, daily life stops.

Jordan Bremsley (36), a union electrician, and his wife Priya Bremsley (34), an ER nurse, hit this wall on a Sunday in rural Pike County, Pennsylvania. Their 165-foot private well had been limping plumbingsupplyandmore.com along for months with low pressure and short-cycling. The culprit? A tired 3/4 HP Goulds submersible that ingested grit, wore the impellers, and finally seized a bearing. With two kids, Aria (7) and Micah (4), a full laundry basket, and dinner dishes stacked, the emergency couldn't have picked a worse time. They needed a reliable fix—fast—and not three rounds of trial-and-error. Enter a properly sized Myers Predator Plus submersible—1 HP, 10 GPM, 230V—selected off the pump curve to carry their TDH with margin and start the flow again.

In this field-tested guide, I'll show you exactly what matters for new buyers, first-time well owners, and anyone replacing a failed unit—why stainless construction lasts, how the Pentek XE motor lowers bills, how to size HP using TDH and the pump curve, when a 2-wire configuration saves money, why self-lubricating staging is a sand-fighter, and how Myers' 3-year warranty and field-serviceable threaded assembly reduce lifetime costs. If your search history includes "best well pump for 150 ft well," "2-wire vs 3-wire," or "why is my well pump not working," you're in the right place.

Let's get your water back, and keep it there.

#1. Myers Predator Plus Series Stainless Steel Construction - 300 Series Lead-Free Materials Beat Corrosion and Deliver 8–15 Year Service Life

A home's water quality changes with seasons, so your submersible must shrug off chemistry swings and grit without complaint. Material choice decides whether you replace a pump in three years—or in thirteen.

Myers builds the Predator Plus with a full suite of **300 series stainless steel** components: shell, discharge bowl, shaft, coupling, wear ring, and **intake screen**. That stainless backbone, combined with a precision **threaded assembly**, resists pitting corrosion from mineral-rich water and maintains tight internal clearances so efficiency doesn't fade. A stainless **internal check valve** prevents column drain-back and hammer. For typical 4-inch wells, this construction is the difference between a pump that stays smooth at 50–60 PSI and one that grows noisy and inefficient as stages wear.

Detailed comparison: materials and structure (Goulds + Red Lion)

- **Technical performance:** Many Goulds submersibles still incorporate **cast iron** elements in the wet end. In acidic or high-iron water, cast iron scales and corrodes, opening clearances and trimming output. Red Lion relies on **thermoplastic** housings that fatigue under hot/cold cycling, and can micro-crack around threaded ports. Myers' all- **stainless steel** wet end keeps geometry stable, preserves efficiency, and cooperates with higher **shut-off head** models up to 490 feet without deforming.
- **Real-world differences:** When you pull a plastic-housed pump after five seasons, you'll often find hairline cracks and mineral undercutting in the stage stack. Stainless holds shape, so pressure remains consistent, and you avoid nuisance callbacks. Pair that with Myers' **UL listed** and **CSA certified** pedigree, and your installation stands on solid footing for inspections and resale.
- **Value conclusion:** You replace a plastic or mixed-metal pump two or three times across a decade; you install a stainless Myers once, maintain it, and move on with life—worth every single penny.

For the Bremsleys, gritty water scoured their old impellers. With the Predator Plus stainless shell, wear ring, and screen, Jordan saw clear water, stable pressure, and stopped fearing spring thaw changes.

- **Stainless Components and BEP Stability** The use of **300 series stainless steel** isn't just about avoiding rust; it's about holding tight tolerances around the impeller-eye and diffuser so the **best efficiency point (BEP)** remains in the window over the years. As surfaces stay smooth, a 10 GPM set doesn't drift down to 7–8 GPM under load. That stability keeps showers comfortable and the **pressure switch** from chattering.

- **Internal Check Valve and Column Integrity** A high-quality **internal check valve** prevents drain-back when the pump stops, protecting against pressure tank bounce and water hammer. On lifts above 120 feet, this single feature saves impellers from reverse rotation and motors from torque shock. Add an in-line brass check topside for code, and your column becomes a one-way street to reliability.

Key takeaway: If your water has any mineral signature—and most wells do—full stainless construction is your first non-negotiable.

#2. Pentek XE High-Thrust Motor Technology - Efficient Single-Phase Power with Thermal and Lightning Protection at 230V

When power bills sting and summer taps run nonstop, motor efficiency and protection features pay you back month after month.

Myers pairs the Predator Plus with the **Pentek XE motor**, a high-thrust, **single-phase motor** designed for continuous duty. With optimized rotor design, tight lamination stacks, and thoughtful heat dissipation, these motors pull lower **amperage draw** at the same head and flow than generic cans. Integrated **thermal overload protection** and **lightning protection** safeguard windings during overdemand and dirty utility power. On 230V circuits, the XE motor's starting and running characteristics reduce nuisance breaker trips while delivering smooth torque to multi-stage sets. That's why true field performance shows 80%+ overall hydraulic efficiency when operating near BEP.

Detailed comparison: Pentek XE vs Franklin Electric installations

- **Technical performance:** The **Pentek XE** motor is tailored for the Predator Plus wet end's thrust and axial load. Compared to many Franklin Electric configurations that rely on proprietary **control boxes**, the XE is set up to run efficiently in both **2-wire well pump** and **3-wire well pump** options without complex external hardware. Thermal capacity and surge resistance reduce heat soak and winding stress during heavy draws like irrigation.
- **Real-world differences:** On routine service calls, I see Franklin systems locked behind dealer-only parts pipelines. With Myers, you're looking at field-friendly components and off-the-shelf compatibility from PSAM, meaning faster restorations, less downtime, and cleaner pricing. Energy savings stack up when your motor avoids high slip under peak use.
- **Value conclusion:** Lower amps, simpler support, and rugged protection mean one dependable install instead of three escalating "upgrades"—absolutely worth every single penny.

After swapping to the 1 HP XE motor on their new Myers set, Priya watched their summer bill flatten. Jordan, ever the electrician, loved the soft-start behavior and cooler motor case temperatures on infrared checks.

- **Thermal and Surge Protection That Actually Saves a Pump** Built-in **thermal overload protection** interrupts the circuit before windings cook during low-water conditions or a stuck pressure switch. Integrated **lightning protection** helps the motor survive nearby strikes and grid spikes—critical in rural Pennsylvania where storms roll in fast.
- **Continuous Duty and Smooth Torque** A reputable motor must handle **continuous duty** during irrigations or back-to-back laundry and showers. The XE's thrust bearing and rotor geometry deliver steady torque to the **stages**, maintaining GPM even as head pressure climbs. Less slip equals less heat and longer life.

Key takeaway: Look under the hood. A smarter motor prevents emergencies and trims the utility bill without sacrificing pressure.

#3. Right-Sizing with Pump Curves - Match 1/2 to 2 HP, GPM Rating, and TDH Using Real Numbers, Not Hunches

Proper sizing is the difference between short-cycling misery and a pump that hums along for a decade. Don't guess—calculate.

Start with your **TDH (total dynamic head)**: static water level to pressure tank elevation, plus friction loss in your **drop pipe**, plus the pressure you want at the house ($\text{PSI} \times 2.31$). Overlay that TDH on the Myers **pump curve** for a given **GPM rating** (7–8, 10, 12, 20+ models) and pick a model where your duty point sits near the **BEP**. For 4-inch domestic wells, I commonly land customers in 10 GPM, 1 HP at 230V, but every site is different. Use **1-1/4" NPT** discharge with a smooth-bore drop line to minimize friction. If your depth pushes 250–300 feet, you may be in a 1.5 HP or **2 HP** multi-stage to keep pressure steady without overramping.

For the Bremsleys' 165-foot well, static at 90 feet, and a target of 50 PSI at the house, the math put their duty point right on a Myers Predator Plus 10 GPM, **1 HP** set. On the curve, that pump covered their load at comfortable efficiency with margin for seasonal drawdown.

- **How to Calculate TDH the Right Way** $TDH = \text{Lift (static to tank elevation)} + \text{Friction (pipe, fittings)} + \text{Pressure (desired PSI} \times 2.31)$. Example: 90 feet lift + 20 feet friction + $(50 \text{ PSI} \times 2.31) \approx 225$ feet TDH. With that, select the curve where 10 GPM intersects ~ 225 feet near the pump's BEP. That's your bullseye.
- **When to Up-Size vs Down-Stage** If you're between models, I often recommend stepping up HP and down-staging to land the duty point mid-curve. With Myers' **field serviceable** threaded design, a contractor can configure **stages** to fit your head without overkill. More HP at fewer stages can also soften amp draw under start loads.

Key takeaway: Spend five minutes with a pump curve and you'll save five years of aggravation.



#4. 2-Wire vs 3-Wire Configurations - Save \$200–\$400 Upfront and Simplify Troubleshooting Without Sacrificing Performance

Control strategy should fit your skill set and service environment. In many residential installs, a **2-wire configuration** offers cleaner, faster setup and fewer parts.

A **2-wire well pump** integrates start components inside the motor. Installation is straightforward: power leads from the breaker/pressure switch run straight to the motor, eliminating a separate **control box**. For homeowners and general contractors—especially in emergency swaps—this simplicity cuts costs and error points. A **3-wire well pump** uses an external control box with capacitors and relays topside. That can help in special cases (very deep set, complex diagnostics), but for most 4-inch residential wells at 120–250 feet, 2-wire at **230V** with a Myers Predator Plus is my go-to. Fewer parts, faster restores.

When Jordan and Priya were dry on a Sunday, we chose a 2-wire 1 HP Myers. No external box, no hunting special parts, no delays. Water returned the same afternoon.

- **Wiring, Breakers, and Pressure Switch Tips** Run 230V on a dedicated breaker sized per **amperage draw** and local code. Use a quality **pressure switch** at 40/60 PSI with a matched **pressure tank** precharged 2 PSI below cut-in. Lastly, size wire gauge to the motor's RLA and the round-trip length to control voltage drop.
- **Field Diagnostics in Two Steps** In a 2-wire setup, basic checks go fast: verify line voltage at the tank tee and across the switch, ohm the motor leads for continuity, and megger test if needed. Fewer components mean fewer failure points—and faster “back in service.”

Key takeaway: For most homes, 2-wire Myers installs are the sweet spot of speed, reliability, and cost control.

#5. Teflon-Impregnated Self-Lubricating Impellers - Engineered Composite Staging That Stands Up to Sand and Grit

Nothing chews through pumps like abrasive fines. The smartest defense is stage material that can run clean and stay slick.

Myers uses **Teflon-impregnated staging with self-lubricating impellers**—an engineered composite designed to resist abrasion. As water carries fines past the **wear ring**, these impellers maintain clearance and glide rather than scuff. That keeps the

set operating near its published **GPM rating** and head rather than falling off as edges round. The difference is measurable: better sustained output, smoother starts, and fewer service pulls “just to see what’s wrong.”

The Bremsleys’ well has occasional spring grit. Their previous impellers wore down and lost bite. Post-upgrade, their Predator Plus held pressure at 50–60 PSI, with Jordan noting steadier shower flow during heavy laundry days.

- **Sand Tolerance and Intake Protection** While no pump is a dredge, the Myers intake **screen** and stage geometry discourage large particle entry and reduce scouring of internal surfaces. For sandy aquifers, I pair the pump with a pitless set including **torque arrestor**, **safety rope**, and proper set depth above the screen zone to minimize disturbance.
- **Pro Tip: Guard the Column Topside** Add a spin-down sediment filter after the **tank tee** to catch fines that sneak through. Protects fixtures, extends cartridge life downstream, and keeps your distribution plumbing clean. Let the pump do pressure; let filters do filtration.

Key takeaway: In real wells—not lab beakers—grit happens. Myers’ composite staging keeps performance high when conditions aren’t pristine.

#6. Warranty, Serviceability, and Complete System Build - 3-Year Coverage, Field-Threaded Assembly, and PSAM-Kitted Accessories

Even great pumps need smart ecosystems: good tanks, clean electrical, and parts you can change on-site. Myers helps you win long-term with coverage and serviceability.

Start with the **3-year warranty**—industry-leading protection that covers manufacturing defects and performance issues. Under the hood, the **field serviceable** Predator Plus uses a **threaded assembly** so a qualified contractor can replace stages or a shaft component without junking the whole wet end. That’s a big deal when you’re running a homestead where downtime matters. Pair the pump with install must-haves: **pitless adapter**, brass **check valve** (in addition to the internal), **drop pipe**, properly crimped **wire splice kit**, torque-control hardware, and a sanitary **well cap**. At Plumbing Supply And More (PSAM), we bundle these into clean kits so you don’t play scavenger hunt during an outage.

Comparison: long-haul value vs Franklin Electric and Red Lion

- Technical analysis: Franklin Electric offers solid motors but leans on **proprietary control boxes** and dealer networks, which can slow field repairs and complicate parts sourcing. Red Lion’s **thermoplastic** housings often struggle with pressure cycling fatigue. Myers counters with **Made in USA** build quality, stainless wet ends, and the **Pentek XE motor**—a combination that reaches 80%+ hydraulic efficiency near BEP and avoids hardware bottlenecks.
- Application differences: In homeowner emergencies, I’ve restored Myers systems the same day with PSAM-stocked parts, while Franklin box backorders forced temporary workarounds. Red Lion replacements frequently appear at year three to five with cracked components or noise. Myers units, when sized and installed correctly, deliver 8–15 years; we see outliers at 20–30 with meticulous care.
- Value conclusion: One quality install, one reliable supply chain, one extended warranty—all adding up to fewer headaches and lower total cost of ownership—worth every single penny.

Jordan appreciated that, if ever needed, a stage swap can happen on-site. Priya liked the plain-English coverage, and being back to bathtime that very same day.

- **Rick’s Picks: What to Add to Every Submersible** My no-nonsense list: quality **pressure tank** sized to drawdown, a stainless or brass **check valve** above the pitless, torque arrestor, cable guards, heat-shrink **wire splice kit**, and a robust **control box** only if you’re running 3-wire. These components keep systems quiet, tight, and code-compliant.
- **Maintenance that Protects Your Warranty** Document static and dynamic levels at install, log pressure switch settings, and record amp draw at cut-in and cut-out. Annual inspections—pressure, drawdown, and a quick IR temp check at the breaker—catch issues early without pulling the pump.

Key takeaway: Warranty is a promise; serviceability is the plan. Myers gives you both, and PSAM ships the rest same day.

FAQ: Expert Answers from Rick Callahan

1) How do I determine the correct horsepower for my well depth and household water demand?

Start with math, not guesswork. Calculate **TDH (total dynamic head)**: static water level to tank elevation, plus friction loss, plus desired pressure ($\text{PSI} \times 2.31$). Cross that TDH with your target flow—typically 8–12 GPM for a 3–4 bath home—on the Myers Predator Plus **pump curve**. Choose the model where your duty point lands near the **BEP**. For wells around 150–200 feet with 40/60 PSI, many homes land on **1 HP** at **230V** delivering 10 GPM. Larger homes or irrigation may need **1.5 HP** or **2 HP**. Real example: With 225 feet TDH and 10 GPM, a Myers 1 HP 10 GPM set fits beautifully. Rick’s recommendation: select for mid-curve operation and leave 10–15% headroom for seasonal drawdown.

2) What GPM flow rate does a typical household need and how do multi-stage impellers affect pressure?

Most households do well at 8–12 GPM. Multi-fixture homes with irrigation can need 15–20 GPM. A submersible is a **multi-stage pump**—stacked impellers multiply head, not flow. As **stages** increase, the pump’s ability to lift water at pressure climbs. Flow (GPM) is a function of impeller diameter and hydraulic design; head (feet or PSI) comes from stage count. That’s why a 10 GPM, 11-stage 1 HP delivers steady 50–60 PSI even at 150–200 feet TDH. If you undersize stages, pressure drops during showers. Rick’s tip: set [buying Myers submersible products](#) duty point mid-curve; it’s where the pump holds both GPM and pressure comfortably, maximizing efficiency and component life.

3) How does the Myers Predator Plus Series achieve 80% hydraulic efficiency compared to competitors?

Efficiency comes from engineered fits and materials. Myers uses **300 series stainless steel** wet ends to maintain tight clearances and **Teflon-impregnated staging** to minimize internal losses as water moves stage to stage. Pair that with the **Pentek XE motor**—optimized for torque and low slip—and you get a system whose combined wire-to-water efficiency tops 80% near **BEP**. That means fewer watts per gallon at your faucet. Compared to mixed-metal or **thermoplastic** designs that deform or scale, Myers maintains geometry over time, keeping published performance. In practice, you’ll see flatter utility bills and better pressure stability at 40/60 PSI cut points. My advice: verify your duty point lands near **BEP**—that’s where efficiency is real, not just a brochure number.

4) Why is 300 series stainless steel superior to cast iron for submersible well pumps?

Below grade, chemistry changes. **Cast iron** pits in acidic water and scales with iron and hardness, opening internal clearances and reducing head. **300 series stainless steel** resists corrosion and preserves smooth pathways for water. That translates to sustained **GPM rating**, stable pressure, and impellers that don’t grind against a roughened diffuser. Stainless also tolerates temperature swings and start/stop cycling without micro-cracking threaded ports. I’ve pulled cast-iron-equipped pumps at year five riddled with scale; I’ve pulled stainless wet ends at year ten that look serviceable after a rinse. Stainless isn’t about shiny—it’s about geometry that stays true underground.

5) How do Teflon-impregnated self-lubricating impellers resist sand and grit damage?

Abrasive fines act like valve-lapping compound in your pump. Myers’ **self-lubricating impellers** use an engineered composite infused with **Teflon-impregnated staging** resins. The material presents a slick surface that reduces friction heat and drag as grit passes. It’s also dimensionally stable, so edges don’t mushroom under load. Combined with a hardened **wear ring** and stainless housing, you avoid the performance “fade” that shows up as longer shower warm-up times and weaker hose flow. In sandy formations, add a proper set depth above screens and consider a spin-down filter topside. The right materials plus smart installation equal long service life.

6) What makes the Pentek XE high-thrust motor more efficient than standard well pump motors?

The **Pentek XE motor** is designed for the axial loads of vertical, multi-stage duty. High-quality laminations reduce eddy-current losses; rotor geometry delivers smooth torque with lower **amperage draw**. Internal **thermal overload protection** prevents winding cook-off during low water or blocked flow, and integrated **lightning protection** helps the motor survive surges common in rural feeds. Efficiency gains aren’t just in nameplate numbers—you’ll feel them as cooler motor temps, stable current under pressure, and fewer nuisance trips. Matched to the Predator Plus hydraulics, the XE hits that sweet spot where wire-to-water efficiency hovers above 80% near **BEP**.

7) Can I install a Myers submersible pump myself or do I need a licensed contractor?

If you’re comfortable with electrical and plumbing code basics, a 4-inch **submersible well pump** swap is DIY-manageable, especially in a **2-wire configuration**. You’ll need proper lifting gear, a **wire splice kit** with heat-shrink, a **pitless adapter**, torque arrestor, **drop pipe**, and a sanitary **well cap**. Follow torque specs and ensure watertight splices. That said, I recommend a

licensed well contractor for deep sets (>200 feet), 3-wire controls, or when static levels are unknown. A pro will measure static and dynamic levels, set pump elevation to avoid sediment, and commission the **pressure switch** and **pressure tank** correctly. At PSAM, we offer phone support and same-day shipping on kits so DIYers and pros alike get water running fast.

8) What's the difference between 2-wire and 3-wire well pump configurations?

A **2-wire well pump** houses start components internally. Fewer parts, simpler wiring, and no external **control box**—ideal for most residential replacements. A **3-wire well pump** uses a topside control box (start capacitor/relay) which can aid diagnostics and certain deep-well starts. Performance at the faucet can be the same if the pump is sized right. In my field experience, 2-wire at **230V** with a Myers Predator Plus minimizes failure points and speeds emergencies. Choose 3-wire when site conditions or diagnostic preferences demand it. Either way, Myers gives both options with the same **Pentek XE motor** quality.

9) How long should I expect a Myers Predator Plus pump to last with proper maintenance?

Under normal water chemistry and duty cycles, 8–15 years is a realistic expectation. I've seen 20–30 years from well-cared-for installations: correct sizing off the **pump curve**, adequate cooling flow, clean electrical, and periodic checks on pressure settings. Keep a log of static/dynamic levels and amps at install. Annually, verify **pressure tank** precharge, test the **pressure switch**, and inspect for voltage drop at start. If your aquifer carries sand, consider throttling irrigation to avoid extended run-dry events. Thanks to stainless construction and **self-lubricating impellers**, Myers units maintain performance well into their lifespan if you treat them right.

10) What maintenance tasks extend well pump lifespan and how often should they be performed?

- Annually: Check **pressure tank** precharge (2 PSI below cut-in), clean contacts in the **pressure switch**, and record running amps.
- Every 2–3 years: Inspect pitless seals, verify check valve integrity, and recheck dynamic level under load.
- Immediately after lightning storms: Confirm voltage and insulation resistance before extended operation.
- Ongoing: Watch for short-cycling; that's usually a tank/air issue, not a pump problem. Small habits prevent big failures. A few minutes with a gauge and meter can buy you years of reliable service.

11) How does Myers' 3-year warranty compare to competitors and what does it cover?

The **3-year warranty** from Myers exceeds the 12–18 months I see from many brands. It covers manufacturing defects and performance failures under normal use. That longer runway matters because early-life defects—if they exist—reveal themselves in the first two seasons. With PSAM's support, claim processing is straightforward, and in-stock replacements move fast. While **Franklin Electric** and others offer reputable hardware, warranty length and dealer-gatekeeping can slow things down. Myers' coverage, plus parts availability and **field serviceable** design, keeps you in water with less drama. Always retain install logs; documentation speeds any claim.

12) What's the total cost of ownership over 10 years: Myers vs budget pump brands?

Add it up. A budget unit often costs half up front, but failures at year two or three force repeat purchases, emergency labor, and lost time. Many **Red Lion** or big-box **thermoplastic** models I've replaced didn't survive pressure cycling or grit. A properly sized Myers, running at mid-curve with **Pentek XE** efficiency, typically lasts 8–15 years. You save power with 80%+ hydraulic efficiency near **BEP**, avoid midlife replacements, and enjoy a **3-year warranty** buffer. Expect 15–30% lower lifetime costs with Myers when you factor energy, service calls, and downtime. One install done right beats three done cheap—every time.



Conclusion

Water reliability isn't a luxury—it's how the day happens. With the Myers Predator Plus, you get the materials that resist real-world chemistry, the **Pentek XE motor** that sips power under load, the sizing discipline that keeps pressure steady, and the **2-wire** simplicity that speeds emergency installs. Add **Teflon-impregnated staging** to fend off grit and a **3-year warranty** with **field serviceable** design, and you've built a system that runs the long race. That's how Jordan and Priya Bremsley went from a dead Sunday to a durable solution—clean water, stable pressure, lower bills.

If you're ready to spec your next Myers well pump, call PSAM. I'll help you read the **pump curve**, pick the right HP and **stages**, and ship a complete install kit— **pitless adapter**, **drop pipe**, **wire splice kit**, and all—the same day. Reliable water, done right, is worth every single [Plumbing Supply and More myers pump](#) penny.