Please read and save this Repair Parts Manual. Read this manual and the General Operating Instructions carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. The Safety Instructions are contained in the General Operating Instructions. Failure to comply with the safety instructions accompanying this product could result in personal injury and/or property damage! Retain instructions for future reference. AMT reserves the right to discontinue any model or change specifications at any time without incurring any obligation.

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Periodic maintenance and inspection is required on all pumps to ensure proper operation. Unit must be clear of debris and sediment. Inspect for leaks and loose bolts. Failure to do so voids warranty.

# 3-Inch Self-Priming Centrifugal Pumps

Refer to pump manual 1808-634-00 for General Operating and Safety Instructions.

## DESCRIPTION

These centrifugal pumps are self-priming (to 20 ft. lift) units designed for high volume liquid transfer – irrigation, de-watering, lawn sprinkling, etc. They can also accommodate semi-solids (up to 3/8" diameter), sediment laden liquids and liquids with entrained air or gases. Casing working pressure to 125 psi (862 kPa).

The units are equipped with a cast iron pump casing, clog resistant semi-open stainless steel impeller and a cast iron adapter. Units are equipped with flapper valves to ensure a positive prime. A mechanical seal isolates the motor from the liquid in the pump casing. The units are coupled to 3450 RPM, totally enclosed fan cooled motors. All units are manual models, no controls are supplied. For use with nonflammable, non-abrasive liquids compatible with pump component materials.

**⚠WARNING**

***All units are for use with non-flammable, non-abrasive liquids compatible with pump component materials.***

## MAINTENANCE

**⚠WARNING**

***Make certain that the unit is disconnected and locked out from the power source before attempting to service or remove any components.***

**NOTE:** Pump casing should be removed and inspected periodically to ensure that any foreign material or rust is not clogging internal pump parts.

## REMOVAL OF OLD SEAL

Refer to Figure 1

**IMPORTANT:** Always replace both seal seat (Ref. No. 10) and seal head (Ref. No. 11) to ensure proper mating of components! Also, impeller seal washer (Ref. No. 8) should be replaced anytime impeller lock screw (Ref. No. 7) has been removed.

1. Remove four bolts (Ref. No. 15) that connect adapter (Ref. No. 2) to casing (Ref. No. 13).
2. Remove casing and casing seal (Ref. No. 26).

**⚠ CAUTION**

Care should be taken not to "pinch" or "shave" the o-ring gasket (Ref. No. 26) between adapter and casing.

3. Using an Allen wrench, remove impeller lock bolt, impeller seal washer,and impeller (Ref. No. 8).

**IMPORTANT:** Care should be taken to ensure that same number of shim washers (Ref. No. 9) are replaced behind impeller as were removed. These shim washers are located directly behind impeller. These washers as well as impeller key (Ref. No. 27) become loose as impeller is removed.

4. Seal head and shaft sleeve (Ref. No. 12 can now be pulled from shaft.
5. Pry seal seat from casing cover (Ref. No. 5).
6. Push seal head from shaft sleeve.

## INSTALLATION OF NEW SEAL

**⚠ CAUTION**

The precision lapped faces on mechanical seal are easily damaged. Handle your replacement seal carefully.

1. Thoroughly clean all surfaces of seal seat cavity.
2. Using a clean cloth, wipe shaft and shaft sleeve and make certain that they are perfectly clean.
3. Wet the rubber portion of new seal seat with a light coating of soapy water. While wearing clean gloves or using a clean light rag, press seal seat squarely into casing cover recess. Avoid scratching polished surface. If seal will not position properly, place a cardboard washer over polished surface and use a piece of pipe to press in, firmly but gently.
4. Dispose of cardboard washer. Check again to see that polished surface is free of dirt and all other foreign particles and that it has not been scratched or damaged.
5. Wet the inside of rubber portion of new seal head with a light coating of soapy water. Slide head onto shaft sleeve. Slide shaft sleeve with seal head onto motor shaft. Seal head and seal seat will meet. Reinstall any shims which have been removed. (See SHIM ADJUSTMENT section.)

**IMPORTANT:** Before installing new shaft sleeve, apply a bead of non-hardening, pliable sealant (such as Permatex®, Form-A-Gasket® No. 2) to motor shaft shoulder.

6. Replace impeller key and impeller. Replace impeller seal washer before screwing impeller lock screw in place.
7. Reassemble pump.
8. A short "run-in" period may be necessary to provide completely leak free seal operation.

# 3-Inch Self-Priming Centrifugal Pumps

## SHIM ADJUSTMENT

When installing a replacement impeller (Ref. No. 6) or motor (Ref. No. 1), it may be necessary to adjust the number of shims (Ref. No. 9) to ensure proper running clearance between impeller and casing (Ref. No. 13). Proceed as follows:

**NOTE:** A proper running clearance is less than 0.010".

1. For impeller replacement, add one (1) shim in addition to those removed originally.
2. For motor replacement, add two (2) shims in addition to shims removed during disassembly.
3. Reassemble pump as described in steps 6 and 7. (See INSTALLATION OF NEW SEAL section.)

**IMPORTANT:** Be sure that casing is snugly in place and check shaft to make sure it is turning freely (use screwdriver slot in the motor to turn shaft). If it turns freely, check to ensure that casing cover (Ref. No. 5) and casing are fitted metal -to- metal where they meet on outside. If they are not metal-to-metal, tighten fasteners (Ref. No. 15) and recheck shaft for free turning. Tighten carefully, turning shaft while tightening so that motor bearings are not damaged in the event that too many shims were installed. If shaft seizes before fasteners are completely tight, disassembly pump and remove one (1) shim and repeat reassembly.

# 3-Inch Self-Priming Centrifugal Pumps

## *For Repair Parts contact dealer where pump was purchased.*

***Please provide following information:***
***-Model Number***
***-Serial Number (if any)***

***Part description and number as shown in parts list***

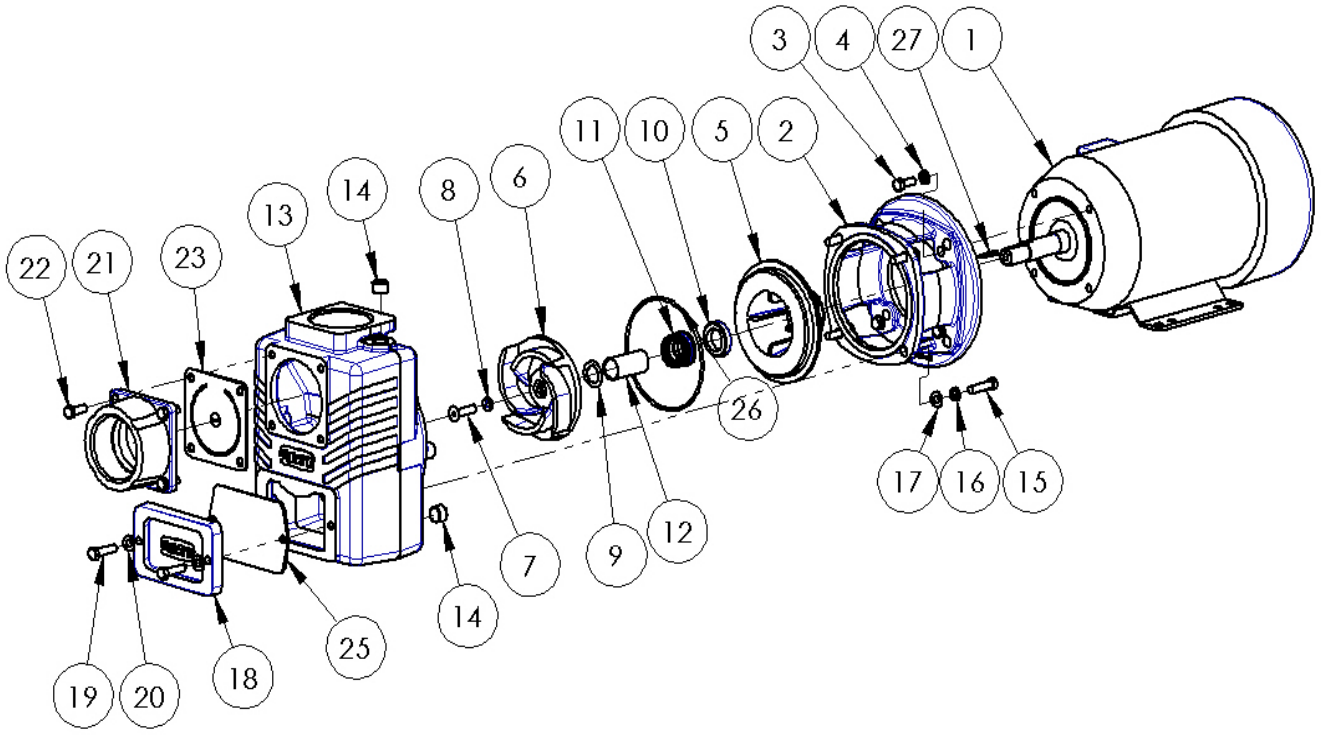



Figure 1 - Repair Parts Illustrations

## Repair Parts List

| Ref No. | Description | Part Number for Models 3HP 2877-95 2874-95 | 5HP 2878-95 2875-95 | 2876-95 | 7.5HP 2879-95 | Qty |
|---|---|---|---|---|---|---|
| 1 | Motor - 1 Phase TEFC | 1627-082-00 | 1626-078-00 | - | 1626-079-00 | 1 |
| | Motor - 3 Phase TEFC | 1627-351-00 | 1627-352-00 | 1627-353-00 | - | 1 |
| 2 | Adapter KIt | 2870-034-95 | 2870-034-95 | 2870-034-95 | 2879-030-95 | 1 |
| | (includes Ref. Nos. 2, 3 and 4) | | | | | |
| 3 | Hex Screw | Incl. w/Ref. 2 | Incl. w/Ref. 2 | Incl. w/Ref. 2 | N/A | 4 |
| | Hex Screw | N/A | N/A | N/A | Incl. w/Ref. 2 | 4 |
| 4 | Lock Washer | Incl. w/Ref. 2 | Incl. w/Ref. 2 | Incl. w/Ref. 2 | N/A | 4 |
| | Flat Washer | Incl. w/Ref. 2 | Incl. w/Ref. 2 | Incl. w/Ref. 2 | N/A | 4 |
| | Lock Washer | N/A | N/A | N/A | Incl. w/Ref. 2 | 4 |
| 5 | Casing Cover | 3150-025-09 | 3150-025-09 | 3150-025-09 | 3150-025-09 | 1 |
| 6 | Impeller Kit | 2874-013-90 | 2875-013-90 | 2876-013-90 | 2876-013-90 | 1 |
| | (includes Ref. Nos. 6, 7, 8 and 9) | | | | | |
| 7 | Screw | Incl. w/Ref. 6 | Incl. w/Ref. 6 | Incl. w/Ref. 6 | Incl. w/Ref. 6 | 1 |
| 8 | Impeller O-Ring | Incl. w/Ref. 6 & 24 | Incl. w/Ref. 6 & 24 | Incl. w/Ref. 6 & 24 | Incl. w/Ref. 6 & 24 | 1 |
| 9 | Shim Kit | 1664-000-90 | 1664-000-90 | 1664-000-90 | 1664-000-90 | 1 |
| 10 & 11 | Seal Assembly - Buna-N | 1640-163-90 | 1640-163-90 | 1640-163-90 | 1640-163-90 | 1 |
| | Seal Assmebly - Viton | 1640-163-91 | 1640-163-91 | 1640-163-91 | 1640-163-91 | 1 |
| 12 | Shaft Sleeve | 1555-142-00 | 1555-142-00 | 1555-142-00 | 1555-142-00 | 1 |
| 13 | Casing Kit | 2870-005-95 | 2870-005-95 | 2870-005-95 | 2870-005-95 | 1 |
| | (includes Ref. Nos. 13, 14, 15, 16 and 17) | | | | | |
| 14 | 1/2” NPT Plug | Incl. w/Ref. 13 | Incl. w/Ref. 13 | Incl. w/Ref. 13 | Incl. w/Ref. 13 | 2 |
| 15 | Hex Screw | Incl. w/Ref. 13 | Incl. w/Ref. 13 | Incl. w/Ref. 13 | Incl. w/Ref. 13 | 4 |
| 16 | Lock Washer | Incl. w/Ref. 13 | Incl. w/Ref. 13 | Incl. w/Ref. 13 | Incl. w/Ref. 13 | 4 |
| 17 | Flat Washer | Incl. w/Ref. 13 | Incl. w/Ref. 13 | Incl. w/Ref. 13 | Incl. w/Ref. 13 | 4 |
| 18 | Cleanout Cover Kit | 4870-040-95 | 4870-040-95 | 4870-040-95 | 4870-040-95 | 1 |
| | (includes Ref. Nos. 18, 19 and 20) | | | | | |
| 19 | Hex Screw | Incl. w/Ref. 18 | Incl. w/Ref. 18 | Incl. w/Ref. 18 | Incl. w/Ref. 18 | 2 |
| 20 | Flat Washer | Incl. w/Ref. 18 | Incl. w/Ref. 18 | Incl. w/Ref. 18 | Incl. w/Ref. 18 | 2 |
| 21 | Suction Flange Kit | 3270-050-95 | 3270-050-95 | 3270-050-95 | 3270-050-95 | 1 |
| | (includes Ref. Nos. 21 and 22) | | | | | |
| 22 | Hex Screw | Incl. w/Ref. 21 | Incl. w/Ref. 21 | Incl. w/Ref. 21 | Incl. w/Ref. 21 | 4 |
| 23 | Check Valve Assmebly | 1694-000-90 | 1694-000-90 | 1694-000-90 | 1694-000-90 | 1 |
| 24 | O-Ring Kit - Buna-N | 2870-301-91 | 2870-301-91 | 2870-301-91 | 2870-301-91 | 1 |
| | O-Ring Kit - Viton | 2870-301-92 | 2870-301-92 | 2870-301-92 | 2870-301-92 | 1 |
| | (includes Ref. Nos. 8, 23, and 26) | | | | | |
| 25 | Cleanout Cover Gasket | 2115-003-00 | 2115-003-00 | 2115-003-00 | 2115-003-00 | 1 |
| 26 | Casing O-Ring | Incl. w/Ref. 24 | Incl. w/Ref. 24 | Incl. w/Ref. 24 | Incl. w/Ref. 24 | 1 |
| 27 | Shaft Key | 1471-030-00 | 1471-030-00 | 1471-030-00 | 1471-030-00 | 1 |

**NOTES:**

## GENERAL INFORMATION

***SALES POLICY:*** AMT Pump Company (herein "AMT) products are sold through our established Distributors. We do not sell direct to the consumer or to any organization not entitled to trade recognition. Therefore, possession of our catalogs and/or price list(s) does not constitute an offer to sell.

***MINIMUM ORDER:*** We appreciate your order, however, all orders are subject to a minimum $35.00 net invoice charge (excluding freight). This applies to all pump and parts purchase orders.

***PRICES:*** Prices are subject to change without notice. All orders accepted are subject to prices in effect at time of shipment.

***PAYMENT TERMS:*** Terms, upon establishment of credit, are Net 30 days. Past due accounts are subject to a service charge of 1.5% per month. Domestic or assignable letter of credit is required for all export trade.

***PAST DUE ACCOUNTS:*** AMT reserves the right to withhold open account shipments on any past due account. Invoices are considered past due after thirty (30) days. In the interest of sound business, all orders are subject to approval of the AMT Credit Department.

***SHIPPING INSTRUCTIONS:*** All shipments will be made F.O.B. AMT factory or warehouse. Where instructions for shipment do not appear on the order, the shipment will be made according to our best judgment. Full risk of loss (including transportation delays and losses) shall pass to the customer upon delivery of the products to the carrier at the F.O.B. point. When loss or delay occurs, primary responsibility for tracing rests with the customer. When there is LOSS or APPARENT VISIBLE DAMAGE to a shipment, when tendered for delivery, *DO NOT* give the carrier a clear receipt. Note such damage on the carrier's delivery receipt and *HAVE THE DRIVER SIGN THE RECEIPT.*

***PRODUCT REVISIONS:*** AMT reserves the right to discontinue, change or improve its products or any portions thereof without being obligated to provide such a change or improvement for units sold and/or shipped prior to such a change or improvement.

***LEAD TIME:*** Products designated "Quick Ship Product", also referred to as "QSP" will normally be shipped within 24 hours of receipt of a noncancellable purchase order. Only limited quantities of "QSP" pumps are available.

***STANDARD LEAD TIME:*** Lead time is two weeks for all non "QSP" product. AMT reserves the right to revise lead times as determined by AMT due to availability of materials and all other causes beyond AMT's control.

***VIP SHIPMENT:*** Select AMT and IPT branded pumps are available for next day shipment for non-QSP (Quick Ship Products) items and subjected to a specific model surcharge per unit noted in the respective price book. This requires calling for availability, confirmation and a non-cancellable purchase order or credit card payment prior to shipment. The expedited shipping charges are an additional cost added separately from the VIP charges per item. AMT reserves the right to revise lead times as determined by AMT due to availability of materials and all other causes beyond AMT's control. QSP quantities are limited as determined by AMT.

ALL purchase orders must be submitted via hard copy sent to AMT customer service department by fax, EDI or e-mail.

***RETURN GOODS POLICY:*** Goods shall not be returned without a return goods authorization number (RGA) issued by AMT customer service. The RGA number must be listed on the packing list. Only current model and part numbers with a valid date code may be returned (within one year from date of purchase). **A 20% restocking and packaging charge will apply to all returns. All shipping charges must be pre-paid. No exceptions.**

***ORDER CHANGES BY CUSTOMER:*** Orders in process may not be changed except with written consent and may be subject to special charges.

***DAMAGES; LIMITATION OF LIABILITY:*** The aggregate total liability of AMT and all of its assigns, affiliates, employees, insurers and underwriters (the "AMT Parties" in connection with the performance of this order, whether for breach of contract or the Limited Warranty, negligence or otherwise, shall not exceed the amount of the purchase price of the product or part(s) in respect to which such damages are claimed. Buyer agrees to indemnify and hold harmless the AMT Parties from all claims by third parties in excess of these limitations and from all claims resulting from any act or omission of Buyer. IN NO EVENT SHALL AMT OR THE AMT PARTIES BE LIABLE WHETHER BY WAY OF INDEMNITY OR BREACH OF CONTRACT OR STATUTORY DUTY OR REASON OF TORT, FOR ANY LIQUIDATED, DIRECT, INDIRECT, SPECIAL, CONSEQUENTIAL, INCIDENTAL, PUNITIVE, OR EXEMPLARY DAMAGES OR LOSS OF PROFIT, SAVINGS, REVENUE, INCOME, BUSINESS, PRODUCTION, OPPORTUNITY OR REPUTATION ARISING OUT OF OR RELATED TO THE ORDER OR THE GOODS WHETHER FORESEEABLE OR UNFORESEEABLE OR KNOWN OR UNKNOWN.

The right of subrogation against the AMT Parties, to the extent permitted by law, is waived.

***WAIVER OF JURY TRIAL.*** BUYER IRREVOCABLY WAIVES ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY LEGAL PROCEEDING ARISING OUT OF OR RELATED TO THESE TERMS, THE LIMITED WARRANTY OR ANY ORDER HEREUNDER.

***GENERAL:*** These Terms and the Limited Warranty together with any acknowledgement or invoice from AMT, constitute the complete and exclusive statement of the terms of the agreement governing the sale by AMT to Buyer, unless otherwise agreed by AMT in writing. These Terms supersede all other communications, negotiations, and all prior oral or written statements, regarding the subject matter hereof.

***SECURITY INTEREST:*** Buyer grants AMT a security interest in and a lien upon all goods sold to Buyer by AMT and the proceeds therefor (including any insurance proceeds), which security interest shall continue until all such goods are fully paid for in immediately available funds.

***GOVERNING LAW:*** These Terms and any order hereunder shall be construed in accordance with the laws of the State of Delaware, without regard to conflicts of law principles. Any dispute arising hereunder shall be resolved in the federal or state courts of the State of Delaware, as applicable.

***MISCELLANEOUS:*** These Terms may be amended only as agreed to by AMT in writing. The section titles in these Terms are for reference only and shall not limit or restrict the interpretation or construction of the Terms. AMT's failure to insist, in any one or more instances, upon Buyer's performance of any of the Terms, or to exercise any rights conferred by the Terms, shall not constitute a waiver of any such right to insist upon such performance or exercise such rights in the future. The partial or complete invalidity of any one or more provisions of these Terms shall not affect the validity or continuing force and effect of any other provision.

# 12 MONTH LIMITED WARRANTY

## EXTENT AND DURATION OF LIMITED WARRANTY

**Coverage:** AMT Pump Company (herein "AMT") or IPT Pumps by Gorman-Rupp (herein "IPT") each individually warrants that its products and parts shall be free from defects in material and workmanship for twelve (12) months from the date of purchase by the original end user when installation is made and maintenance is performed in accordance with AMT's recommendations. Wear and tear resulting from use
and items normally consumed in use are not covered.

## EXCEPTIONS

( A ) This Limited Warranty shall not apply to mechanical seals in AMT or IPT pumps and the following products and parts: engines, motors, trade accessories and all other products, components, parts and materials not manufactured by AMT or one of the AMT Parties. These items may, however, be covered by the warranties of their respective manufacturers.

( B ) This warranty does not extend to or apply to any unit which has been repaired or altered at any place other than by AMT, or by persons not expressly approved by AMT to make repairs or alterations, nor to any unit the serial number, model number or identification of which has been removed, defaced or altered.

( C ) This warranty does not extend to any product manufactured by AMT, which has been subjected to mis-use, neglect, accident, improper installation, or use in violation of instructions furnished by AMT.

( D ) Pump Kits: This warranty does not extend to any product sold by AMT unassembled as a Pump Kit. Pump Kits are warranted against defects in material and workmanship for 60 days from the date of shipment from AMT. Any Pump Kit parts deemed defective by AMT will be replaced free of charge within 60 days of shipment. Pump Kits are not returnable for credit.

## LIMITATIONS

AMT'S SOLE AND EXCLUSIVE WARRANTY WITH RESPECT TO THEIR PRODUCTS AND PARTS IS THIS LIMITED WARRANTY. THIS LIMITED WARRANTY IS IN LIEU OF ALL OTHER EXPRESS AND/OR IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE.

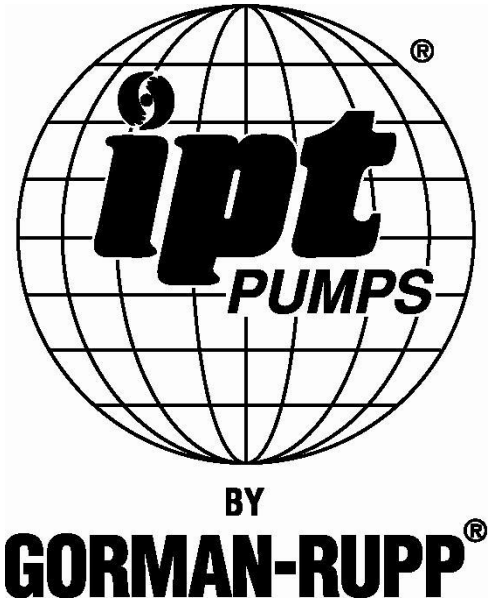
## EXCLUSIVE REMEDY AND DAMAGES

The sole and exclusive remedy for breach of this Warranty by AMT and the entire extent of its liability for such breach or for damages arising from the use of the products and parts covered under this Limited Warranty, shall be as follows:

1. Repair or Replacement: If inspection shows that any AMT product or part covered under this Limited Warranty is defective in materials or workmanship, AMT shall repair or replace the defective or nonconforming product or part without charge, whichever AMT chooses.

2. To obtain the above remedy:
   a. Immediately notify AMT upon discovery of the claimed defect in materials or workmanship and provide the serial number or date code of the product and/or part(s) or provide AMT with the invoice or bill of sale referencing the product by no later than the expiration date of the warranty period.
   b. AMT will advise whether inspection will be necessary and how whether repair or replacement will be made. If inspection AMT is necessary, the pump or defective part must be sent freight pre-paid to AMT. Return shipment will be F.O.B. AMT's plant.
   c. Return Goods Authorization Requirement: No product will be accepted for return or replacement without the prior written authorization of AMT. Upon such authorization, and in accordance with instructions from AMT, the product will be returned to AMT, shipping charges prepaid by the Buyer.

A Gorman-Rupp Company




**www.amtpump.com**