

TECHNIFLO

Drum & Container Pumps Installation and Operation Manual

TP-132/150

TP-160

TP-180

TP-280

TP-360

TP-380

TP-400Ex

TP-AIR 1

TP-AIR 2

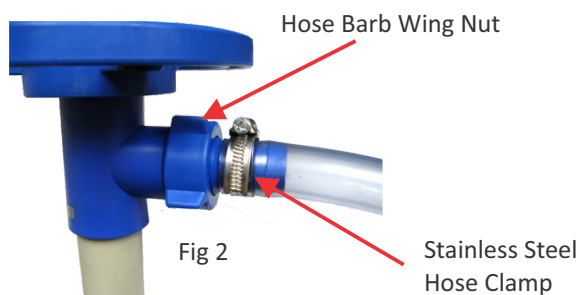
TP-AIR 3

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SECTION 1: General Information

1. Pump motor and pump tube will be delivered in two separate cartons. The package may contain accessories.
2. Check a chemical resistance chart to be sure the medium being pumped is compatible with the Polypropylene, PVDF, Aluminium or Stainless steel pump. If you have any doubts please contact Techniflo.
3. Make sure that name plate information corresponds to voltage supplied.
4. The operator should wear suitable protective clothing including: face mask, safety shield or goggles, gloves, apron and safety shoes.
5. Make sure that you have connected the motor and pump in the correct way. To engage motor to pump tube, place motor on top of pump and turn the hand wheel in an anti-clockwise direction until the motor coupling and pump coupling are completely engaged and secured.
6. All connections must be properly in place and securely tightened. Stainless steel hose clamps are required on the hose and must be properly tightened, also wing nut at the hose barb.
7. As all Techniflo motors and pump tubes are interchangeable (except for pumping flammable liquids or to use in an hazardous area) it is absolutely necessary for the operator to read this operating instruction manual for the motor and pump tube.



8. Use only a power supply with a ground fault circuit breaker to avoid any potential shocks due to humidity or contamination.
9. Only use the drum pump for its intended use and never disengage the motor and leave it in a position where it may fall into the pump media.
10. **Flammable or combustible liquids can only be handled with ATEX conforming air driven motors and explosion proof electric motors in conjunction with an ATEX approved**



11. **The use of TP-PP (polypropylene), TP-PVDF (polyvinylidene fluoride) TP-ALU (aluminium)**

pump tube or internally ventilated motors

TP-150

TP-160

TP-180

TP-280

and externally ventilated motors

TP-360

TP-380

for flammable or combustible liquids is strictly prohibited and could cause fire, injury or death.

12. Bonding and grounding safety procedures according to legal authority regulations must be used when handling flammables, operating in a hazardous duty environment or when the danger of static discharge is present. Avoid any liquid splash. Refer to section 6.
13. All State and Federal safety regulations must be adhered to.
14. Never leave a drum pump on and unattended!
15. Take care to clean the pump after every use to increase the lifetime of the pump. Note that the motor should never be kept upwind from aggressive vapours.
16. Empty the pump tube, hose and armatures before disengaging the motor and before you take the pump tube out of the drum.
17. Please use the wall hanger to store the drum pump safely and properly when the pump is not in operation. Pump tube should always be kept in a vertical position.
18. Check motor, pump tube and hose for operational safety.
19. Do not expose drum pump to the weather.
20. Universal motor TP-150 has a thermo protection switch. All other internally ventilated electric motors are supplied with an overload protection switch that stops the motor from overloading.
21. Externally ventilated universal motors TP-360 and the TP-380 are equipped with an electronic speed control and soft start and are IP55 rated.
22. Before starting please check all motors with rotary speed control (TP-160, TP-180, TP-280) that the rotary speed control knob is resting in position "0". First switch on the motor with the switch and then adjust the speed with the rotary knob. Never use the rotary switch as an ON/OFF switch. This treatment will shorten the life of the drum pump motor .

SECTION 2: Instructions for Universal Motors: TP-150, TP-160, TP-180, TP-280, TP-360, TP-380 and TP-400

Internally Ventilated Universal Motors

240V / 50Hz / 12000rpm

TP-150: 250W

with thermal protection switch

TP-160: 400W

with on/off switch as overload switch

TP-180: 600W

with on/off switch as overload switch

TP-280: 825W

with on/off switch as overload switch

all internally ventilated motors come with a 5m cable and plug rated IP24.

Externally Ventilated Universal Motors

240V / 50Hz / 12000rpm

TP-360: 650W

with electronic speed control and soft start

TP-380: 825W

with electronic speed control and soft start

all externally ventilated motors come with a 5m cable and plug rated IP55.

1. Do not use universal motors TP-150, TP-160, TP-180, TP-280, TP-360 and TP-380 for flammables or in hazardous duty environments.
2. Check nameplate data to verify proper voltage.
3. Before connecting plug to power supply, be sure motor switch is in the OFF position (Position "0").
4. Never carry motor by or pull on power cord.
5. Regularly check the power cord for damage and do not expose it to solvents. If the supply cord is damaged it must be replaced by a special cord or assembly available from the manufacturer or its service agent.
6. Motor can be stopped during operation due to the action of the overload switch; if this happens place the switch in the OFF position "0" and allow the motor to cool.
Attention: Motor without low voltage release will start after cooling down or a return of power. Motor with low voltage release will not turn on once power is restored. Motor will need to be switched on to restart.
7. Check viscosity and specific gravity limitations of your medium before resuming operation.
8. Make sure that you have connected motor and pump correctly. To engage motor to pump tube, place motor on top of pump tube and turn hand wheel anti-clockwise until the motor coupling and pump coupling are completely engaged and secured. Refer to Section 1 - Fig 1.
9. To replace cartridge brushes, refer to Section 5.
10. Never submerge motor in liquid or splash motor with liquid. Operation of motor in wet conditions may cause injury or death.

Flameproof Motor

240V / 50Hz / 12000rpm

TP-400: 550W

with on/off switch as overload switch, cable and plug not included

This pump has an EC-Type Examination Certificate for use in potentially explosive atmospheres - directive 94/9/EG - ATEX 100a and is therefore allowed to be used for pumping flammable liquids or for use in hazardous areas. Motor is certified by: ZELM 09 ATEX 0425 X, EX II 2 G with protection class Ex de IIA T6.

BEFORE STARTING THIS MOTOR, HAVE A SAFETY ENGINEER CHECK UNIT AND ALL SAFETY PROCEDURES. DO NOT USE THIS MOTOR WITHOUT PROPER KNOWLEDGE AND INSTRUCTIONS. FOLLOW ALL LOCAL, STATE AND FEDERAL SAFETY AND ELECTRIC CODES.

1. Verify nameplate data with available electrical connections.
2. Use only a Ex-proof listed plug and a Ex-proof socket, Group Ex de IIC T6. Installation has to be made by an qualified electrician.
3. Check to be sure that the motors is in the OFF position "0" before connection to power supply.

IF FLAMMABLES ARE TO BE PUMPED OR MOTOR IS TO BE USED IN A HAZARDOUS DUTY ENVIRONMENT OR WHERE THE POSSIBILITY OF STATIC DISCHARGE IS PRESENT- PLEASE NOTE:.....

4. TP-400 motor is only allowed to be driven with the TP-SS Stainless Steel pump tube attached, which is ATEX approved. All instructions and specifications of the manufacturer have to be followed.
5. It is absolute necessary to use a bonding ground set. These wires act as electrical conductive connection between explosion proofed motor/pump tube and container and alternatively between ground as earthing and potential equalisation. Further details in section 4.
6. The permanent connected cable is only allowed to be connected or used outside Ex areas or in an ignition protection type pressure resistant area or for a higher safety executed casing.
7. Never use the TP-400 motor in conjunction with plastic pump tubes like TP-PP and TP-PVDF or an ALU-Pump tube when pumping flammables or in a hazardous duty environment.
8. Make sure that you have connected motor and pump in the correct manner. To engage motor to pump tube, place motor on top of pump tube and turn hand wheel anti-clockwise until the motor coupling and pump coupling are completely engaged and secured. Refer to Section 1 - Fig 1.

SECTION 2: Continued

9. Never submerge motor in liquid or splash motor with liquid. Motor has to be located outside the container.
10. All repair has to be done by Techniflo or by an authorised motor repair facility. Unauthorised repair voids the warranty and U.L. listing and may cause injury or death.
11. At installation and during use it is necessary to adhere to all the safety rules that apply to using electrical

SECTION 3: AIR Motors

TP-AIR 1

ATEX conforms to IBEx U05 ATEX B007 X

300W at max 6 bar air pressure
8000 rpm while open-circuit operation
Air consumption 13.0 l/sec (0.78 m³/min)
during normal operation.

TP-AIR 2 new style

ATEX conforms to IBEx U07 ATEX B014 X

600W at max 6 bar air pressure
14600 rpm while open-circuit operation
Air consumption 15.7 l/sec (0.94 m³/min)
during normal operation.

TP-AIR 2 old style

NOT ATEX conforming

700W at max 6 bar air pressure
15000 rpm while open-circuit operation
Air consumption 14.0 l/sec (0.84 m³/min)
during normal operation.

TP-AIR 3

ATEX conforms to IBEx U05 ATEX B007 X

400W at max 6 bar air pressure
17000 rpm while open-circuit operation
Air consumption 12.0 l/sec (0.72 m³/min)
during normal operation.

Max air pressure for all our pneumatic motors: 6 bar.

1. Always use a filter, lubricator, regulator (FLR) on the intake side of the unit. Failure to provide an FLR will result in premature failure of the air motor. A filter is necessary to provide moisture free air and avoid rust build up. A lubricator such as SAE 10 wt. (or equivalent) oil is necessary to provide internal lubrication. The regulator assures proper air pressure. Use only permitted hoses for air pressure and connectors.
2. Daily normal maintenance is recommended.
3. Air driven motors TP-AIR 1, TP-AIR 2 new style and TP-AIR 3 conform to ATEX and therefore suitable to use for pumping flammables or for use in a hazardous atmospheres as per:
EX II 2GD c IIC T6 (80°C) X.

4. **Never use these ATEX conforming pneumatic driven motors in conjunction with a PP or PVDF or ALU pump tube when pumping flammable media or for use in hazardous areas.**
5. It is absolute necessary to use a bond grounding set. These wires act as electrical conductive connection between an explosion proofed pump and container and alternatively between ground as earthing and potential equalization. Refer to further details in section 4.
6. If motor slows down or stops, remove motor from pump and air supply. Turn the motor shaft by hand; it should turn easily. If it does not, check your lubricator to ensure that the air motor is receiving proper lubrication.
7. Check the muffler to make sure it is not clogged. A safety solvent can be used to clean the clogged muffler. A clogged muffler will cause back pressure and prevent the until from working freely.
8. Never stand directly in path of muffler exhaust.
9. Never operate the air motor without the muffler in place and tightened properly.

SECTION 4: Pump Tubes

Polypropylene Mixing Pump Tube (and also made from same materials) Polypropylene Laboratory Pump TP- 132

Polypropylene Pump Tube TP-PP

- Hastelloy CA 2.4610 drive shaft or alternatively
- Stainless Steel 316 Ti drive shaft
- Viton V-seal
- Viton sealed ball bearings
- PTFE guide sleeve with slot with pure carbon grade 6038C carbon bushing
- Hose connection: 19mm, 25mm, 32mm
- Pump tube lengths: 700, 1000, 1200, 1500 and 1800mm, special lengths from 200mm up to 3000mm
- Temperature 50°C max

PVDF Pump Tube (sealless)

- **PVDF (Polyvinylidene Fluoride)**
- **Pump Tube PP-PVDF**
- Natural PVDF contains no pigment or colour and is ideal for the transfer of ultra pure chemicals
- Hastelloy C-4 2.4610 drive shaft
- PTFE V-seal
- Viton sealed ball bearings
- PTFE guide sleeve with slot and pure carbon grade 6038C bushing
- Hose connection 19mm, 25mm, 32mm
- Pump tube lengths 700, 1000mm for 200 litre drums or 1200mm and 1500mm for bigger containers. Special lengths are available max.
- Temperature 90°C max

SECTION 4: Continued

ALU Pump Tube (seal-less)

- **Aluminium and PVDF TP-ALU**
- Stainless steel shaft SS 316 Ti
- Viton V-seal
- Viton sealed ball bearings
- PTFE guide sleeve with pure carbon grade 6038C carbon bushing
- Hose connection 19mm, 25mm, 32mm
- Pump tube lengths: 700, 1000, 1200 & 1500mm. Special lengths possible from 200mm up to 3000mm
- Temperature: 90°C.

1. Do not use one of these three different pump tubes on flammables or in hazardous duty environments.
2. Pumps can run dry without damaging the structural integrity of the unit. Prolonged periods of dry running should be avoided.
3. Always check chemical compatibility of the liquid being pumped with pump construction and selected hose.
4. Securely tighten all connections before beginning operation. Use only stainless steel hose clamps to secure hose and tighten securely.
5. Before starting motor, check hose is securely fastened in receiving vessel so hose can not splash chemicals, causing injury. Use of optional clamp is recommended.
6. Check temperature limitation, pressure rating and chemical compatibility of the hose you have selected.
7. Never submerge pump into the medium below the hose connection.
8. If liquid appears below discharge housing, check security of hose clamps and wing nut. If leakage fails to stop, cease operation. Neutralize pump, return it to Techniflo.

Stainless Steel Pump Tube 1.4571 (seal-less or with mechanical seal) Mixing Pump Tube TP-SS Mix and Stainless Steel Laboratory Pumps

Stainless steel 316Ti Pump Tube TP-SS

- (Ø41 mm, seal-less) and SS-mixing tube have an EC-type examination certificate for equipment or protective system intended to use in potentially explosive atmospheres.

ZELM 09 AIEX 0424 X for use in zone 0, protection class EX II 1/2 C IIB T4.

- Stainless Steel 316 Ti construction
- PTFE Rotor
- PTFE V-seal
- PTFE guide sleeve with pure carbon grade 6038C carbon bushing
- Viton sealed ball bearings
- Hose connection 19mm, 25mm, 32mm
- Standard pump tube lengths in 700, 1000, 1200, 1500 and 1800mm, special lengths available from 200mm up to 3000mm
- Temperature: 80°C (Outside Ex-areas temperatures on request)

This pump tube is also available with mechanical seal (NO ATEX certificate yet) SS laboratory pumps JR-128 and JR132 are made of same materials. These pumps have NO ATEX certificate yet and can not be used for pumping flammables or for use in Ex areas.

1. Stainless steel pump tube (seal-less) can run dry without damaging the structural integrity of the unit. Prolonged periods of dry running should be avoided.
2. Always check the chemical compatibility of the liquid being pumped with pump construction and hose you have selected.
3. Check temperature limitation, pressure rating and chemical compatibility of the hose you have selected. In Ex areas or for flammable media conductive hoses and safe hose clamps connections have to be used.
4. Securely tighten all connections before beginning operation. Use only stainless steel hose clamps to secure hose and tighten securely.
5. The TP-SS pump tube requires a PTFE seal between the wing nut and pump body (discharge). Be sure this seal is in place or leakage will occur.
6. When using the TP-SS for flammables or in hazardous duty environments, it is always necessary to bond and ground. See Section 6 for details.
7. If liquid appears below the bearing housing, re-check security of all fittings. Re-check to be sure the PTFE seal is in place. If leakage continues, cease operation, neutralize the pump and return it to Techniflo for inspection and possible repair.

Special conditions for ex areas or for the pumping flammables

8. The TR-SS pump tube and JTR-SS mixing pump tube can only be driven by an explosion proofed motor. The motor must not exceed an output of 0.85kW and a speed of 13800 rpm (when dry running).
9. During operation it must be noted that the drum interior will be sealed sufficiently as to observe separation of Ex zones.
10. The TP-SS or TP-SS mixing pump tubes and accessories have to be integrated in potential equalisation. National and international rules have to be observed.

SECTION 5: Replacement of Cartridge Brushes

The replacement of cartridge brushes or any electrical work at universal motors should only be performed by a licensed electrician or by plant personnel fully trained in electrical repair.

a) For Universal Motor TP-150

1. Disconnect motor from power supply and pump tube.
2. Remove upper cap of motor.
3. Fix the fan and turn off the motor coupling.
4. Turn off three screws in lower housing and pull motor block out of motor housing to the top.
5. Disconnect metal springs and take out carbon brushes.

b) For Universal Motors TP-160, TP-180 and TP-280

1. Disconnect motor from power supply and pump tube.
2. Remove upper cap of motor.
3. Remove motor handle by dismantling screws and disconnect connecting cables from switch.
4. After removing 4 screws from lower housing take the motor housing off.
5. Move tension springs carefully over the carbon brushes holder and disconnect connection cables from the brushes.
6. Remove carbon brushes from brush holder.

Installation of New Cartridge Brushes

a) For Universal Motor TP-150

1. Insert the carbon brushes in the carbon brush holder and press the springs on the brushes.
2. Install the motor in reverse order as above.

b) For Universal Motor TP-160, TP-180, TP-280

1. Install carbon cartridges into chamber.
2. Connect the connection cables on cartridges.
3. Pay attention that cartridges are fixed in the correct way.
4. Assemble motor in reverse order as described above.

c) For Universal Motor TP-360, TP-380

These motors are electronically controlled and are brushless.

SECTION 6: Transferring of Flammables or use in Hazardous Duty Environments

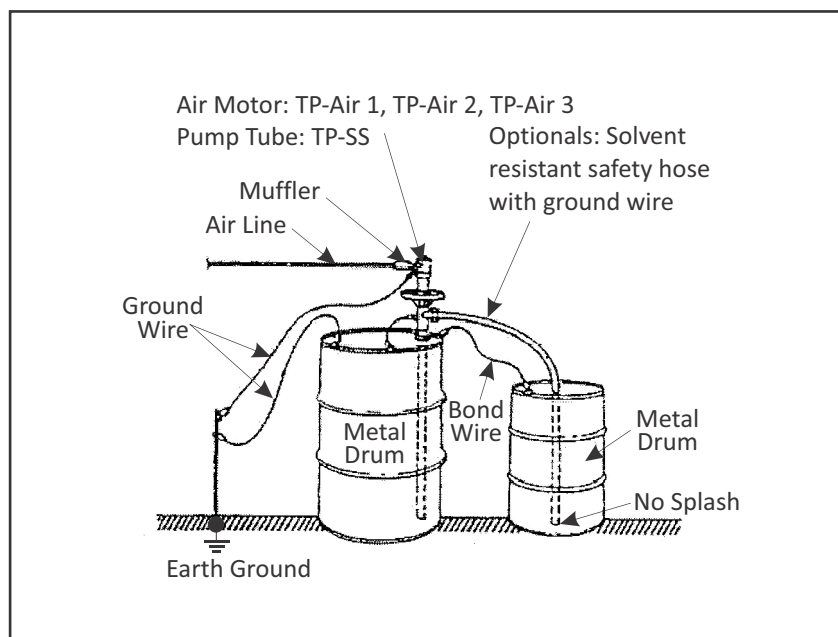
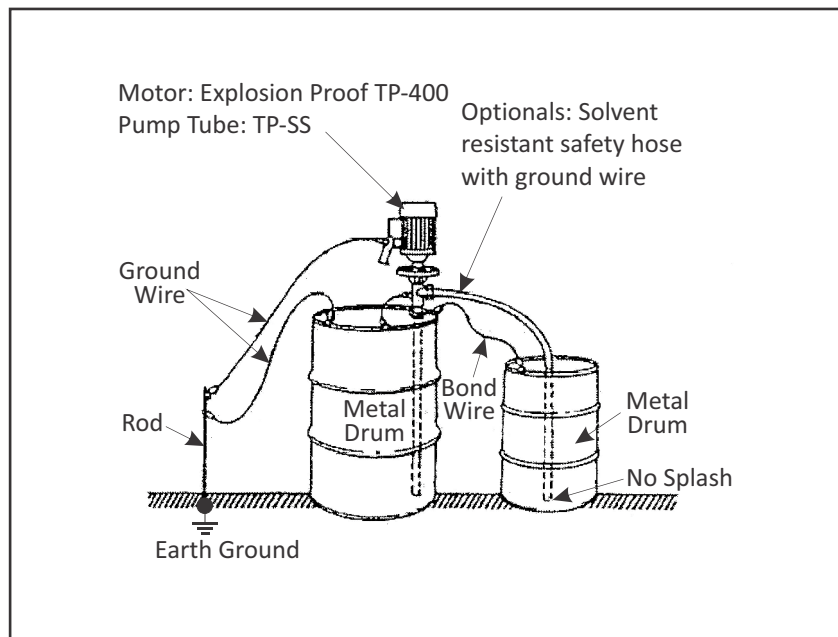
Please check carefully all information that is mentioned at SS Tubes, Air Motors and TP-400 motor. Only use hose connectors for pumping flammable media and do not use any hose clamps!

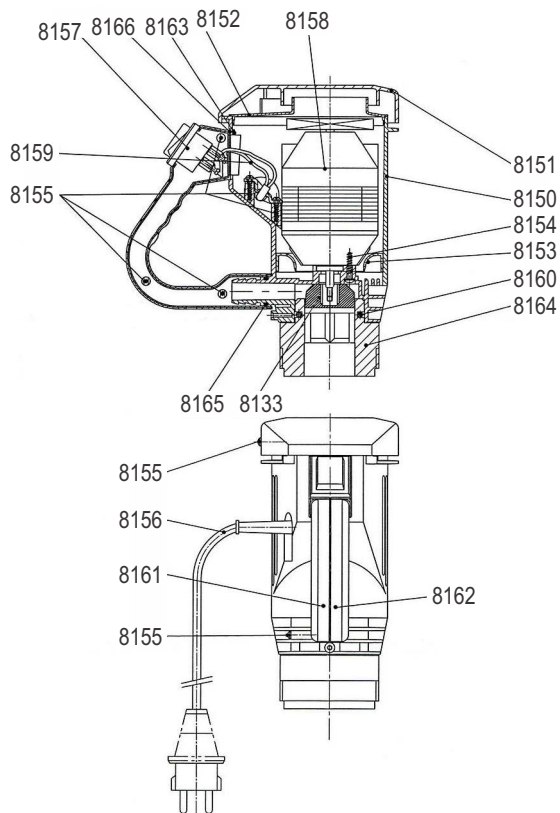
When pumping flammables or for use in hazardous areas, only Ex proofed motor drives in combination with an approved stainless steel pump tube are allowed to be used. On the name plate of motors the approval mark Ex is inscribed and the pump tube has a note: Eg Zone 0, Company Name, Type and Signature of Approval. Motor and pump tube have to be suitable and authorized for class of temperature and explosion group of flammable liquid. Techniflo stainless steel pump tube is approved: EC type examination certificate of ZELM for equipment or protective system intended to use in potentially explosive atmospheres, **ZELM 09 ATEX 0424X, EX II 1/2 G IIB T4**. Electric motor TP-400 is certified according to: **ZELM 09 ATEX 0425X, EX II 2 G EEx de IIA T6**. Pneumatic driven motors have also an Ex certificate (Refer Section 2). Bondings have to be connected between the vessels, pump tube, motor and a constant ground, i.e. a metal rod driven into the earth. Ground and bond wires must have less than one ohm resistance for safe usage. Check continuity before starting. For further details please see following drawing.

WARRANTY

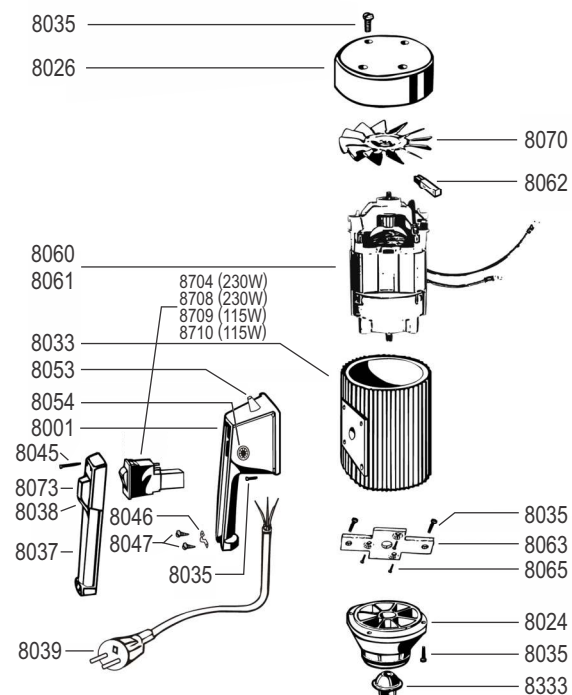
Techniflo guarantee the products for a period of 12 months starting with date of invoice. The warranty refers on manufacturer's defects on materials or construction but is not valid for wear parts (all rotating parts.) Techniflo's responsibility is strictly limited to repair or replacement of defective components. Techniflo assumes no responsibility for improper selection, installation, that may result in injury or death.

SECTION 6: Continued

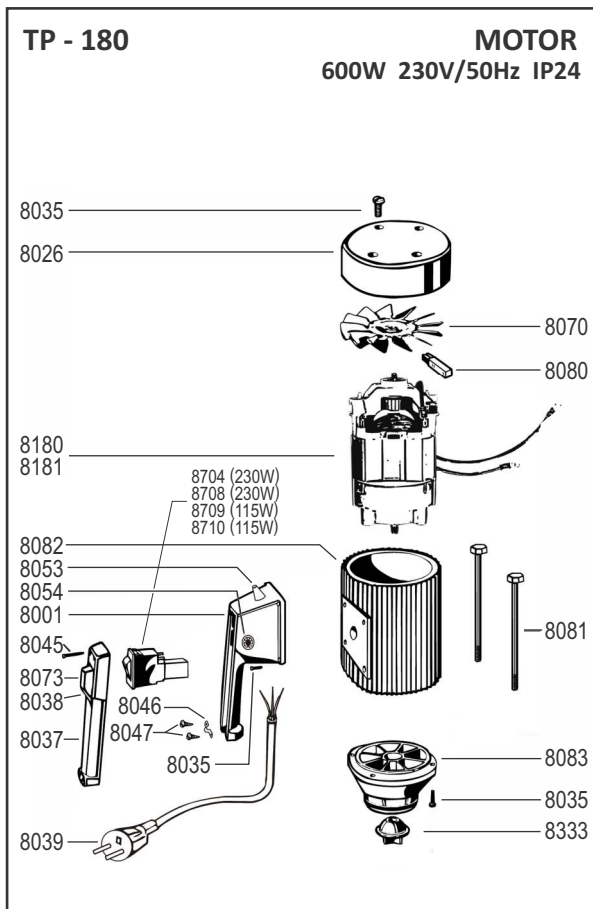


TP - 132/150**MOTOR**
250W 230V/50Hz IP24

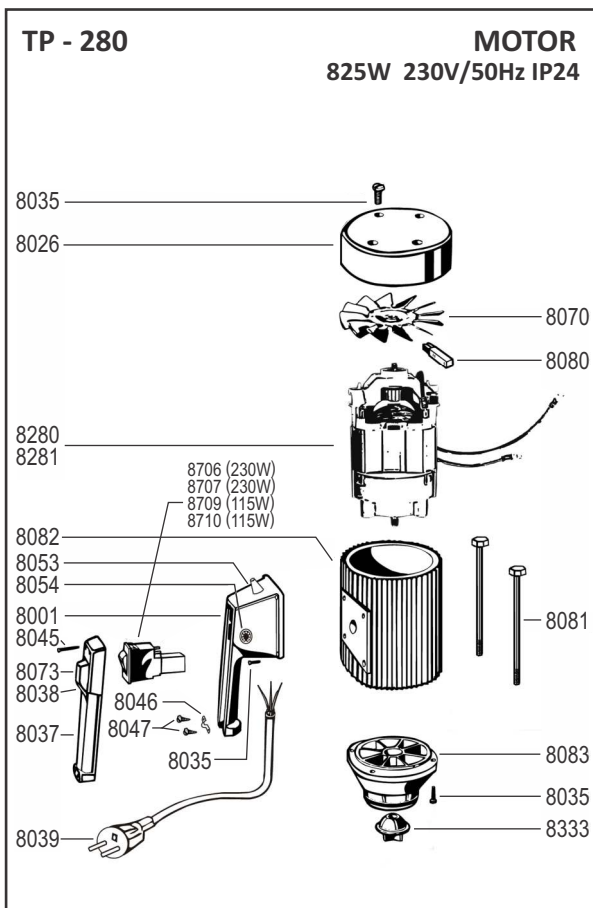
Part No	Description	Quantity
8052	Euro Plug (Option)	1
8150	Motor housing	1
8151	Motor cover	1
8152	Lid inset	1
8153	Housing inset	1
8154	Screw M4,3x18	3
8155	Screw M3,4x12	7
8156	Cable	1
8157	Switch with seal	1
8158	Motor	1
8159	Connection cable set	1
8160	Pin 46mm	1
8161	Handle (left)	1
8162	Handle (right)	1
8163	Bolt out of sheet metal	1
8333	Coupling	1
8164	Adapter for pump tube	1
8165	Pin 27mm	2
8166	Seal	1

TP - 160**MOTOR**
400W 230V/50Hz IP24

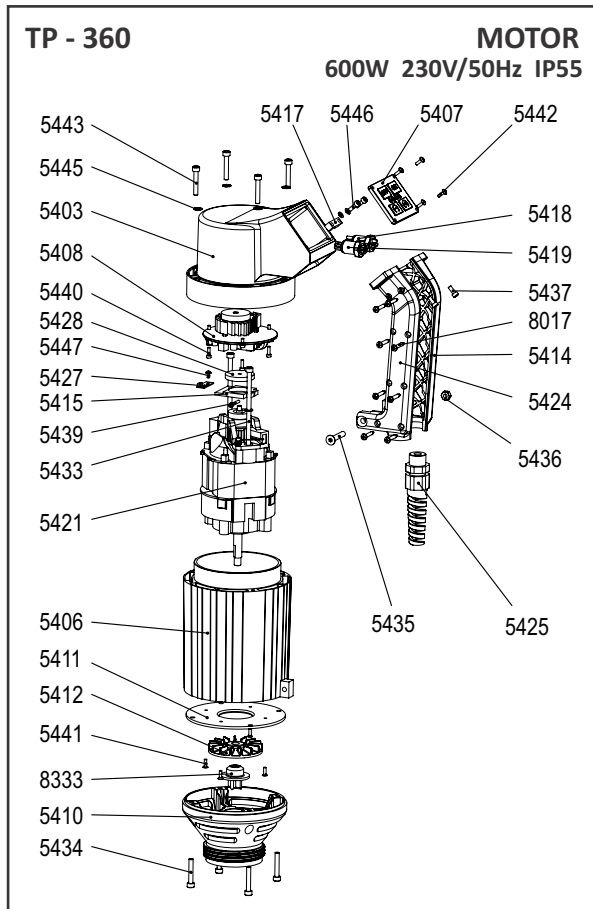
Part No	Description	Quantity
8001	Handle	1
8024	Lower housing	1
8026	Motor Cover	1
8033	Motor Housing	1
8035	Screw M5x20 SS	14
8037	Handle Cover	1
8038	Switch Frame	1
8039	5m cable with plug	1
8045	Screw 3,5x25 SS	5
8046	Clamp	1
8047	Screw 4,2x16	2
8052	Euro Plug (Option)	1
8053	Speed Control (Option)	1
8054	Puls Input Point (Option)	1
8060	Motor TP-160, 230V 50Hz	1
8061	Motor TP-160, 115V 60Hz	1
8062	Carbon brush	2
8063	Connection piece	1
8065	Screw M4x10	3
8070	Fan	1
8073	Transparent Switch Cover	1
8333	Coupling	1
8704	Switch 230V 50Hz 3,5A w/o LVR	1
8708	Switch 230V 50Hz 3,5A with LVR	1
8709	Switch 115V 60Hz 8,5A w/o LVR	1
8710	Switch 115V 60Hz 8,5A with LVR	1



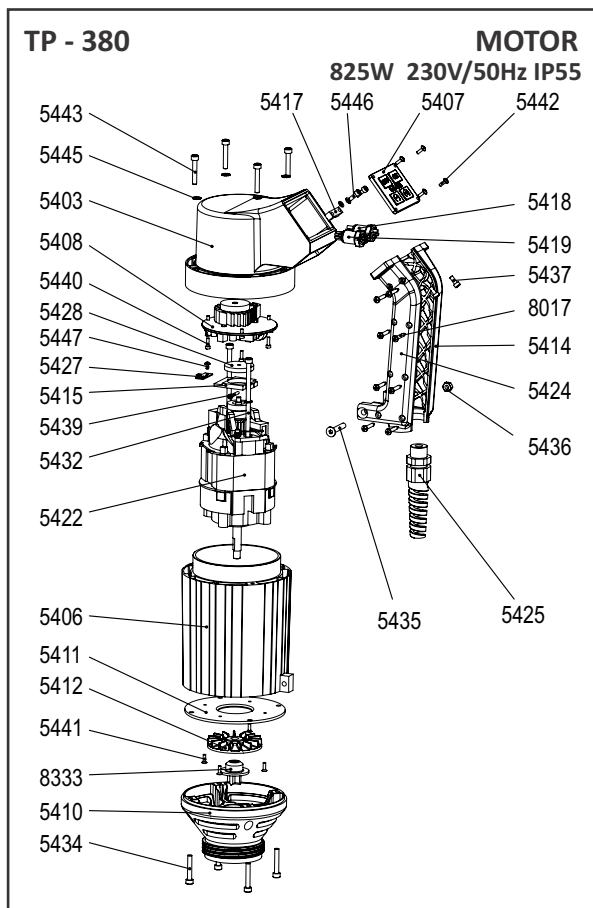
Part No	Description	Quantity
8001	Handle	1
8026	Motor Cover	1
8035	Screw M5x20 SS	12
8037	Handle Cover	1
8038	Switch Frame	1
8039	5m cable with plug	1
8045	Screw 3,5x25 SS	5
8046	Clamp	1
8047	Screw 4,2x16	2
8052	Euro Plug (Option)	1
8053	Speed Control (Option)	1
8054	Puls Input Point (Option)	1
8070	Fan	1
8073	Transparent Switch Cover	1
8080	Carbon brush	2
8081	Screw M5x110	2
8082	Motor Housing	1
8083	Lower housing	1
8180	Motor TP-180, 230V 50Hz	1
8181	Motor TP-180, 115V 60Hz	1
8333	Coupling	1
8704	Switch 230V 50Hz 3,5A w/o LVR	1
8708	Switch 230V 50Hz 3,5A with LVR	1
8709	Switch 115V 60Hz 8,5A w/o LVR	1
8710	Switch 115V 60Hz 8,5A with LVR	1



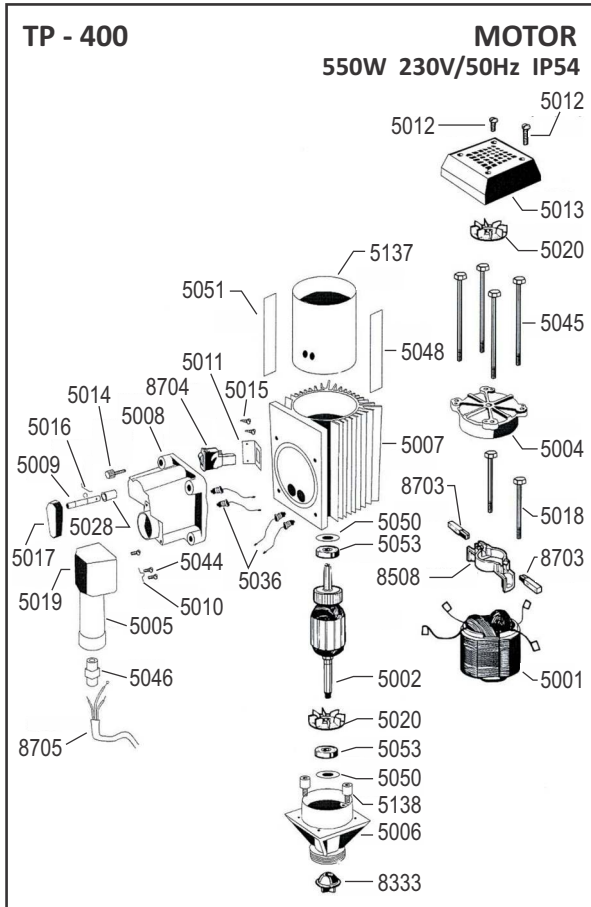
Part No	Description	Quantity
8001	Handle	1
8026	Motor Cover	1
8035	Screw M5x20 SS	12
8037	Handle Cover	1
8038	Switch Frame	1
8039	5m cable with plug	1
8045	Screw 3,5x25 SS	5
8046	Clamp	1
8047	Screw 4,2x16	2
8052	Euro Plug (Option)	1
8053	Speed Control (Option)	1
8054	Puls Input Point (Option)	1
8070	Fan	1
8073	Transparent Switch Cover	1
8080	Carbon brush	2
8081	Screw M5x110	2
8082	Motor Housing	1
8083	Lower housing	1
8280	Motor TP-280, 230V 50Hz	1
8281	Motor TP-280, 115V 60Hz	1
8333	Coupling	1
8706	Switch 230V 50Hz 5A w/o LVR	1
8707	Switch 230V 50Hz 5A with LVR	1
8709	Switch 115V 60Hz 8,5A w/o LVR	1
8710	Switch 115V 60Hz 8,5A with LVR	1



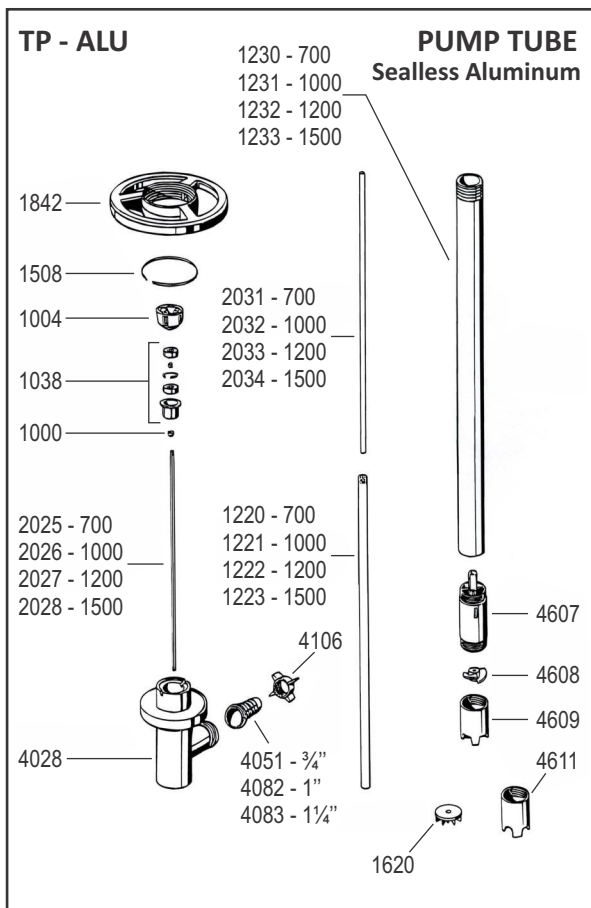
Part No	Description	Quantity
5403	Motor Cover	1
5406	Motor Housing	1
5407	Keyboard	1
5408	Circuit Board	1
5410	Lower Housing	1
5411	Vacuum Back	1
5412	Fan	1
5414	Handle Right	1
5415	Holding Plate	1
5417	Clamp	1
5418	Cable Bushing 0+8	1
5419	Cable Bushing 2+2	1
5421	Motor 600W, 230V, 50Hz	1
5424	Handle Left	1
5425	Cable Fitting	1
5427	Sensor	1
5428	Magnetic Disc	1
5433	Screw M5x90	2
5434	Screw M5x30	4
5435	Screw M6x30	1
5436	Hexagon Nut	1
5437	Screw M4x10	2
5439	Screw M3x20	1
5440	Screw M3x10	3
5441	Screw M3x10	4
5442	Screw M3x10	4
5443	Screw M5x35	4
5445	Lock Washer	4
5446	Screw M4x16	2
5447	Screw M3x6	1
8017	Screw 3.9x25	8
8333	Coupling	1



Part No	Description	Quantity
5403	Motor Cover	1
5406	Motor Housing	1
5407	Keyboard	1
5408	Circuit Board	1
5410	Lower Housing	1
5411	Vacuum Back	1
5412	Fan	1
5414	Handle Right	1
5415	Holding Plate	1
5417	Clamp	1
5418	Cable Bushing 0+8	1
5419	Cable Bushing 2+2	1
5422	Motor 825W, 230V, 50Hz	1
5424	Handle Left	1
5425	Cable Fitting	1
5427	Sensor	1
5428	Magnetic Disc	1
5432	Screw M5x95	2
5434	Screw M5x30	4
5435	Screw M6x30	1
5436	Hexagon Nut	1
5437	Screw M4x10	2
5439	Screw M3x20	1
5440	Screw M3x10	3
5441	Screw M3x10	4
5442	Screw M3x10	4
5443	Screw M5x35	4
5445	Lock Washer	4
5446	Screw M4x16	2
5447	Screw M3x6	1
8017	Screw 3.9x25	8
8333	Coupling	1



Part No	Description	Quantity
5001	Stator, 230 Volt, 50 Hz	1
5002	Armature, 230 Volt	1
5004	Bearing cover	1
5005	Handle	1
5006	Lower housing	1
5007	Motor housing	1
5008	Switch housing	1
5009	Switch actuator with snap ring	1
5010	Cord clamp	1
5011	Switch bracket	1
5012	Screw M5x35	4
5013	Fan cover	1
5014	Screw M8x35	4
5015	Screw M5x16	2
5016	Actuator pin	1
5017	Knob on/off	1
5018	Screw M5x120	2
5019	Screw M6x40	4
5020	Fan	2
5028	Socket	1
5036	Terminal Connector cpl.	4
5044	Screw M5x9	3
5045	Screw M6x200	4
5046	Strain relief ATEX E 016	1
5048	Nemepate Demko	1
5050	Wave washer	2
5051	Nemepate	1
5053	Ball bearing	2
5137	Insulator tube	1
5138	Insulator screw	2
8333	Motor moupling	1
8508	Brush holder	1
8703	Carbon brush 230 Volt, 50 Hz	2
8705	Cord, 5 mtr. w/o plug	1
8707	Overload switch 230 Volt	1



Part No	Description	Quantity
1000	V-seal, Viton	1
1004	Pump coupling	1
1038	Bearing unit assembled	1
1220	Inner tube, 700 mm	1
1221	Inner tube, 1000 mm	1
1222	Inner tube, 1200 mm	1
1223	Inner tube, 1500 mm	1
1230	Outer tube, 700 mm, Ø 41 mm	1
1231	Outer tube, 1000 mm, Ø 41 mm	1
1232	Outer tube, 1200 mm, Ø 41 mm	1
1233	Outer tube, 1500 mm, Ø 41 mm	1
1508	Snap ring	1
1620	Impeller PVDF (high head)	1
1842	Hand wheel	1
2025	Drive shaft, SS 316Ti, 700 mm	1
2026	Drive shaft, SS 316Ti, 1000 mm	1
2027	Drive shaft, SS 316Ti, 1200 mm	1
2028	Drive shaft, SS 316Ti, 1500 mm	1
2031	TFE guide sleeve, 700 mm	1
2032	TFE guide sleeve, 1000 mm	1
2033	TFE guide sleeve, 1200 mm	1
2034	TFE guide sleeve, 1500 mm	1
4028	Discharge Piece	1
4051	Hose barb 3/4"	1
4082	Hose barb 1"	1
4083	Hose barb 5/4"	1
4106	Wing nut	1
4607	Pump housing incl. Pure Carbon Bushing 6038C	1
4608	TFE rotor	1
4609	Pump foot	1
4611	Pump foot (high head) PVDF	1

PUMP TUBE

Sealless Stainless Steel

1842

1508

1004

1038

4000

2025 - 700

2026 - 1000

2027 - 1200

2028 - 1500

2029 - 1800

2000

2031 - 700

2032 - 1000

2033 - 1200

2034 - 1500

2035 - 1800

2195

2196 - 1"

2197 - 3/4"

2198 - 1 1/4"

2068

2600 - 700

2601 - 1000

2602 - 1200

2603 - 1500

2604 - 1800

2707

2704

2703

2706 (Teflon)

2710 (SS)

2708

2709

1620 (PVDF)

2725 (SS)

Part No	Description	Quantity
1004	Pump coupling	1
1038	Bearing unit assembled	1
1508	Snap ring	1
1620	Impeller PVDF (high head)	1
1842	Hand wheel	1
2000	Connection flange	1
2025	Drive shaft, SS 316Ti, 700 mm	1
2026	Drive shaft, SS 316Ti, 1000 mm	1
2027	Drive shaft, SS 316Ti, 1200 mm	1
2028	Drive shaft, SS 316Ti, 1500 mm	1
2029	Drive shaft, SS 316Ti, 1800 mm	1
2031	TFE guide sleeve, 700 mm	1
2032	TFE guide sleeve, 1000 mm	1
2033	TFE guide sleeve, 1200 mm	1
2034	TFE guide sleeve, 1500 mm	1
2035	TFE guide sleeve, 1800 mm	1
2068	Wing nut	1
2195	TFE seal	1
2196	Hose barb 1"	1
2197	Hose barb 3/4"	1
2198	Hose barb 5/4"	1
2600	In/outer tube, 700mm, Ø 41 mm	1
2601	In/outer tube, 1000mm, Ø 41 mm	1
2602	In/outer tube, 1200mm, Ø 41 mm	1
2603	In/outer tube, 1500mm, Ø 41 mm	1
2604	In/outer tube, 1800mm, Ø 41 mm	1
2703	Pure Carbon bushing, 6038C	1
2704	Pump housing	1
2706	ECTFE rotor	1
2707	O-ring, Viton, 2 per set	1
2708	Pump foot	1
2709	Pump foot (high head)	1
2710	SS-rotor made of SS 316Ti	1
2725	Impeller made of SS 316Ti	1
4000	V-seal, TFE	1

TP - PVDF

PUMP TUBE

Polyvinylidene Fluoride

1842

1508

1004

1038

4000

1005 - 700

1006 - 1000

1007 - 1200

1008 - 1500

4028

4590 - 700

4591 - 1000

4592 - 1200

4593 - 1500

1513 - 700

1514 - 1000

1515 - 1200

1516 - 1500

4600 - 700

4601 - 1000

4602 - 1200

4603 - 1500

4106

4051 - 3/4"

4082 - 1"

4083 - 1 1/4"

4607

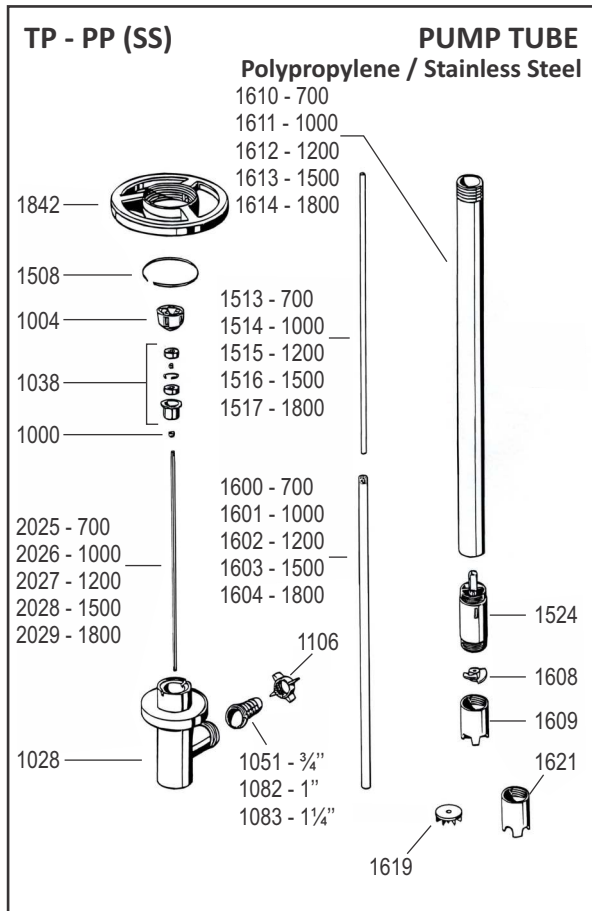
4608

4609

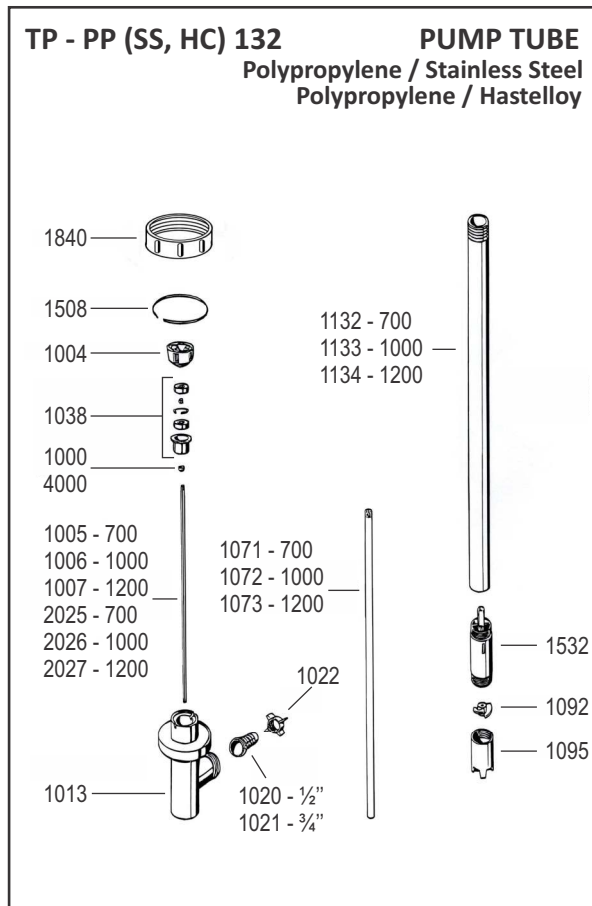
4611

1620

Part No	Description	Quantity
1004	Pump coupling	1
1005	Drive shaft, 2.4610 C-4, 700 mm	1
1006	Drive shaft, 2.4610 C-4, 1000 mm	1
1007	Drive shaft, 2.4610 C-4, 1200 mm	1
1008	Drive shaft, 2.4610 C-4, 1500 mm	1
1038	Bearing unit assembled	1
1508	Snap ring	1
1513	PTFE guide sleeve, 700 mm	1
1514	PTFE guide sleeve, 1000 mm	1
1515	PTFE guide sleeve, 1200 mm	1
1516	PTFE guide sleeve, 1500 mm	1
1620	Impeller PVDF (High head)	1
1842	Hand wheel	1
4000	V-seal, PTFE	1
4028	Discharge Piece	1
4051	Hose barb 3/4"	1
4082	Hose barb 1"	1
4083	Hose barb 5/4"	1
4106	Wing nut	1
4590	Outer tube, 700 mm, Ø 41 mm	1
4591	Outer tube, 1000 mm, Ø 41 mm	1
4592	Outer tube, 1200 mm, Ø 41 mm	1
4593	Outer tube, 1500 mm, Ø 41 mm	1
4600	Inner tube, 700 mm	1
4601	Inner tube, 1000 mm	1
4602	Inner tube, 1200 mm	1
4603	Inner tube, 1500 mm	1
4607	Pump housing incl. Pure Carbon Bushing 6038C	1
4608	PTFE rotor	1
4609	Pump foot	1
4611	Pump foot (high head) PVDF	1



Part No	Description	Quantity
1000	V-Seal, Viton	1
1004	Pump coupling	1
1028	Discharge Piece	1
1038	Bearing unit assembled	1
1051	Hose barb, ¾"	1
1082	Hose barb, 1"	1
1083	Hose barb, 5/4"	1
1106	Wing nut	1
1508	Snap ring	1
1513	TFE guide sleeve, 700 mm	1
1514	TFE guide sleeve, 1000 mm	1
1515	TFE guide sleeve, 1200 mm	1
1516	TFE guide sleeve, 1500 mm	1
1517	TFE guide sleeve, 1800 mm	1
1524	Pump housing including 6038C Pure Carbon bushing	1
1600	Inner tube, 700 mm	1
1601	Inner tube, 1000 mm	1
1602	Inner tube, 1200 mm	1
1603	Inner tube, 1500 mm	1
1604	Inner tube, 1800 mm	1
1608	Rotor PP	1
1609	Pump foot	1
1610	Outer tube, 700 mm, Ø 41 mm	1
1611	Outer tube, 1000 mm, Ø 41 mm	1
1612	Outer tube, 1200 mm, Ø 41 mm	1
1613	Outer tube, 1500 mm, Ø 41 mm	1
1614	Outer tube, 1800 mm, Ø 41 mm	1
1619	Impeller PP (high head)	1
1621	Pump foot for high head	1
1842	Hand wheel	1
2025	Drive shaft, SS 316Ti, 700 mm	1
2026	Drive shaft, SS 316Ti, 1000 mm	1
2027	Drive shaft, SS 316Ti, 1200 mm	1
2028	Drive shaft, SS 316Ti, 1500 mm	1
2029	Drive shaft, SS 316Ti, 1800 mm	1



Part No	Description	Quantity
1000	V-Seal, Viton (HC)	1
4000	V-Seal, PTFE (SS)	1
1004	Pump coupling	1
1013	Discharge Piece	1
1038	Bearing unit assembled	1
1020	Hose barb, ½"	1
1021	Hose barb, ¾"	1
1022	Wing nut	1
1508	Snap ring	1
1532	Pump housing including 6038C Pure Carbon bushing Ø 32 mm	1
1071	Inner tube, 700 mm	1
1072	Inner tube, 1000 mm	1
1073	Inner tube, 1200 mm	1
1092	Rotor PP Ø 26,5	1
1095	Pump foot Ø 32 mm	1
1132	Outer tube, 700 mm, Ø 32 mm	1
1133	Outer tube, 1000 mm, Ø 32 mm	1
1134	Outer tube, 1200 mm, Ø 32 mm	1
1840	connection nut	1
2025	Drive shaft, SS 316Ti, 700 mm	1
2026	Drive shaft, SS 316Ti, 1000 mm	1
2027	Drive shaft, SS 316Ti, 1200 mm	1
1005	Drive shaft, Hastelloy C-4, 700mm	1
1006	700mm	1
1007	Drive shaft, Hastelloy C-4,	1

Note: (SS) For use with Stainless Steel Drive Shaft
(HC) For use with Hastelloy Drive Shaft

Accessories available

Nozzle: Brass Nickel Plated, Teflon seal, rotating joint

Ideally suited for filling and transferring liquids also in the food and pharmaceutical industry.

Hose connection:
25mm or 32mm

Working pressure:
max. 4 bar

Viscosity: 750 MPas

Flow rate: 80 l/mm

Liquid temperature:
max. 80°C

Weight: 1.4 kg



Strainer: Polypropylene Strainer, Stainless Steel

Recommended when pumping dirty or contaminated liquids with abrasive particles.



Nozzle: Polypropylene

Housing and internal pieces in black polypropylene PP, valve seats and O-rings are in Viton (FPM), spring in Titanium.

Hose connection:
19mm or 25mm

Working pressure:
max. 2 bar

Viscosity: 750 MPas

Flow rate: 100 l/mm

Liquid temperature:
max. 50°C

Weight: 0.26 kg

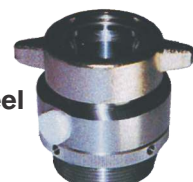


Barrel adaptors, PP

- Ø41 mm
- Ø32 mm

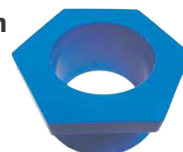
Barrel adaptors, Stainless Steel

- Ø41 mm
- Ø32 mm



Emission proof drum adaptor

- PP
- Brass
- SS 316Ti



The adaptor prevents emission of harmful gases and vapours out of the drum.

Mixing Pump Tube - Double Function

For pumping and mixing, sealless pump tubes made of PP with tube Ø50mm and lengths of 1m for 200 litre drums and 1.2m for containers available. SS mixing pump tube is certified to conform to ATEX.



Electronic Flowmeter

Polypropylene housing. Other materials: POM, PVDF or Stainless Steel.

Option: Volume pre-set, I/P & O/P for further data processing.



Drum Pump Range

Stock Availability

- A comprehensive range of pumps & spares are held in stock to meet immediate requirements.

Expertise

- Trained and experienced product specialists with expertise in handling the complete range of Techniflo products.

Technical Support

- Full technical information covering all aspects of pump performance including compatibility with materials and systems design

Advice

- Reliable advice regarding pump unit assembly, installation, operation, preventative maintenance programming and spare parts inventory

Service Support

- Full repair and service capabilities including scheduled servicings

Quality Control

- Techniflo pumps are manufactured strictly in accordance with the requirements of ISO 9001:2008 to ensure the highest levels of product quality.

