





**DIENTE WATER PURIFICATION TECHNOLOGY** 



# **COMPANY PROFILES**

DIENTE WATER PURIFICATION TECHNOLOGY CO., LTD (DNTFIT) was founded in Baixiang, Zhejiang in 2005. It is a professional water purification equipment design and manufacturing plant which supplying various spare parts like quick connectors, fittings, check valves, low&high pressure switches, solenoid valves and pressure reducing valves.

Since its establishment, DNTFIT has committed itself to provide most cost effective spare parts in RO water system with best quality. We boast of our excellent fundamental condition as we consisted with more than 200 man powers in production and an army of technicians for new products development. Considering the products consistency as well as production efficiency, we highly relied on automation in production, lab test and quality inspection. Due to our lasting developing and promotion, DNTFIT has been working together with customers both domestic and abroad in North America, Europe, Asia and Africa; also strengthened by the prestigious ISO 9001:2008 certification and by many other specific standard like CE proved DNTFIT as a qualified international fitting manufacturer.

DNTFIT will work hard to create solutions that improve quality of life for people around the world by producing green and safe spare parts in water purification industry; Meanwhile, we will continue to carry out our target to be a global connector leader in this industry.

Your satisfaction, our pursuit.

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# **QUICK FITTINGS**

Products are made by safe, non-toxic materials meeting the requirements of BS, WRAS, FDA and NSF. DNT's products are widely used in water purification, beverage & food system and pneumatic system.

#### **FUNCTION**

The Fittings we made are easy and convenient for assmebly which save both time and expense. The extraordinary design&shape is superior and practical in field application.

#### **QUALITY**

Based on ISO9001 registered quality system, DNT ensure our customer will be offered with superior quick connectors.

#### **Application**

Beyond water and food application, connectors could be used with air and liquids . And all connections can be assembled and disassembled repeatedly.



#### **Elbow Union**



| Part No. | Tube O.D. | Tube O.D. |
|----------|-----------|-----------|
| PV0202   | 1 / 4     | 1/4       |
| PV0303   | 3/8       | 3/8       |
| PV0203   | 1 / 4     | 3/8       |

# **Union Connector**



| Part No. | Tube O.D. | Tube O.D. |
|----------|-----------|-----------|
| PU0202   | 1 / 4     | 1/4       |
| PU0303   | 3/8       | 3/8       |
| PU0203   | 1 / 4     | 3/8       |

#### **Bulk Head**



| Part No. | Tube O.D. | Tube O.D. |
|----------|-----------|-----------|
| PUM0202  | 1 / 4     | 1 / 4     |

# Flow Restrictor



| Part No. | Tube O.D. | Flow   |
|----------|-----------|--------|
| FR300    | 1 / 4     | 300cc  |
| FR450    | 1 / 4     | 450cc  |
| FR1000   | 1 / 4     | 1000cc |

# Male Elbow



| Part No. | Tube O.D. | Thread |
|----------|-----------|--------|
| PL0201   | 1 / 4     | 1/8    |
| PL0202   | 1 / 4     | 1 / 4  |
| PL0203   | 1 / 4     | 3/8    |
| PL0204   | 1 / 4     | 1/2    |
| PL0301   | 3/8       | 1/8    |
| PL0302   | 3/8       | 1 / 4  |
| PL0303   | 3/8       | 3/8    |
| PL0304   | 3/8       | 1/2    |

# Female Adapter



| Part No. | Tube O.D. | Thread<br>(F) |
|----------|-----------|---------------|
| PCF0201  | 1 / 4     | 1/8           |
| PCF0202  | 1 / 4     | 1 / 4         |
| PCF0203  | 1 / 4     | 3/8           |
| PCF0204  | 1 / 4     | 1/2           |
| PCF0301  | 3/8       | 1/8           |
| PCF0302  | 3/8       | 1 / 4         |
| PCF0303  | 3/8       | 3/8           |
| PCF0304  | 3/8       | 1/2           |



# Female Elbow



| Part No. | Tube O.D. | Thread<br>(F) |
|----------|-----------|---------------|
| PLF0204  | 1 / 4     | 1/2           |
| PLF0304  | 3 / 8     | 1/2           |

# **Sunction Head**



| Part No. | Tube O.D. |
|----------|-----------|
| ZXT-02   | 1 / 4     |
| ZXT-03   | 3/8       |

# Two Way Divider



| Part No. | Tube O.D. | Tube O.D. | Tube O.D. |
|----------|-----------|-----------|-----------|
| PY020202 | 1/4       | 1/4       | 1/4       |
| PY030303 | 3/8       | 3/8       | 3/8       |
| PY030202 | 3/8       | 1 / 4     | 1/4       |

#### **Bulkhead Union**



| Part No. | Tube O.D. | Tube O.D. |
|----------|-----------|-----------|
| PM0202   | 1 / 4     | 1 / 4     |
| PM0303   | 3/8       | 3/8       |
| PM0203   | 1 / 4     | 3/8       |

#### Male Branch Tee



| Part No. | Tube O.D. | Tube O.D. | Thread |
|----------|-----------|-----------|--------|
| PB020202 | 1 / 4     | 1 / 4     | 1/4    |
| PB030303 | 3/8       | 3/8       | 3/8    |
| PB020203 | 1/4       | 1 / 4     | 3/8    |
| PB020302 | 1/4       | 3/8       | 1/4    |
| PB020303 | 1/4       | 3/8       | 3/8    |
| PB030302 | 3/8       | 3/8       | 1/4    |

#### **Union Tee**



| Part No. | Tube O.D. | Tube O.D. | Tube O.D. |
|----------|-----------|-----------|-----------|
| PE020202 | 1 / 4     | 1 / 4     | 1/4       |
| PE030303 | 3/8       | 3/8       | 3/8       |
| PE020302 | 1 / 4     | 3/8       | 1/4       |
| PE020303 | 1 / 4     | 3/8       | 3/8       |
| PE020203 | 1 / 4     | 1/4       | 3/8       |
| PE030203 | 3/8       | 1 / 4     | 3/8       |

#### **Male Connector**



| Part No. | Tube O.D. | Thread |
|----------|-----------|--------|
| PC0201   | 1 / 4     | 1 / 8  |
| PC0202   | 1 / 4     | 1 / 4  |
| PC0203   | 1 / 4     | 3 / 8  |
| PC0204   | 1 / 4     | 1/2    |
| PC0301   | 3/8       | 1 / 8  |
| PC0302   | 3/8       | 1 / 4  |
| PC0303   | 3/8       | 3 / 8  |
| PC0304   | 3/8       | 1/2    |

# Male Tee Union



| Part No. | Tube O.D. | Tube O.D. | Thread |
|----------|-----------|-----------|--------|
| PD020202 | 1 / 4     | 1 / 4     | 1/4    |
| PD020203 | 1 / 4     | 1 / 4     | 3/8    |
| PD020302 | 1 / 4     | 3/8       | 1 / 4  |
| PD020303 | 1 / 4     | 3/8       | 3/8    |
| PD030302 | 3/8       | 3/8       | 1/4    |

# **Elbow Stem Union**



| Part No. | Tube O.D. | Stem O.D. |
|----------|-----------|-----------|
| PLT0202  | 1/4       | 1 / 4     |
| PLT0203  | 1 / 4     | 3/8       |
| PLT0303  | 3/8       | 3/8       |
| PLT0302  | 3/8       | 1 / 4     |

# Nipple



| Part No. | Thread | Thread |
|----------|--------|--------|
| M44      | 1/2    | 1/2    |
| M22      | 1 / 4  | 1 / 4  |
| M42      | 1/2    | 1 / 4  |

# **Main Stem Tee**



| Part No.  | Tube O.D. | Tube O.D. | Stem O.D. |
|-----------|-----------|-----------|-----------|
| PBT020202 | 1 / 4     | 1 / 4     | 1 / 4     |
| PBT030303 | 3/8       | 3/8       | 3/8       |

#### Elbow Stem



| Part No. | Tube O.D. | Stem O.D. |
|----------|-----------|-----------|
| PAT0202  | 1 / 4     | 1 / 4     |

#### **Stem T Union**



| Part No.  | Tube O.D. | Tube O.D. | Stem O.D. |
|-----------|-----------|-----------|-----------|
| PDT020202 | 1 / 4     | 1 / 4     | 1 / 4     |



# HAND VALVES

PA series hand valve is made of food grade POM which could satisfy the NSF and FDA requirements. It could be complied with a variety of chemicals & gases. These hand valves boast of flexible quarter-turn operation for opening and closing. Its rugged design make them for long term durability.

#### **Working Pressure And Temperature**

|              | Temperature | Pressure |
|--------------|-------------|----------|
| Air          | -20°C       | 10bar    |
|              | 1℃          | 10bar    |
| Air / liquid | 20℃         | 10bar    |
|              | 65°C        | 7bar     |

#### Hand Valve Female Adapter



| Part No. | Tube O.D. | Thread<br>(F) |
|----------|-----------|---------------|
| PAN0202  | 1 / 4     | 1/4           |
| PAN0303  | 3/8       | 3/8           |
| PAN0203  | 1 / 4     | 3/8           |
| PAN0302  | 3/8       | 1 / 4         |

#### **Hand Valve Union Adapter**



| Part No. | Tube O.D. | Tube O.D. |
|----------|-----------|-----------|
| PA0202   | 1 / 4     | 1 / 4     |
| PA0303   | 3/8       | 3/8       |

#### **Three Way Hand Valve**



| Part No.   | Tube O.D. | Thread | Thread |
|------------|-----------|--------|--------|
| PAST020404 | 1 / 4     | 1/2    | 1/2    |
| PAST030404 | 3/8       | 1/2    | 1/2    |
| PAST020303 | 1 / 4     | 3/8    | 3/8    |
| PAST030303 | 3/8       | 3/8    | 3/8    |

#### **Hand Valve Adapter**



| Part No. | Tube O.D. | Thread |
|----------|-----------|--------|
| PAW0202  | 1 / 4     | 1 / 4  |
| PAW0303  | 3/8       | 3/8    |

# **CHECK VALVES**

Check valve series is made of food grade POM which could satisfy the NSF and FDA requirements. The structure of these check valves are mainly shaped in "straight" and "L" type in consideration of space constraints. By equipping with accurate brass valve spool DNT's check valve showed more reliability without noise and vibration in work.

# **Working Pressure And Temperature**

| Pressure    | 10bar                     | 5bar           |
|-------------|---------------------------|----------------|
| Temperature | 1°C ( 35°F ) -20°C(70°F ) | 65°C ( 150°F ) |



#### **Elbow Check Valve**



| Part No. | Tube O.D. | Thread |
|----------|-----------|--------|
| PLNZ0201 | 1 / 4     | 1 / 8  |
| PLNZ0202 | 1 / 4     | 1 / 4  |

#### Check Valve



| Part No. | Tube O.D. | Tube O.D. |
|----------|-----------|-----------|
| PVNZ0202 | 1/4       | 1/4       |

#### **Check Elbow Valve**



| Part No. | Tube O.D. | Tube O.D. |
|----------|-----------|-----------|
| PUNZ0202 | 1 / 4     | 1 / 4     |
| PUNZ0303 | 3/8       | 3/8       |



# AUTO SHUTOFF VALVE



Auto shut off valve is mainly used to control the inlet and outlet water for RO purifier. Under the status of high pressure, the valve could work without electricity due to its special design. It is made of food grade POM which could satisfy NSF and FDA requirements.

| Product        | Auto Shutoff Valve    | Model        | SMF-02   |
|----------------|-----------------------|--------------|----------|
| Fitting        | 1/4" Quick Connection | Working Temp | 5°C~45°C |
| Burst Pressure | ≥32bar                | Material     | POM      |

# **NEEDLE VALVE**



Needle valve is fine tuning valve which could control the water flow accurately . It is made of food grade P-OM which could satisfy NSF and FDA requirements.

| Product        | Needle Valve          | Model        | NSF-02   |
|----------------|-----------------------|--------------|----------|
| Fitting        | 1/4" Quick Connection | Working Temp | 5°C~45°C |
| Burst Pressure | ≥32bar                | Material     | POM      |

# PRESSURE REDUCERS



JYF series pressure reducer is mainly used for reducing the pressure and protect water purifier. The unique design make them widely used in various water dispensers, RO water purifier, pipe line machine and coffee machines. With preset pressure 2.5-3bar, these reducer could eliminate all kinds of water hammer and sudden high pressure.

| Product                     | Pressure Reducer      | Material | POM    |
|-----------------------------|-----------------------|----------|--------|
| Fitting                     | 1/4" Quick Connection | Model    | JYF-01 |
| Maximum Working<br>Pressure |                       | ≥1.2Mpa  |        |
| Working Temp                |                       | 5°C~45°C |        |
| Burst Pressure              |                       | ≥3.2Mpa  |        |



| Product                     | Pressure Reducer         | Material | POM    |
|-----------------------------|--------------------------|----------|--------|
| Fitting                     | 1/4" Quick<br>Connection | Model    | JYF-02 |
| Maximum Working<br>Pressure |                          | ≥1.2Mp   | a      |
| Working Temp                |                          | 5°C~45°  | С      |
| Burst Pressure              |                          | ≥3.2Mp   | a      |



# HIGH PRESSURE SWITCHES



Water purifier pressure switch DNT-PS series pressure switches which we named as HP001 high pressure switch and LP001 low pressure switch are mainly designed for protection of water purifier. HP001 is a high pressure switch which will cut off the circuit when the pressure in the water tank reach to switch setting point in order to stop the RO pump working.

#### **PARAMETER**

| MODEL                | HP001  |
|----------------------|--|
| Medium               | Water  |
| Pressure Range       | Cut off pressure: 0.25MPa±0.05MPa Cut in pressure: 0.15MPa±0.05MPa |
| Proof Pressure       | 2. 5Mpa  |
| Life Circles         | >100,000 times   |
| Work Temp            | 5 ~ 45°C   |
| Switch Design        | Micro switch normally close  |
| Electrical Parameter | Voltage 250VAC Current 16A   |
| Terminal             | Blade 4. 8*0. 8mm  |
| Fitting              | 1/4" Quick connector   |
| Diaphragm            | EPDM   |

# LOW PRESSURE SWITCHES



Water purifier pressure switch DNT-PS series pressure switches which we named as HP001 high pressure switch and LP001 low pressure switch are mainly designed for protection of water purifier. LP001 is a low pressure switch which will cut off the circuit when the pressure in the water inlet tube lower to switch setting point in order to stop the RO pump. By stopping the RO pump, the pressure switch offer a protection to the water purifier. After the pressure back to switch setting point, the switch will cut in and let the RO pump back to work.

#### **PARAMETER**

| MODEL                | LP001  |
|----------------------|--|
| Medium               | Water  |
| Pressure Range       | Cut off pressure: 0.025MPa±0.005MPa Cut in pressure: 0.025MPa±0.005MPa |
| Proof Pressure       | 2. 5Mpa  |
| Life Circles         | >100, 000 times  |
| Work Temp            | 5 ~ 45°C   |
| Switch Design        | Micro switch normally open   |
| Electrical Parameter | Voltage 250VAC Current 16A   |
| Terminal             | Blade 4. 8*0. 8mm  |
| Fitting              | 1/4" Quick connector   |
| Diaphragm            | EPDM   |



# **SOLENOID VALVES**



#### **DNT-DCF01**

DCF01 is a inlet water solenoid valve mainly designed for RO purifier, water dispenser and coffee machine. Thanks to its unique design and structure, this solenoid valve perform superior in anti-blockage and anti-leakage in water industry.

#### **PARAMETERS**

| Rated Voltage        | DC12V               | DC24V           | AC220V 50Hz |  |  |
|----------------------|---------------------|-----------------|-------------|--|--|
| Working Voltage      | DC12V±10%           | AC220V±10% 50Hz |             |  |  |
| Water Pressure Range | 0.02-0.8MPa         |                 |             |  |  |
| Medium Temp          | 0-80℃               |                 |             |  |  |
| Life Circle          | ≥100,000 times      |                 |             |  |  |
| Terminal             | 6.3*0.8mm blade     |                 |             |  |  |
| Fitting              | 1/4 quick connector |                 |             |  |  |
| Pressure(mpa)        | 0.02                | 0.1             | 0.8         |  |  |
| Flow(L/min)          | >2.5                | >3 13-20        |             |  |  |

# **SOLENOID VALVES**



#### **DNT-DCF02**

DCF02 is a water water solenoid valve mainly designed for domestic and commercial RO purifiers. Thanks to its unique design and structure, this solenoid valve perform superior in anti-blockage and anti-leakage in water industry.

#### **PARAMETERS**

| Rated Voltage   | DC12V     | DC24V          | AC220V 50Hz     |  |
|-----------------|-----------|----------------|-----------------|--|
| Working Voltage | DC12V±10% | DC24V±10%      | AC220V±10% 50Hz |  |
| Life Circle     |           | ≥100,000 times |                 |  |

#### **FLOW**

| Pressure   | 0.5 MPa  |
|------------|--|
| Terminal   | 6.3*0.8mm blade  |
| Fitting    | 1/4 quick connector  |
| FR(cc/min) | 100,200,300,400,500,600,800,900,1100,1300,1500,1800,2000cc |

<sup>\*</sup> Other flow rate is available depend on customer's need.



#### Fitting Material

POM: Also called as acetal, is adurable material with advantage of anti-bending and antifatigue effect. On the other hand, this material could resist most organic chemicals and inorganic compounds, however, this material is not recommend to work in strong acid or exposure to strong oxidant condition.

Physical form: Solid or particles Melting point: 165°C

Atmospheric pressure: < 0.001mmHq>

Incompatibility: Strong acid and oxidant.Do not mix with any PVC alike material.

PP: This material boasts of its strong chemical resistance quality, stong tolerance in oxidant and cold resistance quality.

#### **Product Feature**

Products are made by safe, non-toxic materials meeting the requirements of BS, WRAS, FDA and NSF. DNT's products are widely used in water purification, beverage&food system and pneumatic system.

Based on ISO9001 registered quality system, DNT ensure our customer will be offered with superior quick connectors.

#### Application

Beyond water and food application, connectors could be used with air and liquids. And all connections can be assembled and disassembled repeatedly.

#### Fittings Working Pressure&temperature Tube Tolerance Range

| Size           | 1/4''  | 3/8'' |      |      |        |      |      |
|----------------|--------|-------|------|------|--------|------|------|
|                | 10mm   | 12mm  | 15mm | 20mm | 22mm   | 25mm | 32mm |
| - 20°C( - 4°F) | 230Psi |       |      |      | 170Psi |      |      |
| 1°C(34°F)      | 230Psi |       |      |      | 170Ps  | i    |      |
| 20°C(68°F)     | 230Psi |       |      |      | 170Ps  | i    |      |
| 65°C(149°F)    | 150Psi |       |      |      | 100Ps  | i    |      |

#### ★ Any working temperature and pressure out of this range please contact with DNTFIT

| Size  | Tolerance           |  |  |
|-------|---------------------|--|--|
| 1/4'' | ±0. 002"(±0.05mm)   |  |  |
| 3/8'' | ±0.002 (±0.05HIIII) |  |  |
| 10mm  |                     |  |  |
| 12mm  |                     |  |  |
| 15mm  | +0. 002"(+0.05mm)   |  |  |
| 20mm  | -0.004''(-0.05mm)   |  |  |
| 22mm  | 0.004 ( 0.0011111)  |  |  |
| 25mm  |                     |  |  |
| 32mm  |                     |  |  |
|       |                     |  |  |

#### Allowable Torque

| Thread  |                | Torque | 1/4'',3/8'' |           | 10MM,12MM,15MM |         | 20MM,2MM,25MM,32MM |  |
|---------|----------------|--------|-------------|-----------|----------------|---------|--------------------|--|
| Plastic | Maximum Torque | (N.m)  | 1.5         |           | 3.0            |         | 4.0                |  |
| Steel   | Maximum Torque | (N.m)  | 7.9-9.0     | 12.0-14.0 | 22.0-24.0      | 28.0-30 | 40.0               |  |

# TECHNICAL INFORMATION

| 1  | Products are recommended for use in water or food&beverage system. Any products maybe used in other conditions, kindly contact with DNT for advice.   |
|----|---|
| 2  | Using appropriate force when connect tubes to the fittings, any over-stress rotation, twist or bend would possibly damage the fittings and cause malfunction, leak, or failure which voids the product warranty.  |
| 3  | The working temperature of the products should not exceed 65°C (150°F) which may cause malfunction of the products.   |
| 4  | Before connecting tube, verify that the end of the tube has been cut squarely and without no scratches on the tube surface.   |
| 5  | After assembling a tube connection, pull with moderate force to check for proper gripping of the tube.  |
| 6  | When tightening threaded fittings, use care not to over-torque the fitting as this may damage the fitting and cause a leak or other failure.  |
| 7  | Before making any tube connection, verify that the end of the tube has been cut squarely and there are no scratches on the tube O.D within 30mm of the end.   |
| 8  | When making a tube connection, occasional gripping of the tube may occur just as the tube begins to pass through the o-ring, although the seal is not yet made. In this case, push the tube deeply once more to complete assembly of the connection. Incomplete seat the tube into the fitting may cause leakage. |
| 9  | When tightening threaded fittings, use care not to over-torque the fitting as this may damage the fitting and cause a leak or other failure.  |
| 10 | Pipe dope or other liquid thread sealers is not compatible with connectors. Use only Teflon tape to seal threaded connections.  |





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