

## 100 GPM MAX FLOW RATE 50 PSI WORKING PRESSURE

| Model Number  | Base Dimensions | HP  | Max GPM | TDH Ft. | Full Load Amp Draw |      |      |      |             |      |      |      | Media     |           | Operating Weight in Lbs |
|---------------|-----------------|-----|---------|---------|--------------------|------|------|------|-------------|------|------|------|-----------|-----------|-------------------------|
|               |                 |     |         |         | Single Phase       |      |      |      | Three Phase |      |      |      | Area SqFt | Vol CuFt* |                         |
|               |                 |     |         |         | S.F.               | 115V | 208V | 230V | S.F.        | 208V | 230V | 460V |           |           |                         |
| <b>TFW-20</b> | 36" X 48"       | 1   | 44      | 55      | 1.15               | 12.0 | 6.2  | 6.0  | 1.15        | 3.4  | 3.2  | 1.6  | 2.2       | 2.0       | 556                     |
| <b>TFW-24</b> | 36" X 48"       | 1.5 | 65      | 50      | 1.0                | 17.0 | 8.5  | 8.5  | 1.15        | 4.4  | 4.2  | 2.1  | 3.14      | 3.0       | 727                     |
| <b>TFW-30</b> | 36" X 48"       | 3   | 100     | 45      | 1.0                | -    | 14.0 | 13.0 | 1.15        | 8.4  | 7.6  | 3.8  | 5.0       | 4.5       | 1077                    |

\*1 Cubic foot of media = 100 lbs.

TOWER-FLO® Series TFW self-contained filter plants shall consist of the following major components: base, pump, motor, strainer, facepiping, valve, controls, and filter vessel. The system shall be shipped as a complete factory assembled and tested unit. Filter media shall be shipped with the unit for field installation.

Project: \_\_\_\_\_ Date: \_\_\_\_\_

The TOWER-FLO® Series TFW Model being specified for this project is a TFW-\_\_\_\_\_ with a maximum filter rate of \_\_\_\_\_ GPM. \_\_\_\_\_ unit(s) are specified and each unit shall be equipped with the following components:

### COMPONENT SPECIFICATION

- BASE**
  - \_\_\_ **Standard:** High density polyethylene.
  - \_\_\_ **Option:** Structural steel, primed and painted.
  - \_\_\_ **Option:** Type 304 stainless steel.
- PUMP**
  - \_\_\_ **Standard:** Self-priming; close grain cast and machined brass volute, impeller, and pump-to-motor coupling; close coupled to a TEFC motor; and capable of \_\_\_\_\_ GPM at \_\_\_\_\_ feet TDH.
- MOTOR**
  - \_\_\_ **Standard:** TEFC, heavy gauge rolled steel case, NEMA 56C frame, Class F insulation, double shielded prelubricated ball bearings; UL® and CSA® listed; \_\_\_\_\_ HP; and at the following primary VAC, phase and Hz: \_\_\_\_\_.
  - \_\_\_ **Option:** 575 VAC primary power supply, including control panel conversion.
- STRAINER**
  - \_\_\_ **Standard:** Basket type, brass body, ABS basket, brass cover with o-ring, held in place by two brass lock-handles.
- FACEPIPING**
  - \_\_\_ **Standard:** Schedule 80 PVC; backwash sight glass; influent / effluent pressure gauges, 0-60 psi, liquid-filled.
  - \_\_\_ **Option:** Fresh water backwash from municipal water supply; includes controls modification to stop pump during backwash; flow control valve for field installation; end-user responsible for addition of pressure regulator (maximum 30 psi) and/or backflow preventer, if required.
  - \_\_\_ **Option:** Fresh water backwash from static water supply using pump to assist.
- VALVE**
  - \_\_\_ **Standard:** CPVC, 3-way, diverter valves with separate 24 VAC electric actuators.
  - \_\_\_ **Option:** Brass, 3-way ball valves with single electric actuator and mechanical linkage.
- VESSEL**
  - \_\_\_ **Standard:** \_\_\_\_\_" diameter, filament wound fiberglass with PVC internals and polypropylene laterals; fitted with tank drain, manual air relief valve, 50 psi automatic pressure relief valve; 50 psi maximum allowable working pressure; and 104 F° maximum allowable working temperature. Maximum flow rate \_\_\_\_\_ GPM at 20 GPM per square foot filter surface area.

**COMPONENT SPECIFICATION**

- CONTROLS**    \_\_\_ **Standard**    **Three phase or single phase, Automatic backwash control panel**, UL® and cUL® Labeled, in a NEMA 4X fiberglass enclosure including: motor starter with thermal overload and short circuit protection; fuseless branch and control circuit protection; transformer to convert primary supply to 24 and 120 VAC control power; through-the-door disconnect; programmable relay with program of operation, 7-year battery backup and external memory card backup; HOA switch for pump motor; differential pressure switch (external to the enclosure) for primary backwash initiation; manual backwash initiation pushbutton; backwash counter; and contacts for ΔP repeat closure shut-off and alarm, common alarm (motor trip indication), remote indication of backwash operation, remote backwash initiation, and conductivity interface. Program features 30-second time delay in ΔP switch circuit and 100 hour "re-setting" timer (ΔP switch closure or manual initiation resets timer) for backup backwash initiation.
- \_\_\_ **Option:**    Backwash lockout between/among \_\_\_ units; to prevent simultaneous backwash of multiple filter units; 0-60 minute adjustable lockout time delay program; field connection between/ among control panels by others.
- \_\_\_ **Option:**    Contacts for connection to BMS, additional specifications required from owner.  
                           \_\_\_ local (lights) and remote (contacts) indication of filter or backwash operating mode.  
                           \_\_\_ other (be specific) \_\_\_\_\_.
- \_\_\_ **Option:**    Manual backwash; \_\_\_ single-phase; \_\_\_ three-phase.
- MEDIA**        \_\_\_ **Standard:**    Quartzite or silica in nature, hard, not smooth, uniformity coefficient of 1.7, relative size of .45 to .55 mm, containing no more than 5% flat particles or more than 1% clay, loam dust, or other foreign material. Media weighs 100 lbs per cubic foot.

**COMMON ADDITIONAL EQUIPMENT:**

- NOZZLES**     \_\_\_ **Sweeper-Eductor Nozzle**, 1/4" MPT, ABS plastic, quantity of \_\_\_\_\_.
- HOLDERS**     \_\_\_ **Clip-On Nozzle Holder**, quantity of \_\_\_\_\_; for \_\_\_ 1-1/4"; \_\_\_ 1-1/2"; or \_\_\_ 2" PVC pipe.
- SURGE TANK** \_\_\_ **Polyethylene tank** for backwash surge capture and gravity release to closest drain: \_\_\_\_\_ gallon capacity, \_\_\_\_\_" diameter x \_\_\_\_\_" high, with a \_\_\_\_\_" diameter lid in top head and a 2" FPT drain bulkhead fitting.  
       \_\_\_ **Bulkhead fitting, additional**, for inlet from filter \_\_\_ 2", \_\_\_ 3", or \_\_\_ 4", for field installed by others;  
       \_\_\_ **Manual ball valve**, 2", 2-way, \_\_\_ Sch 40 PVC, \_\_\_ Sch 80 PVC, \_\_\_ brass, for field installation by others on drain piping from tank for isolation and/or throttling.
- LIQUID LEVEL** \_\_\_ **Liquid level control assembly** for backwash surge tank to interrupt filter pump if/when surge tank nears capacity. Includes: Gems Series 16M liquid level controller mounted in separate NEMA 3R enclosure requiring separate 120 V power supply factory mounted on filter's control panel bracket (unless otherwise specified); sensor; 3 trimmable probes (L, H, and Ground); field wiring from sensor to LLC enclosure by others. Also includes additional contacts for remote pump on/off in filter control panel.  
       \_\_\_ **Liquid level control column assembly**; 2" Sch 80 piping assembly mounted on side of poly tank to isolate liquid level probes from turbulence in poly tank.
- SOLENOID VALVE** \_\_\_ **Solenoid valve** for backwash siphon break, \_\_\_\_\_", bronze, with 24 VAC solenoid.

**NOTE:** Backwash flow rate, irrespective of water source, must be no less than 75% and no greater than 100% of the vessel's designed maximum gpm. Backwash duration is factory preset at 3 minutes and is field adjustable.