



Series
TFX

Project Specifications

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			
TFX-20	36" X 48"	1	44	55	1.15	12.0	6.6	6.0	1.15	3.2	3.6	1.8	2.2	2.0	556
TFX-24	36" X 48"	1.5	65	50	1.0	17.0	8.8	8.5	1.15	4.4	4.2	2.1	3.14	2.5	677
TFX-30	36" X 48"	3	100	45	1.0	-	14.0	14.2	1.0	8.1	8.0	4.0	5.0	4.0	1027

*1 Cubic foot of media = 100 lbs.

TOWER-FLO® Series TFX 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 TFX Model being specified for this project is a TFX-____ 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 VAC, phase and Hz: _____.

STRAINER ____ **Standard:** Basket type, brass body, ABS basket, brass cover with o-ring, held in place by two brass lockhandles.

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.



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COMPONENT SPECIFICATION

CONTROLS ___ **Standard, three phase or single phase, Automatic backwash operation:** UL® and cUL®

Labeled control panel with: NEMA 4X corrosion resistant fiberglass enclosure; 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 power disconnect; programmable relay with adjustable timing controls for backwash steps; program protected internally against power failure; 30-second time delay in delta P switch circuit; 1-100 hour "re-setting" timer (ΔP switch closure or manual initiation resets timer) for backup backwash initiation; ΔP repeat closure shut-off and alarm; manual ON/OFF switch; manual backwash initiation switch; backwash counter; and differential pressure switch (external to the controls enclosure) for primary 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.

___ remote indication of common alarm.

___ remote indication of backwash in operation.

___ remote control of pump on/off with HOA switch.

___ other (be specific) _____.

___ **Option:** Manual backwash; ___ single-phase; ___ three-phase.

VESSEL

___ **Standard:** ___" diameter, pressure molded high density thermoplastic filter vessel; ABS plastic internals; 50 psi maximum pressure; fitted with tank drain, manual air relief valve, 50 psi automatic pressure relief valve. Maximum flow rate _____ GPM at 20 GPM per square foot filter surface area.

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.



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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.
___ Additional ___" bulkhead fitting for inlet from filter (2", 3", or 4"), field installed by others;
___ 2", 2-way, manual ball valve, ___ 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: ITT McDonnell-Miller 750B 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.