BT Series

WQA certified to NSF/ANSI 61 standard

Model Numbers:
BT14-30, BT20-30, BT14-45, BT20-40, BT30-30

HOME & GARDEN

ROBUST COMPACT PRESSURE BOOSTING SYSTEM

APPLICATION

Ideal for pumping clean, clear water in such applications as homes where the incoming municipal water supply pressure is inadequate, from underground or surface water supplies, automatic water transfer, applications where the pump may have an interrupted water supply and domestic and light industrial irrigation.

FEATURES & BENEFITS

The Davey BT booster pressure system consists of a robust centrifugal pump fitted with the intelligent Davey Torrium2 water pressure controller to deliver boosted water pressure to your home or other application. Consumers can enjoy strong and seemingly constant water pressure due to Torrium2's constant flow operation.

Due to large water pathways, Torrium2 operates with a lower head loss than comparable water pressure controllers to provide superior hydraulic performance with less wasted energy.

PUMP

- Reliable single stage or multistage impeller design (dependent upon pump model)
- All stainless steel construction for reliability and the ability to pump hot water up to 176°F
- Carbon/Ceramic mechanical seal for reliable pump operation

MOTOR

- 120/240V, 60Hz, 2 pole (dependant upon pump model)
- Class F insulation
- Higher than normal 130°F ambient temperature rating for longer life and improved tolerance to voltage variations for peace of mind, even on the hottest days.
- Robust TEFC motor constructed from corrosion resistant materials
- IP55 international protection rating for a high level of resistance to dust and dirt entry
- Protected against both high operating temperature and high current draw by a built-in, automatically re-setting, thermal overload
- Permanently split P2 'fail safe' capacitor design
- Motor and pump are designed for frequent starts

TORRIUM2 CONTROLLER

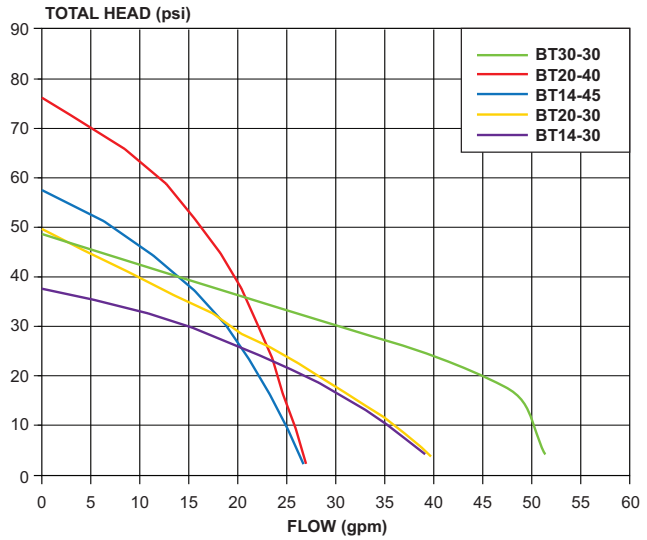
For more information visit daveywater.com

Home Pressure Systems

EASE OF INSTALLATION
For ease of installation, the outlet plumbing can be connected to either the vertical or the right angle discharge outlet, which can rotate a full 360°. A wrench, sized to fit the coupling, is included in the box.

POWER CABLE
For easy installation, no hard wiring is needed as Torrium2 comes with a 6 foot power cord with a standard NEMA power plug. USA 120V models are fitted with a standard NEMA 5-15P power plug. USA 240V models are fitted with a standard NEMA 6-15P power plug.

HYDRAULIC PERFORMANCE



MATERIALS OF CONSTRUCTION

PART	MATERIAL
Impellers	304 stainless steel
Lock nut	304 stainless steel
Pump casing	304 stainless steel
Pump backplate	304 stainless steel
Pump shaft	316 stainless steel
Neckrings	Teflon
Seal ring (stationary)	Ceramic
Seal ring (rotating)	Carbon (synthetic)
Seal spring	304 stainless steel
Orings	Nitrile rubber
Stage body	304 stainless steel
Torrium2 check valve Stem assembly Spring Seal	 Nylon 304 stainless steel Nitrile
Torrium2 body	Glass filled nylon
Priming plug	304 stainless steel
Motor shell	Marine grade aluminum
Lantern / DE endshield	Marine grade aluminum
Shell & lantern bracket finish	Baked polyester

OPERATING LIMITS

Capacities to	45 gpm
Maximum total head to	76 psi
Cut-in pressure – Adapts to 80% of last shut-off head pressure	
Minimum setting	15 psi
Maximum setting	80 psi
Cut-out flow rate	0.26 GPM
Maximum liquid temperate (Torrium2)	158° F
Maximum ambient temperature (Torrium2)	120° F
Maximum suction lift	25'
Inlet size (dependant upon pump model)	1" F or 1¼" F
Outlet size	1" M
Maximum pump casing pressure	116 psi
Maximum system pressure	100 psi
Applicable Approvals	UL 778; UL61800-5-1 CSA-C22.2 No. 108-14 NSF/ANSI 61

INSTALLATION AND PRIMING

- On installations with suction lifts a good quality foot valve should be installed.
- The system is primed by filling the pump and suction line with water through the priming port, and replacing priming plug prior to switching on
- The PRIME button on the Torrium2 unit should be held in while the pump is establishing prime

ELECTRICAL DATA

Model	BT14-30	BT20-30	BT14-45	BT20-40	BT30-30
Supply voltage/phase	120V/1			220-240V/1	
Supply frequency	60Hz				
Input power (P1) (kW)	0.92	0.98	0.86	1.10	1.44
Output power (P2) (kW)	0.73	0.78	0.68	0.92	1.12
Full load current (A)	7.80	8.20	7.30	4.70	7.00
Locked rotor current (A)	38.00	38.00	38.00	23.00	23.71
Starting	PSC				
Insulation class	Class F				
IP rating	IP55				

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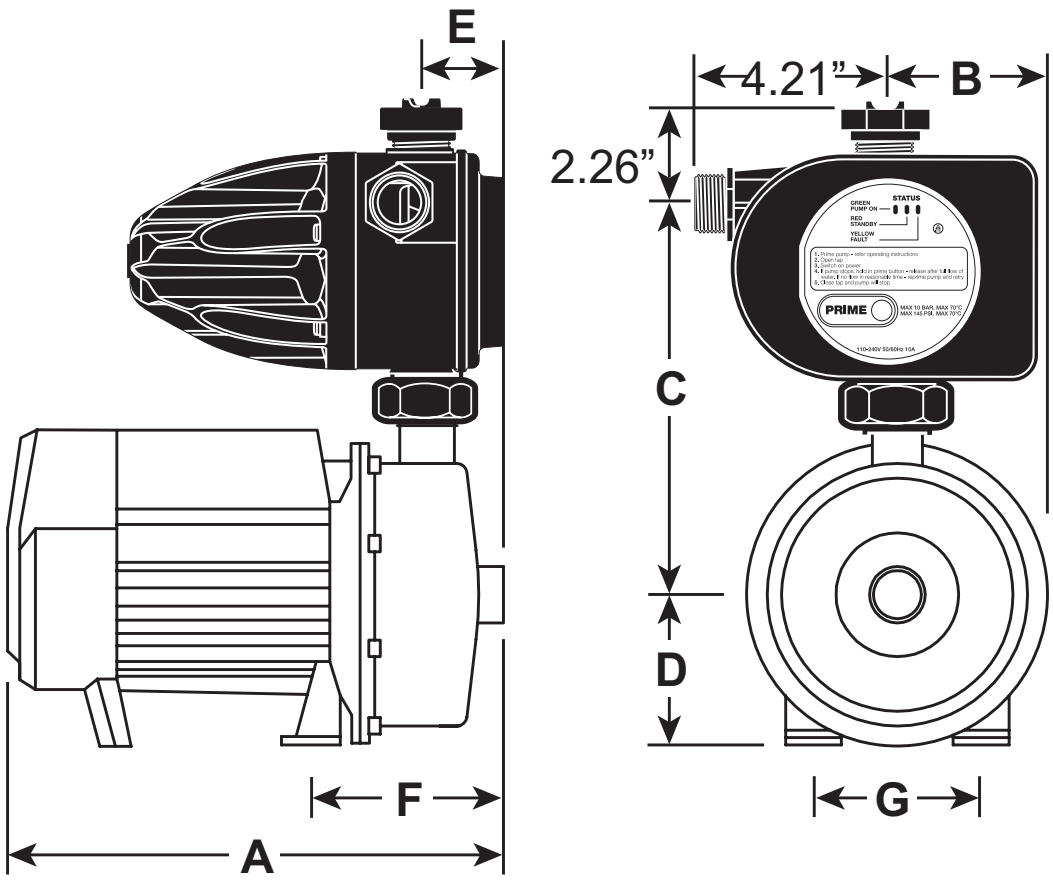
DIMENSIONS (INCHES)											
Model	A	B	C	D	E	F	Inlet	Outlet	Net Weight (lbs)	G Hole Diameter @ Centres	
BT14-30	13.80	4.33	12.20	4.33	2.40	5.70	1¹/₄" F	1" M	26.50	0.35	4.72
BT20-30	17.40	3.35	8.00	3.54	5.31	8.85	1¹/₄" F	1" M	27.30	0.27	3.93
BT14-45	15.35	3.35	8.00	3.54	2.95	6.81	1" F	1" M	25.40	0.27	3.93
BT20-40	17.40	3.35	8.00	3.54	5.31	8.85	1" F	1" M	27.30	0.27	3.93
BT30-30	16.14	4.72	5.67	4.76	2.00	5.83	1¼" F	1" M	16.25	0.35	5.51



Home Pressure Systems

MODEL IDENTIFICATION

B

Booster series
stainless steel
pressure booster pump

T

Torrium2 equipped

14-30

Flow (gpm) at nominal pressure
14gpm @ 30psi

14-45 = 14gpm @ 45psi
20-30 = 20gpm @ 30psi
20-40 = 20gpm @ 40psi
30-30 = 30gpm @ 30psi

PERFORMANCE TABLE

BT Home Pressure System	Maximum Inlet Pressure	Maximum Boost	Nominal Flow
BT14-30	60 psi	40 psi	14 gpm
BT14-45	40 psi	60 psi	14 gpm
BT20-30	50 psi	50 psi	20 gpm
BT20-40	20 psi	80 psi	20 gpm
BT30-30	50 psi	50 psi	30 gpm

To make selecting your Davey pressure booster system easier, Davey provide a guide to the number of faucets that can be operated at the same time without substantially reducing performance, assuming an average delivery of three gallons per minute per faucet.

Indicates that this pump may be suitable for boosting water for watering systems.

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DEPEND ON DAVEY

DWP0116-4/0323