

SUNTEC B-8000B high pressure model contains two gear sets. The first stage gear set sucks the fuel from the line, and the second stage gear set pressurizes the fuel. This unit is supplied for 1-pipe operation, without by-pass plug installed. Please verify before installation.

COMPATIBILITY

Fuel oil #2 and lighter, B6-B100 (blends from 6% up to 100% biodiesel, per ASTM D396).

PUMP OPERATING PRINCIPLE

For B2TC-8931B operating principle, please refer to B-8000B datasheet.

As the motor starts, the fuel from the second stage gearset flow through the valve that builds up the oil pressure to the nozzle line. All oil which does not go through the nozzle line will be by-passed through the valve back to the gear-set in a one-pipe installation, or to the return line in a two pipe installation.

Cut-on/off is handled differently depending on model (please see table on page 2) :

- No cut-off: Cut-off must be provided by an external solenoid valve.
- Hydraulic safety cut-off fitted to the pressure regulating valve: When the pressure difference is sufficient to overcome the spring force, the valve opens and releases the flow to the nozzle port.

During the stop sequence, the gear-set speed slows down and the valve closes when the gear-set capacity is not sufficient to build the pressure anymore.

One pipe installation :

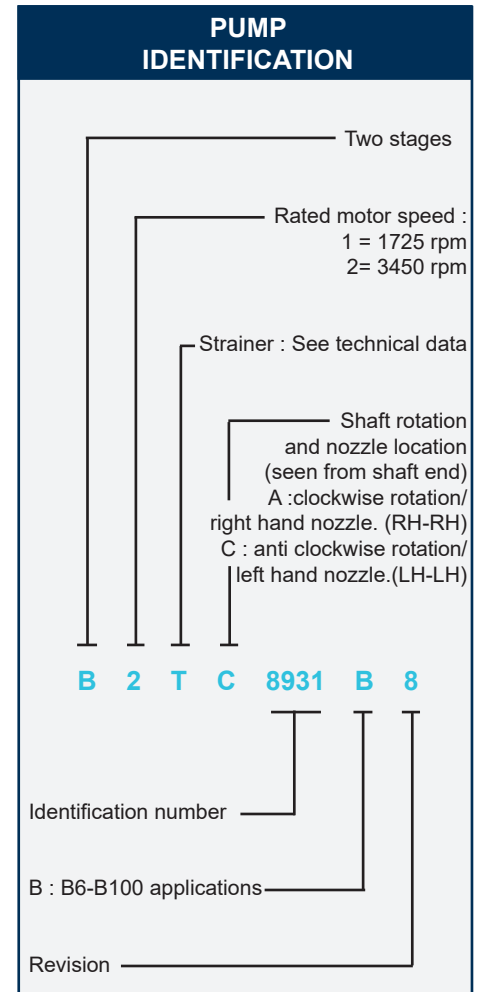
The by-pass plug must not be installed. The excess fuel is returned back to the inlet.

Two pipe installation :

The steel plug of the return port must be removed and the by-pass plug must be inserted in the return port allowing excess fuel is bypassed back to the tank. The return plug must not be reinstalled.


Bleed :

In one pipe operation, the easy flow bleeder valve must be loosened to bleed the system. Bleeding in two pipe operation is automatic, but it may be accelerated by loosening the easy flow bleeder.



TECHNICAL DATA

General

Mounting	Flange mounting
Connection threads	
Inlet	1/4 NPTF
Nozzle outlet	1/8 NPTF
Pressure gauge port	1/8 NPTF
Bleeder valve port	1/8 NPTF
Valve function	Pressure regulation and cut-off
Shaft	5/16 in
By-pass plug	Not inserted in return port, for one pipe system. To be inserted in return port with a 5/32 Allen key for two-pipe system
Strainer open area	T = min 10.5 in ²
Certified	 B6-B100: US only

Hydraulic data

Nozzle pressure range	200 - 300 psi
Oil temperature	32 - 140°F
Ambiant temperature	32 - 140°F
Inlet and return pressures	10 psi max.
<i>NFPA limits pressures to 3 psi max</i>	
Suction height	Single pipe: 6" Hg max. vacuum, Two-pipe: 17" Hg max. vacuum, to prevent air separation from oil

Ratings

Model number	Cut-off mechanism	Delivery pressure	Nozzle rating	Power consumption at delivery pressure
B2TA-8245B	Hydraulic	300 PSI	16 GPH at 300 PSI	285 W
B2TA-8249B	No cut-off	300 PSI	16 GPH at 300 PSI (3450rpm) / 18 GPH at 150 PSI (2850rpm)	285 W
B2TA-8930B	No cut-off	300 PSI	23 GPH at 300 PSI (3450rpm) / 25 GPH at 150 PSI (2850rpm)	330 W
B2TC-8931B	Hydraulic motor speed dependent	300 PSI	23 GPH at 300 PSI	330 W

PUMP DIMENSIONS

