

SUNTEC A-8800B model contains two gear sets and a built-in solenoid which provides a two-mode pressure operation. 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.

B-8800B - US - Ed. 1 - May 2021

COMPATIBILITY

- Fuel oil #2 and lighter, B6-B20 (blends from 6% up to 20% biodiesel, per ASTM D396).

PUMP OPERATING PRINCIPLE

As the motor starts, the fuel from the second stage gearset is transferred to the pressure regulating valve.

The high pressure mode is obtained with the solenoid valve activated (ie. closed); activating this solenoid valve closes the by-pass channel to the return. Oil is then transferred to the nozzle line at the pressure given by the high pressure regulating valve.

The low pressure mode is obtained with the solenoid valve open (ie. non activated); the by-pass channel is open, the oil is supplied to the nozzle line via the by-pass hole and the low pressure adjustment is made by the screw on the solenoid tube.

It is preferable to set the high pressure given by the pump valve (with solenoid activated) before the low pressure, with solenoid non activated. Care should be taken not to overtighten the low pressure adjusting screw of the solenoid tube, as this may eliminate the low pressure range.

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.

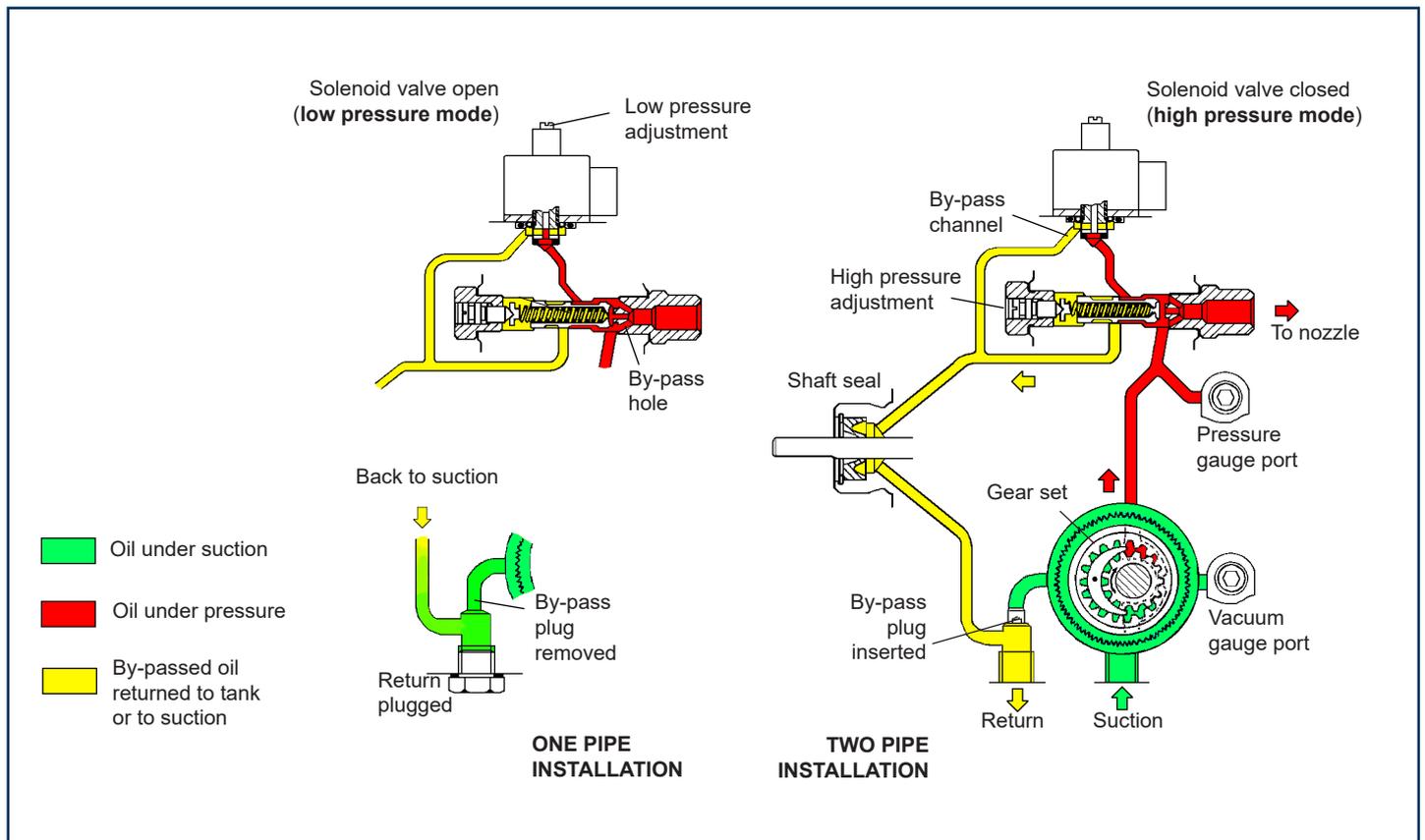
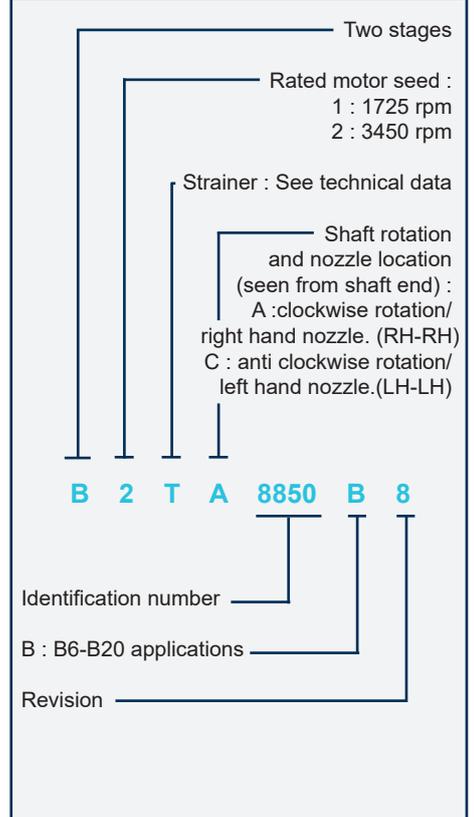
Bleed

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.

Note

Owing to the presence of the nozzle by-pass hole, the pump has no cut-off function; cut-off must be provided by an external solenoid valve.

PUMP IDENTIFICATION



TECHNICAL DATA

General

Mounting	Flange mounting
Connection threads	
Inlet	1/4 NPTF
Nozzle outlet	1/8 NPTF
Pressure gauge port	1/8 NPSF
Bleeder valve port	1/8 NPSF
Valve function	Pressure regulation and cut-off
Cut-off	Motor speed dependent
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-B20: US only

Hydraulic data

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

Nozzle rating

Model number	Nozzle rating	Power consumption at 300 PSI
B2TA-8850B	10 GPH at 300 PSI	250W
B2TA-8851B	16 GPH at 300 PSI	285W
B2TA-8852B	23 GPH at 300 PSI	330W

Solenoid valve characteristics

Frequency	50/60 Hz
Consumption	9 W
Maximum pressure	300 psi

Solenoid coil number system

N 6 2 1 L

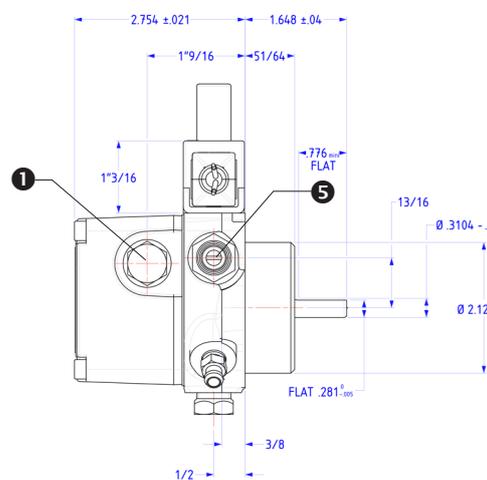
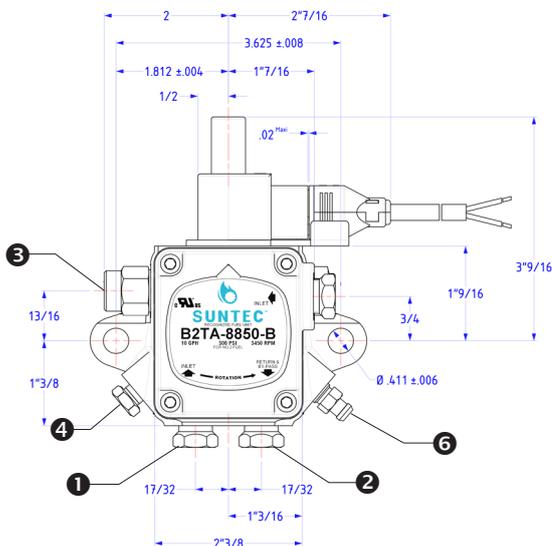
CORDSET TYPE
 N - NON DELAY
 X - NO CORDSET

R - R.H LEADS
 L - L.H LEADS
 (From shaft end)

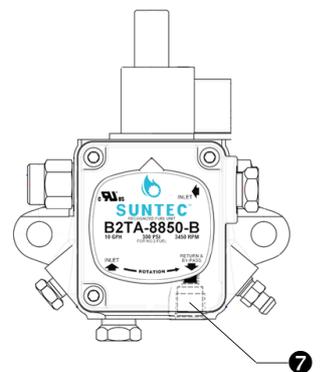
COIL VOLTAGE
 2 - 12 VDC/24 VAC
 6 - 115 VAC
 7 - 220 VAC

LEADS LENGHTS
 X1 - NO CORDSET
 21 - 13 INCH (PARTIAL JACKET)
 42, 53, 61 - 22.5 INCH (NO JACKET)

PUMP DIMENSIONS



Two-pipe system
(by-pass plug inserted
in return port)



- ① Inlet ② Return ③ Nozzle outlet ④ Pressure gauge port ⑤ Pressure adjustment ⑥ Bleeder valve ⑦ Internal by-pass plug