





**VU  
BVU**

**Universal fuel unit  
for oil burners**

# Universal fuel unit for oil burners

Type VU, BVU

## 1- Applications

The DELTA *Universal* fuel unit is an efficient and modern oil burner pump. Since its mounting flange, hub and shaft sizes are manufactured to international standards (EN 225-1), it can be fitted to every type of high pressure oil burner or transfer pump applications. Its features allow an easy pump replacement with every other type of oil pump. The same unit is provided with bilateral nozzle ports and is suitable for both clockwise and counter clockwise rotation.

### ⚠ WARNING

For the use with low viscosity fuel (lower than 2.5cSt, i.e. Kerosene) standard pump can be used without exceeding 12 bar.

To pump biodiesel or fuel containing it in any percentage, it is necessary the “B” version with special seals. On request the pump can be provided free of nonferrous metals.

This unit must not be used to pump water or acid.

## 2- Operation

The VU fuel unit consists of a pump, solenoid valve, filter and pressure regulator valve (1) housed within one casting. The pumping action is obtained from a gerotor (2), where the inner rotor is connected to the drive shaft (3). The pump casting provides the various oil ways, for the suction (6), return (5) and nozzle ports (9). Pressure (8) and vacuum (7) gauge ports are also provided.

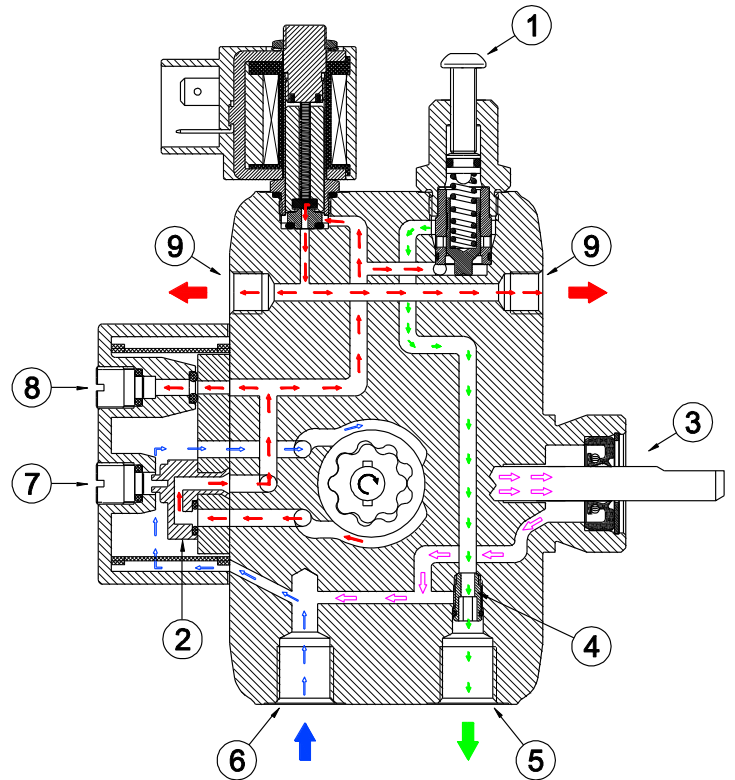
**Under the vacuum gauge is located the rotation selector (2). See the *Installation and Service Section*.**

The VU unit is supplied in two pipe version (self priming).

On start up, the rotating gears purge the air from the suction chamber, through a vent groove in the piston to the return line in two pipe version, and through the nozzle line (after the solenoid valve opening) in one pipe version.

On initial commissioning, it is possible to bleed the air more quickly, through the pressure gauge port.

Because a vacuum now exists oil, due to atmospheric pressure, enters the suction chamber through the filter.



From the suction side, the gears pass the oil to the pressure chamber, where it comes up against the head of the piston. Due to the build up of pressure, the piston is forced back against the pressure regulating spring. The flow of pressurized oil is interrupted by an incorporated solenoid valve, and can, therefore, be opened following the start of the motor (pre-purge), or interrupted before stopping the motor itself (instant shut-off of the flame preventing the nozzle dripping). The excessive oil discharges to the return side (or by-passes in the one pipe version). It will be realized of course that the spring tension, which is varied by the regulator screw, regulates the pressure of oil required.

The pump can be converted from the two pipe version to the single pipe version, removing the by-pass plug (4) from the return port.

When the unit is converted to the single pipe version, on initial commissioning the air must be bled through the pressure gauge port (in this case lift installation are not recommended).

### 3- Pump identification

VU      1      L      R      2      FA

#### Pump type

VU = standard version

BVU = biodiesel version  
(explicit request for nonferrous metals absence)

#### Nozzle capacity

(see graph)

#### Rotation - factory setting (seen from shaft end)

R = clockwise

L = counter clockwise

#### Nozzle line open - factory setting (seen from cover)

R = right

L = left

#### Pipes system - factory setting

1 = one pipe

2 = two pipes

#### Coil type

FA = NF84 230VAC 50/60Hz

FC = NF84 24VAC 50/60Hz

(coil with connector plug and cable set)

### 4- Technical specifications

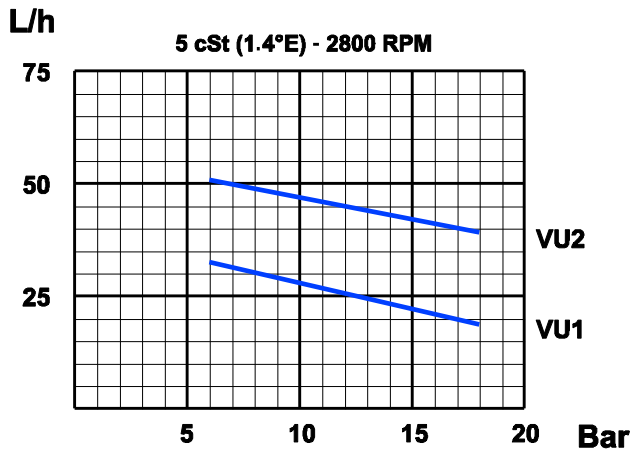
|                                 |   |
|---------------------------------|---|
| Oil viscosity .....             | 1,2 ÷ 12 cSt  |
| Oil temperature .....           | 60°C max.   |
| Power consumption .....         | See graphs  |
| Nozzle capacity .....           | See graphs  |
| Pressure range .....            | 6 ÷ 18 bar  |
| Suction line vacuum .....       | 0,5 bar max.  |
| Suction line pressure .....     | 2 bar max.  |
| Return line pressure .....      | 2 bar max.  |
| Starting torque .....           | 0,1 Nm max.   |
| Rotation speed .....            | 3500 rpm max.   |
| Standard strainer.....          | Nylon mesh 150µ, 20cm <sup>2</sup>  |
| Dimensions (EN 225-1) .....     | Hub Ø32, shaft Ø8   |
| Connections (ISO 228-1) .....   | Inlet – Return : G1/4<br>Nozzle port : G1/8<br>Pressure – vacuum gauge : G1/8   |
| Weight .....                    | 1050 g  |
| Standard factory settings ..... | Pressure setting:      10 ±0,3 bar<br>Standard coil:          230 VAC 50/60Hz<br>Standard cable set:    3 cores, 700 mm |

### 5- Solenoid valve specifications

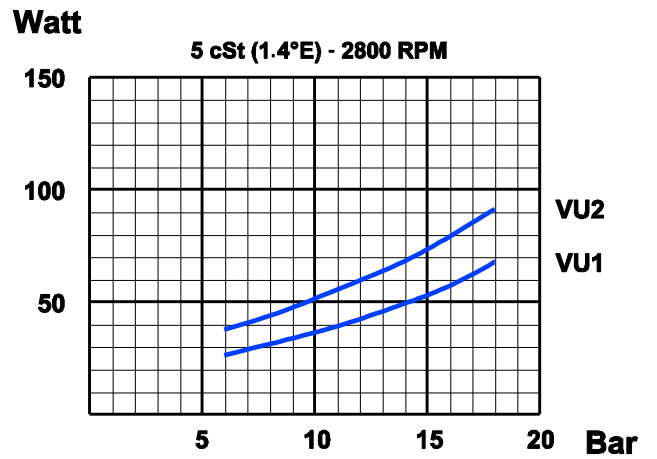
|                                  |                         |
|----------------------------------|-------------------------|
| Power absorbed .....             | 9 W                     |
| Voltage tolerance .....          | -15% / +10%             |
| Ambient temperature .....        | 0°C / 60°C              |
| Operating pressure .....         | 25 bar max.             |
| Flow factor (VDI/VDE 2173) ..... | 0,059 m <sup>3</sup> /h |
| Cut-off pressure .....           | 2 bar                   |
| Standards .....                  | EN ISO 23553-1          |

## 6- Diagrams

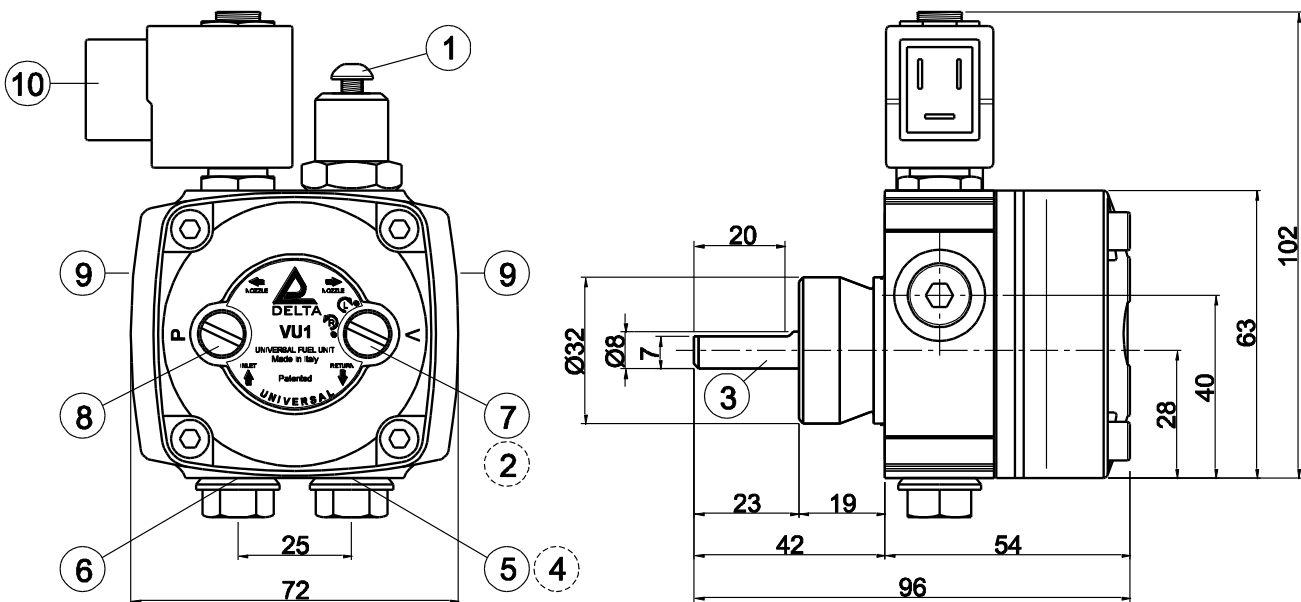
### Nozzle capacity



### Power consumption



## 7- Overall dimensions



- |                       |                   |
|-----------------------|-------------------|
| 1 Pressure regulation | 7 Vacuum gauge    |
| 2 Rotation selector   | 8 Pressure gauge  |
| 3 Shaft sealing       | 9 Nozzle ports    |
| 4 By pass             | 10 Solenoid valve |
| 5 Return              |                   |
| 6 Suction             |                   |

## 8- Bypass installation

To convert the DELTA fuel unit from the two pipe version to the single pipe version, do the following:

- Using a 4 mm Allen key, unscrew the bypass plug from the return port (Fig. 1).
- Fit a 1/4" plug into the return port (Fig. 2).

### **⚠ WARNING**

In the two pipe version the air is bled through the return port. After conversion, the air must be bled manually, through the pressure gauge port.

Make sure that the by-pass plug is not used in a single pipe installation, because the fuel unit will not function properly and damage to the pump and burner motor could result.

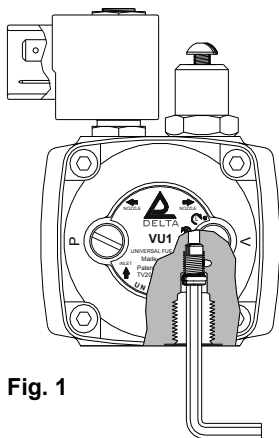


Fig. 1

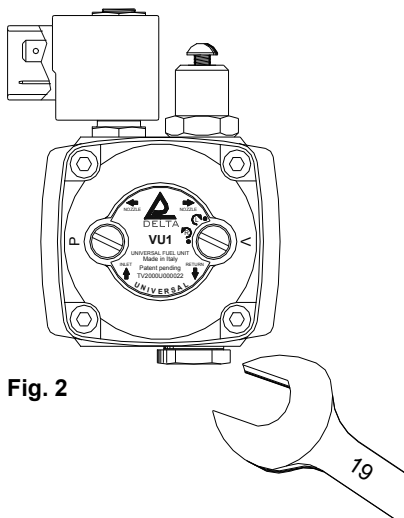


Fig. 2

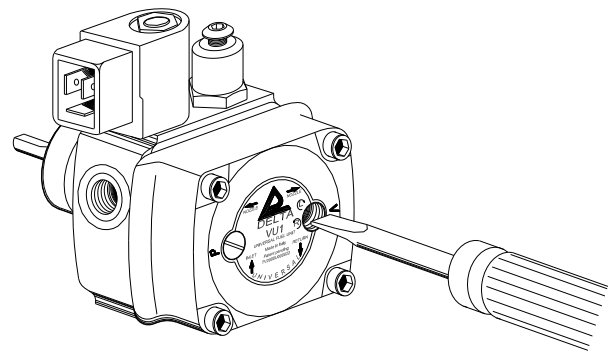


Fig. 3

## 9- Selection of rotation

The VU unit is provided with a screw for the selection of rotation, located under the vacuum gauge plug (V).

To change the direction of rotation do the following:

- Using a screw driver, remove the 1/8" plug from vacuum gauge port. Under the plug, inside the pump, is the selector screw.
- Turn it 90° up to the stop, to change the rotation (Fig. 3).

After conversion, check the O-ring is located on the bottom of the vacuum port and replace the 1/8" plug.

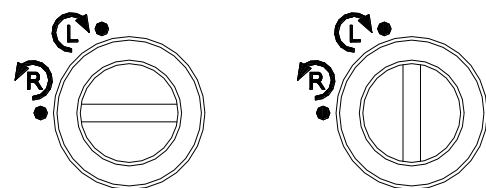


Fig. 4

**Clockwise**  
(seen from shaft end)

**Counter Clockwise**  
(seen from shaft end)

### **⚠ WARNING**

The selection screw must be oriented with the groove vertical (L) or horizontal (R), otherwise the fuel unit will not function properly and damage could result (Fig.4).

## 10- Installation and Maintenance

1. Make sure that the by-pass plug is not used in a single pipe installation, because the fuel unit will not function properly and damage to the pump and burner motor could result.
2. The rotation selector must be oriented with the groove vertical (L) or horizontal (R).
3. Do not use fuel with additives to avoid the possible formation over time of compounds which may deposit between the gear teeth, thus obstructing them.
4. After filling the tank, wait before starting the burner. This will give any suspended impurities time to deposit on the bottom of the tank, thus avoiding the possibility that they might be sucked into the pump.
5. On initial commissioning a dry operation is foreseen for a considerable length of time (for example, when there is a long suction line to bleed). To avoid damages inject some lubrication oil into the vacuum inlet.
6. Care must be taken when installing the pump not to force the pump shaft along its axis or laterally to avoid excessive wear on the joint, noise and overloading the gears.
7. Do not force the valve stem and do not use it as lever.
8. Pipes should not contain air pockets. The number of junctions should be kept to a minimum as they are a possible source of leakage.
9. Rapid attachment joint should therefore be avoided. Always use O-Rings or mechanical seal (copper or aluminium gaskets) junctions if possible.
10. Avoid overtightening:
  - G1/8 → 15 Nm max.
  - G1/4 → 20 Nm max.
11. Do not use PTFE tape on the suction and return line pipes to avoid the possibility that particles enter circulation. These could deposit on the pump filter or the nozzle, reducing efficiency.
12. When junction threads, elbow joints and couplings are sealed with removable glue, avoid excessive quantities, which could enter in the oil ways and damage to the pump could result.
13. To clean the filter remove the cover. It must be thoroughly cleaned at least once in a season to ensure correct working of the fuel unit. The filter must be mounted with the supporting legs leaned against the pump body. If the joint plate between cover and pump housing should be damaged, it must be replaced. An external filter should always be installed in the suction line upstream of the fuel unit.
14. Make sure the combustion chamber is free of oil or oil vapour before operating the system.
15. Protection against accidental touch of hot coil must be assured by appropriate installation.

## 11- Nozzle Pressure Test

Most nozzles ratings are based upon 100 PSIG (6,89 Bar) delivered oil pressure. The flow rate at the desired pressure must be estimated using the nozzle manufacturers data sheets. To insure that oil is delivered to the burner nozzle at the desired pressure, do the following:

1. Remove the 1/8" plug from the port marked "P" and connect a pressure gauge to this port (use a gauge of 0 to 20 Bar or greater). The "P" port (Pressure Gauge Test Port) has been provided specifically for the connection of the pressure gauge for measuring the nozzle pressure; however, when available, it is also permissible to use the vent port for measuring nozzle pressure.
2. Start the burner motor, energize the solenoid valve and vent all air from the fuel unit and connected suction line system.
3. Check the adjustable nozzle pressure range of the fuel unit, using a 4 mm Allen key, turning the adjusting screw counter clockwise to lower the nozzle pressure and clockwise to increase the nozzle pressure.

### WARNING

**Adjust the nozzle pressure in accordance with the burner manufacturers specifications.**

## 12- Nozzle Cut-Off Test

Fuel oil is not compressible but air is. Air trapped in the nozzle line, anywhere between the fuel unit's nozzle port and the nozzle itself, will compress during burner operation. Following burner shutdown, any trapped compressed air will expand displacing the oil in the nozzle line, forcing continued oil flow through the nozzle that will, in effect, falsely appear to be poor fuel unit Cut-Off. This occurrence is particularly common with low flow rate nozzles used in conjunction with long air tubes.

To verify positive nozzle Cut-Off after burner shutdown, do the following:

1. Remove the nozzle line and fitting from the nozzle port of the fuel unit and connect a 1/8" pressure gauge to the nozzle port (a gauge of 20 Bar or greater be used). It may be more convenient to use a gauge fitted out with an extension nipple or with a line and flare nut to connect directly to the fitting installed into the nozzle port. If any type of extension is used between the nozzle port and the gauge, it should be kept as short as possible to minimize the amount of trapped air.
2. Start the burner motor, energize the solenoid valve and vent all air from the fuel unit and connected suction line system.
3. Shut off the burner motor. Initially the pressure will drop and then stabilize within a second or two. The pressure reading on the gauge should stabilize at 2 Bar or greater and hold for at least two minutes.

## 13- Vacuum Test

The vacuum test is necessary to verify the fuel unit's suction ability, to evaluate the leak tight integrity of the entire fuel unit and connected oil suction line piping system, to confirm that there are no abnormal restrictions in the oil suction line system, and, to confirm that the system vacuum is within the allowable specification limits of the unit. Please watch in any case the graphs for maximum suction line length depending on line diameter, viscosity, difference in height of suction line and pump or nozzle capacity. To perform the test, do the following:

1. Remove the 1/8" plug from the port marked "V" and connect a vacuum gauge to this port.
2. Start the burner motor, energize the solenoid valve and vent all air from the fuel unit and connected suction line system.
3. With the burner motor running, close the valve connected to the inlet port. You will note that the vacuum as measured by the vacuum gauge will increase. Allow the burner motor to continue to run until the highest vacuum reading is achieved. A fully primed fuel unit in good condition should be capable of pulling at least 0,7 Bar. If not, before condemning the fuel unit, be sure that all connections and plugs are tight, the cover gasket is in good condition and the valve is in good working order.
4. De-energize the solenoid valve and shut off the burner motor. Initially, the vacuum reading will drop and then stabilize within a second or two. Once the vacuum reading stabilizes, record the reading. If the fuel unit is free of leaks, this reading should hold constant for at least 2 minutes. If the vacuum reading drops, there is a leak that must be located and corrected.
5. When each leakage is removed and the valve onto suction line is open, check to be sure that the actual operating vacuum does not exceed 0,5 Bar.

### CAUTION

**Turn off all power before servicing any part of the system.**

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We reserves the right to update or make technical changes without prior notice.

## GENERAL INFORMATION

**WARRANTY**  
Elettromeccanica Delta S.p.a. warrants its products to be free from defects in material and workmanship, when installed properly and adequately maintained by a qualified technician, and operated under normal use/conditions, consistent with published DELTA data (see the Warranty Conditions).

**INSTALLATION**  
All work must be performed by a qualified technician familiar with oil heating systems and licensed by the proper authority where applicable.  
This unit must be installed in compliance with the low in force.

**PRODUCT DISPOSAL**  
The device contains electronic components and cannot therefore be disposed of as normal household waste. For the disposal procedure, please refer to the local rules in force for special waste.

**UPDATING**  
Elettromeccanica Delta S.p.a. reserves the right to update or make technical changes without prior advice.

## ALLGEMEINE HINWEISE

**GARANTIE**  
Elettromeccanica Delta S.p.a. garantiert, daß seine Produkte in Material und Verarbeitung fehlerfrei sind für den Fall ordnungsgemäßer Installation und ausreichender Wartung durch technisches Fachpersonal, bei normalem Gebrauch bzw. unter normalen Bedingungen gemäß den Angaben von DELTA (siehe Garantiebedingungen).

**EINBAU**  
Die Installation ist von einem mit Ölfeuerungen vertrauten und zugelassenen Techniker durchzuführen. Dieses Gerät ist vorschriftsgemäß einzubauen.

**PRODUKTENTSORGUNG**  
Das Gerät enthält elektronische Bauteile und kann daher nicht als normaler Hausmüll entsorgt werden. Für das Entsorgungsverfahren beachten Sie bitte die für Sondermüll geltenden örtlichen Vorschriften.

**ÄNDERUNGEN**  
Elettromeccanica Delta S.p.a. behält sich das Recht zu technischen Änderungen ohne vorherige Ankündigung vor.

## INFORMAZIONI GENERALI

**GARANZIA**  
Elettromeccanica DELTA S.p.A. garantisce i propri prodotti per difetti dei materiali e di lavorazione, purché questo sia installato da personale qualificato e in conformità alle indicazioni riportate nella documentazione tecnica (vedere le Condizioni di Garanzia).

**INSTALLAZIONE**  
Tutti i lavori di installazione e manutenzione devono essere eseguiti da personale qualificato e autorizzato. Questo dispositivo deve essere installato in accordo con le leggi in vigore.

**SMALTIMENTO DEL PRODOTTO**  
Il dispositivo contiene componenti elettronici e non può quindi essere smaltito come normale rifiuto domestico. Per la procedura di smaltimento, fare riferimento alle normative locali in vigore per i rifiuti speciali.

**AGGIORNAMENTO**  
Elettromeccanica Delta S.p.a. si riserva la facoltà di apportare aggiornamenti o modifiche tecniche senza preavviso.

## INFORMATIONS GENERALES

**GARANTIE**  
La Maison Elettromeccanica DELTA S.p.A. garantit ses produits pour tout défaut relatif au matériel ou à la fabrication, à condition que l'installation ait été effectuée par du personnel qualifié et conformément aux instructions de la documentation technique (voir Conditions de Garantie).

**INSTALLATION**  
Toutes les opérations d'installation et de maintenance doivent être effectuées par du personnel qualifié et autorisé. Ce dispositif doit être installé conformément aux lois en vigueur.

**ÉLIMINATION DU PRODUIT**  
L'appareil contient des composants électroniques et ne peut donc pas être éliminé comme un déchet ménager normal. Pour la procédure d'élimination, veuillez vous référer aux règles locales en vigueur pour les déchets spéciaux.

**MISE À JOUR**  
La Maison Elettromeccanica Delta S.p.a. se réserve le droit d'effectuer toute mise à jour ou modifications techniques sans aucun préavis.

ELETTROMECCANICA DELTA S.P.A. - Via Trieste 132, 31030 Arcade (TV) ITALY - tel. ++39 0422 874068 - fax ++39 0422 874048

## BY-PASS INSTALLATION

To convert the DELTA fuel unit from the single pipe version to the two pipe version, do the following:

- Using a 19 mm wrench, remove the 1/4" plug from return port (Fig. 1).
- Located inside the return plug is the by-pass plug. Remove it with a 4 mm Allen wrench (Fig. 2).
- Fit the by-pass plug in the return port (Fig. 3).

To convert the DELTA fuel unit from the two pipe version to the single pipe version, do the following:

- Using a 4 mm Allen wrench, unscrew the by-pass plug from the return port (Fig. 3).
- Fit a 1/4" plug into the return port (Fig. 1).

## INSTALLATION DER BY-PASS SCHRAUBE

Um die DELTA Ölbrennerpumpe von Einstrang- auf Zweistrangversion umzubauen, ist folgendermaßen vorzugehen:

- Entfernen Sie den 1/4" Stopfen mit einem Gabelschlüssel Größe 19 mm vom Rücklauf (Fig. 1).
- Auf der Innenseite des Stopfens befindet sich die Bypass-Schraube. Zum Entfernen einen Innensechskantschlüssel Größe 4 mm verwenden (Fig. 2).
- Schrauben Sie die Bypass-Schraube in den Rücklauf (Fig. 3).

Um die DELTA Ölbrennerpumpe von Zweistrang- auf Einstrangversion umzubauen, ist folgendermaßen vorzugehen:

- Entfernen Sie die Bypass-Schraube mit einem Innensechskantschlüssel Größe 4 mm aus dem Rücklauf (Fig. 3). Bewahren Sie den Stopfen zur eventuellen späteren Verwendung auf.
- Verschließen Sie den Rücklauf mit einem 1/4" Stopfen (Fig. 1).

## INSTALLAZIONE BY-PASS

Per convertire una pompa DELTA da monotubo a bitubo, procedere come segue:

- Usando una chiave esagonale da 19 mm, rimuovere il tappo da 1/4" che ostruisce il foro di ritorno (Fig. 1).
- All'interno del tappo da 1/4" è avvitata la boccia di by-pass. Rimuoverla con una chiave brugola da 4 mm (Fig. 2).
- Inserire ed avvitare la boccia di by-pass all'interno del foro di ritorno (Fig. 3).

Per convertire una pompa DELTA da bitubo a monotubo, procedere come segue:

- Usando una chiave brugola da 4 mm, svitare la boccia by-pass dal foro di ritorno (Fig. 3).
- Inserire ed avvitare un tappo da 1/4" nel foro di ritorno (Fig. 1).

## SELECTION OF ROTATION

The VU unit is provided with a screw for the selection of rotation, located under the vacuum gauge plug (V).

To change the direction of rotation do the following:

- Using a screw driver, remove the 1/8" plug from vacuum gauge port. Under the plug, inside the pump, is the selector screw.
- Turn it 90° up to the stop, to change the rotation (Fig. 4).

After conversion, check the O-ring is located on the bottom of the vacuum port and replace the 1/8" plug.

**CAUTION:** The selection screw must be oriented with the groove vertical L or horizontal R (Fig. 5), otherwise the fuel unit will not function properly and damage could result.

## DREHRICHTUNGSWAHL

Die VU-Pumpe ist mit einer Einstellschraube für die Drehrichtung ausgestattet, die sich unter dem Vakuum-Anschluß (V) befindet.

Um die Drehrichtung zu ändern, ist folgendermaßen vorzugehen:

- Mit einem Schraubenzieher ist der Verschluss-Stopfen 1/8" vom Vakuum-Anschluß zu entfernen. Unter der Schraube befindet sich im Inneren der Pumpe der Drehrichtungswähler.
- Für Linkslauf ist die Schraube bis an den Anschlag um 90° in die senkrechte Position zu drehen (Fig. 5).

Nach der Umstellung ist zu überprüfen, daß sich der O-Ring korrekt im Vakuum-Anschluß befindet, bevor der Stopfen 1/8" wieder eingeschraubt wird.

**ACHTUNG:** Der Drehrichtungswähler muß mit dem Schütz exakt senkrecht L oder exakt waagrecht R stehen (Fig. 5), sonst ist eine ordnungsgemäße Funktion der Pumpe nicht gewährleistet und es kann zu Schäden kommen.

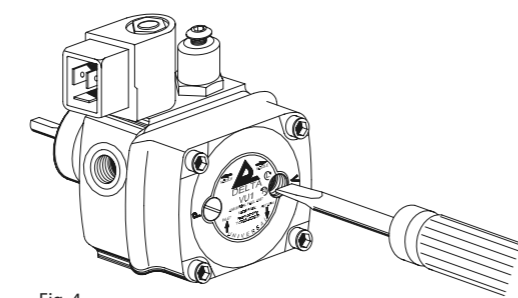
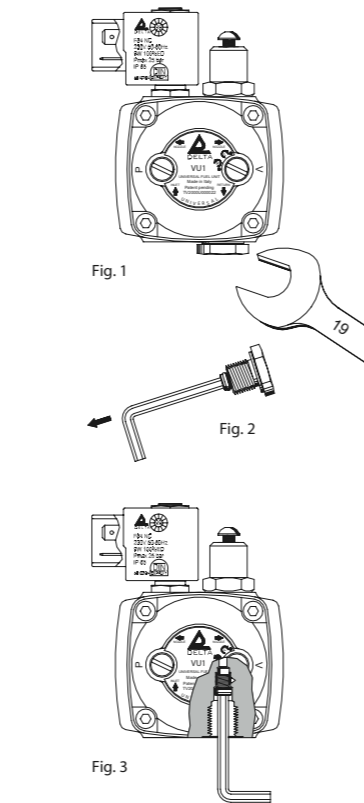


Fig. 4



## INSTALLATION BY-PASS

Pour convertir une pompe DELTA à système mono tube par un système bitube, procéder comme suit:

- Utilisez une clé hexagonale de 19 mm, ôtez le bouchon de 1/4". Otez-le avec une clé six pans mâle de 4 mm (Fig. 2).
- La bague by-pass est vissée à l'intérieur du bouchon 1/4". Otez-la avec une clé six pans mâle de 4 mm (Fig. 2).
- Insérez et vissez la bague by-pass à l'intérieur de l'orifice de retour (Fig. 3).

Pour convertir une pompe DELTA à système bitube par un système mono tube, procéder comme suit:

- Utilisez une clé six pans mâle de 4 mm, dévissez la bague by-pass de l'orifice de retour (Fig. 3).
- Insérez et vissez un bouchon 1/4" dans l'orifice de retour (Fig. 1).

## SELEZIONE DELLA ROTAZIONE

La pompa VU è provvista di una vite di selezione del senso di rotazione, posizionata sotto il tappo della presa vuoto (V).

Per cambiare il senso di rotazione procedere come segue:

- Usando un cacciavite, togliere il tappo da 1/8" che ostruisce la presa vuoto. Sotto il tappo, all'interno della pompa, è ora visibile la vite di selezione.
- Girare la vite di 90° fino al bloccaggio, per cambiare il senso di rotazione (Fig. 4).

Dopo la conversione, verificare che l'O-ring sia posizionato sul fondo della presa vuoto, quindi riavvitare il tappo da 1/8".

**ATTENZIONE:** La vite di selezione deve essere orientata con il taglio cacciavite in direzione verticale L od orizzontale R (Fig. 5), altrimenti la pompa non funzionerebbe correttamente e potrebbe danneggiarsi.

## SELECTION DE LA ROTATION

L'unité VU est équipée d'une vis qui permet de sélectionner le sens de rotation, cette vis se trouve sous le bouchon du manomètre (V).

Pour modifier ce sens de rotation, effectuer les opérations suivantes:

- Utiliser un tournevis, enlever le bouchon 1/8" de l'ouverture du manomètre. En dessous du bouchon, à l'intérieur de la pompe, se trouve la vis de sélection.
- La tourner de 90° jusqu'au blocage, pour permettre une rotation dans le sens contraire (Fig. 4).

Après avoir effectué la conversion, vérifier que la bague d'étanchéité OR se trouve sur l'ouverture de vite et revisser le bouchon 1/8".

**ATTENTION:** La vis de sélection doit être orientée avec la rainure dans le sens vertical L ou horizontal R (Fig. 5), autrement l'unité d'alimentation en combustible ne fonctionnera pas correctement et pourrait être endommagée.

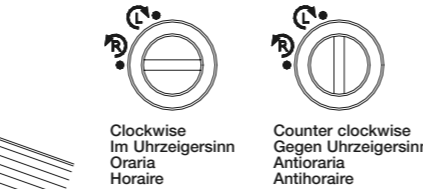
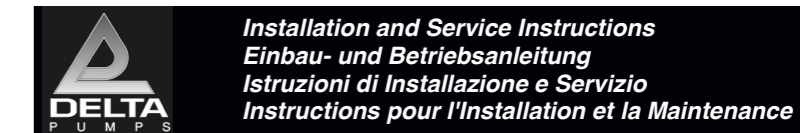
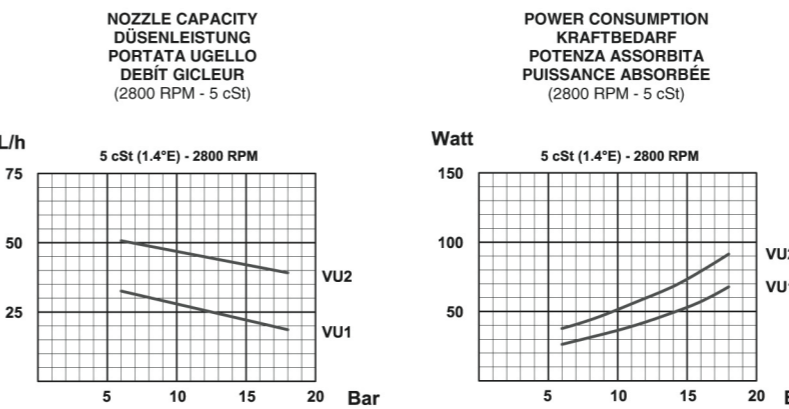


Fig. 5

## PUMP IDENTIFICATION PUMPE-KENNEICHNUNG IDENTIFICAZIONE POMPA IDENTIFICATION POMPE

|   | VU | 1 | L | R | 2 |
|---|----|---|---|---|---|
| <b>Pump type / Pumpen-Typ</b><br>Tpo pompa / Type pompe<br>VU = Standard<br>BVU = Biodiesel   |    |   |   |   |   |
| <b>Nozzle capacity / Düsenleistung</b><br>Portata ugello / Debit gicleur<br>(See graphs/Siehe Diagramme/Vedi grafici/Voir schémas)  |    |   |   |   |   |
| <b>Rotation / Drehrichtung / Rotazione / Rotation</b><br>(seen from shaft end/auf Welle gesehen/vista dall'albero/vue de l'arbre)<br>R = clockwise / im Uhrzeigersinn / oraria / horaire<br>L = counter clockwise / gegen Uhrzeigersinn / anti oraria / antihoraire   |    |   |   |   |   |
| <b>Nozzle line / Düsenleitung / Mandata / Refoulement gicleur</b><br>(seen from cover / auf Deckel gesehen / vista dal coperchio / vue du couvercle)<br>R = right / rechts / destra / droite<br>L = left / links / sinistra / gauche  |    |   |   |   |   |
| <b>Pipes system / Rohrleitungssystem / Sistema tubazioni / Système de conduites</b><br>1 = one pipe / einstrang / monotubo / monotube<br>2 = two pipe / zweistrang / bitubo / bitube  |    |   |   |   |   |
| <b>Pressure range / Druckbereich / Gamma pressioni / Gamme pressions</b><br>6 + 18 bar ( 90 + 260 psi)  |    |   |   |   |   |
| <b>Setting / Einstellung / Taratura / Reglage</b><br>10 bar (145 psi) *<br>* Delivery closed / Saugleitung geschlossen / Mandata chiusa / Refoulement fermée  |    |   |   |   |   |
| <b>Coil specifications / Spule Spezifikationen / Caratteristiche bobina / Caracteristique du bobine</b><br>F = F84 Coil with connector / Spule mit Stecker / Bobina con connettore / Bobine avec connecteur<br><b>Available voltages / Lieferbare Spannung / Tensioni disponibili / Tension disponibles</b><br>380V 50/60Hz 230V 50/60Hz 110V 50/60Hz 24V 50/60Hz 24V DC 12V DC |    |   |   |   |   |



## Type VU - Universal

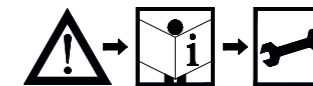
Patented

## OIL BURNERS FUEL UNIT ÖLBRENNERPUMPE POMPA PER BRUCIATORI POMPE POUR BRÛLEUR A FUEL



Made in Italy

0319



## TECHNICAL SPECIFICATIONS

|                              |                           |                     |   |
|------------------------------|---------------------------|---------------------|---|
| <b>Oil viscosity</b>         | 1,2 + 12 cSt              | <b>Filter</b>       | Nylon cloth 150 µ, 20 cm²   |
| <b>Oil temperature</b>       | 60°C (140°F) max          | <b>Dimensions</b>   | Hub dia. 32 mm, shaft dia. 8 mm<br>Optional: flange hub dia. 54 mm                  |
| <b>Pressure range</b>        | 6 + 18 bar (90 + 260 psi) | <b>Connections</b>  | Inlet - Return port: G1/4"<br>Nozzle port : G1/8"<br>Pressure - Vacuum gauge: G1/8" |
| <b>Setting (*)</b>           | 10 bar (145 psi)          | <b>Weight</b>       | 1050 gr   |
| <b>Suction line vacuum</b>   | 0,5 bar (15 inHg) max     | <b>Cable length</b> | 700 mm  |
| <b>Suction line pressure</b> | 2 bar (29 psi) max        |                     |   |
| <b>Return line pressure</b>  | 2 bar (29 psi) max        |                     |   |
| <b>Cut-Off pressure</b>      | 6 bar                     |                     |   |
| <b>Rotation speed</b>        | 3500 RPM max              |                     |   |
| <b>Voltage rating</b>        | 230V 50/60 Hz - 9W        |                     |   |
| (*) Delivery closed          |                           |                     |   |

## TECHNISCHE SPEZIFIKATIONEN

|                             |                           |                      |  |
|-----------------------------|---------------------------|----------------------|--|
| <b>Ölviskosität</b>         | 1,2 + 12 cSt              | <b>Filter</b>        | Nylon Gewebe 150 µ, 20 cm²   |
| <b>Öltemperatur</b>         | max. 60°C (140°F)         | <b>Abmessungen</b>   | Naben-∅ 32 mm, Wellen-∅ 8 mm<br>Optional: Flansch Naben-∅ 54 mm                      |
| <b>Druckbereich</b>         | 6 + 18 bar (90 + 260 psi) | <b>Anschlüsse</b>    | Vorlauf - Rücklauf: G1/4"<br>Düsenausgang : G1/8"<br>Manometer - Vakuum-Meter: G1/8" |
| <b>Einstellung (*)</b>      | 10 bar (145 psi)          | <b>Gewicht</b>       | 1050 Gramm   |
| <b>Vakuum saugseitig</b>    | max. 0,5 bar (15 inHg)    | <b>Kabel-Laengen</b> | 700 mm   |
| <b>Druck saugseitig</b>     | 2 bar (29 psi) max        |                      |  |
| <b>Druck rücklaufseitig</b> | 2 bar (29 psi) max        |                      |  |
| <b>Schließdruck</b>         | 6 bar                     |                      |  |
| <b>Drehzahl</b>             | max. 3500 UPM             |                      |  |
| <b>Spannungs</b>            | 230V 50/60 Hz - 9W        |                      |  |
| (*) Saugleitung geschlossen |                           |                      |  |

## CARATTERISTICHE TECNICHE

|                                 |                           |                       |  |
|---------------------------------|---------------------------|-----------------------|--|
| <b>Viscosità olio</b>           | 1,2 + 12 cSt              | <b>Filtro</b>         | Maglia in nylon 150 µ, 20 cm²  |
| <b>Temperatura olio</b>         | 60°C (140°F) max          | <b>Dimensioni</b>     | Mozzo ∅32 mm, albero ∅8 mm<br>Optional: flangia mozzo ∅54 mm                             |
| <b>Gamma pressione</b>          | 6 + 18 bar (90 + 260 psi) | <b>Connessioni</b>    | Aspirazione - Ritorno: G1/4"<br>Mandata ugello : G1/8"<br>Presa Pressione - Vuoto: G1/8" |
| <b>Taratura (*)</b>             | 10 bar (145 psi)          | <b>Peso</b>           | 1050 gr  |
| <b>Vuoto in aspirazione</b>     | 0,5 bar (15 inHg) max     | <b>Lunghezza cavo</b> | 700 mm   |
| <b>Pressione in aspirazione</b> | 2 bar (29 psi) max        |                       |  |
| <b>Pressione in ritorno</b>     | 2 bar (29 psi) max        |                       |  |
| <b>Pressione di Cut-Off</b>     | 6 bar                     |                       |  |
| <b>Velocità di rotazione</b>    | 3500 g/min max            |                       |  |
| <b>Voltaggio</b>                | 230V 50/60 Hz - 9W        |                       |  |
| (*) Mandata chiusa              |                           |                       |  |

## CARACTERISTIQUES TECHNIQUES

|                               |                           |                          |   |
|-------------------------------|---------------------------|--------------------------|---|
| <b>Viscosité de l'huile</b>   | 1,2 + 12 cSt              | <b>Filtre</b>            | Toile en nylon 150 µ, 20 cm²  |
| <b>Température de l'huile</b> | 60°C (140°F) max.         | <b>Dimensions</b>        | Moyeu ∅ 32 mm, arbre ∅ 8 mm<br>Sur option: flange moyeu ∅ 54 mm                     |
| <b>Gamma pression</b>         | 6 + 18 bar (90 + 260 psi) | <b>Raccords</b>          | Aspiration - Retour: G1/4"<br>Refoulement gicleur : G1/8"<br>Pression - Vide: G1/8" |
| <b>Reglage (*)</b>            | 10 bar (145 psi)          | <b>Poids</b>             | 1050 gr   |
| <b>Vide en aspiration</b>     | 0,5 bar (15 inHg) max     | <b>Longueur du Câble</b> | 700 mm  |
| <b>Pression en aspiration</b> | 2 bar (29 psi) max        |                          |   |
| <b>Pression de retour</b>     | 2 bar (29 psi) max        |                          |   |
| <b>Pression de blocage</b>    | 6 bar                     |                          |   |
| <b>Vitesse de rotation</b>    | 3500 t/min max            |                          |   |
| <b>Tension</b>                | 230V 50/60 Hz - 9W        |                          |   |
| (*) Refoulement fermée        |                           |                          |   |

