

FOGLIO ISTRUZIONI
INSTRUCTION LEAFLET
HOJA DE INSTRUCCIONES
NOTICE
ΦΥΛΛΟ ΟΔΗΓΙΩΝ
FIȘĂ DE INSTRUCȚIUNI
ANWEISUNGSBLATT

ART.

4744

4745

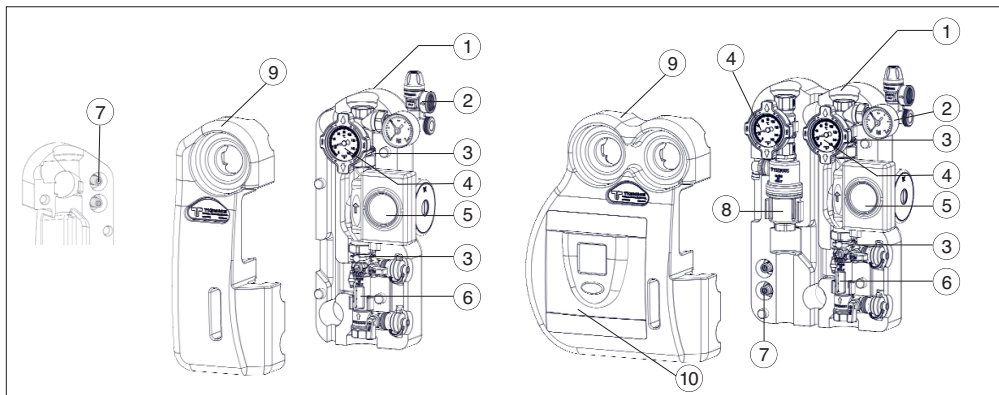


- I** MONTAGGIO DEI GRUPPI IDRAULICI PER IMPIANTI SOLARI TERMICI
- F** MONTAGE DU GROUPE HYDRAULIQUE POUR INSTALLATIONS SOLAIRES THERMIQUES
- GR** ΣΥΝΑΡΜΟΛΟΓΗΣΗ ΤΗΣ ΥΔΡΑΥΛΙΚΗΣ ΜΟΝΑΔΑΣ ΓΙΑ ΗΛΙΑΚΑ ΘΕΡΜΙΚΑ ΣΥΣΤΗΜΑΤΑ
- DE** MONTAGE DER PUMPENGRUPPE FÜR SOLARTHERMIE-SYSTEME
- GB** START UP HYDRAULIC SOLAR UNITS
- E** MONTAJE DEL GRUPO HIDRÁULICO PARA INSTALACIONES
- RO** MONTAJUL GRUPULUI HIDRAULIC PENTRU INSTALAȚII TERMICE CU PANOURI SOLARE

1 INFORMAZIONI GENERALI

Le seguenti istruzioni descrivono il funzionamento, l'installazione e la messa in servizio dei gruppi idraulici art. 4744 e art. 4745 per impianti solari termici. Queste istruzioni non costituiscono una descrizione completa dei gruppi idraulici. L'uso non conforme allo scopo dei gruppi idraulici esclude qualsiasi tipo di garanzia.

2 DESCRIZIONE DEL PRODOTTO



1. Isolamento posteriore in EPP
2. Gruppo di sicurezza con manometro 0-10 bar, valvola di sicurezza 6 bar e attacco vaso espansione
3. Clips per fissaggio di sicurezza
4. Valvola a sfera con termometro e valvola di non ritorno
5. Pompa di circolazione
6. Flussimetro per la regolazione e la visualizzazione della portata in l/min, con attacchi per il carico/scarico impianto
7. Portagomma
8. Degasatore con valvola scarico manuale
9. Isolamento frontale in EPP
10. Regolatore elettronico (optional)

2.1 FUNZIONE

I gruppi idraulici per impianti solari termici art. 4744 e art. 4745 svolgono la funzione di regolare la temperatura all'interno del bollitore. La pompa all'interno dei gruppi viene attivata dal segnale proveniente dal regolatore di temperatura differenziale. Attraverso i termometri è possibile controllare le temperature istantanee di mandata e di ritorno. Inoltre nei gruppi sono inseriti i dispositivi di sicurezza e funzionali per il controllo ottimale del circuito.

2.2 POMPA

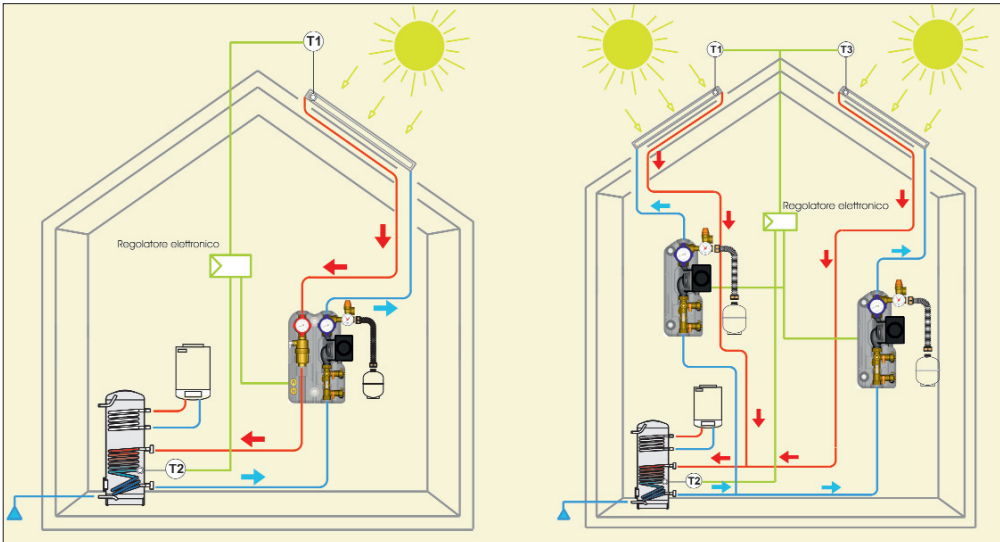
I gruppi idraulici per impianti solari termici possono essere forniti con le seguenti pompe:

- Grundfos solar UPM3 15/75
- Wilo Para ST 15/7.0
- Grundfos solar 15/65 (*)

(*) Disponibile per paesi extra UE

3 INSTALLAZIONE E MESSA IN ESERCIZIO

3.1 SCHEMA COLLEGAMENTO

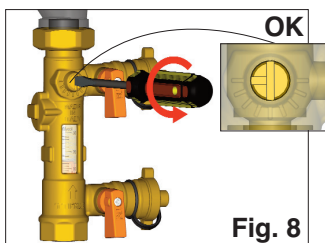
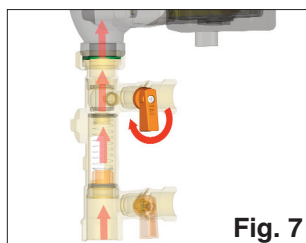
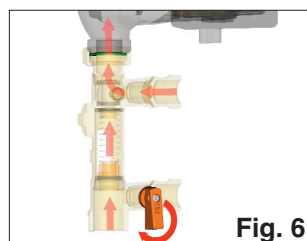
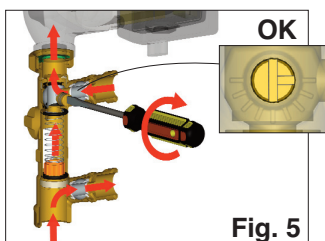
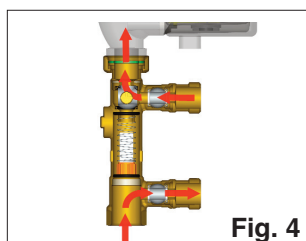
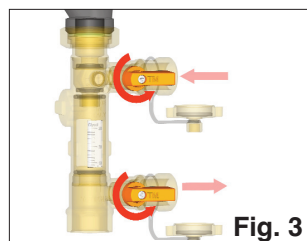
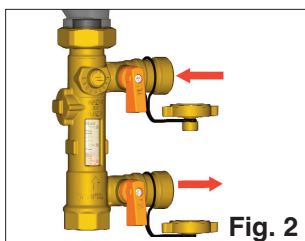
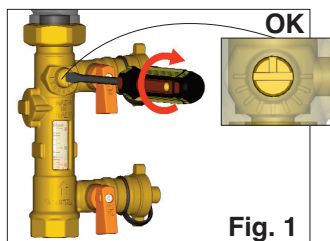


3.2 LAVAGGIO IMPIANTO

- Prima di avviare l'impianto è consigliabile eseguire un lavaggio per eliminare le impurità presenti all'interno del circuito:
- Per mezzo di un cacciavite ruotare la vite indicata in fig. 1 fino alla posizione corretta;
 - Collegare la pompa di carico alle prese del gruppetto di carico/scarico secondo la direzione del flusso come in figura 2;
 - Aprire le valvole a sfera di carico/scarico (vedi figura 3);
 - Riempire l'impianto con il liquido per il lavaggio facendo circolare il fluido per il tempo necessario alla completa pulizia dell'impianto (vedi figura 4);
 - Scollegare le prese di carico e far defluire il liquido.

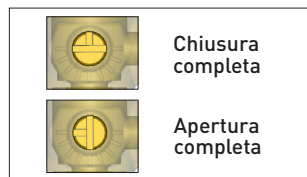
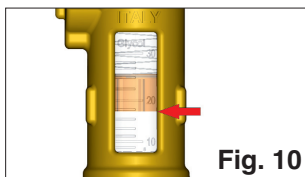
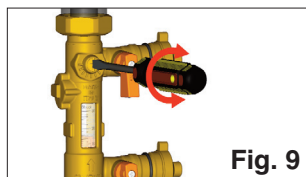
3.3 CARICAMENTO/AVVIAMENTO

- Per mezzo di un cacciavite ruotare la vite indicata in fig. 1 fino alla posizione corretta;
- Collegare la pompa di carico alle prese del gruppetto di carico/scarico secondo la direzione del flusso come in figura 2;
- Aprire le valvole a sfera di carico/scarico (vedi figura 3);
- Riempire l'impianto con il liquido solare adeguato facendo circolare il fluido per il tempo necessario alla totale fuoriuscita dell'aria dall'impianto (vedi figura 4);
- Posizionare la vite di regolazione come da fig. 5;
- Chiudere la valvola di scarico come da fig. 6 e pressurizzare l'impianto fino alla pressione di esercizio desiderata;
- Chiudere la valvola di carico (fig. 7), riportare nella posizione iniziale la vite di regolazione (fig. 8) e mettere in funzione l'impianto.



3.4 REGOLAZIONE IMPIANTO

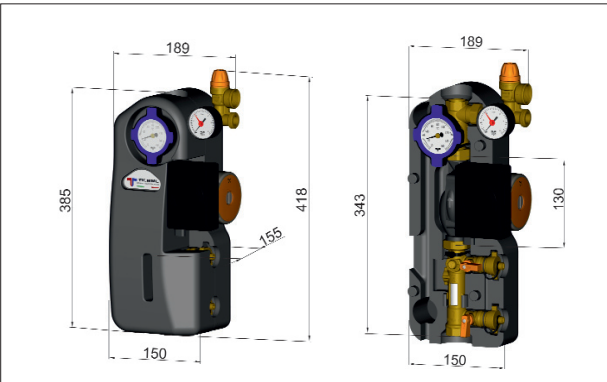
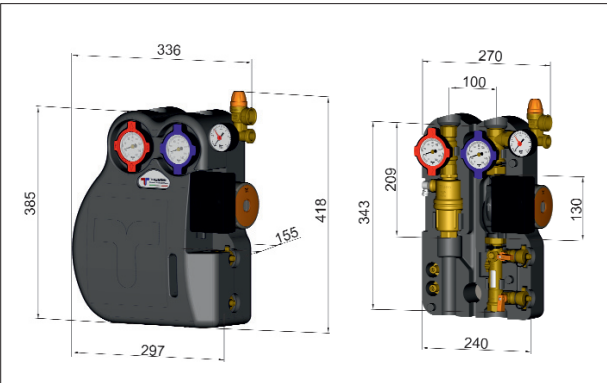
- Attivare la pompa di circolazione dell'impianto;
- Per mezzo di una cacciavite ruotare la vite indicata in figura 9 fino al raggiungimento del valore desiderato, valore mostrato dall'indicatore galleggiante (figura 10).



Nel caso si utilizzi la versione con il sensore elettronico per il montaggio e la messa in servizio fare riferimento alle altre istruzioni all'interno della confezione.

4 DATI TECNICI

MATERIALE CORPO	OTTONE CW 617 N
MATERIALE GUARNIZIONI	EPDM Perox, gomma fluorata
MATERIALE GUSCIO ISOLANTE	EPP
DIMENSIONE	DN 25 (1")
CONNESSIONI	3/4" Femmina
P _{max} DI UTILIZZO	10 bar
T _{max} DI UTILIZZO	160° C
POMPA	-Grundfos solar UPM3 15/75 -Wilo Para ST 15/7.0 -Grundfos solar 15/65 (*)
FLUSSIMETRO	1-10 U/min 8-30 U/min Con sensore elettronico 2-40 U/min

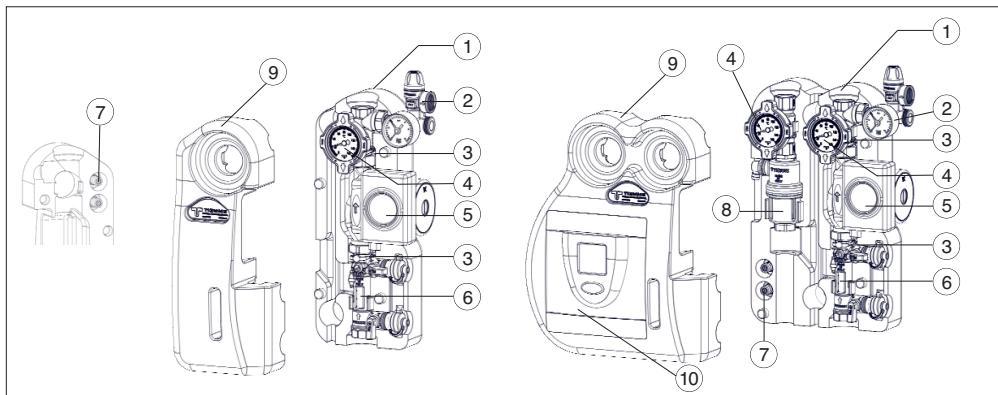


(*) Disponibile per paesi extra UE

1 GENERAL INFORMATION

This instructions describe the function, installation and start up of the hydraulic solar units art. 4744 and art. 4745. The instructions aren't a complete description of the hydraulic solar unit. Improper usage excludes any liability claims.

2 PRODUCT DESCRIPTION



1. Insulating EPP box (back)
2. Safety unit consisting of: Manometer 0/10 bar, 6 bar solar safety valves, 3/4" connection for expansion vessel
3. Security clips
4. Shut-off valves with integrated thermometers and check-valve
5. Solar pump
6. Visual flow balancing valve of filling and drain group
7. Hose connection
8. Air vent unit with manual vent
9. Insulating EPP box (cover)
10. Electronic regulator (optional)

2.1 FUNCTION

Hydraulic solar units art. 4744 and art. 4745 is used to control of the temperature inside the tank.

The pump inside the units is activated by the signal from the differential temperature regulator.

The temperatures is controlled by the thermometers. The unit contain the functional and safety devices for an optimal circuit control.

2.2 PUMP

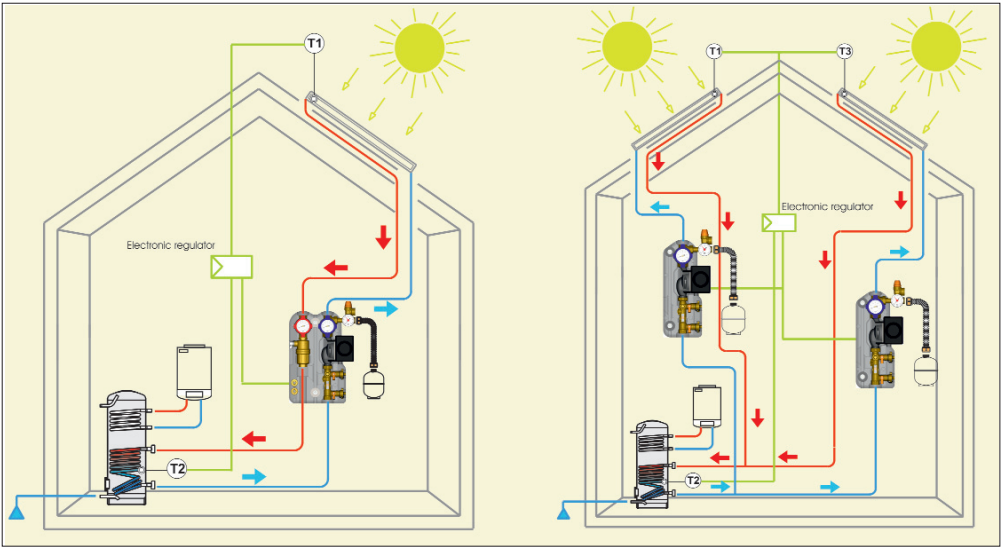
Hydraulic solar units can be provided with following pump:

- Grundfos solar UPM3 15/75
- Wilo Para ST 15/7.0
- Grundfos solar 15/65 (*)

(*) Available to non-EU countries

3 INSTALLATION AND START UP

3.1 HYDRAULIC CONNECTION SCHEMA



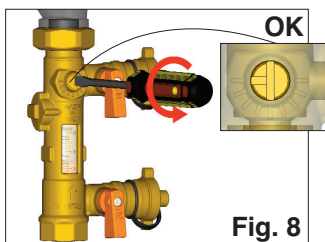
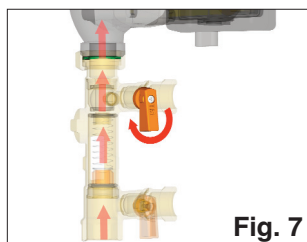
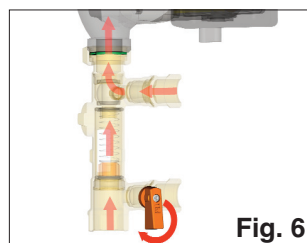
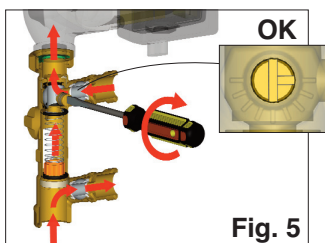
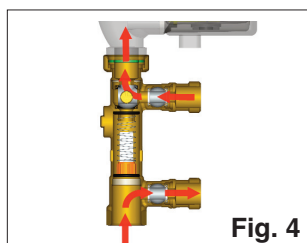
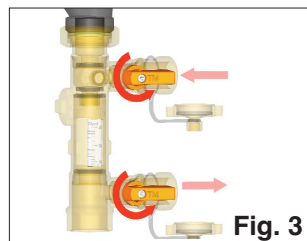
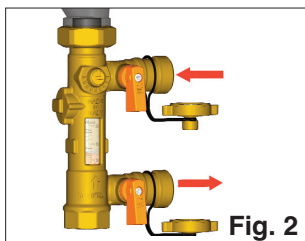
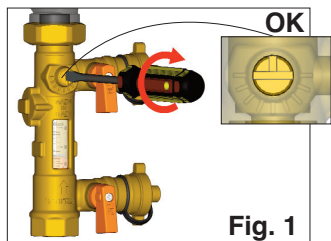
3.2 WASHING THE INSTALLATION

Before starting the installation you should wash the circuit to remove impurities:

- Using a screwdriver turn the screw as describe in picture 1 until the correct position;
- Connect the pump to the taps of the filling/draining unit following the flow direction as shown in picture 2;
- Open the filling/draining valve (picture 3);
- Gradually fill the installation with the clearing fluid for the time necessary to complete cleaning of the system (picture 4);
- Disconnect the taps and drain the fluid.

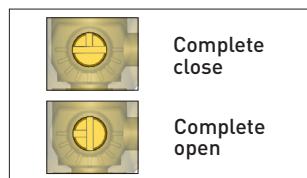
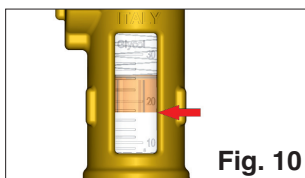
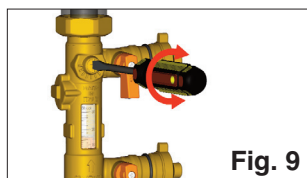
3.3 FILLING/START UP

- Using a screwdriver turn the screw as describe in picture 1 until the correct position;
- Connect the pump to the taps of the filling/draining unit following the flow direction as shown in picture 2;
- Open the filling/draining valve (picture 3);
- Gradually fill the installation with the glycol mixture until the air bleed is complete (picture 4);
- Turn the adjusting screw as shown in picture 5;
- Shut off the draining tap (picture 6) and pressurize the system until the working pressure is reached;
- Shut off the filling tap (picture 7), return to the initial position the adjuting screw (picture 8) and start the system.



3.4 FLOW REGULATION

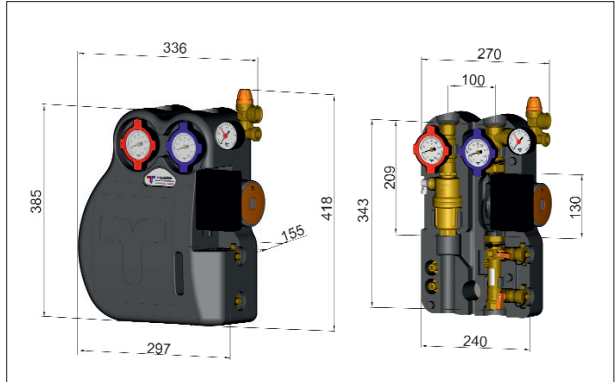
- Start the unit pump;
 - Using a screwdriver turn the screw as describe in picture 9 until the flow meter indicates the requested flow (picture 10);
- If you use the version with the electronic sensor for installation and start up see the other instructions in the package.



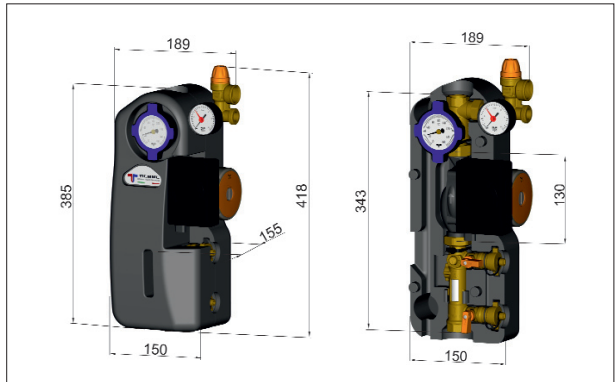
If you use the version with the electronic sensor for installation and start up see the other instructions in the package.

4 TECHNICAL DATA

BODY	STAMPED BRASS CW 617 N
GASKETS	EPDM Perox fluorinated rubber
INSULATING BOX (CASING)	EPP
DIMENSIONS	DN 25 (1")
CONNECTIONS	3/4" Female
MAX OPERATING (WORKING) PRESSURE	10 bar
MAX OPERATING (WORKING) TEMPERATURE	160° C
PUMP	-Grundfos solar UPM3 15/75 -Wilo Para ST 15/7.0 -Grundfos solar 15/65 (*)
FLOWMETER	1-10 l/min 8-30 l/min With electronic sensor 2-40 l/min



(*) Available to non-EU countries



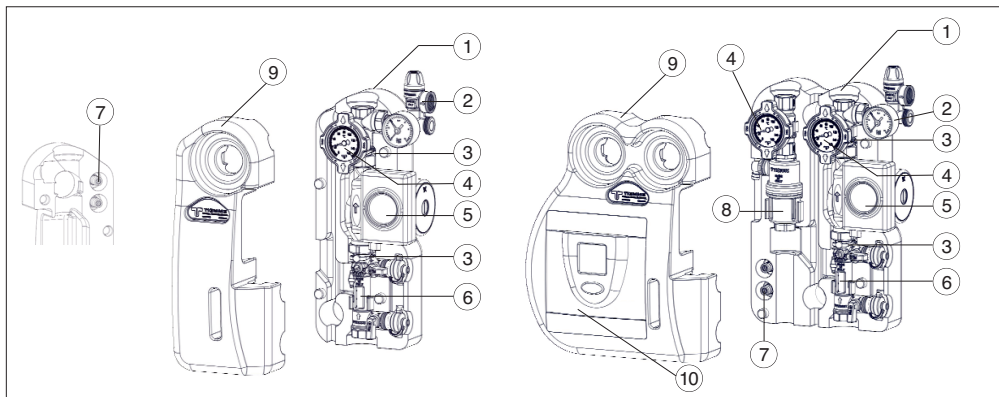
1 INFORMATIONS GÉNÉRALES

Les instructions ci-dessous décrivent le fonctionnement, l'installation et la mise en service du groupe hydraulique art. 4744 et art. 4745 pour installations solaires thermiques.

Ces instructions ne constituent pas la description complète du groupe hydraulique.

Une utilisation non conforme à l'application du groupe hydraulique annulera toute forme de garantie.

2 DESCRIPTION DU PRODUIT



1. Isolement postérieur en EPP
2. Groupe de sécurité à manomètre 0-10 bars, soupape de sûreté 6 bars et raccord vase d'expansion
3. Clips pour fixation de sécurité
4. Robinet à bille avec thermomètre et clapet de retenue
5. Pompe de circulation
6. Débitmètre pour la régulation et l'affichage du débit en l/min avec raccords pour chargement/déchargement installation
7. Porte-caoutchouc
8. Dégazeur avec vanne de décharge manuelle
9. Isolation frontale en EPP
10. Régulateur électronique (en option)

2.1 FONCTION

Le groupe hydraulique pour installations solaires thermiques art. 4744 et art. 4745 a pour fonction de régler la température à l'intérieur de la chaudière. La pompe à l'intérieur du groupe est activée par le signal provenant du régulateur différentiel de température. Deux thermomètres permettent de contrôler la température instantanée d'entrée et de sortie.

Les groupes sont également équipés de dispositifs de sécurité permettant un contrôle optimal du circuit.

2.2 PUMPE

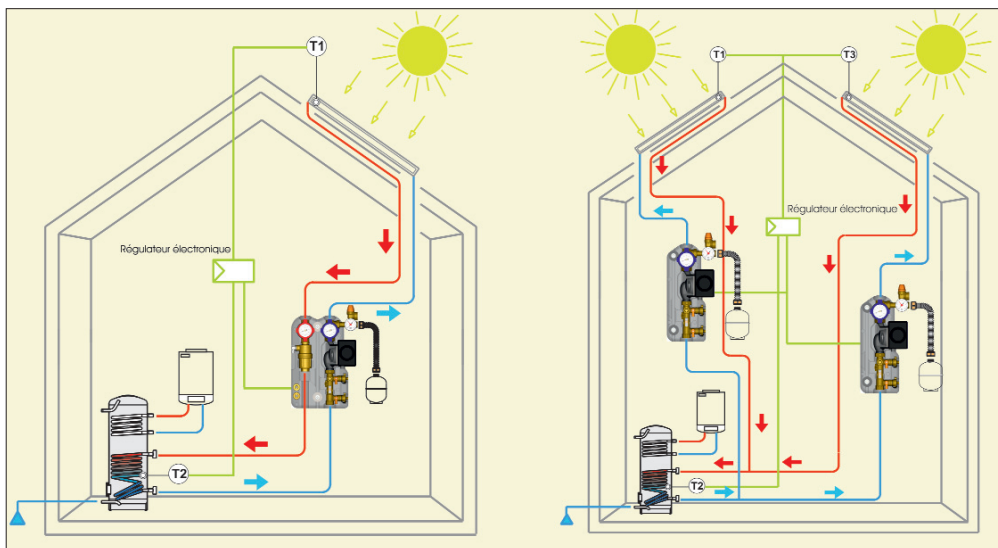
Les groupes hydrauliques pour installations solaires thermiques peuvent être fournis avec les pompes suivantes :

- Grundfos solar UPM3 15/75
- Wilo Para ST 15/7.0
- Grundfos solar 15/65 (*)

(*) Disponible pour les pays hors UE

3 INSTALLATION ET MISE EN SERVICE

3.1 SCHÉMA CONNEXION



3.2 LAVAGE INSTALLATION

Avant de démarrer l'installation, il est conseillé d'effectuer un lavage pour éliminer les impuretés à l'intérieur du circuit :

- Au moyen d'un tournevis, tourner la vis indiquée à la fig. 1 jusqu'à la position correcte ;
- Connecter la pompe de charge aux prises du groupe de charge/décharge selon la direction du flux, voir figure 2 ;
- Ouvrir le robinets à bille de charge/décharge (figure 3) ;
- Remplir l'installation de liquide de lavage et faire circuler ce dernier durant le temps nécessaire au nettoyage complet (voir figure 4) ;
- Débrancher les prises de charge et laisser s'évacuer le liquide.

3.3 CHARGE/DÉMARRAGE

- Au moyen d'un tournevis, tourner la vis indiquée à la fig. 1 jusqu'à la position correcte ;
- Connecter la pompe de charge aux prises du groupe de charge/décharge selon la direction du flux, voir figure 2 ;
- Ouvrir le robinets à bille de charge/décharge (figure 3) ;
- Remplir le système de liquid solaire et faire circuler le liquide durant le temps nécessaire à l'évacuation complète de l'air ;
- Positionner la vis de régulation comme sur la fig. 5 ;
- Fermer la vane de décharge voir figure 6 et pressuriser l'installation jusqu'à obtenir la pression de service requise ;
- Fermer la vane de charge (fig. 7), revenir à la position unitiale de la vis de régulation (fig. 8) et faire fonctionner l'installation.

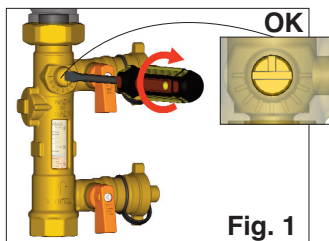


Fig. 1

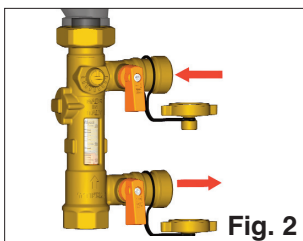


Fig. 2

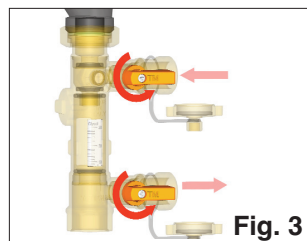


Fig. 3

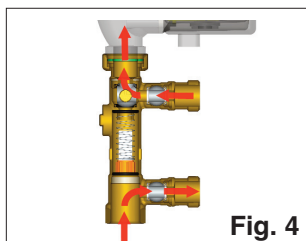


Fig. 4

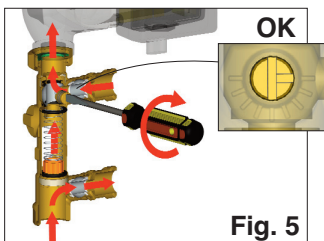


Fig. 5

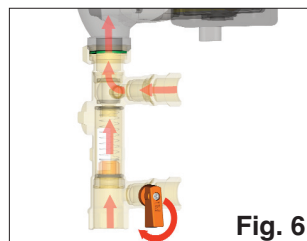


Fig. 6

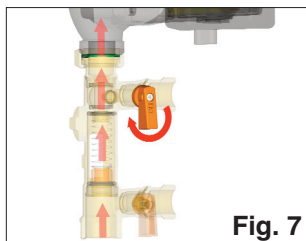


Fig. 7

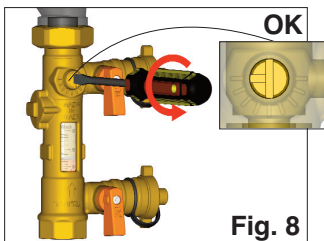


Fig. 8

3.4 RÉGULATION INSTALLATION

- Activer la pompe de circulation de l'installation ;
- Au moyen d'un tournevis, tourner la vis indiquée à la figure 9 jusqu'à atteindre la valeur désirée affichée par l'indicateur à flotteur (figure 10) ;

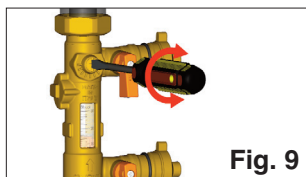


Fig. 9

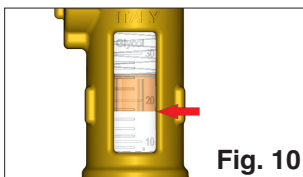
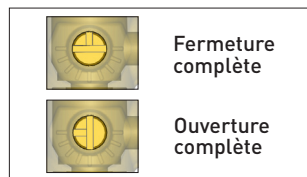


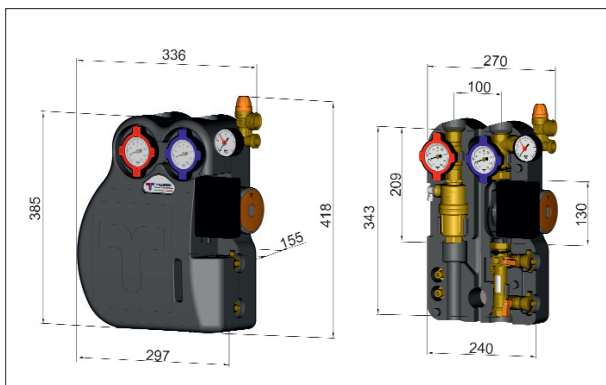
Fig. 10



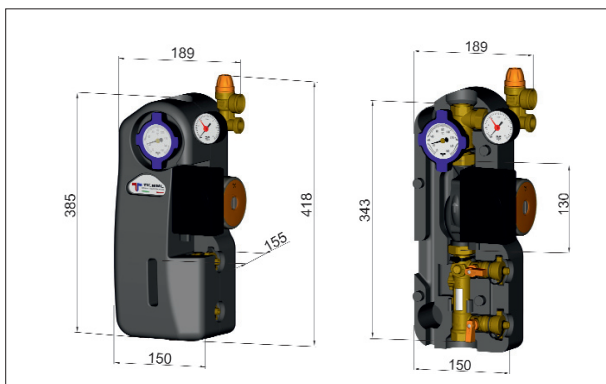
En cas d'utilisation de la version à capteur électronique pour le montage et la mise en service, se reporter aux autres instructions contenues dans l'emballage.

4 INFORMATIONS TECHNIQUES

MATÉRIAU	LAITON CW 617 N
MATÉRIEL GARNITURES	EPDM Perox, caoutchouc fluoré
MATÉRIAU COQUE ISOLANTE	EPP
DIMENSION	DN 25 (1")
CONNEXIONS	3/4" Femelle
P _{max} D'UTILISATION	10 bar
T _{max} D'UTILISATION	160° C
POMPE	-Grundfos solar UPM3 15/75 -Wilo Para ST 15/7.0 -Grundfos solar 15/65 (*)
FLUXMÈTRE	1-10 l/min 8-30 l/min Avec capteur électronique 2-40 l/min



(*) Disponible pour les pays hors UE



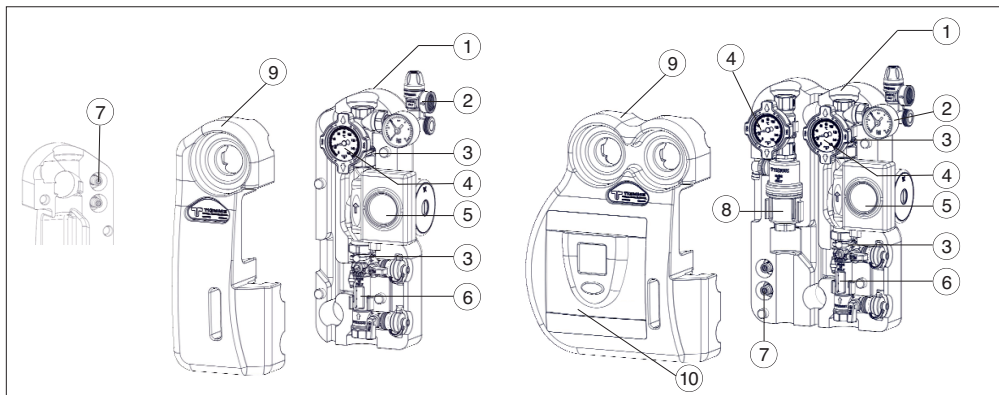
1 INFORMACIÓN GENERAL

Las instrucciones siguientes describen el funcionamiento, la instalación y la puesta en servicio del grupo hidráulico art. 4744 y art. 4745 para instalaciones solares térmicas.

Estas instrucciones no constituyen una descripción completa del grupo hidráulico.

El uso no conforme a la finalidad de uso del grupo hidráulico excluye todo tipo de garantía.

2 DESCRIZIONE DEL PRODOTTO



1. Aislamiento posterior de EPP
2. Grupo de seguridad con manómetro 0-10 bares, válvula de seguridad 6 bares y empalme a tanque de expansión
3. Grapas para fijación de seguridad
4. Válvula esférica con termómetro y válvula de no retorno
5. Bomba de circulación
6. Flujómetro para regular y visualizar el caudal en l/min, con empalmes para la carga/descarga de la instalación
7. Portamanguera
8. Desaireador con válvula de descarga manual
9. Aislamiento frontal de EPP
10. Regulador electrónico (opcional)

2.1 FUNCIONAMIENTO

El grupo hidráulico para instalaciones solares térmicas art. 4744 y art. 4745 se usa para regular la temperatura dentro del calentador. La bomba interior del grupo es activada por la señal del regulador de temperatura diferencial. A través de termómetros se pueden controlar las temperaturas instantáneas de entrega y retorno. Además, los grupos están equipados con dispositivos de seguridad que tienen bajo control el circuito.

2.2 BOMBA

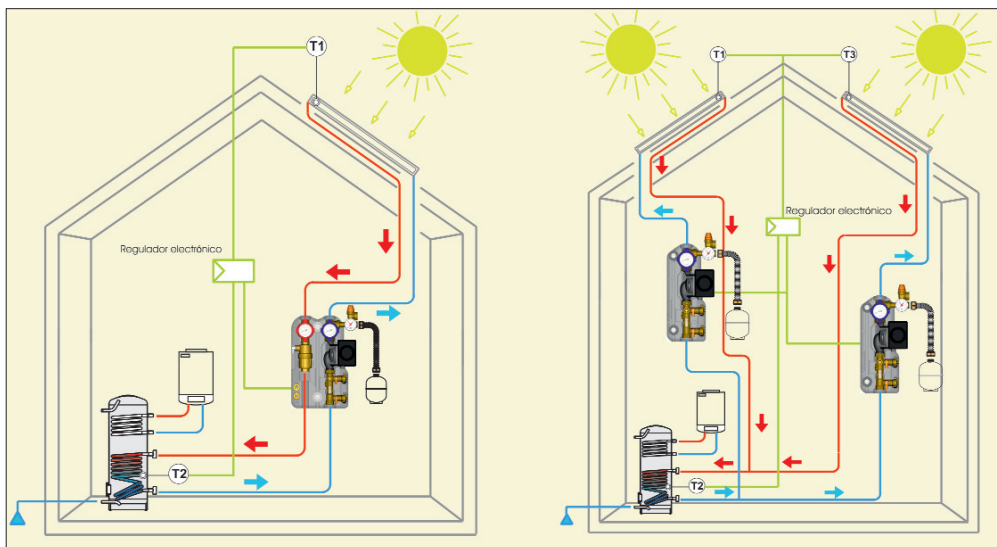
Los grupos hidráulicos para sistemas solares térmicos pueden suministrarse con las siguientes bombas:

- Grundfos solar UPM3 15/75
- Wilo Para ST 15/7.0
- Grundfos solar 15/65 (*)

(*) Disponible a países fuera de la UE

3 INSTALACIÓN Y PUESTA EN SERVICIO

3.1 ESQUEMA DE CONEXIÓN



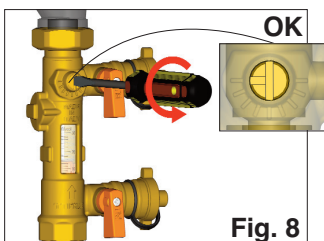
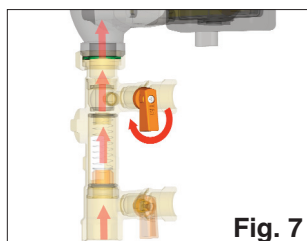
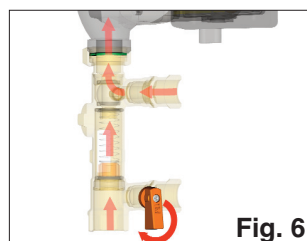
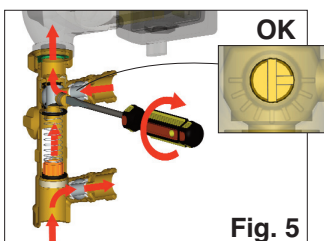
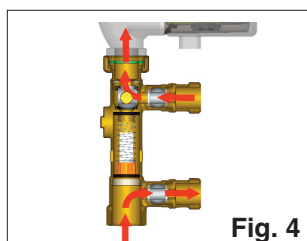
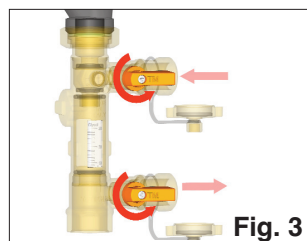
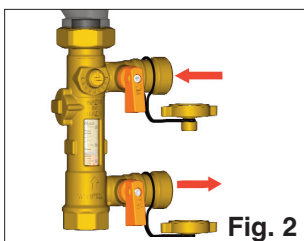
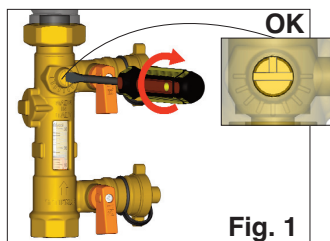
3.2 LAVADO DE LA INSTALACIÓN

Antes de arrancar la instalación se aconseja hacer un lavado para eliminar las impurezas presentes en el interior del circuito:

- Usando un destornillador girar el tornillo indicado en la fig. 1 hasta llegar a la posición correcta;
- Conectar la bomba de carga a las tomas del grupo de carga/descarga según la dirección del flujo, como se indica en la figura 2;
- Abrir las válvulas esféricas de carga/descarga (ver figura 3);
- Llenar la instalación con el líquido para el lavado haciendo circular el fluido durante el tiempo necesario para limpiar completamente la instalación (ver figura 4);
- Desconectar las tomas de carga y hacer salir el líquido.

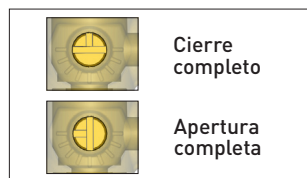
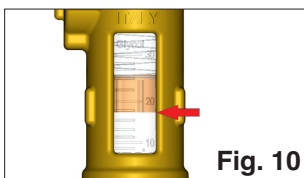
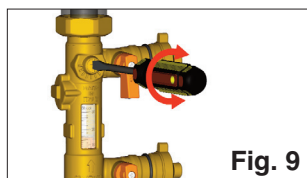
3.3 CARGA/PUESTA EN MARCHA

- Usando un destornillador girar el tornillo indicado en la fig. 1 hasta llegar a la posición correcta;
- Conectar la bomba de carga a las tomas del grupo de carga/descarga según la dirección del flujo, como se indica en la figura 2;
- Abrir las válvulas esféricas de carga/descarga (ver figura 3);
- Llenar la instalación con el líquido solar adecuado y hacer circular el líquido durante el tiempo necesario para que salga de la instalación todo el aire (ver figura 4);
- Colocar el tornillo de ajuste como se ilustra en la fig. 5;
- Cerrar la válvula de descarga como se ilustra en la fig. 6 y presurizar la instalación hasta obtener la presión de servicio deseada;
- Cerrar la válvula de carga (fig. 7), reportar a la posición inicial el tornillo de ajuste (fig. 7) y operar el sistema.



3.4 REGULACIÓN DE LA INSTALACIÓN

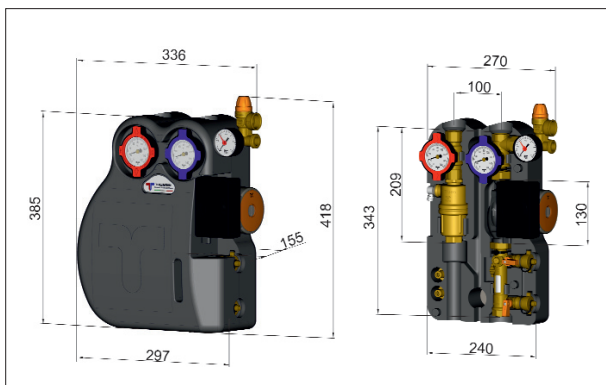
- Activar la bomba de circulación de la instalación;
- Por medio de un destornillador, girar el tornillo ilustrado en la figura 9 hasta obtener el valor deseado, indicado por el indicador de flotador (Fig. 10).



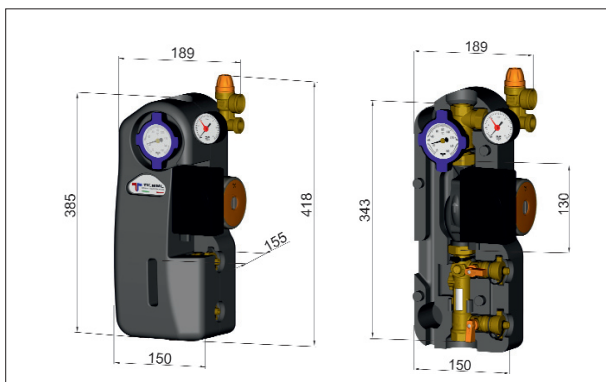
Si se utiliza la versión con el sensor electrónico para el montaje y la puesta en servicio, remitirse a las otras instrucciones en el interior del paquete.

4 DATOS TÉCNICOS

MATERIAL CUERPO	LATÓN CW 617 N
MATERIAL JUNTAS DE ESTANQUEIDAD	EPDM Perox caucho fluorado
MATERIAL CUBIERTA AISLANTE	EPP
DIMENSIONES	DN 25 (1")
CONEXIONES	3/4" Hembra
P _{max} DE USO	10 bar
T _{max} DE USO	160° C
BOMBA	-Grundfos solar UPM3 15/75 -Wilo Para ST 15/7.0 -Grundfos solar 15/65 (*)
FLUJÓMETRO	1-10 l/min 8-30 l/min Con sensor electrónico 2-40 l/min



(*) Disponible a países fuera de la UE



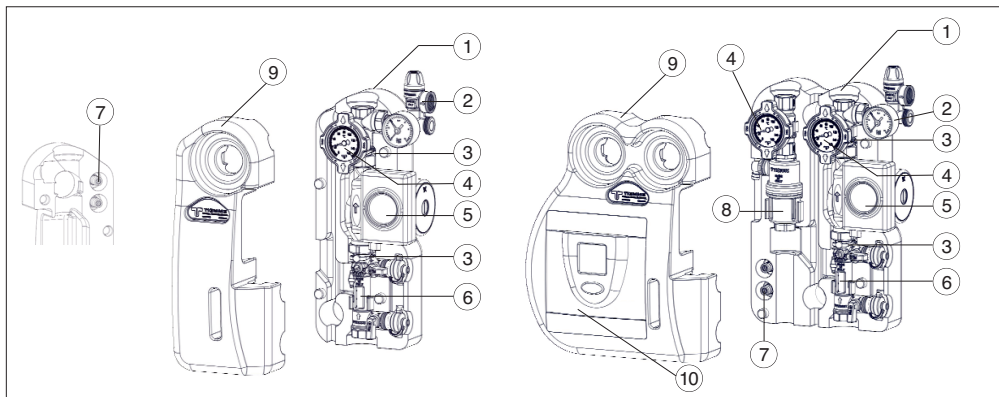
1 ΓΕΝΙΚΕΣ ΠΛΗΡΟΦΟΡΙΕΣ

Οι οδηγίες χρήσης που ακολουθούν περιγράφουν τη λειτουργία, την εγκατάσταση και τη θέση σε λειτουργία της υδραυλικής μονάδας για ηλιακά θερμικά συστήματα.

Οι παρόντες οδηγίες χρήσης δεν καθιστούν πλήρη περιγραφή της υδραυλικής μονάδας.

Η μη συμμόρφωση στον σκοπό χρήσης της υδραυλικής μονάδας ακυρώνει οποιοδήποτε τύπο εγγύησης.

2 ΠΕΡΙΓΡΑΦΗ ΤΟΥ ΠΡΟΪΟΝΤΟΣ



1. Πίσω μόνωση από EPP (δισεταλμένου πολυπροπυλενίου)
2. Μονάδα ασφαλείας με μανόμετρο 0-10 bar, βαλβίδα ασφαλείας 6 bar και σύνδεση για δοχείο διαστολής
3. Άγκιστρα συγκράτησης
4. Σφαιρική βάνα με θερμομέτρο και βαλβίδα αντεπιστροφής
5. Κυκλοφορητής
6. Παροχόμετρο για τη ρύθμιση και την ανάγνωση της παροχής σε l/min, με αναμονές για την πλήρωση/εκκένωση της εγκατάστασης
7. Υποδοχή λαστιχοσωλήνα
8. Απαερωτής με χειροκίνητη βαλβίδα εκκένωσης
9. Μετωπική μόνωση από EPP
10. Ηλεκτρονικός ρυθμιστής (προαιρετικός)

2.1 ΛΕΙΤΟΥΡΓΙΑ

Η υδραυλική μονάδα για ηλιακά θερμικά συστήματα ρυθμίζει την θερμοκρασία στο εσωτερικό του θερμοδοχείου. Η αντλία μέσα στην μονάδα ενεργοποιείται από το σήμα που προέρχεται από τον διαφορικό θερμοστάτη του ηλεκτρονικού ελεγκτή. Από τα δυο θερμομέτρα είναι δυνατός ο έλεγχος τις στιγμιαίες θερμοκρασίες προσαγωγής και επιστροφής. Επίσης στις μονάδες υπάρχουν οι ασφαλιστικές και λειτουργικές διατάξεις για το καλύτερο έλεγχο του κυκλώματος.

2.2 ΑΝΤΛΙΑ

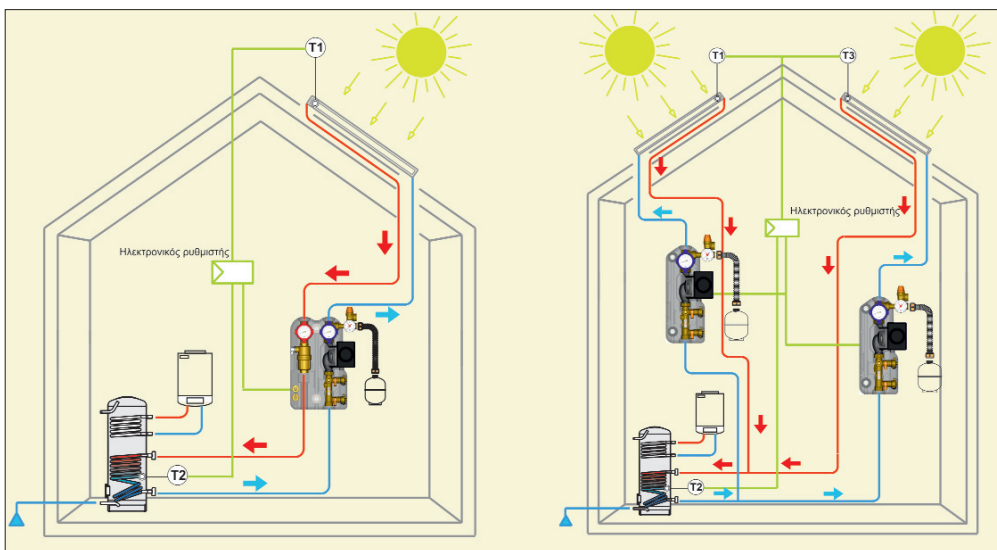
Οι υδραυλικές μονάδες θερμικών ηλιακών συστημάτων μπορεί να είναι εφοδιασμένες με τους ακόλουθους κυκλοφορητές:

- Grundfos solar UPM3 15/75
- Wilo Para ST 15/7.0
- Grundfos solar 15/65 (*)

(*) Διατίθεται για τις χώρες μη μέλη της UE

3 ΕΓΚΑΤΑΣΤΑΣΗ ΚΑΙ ΘΕΣΗ ΣΕ ΛΕΙΤΟΥΡΓΙΑ

3.1 ΔΙΑΓΡΑΜΜΑ ΣΥΝΔΕΣΗΣ



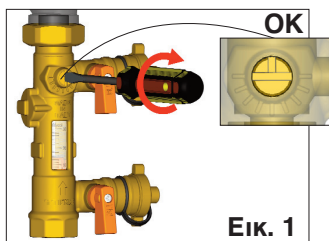
3.2 ΕΚΚΕΝΩΣΗ ΤΗΣ ΕΓΚΑΤΑΣΤΑΣΗΣ

Πριν την εκκίνηση της εγκατάστασης συνίσταται η απόπλυσή της για την απομάκρυνση ακαθαρσιών που βρίσκονται στο εσωτερικό της:

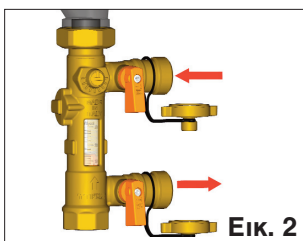
- Με ένα κατσαβίδι γυρίστε τη βίδα που φαίνεται στο σχ.1, στη σωστή θέση;
- Συνδέστε την αντλία εκκένωσης στις παροχές της μικρής μονάδας φόρτωσης/εκκένωσης ακολουθώντας την κατεύθυνση της ροής όπως στην εικόνα 2;
- Ανοίξτε τις σφαιρικές βάνες πλήρωσης/εκκένωσης (δες σχήμα 3);
- Γεμίστε την εγκατάσταση με υγρό πλήσης κυκλοφορόντας το μέχρι την ολοκλήρωση του καθαρισμού της εγκατάστασης (δες σχήμα4);
- Ανοίχτε τις λήψεις πλήρωσης/εκκένωσης και αδειάστε την εγκατάσταση από το υγρό πλήσης.

3.3 ΠΛΗΡΩΣΗ / ΕΚΚΙΝΗΣΗ

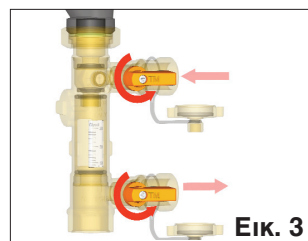
- Με ένα κατσαβίδι γυρίστε τη βίδα που φαίνεται στο σχ.1, στη σωστή θέση;
- Συνδέστε την αντλία εκκένωσης στις παροχές της μικρής μονάδας φόρτωσης/εκκένωσης ακολουθώντας την κατεύθυνση της ροής όπως στην εικόνα 2;
- Ανοίξτε τις σφαιρικές βάνες πλήρωσης/εκκένωσης (δες σχήμα 3);
- Γεμίστε το σύστημα με το κατάλληλο υγρό για ηλικιακά συστήματα, αφήνοντάς το να κυκλοφορεί για το χρόνο που θα είναι απαραίτητο μέχρι την πλήρη εκκένωση του αέρα από το σύστημα (δες σχήμα4);
- Τοποθετήστε τη βίδα ρύθμισης όπως φαίνεται στο σχήμα 5;
- Κλείστε την βαλβίδα εκκένωσης (δες σχήμα6) και βάλτε υπό πίεση το σύστημα μέχρι την πίεση λειτουργίας του;
- Κλείστε τη βαλβίδα πλήρωσης (Εικ. 7), επιστρέψτε στην αρχική θέση η βίδα ρύθμισης (Εικ. 8) και τη λειτουργία της εγκατάστασης.



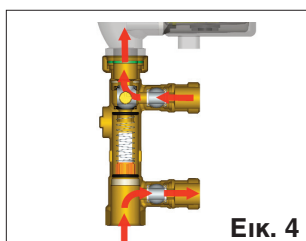
Εικ. 1



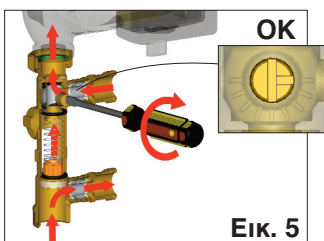
Εικ. 2



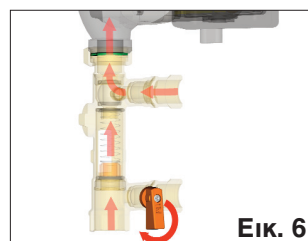
Εικ. 3



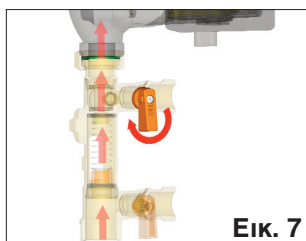
Εικ. 4



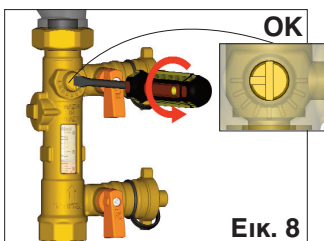
Εικ. 5



Εικ. 6



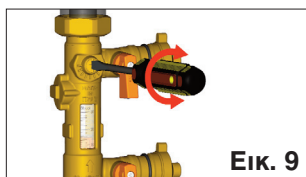
Εικ. 7



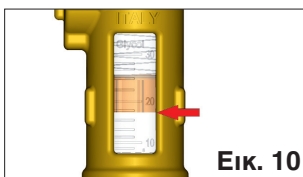
Εικ. 8

3.4 ΡΥΘΜΙΣΗ ΤΟΥ ΣΥΣΤΗΜΑΤΟΣ

- Ενεργοποιήστε τον κυκλοφορητή του συστήματος;
- Με ένα κατσαβίδι περιστρέψτε την βίδα που δείχνει η εικόνα 9 μέχρι την επιθυμητή τιμή, τιμή που αναφέρεται και στην πλωτή ένδειξη (εικ. 10).



Εικ. 9



Εικ. 10

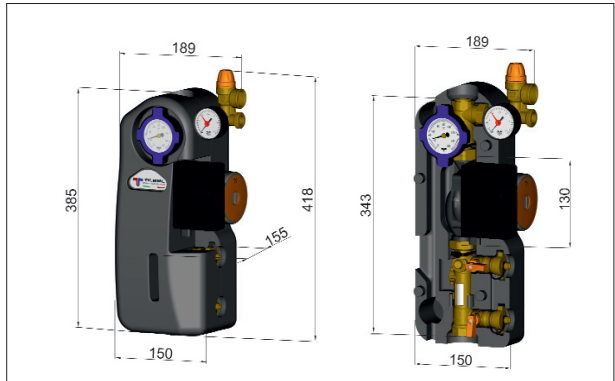
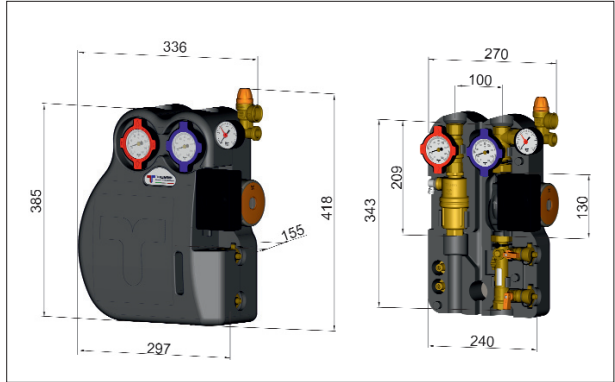


Στην περίπτωση που χρησιμοποιείτε το μοντέλο με τον ηλεκτρονικό αισθητήρα, για τη συναρμολόγηση και την λειτουργία δείτε τις οδηγίες που βρίσκονται μέσα στη συσκευασία.

4 ΤΕΧΝΙΚΑ ΧΑΡΑΚΤΗΡΙΣΤΙΚΑ

ΥΛΙΚΟ ΤΟΥ ΣΩΜΑΤΟΣ	ΟΡΕΙΧΑΛΚΟΣ CW 617 N
ΥΛΙΚΟ ΤΩΝ ΠΑΡΕΜΒΥΣΜΑΤΩΝ	EPDM Perox, φθωρισμένο κοουτσούκ
ΥΛΙΚΟ ΤΟΥ ΜΟΝΩΤΙΚΟΥ ΚΕΛΥΦΟΥΣ	Αιθυλένιο-προπυλένιο-διένιο (EPDM) Perox
ΔΙΑΣΤΑΣΕΙΣ	DN 25 (1")
ΣΥΝΔΕΣΕΙΣ	3/4" Θηλυκό
P _{max} ΛΕΙΤΟΥΡΓΙΑΣ	10 bar
T _{max} ΛΕΙΤΟΥΡΓΙΑΣ	160° C
ΑΝΤΛΙΑ	-Grundfos solar UPM3 15/75 -Wilo Para ST 15/7.0 -Grundfos solar 15/65 (*)
ΡΟΟΜΕΤΡΟ	1-10 l/min 8-30 l/min Με ηλεκτρονικό αισθητήρα 2-40 l/min

(*) Διατίθεται για τις χώρες μη μέλη της UE

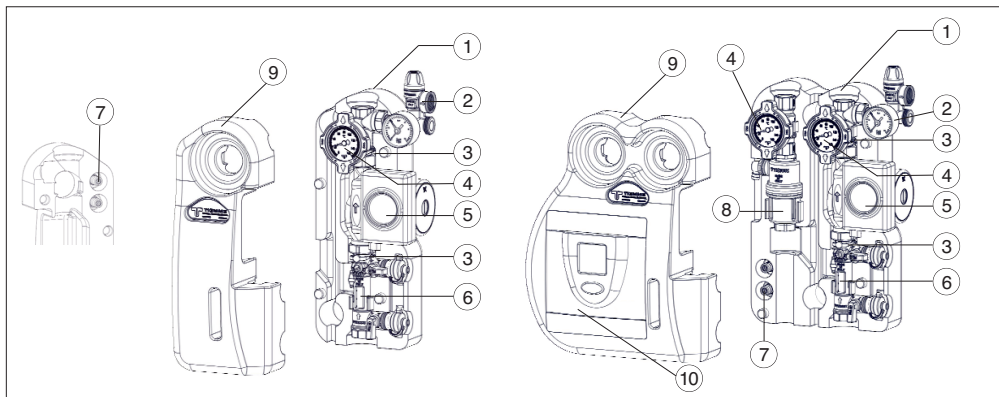


1 INFORMAȚII GENERALE

Următoarele instrucțiuni descriu funcționarea, instalarea și punerea în funcțiune a grupului hidraulic art. 4744 și art. 4745 pentru instalații termice cu panouri solare. Aceste instrucțiuni constituie o descriere completă a grupului hidraulic.

Utilizarea neconformă cu scopul grupului hidraulic exclude orice tip de garanție.

2 DESCRIEREA PRODUSULUI



1. Izolație posterioară din EPP
2. Grup de siguranță cu manometru 0-10 bar, supapă de siguranță 6 bar și record la vasul de expansiune
3. Clipsuri pentru fixare de siguranță
4. Robinet cu sferă cu termometru și clapetă de sens
5. Pompă de circulație
6. Debitmetru pentru reglarea și vizualizarea fluxului în l/min, cu racorduri pentru încărcarea/golirea instalației
7. Furtun
8. Dezaerator cu robinet de evacuare manual
9. Izolație frontală din EPP
10. Regulator electronic (opțional)

2.1 FUNCȚIE

Grupul hidraulic pentru instalațiile termice cu panouri solare art. 4744 și art. 4745 are rolul de a regla temperatura în interiorul boilerului. Pompa din interiorul grupului este activată de semnalul care provine de la regulatorul de temperatură diferențială. Prin cele termometre este posibil să se controleze temperaturile instantanee de tur și retur. În plus, în grupuri sunt introduse dispozitivele de siguranță și funcționale pentru un control optim al circuitului.

2.2 POMPĂ

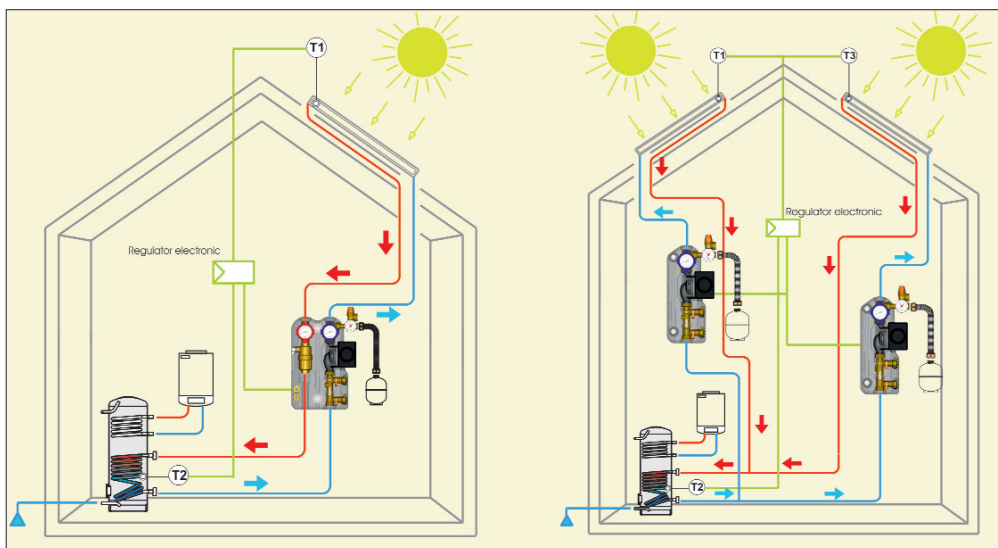
Grupurile hidraulice pentru instalații solare termice pot fi furnizate cu următoarele pompe:

- Grundfos solar UPM3 15/75
- Wilo Para ST 15/7.0
- Grundfos solar 15/65 (*)

(*) Disponibile pentru țările non-UE

3 INSTALARE ȘI PUNERE ÎN FUNCȚIUNE

3.1 SCHEMA CONEXIUNILOR HIDRAULIC



3.2 SPĂLAT INSTALAȚIEI

Înainte de punerea în funcțiune a instalației, este recomandată efectuarea unei spălări pentru eliminarea impurităților din interiorul circuitului:

- Cu ajutorul unei surubelnite rotiți surubul din fig.1 până la poziția corectă;
- Cuplați pompa de alimentare la prizele grupului de umplere/golire ținând cont de direcția fluxului ca în figura 2;
- Deschideți robinetele cu sferă de umplere/golire (vezi figura 3);
- Umpleți instalația cu lichidul pentru curățare, lăsându-l să circule cât este necesar pentru eliminarea tuturor impurităților (vezi fig.4);
- Deconectați prizele de încărcare și lăsați lichidul să se scurgă.

3.3 UMLEREA/PORNIRE

- Cu ajutorul unei șurubelnițe rotiți șurubul din fig.1 până la poziția corectă;
- Cuplați pompa de alimentare la prizele grupului de umplere/golire ținând cont de direcția fluxului ca în figura 2;
- Deschideți robinetele cu sferă de umplere/golire (vezi figura 3);
- Umpleți instalația cu lichidul provenit de la circuitul solar adecvat făcând să circule lichidul atât timp cât este necesar pentru ca aerul să iasă complet din instalație (vezi figura 4);
- Pozitionați șurubul de reglare ca în fig.5;
- Închideți robinetul de golire (vezi figura 6) și presurizați instalația până la presiunea de lucru dorită;
- Închideți robinetul de umplere (fig. 7), a reveni la poziția inițială șurubul de reglare (Fig. 8) și funcționează de instalație.

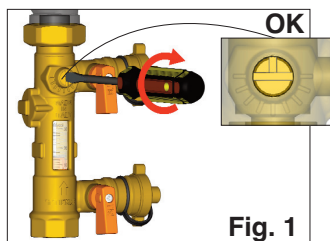


Fig. 1

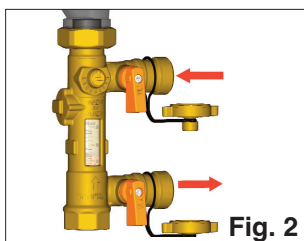


Fig. 2

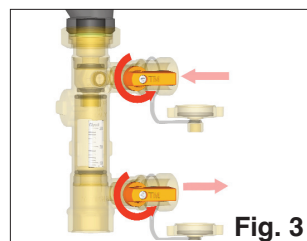


Fig. 3

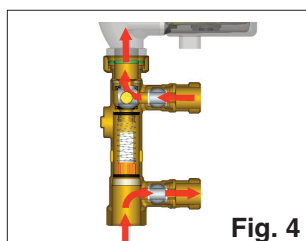


Fig. 4

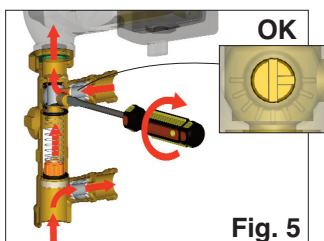


Fig. 5

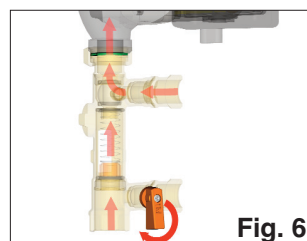


Fig. 6

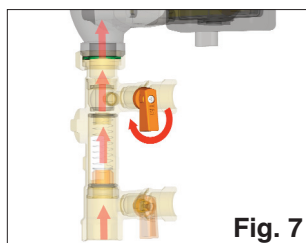


Fig. 7

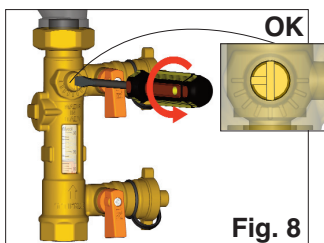


Fig. 8

3.4 REGLAREA INSTALAȚIEI

- Activați pompa de circulație a instalației;
- Cu ajutorul unei șurubelnițe rotiți șurubul indicat în figura 9 până când se obține valoarea dorită, valoare prezentată pe indicatorul plutitorului (Fig. 10).

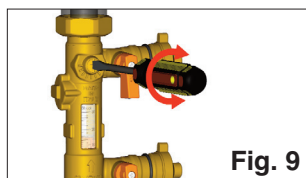


Fig. 9

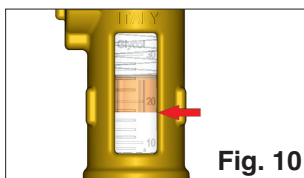
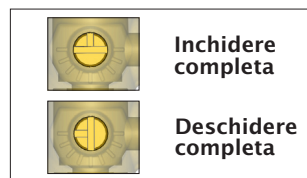


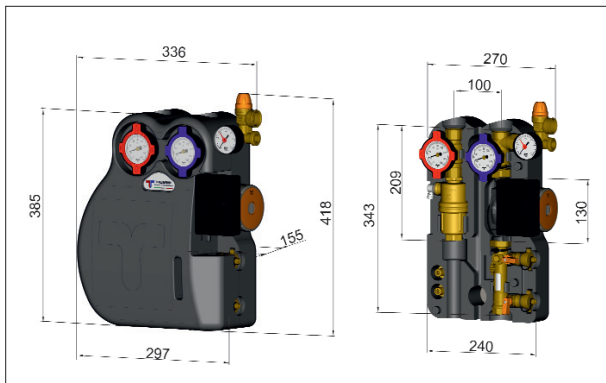
Fig. 10



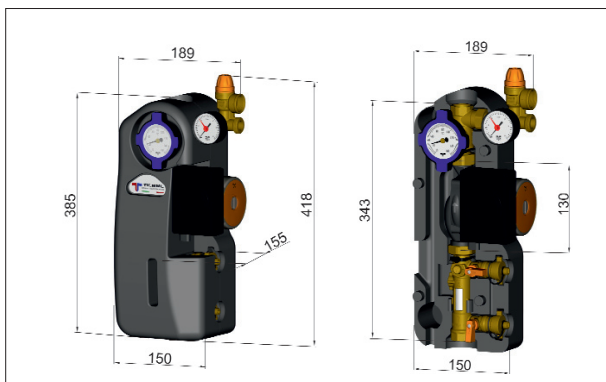
Dacă utilizați versiunea cu senzor electronic, pentru instalarea și punerea în funcțiune, consultați celelalte instrucțiuni din cutie.

4 DATE TEHNICE

MATERIAL CORP	ALAMĂ CW 617 N
MATERIAL GARNITURI	EPDM Perox cauciuc fluorurat
MATERIAL IZOLAȚIE	EPP
DIMENSIUNE	DN 25 (1")
CONEXIUNI	3/4" Feminin
P _{max} DE UTILIZARE	10 bar
T _{max} DE UTILIZARE	160° C
POMPĂ	-Grundfos solar UPM3 15/75 -Wilo Para ST 15/7.0 -Grundfos solar 15/65 (*)
PRESOSTAT	1-10 l/min 8-30 l/min Cu senzor electronic 2-40 l/min



(*) Disponibile pentru țările non-UE



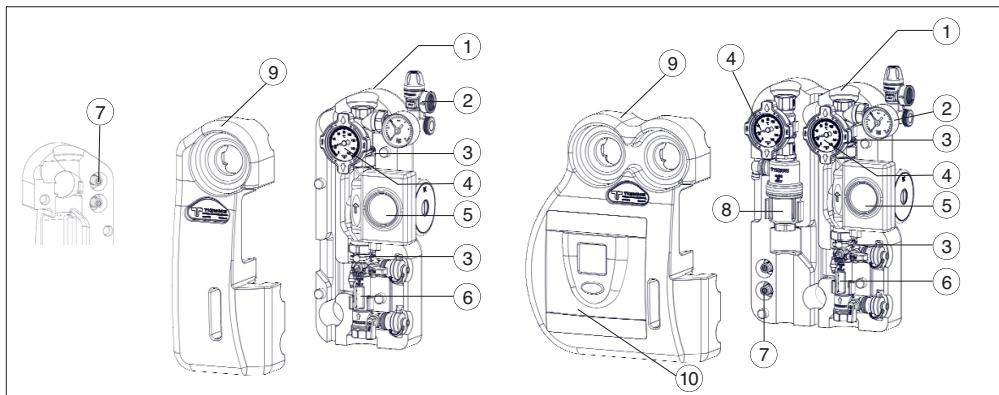
1 ALLGEMEINE INFORMATIONEN

In der folgenden Anleitung werden die Bedienung, Installation und Inbetriebnahme der Pumpengruppe art. 4744 und art. 4745 für Solarthermie-Systeme beschrieben.

Diese Anleitung stellt keine vollständige Beschreibung der Pumpengruppe dar.

Eine unsachgemäße Verwendung der Pumpengruppe schließt jegliche Gewährleistung aus.

2 PRODUKTBESCHREIBUNG



1. Dämmung aus EPP-Schaum (Rueckseite)
2. Sicherheitsgruppe mit Manometer, Solar-Sicherheitsventil 6 bar und Anschluss für Solar-Ausdehnungsgefäß
3. Clips zur sicheren Befestigung
4. Kugelhaehn mit integriertem Theromometer und Schwerkraftbremse
5. Hocheffizienz Solarpumpe
6. Durchflussmesser zur Einstellung und Anzeige des Durchflusses in l/min, einschließlich Anschlüssen zum Spülen und Befüllen der Anlagen
7. Schlauchtülle
8. Entlüftertopf mit Handentlüfter
9. Dämmung aus EPP-Schaum (Vorderseite)
10. Elektronische Regelung (Optional)

2.1 FUNKTION

Die Pumpengruppe art. 4744 und art. 4745 für Solarthermie-Systeme hat die Aufgabe, die Wärmeenergie vom Kollektorfeld zum Speicher zu transportieren. Die Pumpe wird durch das vom Differenz-Temperatur-Regler kommende Signal aktiviert. Mit Hilfe der beiden Thermometer ist es möglich, die aktuellen Temperaturen des Vorlaufs und des Rücklaufs zu kontrollieren. In der Pumpengruppe sind ebenfalls Sicherheitseinrichtungen und funktionelles Zubehör für den optimalen Betrieb der Anlage vorgesehen.

2.2 PUMPE

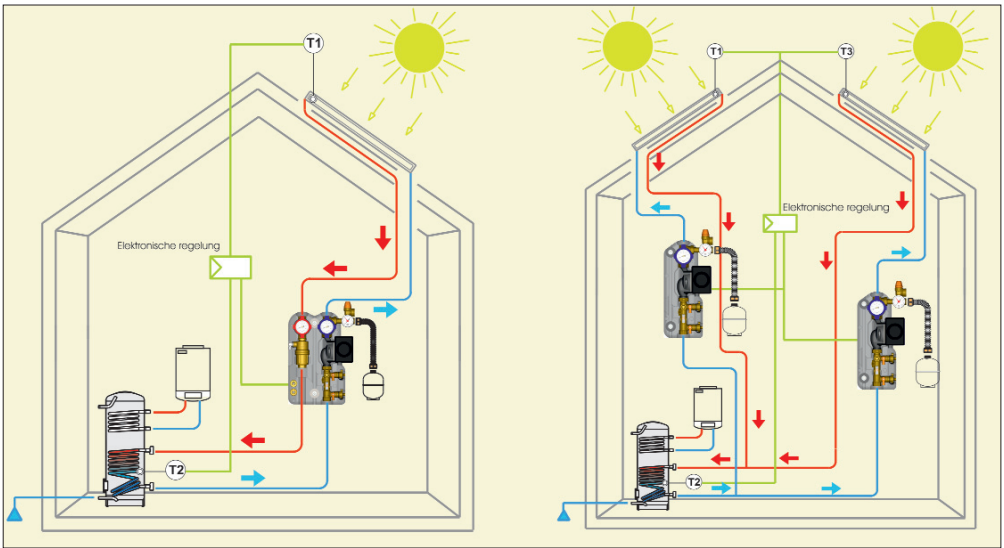
Die Pumpengruppe für Solarthermie-Systeme können mit folgenden Pumpen geliefert werden:

- Grundfos solar UPM3 15/75
- Wilo Para ST 15/7.0
- Grundfos solar 15/65 (*)

(*) Für Nicht-EU-Länder verfügbar

3 INSTALLATION

3.1 ANSCHLUSSBEISPIEL



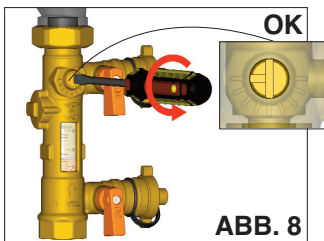
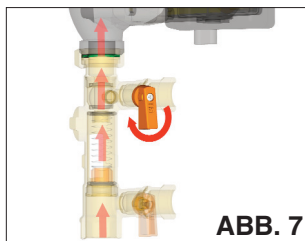
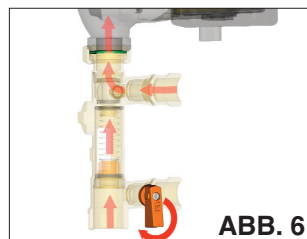
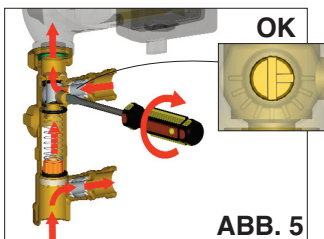
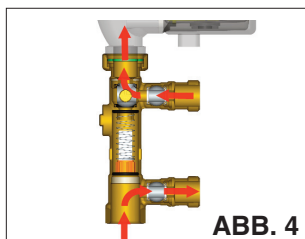
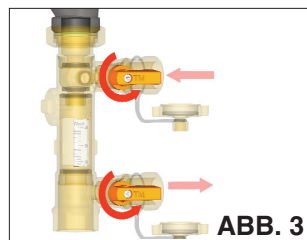
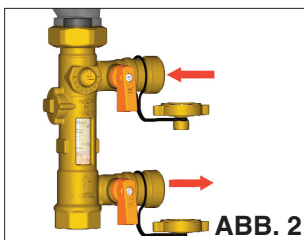
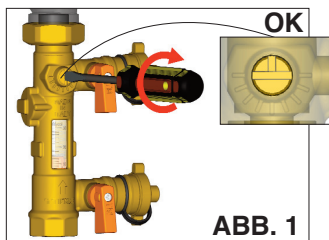
3.2 SPÜLEN

Vor der Inbetriebnahme der Anlage sollte diese durchgespült werden, um Verunreinigungen im Kreislauf zu entfernen:

- Mit Hilfe eines Schraubenziehers die in der Abb. 1 angegebene Schraube in die korrekte Stellung drehen;
- Befüllpumpe entsprechend den Durchflussrichtungen Abb. 2 anschließen;
- Füll- und Entleerventil öffne (Abb. 3);
- Die Anlage mit der Spülflüssigkeit befüllen und die Flüssigkeit so lange in der Anlage zirkulieren lassen, bis die Anlage vollständig gereinigt ist (siehe Abbildung 4);
- Die Abgriffe zum Befüllen abklemmen und die Flüssigkeit ablaufen lassen.

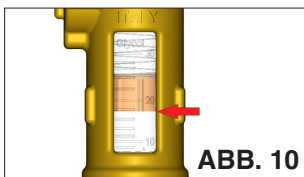
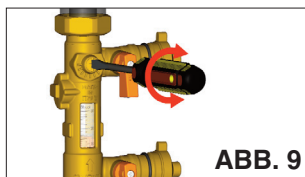
3.3 BEFÜLLEN / INBETRIEBNAHME

- Mit Hilfe eines Schraubenziehers die in der Abb. 1 angegebene Schraube in die korrekte Stellung drehen;
- Befüllpumpe entsprechend den Durchflussrichtungen Abb. 2 anschließen;
- Füll- und Entleerventil öffne (Abb. 3);
- Anschließend Anlage mit geeigneter Solarflüssigkeit befüllen und gründlich Spülen bis die Anlage entlüftet ist (Abb. 4);
- Die Stellschraube wie in Abb. 5 gezeigt positionieren;
- Entleerventil (Abb. 6) schließen. Anlage bis zum gewünschten Betriebsdruck füllen;
- Schließen Sie das Ventil (Abb. 7), in die Ausgangsstellung die Stellschraube (Abb. 8) zurück und betreiben die Anlage.



3.4 DURCHFLUSS EINSTELLEN

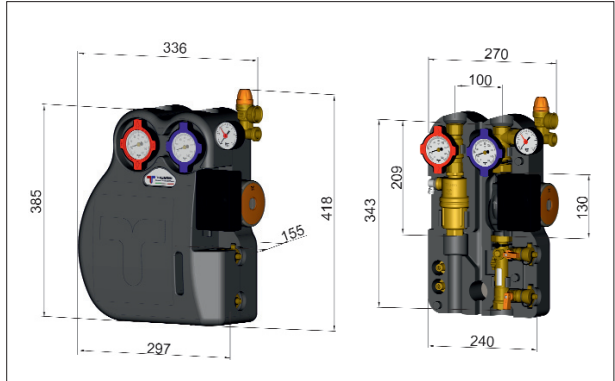
- Pumpe einschalten, Durchfluss am Drehzahl-Wahlschalter voreinstellen;
- An der Einstellschraube (Abb.9) drehen bis der gewünschte Durchfluss erreicht ist (Abb.10).



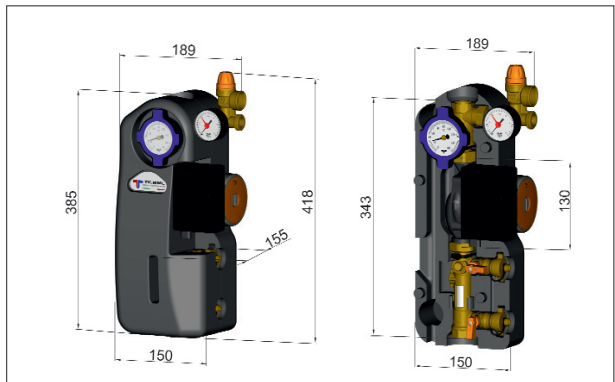
Falls die Ausführung mit elektronischem Fühler verwendet wird, die weitere, der Verpackung beiliegenden Bedienungsanleitung für Montage und Inbetriebnahme lesen.

4 TECHNISCHE DATEN

ARMATUREN	MESSING CW 617 N
DISCHTUNGEN	EPDM Perox, fluorkautschuk
DÄMMUNG	EPP
DIMENSION	DN 25 (1")
ANSCHLÜSSE	3/4" Innengewinde
MAX BETRIEBESDRUECK	10 bar
MAX BETRIEBSTEMPERATUR	160° C
PUMPE	-Grundfos solar UPM3 15/75 -Wilo Para ST 15/7.0 -Grundfos solar 15/65 (*)
DURCHFLUSSMESSER	1-10 U/min 8-30 U/min Mit elektronischem Fühler 2-40 U/min



(*) Für Nicht-EU-Länder verfügbar



INFORMAZIONI SULLA SICUREZZA



L'installazione e la messa in servizio deve essere eseguita da personale specializzato. L'installatore è tenuto a rispettare le norme nazionali e regionali sulla sicurezza e le normative antinfortunistiche stabilite dalla legge.

Utilizzare il gruppo idraulico entro i valori tecnici limite indicati nelle presenti istruzioni. Si raccomanda l'utilizzo esclusivamente per impianti solari termici.

Evitare che le guarnizioni di tenuta in EPDM vengano a contatto con oli minerali il che comporta un rapido deterioramento delle stesse. Non ci assumiamo alcuna responsabilità per danni causati da guarnizioni danneggiate in questo modo né provendiamo alla spedizione di merce a titolo di garanzia.

SAFETY INSTRUCTIONS



The installation and start up of the heating circuit must be performed by qualified personnel. Must be observed local and national prescriptions and accident prevention regulations by the law.

Hydraulic solar unit may only be used into the technical limit values indicated in these instructions. Hydraulic solar unit may only be used in solar thermal systems.

It is imperative to avoid that the EPDM sealing elements of the hydraulic solar unit get in contact with substances containing mineral oils. We do not assume liability nor provide warranty for damage to property form sealants damaged in this way.

INFORMATIONS CONCERNANT LA SÉCURITÉ



L'installation et la mise en service doivent être effectuées par un personnel spécialisé. L'installateur est tenu de se conformer aux normes nationales et régionales concernant la sécurité ainsi qu'aux normes de prévention des accidents prévues par la législation. Utiliser le groupe hydraulique dans les limites des valeurs techniques indiquées dans ces instructions. Utilisation exclusive pour les installations solaires thermiques.

Éviter tout contact des joints d'étanchéité en EPDM avec des huiles minérales sous peine de détérioration rapide des joints. La société décline toute responsabilité en cas de dégâts entraînés par l'endommagement des garnitures et ne prévoit pas l'expédition de marchandises à titre de garantie.

INFORMACIÓN SOBRE LA SEGURIDAD



La instalación y la puesta en servicio deben ser realizadas por personal especializado. El instalador debe respetar las normas nacionales y regionales en materia de seguridad, y las normas sobre accidentes establecidas por la ley.

Utilizar el grupo hidráulico dentro de los valores técnicos límite indicados en estas instrucciones. Se recomienda el uso exclusivamente para instalaciones solares térmicas.

Evitar que las juntas de estanqueidad de EPDM entren en contacto con aceites minerales que causarían su deterioro a corto plazo. Siempre no se hace responsable de daños causados por juntas de estanqueidad deterioradas de este modo, ni se encarga del envío de mercancías como garantía.

ΠΛΗΡΟΦΟΡΙΕΣ ΓΙΑ ΤΗΝ ΑΣΦΑΛΕΙΑ



Η εγκατάσταση και η θέση σε λειτουργία πρέπει να εκτελούνται από εξειδικευμένο προσωπικό. Ο υπεύθυνος για την εγκατάσταση οφείλει να τηρεί τους εθνικούς και τοπικούς κανονισμούς περί ασφάλειας καθώς και τους κανονισμούς πρόληψης ατυχημάτων που καθορίζει ο νόμος.

Χρησιμοποιήστε την υδραυλική μονάδα μέσα στα τεχνικά όρια που αναφέρονται στις παρούσες οδηγίες χρήσης. Η χρήση προορίζεται αποκλειστικά για ηλιακά θερμικά συστήματα.

Τα παρεμβύσματα στεγανότητας από EPDM δεν πρέπει να βρίσκονται σε επαφή με ορυκτέλαια εφόσον αυτά προκαλούν άμεση φθορά. Δεν αναλαμβάνουμε καμιά ευθύνη για ζημιές στα παρεμβύσματα που προέρχονται από αυτά τα αίτια και δεν θα προβούμε σε αποστολή προϊόντα με όρους εγγύησης.

INFORMAȚII REFERITOARE LA SIGURANȚĂ



Instalarea și punerea în funcțiune trebuie executate de către personal specializat. Instalatorul este obligat să respecte normativele naționale și regionale referitoare la siguranță și protecția muncii stabilite de lege.

Utilizați grupul hidraulic în domeniul de valori tehnice limită indicate în prezentele instrucțiuni. Se recomandă utilizarea exclusiv pentru instalații termice cu panouri solare.

Evitați ca garniturile de etanșare din EPDM să intre în contact cu uleiuri minerale ceea ce ar provoca o deteriorare rapidă a acestora. Nu ne asumăm nici un fel de responsabilitate pentru pagube cauzate de garnituri utilizate în acest mod eronat și în acest caz nici nu asigurăm schimbarea echipamentului ca garanție.

SICHERHEITSINFORMATIONEN



Installation und Inbetriebnahme dürfen nur durch qualifiziertes Personal erfolgen. Der Installateur hat die gesetzlich festgelegten, nationalen und regionalen Sicherheitsvorschriften und UVV einzuhalten.

Setzen Sie die Pumpengruppe ausschließlich im Rahmen der in dieser Anleitung angegebenen, technischen Grenzwerte ein. Die Pumpengruppe darf ausschließlich für Solarthermie-Systeme verwendet werden.

Achten Sie darauf, dass die EPDM-Dichtungen keinesfalls mit Mineralöl in Berührung kommen, da dies zu raschem Verschleiß derselben führt. Wir übernehmen keinerlei Haftung für Schäden, die durch derart beschädigte Dichtungen verursacht werden noch versenden wir in diesem Zusammenhang Ersatzteile im Rahmen der Garantie.



990 0207

Tiemme Raccorderie S.p.A.
Via Cavallera 6/A loc. Barco
25045 Castegnato (Brescia)
Tel. +39 030.2142211 - Fax +39 030.2142206
info@tiemme.com - www.tiemme.com