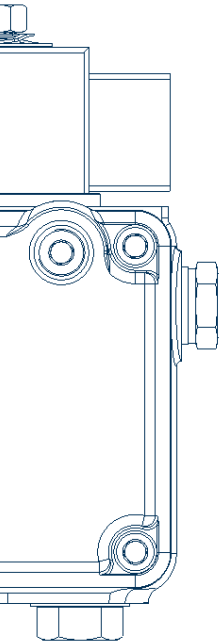


SUNTEC™

SUNTEC TECHNICAL MANUAL

Dear Partner,

SUNTEC designs, manufactures and markets an unrivalled range of gear pumps and accessories. Thanks to its two production sites, one in the United States in Kentucky, the other in Europe, in France, in the heart of Burgundy, SUNTEC has an extensive network of customers and distributors.
The quality, reliability and performance of its products have always enabled SUNTEC to offer innovative and pioneering products on the market.

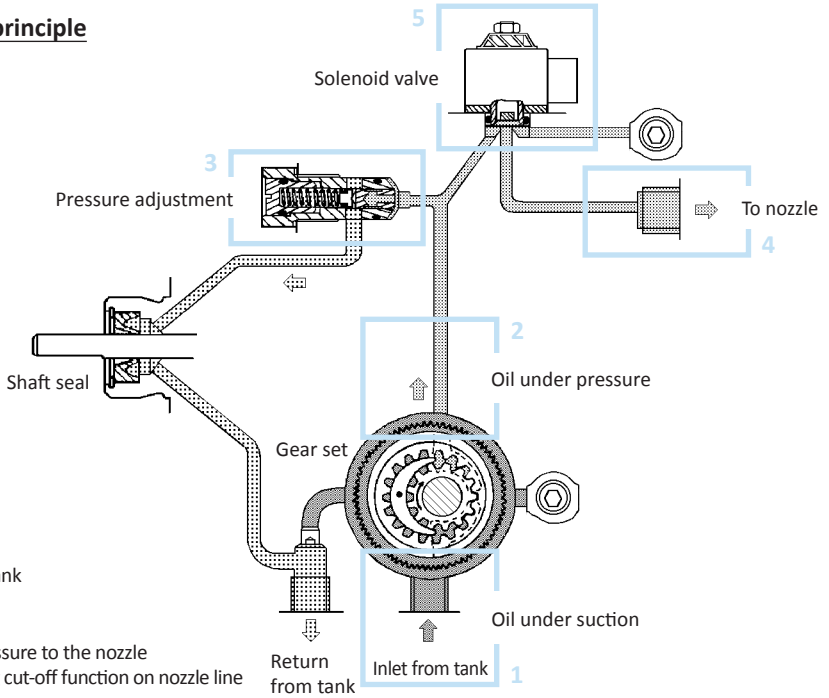
This manual describes the operation and installation of SUNTEC low flow oil pumps. Conversion tables (replacement of models from other pump manufacturers by SUNTEC models), presentation of our AUV/ATUV Service pumps and a Frequently Asked Question section will give you answers to the questions you face about the maintenance and troubleshooting of your installations.

We hope this manual will help you in your daily service.

Your SUNTEC Team

TABLE OF CONTENTS

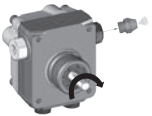
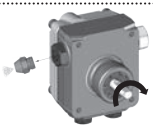
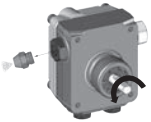
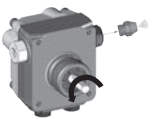
1. Pump working principle



1- Oil under suction from tank
2- Oil under pressure
3- Oil pressure adjustment
4- Delivery of oil under pressure to the nozzle
5- Solenoid valve controlling cut-off function on nozzle line

2. SUNTEC pump identification

2.1 Choice of SUNTEC pump configuration (shaft rotation and nozzle outlet)

	**A** : Pump seen from shaft end, clockwise rotation, right hand nozzle outlet. Example : AL 35 A 9526 6P 0700
	**B** : Pump seen from shaft end, clockwise rotation, left hand nozzle outlet. Example : AN 67 B 1335 6P
	**C** : Pump seen from shaft end, anti-clockwise rotation, left hand nozzle outlet. Example : AS 47 C 1538 6P 0700
	**D** : Pump seen from shaft end, anti-clockwise rotation, right hand nozzle outlet. Example : AE 47 D 1385 6P

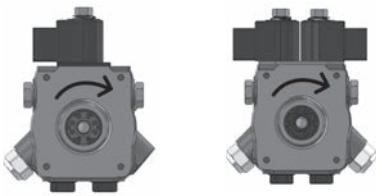
Notes :

This codification is valid for any SUNTEC pump except A2L, AUV and ATUV pumps.

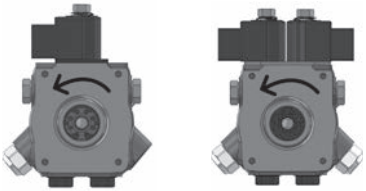
For A2L, the configuration is determined by the shaft rotation and the side pressure gauge port location.

TA, TAR and T pumps exist only in A and C configurations.

2.2 Choice of SUNTEC service pump configuration (shaft rotation) - AUV and ATUV models

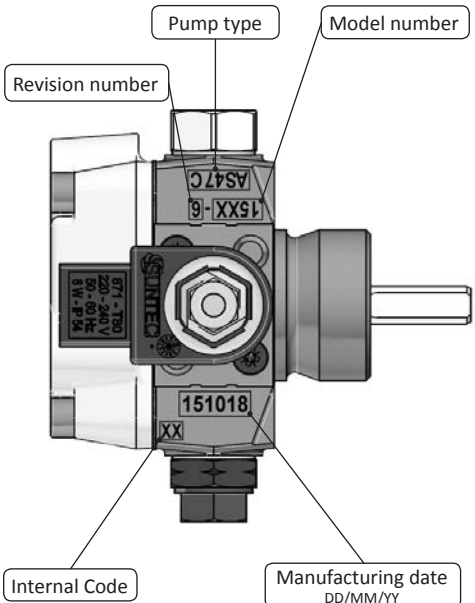


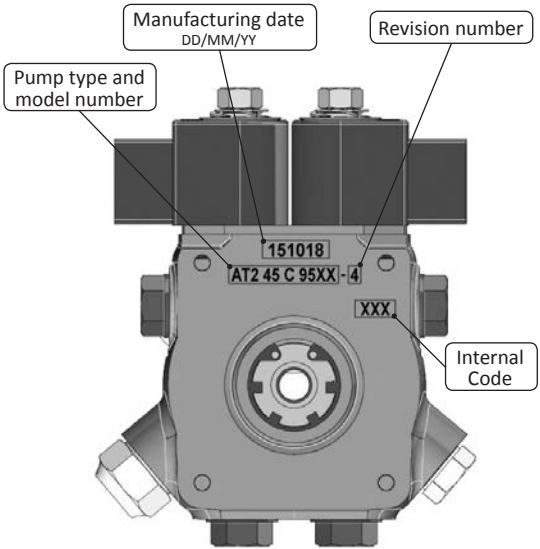
R : Pump seen from shaft end
clockwise rotation
Example : - AUV 47R 9876 6P 0700
- ATUV 45R 9861 6P 0700



L : Pump seen from shaft end
anti-clockwise rotation
Example : - AUV 47L 9877 6P 0700
- ATUV 45L 9860 6P 0700

2.3 Marking


Pump type
Model number
Revision number
AS47C
15XX-6
151018
XX
Internal Code
Manufacturing date
DD/MM/YY


Manufacturing date
DD/MM/YY
Revision number
Pump type and model number
151018
AT2 45 C 95XX-4
XXX
Internal Code

3. Conversion SUNTEC AE, AS, AL, ALE -> SUNTEC AUV

AE	AUV	Remarks
AE 35 C 9850 xP	AUV 47 L 9877 6P 0700	*+ Kit 991401*
AE 37 C 1376 xP	AUV 47 L 9877 6P 0700	*+ Kit 991401* *AE : pressure gauge port on the top of the body*
AE 45 C 1301 xP	AUV 47 L 9877 6P 0700	*+ Kit 991401*
AE 45 C 1360 xP	AUV 47 L 9877 6P 0700	*+ Kit 991401*
AE 45 C 1370 xM	AUV 47 L 9877 6P 0700	*+ Kit 991401* *+ G1/4 - G1/8 Adapters x2 (ref. 3729745)* *+ G1/8 - R1/8 connections (ref. 3723760)*
AE 45 C 1392 xP	AUV 47 L 9877 6P 0700	*+ Kit 991401* *+ G1/4-M14 connections (ref. 3759801)*
AE 45 D 1307 xP	AUV 47 L 9877 6P 0700	*+ Kit 991401*
AE 45 D 1308 xP	AUV 47 L 9877 6P 0700	*+ Kit 991401*
AE 47 A 1384 xP	AUV 47 R 9876 6P 0700	*+ Kit 991401*
AE 47 B 1366 xP	AUV 47 R 9876 6P 0700	*+ Kit 991401*

→ The data given are also valid for one-pipe installations (AUV pumps are convertible into a one-pipe configuration).

AE	AUV	Remarks
AE 47 B 7267 xP	AUV 47 R 9876 6P 0700	*AE : 2 pressure ports on the body* *+ Kit 991401* *+ Hub adaptor Ø32-Ø54 (ref. 3759833)*
AE 47 C 1386 xP	AUV 47 L 9877 6P 0700	*+ Kit 991401* *AE pressure range : 2-12 bars*
AE 47 C 1387 xP	AUV 47 L 9877 6P 0700	*+ Kit 991401*
AE 47 C 1397 xP	AUV 47 L 9877 6P 0700	*+ Kit 991401*
AE 47 C 7274 xM	AUV 47 L 9877 6P 0700	*AE : 2 pressure ports on the body* *AUV to convert in one-pipe configuration* *+ Kit 991401* *+ Flange adaptor Ø32-Ø54 (ref. 3719003)*
AE 47 C 7368 xP	AUV 47 L 9877 6P 0700	*AE : 2 pressure ports on the body* *+ Kit 991401*
AE V 47 C 1394 xP	AUV 47 L 9877 6P 0700	*+ Kit 991401* *AE pressure range : 3-12 bars*
AE V 47 C 1398 xM	AUV 47 L 9877 6P 0700	*+ Kit 991401* *AE pressure range : 2-12 bars*
AE 47 D 1378 xM	AUV 47 L 9877 6P 0700	*+ Kit 991401* *AUV to convert in one-pipe configuration*
AE 47 D 1385 xP	AUV 47 L 9877 6P 0700	*+ Kit 991401*

AS	AUV	Remarks
AS 47 A 1536 xP 0500/0700	AUV 47 R 9876 6P 0700	
AS 47 A 1589 xP 0500/0700	AUV 47 R 9876 6P 0700	
AS 47 A 1619 xP 0200	AUV 47 R 9876 6P 0700	*Change the coil (24V AC ref. 3713823)*
AS 47 A 7432 xP 0500/0700	AUV 47 R 9876 6P 0700	*AS : 2 pressure ports on the body + Flange adaptor Ø32-Ø54 (ref. 3719003)*
AS 47 A 7436 xP 0500/0700	AUV 47 R 9876 6P 0700	*AS : 2 pressure ports on the body + Hub adaptor Ø32-Ø54 (ref. 3759833)*
AS 47 A 7509 xP 0500/0700	AUV 47 R 9876 6P 0700	*AS : 2 pressure ports on the body Keep the AS pump nozzle connections + G1/4 - G1/8 Adapters x2 (ref. 3729745)*
AS 47 A 7536 xP 0500/0700	AUV 47 R 9876 6P 0700	*AS : 2 pressure ports on the body*
AS 47 A 7592 xP 0500/0700	AUV 47 R 9876 6P 0700	*AS : 2 pressure ports on the body*
AS 47 AK 1564 xP 0500/0700	AUV 47 R 9876 6P 0700	
AS 47 AK 1602 xP 0500/0700	AUV 47 R 9876 6P 0700	
AS 47 AK 1612 xM 0500/0700	AUV 47 R 9876 6P 0700	*AUV to convert in one-pipe configuration*
AS 47 AK 1613 xP 0500/0700	AUV 47 R 9876 6P 0700	
AS 47 AK 7469 xP 0500/0700	AUV 47 R 9876 6P 0700	*AS : 2 pressure ports on the body + Flange adaptor Ø32-Ø54 (ref. 3719003)*
AS 47 AK 7564 xP 0500/0700	AUV 47 R 9876 6P 0700	*AS : 2 pressure ports on the body*

→ The data given in this table are valid for one-pipe installations (AUV pumps are convertible into a one-pipe configuration).

AS	AUV	Remarks
AS V 47 A 1636 xP 0500/0700	AUV 47 R 9876 6P 0700	
AS V 47 A 7472 xP 0500/0700	AUV 47 R 9876 6P 0700	*AS : 2 pressure ports on the body + Flange adaptor Ø32-Ø54 (ref. 3719003)*
AS V 47 AK 7512 xP 0500/0700	AUV 47 R 9876 6P 0700	*AS : 2 pressure ports on the body*
AS 47 B 1537 xP 0500/0700	AUV 47 R 9876 6P 0700	
AS 47 B 1616 xP 0500/0700	AUV 47 R 9876 6P 0700	
AS 47 B 7445 xP 0500/0700	AUV 47 R 9876 6P 0700	*AS : 2 pressure ports on the body + Flange adaptor Ø32-Ø54 (ref. 3719003)*
AS 47 B 7470 xP 0500/0700	AUV 47 R 9876 6P 0700	*AS : pressure port on the body + Flange adaptor Ø32-Ø54 (ref. 3719003)*
AS 47 BK 1551 xP 0500/0700	AUV 47 R 9876 6P 0700	
AS V 47 B 1618 xP 0500/0700	AUV 47 R 9876 6P 0700	
AS V 47 B 1637 xP 0500/0700	AUV 47 R 9876 6P 0700	
AS 47 C 1538 xP 0500/0700	AUV 47 L 9877 6P 0700	
AS 47 C 1569 xP 0500/0700	AUV 47 L 9877 6P 0700	
AS 47 C 1578 xP 0500/0700	AUV 47 L 9877 6P 0700	
AS 47 C 1603 xP 0500/0700	AUV 47 L 9877 6P 0700	
AS 47 C 1604 xP 0500/0700	AUV 47 L 9877 6P 0700	

AS	AUV	Remarks
AS 47 C 1620 xP 0100/0600	AUV 47 L 9877 6P 0700	*Change the coil (110V AC ref. 3713824)*
AS 47 C 1621 xP 0200	AUV 47 L 9877 6P 0700	*Change the coil (24V AC ref. 3713823)*
AS 47 C 1625 xP 0500/0700	AUV 47 L 9877 6P 0700	
AS 47 C 7434 xP 0500/0700	AUV 47 L 9877 6P 0700	*AS : 2 pressure ports on the body + Flange adaptor Ø32-Ø54 (ref. 3719003)*
AS 47 C 7438 xP 0500/0700	AUV 47 L 9877 6P 0700	*AS : 2 pressure ports on the body + Hub adaptor Ø32-Ø54 (ref. 3759833)*
AS 47 C 7444 xP 0500/0700	AUV 47 L 9877 6P 0700	*AS : 2 pressure ports on the body + Flange adaptor Ø32-Ø54 (ref. 3719003)*
AS 47 C 7461 xP 0500/0700	AUV 47 L 9877 6P 0700	*AS : 2 pressure ports on the body + Flange adaptor Ø32-Ø54 (ref. 3719003)*
AS 47 C 7538 xP 0500/0700	AUV 47 L 9877 6P 0700	*AS : 2 pressure ports on the body*
AS 47 C 7541 xP 0500/0700	AUV 47 L 9877 6P 0700	*AS : 2 pressure ports on the body*
AS 47 CK 1554 xP 0500/0700	AUV 47 L 9877 6P 0700	
AS 47 CK 1582 xP 0500/0700	AUV 47 L 9877 6P 0700	*AS : horizontal pressure port on the body*
AS 47 CK 1623 xP 0500/0700	AUV 47 L 9877 6P 0700	
AS 47 CK 7451 xM 0500/0700	AUV 47 L 9877 6P 0700	*AS : 2 pressure ports on the body + Flange adaptor Ø32-Ø54 (ref. 3719003) AUV to convert in one-pipe configuration*
AS V 47 C 1627 xP 0500/0700	AUV 47 L 9877 6P 0700	

→ *The data given are also valid for one-pipe installations (AUV pumps are convertible into a one-pipe configuration).*

AS	AUV	Remarks
AS V 47 C 1638 xP 0500/0700	AUV 47 L 9877 6P 0700	
AS V 47 CK 1624 xM 0500/0700	AUV 47 L 9877 6P 0700	*AUV to convert in one-pipe configuration*
AS 47 D 1539 xP 0500/0700	AUV 47 L 9877 6P 0700	
AS 47 D 1550 xP 0500/0700	AUV 47 L 9877 6P 0700	
AS 47 D 1557 xP 0500/0700	AUV 47 L 9877 6P 0700	
AS 47 D 1568 xP 0500/0700	AUV 47 L 9877 6P 0700	*+ G1/8 - M8 connections (ref. 3723838)* *+ G1/4 - M14 connections (ref. 3759801)*
AS 47 D 1596 xP0500/0700	AUV 47 L 9877 6P 0700	
AS 47 D 1615 xP 0500/0700	AUV 47 L 9877 6P 0700	
AS 47 D 7435 xP 0500/0700	AUV 47 L 9877 6P 0700	*AS : 2 pressure ports on the body* *+ Flange adaptor Ø32-Ø54 (ref. 3719003)*
AS 47 D 7439 xP 0500/0700	AUV 47 L 9877 6P 0700	*AS : 2 pressure ports on the body* *+ Hub adaptor Ø32-Ø54 (ref. 3759833)*
AS 47 DK 1562 xP 0500/0700	AUV 47 L 9877 6P 0700	
AS 47 DK 1573 xM 0500/0700	AUV 47 L 9877 6P 0700	*AUV to convert in one-pipe configuration*
AS 47 DK 1586 xP 0500/0700	AUV 47 L 9877 6P 0700	
AS 47 DK 1597 xP 0500/0700	AUV 47 L 9877 6P 0700	
AS V 47 D 1640 xP 0200	AUV 47 L 9877 6P 0700	*Change the coil (24V AC ref. 3713823)*

AL	AUV	Remarks
AS V 47 D 1696 xP 0500/0700	AUV 47 L 9877 6P 0700	
AL 30 C 9518 xP 0500/0700	AUV 47 L 9877 6P 0700	*+ G1/4-M10 inlet connections (ref. 3723850)* *+ G1/4 - G1/8 return connection (ref. 3729745)* *+ G1/8 - M8 nozzle connection (ref. 3723838)*
AL 30 C 9535 xP 0500/0700	AUV 47 L 9877 6P 0700	*+ G1/8 - M8 connections (3723838)*
AL 30 C 9537 xP 0500/0700	AUV 47 L 9877 6P 0700	*+ G1/4-M10 connections (ref. 3723850)* *+ G1/8 - M8 connections (ref. 3723838)*
AL 30 CK 9516 xP 0500/0700	AUV 47 L 9877 6P 0700	*+ G1/4-M10 connections (ref. 3723850)* *+ G1/8 - M8 connections (ref. 3723838)*
AL V 30 C 9608 xP 0500/0700	AUV 47 L 9877 6P 0700	*+ G1/4-M10 connections (ref. 3723850)* *+ G1/8 - M8 connections (ref. 3723838)*
AL V 30 C 9611 xP 0500/0700	AUV 47 L 9877 6P 0700	*+ G1/4-M10 connections (ref. 3723850)* *+ G1/8 - M8 connections (ref. 3723838)*
AL V 30 CK 9612 xP 0500/0700	AUV 47 L 9877 6P 0700	*+ G1/4-M10 connections (ref. 3723850)* *+ G1/8 - M8 connections (ref. 3723838)*
AL 35 A 9501 xP 0100/0600	AUV 47 R 9876 6P 0700	*Change the coil (110V AC ref. 3713824)*
AL 35 A 9526 xP 0500/0700	AUV 47 R 9876 6P 0700	
AL 35 A 9570 xP 0500/0700	AUV 47 R 9876 6P 0700	*AL : side pressure port on the body on the nozzle side*
AL 35 A 9596 xP 0500/0700	AUV 47 R 9876 6P 0700	*AL : pressure port on the body on the nozzle side*
AL V 35 A 9626 xP 0500/0700	AUV 47 R 9876 6P 0700	

→ The data given are also valid for one-pipe installations (AUV pumps are convertible into a one-pipe configuration).

AL	AUV	Remarks
AL 35 B 9580 xP 0500/0700	AUV 47 R 9876 6P 0700	*AL : 2 pressure ports on the body*
AL 35 C 9503 xP 0500/0700	AUV 47 L 9877 6P 0700	
AL 35 C 9514 xP 0100/0600	AUV 47 L 9877 6P 0700	*Change the coil (110V AC ref. 3713824)*
AL 35 C 9519 xP 0500/0700	AUV 47 L 9877 6P 0700	
AL 35 C 9521 xP 0500/0700	AUV 47 L 9877 6P 0700	
AL 35 C 9528 xP 0500/0700	AUV 47 L 9877 6P 0700	
AL 35 C 9533 xP 0500/0700	AUV 47 L 9877 6P 0700	
AL 35 C 9540 xP 0500/0700	AUV 47 L 9877 6P 0700	*+ G1/4 - G1/8 Adapters x2 (ref. 3729745)*
AL 35 C 9542 2P 25	AUV 47 L 9877 6P 0700	
AL 35 C 9545 xP 0500/0700	AUV 47 L 9877 6P 0700	*+ G1/8 - M8 connections (ref. 3723838)*
AL 35 C 9553 xP 0500/0700	AUV 47 L 9877 6P 0700	
AL 35 C 9578 xP 0500/0700	AUV 47 L 9877 6P 0700	*AL : 2 pressure ports on the body*
AL 35 CK 9536 xP 0500/0700	AUV 47 L 9877 6P 0700	*AL : 2 pressure ports on the body*
AL V 35 C 9573 xP 0500/0700	AUV 47 L 9877 6P 0700	
AL V 35 C 9614 xP 0100/0600	AUV 47 L 9877 6P 0700	*Change the coil (110V AC ref. 3713824)*
AL V 35 C 9619 xP 0500/0700	AUV 47 L 9877 6P 0700	
AL V 35 C 9625 xP 0500/0700	AUV 47 L 9877 6P 0700	*Keep the AL pump nozzle connections*

AL	AUV	Remarks
AL V 35 C 9628 xP 0500/0700	AUV 47 L 9877 6P 0700	
AL 35 D 9529 xP 0500/0700	AUV 47 L 9877 6P 0700	
AL V 35 D 9622 xP 0500/0700	AUV 47 L 9877 6P 0700	

ALE	AUV	Remarks
ALE 30 C 9336 xP 0500/0700	AUV 47 L 9877 6P 0700	*+ G1/4 - G1/8 Adapters x2 (ref. 3729745)* *+ G1/8 - M8 connections (ref. 3723838)*
ALE V 30 C 9300 xP 0500/0700	AUV 47 L 9877 6P 0700	*+ G1/4 - G1/8 Adapters x2 (ref. 3729745)* *+ G1/8 - M8 connections (ref. 3723838)*
ALE 35 C 9319 xP 0500/0700	AUV 47 L 9877 6P 0700	
ALE 35 C 9321 xP 0500/0700	AUV 47 L 9877 6P 0700	
ALE 35 C 9324 xP 0500/0700	AUV 47 L 9877 6P 0700	
ALE 35 C 9327 xP 0500/0700	AUV 47 L 9877 6P 0700	*ALE : 2 pressure ports on the body*
ALE 35 C 9329 xP 0500/0700	AUV 47 L 9877 6P 0700	
ALE 35 C 9331 xP 0500/0700	AUV 47 L 9877 6P 0700	
ALE 35 C 9333 xP 0500/0700	AUV 47 L 9877 6P 0700	
ALE 35 C 9334 xP 0500/0700	AUV 47 L 9877 6P 0700	*ALE : 2 pressure ports on the body*

→ The data given are also valid for one-pipe installations (AUV pumps are convertible into a one-pipe configuration).

ALE	AUV	Remarks
ALE 35 CK 9328 xP 0500/0700	AUV 47 L 9877 6P 0700	*ALE : 2 pressure ports on the body*
ALE V 35 C 9317 xP 0500/0700	AUV 47 L 9877 6P 0700	
ALE V 35 C 9339 xP 0500/0700	AUV 47 L 9877 6P 0700	
ALE V 35C 9356 xP 0500/0700	AUV 47 L 9877 6P 0700	
ALE V 35 D 9337 xP 0500/0700	AUV 47 L 9877 6P 0700	

→ *The data given are also valid for one-pipe installations (AUV pumps are convertible into a one-pipe configuration).*

4. Conversion SUNTEC AT2, ATE2 -> SUNTEC ATUV

AT2	ATUV	Remarks
AT2 45 A 9547 xP 0500/0700	ATUV 45 R 9861 6P 0700	
AT2 45 A 9574 xP 0500/0700	ATUV 45 R 9861 6P 0700	
AT2 45 AK 9507 xP 0500/0700	ATUV 45 R 9861 6P 0700	
AT2V 45 A 9647 xP 0500/0700	ATUV 45 R 9861 6P 0700	
AT2 45 B 9506 xP 0500/0700	ATUV 45 R 9861 6P 0700	*+ Flange adaptor Ø32-Ø54 (ref. 3719003)*
AT2 45 BK 9601 xP 0500/0700	ATUV 45 R 9861 6P 0700	
AT2 45 BK 9601 xP 0600	ATUV 45 R 9861 6P 0700	*+ Change the coils (ref. 3713824)*
AT2V 45 B 9651 xP 0500/0700	ATUV 45 R 9861 6P 0700	
AT2 45 C 9541 xP 0500/0700	ATUV 45 L 9860 6P 0700	
AT2 45 C 9543 xP 0600	ATUV 45 L 9860 6P 0700	*+ Change the coils (ref. 3713824)*
AT2 45 C 9543 xP 0500/0700	ATUV 45 L 9860 6P 0700	
AT2 45 C 9563 xP 0500/0700	ATUV 45 L 9860 6P 0700	*+ Nozzle fitting (ref. 3723838)* *+ Inlet and return fittings G1/4-G1/8 (ref. 3729745)*
AT2 45 C 9594 xP 0500/0700	ATUV 45 L 9860 6P 0700	

AT2	ATUV	Remarks
AT2V 45 C 9602 xP 0500/0700	ATUV 45 L 9860 6P 0700	*+ Nozzle fitting (ref. 3723838)* *+ Inlet and return fittings G1/4-G1/8 (ref. 3729745)*
AT2V 45 C 9604 xP 0500/0700	ATUV 45 L 9860 6P 0700	
AT2V 45 C 9616 xP 0500/0700	ATUV 45 L 9860 6P 0700	
AT2 45 D 9513 xP 0500/0700	ATUV 45 L 9860 6P 0700	*+ Inlet/return and nozzle fittings from the old pump*
AT2 45 D 9538 xP 0500/0700	ATUV 45 L 9860 6P 0700	
AT2 45 D 9544 xP 0500/0700	ATUV 45 L 9860 6P 0700	
AT2 45 D 9555 xP 0500/0700	ATUV 45 L 9860 6P 0700	*+ Inlet/return and nozzle fittings from the old pump*
AT2 45 D 9584 xP 0500/0700	ATUV 45 L 9860 6P 0700	
AT2V 45 D 9603 xP 0500/0700	ATUV 45 L 9860 6P 0700	
AT2V 45 D 9615 xP 0500/0700	ATUV 45 L 9860 6P 0700	*+ Nozzle fitting (ref. 3723838)* *+ Inlet and return fittings G1/4-G1/8 (ref. 3729745)*
AT2V 45 D 9633 xP 0500/0700	ATUV 45 L 9860 6P 0700	
AT2V 45 D 9638 xP 0500/0700	ATUV 45 L 9860 6P 0700	
AT2 55 B 9406 xP 0500/0700	ATUV 45 R 9861 6P 0700	*+ Flange adaptor Ø32-Ø54 (ref. 3719003)*
AT2 55 B 9515 xP 0500/0700	ATUV 45 R 9861 6P 0700	

AT2	ATUV	Remarks
AT2 55 C 9504 xP 0500/0700	ATUV 45 L 9860 6P 0700	
AT2 55 C 9549 xP 0500/0700	ATUV 45 L 9860 6P 0700	
AT2 55 C 9572 xP 0500	ATUV 45 L 9860 6P 0700	
AT2 55 CK 9571 xP 0500	ATUV 45 L 9860 6P 0700	*+ Nozzle fitting (ref. 3753948)*
AT2V 55 C 9672 xP 0500/0700	ATUV 45 L 9860 6P 0700	
AT2V 55 CK 9605 xP 0500/0700	ATUV 45 L 9860 6P 0700	*+ Nozzle fitting (ref. 3753948)*
AT2 55 C 9572 xP 0500	ATUV 45 L 9860 6P 0700	
AT2 55 CK 9571 xP 0500	ATUV 45 L 9860 6P 0700	*+ Nozzle fitting (ref. 3753948)*
AT2V 55 C 9672 xP 0500/0700	ATUV 45 L 9860 6P 0700	
AT2V 55 CK 9605 xP 0500/0700	ATUV 45 L 9860 6P 0700	*+ Nozzle fitting (ref. 3753948)*

ATE2	ATUV	Remarks
ATE2V 45 C 9305 xP 0500/0700	ATUV 45 L 9860 6P 0700	
ATE2V 45 C 9306 xP 0500/0700	ATUV 45 L 9860 6P 0700	
ATE2V 45 C 9315 xP 0500/0700	ATUV 45 L 9860 6P 0700	

ATE2	ATUV	Remarks
ATE2V 45 C 9355 xP 0500/0700	ATUV 45 L 9860 6P 0700	
ATE2 55 D 9351 xP 0500/0700	ATUV 45 L 9860 6P 0700	
ATE2 55 D 9353 xP 0500/0700	ATUV 45 L 9860 6P 0700	
ATE2V 55 D 9354 xP 0500/0700	ATUV 45 L 9860 6P 0700	

5. Conversion DANFOSS -> SUNTEC

DANFOSS	SUNTEC	Remarks
BFP 10 L6 071N0272	AE 57 C 7373 4P	
BFP 10 L6 071N0276	AE 57 C 7373 4P	*AE to convert in one-pipe configuration*
BFP 10 L8 071N6111	AE 67 C 7361 4P	
BFP 10 L11 071N6107	AE 77 C 7380 2P	
BFP 10 L13 071N6103	AE 97 C 7390 2P	*+ Kit 991492*
BFP 10 R3 071N0177	AUV 47 R 9876 6P 0700 + Kit 991401	
BFP 10 R3 071N0288	AUV 47 R 9876 6P 0700 + Kit 991401	*AUV to convert in one-pipe configuration*
BFP 10 R5 071N0166	AUV 47 R 9876 6P 0700 + Kit 991401	
BFP 10 R6 071N0273	AN V 57 A 7359 4P	*AN: Hydraulic cut-off, 14 bars max.*
BFP 10 R6 071N0277	AN V 57 A 7359 4P	*AN: Hydraulic cut-off, 14 bars max., to convert in one-pipe configuration*
BFP 10 R8 071N6112	AN 67 A 7345 4P	*AN: Hydraulic cut-off*
BFP 10 R11 071N6108	AN 77 A 7346 2P	*AN: Hydraulic cut-off*
BFP 10 R13 071N6104	AN 97 A 7391 2P	*AN: Hydraulic cut-off*
BFP 11 L3 071N0101	AUV 47 L 9877 6P 0700	
BFP 11 L3 071N0114	AUV 47 L 9877 6P 0700	

DANFOSS	SUNTEC	Remarks
BFP 11 L3 071N0141	AUV 47 L 9877 6P 0700	*AUV to convert in one-pipe configuration*
BFP 11 L3 071N0142	AUV 47 L 9877 6P 0700	*AUV to convert in one-pipe configuration*
BFP 11 L3 071N0144	AUV 47 L 9877 6P 0700	
BFP 11 L3 071N0146	AUV 47 L 9877 6P 0700	
BFP 11 L3 071N0152	AUV 47 L 9877 6P 0700	
BFP 11 L3 071N0153	AUV 47 L 9877 6P 0700	*AUV: Change the coil (24V ref. 3713823)*
BFP 11 L3 071N0184	AUV 47 L 9877 6P 0700	
BFP 11 L3 071N0210	AUV 47 L 9877 6P 0700	
BFP 11 L3 071N0213	AUV 47 L 9877 6P 0700	
BFP 11 L3 071N7141	AUV 47 L 9877 6P 0700	
BFP 11 L5 071N0105	AUV 47 L 9877 6P 0700	
BFP 11 L5 071N0178	AUV 47 L 9877 6P 0700	
BFP 11 L6 071N1270	AS 57 C 1583 6P 0700	*AS: 14 bars max.*
BFP 11 L6 071N1274	AS 57 C 1583 6P 0700	*AS: 14 bars max., to convert in one-pipe configuration*
BFP 11 L8 071N6109	AL 65 C 9589 6P 0700	*AL: 15 bars max.*
BFP 11 R3 071N0143	AUV 47 R 9876 6P 0700	
BFP 11 R3 071N0145	AUV 47 R 9876 6P 0700	

DANFOSS	SUNTEC	Remarks
BFP 11 R3 071N0155	AUV 47 R 9876 6P 0700	
BFP 11 R3 071N0181	AUV 47 R 9876 6P 0700	
BFP 11 R3 071N0183	AUV 47 R 9876 6P 0700	
BFP 11 R3 071N7155	AUV 47 R 9876 6P 0700	
BFP 11 R6 071N0271	AS 57 A 7591 4P 0700	
BFP 11 R6 071N0275	AS 57 A 7591 4P 0700	*AS to convert in one-pipe configuration*
BFP 11 R6 071N1271	AS 57 A 7591 4P 0700	*AS: 14 bars max.*
BFP 11 R6 071N1275	AS 57 A 7591 4P 0700	*AS: 14 bars max., to convert in one-pipe configuration*
BFP 11 R8 071N6110	AL 65 B 9532 6P 0700	
BFP 11 R11 071N6106	AL 75 B 9539 6P 0700	*AL: 15 bars max. and left nozzle outlet*
BFP 12 L6 071N6217	A2L 65 CK 9704 4P 0700	
BFP 12 L8 071N6210	A2L 65 CK 9704 4P 0700	
BFP 12 L11 071N6202	A2L 75 CK 9701 4P 0700	
BFP 12 L13 071N6203	A2L 95 D 9702 4P 0700	
BFP 12 R6 071N6218	A2L 65 A 9708 4P 0700	
BFP 12 R8 071N6219	A2L 65 A 9708 4P 0700	
BFP 12 R11 071N6214	A2L 95 B 9711 4P 0700	

DANFOSS	SUNTEC	Remarks
BFP 12 R13 071N6220	A2L 95 B 9711 4P 0700	
BFP 20 L3 071N0108	AUV 47 L 9877 6P 0700 + Kit 991401	
BFP 20 L3 071N0125	AUV 47 L 9877 6P 0700 + Kit 991401	
BFP 20 L3 071N0127	AUV 47 L 9877 6P 0700 + Kit 991401	
BFP 20 L3 071N0161	AUV 47 L 9877 6P 0700 + Kit 991401	
BFP 20 L3 071N0212	AUV 47 L 9877 6P 0700 + Kit 991401	
BFP 20 L3 071N0267	AUV 47 L 9877 6P 0700 + Kit 991401	
BFP 20 L5 071N0126	AUV 47 L 9877 6P 0700 + Kit 991401	
BFP 20 R3 071N0118	AUV 47 R 9876 6P 0700 + Kit 991401	
BFP 20 R3 071N0128	AUV 47 R 9876 6P 0700 + Kit 991401	
BFP 20 R3 071N0162	AUV 47 R 9876 6P 0700 + Kit 991401	
BFP 20 R3 071N0169	AUV 47 R 9876 6P 0700 + Kit 991401	
BFP 20 R3 071N0229	AUV 47 R 9876 6P 0700 + Kit 991401	
BFP 20 R3 071N0298	AUV 47 R 9876 6P 0700 + Kit 991401	*AUV to convert in one-pipe configuration*
BFP 20 R5 071N0129	AUV 47 R 9876 6P 0700 + Kit 991401	
BFP 20 R5 071N0180	AUV 47 R 9876 6P 0700 + Kit 991401	
BFP 21 L2 071N2123	AUV 47 L 9877 6P 0700	

DANFOSS	SUNTEC	Remarks
BFP 21 L3 071N0102	AUV 47 L 9877 6P 0700	
BFP 21 L3 071N0103	AUV 47 L 9877 6P 0700	
BFP 21 L3 071N0104	AUV 47 L 9877 6P 0700	
BFP 21 L3 071N0111	AUV 47 L 9877 6P 0700	
BFP 21 L3 071N0113	AUV 47 L 9877 6P 0700	
BFP 21 L3 071N0119	AUV 47 L 9877 6P 0700	
BFP 21 L3 071N0122	AUV 47 L 9877 6P 0700	
BFP 21 L3 071N0123	AUV 47 L 9877 6P 0700	*AUV: Change the coil (110V ref. 3713824)*
BFP 21 L3 071N0130	AUV 47 L 9877 6P 0700	
BFP 21 L3 071N0132	AUV 47 L 9877 6P 0700	
BFP 21 L3 071N0147	AUV 47 L 9877 6P 0700	
BFP 21 L3 071N0148	AUV 47 L 9877 6P 0700	
BFP 21 L3 071N0150	AUV 47 L 9877 6P 0700	
BFP 21 L3 071N0151	AUV 47 L 9877 6P 0700	
BFP 21 L3 071N0156	AUV 47 L 9877 6P 0700	*AUV to convert in one-pipe configuration*
BFP 21 L3 071N0164	AUV 47 L 9877 6P 0700	
BFP 21 L3 071N0170	AUV 47 L 9877 6P 0700	

DANFOSS	SUNTEC	Remarks
BFP 21 L3 071N0175	AUV 47 L 9877 6P 0700	
BFP 21 L3 071N0176	AUV 47 L 9877 6P 0700	*AUV: Change the coil (110V ref. 3713824)*
BFP 21 L3 071N0179	AUV 47 L 9877 6P 0700	
BFP 21 L3 071N0182	AUV 47 L 9877 6P 0700	
BFP 21 L3 071N0185	AUV 47 L 9877 6P 0700	
BFP 21 L3 071N0189	AUV 47 L 9877 6P 0700	*AUV: Change the coil (24V ref. 3713823)*
BFP 21 L3 071N0193	AUV 47 L 9877 6P 0700	
BFP 21 L3 071N0197	AUV 47 L 9877 6P 0700	
BFP 21 L3 071N0204	AUV 47 L 9877 6P 0700	
BFP 21 L3 071N0209	AUV 47 L 9877 6P 0700	
BFP 21 L3 071N0217	AUV 47 L 9877 6P 0700	
BFP 21 L3 071N0226	AUV 47 L 9877 6P 0700	
BFP 21 L3 071N0228	AUV 47 L 9877 6P 0700	
BFP 21 L3 071N0295	AUV 47 L 9877 6P 0700	
BFP 21 L3 071N1214	AUV 47 L 9877 6P 0700	*AUV to convert in one-pipe configuration*
BFP 21 L3 071N1217	AUV 47 L 9877 6P 0700	
BFP 21 L3 071N1219	AUV 47 L 9877 6P 0700	

DANFOSS	SUNTEC	Remarks
BFP 21 L3 071N7170	AUV 47 L 9877 6P 0700	
BFP 21 L3 L2 071N2130	AUV 47 L 9877 6P 0700	
BFP 21 L3 LE 071N2103	AUV 47L 9877 6P 0700	
BFP 21 L3 LE 071N2104	AUV 47L 9877 6P 0700	
BFP 21 L3 LE 071N2108	AUV 47L 9877 6P 0700	
BFP 21 L3 LE 071N2110	AUV 47L 9877 6P 0700	
BFP 21 L3 LE 071N2112	AUV 47L 9877 6P 0700	
BFP 21 L3 LE 071N2113	AUV 47L 9877 6P 0700	
BFP 21 L3 LE 071N2114	AUV 47L 9877 6P 0700	
BFP 21 L3 LE 071N2118	AUV 47L 9877 6P 0700	
BFP 21 L3 LE 071N2119	AUV 47L 9877 6P 0700	
BFP 21 L3 LE 071N3118	AUV 47 L 9877 6P 0700	
BFP 21 L3 LE 071N3119	AUV 47 L 9877 6P 0700	
BFP 21 L3 LE 071N4105	AUV 47L 9877 6P 0700	
BFP 21 L3 LE-S 071N0233	AUV 47L 9877 6P 0700	
BFP 21 L3 LE-S 071N0264	AUV 47L 9877 6P 0700	
BFP 21 L3 LE-S 071N2116	AUV 47L 9877 6P 0700	

DANFOSS	SUNTEC	Remarks
BFP 21 L3 LE-S 071N2125	AUV 47L 9877 6P 0700	
BFP 21 L3 LE-S 071N2128	AUV 47L 9877 6P 0700	
BFP 21 L3 LE-S 071N2225	AUV 47L 9877 6P 0700	
BFP 21 L3 LE-S 071N2303	AUV 47L 9877 6P 0700	
BFP 21 L3 LE-S 071N3136	AUV 47 L 9877 6P 0700	
BFP 21 L3 LE-S 071N3225	AUV 47 L 9877 6P 0700	
BFP 21 L5 071N0107	AUV 47 L 9877 6P 0700	
BFP 21 L5 071N0116	AUV 47 L 9877 6P 0700	
BFP 21 L5 071N0158	AUV 47 L 9877 6P 0700	
BFP 21 L5 071N0172	AUV 47 L 9877 6P 0700	
BFP 21 L5 071N0194	AUV 47 L 9877 6P 0700	
BFP 21 L5 071N0202	AUV 47 L 9877 6P 0700	
BFP 21 L5 071N0227	AUV 47 L 9877 6P 0700	
BFP 21 L5 071N0292	AUV 47 L 9877 6P 0700	
BFP 21 L5 071N7172	AUV 47 L 9877 6P 0700	
BFP 21 L5 LE-S 071N2131	AUV 47L 9877 6P 0700	
BFP 21 R3 071N0109	AUV 47 R 9876 6P 0700	

DANFOSS	SUNTEC	Remarks
BFP 21 R3 071N0112	AUV 47 R 9876 6P 0700	
BFP 21 R3 071N0136	AUV 47 R 9876 6P 0700	
BFP 21 R3 071N0154	AUV 47 R 9876 6P 0700	
BFP 21 R3 071N0157	AUV 47 R 9876 6P 0700	*AUV to convert in one-pipe configuration*
BFP 21 R3 071N0167	AUV 47 R 9876 6P 0700	
BFP 21 R3 071N0171	AUV 47 R 9876 6P 0700	
BFP 21 R3 071N0198	AUV 47 R 9876 6P 0700	
BFP 21 R3 071N0208	AUV 47 R 9876 6P 0700	
BFP 21 R3 071N0214	AUV 47 R 9876 6P 0700	
BFP 21 R3 071N0215	AUV 47 R 9876 6P 0700	
BFP 21 R3 071N0231	AUV 47 R 9876 6P 0700	*AUV to convert in one-pipe configuration*
BFP 21 R3 071N1215	AUV 47 R 9876 6P 0700	*AUV to convert in one-pipe configuration*
BFP 21 R3 071N7171	AUV 47 R 9876 6P 0700	
BFP 21 R5 071N0120	AUV 47 R 9876 6P 0700	
BFP 21 R5 071N0159	AUV 47 R 9876 6P 0700	
BFP 21 R5 071N0163	AUV 47 R 9876 6P 0700	
BFP 21 R5 071N0165	AUV 47 R 9876 6P 0700	

DANFOSS	SUNTEC	Remarks
BFP 21 R5 071N0173	AUV 47 R 9876 6P 0700	
BFP 21 R5 071N0195	AUV 47 R 9876 6P 0700	
BFP 21 R5 071N0207	AUV 47 R 9876 6P 0700	
BFP 21 R5 071N7173	AUV 47 R 9876 6P 0700	
BFP 31 L3 071N0115	AUV 47 L 9877 6P 0700	
BFP 31 L3 071N0133	AUV 47 L 9877 6P 0700	*AUV to convert in one-pipe configuration*
BFP 31 L3 071N0149	AUV 47 L 9877 6P 0700	
BFP 31 L3 071N0190	AUV 47 L 9877 6P 0700	
BFP 31 L3 071N0191	AUV 47 L 9877 6P 0700	
BFP 31 L3 071N0192	AUV 47 L 9877 6P 0700	
BFP 31 L3 071N1201	AUV 47 L 9877 6P 0700	
BFP 31 L3 071N1203	AUV 47 L 9877 6P 0700	
BFP 31 L3 LE 071N2109	AUV 47L 9877 6P 0700	
BFP 41 L3 071N0135	AUV 47 L 9877 6P 0700	
BFP 41 L3 071N0160	AUV 47 L 9877 6P 0700	*AUV: Coil on top*
BFP 41 L3 071N0174	AUV 47 L 9877 6P 0700	*AUV: Coil on top*
BFP 41 L3 071N0188	AUV 47 L 9877 6P 0700	*AUV: Coil on top*

DANFOSS	SUNTEC	Remarks
BFP 41 L3 071N0224	AUV 47 L 9877 6P 0700	*AUV: Coil on top*
BFP 41 L3 071N0225	AUV 47 L 9877 6P 0700	*AUV: Coil on top*
BFP 41 L3 071N1213	AUV 47 L 9877 6P 0700	*AUV: Coil on top*
BFP 41 L3 071N7174	AUV 47 L 9877 6P 0700	*AUV: Coil on top*
BFP 41 L3 LE-S 071N3137	AUV 47 L 9877 6P 0700	*AUV: Coil on top*
BFP 41 R3 071N0137/138	AUV 47 R 9876 6P 0700	*AUV: Coil on top*
BFP 41 R3 071N0196	AUV 47 R 9876 6P 0700	*AUV: Coil on top*
BFP 41 R3 071N0235	AUV 47 R 9876 6P 0700	*AUV: Coil on top*
BFP 41 R3 071N7137	AUV 47 R 9876 6P 0700	*AUV: Coil on top*
BFP 51 L6 071N6204	AP2 65C 9511 4P 0700	
BFP 51 L8 071N6222	AP2 65C 9511 4P 0700	
BFP 51 L11 071N6205	AP2 95C 9590 4P 0700	
BFP 51 L13 071N6225	AP2 95C 9590 4P 0700	
BFP 51 R6 071N6221	AP2 65B 9523 4P 0700	
BFP 51 R8 071N6223	AP2 65B 9523 4P 0700	
BFP 52 L6 071N6206	ATUV 45 L 9860 6P 0700	*ATUV: P1=2-12 bars* *BFP52: P1=7-15 bars*
BFP 52 L8 071N6207	AT2 65C 9556 4P 0700	

DANFOSS	SUNTEC	Remarks
BFP 52 L11 071N6209	AT2 75C 9583 4P 0700	
BFP 52 L13 071N6211	AT2 95C 9585 4P 0700	
BFP 52 R6 071N6227	ATUV 45 R 9861 6P 0700	*ATUV: P1=2-12 bars, nozzle= up to 3 GPH @1,8 cSt & 5 GPH @5 cSt* *BFP52: P1=7-15 bars*
BFP 52 R8 071N6208	AT2 65B 9587 4P 0700	
BFP 52 R11 071N6210	AT2 75B 9591 4P 0700	
BFP 52 R13 071N6212	AT2 95B 9592 4P 0700	
BFP 52E L3 071N2201	ATUV 45 L 9860 6P 0700	*ATUV: P1=2-12 bars* *BFP52E: P1=7-15 bars*
BFP 52E L3 071N2209	ATUV 45 L 9860 6P 0700	*ATUV: P1=2-12 bars* *BFP52E: P1=7-15 bars*
BFP 52E L3 071N2211	ATUV 45 L 9860 6P 0700	*ATUV: P1=2-12 bars* *BFP52E: P1=7-15 bars*
BFP 52E L3 071N2213	ATUV 45 L 9860 6P 0700	*ATUV: P1=2-12 bars* *BFP52E: P1=7-15 bars*
BFP 52E L3 071N2264	ATUV 45 L 9860 6P 0700	*ATUV: P1=2-12 bars* *BFP52E: P1=7-15 bars*
BFP 52E L3 071N3201	ATUV 45 L 9860 6P 0700	*ATUV: P1=2-12 bars* *BFP52E: P1=7-15 bars*
BFP 52E L3 LE-S 071N2222	ATUV 45 L 9860 6P 0700	*ATUV: P1=2-12 bars* *BFP52E: P1=7-15 bars*

DANFOSS	SUNTEC	Remarks
BFP 52E L3 LE-S 071N3213	ATUV 45 L 9860 6P 0700	*ATUV: P1=2-12 bars* *BFP52E: P1=7-15 bars*
BFP 52E L3 LE-S 071N3214	ATUV 45 L 9860 6P 0700	*ATUV: P1=2-12 bars* *BFP52E: P1=7-15 bars*
BFP 52E L3 LE-S 071N3215	ATUV 45 L 9860 6P 0700	*ATUV: P1=2-12 bars* *BFP52E: P1=7-15 bars*
BFP 52E L3 LE-S 071N4222	ATUV 45 L 9860 6P 0700	*ATUV: P1=2-12 bars* *BFP52E: P1=7-15 bars*
BFP 52E L5 071N2202	ATUV 45 L 9860 6P 0700	*ATUV: P1=2-12 bars* *BFP52E: P1=7-15 bars*
BFP 52E L5 071N2205	ATUV 45 L 9860 6P 0700	*ATUV: P1=2-12 bars* *BFP52E: P1=7-15 bars*
BFP 52E L5 071N2212	ATUV 45 L 9860 6P 0700	*ATUV: P1=2-12 bars* *BFP52E: P1=7-15 bars*
BFP 52E L5 071N2217	ATUV 45 L 9860 6P 0700	*ATUV: P1=2-12 bars* *BFP52E: P1=7-15 bars*
BFP 52E L5 071N2220	ATUV 45 L 9860 6P 0700	*ATUV: P1=2-12 bars* *BFP52E: P1=7-15 bars*
BFP 52E L5 071N2265	ATUV 45 L 9860 6P 0700	*ATUV: P1=2-12 bars* *BFP52E: P1=7-15 bars*
BFP 52E L5 071N3202	ATUV 45 L 9860 6P 0700	*ATUV: P1=2-12 bars* *BFP52E: P1=7-15 bars*

DANFOSS	SUNTEC	Remarks
BFP 52E R3 071N2203	ATUV 45 R 9861 6P 0700	*ATUV: P1=2-12 bars* *BFP52E: P1=7-15 bars*
BFP 52E R3 071N3203	ATUV 45 R 9861 6P 0700	*ATUV: P1=2-12 bars* *BFP52E: P1=7-15 bars*
BFP 52E R5 071N2204	ATUV 45 R 9861 6P 0700	*ATUV: P1=2-12 bars* *BFP52E: P1=7-15 bars*
BFP 52E R5 071N3204	ATUV 45 R 9861 6P 0700	*ATUV: P1=2-12 bars* *BFP52E: P1=7-15 bars*
BFP 53 L6 071N6213	AT3 55C 9550 4P 0700	
BFP 53 L8 071N6229	AT3 65C 9561 4P 0700	

6. Conversion DELTA -> SUNTEC

DELTA	SUNTEC	Remarks
A1-L1	AUV 47 L 9877 6P 0700	*AUV to convert in one-pipe configuration*
A1-L2	AUV 47 L 9877 6P 0700	
A1-R1	AUV 47 R 9876 6P 0700	*AUV to convert in one-pipe configuration*
A1-R2	AUV 47 R 9876 6P 0700	
A2-L1	AUV 47 L 9877 6P 0700	*AUV to convert in one-pipe configuration*
A2-L2	AUV 47 L 9877 6P 0700	
A2-R1	AUV 47 R 9876 6P 0700	*AUV to convert in one-pipe configuration*
A2-R2	AUV 47 R 9876 6P 0700	
AD1-L1	AN 47 C 1342 6P AN 47 D 1339 6P	*AN : Left nozzle outlet*, to convert in one-pipe configuration* *AN : Right nozzle outlet*, to convert in one-pipe configuration*
AD1-L2	AN 47 C 1342 6P AN 47 D 1339 6P	*AN : Left nozzle outlet** *AN : Right nozzle outlet**
AD1-R1	AN 47 A 1326 6P AN 47 B 1395 6P	*AN : Right nozzle outlet*, to convert in one-pipe configuration* *AN : Left nozzle outlet*, to convert in one-pipe configuration*
AD1-R2	AN 47 A 1326 6P AN 47 B 1395 6P	*AN : Right nozzle outlet** *AN : Left nozzle outlet**
AD2-L1	AN 57 C 7349 4P AN 57 DK 1303 6P	*AN : Left nozzle outlet*, to convert in one-pipe configuration* *AN : Right nozzle outlet*, to convert in one-pipe configuration*

*Seen from shaft end.

DELTA	SUNTEC	Remarks
AD2-L2	AN 57 C 7349 4P AN 57 DK 1303 6P	*AN : Left nozzle outlet** *AN : Right nozzle outlet**
AD2-R1	ANV 57 A 7359 4P AN 57 B 1330 6P	*AN : Right nozzle outlet*, to convert in one-pipe configuration* *AN : Left nozzle outlet*, to convert in one-pipe configuration*
AD2-R2	ANV 57 A 7359 4P AN 57 B 1330 6P	*AN : Right nozzle outlet** *AN : Left nozzle outlet**
V1LL1	AN 47 D 1339 6P	*AUV to convert in one-pipe configuration*
V1LL2	AN 47 D 1339 6P	
V1LR1	AN 47 C 1342 6P	*AUV to convert in one-pipe configuration*
V1LR2	AN 47 C 1342 6P	
V1RL1	AN 47 A 1326 6P	*AUV to convert in one-pipe configuration*
V1RL2	AN 47 A 1326 6P	
V1RR1	AN 47 B 1395 6P	*AUV to convert in one-pipe configuration*
V1RR2	AN 47 B 1395 6P	
V2LL1	AN 57 D 1303 6P	*AUV to convert in one-pipe configuration*
V2LL2	AN 57 D 1303 6P	
V2LR1	AN 57 C 7349 4P	*AUV to convert in one-pipe configuration*
V2LR2	AN 57 C 7349 4P	
V2RL1	ANV 57 A 7359 4P	*AUV to convert in one-pipe configuration*

DELTA	SUNTEC	Remarks
V2RL2	ANV 57 A 7359 4P	
V2RR1	AN 57 B 1330 6P	*AUV to convert in one-pipe configuration*
V2RR2	AN 57 B 1330 6P	
VD1LL1	AN 47 D 1339 6P	*AUV to convert in one-pipe configuration*
VD1LL2	AN 47 D 1339 6P	
VD1LR1	AN 47 C 1342 6P	*AUV to convert in one-pipe configuration*
VD1LR2	AN 47 C 1342 6P	
VD1RL1	AN 47 A 1326 6P	*AUV to convert in one-pipe configuration*
VD1RL2	AN 47 A 1326 6P	
VD1RR1	AN 47 B 1395 6P	*AUV to convert in one-pipe configuration*
VD1RR2	AN 47 B 1395 6P	
VD2LR1	AN 57 C 7349 4P	*AUV to convert in one-pipe configuration*
VD2LR2	AN 57 C 7349 4P	
VD2LL2	AN 57 D 1303 6P	
VD2RL1	ANV 57 A 7359 4P	*AUV to convert in one-pipe configuration*
VD2RL2	ANV 57 A 7359 4P	
VD2RR1	AN 57 B 1330 6P	*AUV to convert in one-pipe configuration*

*Seen from shaft end.

DELTA	SUNTEC	Remarks
VD2RR2	AN 57 B 1330 6P	
VM1LL1	AUV 47 L 9877 6P 0700	*AUV to convert in one-pipe configuration*
VM1LL2	AUV 47 L 9877 6P 0700	
VM1LR1	AUV 47 L 9877 6P 0700	*AUV to convert in one-pipe configuration*
VM1LR2	AUV 47 L 9877 6P 0700	
VM1RL1	AUV 47 R 9876 6P 0700	*AUV to convert in one-pipe configuration*
VM1RL2	AUV 47 R 9876 6P 0700	
VM1RR1	AUV 47 R 9876 6P 0700	*AUV to convert in one-pipe configuration*
VM1RR2	AUV 47 R 9876 6P 0700	
VM2LL1	AUV 47 L 9877 6P 0700	*AUV to convert in one-pipe configuration*
VM2LL2	AUV 47 L 9877 6P 0700	
VM2LR1	AUV 47 L 9877 6P 0700	*AUV to convert in one-pipe configuration*
VM2LR2	AUV 47 L 9877 6P 0700	
VM2RL1	AUV 47 R 9876 6P 0700	*AUV to convert in one-pipe configuration*
VM2RL2	AUV 47 R 9876 6P 0700	
VM2RR1	AUV 47 R 9876 6P 0700	*AUV to convert in one-pipe configuration*
VM2RR2	AUV 47 R 9876 6P 0700	

*Seen from shaft end.

7. Conversion ECKERLE -> SUNTEC

ECKERLE	SUNTEC	Remarks
UNI 1.1 L5 L64 -10	AN 47 C 1342 6P	*+ G1/4 - G1/8 Adapters x2 (ref. 3729745)*
UNI 1.1 L5 L64-M1	AN 47 C 1342 6P	*+ G1/4 - G1/8 Adapters x2 (ref. 3729745)*
UNI 1.2 L1 L64-50	AUV 47 L 9877 6P 0700	*+ G1/4 - G1/8 Adapters x2 (ref. 3729745)*
UNI 1.2 L5 L14-50	AUV 47 L 9877 6P 0700	
UNI 1.2 L5 M14-50	AUV 47 L 9877 6P 0700	
UNI 1.2 L5 M64-50-W	AUV 47 L 9877 6P 0700	*+ G1/4 - G1/8 Adapters x2 (ref. 3729745)*
UNI 1.2 L62 M14-01-W	AL 65 C 9589 6P 0700	
UNI 1.42 L6 A64-W	ATUV 45 L 9860 6P 0700	*+ G1/4 - G1/8 Adapters x2 (ref. 3729745)*
UNI 1.72 L62 L14-W	AL 75 CK 9534 6P 0700	
UNI 2.1 G22 L1 L10	AN 47 C 1342 6P	*AN: Shaft with one flat (1), no top pressure gauge port*
UNI 2.1 G41-21 L1 L10	AN 47 C 1342 6P	*AN: Shaft with one flat (1)*
UNI 2.1 L1 L44-21	AN 47 C 1342 6P	
UNI 2.1 L1 L44-H1-21	AN 47 C 1342 6P	*AN: Shaft with one flat (1), no top pressure gauge port*

(1) ECKERLE model with 2 flats on the shaft; change coupling.

ECKERLE	SUNTEC	Remarks
UNI 2.1 L5 L40-21	AN 47 C 1342 6P	*AN: Shaft with one flat (1)*
UNI 2.1 L5 L42-21	AN 47 C 7342 4P	*AN: Shaft with one flat (1)* *+ Hub adaptor Ø32-Ø54 (Ref. 3759833)*
UNI 2.1 L5 L44-21-05	AN 47 C 1342 6P	
UNI 2.1 L5 R44-21	AN 47 D 1339 6P	
UNI 2.1 L5 R94-05	AN 47 D 1339 6P	*+ G1/4 - G1/8 Adapters x2 (ref. 3729745)* *AN: Pressure range 7 - 14 bars*
UNI 2.1 L6 L54-05	AN 67 C 1336 6P	*AN: Pressure range 7 - 14 bars*
UNI 2.1 R1 L40	AN 47 B 7327 4P	*AN: Shaft with one flat (1)*
UNI 2.1 R1 L44-21	AN 47 B 7327 4P	
UNI 2.1 R5 L42-UI-21	AN 47 B 7327 4P	*AN: Shaft with one flat (1)* *+ Hub adaptor Ø32-Ø54 (Ref. 3759833)*
UNI 2.1 R5 L43-UI-21	AN 47 B 7327 4P	*AN: Shaft with one flat (1)* *+ Flange adaptor Ø32-Ø54 (Ref. 3719003)*
UNI 2.1 R5 L44-21	AN 47 B 7327 4P	
UNI 2.1 R5 L54	AN 47 B 1395 6P	
UNI 2.1 R5 R44-21-05	AN 47 A 1326 6P	

ECKERLE	SUNTEC	Remarks
UNI 2.1 R5 R45-21	AN 47 A 7226 4P	
UNI 2.1 R5 R80-05	AN 47 A 1326 6P	*AN: Shaft with one flat (1),* *+ G1/4 - G1/8 Adapters x2 (ref. 3729745)*
UNI 2.1 R6 L25	AN 67 B 7287 4P	
UNI 2.1 R6 L54-05	AN 67 B 1335 6P	
UNI 2.12 L1 L14	AUV 47 L 9877 6P 0700	
UNI 2.12 L1 L64	AUV 47 L 9877 6P 0700	*+ G1/4 - G1/8 Adapters x2 (ref. 3729745)*
UNI 2.12 L1 M14	AUV 47 L 9877 6P 0700	
UNI 2.12 L1 M64	AUV 47 L 9877 6P 0700	*+ G1/4 - G1/8 Adapters x2 (ref. 3729745)*
UNI 2.12 L1 M64-65	AUV 47 L 9877 6P 0700	*+ G1/4 - G1/8 Adapters x2 (ref. 3729745)*
UNI 2.12 L6 M14	AL 65 C 9589 6P 0700	
UNI 2.12 L6 M14-65	AL 65 C 9589 6P 0700	
UNI 2.17 L6 M14-65	AL 75 CK 9534 6P 0700	
UNI 2.2 L1 L14-21	AUV 47 L 9877 6P 0700	
UNI 2.2 L1 L16-K1-21	AUV 47 L 9877 6P 0700	*+ Flange adaptor Ø32-Ø54 (Ref. 3719003)*
UNI 2.2 L1 R14-C1-21	AUV 47 L 9877 6P 0700	

(1) ECKERLE model with 2 flats on the shaft; change coupling.

ECKERLE	SUNTEC	Remarks
UNI 2.2 L5 L14-21-05	AUV 47 L 9877 6P 0700	
UNI 2.2 L5 L14-Q-21	AUV 47 L 9877 6P 0700	
UNI 2.2 L5 L15-21-05	AUV 47 L 9877 6P 0700	*+ Hub adaptor Ø32-Ø54 (Ref. 3759833)*
UNI 2.2 L5 L42	AUV 47 L 9877 6P 0700	*+ Hub adaptor Ø32-Ø54 (Ref. 3759833)*
UNI 2.2 L5 M14-C1	AUV 47 L 9877 6P 0700	
UNI 2.2 L5 S20-21	AUV 47 L 9877 6P 0700	
UNI 2.2 L5 S20-21-BUD	AUV 47 L 9877 6P 0700	
UNI 2.2 L5 S74-05	AUV 47 L 9877 6P 0700	*+ G1/4 - G1/8 Adapters x2 (ref. 3729745)*
UNI 2.2 L6 L16-K1	AS 67 C 7456 4P 0700	*AS: pressure range 10 - 15 bars*
UNI 2.2 L6 L24-05	AS 67 C 1570 6P 0700	*AS: pressure range 10 - 15 bars*
UNI 2.2 R1 L40	AUV 47 R 9876 6P 0700	
UNI 2.2 R1 M14-21-05	AUV 47 R 9876 6P 0700	
UNI 2.2 R1 R24	AUV 47 R 9876 6P 0700	
UNI 2.2 R5 L14-21-05	AUV 47 R 9876 6P 0700	
UNI 2.2 R5 M45	AUV 47 R 9876 6P 0700	*+ Hub adaptor Ø32-Ø54 (Ref. 3759833)*

ECKERLE	SUNTEC	Remarks
UNI 2.2 R5 R14-21	AUV 47 R 9876 6P 0700	
UNI 2.2 R5 R60-21	AUV 47 R 9876 6P 0700	*+ G1/4 - G1/8 Adapters x2 (ref. 3729745)*
UNI 2.2 R5 S60	AUV 47 R 9876 6P 0700	*+ G1/4 - G1/8 Adapters x2 (ref. 3729745)*
UNI 2.2 R6 M24-05	AS 67 B 1575 6P 0700	*AS: pressure range 10 - 15 bars*
UNI 2.3 L1 L56-I	D 45 C 7389 3PF	
UNI 2.3 L5 L54-S-05	D 45 C 7374 3P	
UNI 2.3 L5 L56-I	D 45 C 7389 3PF	
UNI 2.3 R5 L54-05	D 45 B 7347 3P	
UNI 2.3 R5 R54-L	D 47 A 7383 3P	
UNI 2.4 L1 M10-V2	AP 47 C 7556 4P 0700	*AP: Shaft with one flat (1)*
UNI 2.4 L1 M14-C1	AP 47 C 7556 4P 0700	
UNI 2.4 L1 R14-C1-21	AP2 45 D 9566 4P 0700	
UNI 2.4 L1 R44	AP2 45 D 9566 4P 0700	
UNI 2.4 L5 L24	AP 47 C 7556 4P 0700	
UNI 2.4 L5 M24	AP 47 C 7556 4P 0700	

(1) ECKERLE model with 2 flats on the shaft; change coupling.

ECKERLE	SUNTEC	Remarks
UNI 2.4 L5 M20-21	AP2 45 C 9569 4P 0700	
UNI 2.4 L5 S24	ATUV 45 L 9860 6P 0700	
UNI 2.4 L6 L24-05	AP 67 C 7559 4P 0700	
UNI 2.4 L6 M24-C1	AP 67 C 7559 4P 0700	
UNI 2.4 L7 L24-05	AP2 95 C 9590 4P 0700	
UNI 2.4 L7 L56	AP2 95 C 9590 4P 0700	*+ Flange adaptor Ø32-Ø54 (Ref. 3719003)*
UNI 2.4 L7 M25	AP2 95 C 9590 4P 0700	*+ Hub adaptor Ø32-Ø54 (Ref. 3759833)*
UNI 2.4 R5 S70-ET	AP 47 A 1593 4P 0700	*+ G1/4 - G1/8 Adapters x2 (ref. 3729745)*
UNI 2.4 R6 S24-ET	AP 67 A 1594 6P 0700	
UNI 2.42 L5 L64-65	ATUV 45 L 9860 6P 0700	*+ G1/4 - G1/8 Adapters x2 (ref. 3729745)*
UNI 2.42 R5 R70	ATUV 45 R 9861 6P 0700	*+ G1/4 - G1/8 Adapters x2 (ref. 3729745)*
UNI 2.42 R5 R70-ET	ATUV 45 R 9861 6P 0700	*+ G1/4 - G1/8 Adapters x2 (ref. 3729745)*
UNI 2.6 L6 L44	AN 67 C 1336 6P	*AN to convert in one-pipe operation*
UNI 2.91 L7 L44-05	AE 97 C 7390 2P	
UNI 2.96 L5 L44-05	AN 47 C 1342 6P	*+ Low pressure kit 991500*

ECKERLE	SUNTEC	Remarks
UNI-E 2.1 G22	AN 47 C 1342 6P	*AN: Shaft with one flat (1), no top pressure gauge port*
UNI-E 2.1 G41	AN 47 C 1342 6P	*AN: Shaft with one flat (1)*
UNI-E2.1 G41-13	AUV 47 L 9877 6P 0700	*+ Kit 991401*
UNI-E 2.1 L1 L10	AN 47 C 1342 6P	*AN: Shaft with one flat (1)*
UNI-E 2.1 L1 L10-22	AN 47 C 1342 6P	*AN: Shaft with one flat (1)*
UNI-E 2.1 L1 L10-30	AN 47 C 1342 6P	*AN: Shaft with one flat (1), no top pressure gauge port*
UNI-E 2.1 L1 L14	AN 47 C 1342 6P	
UNI-E 2.1 L1 L64	AN 47 C 1342 6P	*+ G1/4 - G1/8 Adapters x2 (ref. 3729745)*
UNI-E 2.1 L1 L64-21	AN 47 C 1342 6P	*+ G1/4 - G1/8 Adapters x2 (ref. 3729745)*
UNI-E 2.1 L5 L10	AN 47 C 1342 6P	*AN: Shaft with one flat (1)*
UNI-E 2.1 L5 L12	AN 47 C 7342 4P	*AN: Shaft with one flat (1) + Hub adaptor Ø32-Ø54 (Ref. 3759833)*
UNI-E 2.1 L5 L14	AN 47 C 1342 6P	
UNI-E 2.1 L5 L14-13	AUV 47 L 9877 6P 0700	*+ Kit 991401*
UNI-E 2.1 L5 R14	AN 47 D 1339 6P	

(1) ECKERLE model with 2 flats on the shaft; change coupling.

ECKERLE	SUNTEC	Remarks
UNI-E 2.1 L5 R14-13	AUV 47 L 9877 6P 0700	*+ Kit 991401*
UNI-E 2.1 L5 R74	AN 47 D 1339 6P	*+ G1/4 - G1/8 Adapters x2 (ref. 3729745)* *AN: Pressure range 7 - 14 bars*
UNI-E 2.1 L6 L16-11	AE 67 C 7285 4P	
UNI-E 2.1 L6 L24	AN 67 C 1336 6P	*AN: Pressure range 7 - 14 bars*
UNI-E 2.1 R1 L10	AN 47 B 7327 4P	*AN: Shaft with one flat (1)*
UNI-E 2.1 R1 L14	AN 47 B 7327 4P	
UNI-E 2.1 R5 L12-80	AN 47 B 7327 4P	*AN: Shaft with one flat (1)* *+ Hub adaptor Ø32-Ø54 (Ref. 3759833)*
UNI-E 2.1 R5 L13-80	AN 47 B 7327 4P	*AN: Shaft with one flat (1)* *+ Flange adaptor Ø32-Ø54 (Ref. 3719003)*
UNI-E 2.1 R5 L14	AN 47 B 7327 4P	
UNI-E 2.1 R5 L24	AN 47 B 1395 6P	
UNI-E 2.1 R5 R14	AN 47 A 1326 6P	
UNI-E 2.1 R5 R15	AN 47 A 7226 4P	
UNI-E 2.1 R5 R60	AN 47 A 1326 6P	*AN: Shaft with one flat (1)* *+ G1/4 - G1/8 Adapters x2 (ref. 3729745)*
UNI-E 2.1 R6 L24	AN 67 B 1335 6P	

ECKERLE	SUNTEC	Remarks
UNI-E 2.1 R6 L25	AN 67 B 7287 4P	
UNI-E 2.2 L1 L10	AUV 47 L 9877 6P 0700	
UNI-E 2.2 L1 L14	AUV 47 L 9877 6P 0700	
UNI-E 2.2 L1 L16-10	AUV 47 L 9877 6P 0700	*+ Flange adaptor Ø32-Ø54 (Ref. 3719003)*
UNI-E 2.2 L1 R14-12	AUV 47 L 9877 6P 0700	
UNI-E 2.2 L5 L12	AUV 47 L 9877 6P 0700	*+ Hub adaptor Ø32-Ø54 (Ref. 3759833)*
UNI-E 2.2 L5 L14	AUV 47 L 9877 6P 0700	
UNI-E 2.2 L5 L14-92	AUV 47 L 9877 6P 0700	
UNI-E 2.2 L5 L15	AUV 47 L 9877 6P 0700	*+ Hub adaptor Ø32-Ø54 (Ref. 3759833)*
UNI-E 2.2 L5 L60	AUV 47 L 9877 6P 0700	*+ G1/4 - G1/8 Adapters x2 (ref. 3729745)*
UNI-E 2.2 L5 M14-12	AUV 47 L 9877 6P 0700	
UNI-E 2.2 L5 S20	AUV 47 L 9877 6P 0700	
UNI-E 2.2 L5 S20-BUD	AUV 47 L 9877 6P 0700	
UNI-E 2.2 L5 S74	AUV 47 L 9877 6P 0700	*+ G1/4 - G1/8 Adapters x2 (ref. 3729745)*
UNI-E 2.2 L6 L14	AS 67 C 1570 6P 0700	*AS: Pressure range 10 - 15 bars*

(1) ECKERLE model with 2 flats on the shaft; change coupling.

ECKERLE	SUNTEC	Remarks
UNI-E 2.2 L6 L16-10	AS 67 C 7456 4P 0700	*AS: pressure range 10 - 15 bars*
UNI-E 2.2 L6 L24	AS 67 C 1570 6P 0700	*AS: pressure range 10 - 15 bars*
UNI-E 2.2 L6 LR14-61	A2L 65 D 9703 4P 0700	
UNI-E 2.2 L7 L26	AL 95 C 9412 4P 0700	
UNI-E 2.2 L7 LR14-61	A2L 95 D 9702 4P 0700	
UNI-E 2.2 R1 L10	AUV 47 R 9876 6P 0700	
UNI-E 2.2 R1 M14	AUV 47 R 9876 6P 0700	
UNI-E 2.2 R1 R24	AUV 47 R 9876 6P 0700	
UNI-E 2.2 R1 S14	AUV 47 R 9876 6P 0700	
UNI-E 2.2 R5 L14	AUV 47 R 9876 6P 0700	
UNI-E 2.2 R5 M14	AUV 47 R 9876 6P 0700	
UNI-E 2.2 R5 M15	AUV 47 R 9876 6P 0700	*+ Hub adaptor Ø32-Ø54 (Ref. 3759833)*
UNI-E 2.2 R5 R14	AUV 47 R 9876 6P 0700	
UNI-E 2.2 R5 R60	AUV 47 R 9876 6P 0700	*+ G1/4 - G1/8 Adapters x2 (ref. 3729745)*
UNI-E 2.2 R5 S14	AUV 47 R 9876 6P 0700	

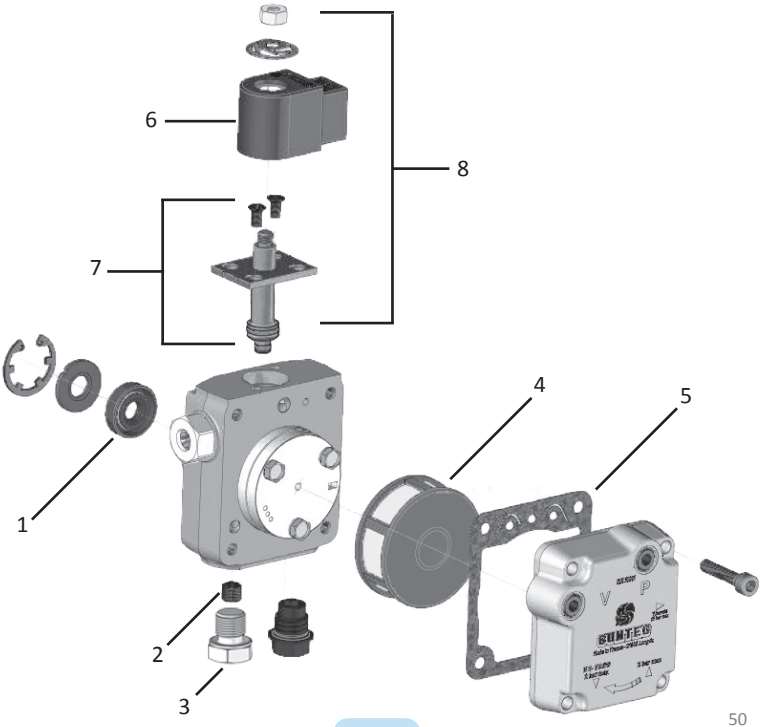
ECKERLE	SUNTEC	Remarks
UNI-E 2.2 R5 S60	AUV 47 R 9876 6P 0700	*+ G1/4 - G1/8 Adapters x2 (ref. 3729745)*
UNI-E 2.2 R6 M24	AS 67 B 1575 6P 0700	*AS: pressure range 10 - 15 bars*
UNI-E 2.3 L1 L26-80	D 45 C 7389 3PF	
UNI-E 2.3 L5 L24-13	D 45 C 7374 3P	
UNI-E 2.3 L5 L26-80	D 45 C 7389 3PF	
UNI-E 2.3 L5 L64	D 45 C 7374 3P	*+ G1/4 - G1/8 Adapters x2 (ref. 3729745)*
UNI-E 2.3 R5 L24	D 45 B 7347 3P	
UNI-E 2.3 R5 R24-93	D 47 A 7383 3P	
UNI-E 2.4 L1 M10-22	AP 47 C 7556 4P 0700	*AP: Shaft with one flat (1)*
UNI-E 2.4 L1 M14-12	AP 47 C 7556 4P 0700	
UNI-E 2.4 L1 R14	AP2 45 D 9566 4P 0700	
UNI-E 2.4 L1 R14-12	AP2 45 D 9566 4P 0700	
UNI-E 2.4 L5 L20	AP2 45 C 9569 4P 0700	
UNI-E 2.4 L5 L24	AP 47 C 7556 4P 0700	
UNI-E 2.4 L5 M20	AP2 45 C 9569 4P 0700	
UNI-E 2.4 L5 M24	AP 47 C 7556 4P 0700	
UNI-E 2.4 L5 S24	ATUV 45 L 9860 6P 0700	

(1) ECKERLE model with 2 flats on the shaft; change coupling.

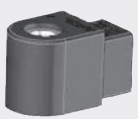
ECKERLE	SUNTEC	Remarks
UNI-E 2.4 L6 L24	AP 67 C 7559 4P 0700	
UNI-E 2.4 L6 M24-12	AP 67 C 7559 4P 0700	
UNI-E 2.4 L7 L22	AP2 95 C 9590 4P 0700	*AP2: Shaft with one flat (1)* *+ Hub adaptor Ø32-Ø54 (Ref. 3759833)*
UNI-E 2.4 L7 L24	AP2 95 C 9590 4P 0700	
UNI-E 2.4 L7 L26	AP2 95 C 9590 4P 0700	*+ Flange adaptor Ø32-Ø54 (Ref. 3719003)*
UNI-E 2.4 L7 L26-05	AP2 95 C 9590 4P 0700	*+ Flange adaptor Ø32-Ø54 (Ref. 3719003)*
UNI-E 2.4 L7 M25	AP2 95 C 9590 4P 0700	*+ Hub adaptor Ø32-Ø54 (Ref. 3759833)*
UNI-E 2.4 R5 S70	AP 47 A 1593 4P 0700	
UNI-E 2.4 R6 S24	AP 67 A 1594 6P 0700	
UNI-E 2.42 R5 R70	ATUV 45 R 9861 6P 0700	
UNI-E 2.6 L5 L14	AN 47 C 1342 6P	*AN to convert in one-pipe operation*
UNI-E 2.6 L6 L14	AN 67 C 1336 6P	*AN to convert in one-pipe operation*
UNI-E2.91 L5 L14	AN 47 C 1342 6P	*+ Low pressure kit 991500*
UNI-E 2.91 L7 L14	AE 97 C 7390 2P	
UNI-E 2.96 L5 L14	AN 47 C 1342 6P	*+ Low pressure kit 991500*

(1) ECKERLE model with 2 flats on the shaft; change coupling.

8. Spare parts



1	Shaft seal
2	By-pass plug
3	G 1/4 steel plug
4	Filter
5	Cover gasket
6	Coil
7	Solenoid tube
8	Solenoid valve

Description	Pump type	Reference	
Shaft seal (1)	**AN, AE, AS, AL, ALE, AUV, A2L, AR, AP, AT, ATUV**	991552	
By-pass plug (2)	**AN, AE, AS, AL, ALE, AUV, A2L, AR, AP, AT**	3779858	
Plug (3)	**AN, AE, AS, AL, ALE, AUV, A2L, AR, AP, AT** G 1/4 steel plug	3779191	
	AN, AE, AS, AL, ALE, AUV, A2L, AR, AP, AT, ATUV G 1/8 steel plug	3779835	
Coil (6)	**AS, AL, ALE, AUV, A2L, AR, AP, AT, ATUV** 220-240 V ; 50/60 Hz	3713871SAV	
	AS, AL, ALE, AUV, A2L, AR, AP, AT, ATUV 110-120 V ; 50/60 Hz	3713824	
	AS, AL, ALE, AUV, A2L, AR, AP, AT, ATUV 24 V ; 50/60 Hz	3713823	

Description	Pump type	Reference	
Filter (4)	**AN, AE, AS, AP 47/57/67** Series 7000 - Rev. 3, 4, 5, 6 Series 1000 - Rev. 1, 4, 5, 6	991530 (Height 20 mm)	
	AN, AE, AS, AP 47/57/67 Series 7000 - Rev. 2	3715732 (Height 28 mm) (only for pumps manufactured after 1988)	
	AN, AE 77/97 Series 7000 - Rev. 3, 4 Series 1000 - Rev. 1, 6	3715750 (Height 23 mm)	
	AN, AE 77/97 Series 7000 - Rev. 2	3715732 (Height 28 mm) (only for pumps manufactured after 1988)	
	AL, ALE, A2L, AR 35/55/65	991530 (Height 20 mm)	
	AP2, AP3, AT2, AT3 45/55/65		
	AL, ALE, A2L, AR 75/95	3715750 (Height 23 mm)	
	AP2, AT2 75/95		
	AUV, ATUV	991530 (Height 20 mm)	

Description	Pump type	Reference	
Cover gasket (5)	**AN, AE, AS, AP 47/57/67/77/97** Series 7000 - Rev. 4, 6 Series 1000 - Rev. 4, 6	991524	
	AN, AE, AS, AP 47/57/67/77/97 Series 7000 - Rev. 2, 3, 5 Series 1000 - Rev. 1, 5	991523	
	AL, ALE, A2L, AR, AP2, AT2, AP3, AT3 35/45/55/65/75/95 Series 9000 - Rev. 4, 6	991524	
	AL, ALE, A2L, AR, AP2, AT2, AP3, AT3 35/45/55/65/75/95 Series 9000 - Rev. 1, 2, 5	991523	
	AUV, ATUV	991524	

Service kit	**AN, AE, AS, AL, ALE, AUV, A2L, AR, AP, AT, ATUV** - Low cover	991533	
	AN, AE, AS, AL, ALE, A2L, AR, AP, AT - High cover	991510	

Description	Pump type	Reference	
Solenoid tube (7)	**AS, AP2, AP3** **ATUV** (SV2)*	991430	
	AL rev. 2, 4, 5, 6	991502	
	AR, A2L		
	ALE, AUV **ATUV** (SV1)*	991600	

*Refer to page 63

Description	Pump type	Reference	
Solenoid tube (7)	**AP**	991430	
	AT2, AT3 rev. 2, 4, 6	991503	

Description	Pump type	Reference	
Solenoid valve (8)	**AS, ATUV** (SV2)* 220-240 V ; 50/60 Hz	991435	
	AS, ATUV (SV2)* 110-120 V ; 50/60 Hz	991431	
	AS, ATUV (SV2)* 24 V ; 50/60 Hz	991432	
	AL, A2L, AR 220-240 V ; 50/60 Hz	3713871SAV + 991502	
	AL, A2L, AR 110-120 V ; 50/60 Hz	3713824 + 991502	
	AL, A2L, AR 24 V ; 50/60 Hz	3713823 + 991502	

*Refer to page 63

Description	Pump type	Reference	
Solenoid valve (8)	**ALE, AUV, ATUV** (SV1)* 220-240 V ; 50/60 Hz	3713871SAV + 991600	
	ALE, AUV, ATUV (SV1)* 110-120 V ; 50/60 Hz	3713824 + 991600	
	ALE, AUV, ATUV (SV1)* 24 V ; 50/60 Hz	3713823 + 991600	
	AP 220-240 V ; 50/60 Hz	991455	

*Refer to page 63

Description	Pump type	Reference	
Solenoid valve (8)	**AP2, AP3** 220-240 V ; 50/60 Hz	991488	
	AT2, AT3 220-240 V ; 50/60 Hz	3713871SAV + 991503	

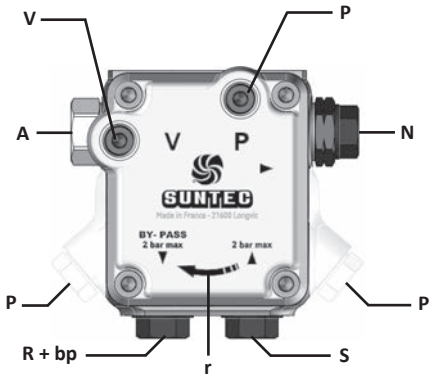
9. Connections

AN/AE/AS/AL/ALE pumps

S : Suction G 1/8 or G 1/4
N : Nozzle outlet G 1/8
R : Return G 1/8 or G 1/4
V : Vacuum gauge port G 1/8
P : Pressure gauge port G 1/8
A : Pressure adjustment
r : Rotation direction
bp : By-pass plug for 2-pipe operation

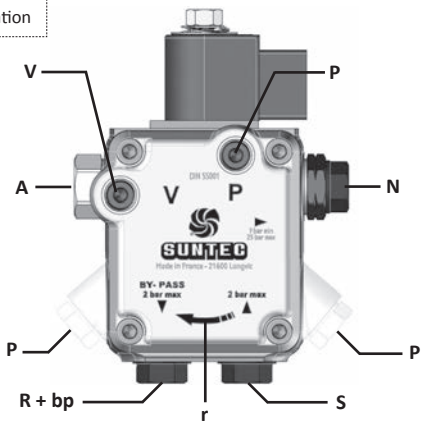
AN/AE

Figures are for "C" shaft rotation and nozzle outlet.



AS/AL/ALE

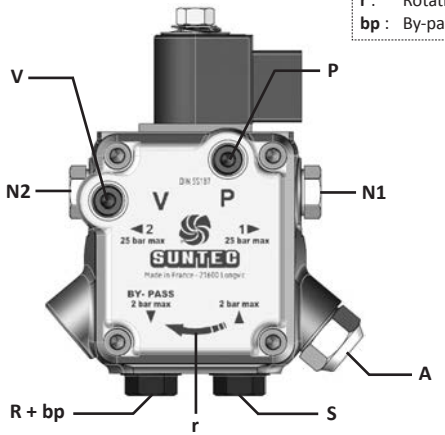
Figures are for "C" shaft rotation and nozzle outlet.



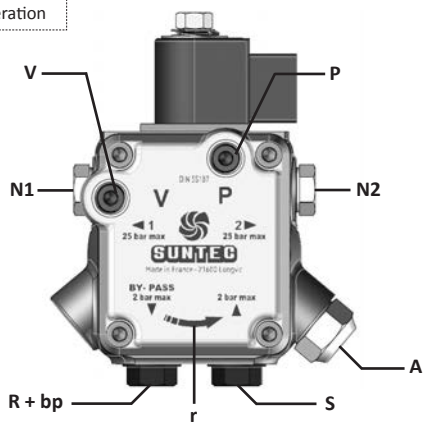
AUV one-stage service pump

S : Suction G 1/4
R : Return G 1/4
N1 : Nozzle outlet G 1/8
N2 : Optional nozzle outlet G 1/8
V : Vacuum gauge port G 1/8
P : Pressure gauge port G 1/8
A : Pressure adjustment
r : Rotation direction
bp : By-pass plug for 2-pipe operation

AUV 47 L 9877 6P 0700



AUV 47 R 9876 6P 0700

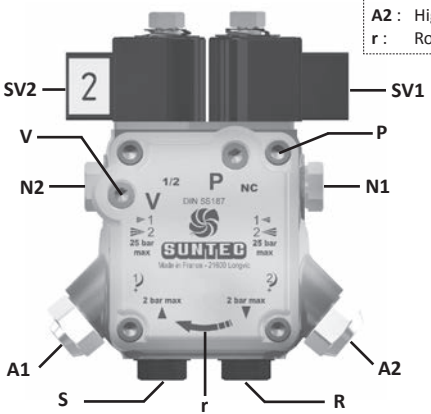


Combined with a nozzle incorporating a cut-off function, these models allow to take advantage of the additional nozzle line pressure relief solenoid valve feature.

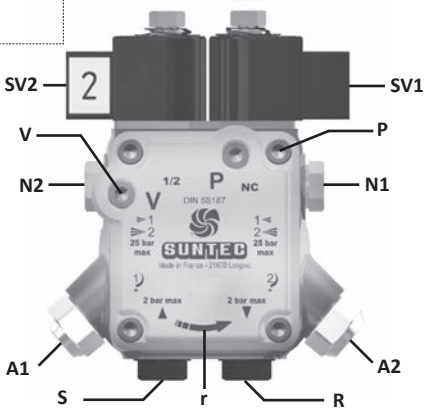
ATUV two-stage service pump

S : Suction G 1/4
R : Return G 1/4
N1 : Nozzle outlet G 1/8
N2 : Optional nozzle outlet G 1/8
SV1 : Blocking solenoid valve (NC)
SV2 : Switching low/high modes (1/2)
V : Vacuum gauge port G 1/8
P : Pressure gauge port G 1/8
A1 : Low pressure adjustment
A2 : High pressure adjustment
r : Rotation direction

ATUV 45 L 9860 6P 0700

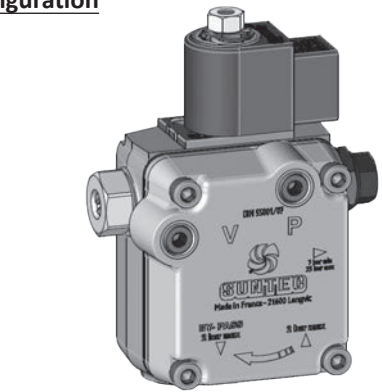


ATUV 45 R 9861 6P 0700



Combined with a nozzle incorporating a cut-off function, these models allow to take advantage of the additional nozzle line pressure relief solenoid valve feature.

10. One-pipe ↔ two-pipe configuration



1-pipe
(Remove by-pass plug)

2-pipe
(By-pass plug inserted in return)

Most SUNTEC pumps are delivered prepared for two-pipe installations. They can be converted, except ATUV models, to one-pipe operation by removing the internal by-pass plug and fitting a plug and a washer to the return port thus creating an internal recirculation circuit.

11. Pipe Dimensions

Rated speed: 2850 rpm - Viscosity: 5 mm²/s (cSt) - Pressure: 9 bars

The annexed charts give the maximum length (in meters) of suction line as a function of 3 variables: lift between fuel unit and tank (H), nozzle capacity or pump type, pipe diameter (d), for an altitude of 200m above sea level and 0,45 bars vacuum. The length indicated (intersection of horizontal lines and columns) assumes the fitting of 4 right angle bends, 1 stop valve, 1 non return valve; if additional restrictions exist (particularly the filter of the suction line), the length must be reduced accordingly.

Only mentioned diameters can be used, bigger pipes are not suitable.

Altitude correction: if X is the altitude (different from 200m),

- *Lift system*: add the value (X-200)/1000 to the real lift height "H", to obtain the equivalent lift, then determine the maximum length with the annexed charts.
- *Siphon feed system*: reduce the real head height "H" by (X-200)/1000.

E.g.: AS 47 pump in two-pipe lift system, with lift height = 1,5m, altitude = 700m, pipe diameter = 8mm.

Equivalent lift height: 1,5+(700-200)/1000 = 2m, maximum pipe length = 26m.

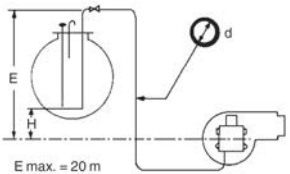
Pressure correction: only for one-pipe system.

If P is the pressure (different from 9 bars), use the theoretical equivalent nozzle capacity = ($\sqrt{P}/3$) x real nozzle capacity.

E.g.: one-pipe lift system, with nozzle = 0,60 GPH, pressure = 22 bars, pipe diameter = 4mm, suction height = 3m.

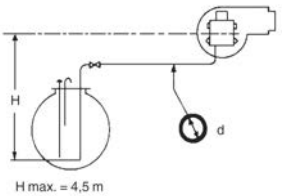
Equivalent nozzle capacity = ($\sqrt{22}$ / 3)x0,60 = 0,94 GPH. The maximum pipe length is comprised between 17m (corresponding to 0,80 GPH) and 14m (corresponding to 1,00 GPH), that means around 15m.

One-pipe siphon feed system



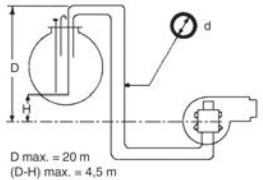
Nozzle (US GPH)	0,50	0,60	0,80	1,00	1,50		2,00		4,00			6,00			9,50			
d (mm) / H (m)	4	4	4	4	4	6	4	6	4	6	8	4	6	8	4	6	8	10
0	90	75	56	45	30	150	22	113	11	56	150	7	37	119	4	23	74	150
0,5	100	83	63	50	33	150	25	126	12	63	150	8	41	133	4	26	83	150
1	110	92	69	55	37	150	27	139	13	69	150	8	46	146	5	28	92	150
2	131	109	82	65	44	150	33	166	16	82	150	10	55	150	6	34	109	150
3	152	126	95	76	50	150	38	192	18	96	150	12	63	150	7	39	127	150
4	172	144	108	86	57	150	43	218	21	109	150	14	72	150	8	45	144	150

One-pipe lift system



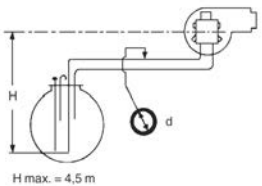
Nozzle (US GPH)	0,50	0,60	0,80	1,00	1,50		2,00		4,00			6,00			9,50			
d (mm) / H (m)	4	4	4	4	4	6	4	6	4	6	8	4	6	8	4	6	8	10
0	90	75	56	45	30	150	22	113	11	56	150	7	37	119	4	23	74	150
0,5	79	66	50	40	26	134	20	100	9	50	150	6	33	105	3	20	66	150
1	69	57	43	34	23	116	17	87	8	43	138	5	28	91	2	17	57	141
2	48	40	30	24	16	81	12	61	6	30	96	3	20	64		12	40	98
3	28	23	17	14	9	47	7	35	3	17	55		11	36		6	22	56
4	7	6	4			12		9		4	14			9			5	13

Two-pipe siphon feed system



Pump	35/45/47				55/57				65/67				75/77				95/97			
Q* (l/h)	60				77				102				130				150			
H (m) \ d (mm)	4	6	8	10	6	8	10	12	6	8	10	12	8	10	12	14	8	10	12	14
0	2	15	50	124	11	38	96	150	7	27	71	150	20	54	116	150	16	46	100	150
0,5	2	16	56	138	12	42	107	150	8	31	79	150	23	61	130	150	19	52	112	150
1	2	18	61	150	13	47	118	150	9	34	88	150	26	68	144	150	21	57	124	150
2	3	22	73	150	16	56	141	150	11	41	105	150	31	81	150	150	26	69	148	150
3	4	26	85	150	19	66	150	150	13	48	122	150	36	94	150	150	31	81	150	150
4	4	30	97	150	22	75	150	150	16	55	139	150	42	108	150	150	35	92	150	150

Two-pipe lift system



Pump	35/45/47				55/57				65/67				75/77				95/97			
Q*(l/h)	60				77				102				130				150			
d (mm) \ H (m)	6	8	10	12	6	8	10	12	6	8	10	12	8	10	12	14	8	10	12	14
0	15	50	124	150	11	38	96	150	7	27	71	150	20	54	116	150	16	46	100	150
0,5	13	44	109	150	9	33	84	150	6	24	62	132	17	48	103	150	14	40	88	150
1	11	38	95	150	8	29	73	150	4	20	54	115	15	41	89	150	12	34	76	144
2	7	26	66	138	5	19	51	107	2	13	37	80	9	28	61	116	7	23	52	100
3	3	14	37	79		10	28	60		6	20	44	4	14	33	65		11	28	55
4			8	19			5	14				9			6	14			4	11

**Q = pump capacity @ 0 bar*

12. FAQs

12.1 Pump is not running

Check if…	*Probable explanation*	*Solution*
…the motor is turning.		
YES	Motor coupling is defective or has came loose	Check coupling and repair or replace as appropriate.
NO	Pump has seized	Remove pump cover and check pump. If rust and / or an abnormal amount of dirt are found, check tank for water and check condition of filters. Replace pump.
	Motor does not work	Test motor and connections and repair or replace if necessary, having first examined the pump.

12.2 Pump is running but does not deliver oil

Check if…	*Probable explanation*	*Solution*
…oil flows out of the high-pressure port when it is loosened.		
YES	Nozzle or in-line solenoid valve is blocked	Inspect nozzle and valve for blockage (dirt, grit, fuel,...)
	Solenoid valve or pressure regulator is defective	Switch on the coil and check for magnetic pull. If there is no pull, check the current. If the current is OK, change the coil. When the coil is in order, check the pressure regulating valve or replace the pump.

Check if…	*Probable explanation*	*Solution*
…no oil flows from the high-pressure port when it is loosened.		
NO	Oil level in tank is low	Check tank and refill.
	Inlet pipe valve is closed	Open the valve.
	On a new installation, the check valve is the wrong way round	Check that all valves are facing the right way.
…and vacuum gauge shows a high vacuum.		
YES	Blockage up-stream	Check in-line filter and non-return valve.
	Pipe is undersized	Check pipe dimensions.

Check if…	*Probable explanation*	*Solution*
…no oil flows from the high-pressure port when it is loosened.		
…and vacuum gauge shows a low vacuum.		
YES	Pump filter is plugged	Remove pump cover and check filter condition.
	Air leak	Check the tightness of pump cover (especially if the filter has recently been changed/ cleaned) and check the cover gasket.
	Pipe is oversized	Very important for one-pipe systems. Check pipe diameter.
	Pump rotates in a wrong way	If the installation is new, be sure that motor and pump rotation are the same. A pump turning in the wrong direction can not draw oil.
	By-pass plug is missing in two-pipe installation	Check if the by-pass plug is installed.

Check if…	*Probable explanation*	*Solution*
…no oil flows from the high-pressure port when it is loosened.		
…and vacuum gauge shows a low vacuum.		
YES	Suction and return lines have been swapped	Check they have been correctly fitted.
	Pump is worn out	Check this by carrying out a pressure test.

12.3 Nozzle pressure is too high / too low

Check if…	*Probable explanation*	*Solution*
…the pressure can be adjusted.		
…and pressure gauge shows a low pressure.		
YES	Pump is not properly sized for the nozzle performance (remembering fuel viscosity) or any hydraulic attachments i.e. hydraulically opened air flap	Change pump or nozzle as appropriate.
	Pump is worn out	Check this by carrying out a pressure test. Replace pump.
…and pressure gauge shows a high pressure.		
YES	Dirt in regulating valve	Dismantle pressure regulator or replace pump.

Check if…	*Probable explanation*	*Solution*
…the pressure can be adjusted.		
…and the pump pressure oscillates.		
YES	Air in the oil	Check vacuum does not exceed 0,45 bars. Check suction line for leaks.
	Pressure regulating valve is defective or clogged	Dismantle pressure regulator or replace pump.
	Motor coupling is slipping	Check coupling and check for speed variations.
…the pressure can not be adjusted.		
…and the pressure is constantly too high or too low.		
YES	Pressure regulating valve is defective or clogged	Dismantle pressure regulator or replace pump.
NO	Pressure gauge is defective or incorrectly installed	Check pressure gauge. Bleed when fitting.

12.4 The oil pump makes noise

Check if…	*Probable explanation*	*Solution*
…an increasingly loud whine is coming from the pump.		
YES	Vacuum is too high (check with a vacuum gauge)	Check for closed valves, blocked filters, check valves that are stuck.
…the pump generates a cracking noise and the pressure gauge oscillates.		
YES	Air bubbles in the suction line	Check suction line for leaks. Bleed pump if installation is one-pipe.

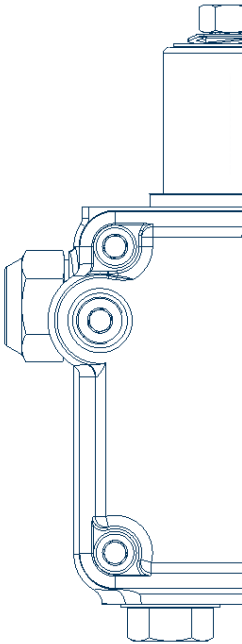
12.5 Excessive pump temperature

Check if…	*Probable explanation*	*Solution*
…a small nozzle flow is used with a one-pipe installation.		
YES	Heat build-up from recirculation in pump plus heat radiated from motor etc.	Convert to two-pipe or fit filter upstream from pump with return from pump to filter. This circulation outside of the burner will help to cool the system.

NOTES

SUNTEC™

www.suntec.fr



Edition 2018