

## Large SP

SP 17, 30, 46, 60, 77, 95, 125, 160, 215



# Contents

**PAGE**

SP 46 and 60 .....	2
SP 125 and 160 .....	5
SP 215.....	7
SP 17 and 30.....	10
SP 77 and 95.....	18

# SP 46 and 60



1

Fit key and coupling on shaft



2

Strainer, bottom neck ring and suction interconnector



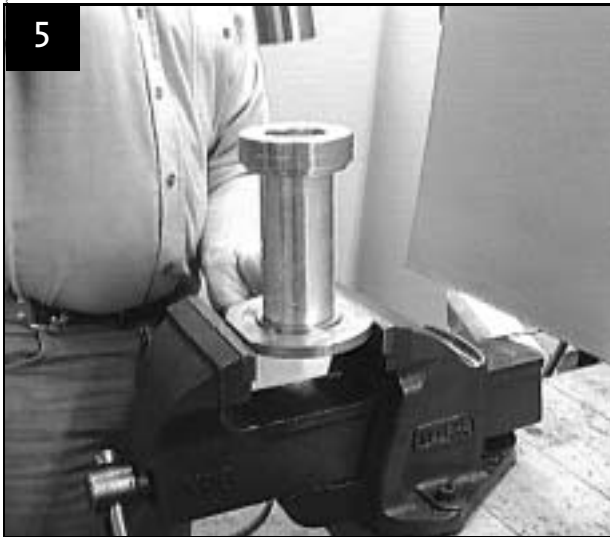
3

Strainer and bottom neck ring fitted in suction interconnector

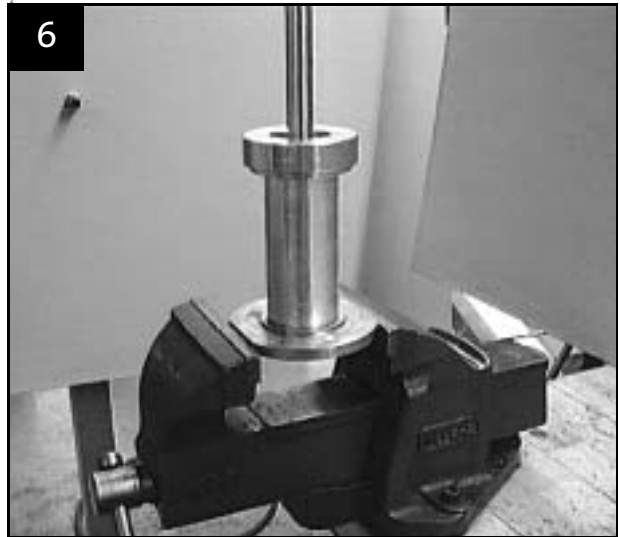


4

Assembly tools for SP 46 and 60



Assembly tool in vice



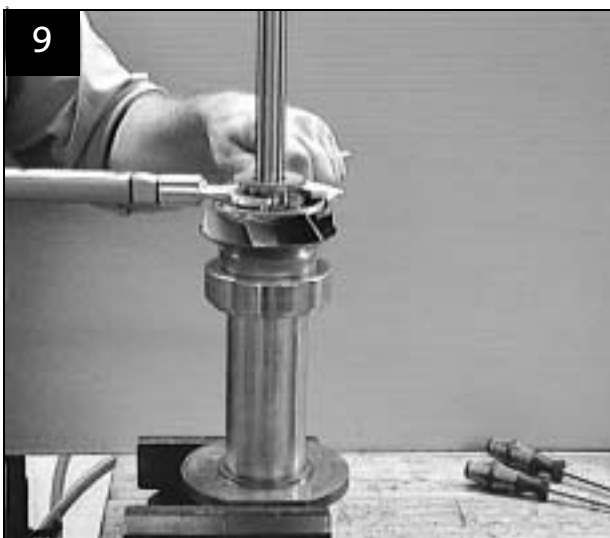
Shaft with coupling in assembly tool



Shaft with coupling in assembly tool



Fit first impeller including stop ring



Tighten stop ring



Remove shaft and impeller from assembly tool



11

Mount suction interconnector on assembly tool



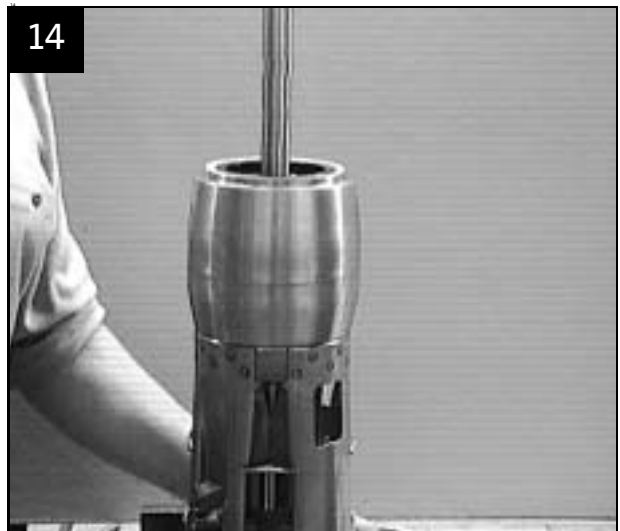
12

Fit shaft with impeller in suction interconnector



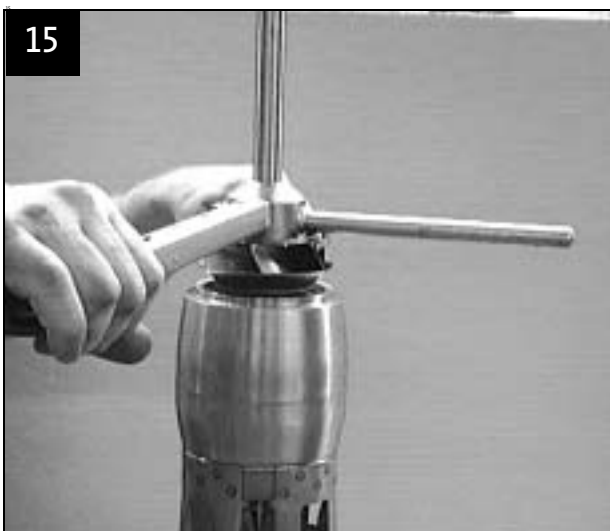
13

Shaft with impeller fitted in suction interconnector



14

Fit bottom chamber with spacing washer for stop ring



15

Fit next impeller



16

Bottom chamber and impeller fitted. Continued on page 18.

# SP 125 and 160



1

Fit coupling and key on shaft



2

Fitted coupling and key



3

Mounting plate, spacing pipe and screw



4

Tool mounted in vice



5 Fit neck ring in suction interconnector. 'THIS SIDE UP' must point upwards



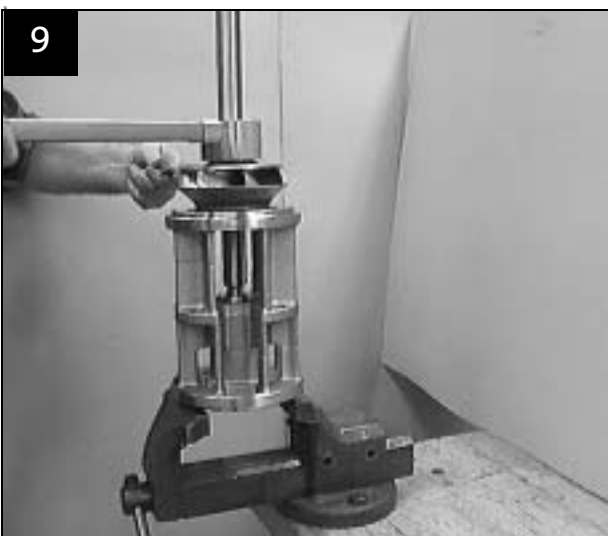
6 Fit shaft loosely in suction interconnector to make the impeller centre the shaft



7 Fit impeller



8 Fit impeller

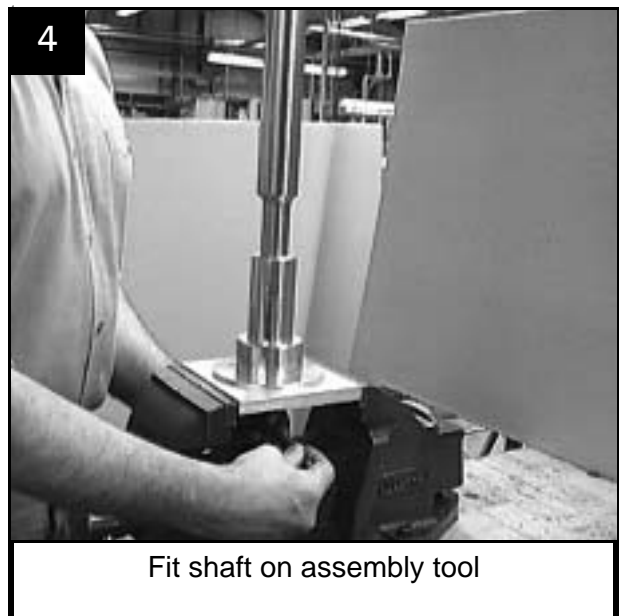
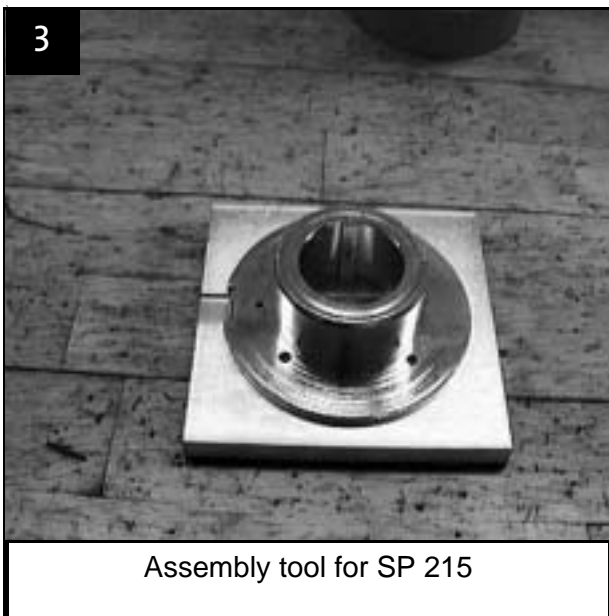
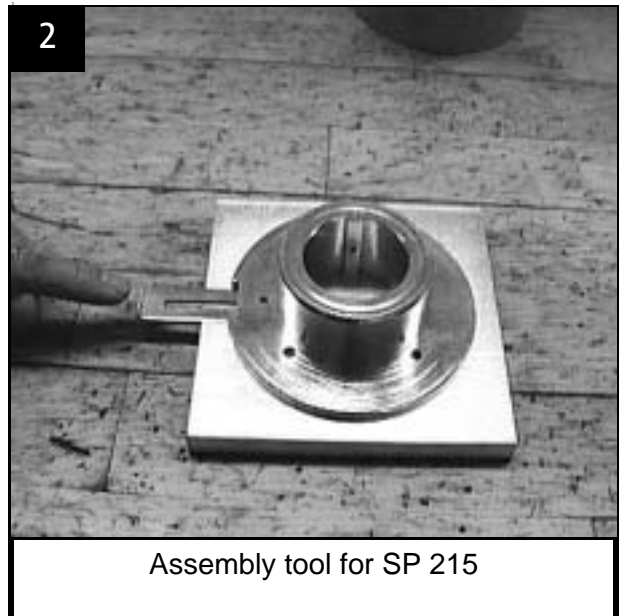
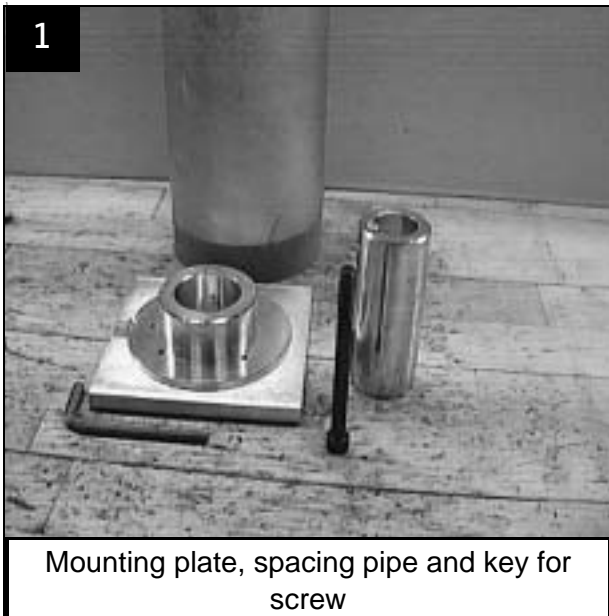


9 Tighten impeller



10 Fit upthrust bearing in top chamber. Continued on page 18.

# SP 215

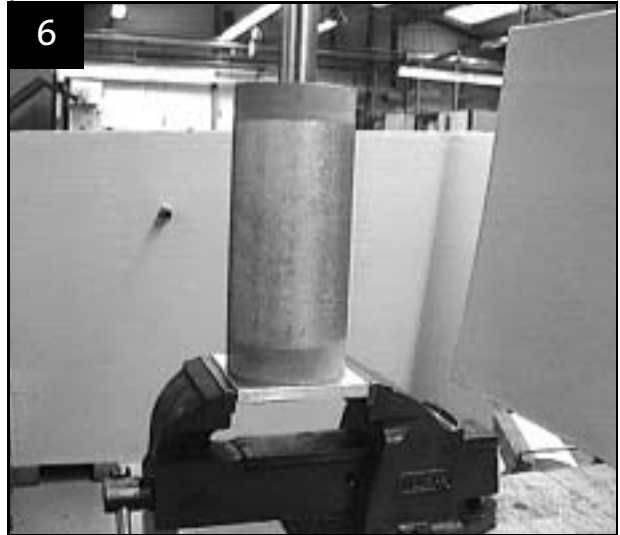






5

Mounting pipe



6

Mounting pipe fitted on assembly tool



7

Fit first impeller



8

Tighten first impeller



9

Mounting pipe and suction interconnector  
(to be reversed)



10

Remove mounting pipe

11



Replace mounting pipe with suction interconnector

12



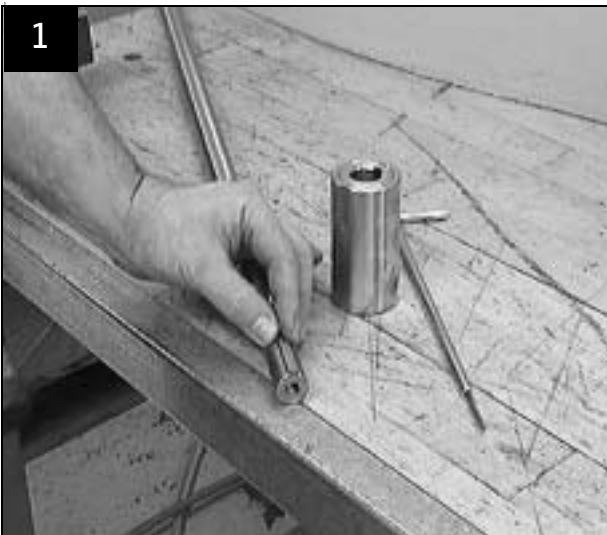
Fit shaft with impeller in suction interconnector

13



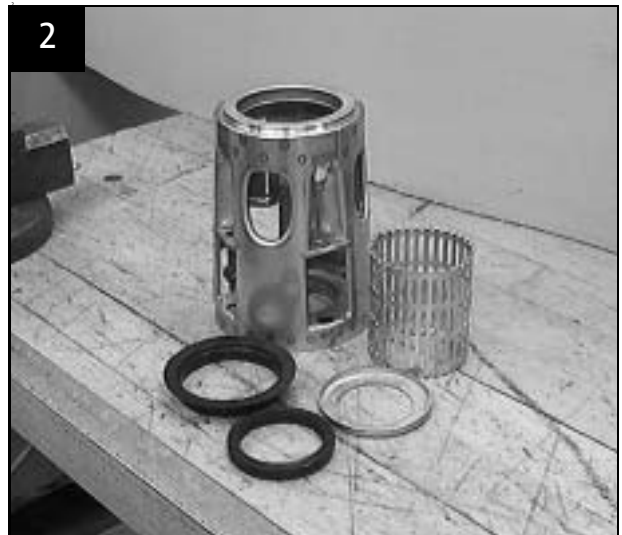
Fit upthrust bearing in top chamber.  
Continued on page 18.

# SP 17 and 30



1

Fit key and coupling on shaft



2

Suction interconnector including all parts



3

Retainer for neck ring fitted



4

'THIS SIDE UP' must point upwards



Neck ring fitted correctly in suction interconnector



Fit split cone and split cone nut in impeller



Spacing washer for stop ring placed on first impeller



Intermediate bearing and upper stop ring including tools



Tool for fitting of bearing

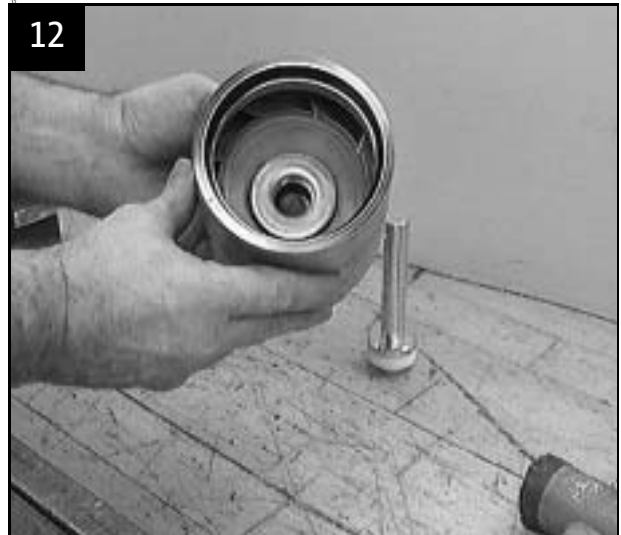


Fit bearing



11

Fit upper stop ring



12

Bearing and upper stop ring fitted



13

Intermediate rubber bearing fitted



14

'THIS SIDE UP' must point upwards



15

Fit top bearing in  
top chamber



16

Bearing on assembly tool



17

Fitted top bearing



18

Fit neck ring in top chamber



19

Assembled top chamber



20

Valve casing with non-return valve



21

Assembly tools for SP 30-10



22

Assembly tool in vice



23



Pump shaft with coupling in assembly tool

24



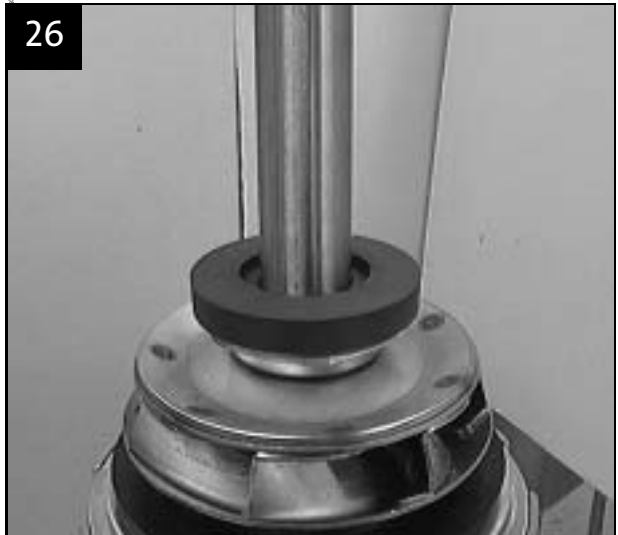
Suction interconnector fitted

25



Fit first impeller

26



Second impeller fitted and tightened

27



Spacing washer for stop ring fitted

28



Chamber with stop ring

29

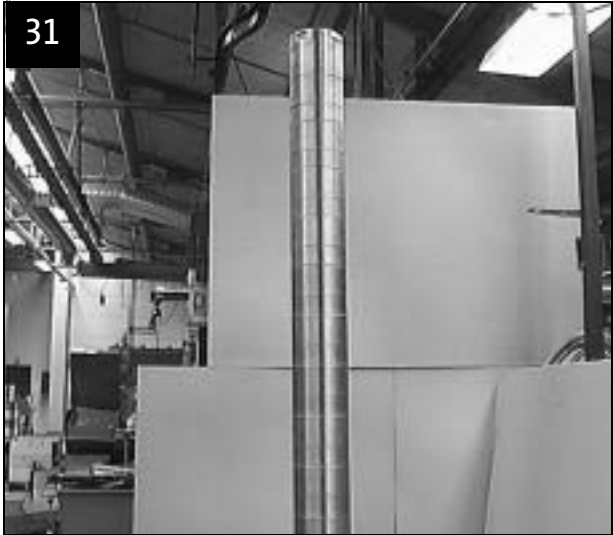


Chamber with stop ring fitted



Valve cup and discharge chamber

31



All chambers fitted

32



Lubricate threads with Bonderlube

33



Fit straps on pump cylinder

34



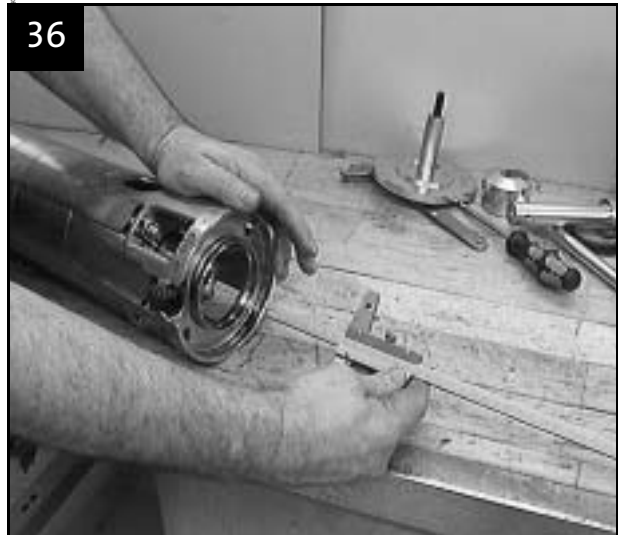
Tighten strap nuts at specified torque





35

Dismantle assembly tool



36

Measure axial pump clearance and check with the Grundfos Service Manual



37

Mount motor on pump



38

Tighten motor bolts



39

Remove one strap for cable guard



40

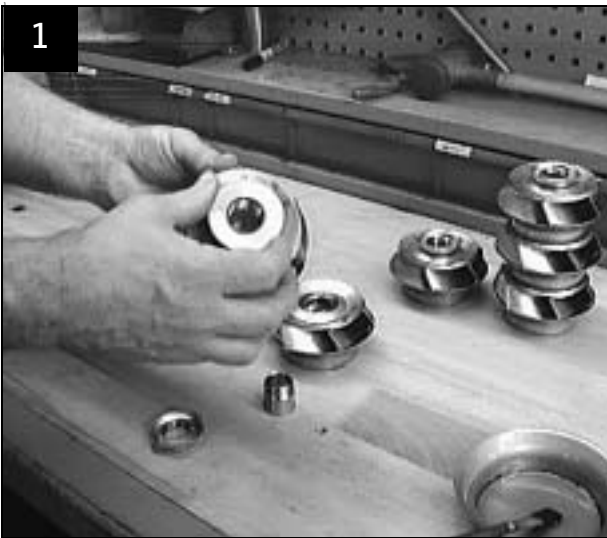
Fit cable guard and strap

41



Completed pump

# SP 77 and 95



1

Fit nut for stop ring on impeller



2

Split cone and split cone nut fitted in impeller



3

Fit lower bearing in chamber



4

Fit stationary stop ring in chamber



Stationary stop ring fitted in chamber



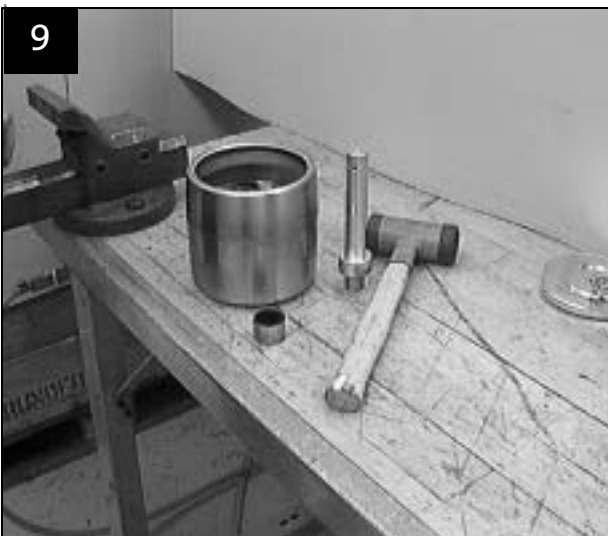
'THIS SIDE UP' must point upwards



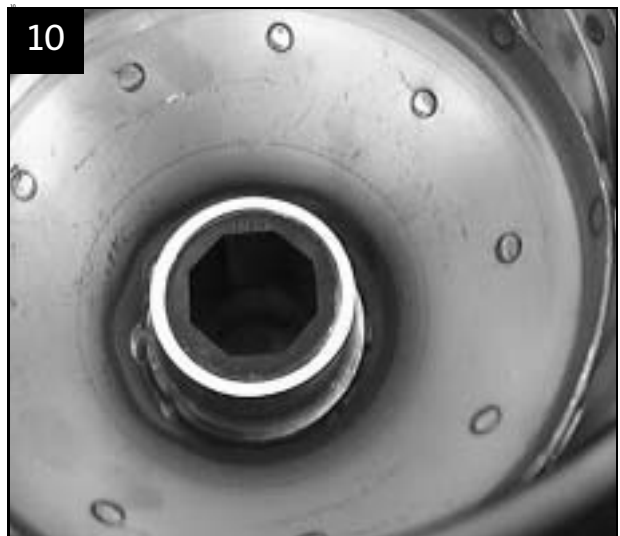
Fit neck ring in chamber



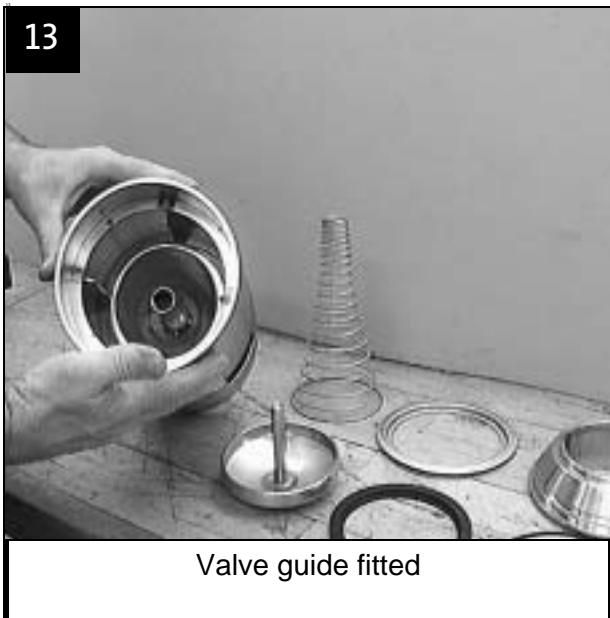
Fit rubber bearing in chamber



Fit upper bearing in top chamber



Fitted upper bearing





17 The side of the rubber ring with the numbers must point upwards



18 Fit neck ring in valve casing



19 Fit O-ring



20 Check that O-ring is placed correctly on valve seat retainer



21 Fit retainer in valve casing



22 Valve casing completed



23

Check again that valve cup moves freely



24

Fit key on shaft



25

Fit coupling on pump shaft



26

Fit neck ring on suction interconnector



27

Tighten mounting plate and spacing pipe with a screw



28

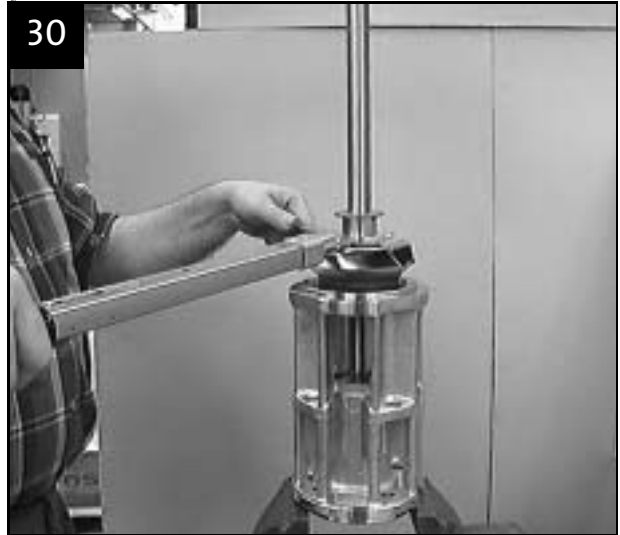
Fit suction interconnector on mounting plate





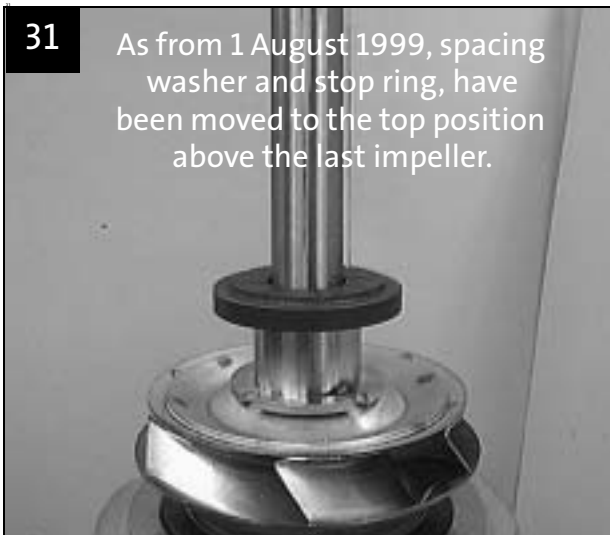
29

Fit first impeller including stop ring



30

Tighten split cone nut



31

As from 1 August 1999, spacing washer and stop ring, have been moved to the top position above the last impeller.

Spacing washer for stop ring fitted on nut for stop ring



32

Fit bottom intermediate chamber stop ring



33

All impellers and chambers fitted



34

Fit top chamber





35

Top chamber fitted



36

Fit valve casing



37

Lubricate threads with Bonderlube



38

Position of cable guard in suction interconnector and in valve casing must be aligned



39

Position of cable guard in suction interconnector and in valve casing must be aligned



40

Tighten strap nuts at specified torque



41

Measure axial clearance and check with the Grundfos Service Manual



42

Mount pump on motor



43

Fit strainer



44

Fit lock for strainer and secure



45

Lock secured



46

Fit cable guard

Subject to alterations.

**Denmark**

GRUNDFOS DK A/S  
Poul Due Jensens Vej 7A  
DK-8850 Bjerringbro  
Tlf.: +45-87 50 50 50  
Telefax: +45-87 50 51 51

**Argentina**

Bombas GRUNDFOS de Argentina S.A.  
Ruta Panamericana km. 37.500 Lote 34A  
1619 - Garin  
Pcia. de Buenos Aires  
Phone: +54-3327 414 444  
Telefax: +54-3327 411 111

**Australia**

GRUNDFOS Pumps Pty. Ltd.  
P.O. Box 2040  
Regency Park  
South Australia 5942  
Phone: +61-8-8461-4611  
Telefax: +61-8-8340 0155

**Austria**

GRUNDFOS Pumpen Vertrieb Ges.m.b.H.  
Grundfosstraße 2  
A-5082 Grödig/Salzburg  
Tel.: +43-6246-883-0  
Telefax: +43-6246-883-30

**Belgium**

N.V. GRUNDFOS Bellux S.A.  
Boomsesteenweg 81-83  
B-2630 Aartselaar  
Tél.: +32-3-870 7300  
Télécopie: +32-3-870 7301

**Brazil**

GRUNDFOS do Brasil Ltda.  
Rua Tomazina 106  
CEP 83325 - 040  
Pinhais - PR  
Phone: +55-41 668 3555  
Telefax: +55-41 668 3554

**Canada**

GRUNDFOS Canada Inc.  
2941 Brighton Road  
Oakville, Ontario  
L6H 6C9  
Phone: +1-905 829 9533  
Telefax: +1-905 829 9512

**China**

GRUNDFOS Pumps (Shanghai) Co. Ltd.  
22 Floor, Xin Hua Lian Building  
755-775 Huai Hai Rd, (M)  
Shanghai 200020  
PRC  
Phone: +86-512-67 61 11 80  
Telefax: +86-512-67 61 81 67

**Czech Republic**

GRUNDFOS s.r.o.  
Cajkovského 21  
779 00 Olomouc  
Phone: +420-68-5716 111  
Telefax: +420-68-543 8908

**Finland**

OY GRUNDFOS Pumput AB  
Mestarintie 11  
Piispankylä  
FIN-01730 Vantaa (Helsinki)  
Phone: +358-9 878 9150  
Telefax: +358-9 878 91550

**France**

Pompes GRUNDFOS Distribution S.A.  
Parc d'Activités de Chesnes  
57, rue de Malacombe  
F-38290 St. Quentin Fallavier (Lyon)  
Tél.: +33-4 74 82 15 15  
Télécopie: +33-4 74 94 10 51

**Germany**

GRUNDFOS GMBH  
Schlüterstr. 33  
40699 Erkrath  
Tel.: +49-(0) 211 929 69-0  
Telefax: +49-(0) 211 929 69-3799  
e-mail: info@grundfos.de  
Service in Deutschland:  
e-mail: kundendienst@grundfos.de

**Greece**

GRUNDFOS Hellas A.E.B.E.  
20th km. Athinon-Markopoulou Av.  
P.O. Box 71  
GR-19002 Peania  
Phone: +30-10-66 83 400  
Telefax: +30-10-66 46 273

**Hong Kong**

GRUNDFOS Pumps (Hong Kong) Ltd.  
Unit 1, Ground Floor  
Siu Wai Industrial Centre  
29-33 Wing Hong Street &  
68 King Lam Street, Cheung Sha Wan  
Kowloon  
Phone: +852-27861706/27861741  
Telefax: +852-27858664

**Hungary**

GRUNDFOS Hungária Kft.  
Park u. 8  
H-2045 Törökbalint,  
Phone: +36-34 520 100  
Telefax: +36-34 520 200

**India**

GRUNDFOS Pumps India Private Limited  
Flat A, Ground Floor  
61/62 Chamiers Aptmt  
Chamiers Road  
Chennai 600 028  
Phone: +91-44 432 3487  
Telefax: +91-44 432 3489

**Indonesia**

PT GRUNDFOS Pompa  
Jl. Rawa Sumur III, Blok III / CC-1  
Kawasan Industri, Pulogadung  
Jakarta 13930  
Phone: +62-21-460 6909  
Telefax: +62-21-460 6910/460 6901

**Ireland**

GRUNDFOS (Ireland) Ltd.  
Unit 34, Stillorgan Industrial Park  
Blackrock  
County Dublin  
Phone: +353-1-2954926  
Telefax: +353-1-2954739

**Italy**

GRUNDFOS Pompe Italia S.r.l.  
Via Gran Sasso 4  
I-20060 Truccazzano (Milano)  
Tel.: +39-02-95838112  
Telefax: +39-02-95309290/95838461

**Japan**

GRUNDFOS Pumps K.K.  
1-2-3, Shin Miyakoda  
Hamamatsu City  
Shizuoka pref. 431-21  
Phone: +81-53-428 4760  
Telefax: +81-53-484 1014

**Korea**

GRUNDFOS Pumps Korea Ltd.  
2nd Fl., Dong Shin Building  
994-3 Daechi-dong, Kangnam-Ku  
Seoul 135-280  
Phone: +82-2-5317 600  
Telefax: +82-2-5633 725

**Malaysia**

GRUNDFOS Pumps Sdn. Bhd.  
7 Jalan Peguam U1/25  
Glenmarie Industrial Park  
40150 Shah Alam  
Selangor  
Phone: +60-3-5569 2922  
Telefax: +60-3-5569 2866

**Mexico**

Bombas GRUNDFOS de Mexico S.A. de C.V.  
Boulevard TLC No. 15  
Parque Industrial Stiva Aeropuerto  
Apodaca, N.L. 66600  
Mexico  
Phone: +52-81-8144 4000  
Telefax: +52-81-8144 4010

**Netherlands**

GRUNDFOS Nederland B.V.  
Postbus 104  
NL-1380 AC Weesp  
Tel.: +31-294-492 211  
Telefax: +31-294-492244/492299

**New Zealand**

GRUNDFOS Pumps NZ Ltd.  
17 Beatrice Tinsley Crescent  
North Harbour Industrial Estate  
Albany, Auckland  
Phone: +64-9-415 3240  
Telefax: +64-9-415 3250

**Norway**

GRUNDFOS Pumper A/S  
Strømsveien 344  
Postboks 235, Leirdal  
N-1011 Oslo  
Tlf.: +47-22 90 47 00  
Telefax: +47-22 32 21 50

**Poland**

GRUNDFOS Pompy Sp. z o.o.  
ul. Klonowa 23  
Baranowo k. Poznania  
PL-62-081 Przemierowo  
Phone: +48-61-650 13 00  
Telefax: +48-61-650 13 50

**Portugal**

Bombas GRUNDFOS Portugal, S.A.  
Rua Calvet de Magalhães, 241  
Apartado 1079  
P-2780 Paço de Arcos  
Tel.: +351-21-440 76 00  
Telefax: +351-21-440 76 90

**Russia**

OOO GRUNDFOS  
Shkolnaya 39  
RUS-109544 Moscow  
Phone: +7-095 564 88 00, +7-095 737 30 00  
Telefax: +7-095 564 88 11, +7-095 737 75 36  
e-mail: grundfos.moscow@grundfos.com

**Singapore**

GRUNDFOS (Singapore) Pte. Ltd.  
24 Tuas West Road  
Jurong Town  
Singapore 638381  
Phone: +65-6865 1222  
Telefax: +65-6861 8402

**Spain**

Bombas GRUNDFOS España S.A.  
Camino de la Fuentecilla, s/n  
E-28110 Algete (Madrid)  
Tel.: +34-91-848 8800  
Telefax: +34-91-628 0465

**Sweden**

GRUNDFOS AB  
Box 63, Angeredsvinkeln 9  
S-424 22 Angered  
Tel.: +46-771-32 23 00  
Telefax: +46-31 331 94 60

**Switzerland**

GRUNDFOS Pumpen AG  
Bruggacherstrasse 10  
CH-8117 Fällanden/ZH  
Tel.: +41-1-806 8111  
Telefax: +41-1-806 8115

**Taiwan**

GRUNDFOS Pumps (Taiwan) Ltd.  
14, Min-Yu Road  
Tunglo Industrial Park  
Tunglo, Miaoli County  
Taiwan, R.O.C.  
Phone: +886-37-98 05 57  
Telefax: +886-37-98 05 70

**Thailand**

GRUNDFOS (Thailand) Ltd.  
947/168 Moo 12, Bangna-Trad Rd., K.M. 3,  
Bangna, Phrakonong  
Bangkok 10260  
Phone: +66-2-744 1785 ... 91  
Telefax: +66-2-744 1775 ... 6

**Turkey**

GRUNDFOS POMPA SAN. ve TIC. LTD. STI  
Bulgurlu Caddesi no. 32  
TR-81190 Üsküdar Istanbul  
Phone: +90 - 216-4280 306  
Telefax: +90 - 216-3279 988

**United Arab Emirates**

GRUNDFOS Gulf Distribution  
P.O. Box 16768  
Jebel Ali Free Zone  
Dubai  
Phone: +971-4- 8815 166  
Telefax: +971-4-8815 136

**United Kingdom**

GRUNDFOS Pumps Ltd.  
Grovebury Road  
Leighton Buzzard/Beds. LU7 8TL  
Phone: +44-1525-850000  
Telefax: +44-1525-850011

**U.S.A.**

GRUNDFOS Pumps Corporation  
17100 West 118th Terrace  
Olathe, Kansas 66061  
Phone: +1-913-227-3400  
Telefax: +1-913-227-3500

Addresses revised 11.07.2002

V7 11 88 09 1002	GB
repl. V7 11 88 09 0500	