



281

Assembly Manual

N514 Fitting Apparatus
for 281 E66/20 Sewing Equipment

All rights reserved.

Property of Dürkopp Adler GmbH and protected by copyright. Any reuse of these contents, including excerpts, is prohibited without the prior written consent of Dürkopp Adler GmbH.

Copyright © Dürkopp Adler GmbH - 2021

1	Components in the parts set	3
2	Assembly manual	4
2.1	Screwing the fitting apparatus onto the base plate.....	4
2.2	Laying the hoses	6
2.3	Attaching air distribution	8
2.4	Connecting the hoses	9
2.5	Attaching the magnet valve	10
2.6	Fitting the maintenance unit	11
2.7	Connecting up the magnet valve to the control	12
3	Appendix	14

1 Components in the parts set

Check whether the scope of delivery for parts set 0281 590134 is correct prior to attaching the fitting apparatus.

Material number	Quantity	Description
0014 000140	1	Spring (throat plate slide)
0211 000256	2	Pan-head screw (throat plate slide)
0251 GS0554	2	Screw (fastening on base plate)
0570 001847	1	Blanking plug
0744 009183	2	T-piece
0975 417340	2	Socket
9203 003958	2	Cheese-head screw (air distribution on angle piece)
9204 200517	2	Pan-head screw
9207 170257	2	Screw (magnet valve on table plate)
9710 061200	1	Magnet valve
9710 900031	1	Connection plate
9710 920011	2	Throttle valve
9710 982003	1	Silencer
9731 005004	1	Hose
9770 281001	1	Pneumatics diagram
9780 000108	1	Maintenance unit
9790 030030	1	Y-connection piece
9790 101010	2	L swivel-type screw fitting
9790 200001	1	Screw connection
9790 201000	4	Screw connection
9792 302020	4	Sealing ring
9840 121002	5	Cable tie
9870 281004	1	Cable set
N514 000002	1	Apparatus
N514 000005	1	Slide (throat plate slide)
N514 000021	1	Angle piece
9203 003657	2	Screw (fastening on base plate)

2 Assembly manual

DANGER




Danger of life-threatening electric shock

The fitting apparatus may only be attached by a trained specialist.

Switch off the machine and disconnect the power plug before you attach the fitting apparatus.

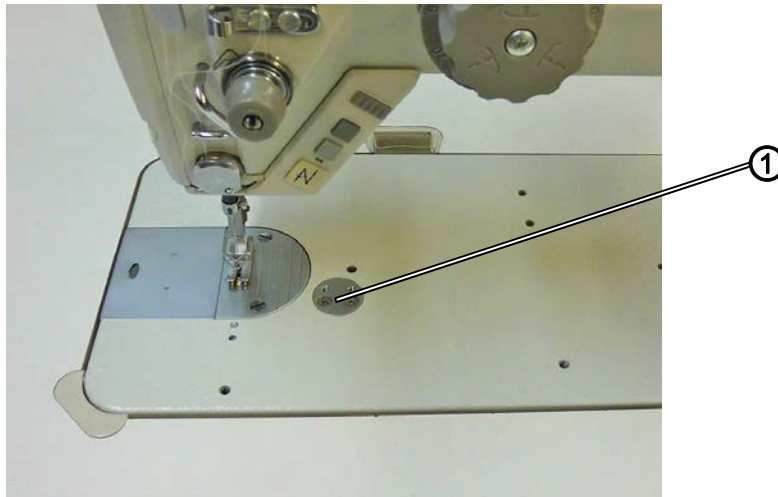
Make sure the power plug cannot be accidentally plugged back in.

Prerequisites for attachment

- Switch off the machine.
- Remove the sewing equipment used up until now away from the machine and attach the 281 E66 sewing equipment.
- Cut the hoses to size in accordance with the pneumatics diagram in  3 *Appendix*, p. 14, interlock the Y hose piece.

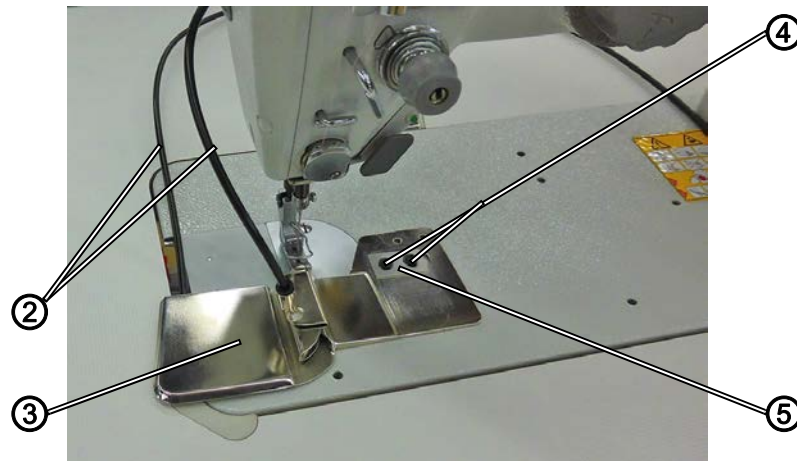
2.1 Screwing the fitting apparatus onto the base plate

Figure 1: Base plate prior to attachment of fitting apparatus



(1) - Holes in the thread insert

Figure 2: Attached fitting apparatus



(2) - Hoses

(3) - Fitting apparatus

(4) - Screws

(5) - Underlying plate

1. Switch off the machine.
2. Place the hoses (2) (top and bottom) onto the fitting apparatus (3).
3. Place the fitting apparatus (3) with the elongated hole onto the holes (1) in the base plate.
4. Place the underlying plate (5) onto the holes (1).
5. Fix the underlying plate (5) and fitting apparatus (3) into the holes (1) using two screws (4).
6. Adjustment of the fitting apparatus (3) is possible according to individual requirements - via the elongated hole in X/Y direction.

Figure 3: Attached fitting apparatus in detail



2.2 Laying the hoses

WARNING



Crushing injuries due to the heavy machine

Always use both hands to tilt the machine. Do not allow the machine to fall down!

ATTENTION

Damage to property due to the hose being crushed

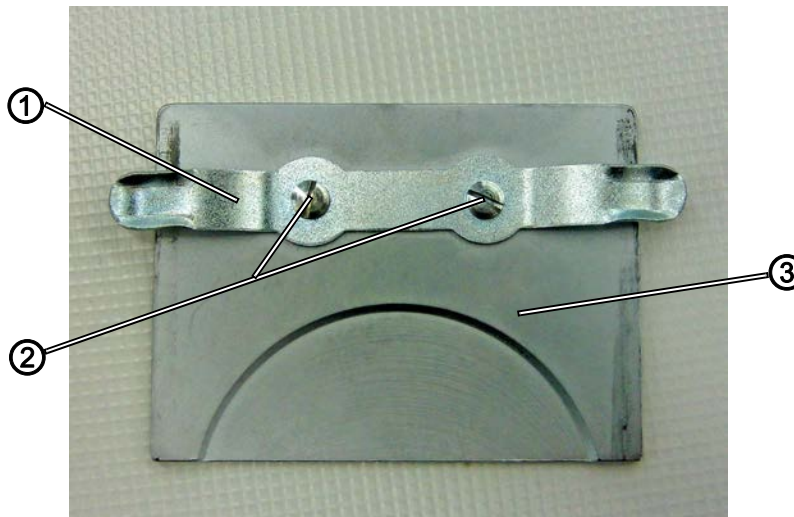
An incorrectly laid hose could get crushed and lose its functionality as a result.

Lay the hose such that it does not get crushed.

The hose supplying air to the fitting apparatus from below has to be laid.

Prerequisite: Fit the throat plate slide

Figure 4: Throat plate slide fitted



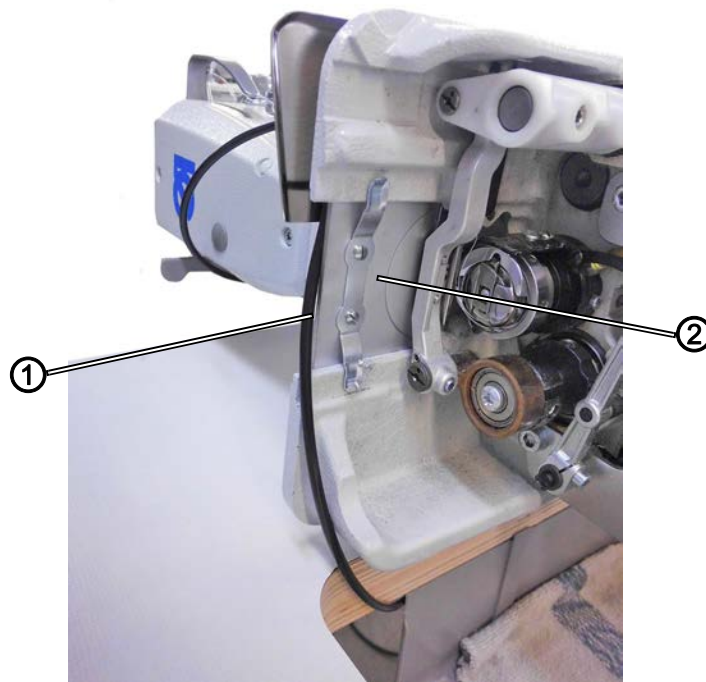
(1) - Spring

(2) - Pan-head screws

(3) - Slide

Fix the spring (1) on the slide (3) using the two pan-head screws (2).

Figure 5: Laying the hose



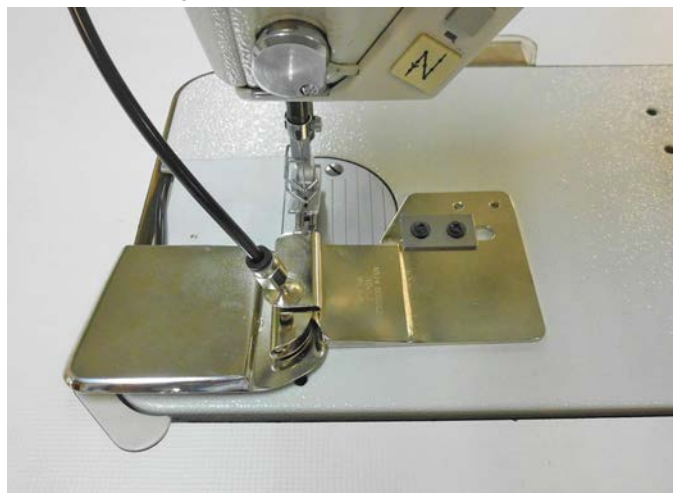
(1) - Hose

(2) - Throat plate slide

This is how you lay the hose:

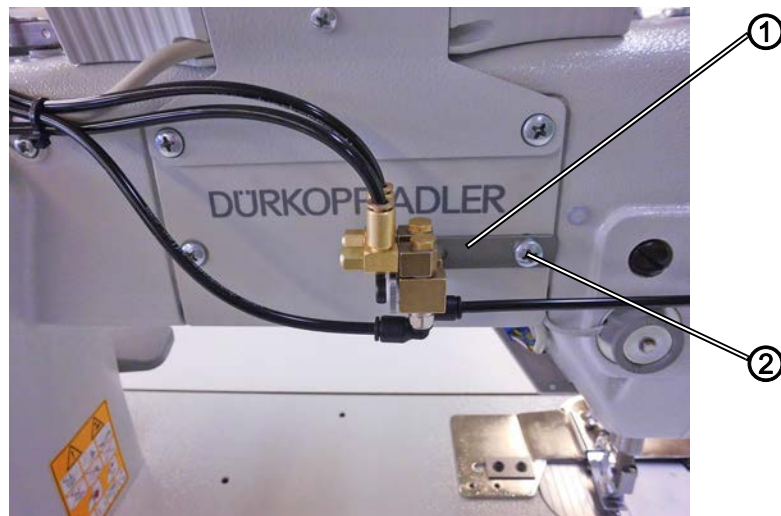
1. Tilt the machine.
2. Exchange the throat plate slide (2).
3. Lay the hose (1) through the gap and under the machine, as illustrated.
4. Erect the machine again.

Figure 6: Attached fitting apparatus



2.3 Attaching air distribution

Figure 7: Fitting the air distribution

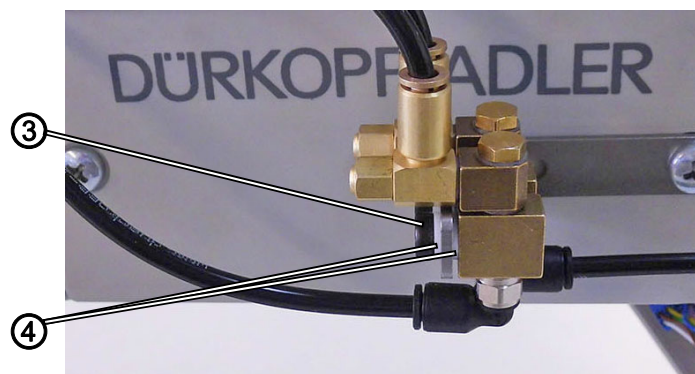


(1) - Angle piece

(2) - Screw

1. Unscrew the screw (2) to the right, below the control panel on the rear side of the machine.
2. Position the angle piece (1) over the hole and fix it in place using the screw (2).

Figure 8: Air distribution in detail



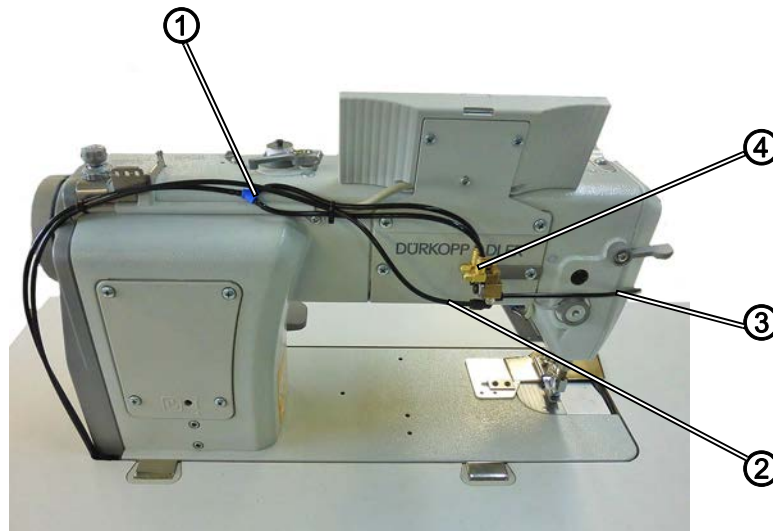
(3) - Screw (2x)

(4) - Sealing ring (4x)

3. Screw the air distribution onto the angle piece (1) using two screws (3) - in doing so, apply two sealing rings (4) respectively.

2.4 Connecting the hoses

Figure 9: Laying the hoses



(1) - Y hose piece

(2) - Exhaust air to bottom side

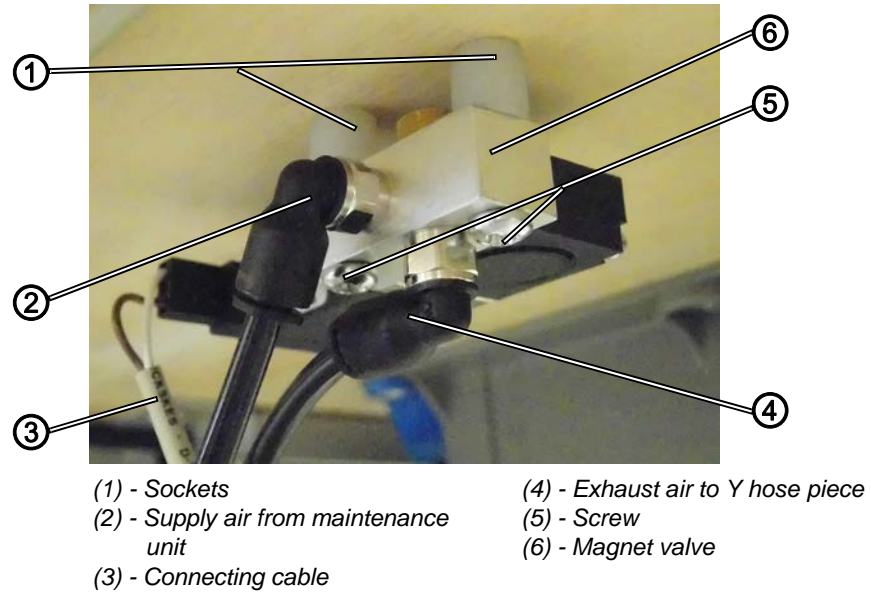
(3) - Exhaust air to top side

(4) - Chokes

1. Fit both ends of the Y hose piece (1) from above and onto the chokes (4).
 ↳ The supply air is established.
2. Insert the hose (3) coming from the top side of the fitting apparatus from below and into the rear screw connection.
3. Insert the hose (2) coming from the bottom side of the fitting apparatus from below and into the front screw connection.
4. Fix the hoses in place using the supplied cable ties.

2.5 Attaching the magnet valve

Figure 10: Magnet valve fitted under the table plate



1. Fix the magnet valve (6) in place under the table plate using two sockets (1) and two screws (5).
2. Insert the end piece of the Y hose piece (4) into the lower screw connection.
3. Insert the hose from the maintenance unit (2) into the side screw connection.

2.6 Fitting the maintenance unit

Figure 11: Fitted maintenance unit



- | | |
|---------------------------------|----------------------------------|
| (1) - Fastening device | (4) - Connection to magnet valve |
| (2) - Maintenance unit | (5) - Cross bar |
| (3) - Compressed air connection | |

1. Apply the fastening device (1) for the maintenance unit to a cross bar (5) of the table frame.
2. Fix the maintenance unit (2) in place on the cross bar (5) using two screws.
3. Insert the hose from the side screw connection for the magnet valve from the right and into the maintenance unit screw connection (4).
4. Connect the maintenance unit (2) to the compressed air supply via the compressed air connection (3).

2.7 Connecting up the magnet valve to the control

Figure 12: Connection to the control



- | | |
|-----------------------------|------------------------|
| (1) - Control | (4) - Connecting plug |
| (2) - Plug for magnet valve | (5) - Connecting cable |
| (3) - Plug for machine | |

1. Switch off the machine.
2. Pull the plug for the machine (3) from the control (1).
 ↳ The machine is no longer connected to the control (1).
3. Insert the plug for the magnet valve (2) into the control (1).
 ↳ The magnet valve is connected to the control (1).
4. Connect the connecting plug (4) for the magnet valve to the plug for the machine (3).
 ↳ The machine is connected to the control (1) again.
5. Activate the parameters for the control (1) to achieve the required sewing result.

How you activate the parameters is described in the *Operating manual for DAC basic/classic, Part II, Class 281*.

Required sewing result

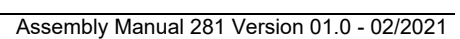
Both parameters, thus *Needle cooling* and *Needle cooling with sewing foot lifter* have to be activated. Otherwise, the required sewing result cannot be achieved appropriately.

Relevant parameters:

E	K	P	Min	Max	Preset	Unit	Description
Needle cooling (user level)							
o	13	00	0	1	0	-	Needle cooling 0 = Off 1 = On
Needle cooling (technician level)							
t	13	03	0	1	0	-	Needle cooling with sewing foot lifter 0 = No 1 = Yes

Figure 13: Pneumatics diagram

Figure 13: Pneumatics diagram





DÜRKOPP ADLER GmbH
Potsdamer Str. 190
33719 Bielefeld
Germany
Phone +49 (0) 521 925 00
E-Mail: service@duerkopp-adler.com
www.duerkopp-adler.com