

Adaptors AC 10, AC 16, AC 26

The adaptors AC 10, AC 16 and AC 26 are designed for use with the C series columns C 10, C 16 and C 26 respectively. The pressure limit is 0.1 MPa (1 bar). They may be used in one or both ends of the column and thus allow for large variations in medium bed height. Samples can be applied to the column in a fast and reproducible manner without disturbance to the medium bed.

Unpacking

The adaptor is delivered complete with capillary tubing.

Please check delivery against the following list.

Designation	No. per pack
AC adaptor	1
Accessories bag containing	
Support screen	1
Net ring (10 µm)	1
O-ring	1
Polyethylene tubing	2 m
Flow stopper pin	1
Instructions	1

Description

Please refer to the exploded diagram on page 4 for details. The adaptor consists of three main parts; the plunger with an O-ring sealing, the shaft (AC 10), the adjusting mechanism (AC 16, AC 26), and the end piece.

Materials

The materials from which the individual parts of the adaptor are made are listed in the spare parts list below. Under normal operating conditions, the only materials in contact with the effluent are: polyamide, polyethylene, fluoro rubber, nitrile rubber and polypropylene.

Resistance

The adaptor can be used with aqueous solutions and nearly all organic solvents commonly used in chromatography with the following few exceptions: chlorinated hydrocarbons, acetone, methanol and toluene. Great care should be taken when using the adaptor with other organic solvents so that the liquid does not pass beyond the O-ring sealing. Solutions containing more than 10 %

hydrochloric acid, 10 % sodium hydroxide or 5 % acetic acid should not be used as they may damage the polyamide net.

Cleaning

Suitable cleaning agents are soapy water or laboratory detergent. Enzyme detergents are recommended for removing proteinaceous contamination. With the polyethylene tubing and the net ring (11) removed, the adaptor may be autoclaved for 20 minutes at 120 °C.

Instructions

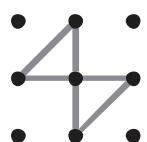
Numbers refer to the exploded diagram below.

Dismantling the AC 10 adaptor

1. Slide out the adaptor shaft (4) from the adaptor end piece (2).
2. Unscrew the shaft from the plunger (9).
3. The sealing plug (7) and the O-ring (8) may be removed.

Dismantling the AC 16 and AC 26 adaptor

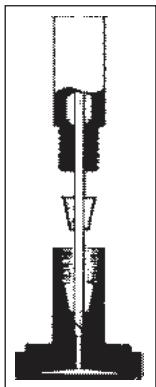
1. Slide out the adaptor tube (5) from the adaptor end piece (2). The ribs on the tube and on the adjusting knob (1) must align.
2. Unscrew the adjusting knob (1).
3. Slide out the plunger (9) and inner adjusting tube (6).
4. Unscrew the inner adjusting tube from the plunger.
5. The sealing plug (7) and the O-ring (8) may be removed.



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Connection of capillary tubing

1. Dismantle the adaptors as described above.
2. Cut the tubing cleanly at a 45° angle.
3. Remove the sealing plug (7) (with the help of the metal stopper).
4. Push the tubing through the sealing plug until it projects about 1 cm.
5. Pass the other end of the tubing through the shaft (AC 10) or through the inner adjusting tube (AC 16, AC 26).
6. Seat the tubing in the plunger (9).
7. Finger-tighten the shaft (AC 10) or the inner adjusting tube (AC 16, AC 26) in the plunger.



Reassembling the AC 10 adaptor

1. Put the O-ring (8) on the plunger.
2. Connect the capillary tubing as described above.
3. Pass the capillary tubing through the shaft (4).
4. Slide the adaptor shaft into the adaptor end piece (2).

Reassembling the AC 16 and AC 26 adaptors

1. Put the O-ring (8) on the plunger.
2. Connect the capillary tubing as described above.
3. Pass the capillary tubing through the outer adjusting tube (5) and slide the inner adjusting tube into the outer tube. Note that the guide must fit into the groove in the inner tube.
4. Replace the adjusting knob (1).
5. Slide the adaptor tube into the adaptor end piece (2). The ribs on the tube and on the adjusting knob must align.

Replacing the net ring and support screen

1. Remove the net ring (11) by inserting a sharp tool between the net ring and the plunger (9).
2. Lay a support screen (10) on the plunger.
3. Snap on a new net ring.

Inserting and adjusting the adaptor

1. Close the column outlet.
2. Adjust the level of liquid in the column to within 1 - 2 mm of the end of the chromatography tube.

3. Slacken the tightening mechanism (only AC 16 and AC 26) and insert the plunger at an angle so that no air is trapped under the net.
4. Adjust the knob (1) to give a sliding seal between the column wall and the O-ring (only AC 16 and AC 26).
5. Slide the plunger slowly down the column so that the air in the adaptor above the net and in the capillary tubing is displaced by the eluent. Do not slide the plunger all the way to the medium bed surface.
6. Screw the end piece (2) into the column end piece ring.
7. Adjust the adaptor in position at the medium surface and tighten the adjusting knob (1) to give a good seal (only AC 16 and AC 26).
8. Lock the adaptor in position with the locking screw (3).

Note: When using organic solvents, the liquid level in the column can be lowered to 5 mm above the bed surface. The adaptor may then be inserted directly into the column and lowered to the liquid surface. The air in the adaptor is displaced and the position of the adaptor is adjusted as described in 4-6 above.

When the adaptor is in position and the medium has been equilibrated at the operating pressure, there should be no liquid/space between the medium surface and the adaptor net. The position of the adaptor may be readjusted after equilibration of the medium, but before the adaptor is moved the column outlet must be closed.

Ordering information

Adaptor	Code No.	Column	Code No.	Thermostat jacket	Code No.	Packing reservoir	Code No.
AC10	19-5006-01	C10/10	19-5001-01	Not available		RC10	19-5007-01
		C10/20	19-5002-01	JC10/20	19-5004-01		
		C10/40	19-5003-01	JC10/40	19-5005-01		
AC16	19-5109-01	C16/20	19-5101-01	JC16/20	19-5105-01	RC16	19-5110-01
		C16/40	19-5102-01	JC16/40	19-5106-01		
		C16/70	19-5103-01	JC16/70	19-5107-01		
		C16/100	19-5104-01	JC16/100	19-5108-01		
AC26	19-5207-01	C26/40	19-5201-01	JC26/40	19-5204-01	RC26	19-5208-01
		C26/70	19-5202-01	JC26/70	19-5205-01		
		C26/100	19-5203-01	JC26/100	19-5206-01		

Spare parts

The exploded diagram over page shows the positions of the different parts of the adaptor. For replacement, please order according to the list below using the appropriate code number. Note that the code numbers for the three different sizes are included in the same table.

Item No.	Designation	Code No. AC 10	Code No. AC 16	Code No. AC 26	Material	No. per pack
1	Adjusting knob	-	19-5227-01	19-5227-01	A	2
2	Adaptor end piece	19-5006-01	19-5109-01	19-5207-01	B	1
3	Locking screw	19-5132-01	19-5132-01	19-3586-01	A	2
4	Shaft	19-5029-01	-	-	A	1
5	Outer adjusting tube	-	19-5109-01	19-5207-01	A	1
6	Inner adjusting tube	-	19-0201-01	19-0201-01	A	1
7	Sealing plug	19-0039-01	19-0039-01	19-0039-01	C	5
8	O-ring	19-5043-01	19-0163-01	19-0688-01	C, G***	5*
9	Plunger	19-5031-01	18-1031-80	18-1031-81	C	1
10	Support screen	19-1767-01	19-0651-01	19-0656-01	E, H**	5
11	Net ring 10 µm	19-5008-01	18-8761-01	18-8760-01	D	5
12	Tubing 1 mm i.d.	19-0040-01	19-0040-01	19-0040-01	E	10 m
13	Stopper	19-0752-01	19-0752-01	19-0752-01	F	10
	Net ring 80 µm	19-5009-01	-	-	D	4

* 5 O-rings are supplied with AC 10, AC 26

** material in AC 10

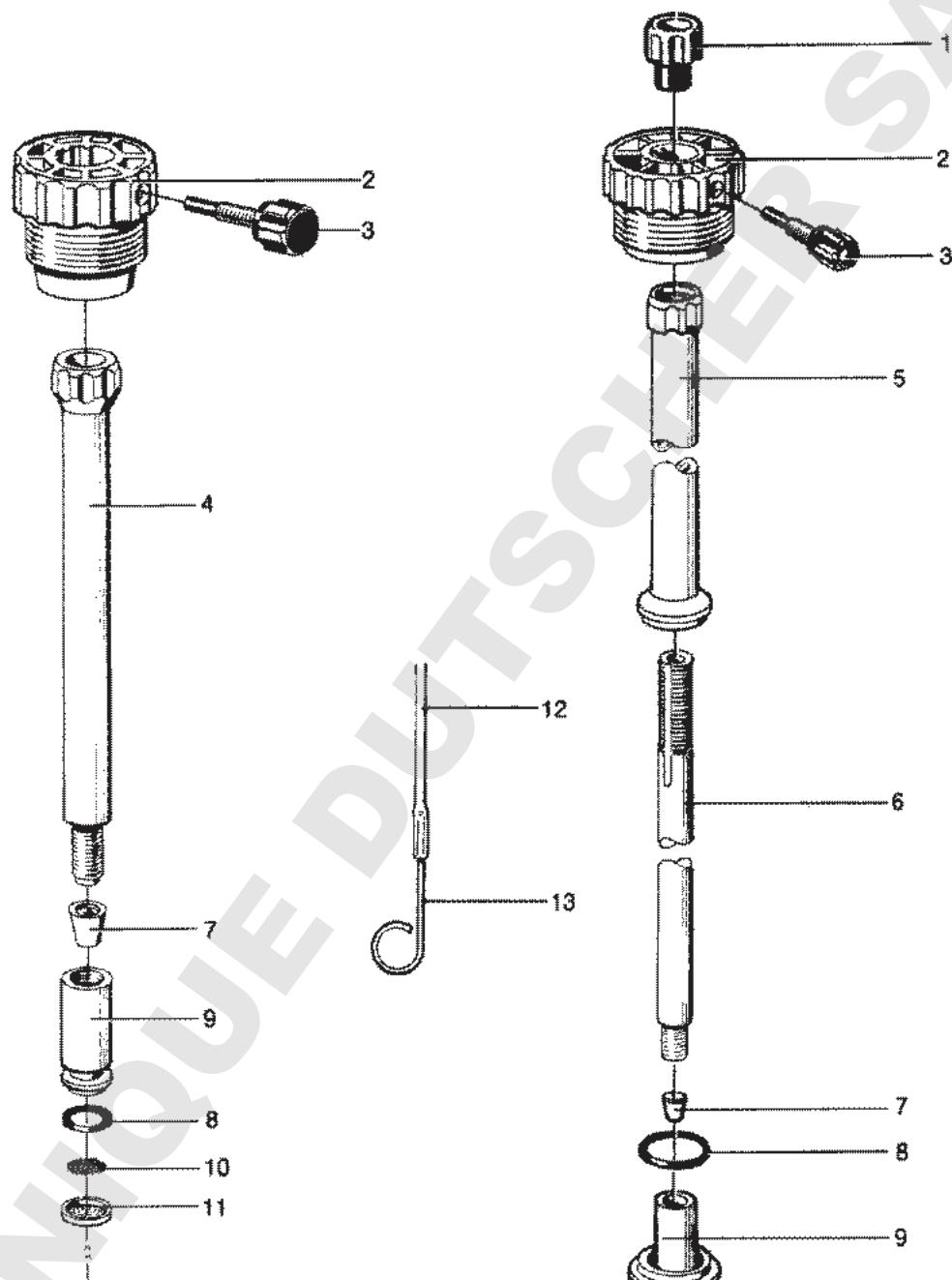
*** material in AC 10, AC 26

Materials

- A Superpolyoxymethylene
- B Polypropylene (glass fibre reinforced)
- C Fluoro rubber
- D Polypropylene and polyamide
- E Polyethylene
- F Stainless steel
- G Nitrile rubber
- H Teflon

AC 10

AC 16, AC 26



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