

FLENDER COUPLINGS

Demounting box for extracting RUPEX bolts

Assembly instructions 3600.1 en
Edition 10/2017

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Assembly instructions

Demounting box

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Legal notes

Warning note concept

This manual comprises notes which must be observed for your personal safety and for preventing material damage. Notes for your personal safety are marked with a warning triangle or an "Ex" symbol (when applying Directive 2014/34/EU), those only for preventing material damage with a "STOP" sign.



WARNING! Imminent explosion!

The notes indicated by this symbol are given to prevent **explosion damage**. Disregarding these notes may result in serious injury or death.



WARNING! Imminent personal injury!

The notes indicated by this symbol are given to prevent **personal injury**. Disregarding these notes may result in serious injury or death.



WARNING! Imminent damage to the product!

The notes indicated by this symbol are given to prevent **damage to the product**. Disregarding these notes may result in material damage.



NOTE!

The notes indicated by this symbol must be treated as general **operating information**. Disregarding these notes may result in undesirable results or conditions.



WARNING! Hot surfaces!

The notes indicated by this symbol are made to prevent **risk of burns due to hot surfaces** and must always be observed. Disregarding these notes may result in light or serious injury.

Where there is more than one hazard, the warning note for whichever hazard is the most serious is always used. If in a warning note a warning triangle is used to warn of possible personal injury, a warning of material damage may be added to the same warning note.

Qualified personnel

The product/system to which this documentation relates may be handled only by **persons qualified** for the work concerned and in accordance with the documentation relating to the work concerned, particularly the safety and warning notes contained in those documents.

Qualified personnel must be specially trained and have the experience necessary to recognise risks associated with these products and to avoid possible hazards.

Proper use of Flender products

Observe also the following:



Flender products must be used only for the applications provided for in the catalogue and the relevant technical documentation. If products and components of other makes are used, they must be recommended or approved by Flender. The faultfree, safe operation of the products calls for proper transport, proper storage, erection, assembly, installation, start-up, operation and maintenance. The permissible ambient conditions must be adhered to. Notes in the relevant documentations must be observed.

Trade marks

All designations to which the registered industrial property mark ® is appended are registered trademarks of Flender GmbH. Other designations used in this document may be trademarks the use of which by third parties for their own purposes may infringe holders' rights.

Exclusion of liability

We have checked the content of the document for compliance with the hard- and software described. Nevertheless, variances may occur, and so we can offer no warranty for complete agreement. The information given in this document is regularly checked, and any necessary corrections are included in subsequent editions.

Explanation regarding Machinery Directive 2006/42/EC

The couplings described here are "components" in accordance with the Machinery Directive and do not require a declaration of incorporation.

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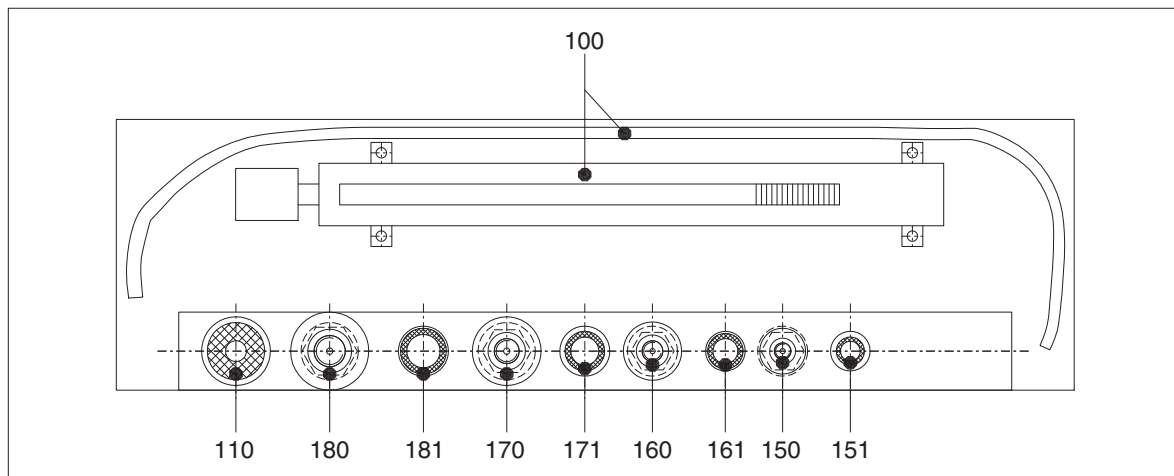


Installation and start-up must be carried out by properly trained specialist personnel. Please read these operating instructions carefully before starting up. We accept no liability for personal injury or damage due to incorrect handling.

1. Demounting box

The demounting box enables the bolts (4) on RUPEX couplings to be extracted hydraulically. Fitting with a hand pump enables use at the coupling-installation site and so does not require the coupling parts to be transported.

For the contents of the demounting box and assignment of the adapters to the RUPEX coupling sizes, see the diagram and the table.



Part number	Designation	Characteristics	Quantity	RUPEX coupling size	Wrench width SW
100	Hand pump assy. cpl.	PZ216021	1	all sizes	
110	Teflon tape	12 x 0.1	1		
150	Adapter	G 1/4 M16	1	450 / 500	36
151	Gasket	17 x 22 x 1.5	10		
160	Adapter	G 1/4 M20	1	560 / 630	36
161	Gasket	21 x 27 x 1.5	10		
170	Adapter	G 1/4 M24	1	710 / 800 / 900 / 1000	41
171	Gasket	26 x 32 x 2	10		
180	Adapter	G 1/4 M30	1	1120 / 1250 / 1400 / 1600	46
181	Gasket	30 x 36 x 2	10		

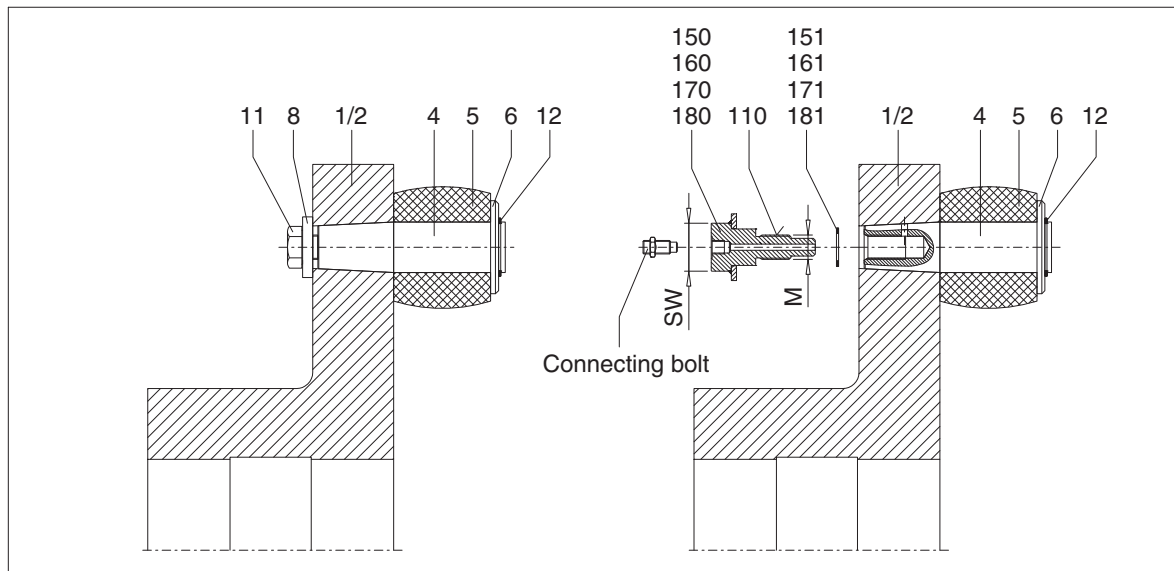
Table: Contents of demounting box and assignment of the adapters to the RUPEX coupling sizes

2. Extraction of the RUPEX bolts



The demounting device can be used only on bolts (4) which are designed with an oil hole as described in item 4. These bolts (4) are marked with the letter "O" or a groove on the end face on the buffer side.

Separate the coupling halves (1/2). Care must be taken that there is adequate working space available. From coupling size 710 upwards the locking rings (12) and disks (6) can be removed and the buffers (5) pulled off the bolts (4), if a separation of the coupling halves (1/2) is not possible.



The extraction of the bolts (4) is identical on both versions.

Unscrew bolt (11) and remove disk (8). Completely remove Loctite residue from the tapped hole.

Select gasket (151, 161, 171 or 181) and adapter (150, 160, 170 or 180) from table 1 to fit the RUPEX coupling size.

Wind the Teflon strip (110) around the thread of the adapter and screw the adapter together with the gasket into the bolt (4).



Do not use an impact screwdriver. Use only a spanner to screw in the adapter.

Then screw in the connecting screw and screw on the connector of the hand pump. Attach the connector to the hand pump.



For instructions for and information about the hand pump, refer to item 3!

Wear protective glasses!

The maximum forcing-off pressure of 1 500 bar must under no circumstances be exceeded!

Danger of getting caught by the sudden movement of the adapter (150, 160, 170, 180) and sudden release of the bolt (4) !

Sudden release of the bolt is accompanied by a loud noise.

Slowly increase the pressure to enable the oil to spread evenly on the bolt (4). Several minutes may elapse between the different pressure stages. No oil must escape. Otherwise the seals must be checked.

The extraction operation has finished as soon as the bolt (4) is released from the hole.



All the oil must be completely collected and disposed of in accordance with the regulations applying.

Then close the screw plug of the hand pump and remove the connector. Unscrew the adapter from the bolt (4), using a spanner and pliers.

Demount all the bolts (4) one after the other in this way.

If reusing the old bolts (4), clean them carefully. No Loctite and other residues must be left in the tapped or oil holes in the bolts (4). Apply just a small quantity of Loctite to the screw (11), otherwise there is a risk that the Loctite may seal the oil hole.

When refitting, the operating instructions for the coupling must be observed.

3. Instructions for and information about the hand pump

To put in the hydraulic fluid, open the filling screw. Replace and tighten it after filling.

Open the drain valve and operate the pump a few times.

Close the drain valve and operate the pump until bubble-free fluid emerges.

Screw the hydraulic hose into the pressure connection. Make sure that the hydraulic connector is completely filled with fluid before it is attached to the cylinder. If necessary, top up fluid in the pump reservoir.

To extend the cylinder, close the drain valve on the pump and operate the pump.

To retract the cylinder, open the drain valve slowly.

To store the pump, fill the tank completely with hydraulic fluid, close the drain valve and seal the hydraulic connection.

Recommended hydraulic fluid (to DIN 51519) hydraulic fluid ISO VG 32.

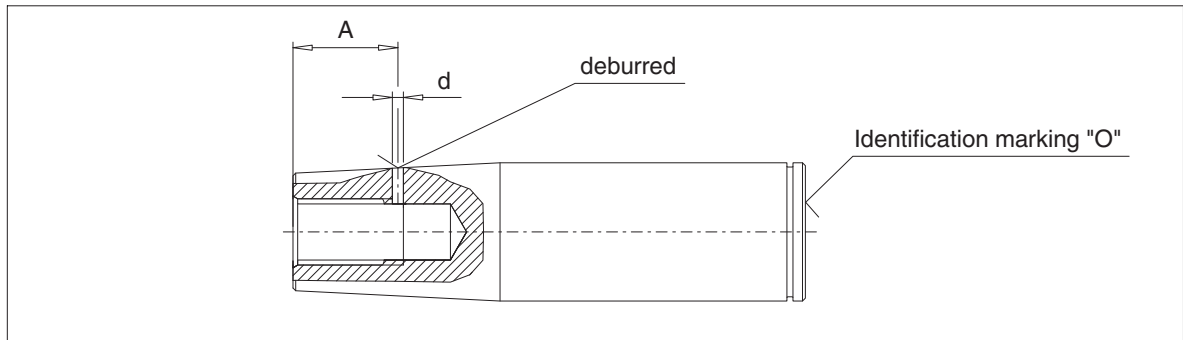
To operate double-acting cylinders the pump can be equipped with a control valve. The starting position is "neutral". Screw two hydraulic hoses into the connecting threads. Make sure that the hydraulic connectors are completely filled with fluid before they are attached to the cylinder.

The pressure relief valve has been set at the factory. The setting must not be altered.

In all cases the relevant safety requirements must be observed.

4. Reworking bolt

If older RUPLEX versions are extracted hydraulically in future, the bolts (4) must be provided with an oil hole as shown in the drawing and the table and must be marked with an "O" as shown in the diagram.



RUPLEX coupling size	Distance A mm	Bore d mm
450 / 500	26	5
560 / 630	34	5
710 / 800	40	6
900 / 1000	45	6
1120 / 1250	50	6
1400 / 1600	57	6
1800 / 2000	70	8

Table: Location of oil hole

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