

Assembly- and Operating Manual

for

3-Jaws-Loading-Gripper Type UFG 26 / 32

Dear Customer,

Congratulations on choosing a SCHUNK product. By choosing SCHUNK, you have opted for the highest precision, top quality and best service.

You are going to increase the process reliability of your production and achieve best machining results – to the customer's complete satisfaction.

SCHUNK products are inspiring.

Our detailed assembly and operation manual will support you.

Do you have further questions? You may contact us at any time – even after purchase. You can reach us directly at the below mentioned addresses.

Kindest Regards,

Your SCHUNK GmbH & Co. KG
Precision Workholding Systems

SCHUNK GmbH & Co. KG
Spann- und Greiftechnik
Bahnhofstr. 106-134
74348 Lauffen/Neckar
Deutschland
Tel. +49-7133-103-0
Fax +49-7133-103-2189
automation@de.schunk.com
www.schunk.com



AUSTRIA: SCHUNK Intec GmbH
Tel. +43-7229-65770-0 · Fax +43-7229-65770-14
info@at.schunk.com · www.at.schunk.com

BELGIUM, LUXEMBOURG:
SCHUNK Intec N.V. / S. A.
Tel. +32-53-853504 · Fax +32-53-836022
info@be.schunk.com · www.be.schunk.com

CANADA: SCHUNK Intec Corp.
Tel. +1-905-712-2200 · Fax +1-905-712-2210
info@ca.schunk.com · www.ca.schunk.com

CHINA: SCHUNK Representative Office
Tel. +86-21-64433177 · Fax +86-21-64431922
info@cn.schunk.com · www.cn.schunk.com

CZECH REPUBLIC: SCHUNK Intec s.r.o.
Tel. +420-545229095 · Fax +420-545220508
info@cz.schunk.com · www.cz.schunk.com

DENMARK: SCHUNK Intec A/S
Tel. +45-43601339 · Fax +45-43601492
info@dk.schunk.com · www.dk.schunk.com

FRANCE: SCHUNK Intec SARL
Tel. +33-1-64663824 · Fax +33-1-64663823
info@fr.schunk.com · www.fr.schunk.com

GREAT BRITAIN: SCHUNK Intec Ltd.
Tel. +44-1908-611127 · Fax +44-1908-615525
info@gb.schunk.com · www.gb.schunk.com

HUNGARY: SCHUNK Intec Kft.
Tel. +36-46-50900-7 · Fax +36-46-50900-6
info@hu.schunk.com · www.hu.schunk.com

INDIA: SCHUNK India Branch Office
Tel. +91-80-40538999 · Fax +91-80-41277363
info@in.schunk.com · www.in.schunk.com

ITALY: SCHUNK Intec S.r.l.
Tel. +39-031-4951311 · Fax +39-031-4951301
info@it.schunk.com · www.it.schunk.com

JAPAN: SCHUNK Intec K.K.
Tel. +81-33-7743731 · Fax +81-33-7766500
s-takano@tbk-hand.co.jp · www.tbk-hand.co.jp

MEXICO, VENEZUELA:
SCHUNK Intec S.A. de C.V.
Tel. +52-442-223-6525 · Fax +52-442-223-7665
info@mx.schunk.com · www.mx.schunk.com

NETHERLANDS: SCHUNK Intec B.V.
Tel. +31-73-6441779 · Fax +31-73-6448025
info@nl.schunk.com · www.nl.schunk.com

POLAND: SCHUNK Intec Sp. z o.o.
Tel. +48-22-7262500 · Fax +48-22-7262525
info@pl.schunk.com · www.pl.schunk.com

PORTUGAL: Sales Representative
Tel. +34-937-556 020 · Fax +34-937-908 692
info@pt.schunk.com · www.pt.schunk.com

RUSSIA: 000 SCHUNK Intec
Tel. +7-812-326 78 35 · Fax +7-812-326 78 38
info@ru.schunk.com · www.ru.schunk.com

SLOVAKIA: SCHUNK Intec s.r.o.
Tel. +421-37-3260610 · Fax +421-37-6421906
info@sk.schunk.com · www.sk.schunk.com

SOUTH KOREA: SCHUNK Intec Korea Ltd.
Tel. +82-31-7376141 · Fax +82-31-7376142
info@kr.schunk.com · www.kr.schunk.com

SPAIN: SCHUNK Intec S.L.
Tel. +34-937 556 020 · Fax +34-937 908 692
info@es.schunk.com · www.es.schunk.com

SWEDEN: SCHUNK Intec AB
Tel. +46-8-554-42100 · Fax +46-8-554-42101
info@se.schunk.com · www.se.schunk.com

SWITZERLAND, LIECHTENSTEIN:
SCHUNK Intec AG
Tel. +41-523543131 · Fax +41-523543130
info@ch.schunk.com · www.ch.schunk.com

TURKEY: SCHUNK Intec
Tel. +90-2163662111 · Fax +90-2163662277
info@tr.schunk.com · www.tr.schunk.com

USA: SCHUNK Intec Inc.
Tel. +1-919-572-2705 · Fax +1-919-572-2818
info@us.schunk.com · www.us.schunk.com

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1. Unpacking and Control

- 1) Carefully remove the packing without using sharp or peaked objects.
- 2) Check the gripper on transportation damages and if necessary, inform us immediately.

Volume of Delivery:

- UFG (without top jaws and pressure piece)
- 2 O-Rings \varnothing 6 x 2 mm
- 3 screws M 8 x 35 DIN EN ISO 4762 (UFG 26)
- 3 screws M 8 x 40 DIN EN ISO 4762 (UFG 32)

NOTE:

For intermediate stocking please note:

- keep dry
- protect the unit against aggressive medias
- avoid strong fluctuations in temperature
- lubricate smooth surfaces
- seal connection bores

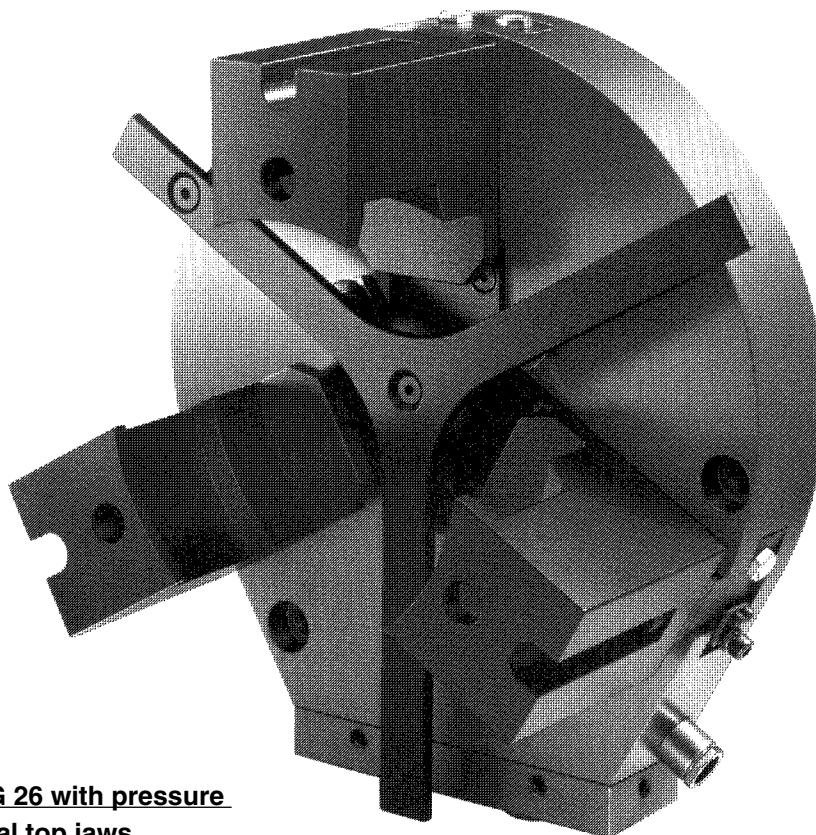


Illustration: UFG 26 with pressure piece and special top jaws.

2. Brief description and technical data

3-Jaw-Loading-Gripper Type UFG 26 / 32:

- broad clamping range
- flat design
- high clamping force
- versatile application (e.g. for loading of tooling machines)
- can be retrofitted as a double gripper without problems
- position of installation: application dependant
- stroke control can be continuously adjusted
- I.D. and O.D. clamping possible
- centrally gripping

Accessories:

- proximity switch
- pressure piece
- top jaws (custom-made solutions available from SCHUNK)

Technical Data:

	UFG 26	UFG 32
Actuation:	hydraulically	hydraulically
Range of operating temperature:	6...60 bars	6...70 bars
Opening stroke:	32 mm / jaw	54 mm / jaw
Gripping force:	at 40 bars 2300 N	at 50 bars 5200 N
Gripping force:	at 6 bars 350 N	at 6 bars 500 N
Operating temperature:	5 °C - 60 °C	5 °C - 60 °C
Oil volume: "open"	34 ccm	87 ccm
Oil volume: "closed"	29 ccm	78 ccm
Opening time:	0.9 sec.	2.1 sec.
Closing time:	0.85 sec.	2.0 sec.
Repeatability	0.05 mm	0.05 mm

3. Assembly and Connection

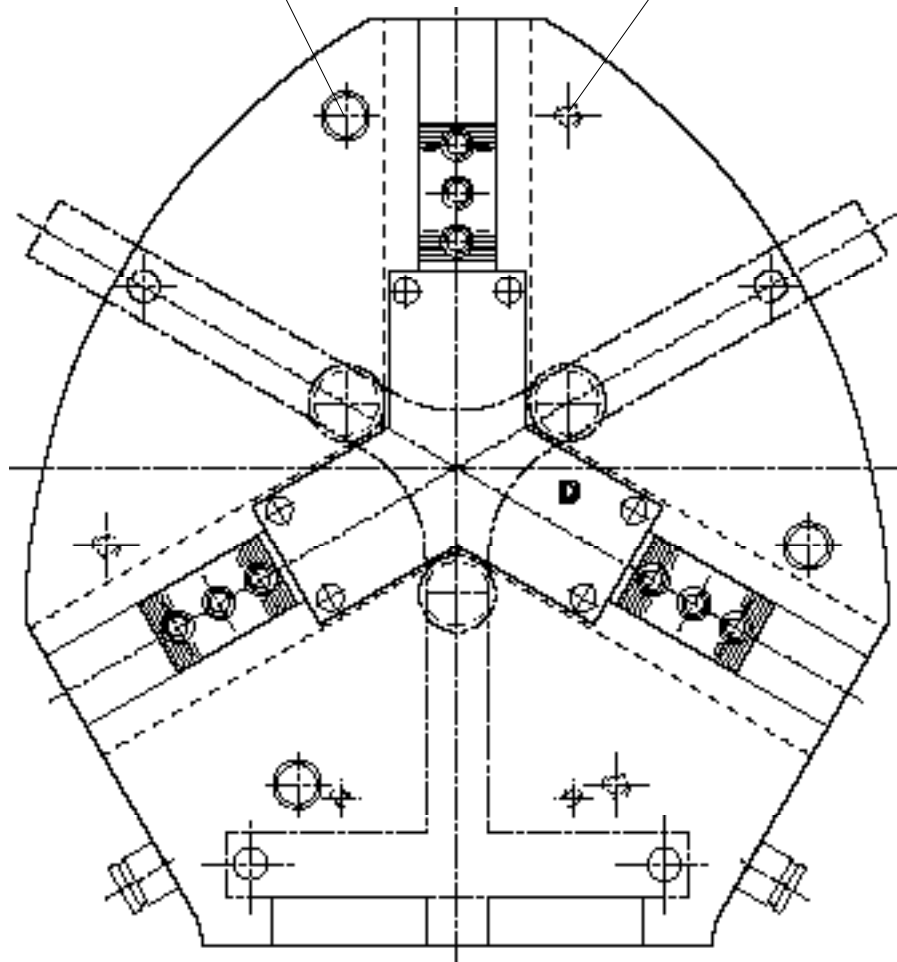
3.1 ASSEMBLY

NOTE:

The gripper must be aligned during assembly since it is not equipped with fixing bores.

3 Fastening bores
for M8 DIN EN ISO 4762
in the plastic bag

3 fastening threads
UFG 26 M 8 x 17
UFG 32 M 8 x 20



3. Assembly and Connection

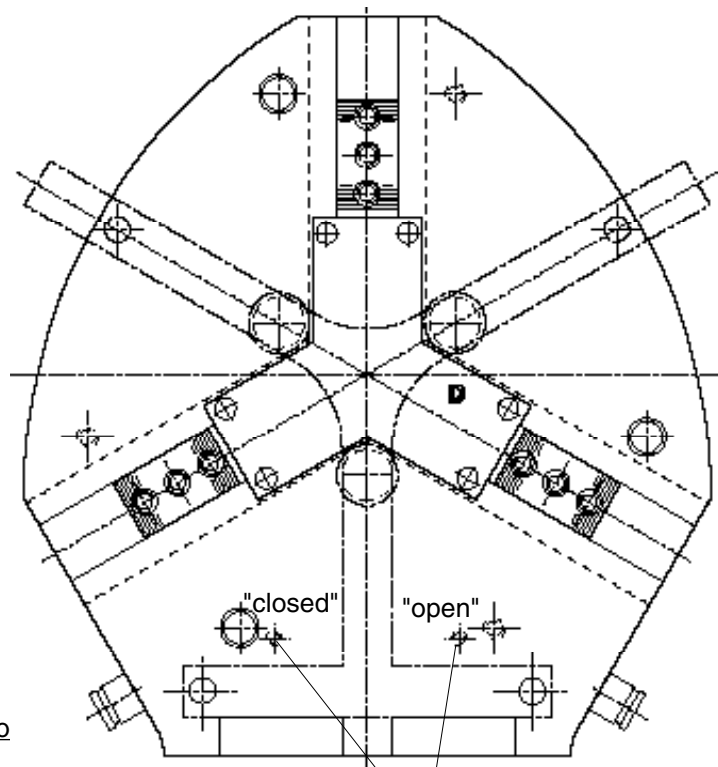
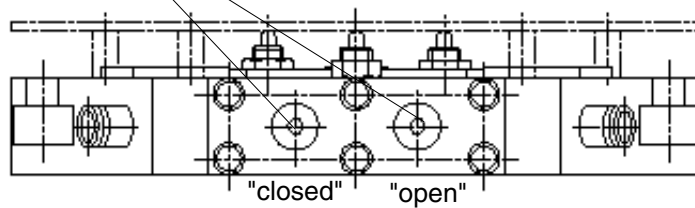
3.2 CONNECTION

NOTE:

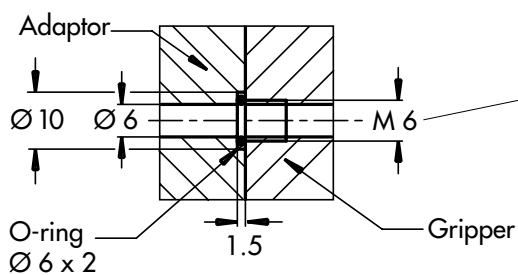
For assembly without hoses, please use two O-rings out of the little plastic bag to seal the oil feeding.

Close the oil feedings which you won't use with a suitable blind plug (M 6, R1/4").

2 x R1/4" for connection with threads



For direct connectio without hoses



2 x M 6 for direct connection without hoses

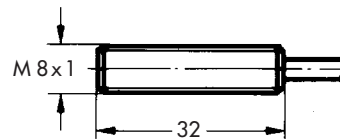
4. Proximity Switches

4.1 NOTES ON PROXIMITY SWITCHES

Technical Data:

- Supply voltage: 10 - 30 V DC
- Operation voltage: max. 15 %
- Max. load current: 200 mA
- Hysteresis: 15% of nominal sensing distance
- Range of temperature: - 25°C to + 70°C
- Max. operating frequency: 1000Hz
- Voltage drop: 1.5V
- Protection class as per DIN EN 60529: IP 67*

* only for concentric plug connector when fixed properly

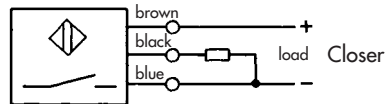


2 pieces

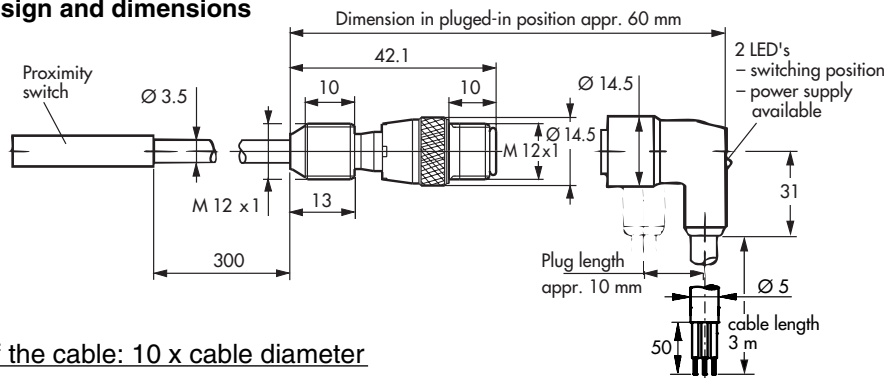
Type	Output	Id.-No.
INW 80/S	Closer	301 508

Sensing distance 1.5 mm

Output: shown in non-actuated condition



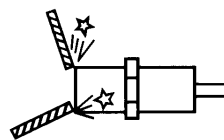
Principle design and dimensions



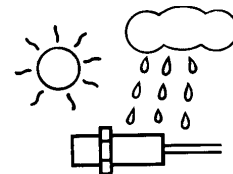
Bending radius of the cable: 10 x cable diameter



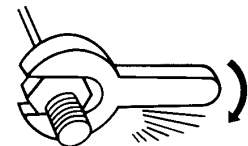
Do not swing the proximity switch by its cable.



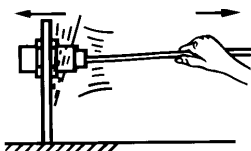
Do not allow the sensor to make contact with a detectable object of a hard substance or do not apply shock to the sensor



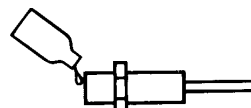
Avoid using the proximity switch in outdoor locations (subject to direct sunlight, rainwater, etc.)



Do not tighten the proximity switch excessively.



Do not pull the wire of the proximity switch with excessively large force.



Avoid using the proximity switch in an atmosphere of chemicals, especially strong alkali acid (such as nitric acid, chromic acid, hot concentrated sulfone acid, etc.)

4. Proximity Switches

4.2 INSTALLATION AND ADJUSTMENT OF PROXIMITY SWITCHES

NOTE:

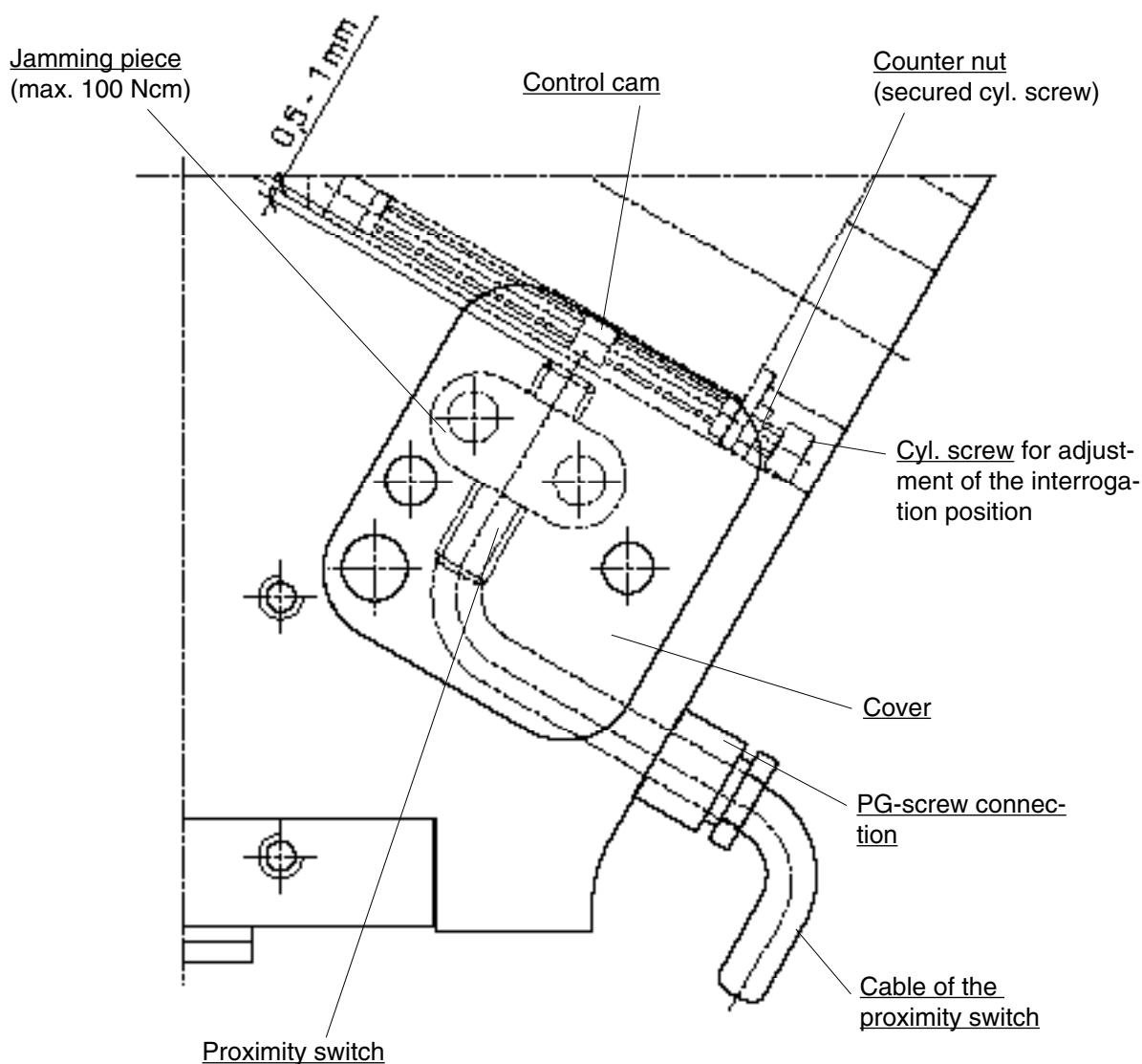
Proximity switches are accessories and have to be ordered separately.

The positions on the switch are freely choosable.

If SCHUNK proximity switches with plug-connectors are used, the PG-screw connections have to be disassembled and the components have to be pushed over the proximity switch onto the cable. Adjustment and interrogation of the position:

- a) Turn the cyl. screw clockwise:
 - The control cam is moving into the direction of the screw head.
- b) Turn the cyl. screw anti-clockwise:
 - The control cam is moving away from the screw head.

5. Maintenance



NOTE:

The jaws do not move:

For exchange of components please return the complete gripper with a repair order to SCHUNK.

- The hydraulic supply is interrupted.
- Break of screws at the connection between the piston bar and the base jaw.
- The connections are misaligned.

In order to achieve proper function of the grippers, please note the following:

- 1) Make sure that the blank steel components are lubricated or greased.
- 2) Lubrify the base jaws of the gripper every 500.000 cycles with Molykote BR2 plus, Metaflux-Gleitmetall or any equivalent lubricant. The funnel-type lubrication nipple DIN 3405 AM 8 x 1 are at the base jaws.

The clamping force reduces:

- Break of screws at the connection between the piston bar and base jaw.
- There is dirt and dust between the guidances of the base jaws.
- Internal oil leakage

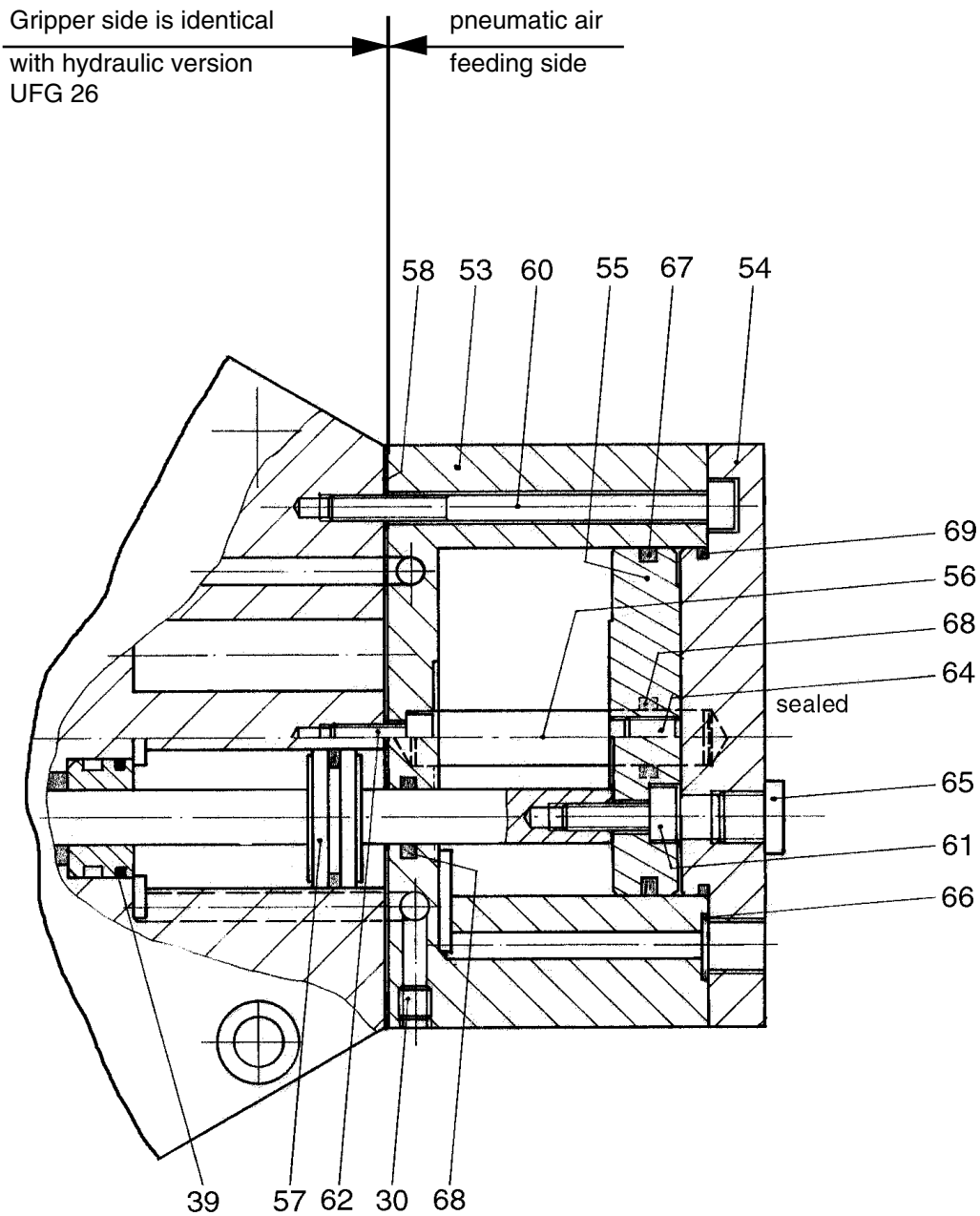
Oil leakage at the bottom:

- Set-screw M 6 for direction connection without hoses is not sealed correctly (see page 5).

6. Trouble shooting

7. Optional: with pneumatic actuation

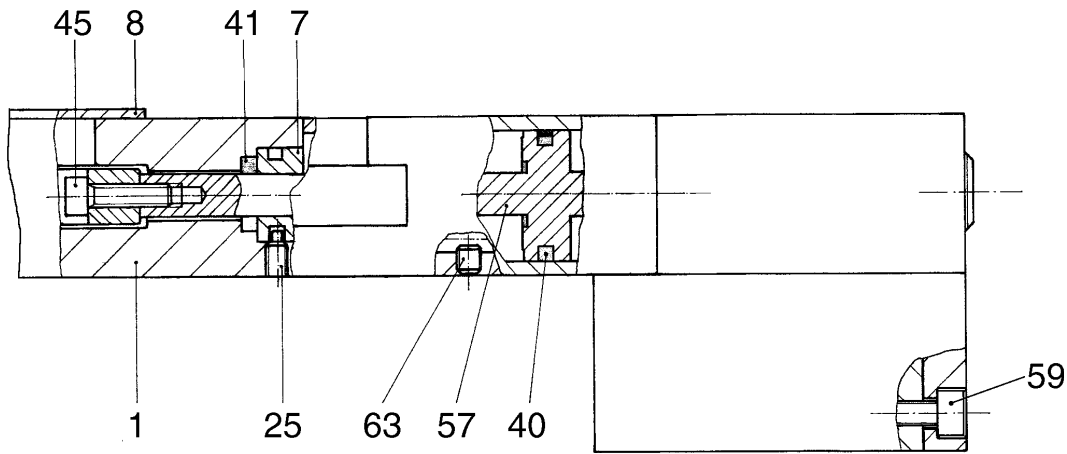
Pneumatic actuation for UFG 26 = Type UFG-P 26



Note: If requested, we can supply a spare-and wear-part list.

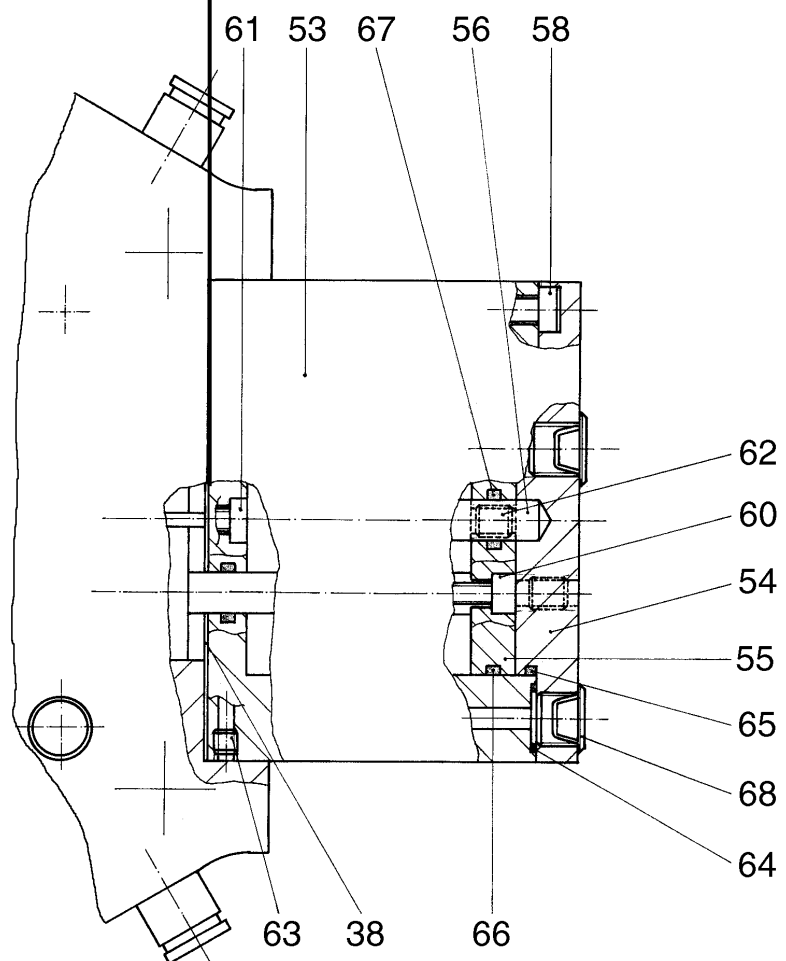
7. Optional: with pneumatic actuation

Pneumatic actuation for UFG 32 = Type UFG-P 32



Gripper side is identical
with hydraulic version
UFG 32

pneumatic air
feeding side



Note: If requested, we can supply a spare-and wear-part list.