INSTRUCTIONS FOR USE

UNIPRESS / M

PORTABLE DEVICE WITH MANUAL OPERATION FOR CUTTING RING ASSEMBLY, 37° FLARING

1.1 MANUFACTURER / SUPPLIER:

Gates Tube Fittings GmbH
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1.2 PERFORMANCE CHARACTERISTICS:

Cutting ring pre-assembly:	Nominal width 6 – 42 mm, external diameter
Flare bell:	Nominal width 6 – 22 mm, external diameter

1.3 DEVICE OPERATING ELEMENTS:

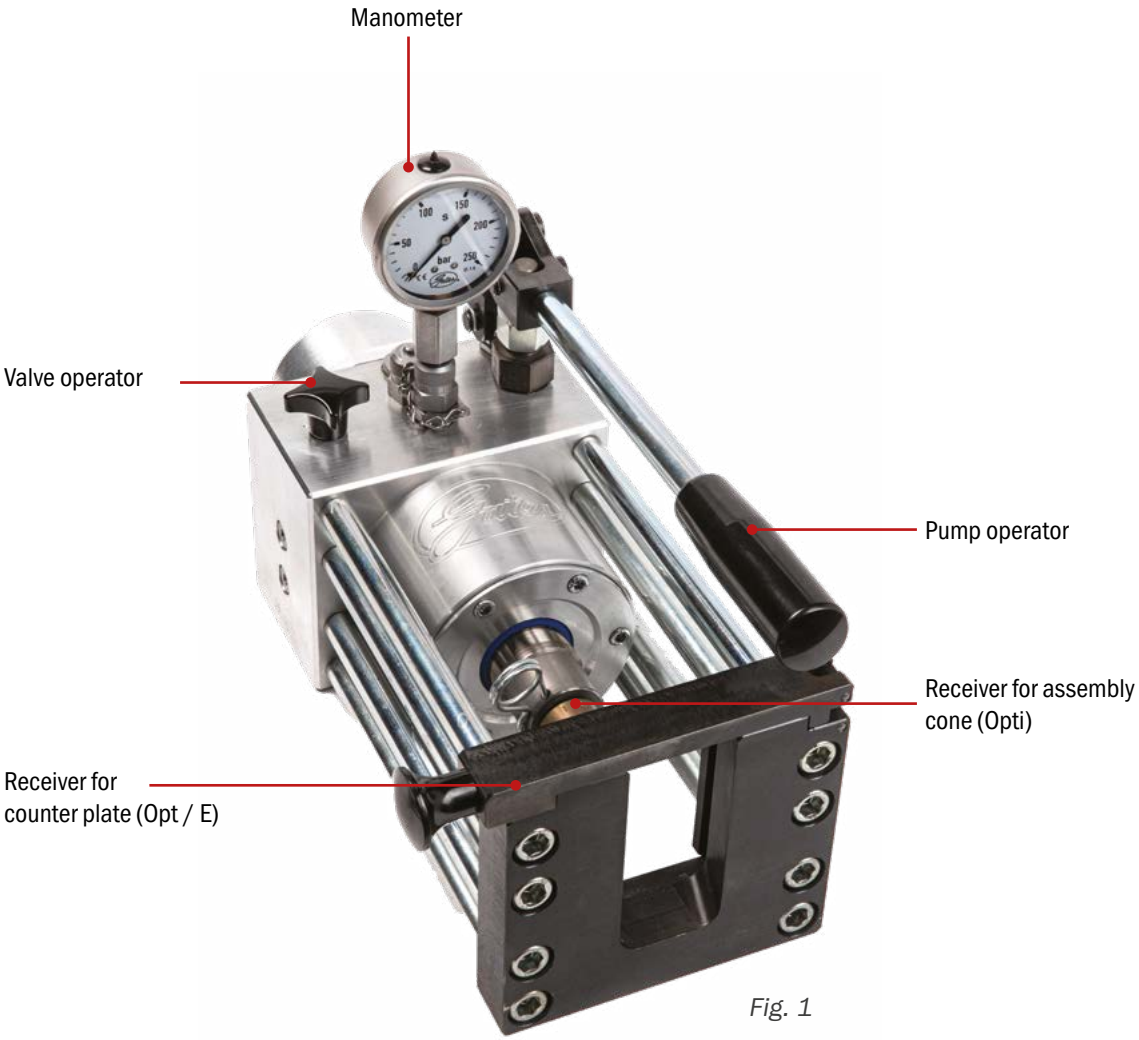

Fig. 1

2. WORK SEQUENCE / OPERATING SEQUENCE:

2.1 CUTTING RING PRE-ASSEMBLY

An assembly cone (Opti) and a **counter plate (OPT / E)** are necessary for **every pipe diameter**. For pipe diameters 6, 8, 10 and 12 it is necessary to differentiate between light (L) and heavy (S) series for the **assembly cones (OPTI)**. The counter plates are the same for both series.

The values in the table apply for double-edged cutting rings (DS) installed on steel pipe (St 35.4), and for DS – rings in 1.4571 on pipes made of 1.4571.

The processing of other pipe materials, such as stainless steel, copper, etc., is possible with this device.

2.2 EQUIPPING

First, select the correct tools for the pipe diameters and product line to be processed.

Then the assembly cone (OPTI) is placed in the receiver provided for this purpose and secured with the spring plug, as shown in Fig. 2. The cone should be lightly oiled beforehand.

The counter plate (OPT / E) is simply pushed into the guide (see Fig. 2).

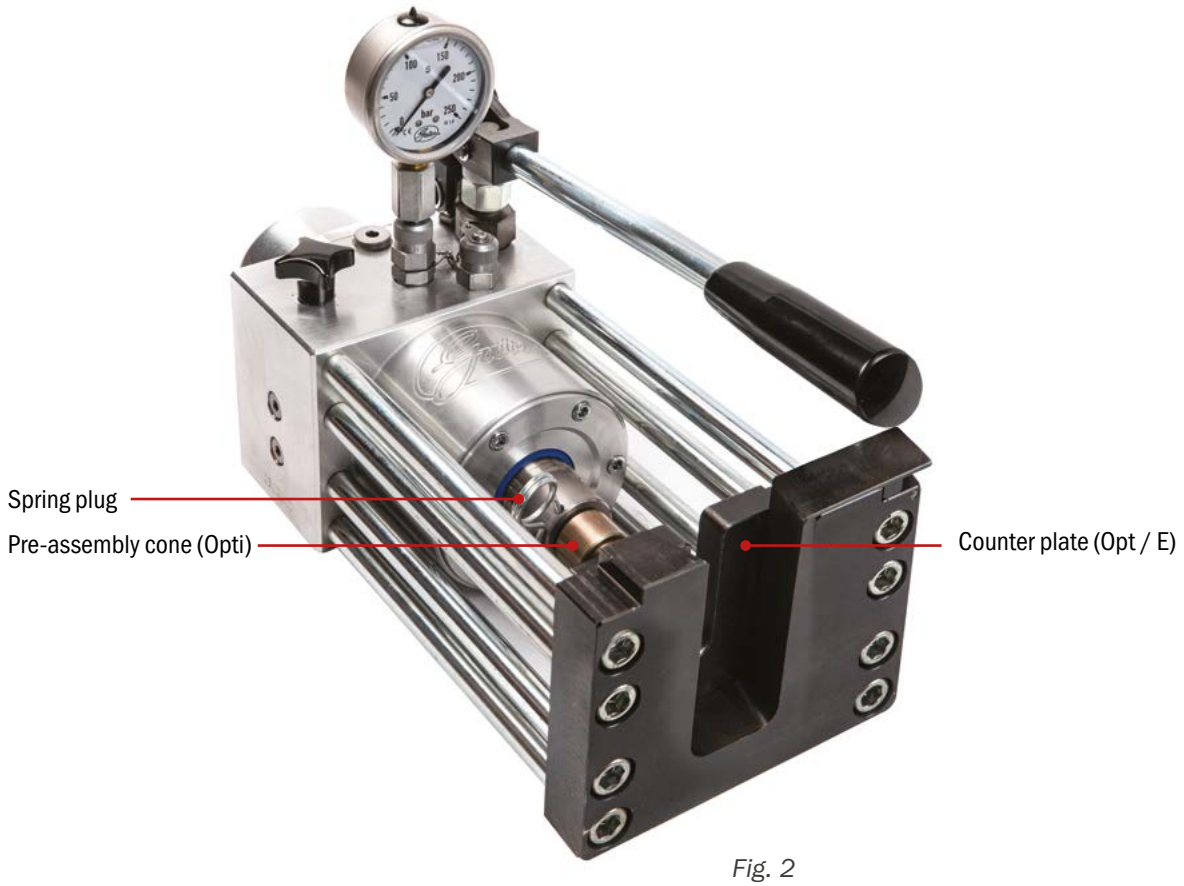

Fig. 2

2.3 ASSEMBLY MODE

First, close the valve using the valve operator (see Fig. 1).
To do this, the star grip is screwed tight in a clockwise direction.

Slide the nut and cutting ring onto the pipe, which has been sawed off at right angles and deburred inside and out (see Fig. 3).

Fig. 3

Insert the pipe in such a way that the nut with the cutting ring lies between the counter plate and assembly stud (Fig. 4). When doing so, it is imperative that the pipe is pushed in as far as the stop in the assembly stud.

Fig. 4

Use your left hand to press the pipe lightly against the cone, so that you can advance the cylinder by operating the pump (Fig. 1) with your right hand. Pump until the required pressure given in **Table 1** is reached.

The star grip for the valve operator is now opened, so the cylinder can be positioned back by spring action. Do not allow the cylinder to travel completely back, as then the entire stroke will have to be carried out again at the next assembly.

The pipe can now be removed from the device.

Table 1

UNIPRESS/M		
PRODUCT LINE	**DS RINGS (STEEL) FOR PRE-ASSEMBLY ON STEEL PIPE ST 37.4 - NBK**	**DS RINGS IN STAINLESS STEEL FOR PRE-ASSEMBLY ON STAINLESS STEEL PIPE (1.4571)**
6-L/S	40	50
8-L/S	40	50
10-L/S	40	65
12-L/S	55	65
14-S	65	75
15-L	70	75
16-S	80	90
18-L	80	90
20-S	95	110
22-L	90	110
25-S	110	135
28-L	100	135
30-S	120	160
35-L	115	180
38-S	150	250
42-L	150	250

**The setting pressures entered are to be read as standard values only. For this reason, the results of the pre-assembly are to be checked thoroughly and the setting pressures corrected if necessary.*

***Caution!** Assembly stud to be used: Opti The final assembly in the fitting body must take place with a ca. 1/2 rotation above the point at which the force increases tangibly.*

It makes no difference if the cutting ring continues to rotate around the pipe after pre-assembly. What is important, however, is the correct collar bell mouth in front of the cutting ring, as described in our documentation, e.g. our catalogue.

3. WORK SEQUENCE / OPERATING SEQUENCE

3.1 FLARING PROCEDURE

A pair of flare jaws **(Uni BBO)** is necessary for **every pipe diameter**.

37 °flares, GTF ABO - or SAE – system can be produced with this device. Different flare jaws are however necessary for these procedures.

Flare system	Flare jaw required
GTF ABO (37 ° system with additional O-ring seal)	UNI-BBO 20 - S
SAE – system	UNI-BB 20 - S

The processing of other pipe materials, such as stainless steel, copper, etc., is possible with this machine.

3.2 EQUIPPING

First select the correct tools for the pipe diameters to be processed.

The flare attachment is hung in the pump (see Figs. 5 + 6), but must not rest on the surface on which the pump is standing.

Fig. 5

Fig. 6

The flaring mandrel is then pushed into the receiver from the front through the flare attachment and secured with the spring plug (see Fig. 6).

The flaring tool (UNI BBO) is inserted into the attachment from above (see Fig. 7).

3.3 ASSEMBLY MODE

Before the pipe is flared, the flare nut and the back-up ring must be installed.
The pipe which is to be processed is pushed in from the front, up to the stop (see Fig. 7).
This may be quite difficult with new tools, but will quickly improve.

Fig. 7

Now proceed as described for cutting ring assembly, but reading the required pressure from **Table 2**.

After the flaring procedure, remove the pipe with the flare jaw and lay it in the recess on the top of the flare head, as shown in Fig. 8. Tipping the pipe to the side releases the clamp between the tool and the pipe.

Fig. 8

Table 2

UNIPRESS/M *FLARING PRESSURES FOR FLARE BELLS (ABO) ON STEEL PIPES ST 37.4-NBK		
DIAMETER	**WALL THICKNESS**	**PRESSURE IN BAR**
6	1	65
	1,5	80
8	1	65
	1,5	80
10	1	65
	1,5	80
	2	110
12	1	65
	1,5	80
	2	110
14	1,5	85
	2	120
	2,5	200
15	1,5	85
	2	125
	2,5	200
16	1,5	95
	2	125
	2,5	200
18	1,5	95
	2	125
	2,5	215
20	1,5	130
	2	135
	2,5	225
	3	250
22	1,5	115
	2	140
	2,5	230
	3	250

**The flaring pressures entered are to be read as standard values only. For this reason, the results of the flaring (diameter of the flare bell) are to be checked thoroughly and the flaring pressures corrected if necessary.*

You will find a measuring table for this purpose in the Gates Tube Fittings – catalogue.

4. MAINTENANCE:

Hydraulic oil C32 is recommended.

Filling volume is approx. 0,8l.

For new filling use brand products only.

Viscosity: 16-32 mm^2/S at 50°C

Oil changing should be done latest after 1000 work hours.

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