

## Instructions for installation and operation

### Spot Drilling Collar

For the later setting of a measuring point



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Dear customer,

Thank you very much for deciding in favour of the spot drilling collar. Please read this installation and operation manual carefully before mounting and initiating the device and follow our advice. A riskless operation and a correct functioning of the spot drilling collar are only guaranteed in case of careful observation of the described instructions and notes.

## **1 Contact**

Advice

Sales

After-sales service

Seminars

### **BEKO Technologies Corp.**

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## 2 Safety instructions



### **Please check whether this manual corresponds with the instruments type.**

Please observe all notes indicated in this instruction manual. It contains essential information which has to be observed during installation, operation and maintenance. Therefore this instruction manual has to be read categorically by the technician as well as by the responsible user / qualified personnel before installation, initiation and maintenance.

This instruction manual has to be available at the operation site of the spot drilling collar at any time.

Regional respectively national regulations have to be observed in addition to this instruction manual if necessary.

In case of any obscurities or questions with regards to this manual or to the collar please contact BEKO Technologies Corp.



### **Warning!**

#### **Compressed air!**

**Contact with quickly or abruptly escaping compressed air or bursting parts of the system may cause severe injuries or death.**

#### **Measures:**

- Do not exceed the maximum operation pressure (see type label)!
- Only use pressure-tight installation material!
- Avoid persons or objects being hit by escaping compressed air!



### **Warning!**

#### **Inadmissible operating parameters!**

**Undercutting or exceeding of limit values may cause danger to persons and material and may lead to functional and operational disturbances.**

#### **Measures:**

- Do not exceed the maximum operation pressure (see type label)!
- Make sure that the spot drilling collar is only operated within the admissible limit values indicated on the type label.
- Careful observation of the performance data of the collar in connection with the application.

#### **Further safety instructions:**

- Also the applicable national regulations and safety instructions have to be observed during installation and operation.



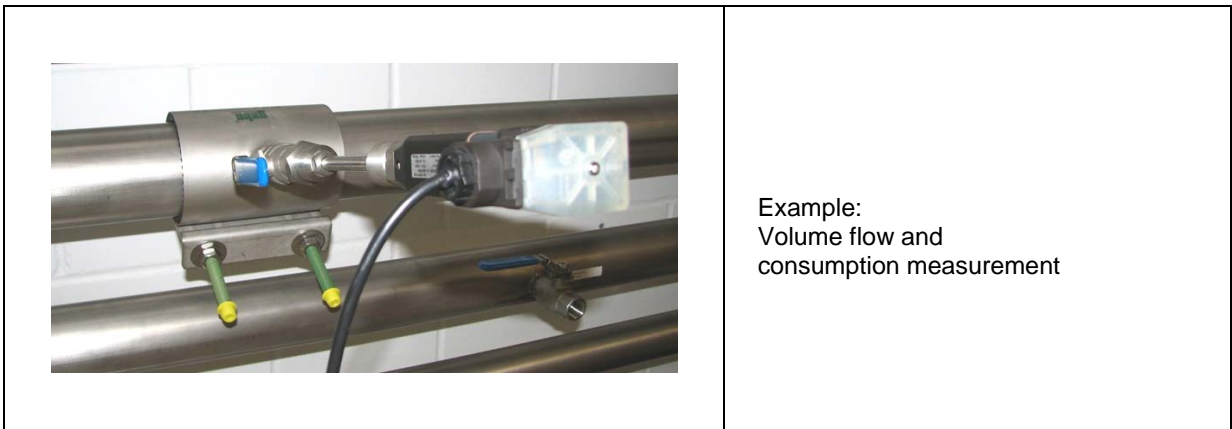
### **Attention!**

#### **Leakages at the connection pipe / clamp**

**Due to faulty installation there might be an escape of compressed air at the connection pipe / clamp.**

### 3 Field of application

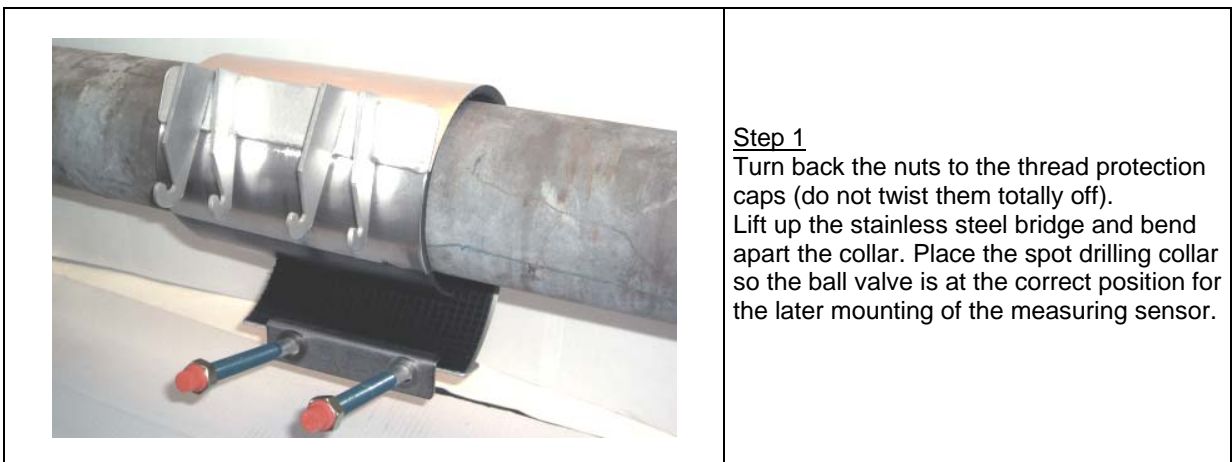
- The spot drilling collar with ball valve is designed for setting up of a measuring site of an existing pressurized compressed air system that is made of steel.



### 4 Preparation of the installation

- Free the pipe from soiling in the application area.  
In spite of the Teflon-coated bolts and the passivated screw nuts the sealing has to be kept as clean as possible in order to avoid a jamming of the nuts and bolts.
- Please make sure that the outer pipe diameter corresponds with the indicated clamping range of the sealed area.
- The rubber collar and the pipe should be tempered with soap water. Mixture ratio (1: 5 soap: water)

### 5 Installation

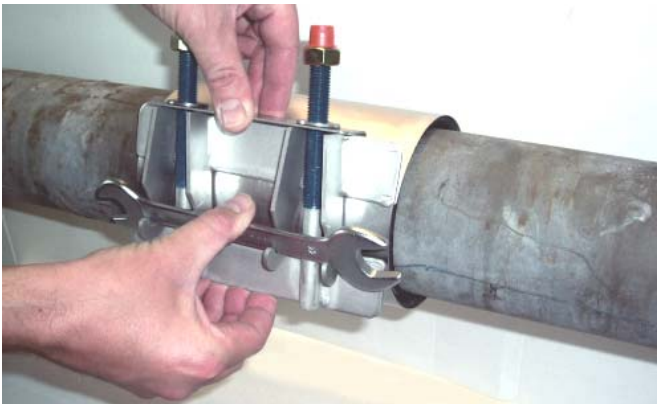




**Step 2**  
Hook the bridge into the gap at the side bars.



**Step 3**  
Then lift the bridge a little bit higher so that the bridge is seated on the ends of the side bars.



**Step 4**  
Take an open-end wrench and put it into the gap of the side bars. Take the open-end wrench and the lower bar of the collar at the same time and tighten them. You may now easily lift up the bridge to its final position. The nuts can now easily be fastened by hand. Please observe that the rubber collar is placed cleanly onto the pipe.

**Step 5**  
Remove the open-end wrench from the gap and fasten the nuts evenly hand-tight. Now tighten the nuts evenly by means of a torque wrench.

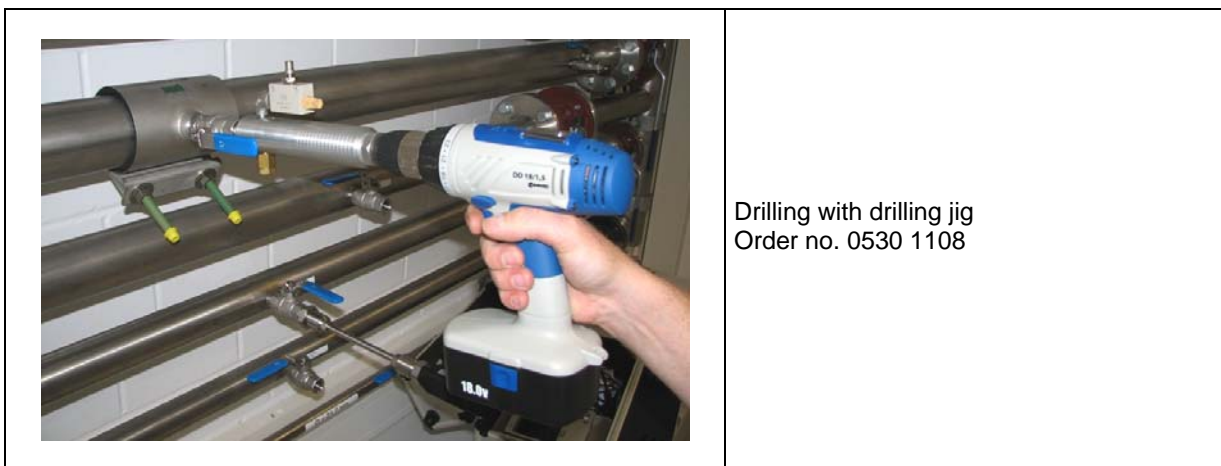
Tightening torque of the nuts:  
M12 to M14      70 Nm  
M16              120 Nm

Fasten the nuts with the same tightening torque after a waiting period of about 15 -20 minutes.

## 6 Drilling by means of the drilling jig

Please observe the instruction manual for the drilling jig

- Do not exceed the max. pressure of 145 psig
- The drilling in the compressed air line should be carried out only by qualified staff
- Observe safety regulations for works at compressed lines
- The spot drilling collar has to be installed pressure-tightly
- Check the connection collar/pipe categorically before drilling. We recommend a pressure test. For this purpose please open the ball valve and charge it with the line pressure.
- A leakage check can be carried out quickly and easily by means of the BEKO METPOINT LKD leak detector.
- Use a slowly running drilling machine with the corresponding safety equipment.



## 7 Technical Data

Collars are usable for:	Steel pipes with diameters from DN 25 to DN 200 (available diameters please see table on page 8)
Max. operation pressure	145 psig
Max. temperature	22 °F to 122°F
Ball valve	1/4, 1/2", DN15
Material ball valve	1,4408, PN40
Material collar	1,4301
Material rubber collar	NBR

## 8 Delivery range

<b>Spot Drilling Collar</b> incl. ball valve ½", I/O	
<b>For pipe outer diameters from – to</b>	<b>Order no.</b>
1.02" – 1.18" (026 – 030 mm)	0500 0447
1.26" – 1.42" (032 – 036 mm)	0500 0446
1.42" – 1.57" (036 – 040 mm)	0500 0448
1.57" – 1.73" (040 – 044 mm)	0500 0449
1.89" – 2.05" (048 – 052 mm)	0500 0450
1.97" – 2.24" (050 – 057 mm)	0500 0451
2.20" – 2.48" (056 – 063 mm)	0500 0452
2.28" – 2.56" (058 – 065 mm)	0500 0453
2.64" – 2.91" (067 – 074 mm)	0500 0454
2.87" – 3.15" (073 – 080 mm)	0500 0455
2.99" – 3.27" (076 – 083 mm)	0500 0456
3.23" – 3.50" (082 – 089 mm)	0500 0457
3.43" – 3.70" (087 – 094 mm)	0500 0458
3.58" – 3.86" (091 – 098 mm)	0500 0459
3.74" – 4.02" (095 – 102 mm)	0500 0460
4.02" – 4.41" (102 – 112 mm)	0500 0461
4.25" – 4.65" (108 – 118 mm)	0500 0462
4.65" – 5.04" (118 – 128 mm)	0500 0463
4.92" – 5.32" (125 – 135 mm)	0500 0464
5.20" – 5.59" (132 – 142 mm)	0500 0465
5.43" – 5.83" (138 – 148 mm)	0500 0466
5.71" – 6.10" (145 – 155 mm)	0500 0467
5.95" – 6.34" (151 – 161 mm)	0500 0468
6.26" – 6.69" (159 – 170 mm)	0500 0469
6.58" – 6.97" (167 – 177 mm)	0500 0470
6.93" – 7.32" (176 – 186 mm)	0500 0471
7.60" – 7.99" (193 – 203 mm)	0500 0472
7.87" – 8.27" (200 – 210 mm)	0500 0473
8.23" – 8.62" (209 – 219 mm)	0500 0474
Other diameters on request	

<b>Drilling jig</b>	
Drilling jig incl. drill Ø13	0530 1108

<b>Leak detector</b>	
METPOINT LKD leak detector	LKD
Telescope bar 3 x 120 cm	0530 0102



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Technical changes and errors excepted.  
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