

**REMEMBER:**

1. Use the product only according to its purpose.
2. The equipment for drilling FOXDLT keep only in the original manufacturer's case.
3. Drilling can be done only by qualified professional.
4. After finishing the drilling, remove all elements and clean it before putting them in the case.
5. Follow safety regulations.
6. Watch out for the sharp objects and the cutters.

**BEFORE INSTALLATION OF THE DRILL YOU HAVE TO:**

- a. Install the branch saddle on the pipe according to the manufacturer's instructions and do the pressure test according to the standard PN-EN 805: 2002
- b. Get a flange connection to enable installation of the drill.
- c. Check that the length of the whole assembled kit doesn't exceed the maximum working length of the equipment (0,8m).
- d. Check that the cutter with the drill fits between the flange and the closing mechanism of the valve - check that the length of the whole assembled kit is not less than the minimum working length of the equipment 0,6m (if it is necessary extend the set with a flange adapter and measure again the length of the whole assembled kit).

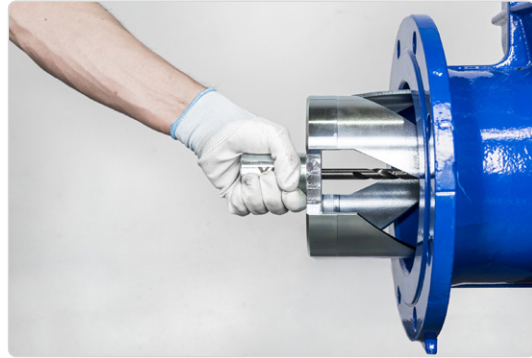
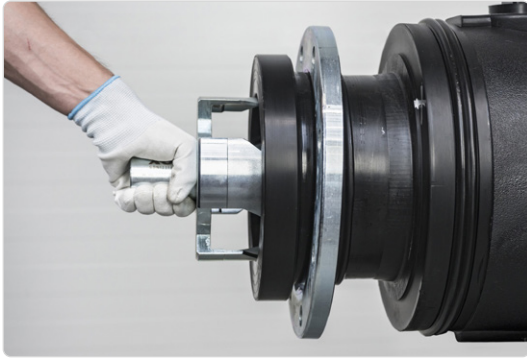


Example flange adapter

**Attention!** Remember that all elements must be installed in alignment.



## INSTALLATION:



1. Select the following elements according to Valve size:
  - flange PN10/16 with 2" female thread according to the standard PN-EN 10226,
  - cutter.
2. Install flange with 2" thread and seal the connection with the drill.  
(ensure seal tightness).



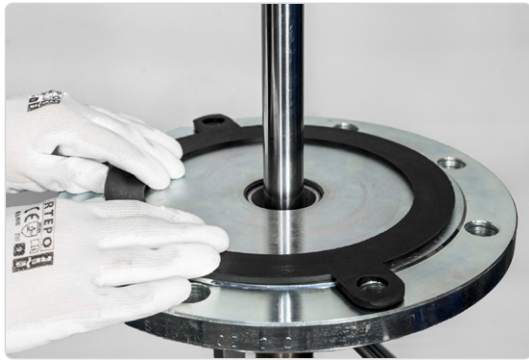
3. Install the PE Ball Valve/ Gate Valve.



4. Connect the cutter to the drill using proper screws.



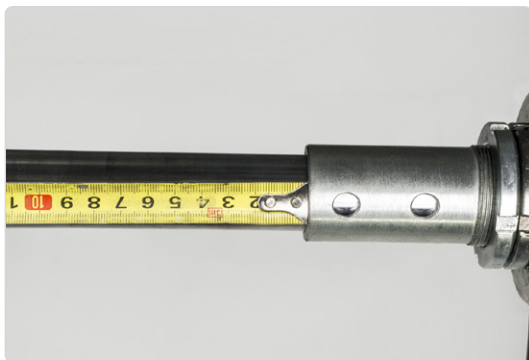
5. Measure the total length of the kit.



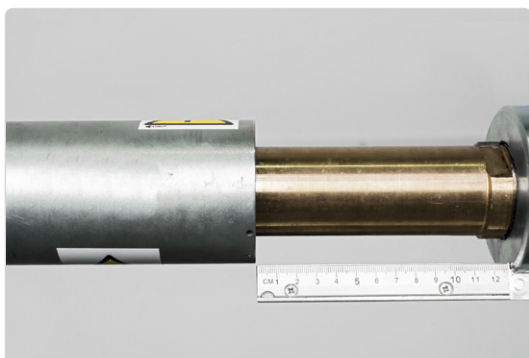
- Put the seal on the flange.



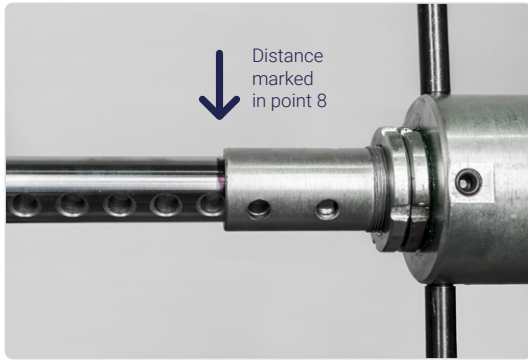
- Install the drill on the joint flange using screws (according to general rules of flange connection)  
**Attention:** Make sure that the ruler is visible.



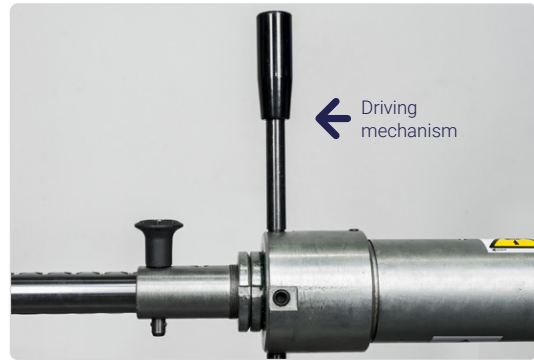
- When the pivot is fully opened, mark the distance of the pivot, which has to be reduced by the length of the cutter including the drill. After every drilling you must clean the mark on the pivot.  
**Attention:** The purpose of marking is to check whether the cutter has reached the pipe.



- Check on the ruler that the driving mechanism of the drill is set to „0” position.



- 10.** Slide the cutter inside, until the wall of the pipe, check that the insertion depth is the same as previously marked distance on the pivot.



- 11.** At the nearest matching hole on the pivot insert a safety pin, in case of problem with alignment of holes it must be manually corrected by the driving mechanism.

12. Determine the drilling depth (measured on the ruler) according to the tables below.  
SDR – Standard Dimension Ratio.

Drilling depth table for FOXDLT – pipes SDR 11 and SDR 17.

Pipe size	Cutter size				
	63	90	110	160	225
63	35	-	-	-	-
75	40	-	-	-	-
90	40	50	-	-	-
110	40	50	55	-	-
125	40	45	55	-	-
140	40	45	55	-	-
160	40	45	55	100	-
180	40	45	55	100	-
200	40	45	55	100	-
225	40	50	55	100	-
250	40	50	55	110	-
280	50	55	60	100	-
315	50	55	60	80	90
355	60	55	60	80	90
400	60	55	70	90	100
450	70	75	75	90	100
500	70	80	90	90	100
560	80	80	90	90	100
630	80	80	90	95	105
710	85	85	90	95	110
800	90	95	95	100	115
900	64	66	67	72	74
1000	68	70	72	74	77
1100	78	80	81	82	86
1200	84	87	90	94	97

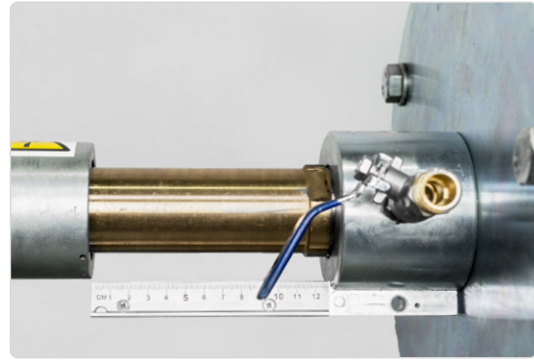
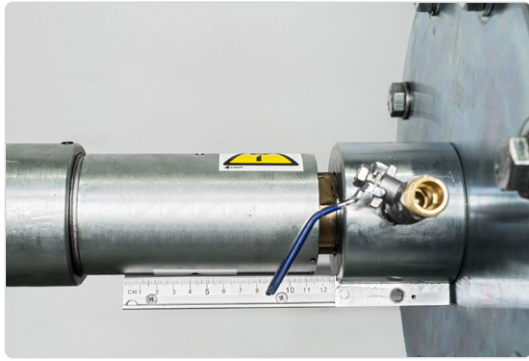
\* All dimensions in tables are in millimeters [mm] units.

\*\* All information in this tables can only be used for drilling with the original FOXDLT tool for PE pipes and dedicated cutters.

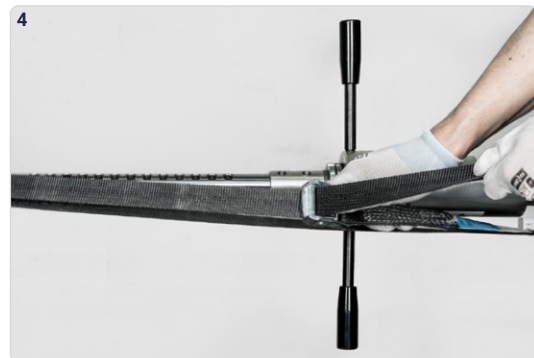
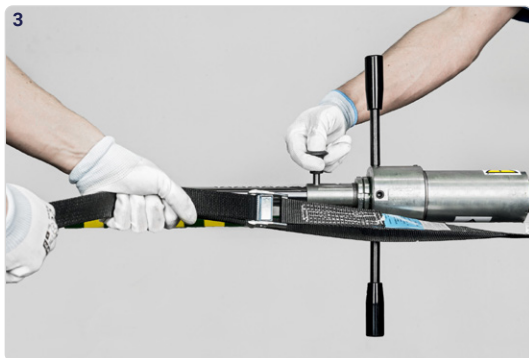
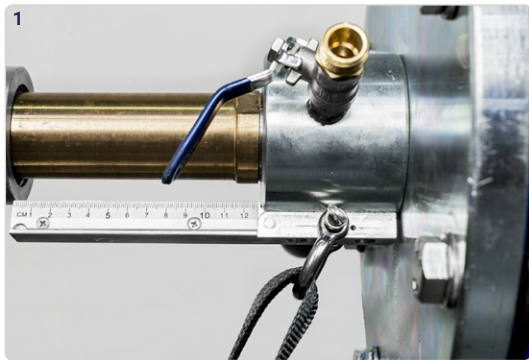


13. Perform the drilling

- a. Rotation of the pivot (drill) conduct using the exterior driving mechanism (maximum rotation speed is 30 rpm),
- b. Linear driving, depth of borehole, do manually by turning the lever (maximum rotation speed is one rotation of the driving mechanism by two rotations of driving pivot).



14. Drill until the previously measured drilling depth is reached, then return to the „0“ position on the ruler.



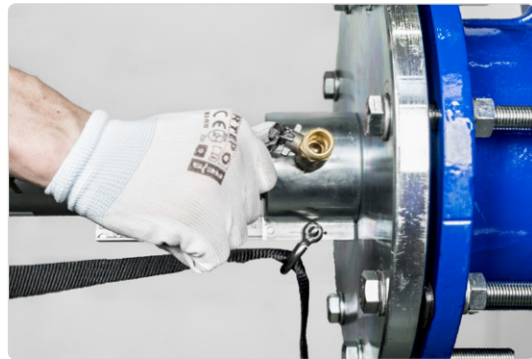
15. After the drilling has been completed properly, you have to assemble the safety belt. After that you must remove safety pin from the pivot. The belt should be released by the clamp on the belt, pressure automatically disconnects the pivot. The person doing the drilling, is not allowed to stand in the end of the pivot, but always next to it.



16. Pull out the pivot to the starting position.



17. Close the PE Ball Valve/ Gate Valve.



18. Slowly release the internal pressure by opening the safety valve, in case of drilling under pressure gas pipeline, install on the safety valve a hose to release the pressure outside the excavation zone (follow the general safety regulations of working on a gas pipeline)

**Attention:** internal pressure can be significant!

19. Disassemble installation screws and flange with FOXDLT.

20. Pull out FOXDLT.

**Attention!** After properly completed drilling, the drilled part of the pipe should stay inside the cutter. The drilling process may leave small chips of the PE pipe inside the pipeline.