

## Cutting Edge Technology by



*Rotary cut-off eliminates chips, scrap and the need for washing parts. Compared to sawing, it is fast, quiet and a far more accurate high volume method for cutting tubes to length. The material savings can also be significant, because the rotary blade doesn't remove tube material like a saw does.*

*Minimum I.D. reduction is of vital importance for secondary operations such as mandrel bending. With the T-DRILL automatic cut-off machines you achieve exceptional quality and a production speed superior to any other method.*



### TCC-25

The TCC-25 is an automated tube cutting station offering cut capacity up to the O.D. of 25 mm (1"). With a minimum cut length of 50 mm (2") the station uses the "Pull-Apart" method and with shorter cut lengths it cuts straight through.

The settings for lengths and quantities are set from an easy-to-use touch screen panel. The screen also offers important information for service purposes, such as I/O indicators and failure diagnostics on clear text.

The TCC-25 is the perfect solution when cutting smaller diameter tubing.



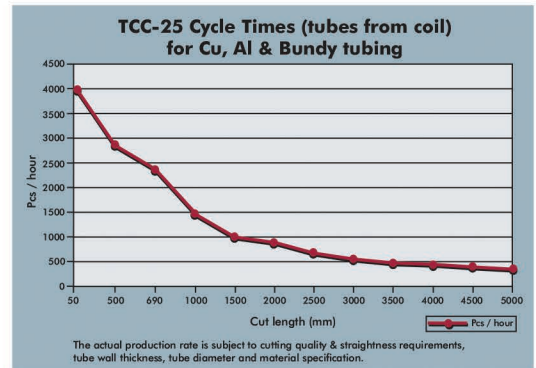
## T-DRILL

A TCC-25 machine cutting to length from straight lengths.



A TCC-25 machine cutting to length from coil.

User friendly operator interface.



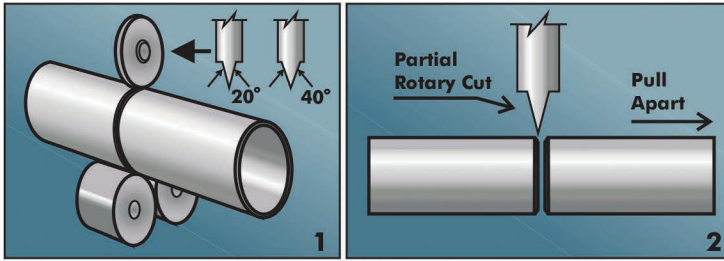
### Typical Applications

There is a growing number of rotary tube cut-off applications. The method is used, for example, in:

- heat exchanger applications
- air conditioning
- heating
- refrigeration
- solar technology
- automotive fuel and brake lines







1. In rotary tube cutting, the cutting blade is supported by backup rollers as it is automatically fed at a controlled rate to cut the tube.

2. A powered movement of the outboard clamp **pulls the tube apart** after it has been cut about 95 % of the way through. This method is used for short cut lengths.

## TCC-50

The automated cutting station, TCC-50, accepts a wider O.D. range up to 45 mm (1.77").



A TCC-50 machine cutting to length from straight lengths.

## In-Line End Forming

TCC-45-EF3 offers an ultimate solution for high speed tube cut-off and simultaneous single-end end forming up to 3-hit capability.



A TCC-45-EF3 machine cutting to length from coil equipped with an integrated end former.



## The T-DRILL Chipless cutting

Rotary cut-off eliminates chips, scrap and part washing. It is an ecologically friendly cutting method and compared to sawing; it is a fast, quiet and far more accurate high volume method for cutting tubes to length.

With the T-DRILL automatic cut-off machines you achieve exceptional quality and production speed superior to any other method. Minimum I.D. reduction is of vital importance for secondary operations such as mandrel bending.

## TCC-28 machines

T-DRILL has automatic tube cutting machines for cutting from coil or straight lengths. With automatic cut length setting it can cut all malleable materials such as aluminum, copper, steel and stainless steel within diameter range of 1.8 - 28 mm.

Rackloader model can be programmed to cut up to 3 different lengths from single straight length tube. This allows waste minimizing by selecting optimum cut lengths and numbers of cuts. One machine can be equipped with both coil and straight length loading options or on special case without automatic loading.

## TCC-28 accessories

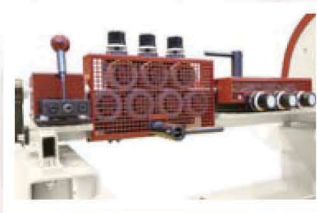
Coil holder system with tension unit



Tubing can be fed from different types of single or double coil holders with different types of coils (cardboard, bulk and capillary) for different applications



Tube straightener with calibration roll station



Tube straightener consists of vertical and horizontal rolls (7+7 or 9+9) and it can be equipped with digital readout for easy setting. Straightening rolls can be also changed without tools with an optional quick changing system.

NDT (Non Destructive Testing) or color detecting



T-DRILL cutting machines can be equipped with tube pre-straightening equipment as well as NDT (Non Destructive Testing) or color detecting equipment that remove bad sections from the coiled tubing automatically during the cutting process

Sorter



With a sorter the tubes of different lengths can be separated to three different addresses as a standard solution. Waste or trim cut are guided to scrap box.



## The T-DRILL **TCC-45-EF8** Tube Cut-Off machine with in-line endforming

Automatic chipless rotary cutting, grooving and endforming machine. - All three operations simultaneously - Max eight endforming strokes - Tube diameters 6 - 22 mm - For all malleable materials such as aluminium, copper, steel and stainless steel

With cut lengths 40 - 915mm (1 ½" - 36") the endforming takes place simultaneously with cut-off process which improves production rate.

### **TCC-45-EF8** Capacity

**Materials:**

Copper, Aluminium, Mild- and stainless steel.

**Tube diameters:**

6 - 22 mm (1/4" - 7/8")

**Tube lengths:**

40 - 915 mm (1 ½" - 36") with simultaneous cutting and endforming  
 915- 6000 mm (36" - 236") endforming takes place before cut-off operation

**Examples of production rates:**

- Cutting only 1125 - 2250 pcs/h for 40 - 915 mm lengths
- 1-hit endforming 900 - 1380 pcs/h for 40 - 915 mm lengths
- 2-hit endforming 800 pcs/h for 40 - 915 mm lengths
- 3-hit endforming 520 pcs/h for 40 - 915 mm lengths
- 6-hit endforming 280 pcs/h for 40 - 915 mm lengths
- 8-hit Endforming 200 pcs/h for 40 - 915 mm lengths

**Endformer specification:**

- Hydraulic, max 8 stations/tools
- Adjustable clamping force
- Adjustable ram force up to 4,5 tons
- Standard or springloaded forming tools (clamps + punches)

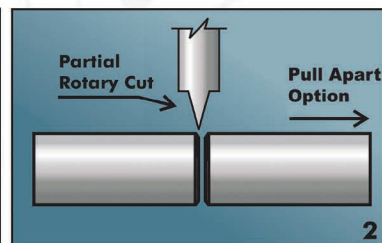
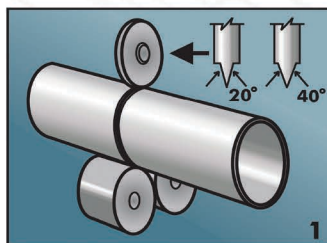




## Automated Chipless Tubing Cutter

**TCC-50 MCS**  
**TCC-75 MCS**

T-DRILL's model TCC-50 MCS and TCC-75 MCS is based on chipless rotary cut-off technology, that is flexible and compact unit with a automatic cutting system. Cutting doesn't cause any flying chips, scrap or sparks.



Tube Diameter	TCC-50	Ø1.5-45 mm (0.06" - 1.77")
	TCC-75	Ø9.5-75 mm (0.38" - 3.12")
Wall thicknesses		0.4-5.0 mm (0.02" - 0.20")
Material of the tube		Aluminium, Copper, Steel
Compressed air supply		6 bar = 600 kPa
Connected power		2.1 - 3.0 kW
Supply voltage		240-480 V 50 / 60 Hz
Weight of the machine		300 kg
Cut time		Steel <4s Copper<2s