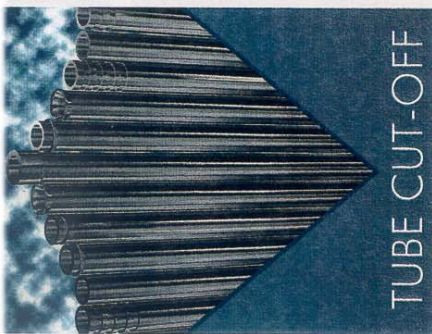




*Rotary
Tube Cut-Off*

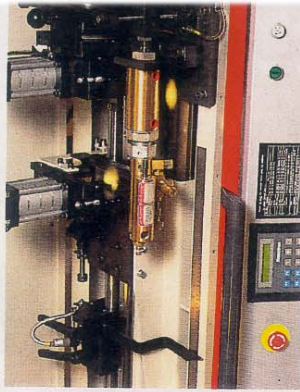
T-DRILL

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TUBE CUT-OFF

Cutting Edge Technology by T-DRILL



The unique machine design enables quick production changeover without special tools.

Typical Applications

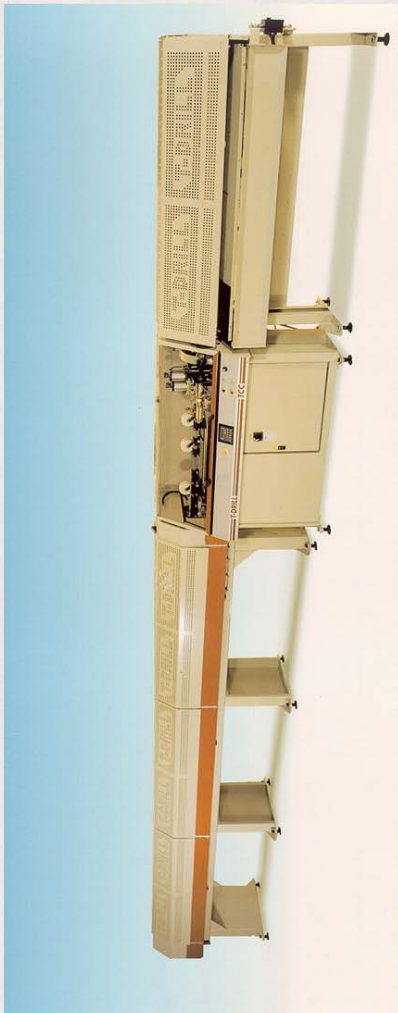
There is a growing number of rotary tube cut-off applications. Nowadays, the method is used, for example, in:

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

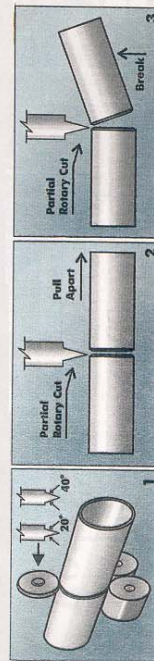
The TCC-50 - An Automatic Cut-off Machine

The automatic TCC-50 tube cut-off machine accepts a wide O.D. range (Ø 1.5 - 45 mm or .060-1.750") and cuts to length from both coil and straight lengths. The machine is suited for copper, aluminium, mild and stainless steel tubing.

TCC models for chipless cutting with simultaneously tube endforming, endfinishing and grooving are also available.



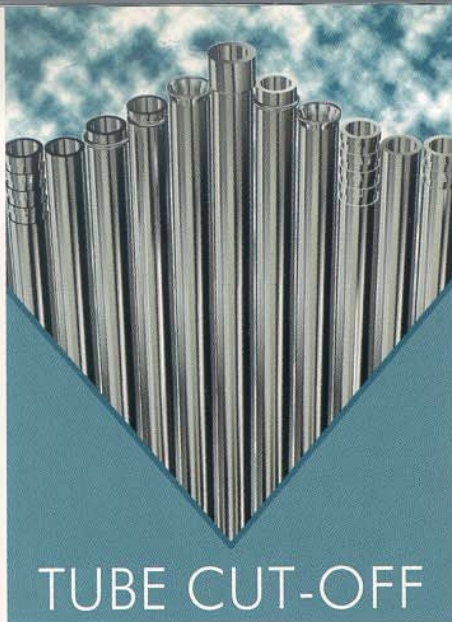
1. In rotary tube cutting, the cutting blade is supported by backup rollers as it is automatically fed at a controlled rate to cut the tube.
2. A powered movement of the outboard clamp pulls the tube apart after it has been cut about 95% of the way through. This method is used for cut lengths of 75 mm (3") and longer.
3. If the length to be cut is shorter than 75 mm (3"), the tube length is broken off from the side.



Rotary cut-off eliminates chips, scrap, secondary deburring 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 remarkable, because the rotary blade doesn't remove tube material like a saw does.

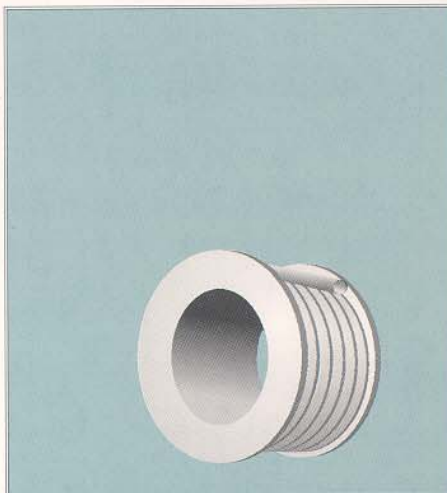
Minimum I.D. reduction is of vital importance for the secondary operations such as mandrel bending. With the TCC-50, this can be achieved by using a fast, two step cutting method. First, the blade penetrates 95% of the tube wall. Then, the cut piece is separated by pulling it laterally or pushing it from the side.



Technical Data

The TCC-50 rotary cut-off system is modular design to enable customized solutions for a wide variety of applications.

TCC-50 HF Series



General Capability

Material (typical)	Copper, Aluminium, Steel, Stainless Steel
Minimum cut length	3 x diameter
Maximum cut length	7000 mm
Minimum diameter	1,5 mm/.06"
Maximum diameter	45 mm/1.77"
Minimum wall thickness	0,5 mm/.02"
Maximum wall thickness	2,5 mm/.10"
Cut length tolerance	±0.1 mm

Tubes from Coil

Minimum diameter	1,5 mm/.06"
Maximum diameter	22 mm/.87"
Cut length straightness	2 mm/1 m .010"/12"
Typical production rates	1300-2200 pcs/h depending on cut length and required cut quality

Tubes from Straight Lengths

Stock lengths	3-7 m/10'-20'
Minimum diameter	Ø 7 mm
Maximum diameter	Ø 45 mm
Number of cut lengths	2 lengths (can be cut) from one stock length
Typical production rates	800-2200 pcs/h depending on cut length and required cut quality

In-line End Forming TCC-45-EF3

Type of end former	Hydraulic, 3-hits. Forms the lead end of tube simultaneously during cut-off cycle	
Ram force	8 tons	
Clamping force	10 tons	
Tooling	Standard forming tooling (clamp + punches)	
Minimum diameter	Ø 6 mm/.32"	
Maximum diameter	Ø 22 mm/.875"	
Tube lengths	40-915 mm/1.5"-36"	
Typical production rates	Cutting only: 1120-2250 pcs/h	2-hit: 600-820 pcs/h
	1-hit: 900-1380 pcs/h	3-hit: 470-580 pcs/h

The information in this brochure is subject to revision without notice.

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