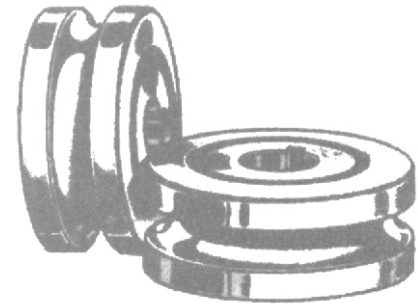




Cut off Carriage Cutters (C.O.C. Cutters)



In case of on-line Tube Cutting, one of the most recognised methods is by using three small round cutters which press the tube from three points while the cutting head is rotating around the tube. Cutters keep rotating and come closer to part off the tube. This method is used upto 75 mt./min. of Mill Speed. Tubes upto 76.2 dia can be cut. The cut is smooth, but cut edges get bent towards inside.

Recommended C.O.C. Cutter thickness for various wall thickness tubes

L	T	
8.75	3.125	For wall thickness upto 6.0 mm
14.25	4.76	For wall thickness upto 9.5 mm
19.00	6.35	For wall thickness upto 12.7 mm

1. Raw Material recommended -

For N.B. Pipe	Hot Die Steel (53/55 HRC) EN-24 (50/53 HRC)
For Thin Walled Tube	HSS, M2 (58/60 HRC)
For General Application	AISI-D3 (52/55 HRC)

2. O.D. Tolerance

+/- 0.2 mm

3. I.D. Tolerance

G7

4. Thickness Tolerance

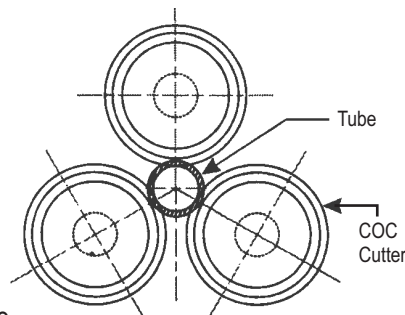
+/- 0.02 mm

5. Flatness

Within 0.05 mm

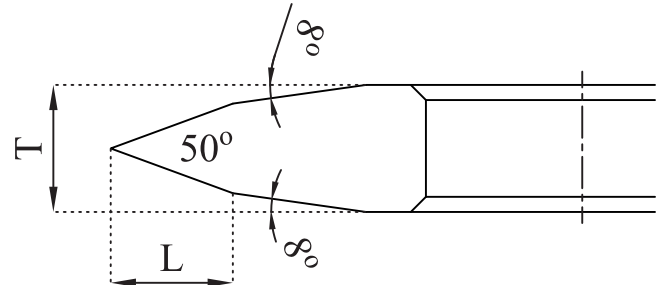
6. Included Cutting Angle

+/- 1 degree



Generally C.O.C. Cutters have two bevels at the cutting edge. Second bevel acts as relief to cutting edge.

Performance of C.O.C. Cutters depends upon alignment of three cutters in one plane. Hence thickness of C.O.C. Cutters should be maintained within close tolerance.



Raw Material for C.O.C. Cutters :

For O.D. series tubes, generally wall thickness is lesser and hence high speed steel gives good results. But in case of N.B. series pipes it is recommended to use hot die steel, as some shock resistance property is desired.

Normally included cutting angle is 50 degree and relief angle is 16 degree.

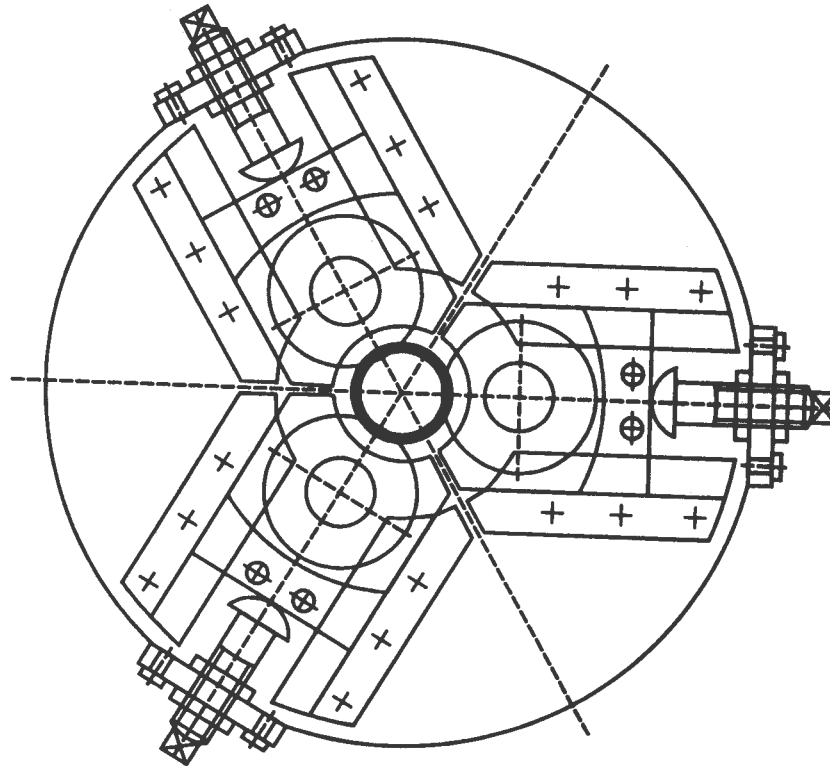


Dee Tee Industries Limited, Unit-1 (Tooling Division)

28/33, Pologround Industrial Estate, Indore-452 015 (INDIA) Ph. : (0091-731) 4296777 Fax : (0091-731) 4296766
e-mail: deetee@deeteegroup.com web site : www.deeteegroup.com

Dee Tee stands for total quality movement

Cutter arrangement for CUT OFF CARRIAGE



CHEMICAL COMPOSITION OF RAW MATERIAL

Material	C	Si	Mn	Cr	Mo	W	V	Ni
AISI, H-13	0.35/0.42	0.80/1.20	0.25/0.50	4.80/5.50	1.20/1.50	–	0.85/1.15	–
EN-24	0.40	0.25	0.65	0.75	0.57	–	–	1.35
AISI-D3	1.90/2.20	0.10/0.60	0.20/0.60	11.0/13.0	–	–	–	–
AISI-M2	0.78/0.88	0.45 max.	0.45 max.	3.75/4.50	4.70/5.20	5.50/6.75	1.70/2.10	–

Tools WHICH LAST LONGER - Slitting Line Tooling, Tube/Section Mill Rolls, Tube Cut Off Knives, Cold Rolling Mill Rolls, Leveller Rolls, Fins, Steel Centers, Friction Saws, Shear Blades, H.S.S. Saws & C.T. Saw Bodies, 20 Hi Mill Rolls.

