



FRICTION SAW

Friction Sawing is particularly advisable when a clean cut is of importance. Dee Tee Friction Saws are designed for high speed cutting. They are manufactured from Chrome-Vanadium(Cr-V) Steel, 1.2235, or Ni-Cr Steel with maximum stability at surface speed of 60-90 meter per second.

Friction Saw operation is based on the strength of the frictional heat which is generated between the Saw teeth & work piece when the saw runs at high speed. Dee Tee Friction Saw retain their toughness & has ability to resist the stresses of high operating speeds. The most suitable hardness is 40-44 HRC. Its edge retention quality is ensured by closely controlled heat treatment. To cut aluminium, non ferrous metals, plastics etc, higher speed of (80-120) mtr/second is recommended.



Following Tolerances are recommended (All dimensions are in mm)

S. No.		Upto 500 dia	Above 500 dia & upto 600 dia	Above 600 dia & upto 710 dia
1.	Outer Diameter	± 3.0	± 4.0	± 5.0
2.	Bore	H8	H8	H8
3.	Thickness	+ 0.1 - 0.4	+ 0.1 - 0.4	+ 0.1 - 0.4
4.	Boss Diameter	± 3.0	± 3.0	± 3.0
5.	Flatness	0.3	0.4	0.5
6.	O.D. Outness w.r.t. Bore.	0.2	0.3	0.4
7.	Side Clearance 0.10 to 0.30 mm each side for all saws.			

For special sizes please specify O.D., Bore, Number of Teeth & Driving Holes.

Dimensions of Dee Tee Friction Saws have been standardised & details are as follows :

a. Standard Sizes -	O.D.	x	Boss Dia.	x	Thickness	x	No. of Teeth	x	(Type of Teeth)
	450ø	x	225ø	x	4	x	300 teeth	x	(A-type)
	510ø	x	255ø	x	4	x	320 teeth	x	(A-type)
	550ø	x	275ø	x	5	x	300 teeth	x	(B-type)
	600ø	x	300ø	x	5	x	320 teeth	x	(B-type)
	710ø	x	355ø	x	5	x	380 teeth	x	(B-type)

b. Standard Bore - 35 diameter

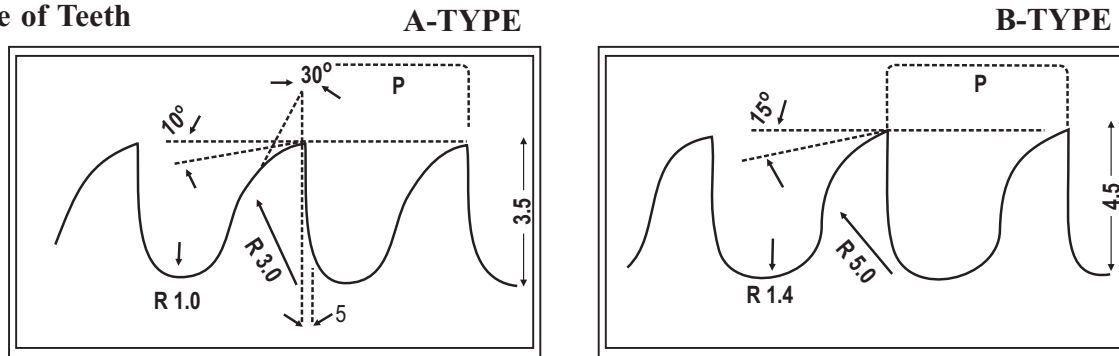


DeeTee Industries Limited, Unit-1 (Tooling Division)

28/33, Pologround Industrial Estate, Indore-452 015 (INDIA) Ph. : (0091-731) 4296777 Fax : (0091-731) 4296766, 2422108
e-mail: deetee@deeteegroup.com web site : www.deeteegroup.com

DeeTee stands for total quality movement

C. Type of Teeth



D. Hardness 40-44 HRC.

Precautions to be taken while using Friction Saw :-

- A round pipe should be cut downward directly from above, never be cut horizontally.
- It is advisable & necessary to regrind the teeth.
- The saw body sometimes makes wavy or wobbly motion, if the saw is continuously used for a long time. Its normal condition should be restored by temporarily running it without load, thereby subjecting it to air cooling.
- The flat saw is well suited for cutting small diameter thin tubes.
- A generous flow of coolant is necessary.
- Friction Saw should be tightly fastened.
- Direction of rotation should be checked.
- Cut should be perpendicular to axis of pipe.
- While resharping concentricity should be maintained.

For ordering Friction Saw :

Please specify, outer diameter, bore, driving holes, application, speed of cut off unit.
All other dimensions & tolerances for Dee Tee Friction Saw have been standardised.

Note :

There may be many operational reasons for failure of Friction Saw.

Hence, **Dee Tee Friction Saws are guaranteed for material composition & hardness only.**

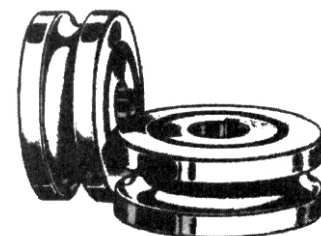
Chemical composition :

Cr-V Steel

C	= 0.75 / 0.85%
Si	= 0.15 / 0.35%
Mn	= 0.30 / 0.50%
Cr	= 0.40 / 0.60%
V	= 0.15 / 0.25%

Ni-Cr Steel

C	= 0.75 / 0.85%
Si	= 0.15 / 0.35%
Mn	= 0.30 / 0.50%
Cr	= 0.20 / 0.50%
Ni	= 0.70 / 1.30%



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

