

High Performance Tube Cutting Systems Alpha Flying Shear



High Performance Tube Cutting

The Alpha series of high speed flying shears from Thermatool offer Tube and Pipe Producers the world's fastest and most accurate tube cut-off systems.

Greater demand for higher tensile strength tube and pipe has increased the need for a cost effective, yet reliable solution for cut-off production.

Thermatool's Alpha Flying Shear Systems fully optimise the cutting process enabling cut-to-length tubing to be produced dimple free, with minimum burr, to a cut-off accuracy of ±1mm and at cycle rates of up to 240m/min.

Wall Thickness based on maximum U.T.S. of 420 N/mm2 Figure shown is at maximum line speed.

(This may be higher or lower depending on ram speed, mill speed and the application in question)

The Cutting Process

Alpha Flying Shears help to reduce the number of steps required in the tube manufacturing process, enabling the producer to cut-to-length on the mill ensuring the lowest processing costs.

- Reduce the number of steps in your manufacturing process
- Tube cuts from 10mm to 127mm diameter
- Wall Thickness from 0.7mm to 6.4mm
- Motion Control System ensures precision accuracy & repeatability
- Cycle rates of up to 240m/min

Model No.	Max. Diameter	Max. Wall Thickness	Max. Line Speed	Min. Cut Length at Max. Speed	Max. Cuts/Minute
TAFRAC-2005-60	50.8mm	3.2mm	200m/min	3.4m	62
TAFRAC-2005-72	50.8mm	3.2mm	200m/min	4.0m	60
TAFRAC-3005-72	76.2mm	4.5mm	200m/min	3.6m	55
TAFRAC-4005-72	101.4mm	5.0mm	150m/min	3.0m	50
TAFRAC-5005-72	127.0mm	6.4mm	120m/min	3.6m	33

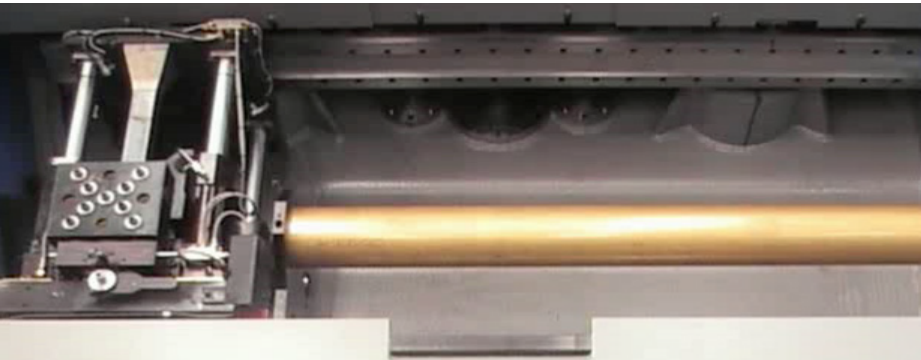
Dieset Information

Alpha Diesets, manufactured from the highest quality components, materials and machining tolerances, offers a dieset with reduced weight, quick-change tooling, automatic lubrication and overload protection.

The dieset consists of the cutting blade/s and structures to support the shearing action. Two types of dieset are available; the double cut die and single cut die.

The patented Double Cut Dieset provides superior, dimple free shearing performance at high processing speeds, eliminating time consuming steps such as off-line re-cutting and de-dimpling.

Single Cut Diesets are used where dimple free cutting is not required or on profile tubing where dimple free cuts can be achieved when cutting through the corner.



Equipment Tooling

Thermatool provides high quality blades and jaws specifically suited to your application. Our unique ATS2 blade material gives increased life on Carbon Steels and offers exceptional performance when cutting high tensile and stainless steels.

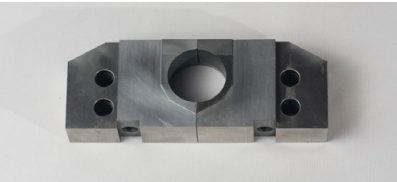
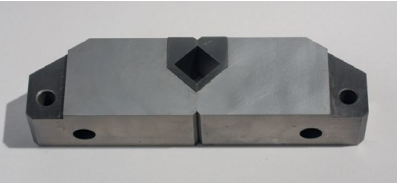
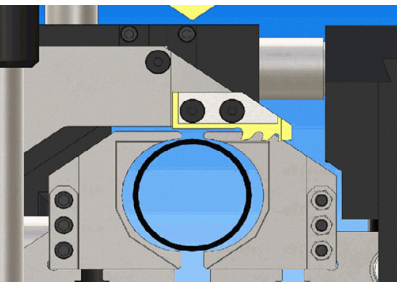
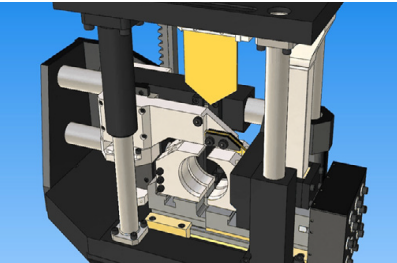
Optimised tube shearing relies upon good installation and set up procedures. To achieve this, it is essential that all cutting consumables such as blades and jaw sets are of the highest quality.

Alpha Shear Jaw Sets

Alpha jaw sets are available for the cutting of tube with diameters ranging from 10mm to 127mm. They are precision manufactured from high quality tool steel. Their function is to accurately clamp the tube in the dieset during the high speed cutting process.

In addition to providing 50% of the effective cutting surface, they also ensure that correct clearance is maintained between the jaws and the vertical blade, enabling optimum cut quality.

Alpha jaw sets undergo complex heat treatment to maximise wear resistance, they are available for round, square and rectangular tube.



Alpha Shear Blades

Horizontal and Vertical blades are available for the precision cutting of varying diameter tube, wall thickness and rockwell hardness.

Our engineers utilise the latest solid edge modelling techniques to generate blade profiles which have optimum blade geometry suited to your application. Blade life and cut quality can also be optimised where blades undergo special heat treatment and/or surface coating.

Contact us with your tube cutting requirements and we will recommend a blade specification for suited to your application.

Service & Support

Many manufacturing businesses run two or three shifts per day so our service department is contactable 24 hours a day. Our service engineers can usually provide a solution over the phone, but with our global presence we can organise fast on-site servicing when required.

Our tailor made recommended spares lists also provide customers with a comprehensive breakdown of tooling which we recommend to be kept on-site and tooling which can be shipped with next day delivery from our facilities.



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