

FIXED END STOP TRAVELLING SAW for PRECISE LENGTH CONTROL



APPLICATIONS:

Vulcan's Travelling Saw with Fixed End Stop is designed to provide cut length tolerances on rigid extrudates as low as .010" to .015". Exact tolerances will vary according to total cut length, line speed, rigidity of the extrudate, etc. With the fixed end stop saw, the end stop is located at the precise cut length distance from the saw blade and is attached to the travelling saw blade carriage. Once the extrudate has engaged the fixed end stop, it moves both the end stop and the saw blade carriage. It is at this time that the extrudate clamps are engaged and pneumatic assistance through an air cylinder is applied to the carriage to either reduce the compressive stress on the extrudate or to apply a slight tensile stress, if desired.

MODELS AVAILABLE:

Model Number	Blade Diameter (Inches)	Travel (Inches)	Drive H.P.	Max. Part Length (Inches)
BTS818FS	8	18	1	96
BTS1418FS	14	18	2	96
BTS2024FS	20	24	3	96
BTS2424FS	24	24	5	96

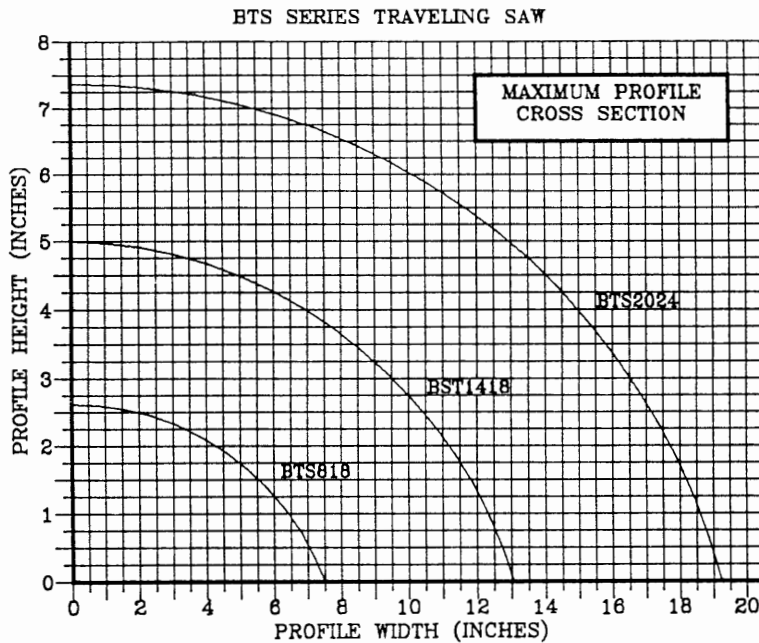
NOTE: The above are Vulcan standard models — Fixed End Stop Saws to other specifications can be quoted upon request.

DRIVE AND ELECTRICAL SERVICE:

- Drive horsepower will be shown in the above table
- Motor drives saw blade arbor through positive drive belt
- Motor and saw blade sheave diameters set for approximately 10,000 surface fpm on saw blade
- Standard electrical service — 230 or 460 volt, 3 phase, 60 hertz

MAXIMUM SAW CAPACITY:

- Round Part — Model BTS818FS 2 5/8" diameter
Model BTS1418FS 4 1/2" diameter
Model BTS2024FS 6 3/4" diameter
Model BTS2424FS 8 1/2" diameter
- Rectangular Part — Per Chart Below



OPERATING SPEEDS:

- Maximum saw cycle rate — 15 cycles/min. — cycle rate is reduced for larger cross-section parts
- Maximum line speed — 30 fpm for saws with 18" of in-line travel
— 40 fpm for saws with 24" of in-line travel

SEQUENCE OF OPERATION:

- Saw blade is retracted below table top; saw carriage including blade and fixed end stop is in upstream position; saw blade is rotating.
- The fixed end stop is set precisely at desired cut length distance from saw blade.
- Saw cut rate is set at speed necessary to provide desired cut quality or cycle rate.
- Extrudate upstream and downstream clamps are set to provide proper clamping force.
- The carriage return adjustable flow control valve is set to provide proper carriage return rate.
- The air regulator controlling the air cylinder connected to the carriage is set at full line pressure preventing movement of the carriage until the fixed end stop is engaged by the extrudate. Once the extrudate engages the fixed stop, the air flow is switched to the other side of the cylinder and is regulated to a value that will prevent buckling of the extrudate.
- The extrudate passes over the retracted blade and contacts fixed end stop at which time clamps are engaged and carriage starts its travel.
- At this point, movement of the rotating saw blade is actuated and the cutting of the extrudate proceeds to completion.
- Upon completion of the cut, the saw blade is retracted but the clamps remain engaged.
- The downstream clamp is then released and a pair of cylinders mounted for cross-line movement and equipped with pusher heads are actuated to eject the cut part cross-line, then return to their home position.
- The upstream clamp is then released and the carriage is returned to its home position.
- The cycle repeats.



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