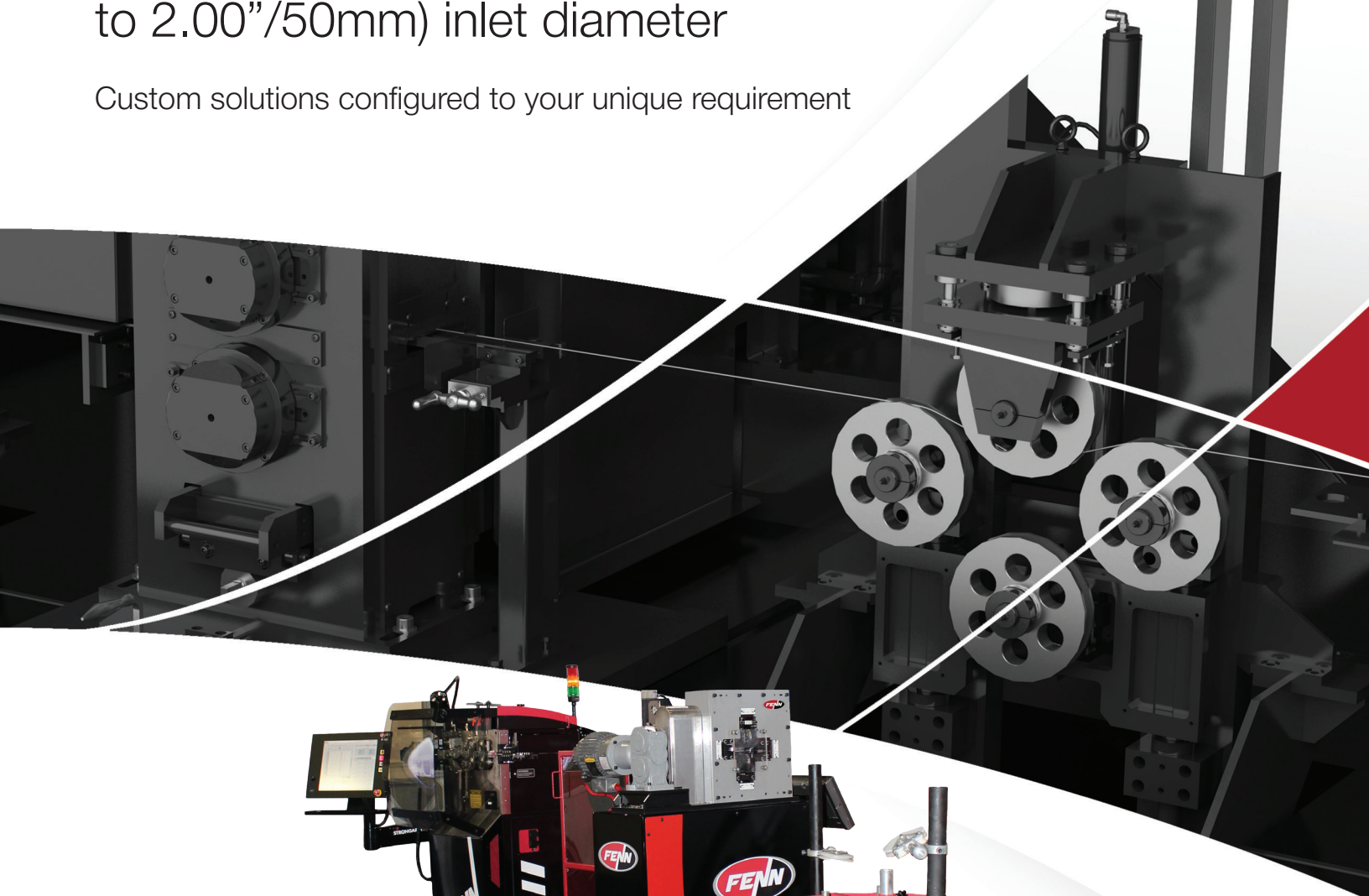


# WIRE FLATTENING & SHAPING

For any application from .002"/.05mm  
to 2.00"/50mm) inlet diameter

Custom solutions configured to your unique requirement



All-In-One,  
Coiling and Shaping Line



## Materials

Aluminum  
 Brass  
 Brazing Alloys  
 Clad Wire  
 Copper  
 Lead  
 Nickel Titanium Alloy (Ni Ti)  
 Precious Metals  
 Solder  
 Stainless Steel  
 Steel  
 Titanium  
 Zirconium

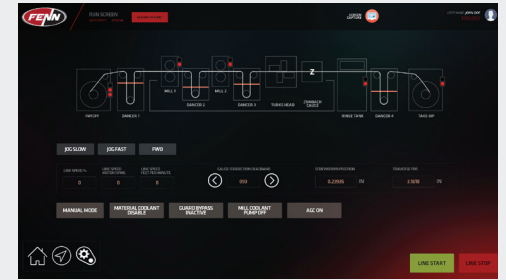
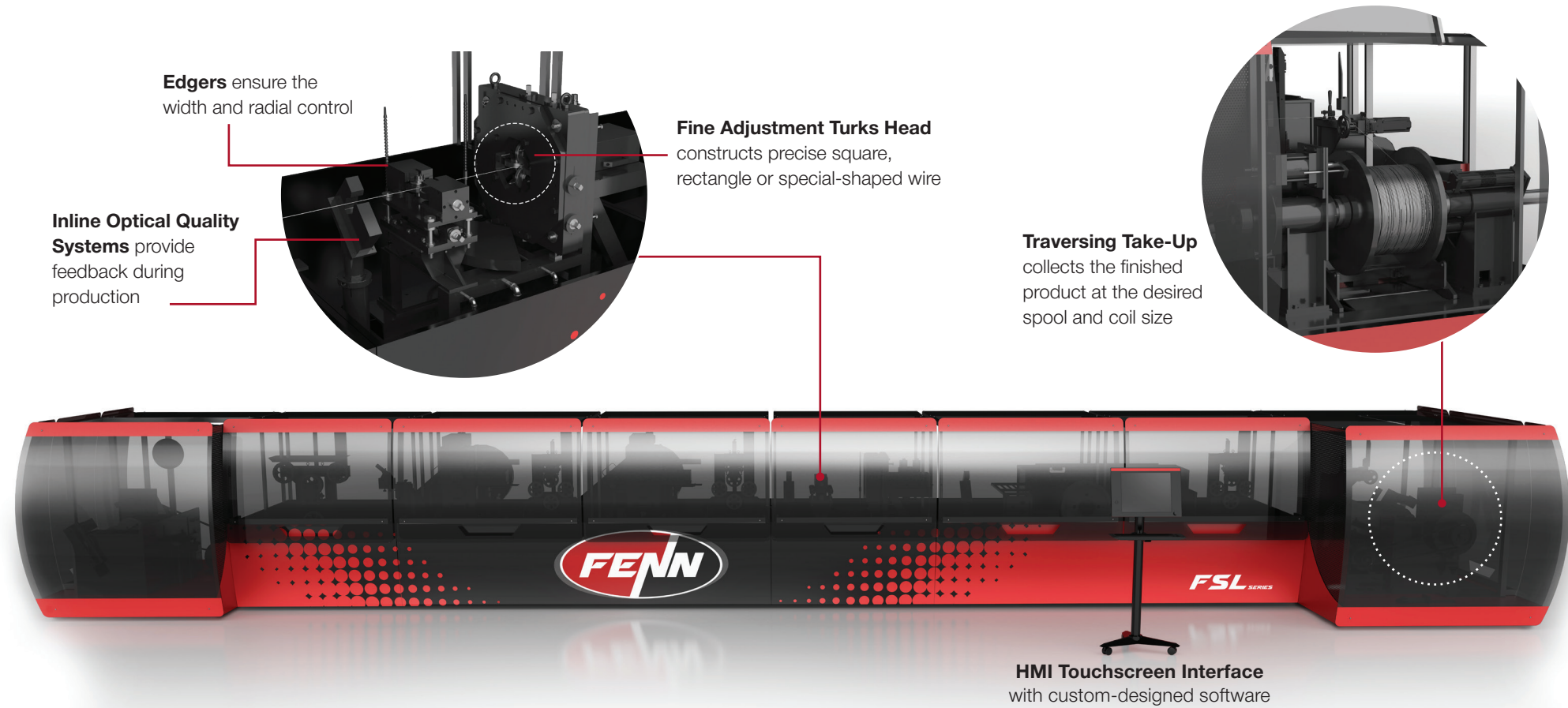
## Applications

Medical Wire  
 Orthodontic Wire  
 Photovoltaic Wire  
 Automotive Wire  
 Wellscreen Wire  
 Retaining Ring Wire

## Types of Mills

Single Stand  
 Multi Stand  
 2HI / 4HI  
 Combination Rolling Mill  
 & Turks Head Line

## Anatomy of a FENN Wire Flattening & Shaping Line



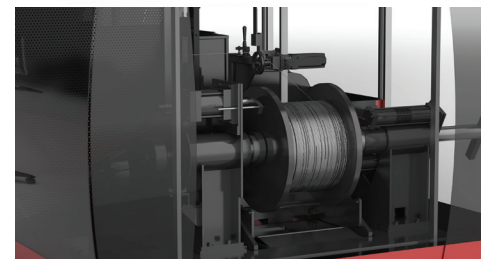
### Customized Software will be developed by our expert staff for your FENN Wire Flattening & Shaping Mill

- Line speed setting
- Dancers tension control
- Programmable pass scheduling
- Automatic Gauge Control (AGC) for width and thickness
- Statistical Process Control (SPC)
- Individual forward and reverse jog control set up for payoff, take-up, and wire flattening mills
- Diagnostic screen
- Remote access



- Inline pre draw
- Speeds up to 3,000 FPM (915 MPM)
- Accurate tension and speed control
- Touchscreen HMI
- Servo traversing wind
- Lateral adjustment
- 2HI/4HI design dependent upon application

## Ancillary Options

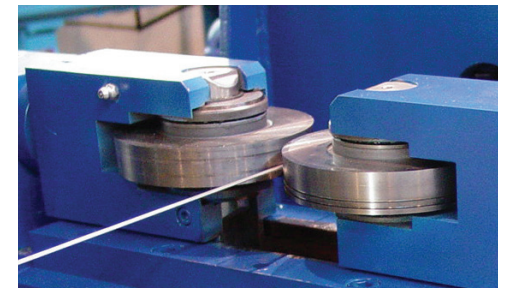
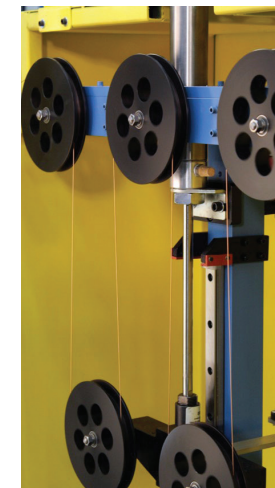


### Take-Ups

- **Traversing pintle spool** supports both sides of spools. For spools having minor through bores and large capacity.
- **Traversing cantilever** can accommodate multiple different spools and collapsible drums on interchangeable mandrels connected to the spool shaft. Provides easy access for spool removal.
- **Traversing Wire Guides** The most economical option for use with irregular shapes that do not require precision winding. Suitable for spools or collapsible drums.

### Dancers/Tensiometers

- Can be used separately or in combination in the same line to cover a full range of material.
- Synchronizes the speed between different units in the line and controls constant tension in the material.
- Dancers are air-loaded using a linear potentiometer for speed control.
- Tensiometers use a roller connected to a solid-state transducer.



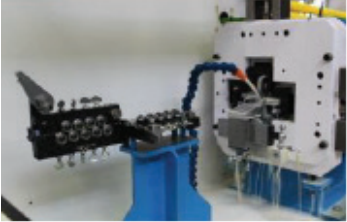
### Edgers

- **Controls the width and edge profile of the material.**
- Consists of two vertical axis rolls, which are grooved to the edge profile required for the material.
- Driven or Friction. (Friction Edger shown in above photo)



### Photovoltaics

Three Wire Flattening Mills in tandem were used, running up to 2600 FPM (800 MPM). The line featured statistical process control (SPC) and automatic gauge control (AGC) technology, along with precision speed and tension control to ensure high accuracy.



### Orthodontics

Turks Head paired with SPC and AGC ensures precise production of wire.



### Medical

Process ultra-fine medical wire used in applications such as catheter reinforcement and in stents.



### Automotive

Wire flattening and shaping equipment used to produce wire for collet sections.



### Oil and Water Wellscreen

Rolling Mill and Turks Head to produce wedge-shaped wire.



### Retaining Ring

Four Rolling Mills with an edger, a Turks Head, and speed and tension-control dancers.



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### A Trusted Leader in Custom Engineered Metal Forming Machinery

FENN has been designing and building rugged, dependable metal-forming machinery for more than a century. From initial design to manufacturing and equipment support, FENN has a full team of experts, including customer service technicians, product managers, and engineers, to ensure your project's success.

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