

Straightener FAQs

Q Why is the wire diameter range of a Straightener so narrow?

A Straighteners must apply mechanical work to the process material to a point that takes it past its elastic limit and into plastic deformation. To accomplish this, the diameter of the rolls and the roll-to-roll pitch must be closely matched to the process material size.

Q How many rolls do I require?

A This is dependent on a number of factors as follows:

- The specification of the process material, including size, material and yield.
- The incoming run-in bend radius. A small bend radius requires more work to straighten the material while a larger radius (which is closer to being straight) will require less.
- The required straightness of the material.

Q Do I need two-plane straightening?

A The quality of the wind from the pay-off coil will dictate if there is a requirement to straighten in two planes, as a badly wound coil may have twist and/or multi-directional errors, requiring straightening in more than a single plane.

Q Do I need “V” groove or profiled rolls?

A Unless you are processing stranded wire rope, a tube, product with non-circular cross section or you have a product that requires a perfect surface finish, standard “V” groove rolls are recommended.

This will also allow the use of the complete diameter range of the straightener without the need to change rolls.

“U”-groove rolls are suitable for stranded wire rope and tube, allowing straightening without damaging the product. For non-circular cross sections (e.g. square or hexagonal wire) customised profiles can be produced.

Q Do I need individually adjustable rolls?

A Individually adjustable rolls are advisable if:

- You need to move the centre line of the process material to accommodate a large wire diameter range or variable input or output positions.
- The centre line is required to be moveable to centralise the wire line from one plane to another, or if the entry to or exit from a straightener is not ideal due to the positioning of the straightener.
- The material is of a type that requires more sensitive adjustment such as very hard or very soft wire, or material which cannot be marked, due to its application (e.g. stainless steel medical wire).

Techna STRAIGHTENERS (WIRE & STRIP)

Q How do I guarantee repeatability?

A This is best achieved by recording the position of each adjustable roll once the straightener has been set. The most accurate way to do this is to utilise “PO” type positional counters. For details of this accessory please see page 120.



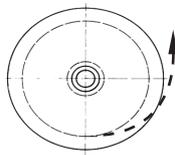
Q Can I buy replacement rolls and other spare parts for my existing equipment?

A Both rolls and a fully comprehensive range of spares and accessories are available for the whole range of equipment. Please see the relevant sections for accessories and rolls or enquire for details.

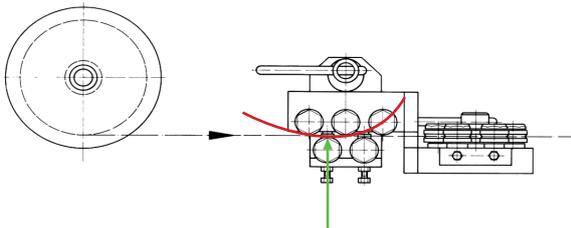
Q Who do I contact if I have more questions?

A With more than four decades of experience in the industry, Techna is perfectly placed to assist you with any enquiries you have. Should you have further questions or would like assistance in specifying the correct equipment for your application please contact our sales team.

Correct set up

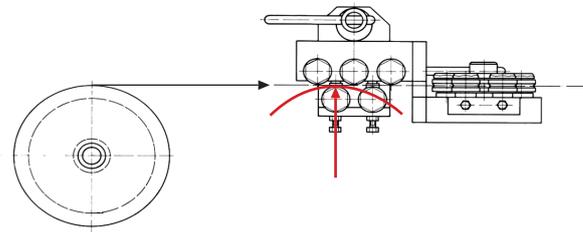


Generally, product coming off a spool or coil has a cast that follows the shape of the spool (or coil). To be effective the straightener must act against this cast.



A straightener is in the correct orientation when it is acting against the cast of the product. It must be in the same plane as the cast and the first straightening roll must be on the same side of the wire as the spool axis.

Incorrect set up



In this scenario, the first three rolls are actually adding to the existing cast of the product. Although the straightener is in the same plane as the cast, the first roll is on the opposite side of the wire from the spool.