

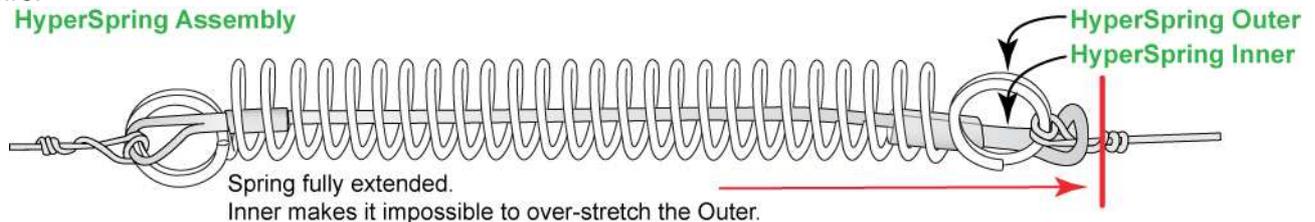
INFORMATION SHEET

HyperSpring (FA SPR1.25, FA SPR1.6 and FA SPR2.5)

Why Use HyperSprings?

“Hyper”Springs (extremely long travel springs) are essential permanent electric fence components when using less expensive, lighter gauges of high-tensile (H.T.) wire (e.g. 1.25 - 2.0mm). They are also a great add-on for 2.5mm H.T. wire fences that will be “challenged” constantly. Installing a HyperSpring in each strand of wire will add significant elasticity making for a truly tough fence. For instance, a 1.6 H.T. wire with a 1.6 HyperSpring will take similar punishment to 2.5 H.T. fence wire.

HyperSpring Assembly



Attributes

- Fence/challenger contact longer so more discouraging Under challenge (e.g. fighting stock, marauding kangaroos) a fence with a HyperSpring in each high-tensile wire can stretch with the challenger who will eventually pull back or pass over after receiving a number of discouraging shocks. Stock need time to register that it is the fence shocking them and a fence that stretches with challenge affords this time. When the challenge is over, the fence line returns to its normal state, undamaged. The special HyperSpring assembly prevents damage to the spring from “over-stretching”.

- Fence crossing freedom Adapted vehicles (e.g. quads and centre-pivot irrigators with fenders attached) can cross anywhere along the fence line saving time and money on driving to and opening gates. Fences can be pinned down or propped up enabling stock to cross anywhere as well.

- Correct wire tension aid Looking at the degree of HyperSpring Outer coil separation (at fence rest) immediately indicates if tension is too great or little.

NOTE: One of the many advantages of installing Kiwitech permanent fencing is that wires are low-tensioned. In general, stay posts are not required for strainer posts and steel strainers do not need setting in concrete.

Given the very small cost HyperSprings make to the overall cost per meter of fencing they more than pay for themselves in terms of improved fence function.

General HyperSpring Use

HyperSprings are for insertion in 1.25-2.5mm high-tensile wires. Tape or polywire gates can also employ HyperSprings, however tape does not tolerate frequent vehicle crossing.

There are three HyperSpring Outer Sizes; 1.25, 1.6 and 2.5 and only a “one size fits all” HyperSpring Inner. For identification purposes, resting HyperSpring Outer lengths are noted in the table on page 2.

One HyperSpring per fence wire can adequately tension any length of straight fence on flat terrain. Extra HyperSprings may be required if fence lines follow excessive up/down or sideways paths. See “HyperSpring Installation” instructions.



The 2.5 Outer is the strongest spring and a fence wire with this HyperSpring assembly incorporated will be under greater tension than the same wire with a 1.6 HyperSpring assembly. Please refer to the table below in order to calculate total expected strain (e.g. a 3 wire fence with a 1.6 HyperSpring incorporated in each fence wire will be at a resting strain of 30kg and maximum strain of 108kg).

HyperSpring	Resting Outer Lengths	Resting Fence Strain (or Pull)	Fully Challenged Strain (or Pull)
1.25	295 mm	7 kg	20 kg
1.6	495 mm	10 kg	36 kg
2.5	575 mm	20 kg	60 kg

Generally you would use 1.25 HyperSprings with 1.25mm H.T. wire, 1.6 HyperSprings with 1.6mm H.T. wire and 2.5 HyperSprings with 2.5mm H.T. wire.

HyperSpring Use in Exceptional Circumstances

Fences with earth wires

To lessen the chance of earth wires “wrapping” on wires above and/or below (after challenge) a greater fence tension is recommended (post spacing should also be closer). Employ 2.5 HyperSprings regardless of wire gauge and, if still experiencing hook-ups, set the HyperSpring resting tension to a greater degree (i.e. at rest HyperSpring Outer coils are pulled further apart than normal recommendation). **NOTE:** *If Kiwitech Handle Strainers are in place at the opposite end of the fence line, tension can be adjusted, with ease, to suit seasonal earth wire tension requirements.*

Fences with 3 wires (or more) on rolling terrain

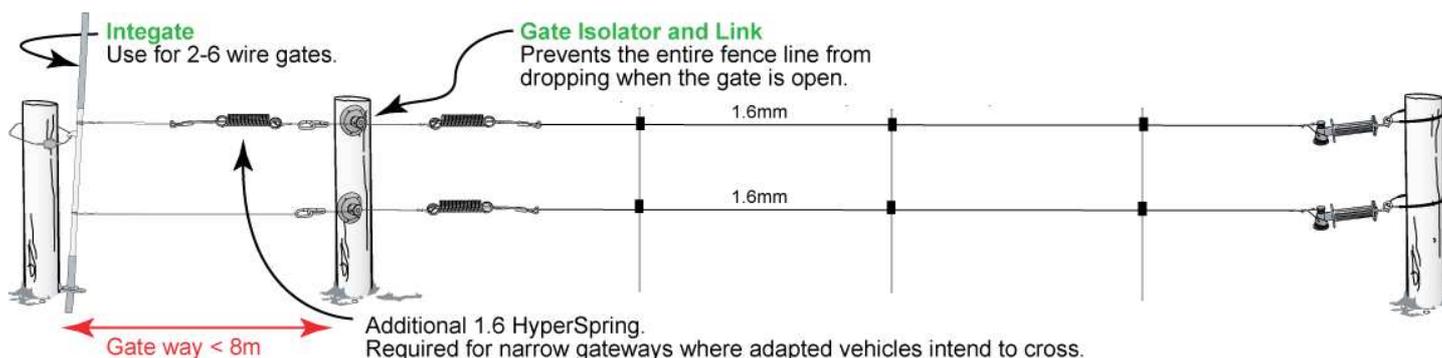
If terrain is rolling and the opportunity exists to space posts generously (e.g. at 18m intervals) then use a 2.5 HyperSpring on the bottom wire regardless of wire gauge. The extra tension provided by the 2.5 HyperSpring will ensure the bottom wire will not droop and short out. The bottom wire has very little leverage on posts (post bending from strain will not be a problem).

High impact fences (e.g. kangaroo boundary fences or fencing for stampede prone stock)

For high impact prone fences we recommend including a 2.5 AND a 1.6 HyperSpring in each 1.6mm fence wire. As the animal attempts to push through the fence it will sense two degrees of increasing resistance. The further the animal pushes, the harder it has to push, as first the 1.6 HyperSpring is spent followed by the stronger 2.5 HyperSpring. This HyperSpring/fence arrangement requires a great deal of effort to get through, as a result the challenger is more likely to give up and fall back.

Narrow Kiwitech H.T. gates where adapted vehicles will be crossing (e.g. less than 8m wide)

If installing a complete Kiwitech Gate system (inclusion of Isolators and Links on a second strainer post) and the gate is less than 8m wide it would pay to add an extra spring in the top wire/s to ensure adequate elasticity for adapted vehicle crossing. If in doubt, try driving over the gate and if necessary add the extra spring/s.



Creek Style Fencing (flat terrain but curvy fencing) - rarely challenged.

HyperSprings are not necessary in Kiwitech “curvy” creek style permanent fence lines - the leaning fibreglass posts provide enough elasticity.

NOTE: *Try and use light gauges of wire for the top wire (e.g. 1.25mm H.T.), plant corner posts on a lean away from the direction of pull and use Arrow posts or small wood posts where plain fibreglass fails to take the strain.*