



South Fence Machinery^{LTD}
ADVANCED WIRE FENCE TECHNOLOGY



**FIXED KNOT FARM FENCE
MACHINE**

SOUTH FENCE MACHINERY LTD FIXED KNOT MACHINE

introduction

FIXED KNOT MACHINE



The South Fence Fixed Knot Machine is the product of South Fence Machinery's unique experience of more than 65 years of wire product manufacture in New Zealand. Experience gained over these years has enabled South Fence Machinery to identify design requirements to facilitate the most economic and efficient manufacture of wire products.

The same dedication and exacting standards that placed South Fence Machinery Ltd at the forefront in Hinge Joint machinery are now set to do the same with Fixed Knot machinery.

The Fixed Knot Machine is designed to meet ISO:12100 Safety of Machinery guidelines. These features give the purchaser confidence that the machine is safe to operate.



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design & construction

South Fence Fixed Knot Machines have been designed to ensure long economic life with ease of maintenance and operation.

The direct stay wire feed system gives versatility of fence specifications and clear uninterrupted operator vision of the knotting boxes. Line wires can be added or dropped off at the top or bottom of the fence to overcome the necessity of shifting the knotting boxes.

The indexing crimping drum allows changes of stay wire spacings to be implemented by a simple keypad operation with no other mechanical adjustments necessary.

The machine has a comprehensive arrangement of electric trip systems to ensure the machine stops in the event of wire tangle or breakage or incorrect machine function.

The take-up mechanism incorporates an electrically driven stripper for the easy removal of the finished roll.

All the above features are standard equipment and are included in the basic machine price, as are freight to the nearest main port and the commissioning costs.



specifications, features & performance

	Model FKM 27-3D	Model FKM 30-3D
Maximum Fence Width	2610mm (103")	3050mm (120")
Maximum number of Line Wires	20 Line on Single Fence 22 Line on Dual Fence	26 Line on Single Fence 28 Line on Dual Fence
Line Wire Spacings	Minimum 76mm (3") Can be increased by additional increments of 13mm (1/2") or multiples of 13mm (1/2")	
Stay Wire Spacings	75mm, 150mm, 300mm, and 450mm (3", 6", 12" and 18")	
Line Wire Size	2.50mm (0.098")	
Stay Wire Size	2.50mm (0.098")	
Knot Wire Size	2.24mm (0.088")	
Line Wire Tensile Range	850-1390 N/mm ² (55-90 Ton/sq in)	
Stay Wire Tensile Range	525-850 N/mm ² (34-55 Ton/sq in)	
Knot Wire Tensile Range	400-525 N/mm ² (26-34 Ton/sq in)	
No. Strokes (Stay Wires) Per Minute	Up to 40	
Length of Roll	Up to 200m (660ft)	
Motion System	Controlled Vector and Servo Drives	
Dual Feed System	To enable 2 rolls to be manufactured together	
	Usable width 2490mm (98")	Usable width 2900mm (115")
PLC Control of Machine Functions	Standard Equipment	
Comprehensive Electric Trip Systems	Standard Equipment	
Machine Weight	17,250kg (17 tons)	18,250kg (18 tons)
Approximate Floor Area Required	22m x 11m (72ft x 36ft)	25m x 12m (82ft x 40ft)

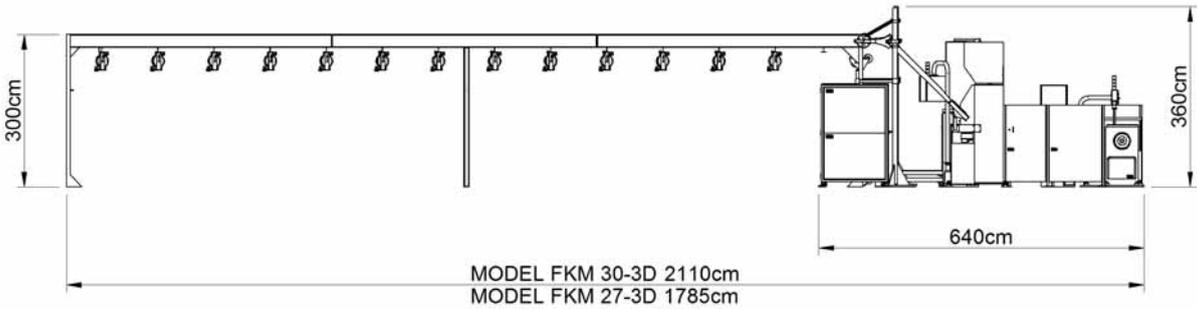
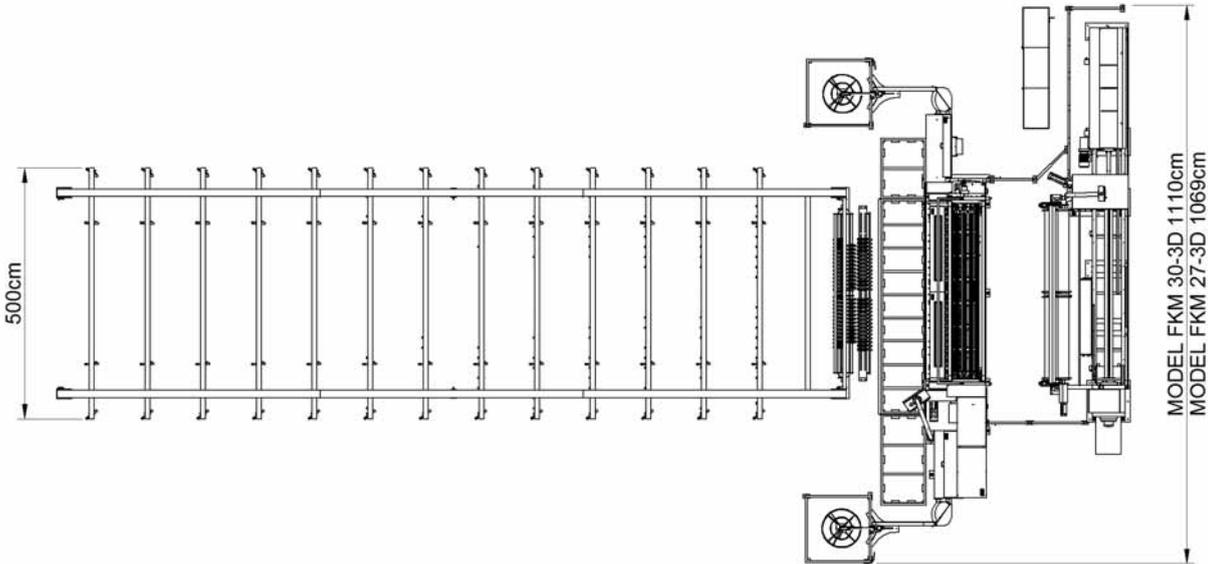
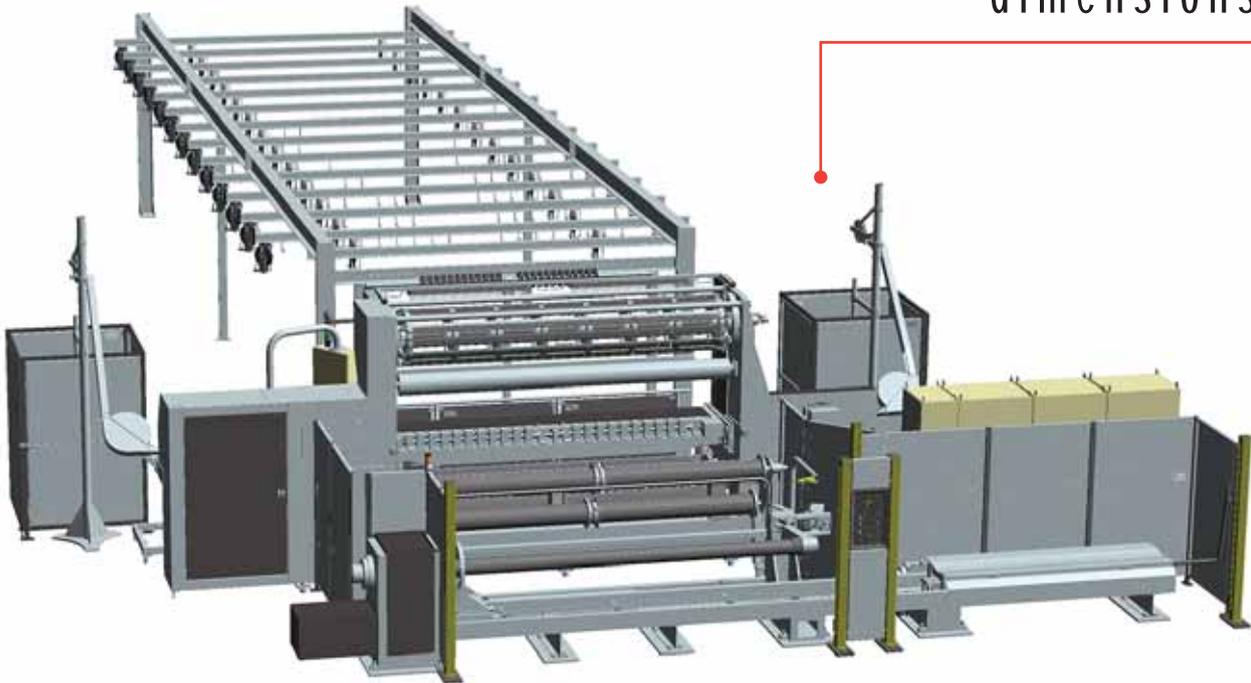
Some variation to the above specifications is available on request.

All weights and measures are approximate.

South Fence Machinery Ltd reserves the right to vary design and specifications.



dimensions



operational cycle



The line and tie wires are fed from wire carriers positioned under the back frame at the rear of the machine.

These wires pass through trip sheaves and tension/straightening rollers before entering the machine. The trip sheaves monitor snags and wire run out on the wire carriers.

The stay wires are fed from wire carriers positioned at either side of the machine and through trip sheaves mounted on the stay wire pay-off stands.



After the introduction of a set length of knot wire into the knotting boxes the "Fixed Knot" is formed by the action of gears, twisters and hooks which are driven by the main drive motor via a series of gears and cams.

The line wires are pulled through the machine by the crimping drum which is mounted above and in line with the knotting boxes. The crimping drum indexes to the programmed pitch with a pause between each index to allow the knots to be tied.



The finished fence is wound onto a slotted mandrel. The take-up system has a variety of settings to accommodate different fence specifications and roll lengths. The completed roll is then stripped mechanically.





South Fence Machinery Ltd

South Fence Machinery Ltd is a privately owned New Zealand company whose history dates back to the 1930's.



Originally known as NZ Fence & Gate Works the company operated from a small factory at Petone, in the Wellington industrial area, manufacturing wire products for local distribution.

Over the ensuing years the company – then known as Hurricane Wire Products Ltd. – grew rapidly to become recognised in New Zealand as an industry leader in the manufacture of wire based commodities.

During the same period the Engineering Division was established and the design and manufacture of Hinge Joint Field Fence machines began in 1977. The machines soon gained international recognition.

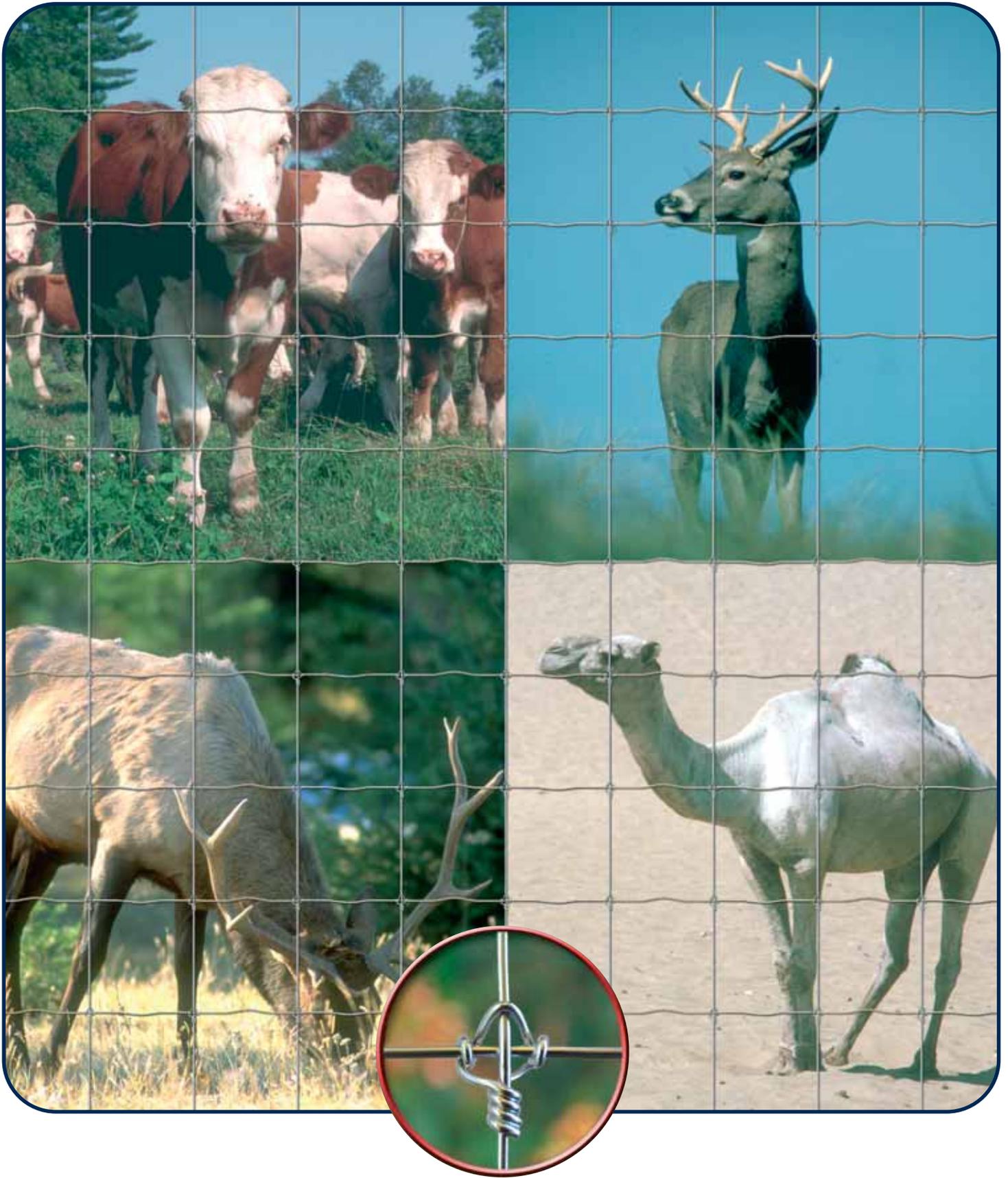
In 1986 the wire products division of Hurricane Wire Products Ltd was sold and the Engineering Division became South Fence Machinery Ltd. This enabled the company to concentrate all its resources on the design and manufacture of machinery for the wire industry.

South Fence Machinery Ltd has manufactured and installed machines in New Zealand, Australia, USA, Canada, Mexico, United Kingdom, Republic of South Africa, USSR, Portugal, Spain, France, Hungary, Japan, Papua New Guinea and the Philippines.

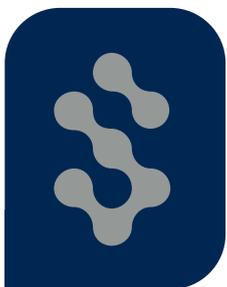
South Fence Machinery Ltd has 20 employees at its modern 52,000 sq ft plant in Christchurch and utilises the very latest in cad-cam technology to enhance its design capabilities and for the programming of its CNC machinery.

South Fence Machinery Ltd is committed to providing the best and most competitive quality products through innovative techniques and dedicated product support.





For further information please contact:



South Fence Machinery^{LTD}

ADVANCED WIRE FENCE TECHNOLOGY

256 Main South Road, P.O. Box 16154, Christchurch, New Zealand

Telephone (64 3) 349-5492

Fax (64 3) 349-5022

Email info@southfence.co.nz

Website www.southfence.com