

Induction Heating Systems

For the Spring Wire Processing Industry



Induction Tempered Wire

Radyne wire processing lines offer the efficient technology of induction heating plus a safe and environmentally clean water quenching system.

The modular induction harden and temper lines produce material to a more consistent specification, which producers continually strive to achieve.

Radyne Spring Wire Lines are manufactured to a very high mechanical standard, using precision built modules that are designed and produced for easily installation, maintenance and operation.

Spring Wire Processing

As technology has advanced a new system of hardening and tempering spring wire has emerged. At the forefront is the Radyne Spring Wire Line, designed and manufactured by Inductotherm Heating & Welding Limited, in the UK.

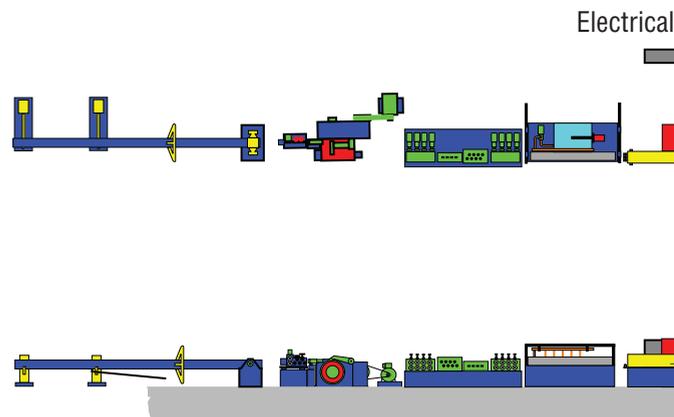
Radyne wire processing systems heat treat a single wire at high speed. They have proved to be a success throughout the world providing a quality wire consistently for cold coiling, as used in a wide variety of wire-based products including automotive suspension springs, overhead garage door springs and general mechanical springs.

As technology has advanced a new system of hardening and tempering spring wire has emerged. At the forefront is the Radyne Spring Wire Line, designed and manufactured by Inductotherm Heating & Welding Limited, in the UK.



6-17mm Wire Line

Layout Diagram



Pay-off & Dancer

Inline Drawing Block

Pinch Roll 1
 Straighteners
 Pinch Roll 2
 Washing Unit



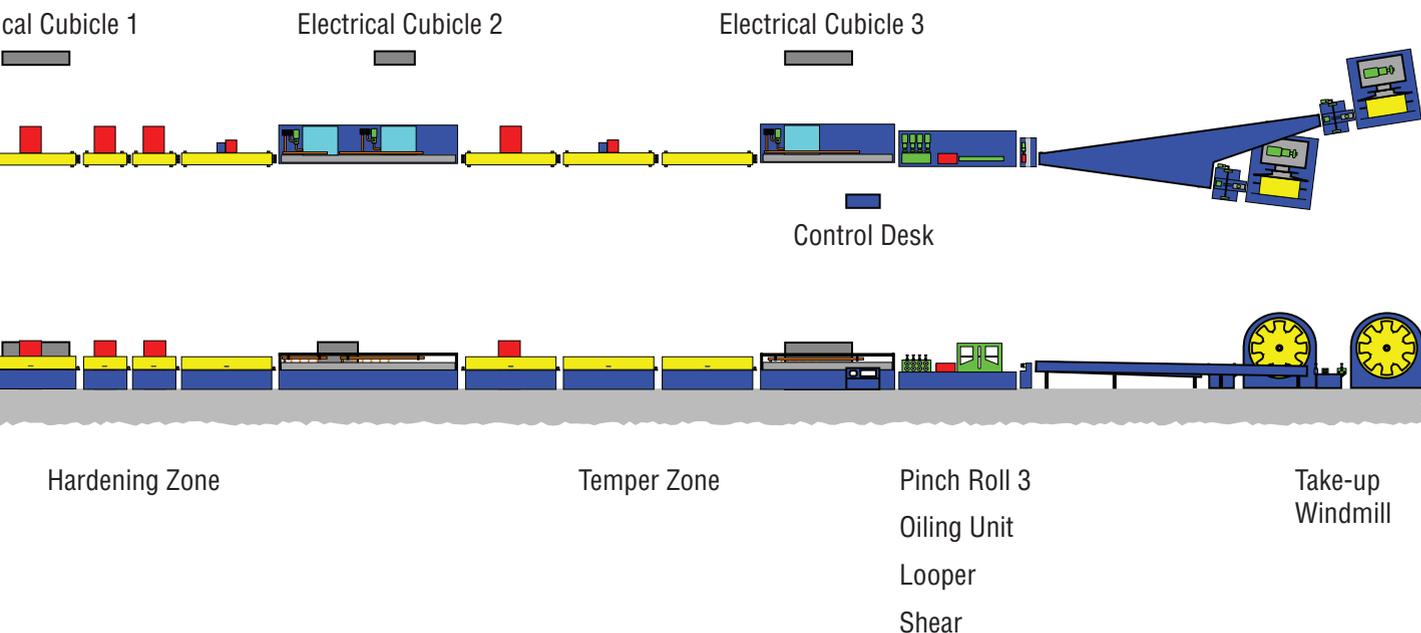
6-17mm Wire Line: Specification

A typical line will produce high quality spring wire from 6 to 17mm diameter in materials ranging from carbon steel through to the more exotic alloy steels such as SAE 9254 (Chrome Silicon) and SAE 9254V (Chrome Silicon Vanadium) at production rates of 1500kg/hour up to 3000kg/hour.

Radyne has the expertise to provide complete turnkey solutions with wire line processing technology to produce spring wire of the highest quality with both consistency and repeatability to demanding international specifications. i.e. tensile strengths of greater than 2000MPa, whilst still having a ductility of more than 40% ROA.

Parameter	Specification
Wire Diameter Range	6 to 17mm
Materials	AISI 9254, CH25(AISI 1025), CH45(AISI 1045), AISI 4140
Process Temperatures	Hardening: 1100°C (max) Tempering: 600°C (max)
Hardness (UTS)	1860 to 2010N/mm ² ending on diameter and/or material: N° JIS G 3561
Input Coil Diameter	ID: 920mm to 1067mm
Pay-Off & Take-Up Coil Size	Maximum Weight: 2.5 Tonnes

Diameter	kg/hr	m/min
6mm	2364	180
7mm	3000	168
8mm	3000	128
9mm	3000	102
10mm	3000	82
11mm	3000	68
12mm	3000	57
13mm	3000	49
14mm	3000	42
15mm	3000	36
16mm	3000	32
17mm	3000	28





Harden & Temper Process

High-Speed

Lines run at speeds of up to 180 metres per minute / 3 tonnes per hour, for the production of wire diameters from 6mm to 17mm and above.

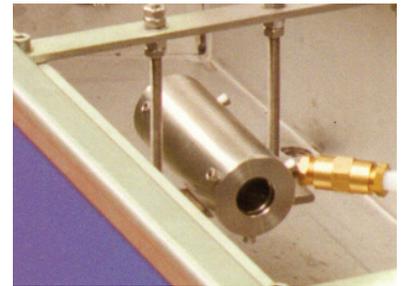
Non-Polluting Technology

With environmentally friendly quench mediums and non-polluting induction heating technology, Radyne provides the sensible approach.

Industry Standard

Based upon Radyne's globally acclaimed non-polluting induction heating technology, wire is produced to international standards including: SRS 60, 9254, 55CrSiV, DIN 17223, JisG 3560 and ASTM 416.

- No Oil Quench
- No Combustible Fuels
- Enhanced Operator Environment
- Energy Efficient Technology



Thermatool House, Crockford Lane, Basingstoke, RG24 8NA
Tel: +44 (0)1256 335 533 • Fax: +44 (0)1256 467 224
E-mail: info@inductothermhw.co.uk • www.inductothermhw.co.uk