

<Kalpatch Logo>

KALPATECH ENGINEERS & INDUSTRIES LTD.

Precision Profile Wires & Dancerless Wire Flattening and Profiling Mills

World class quality. Engineered in India.

FOOTER: <Creative: India Map/Fag>
MADE IN INDIA

ABOUT KALPATECH

Kalpatech Engineers & Industries Ltd. (KEILIND) is an IATF 16949:2016 certified manufacturing company established in 2005. Led by a technocrat with over three decades of hands-on industry experience, Kalpatech has spent more than 15 years focused on continuous research, development, and process refinement in the flat and profile wire domain.

Today, Kalpatech is a trusted name across automotive, filtration, mining, textile, and energy sectors. Our commitment to quality, consistency, and process discipline is reflected in our recognition as a **Green Category Supplier to Maruti Suzuki India Ltd.**

Beyond wires, Kalpatech has built a strong legacy in designing and manufacturing **Dancerless Wire Flattening & Profiling Mills**, supplying advanced solutions to leading Indian and multinational manufacturers.

FOOTER: <Our Clientele: Logos>

OUR CORE EXPERTISE

Precision Profile Wires for Critical Applications

Kalpatech manufactures a wide range of flat and custom profile wires with tight dimensional control, engineered to perform reliably in demanding applications.

Key application areas include:

- Automotive components such as springs, piston rings, circlips, and wiper blade vertebrae
- Filtration systems for petrochemical, oil, water, pulp, and food industries
- Mining and screening applications using wedge wire systems
- Textile machinery including card clothing and reed wires

All profiles are produced on a state-of-the-art **Universal Cold Rolling Mill**, integrated with **non-contact online measurement systems** for continuous dimensional monitoring. Final inspection is carried out using an **Auto-Focus Vision Measurement System**, ensuring repeatable accuracy and consistency.

Dimensional control capability:

- Width tolerance up to ± 0.02 mm
 - Thickness tolerance up to ± 0.003 mm
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PRODUCT RANGE – PROFILE WIRES

Flat & Rectangular Wires

- Width range: 0.70 mm to 15.00 mm
- Thickness range: 0.20 mm to 7.00 mm
- Surface finish: Bright / Matte

Applications:

Piston rings, windshield wiper vertebrae, flat and wave springs, torsional and conical springs, and other precision components.

Triangular & Dimpled Wires (Wedge Wire Profiles)

- Width range: 1.50 mm to 7.00 mm
- Thickness range: 0.70 mm to 5.00 mm
- Surface finish: Bright

Applications:

Wedge wire screens for filtration and mining, anti-skid drain covers, and industrial screening systems.

Common standard sizes include:

12SB, 18SB, 28SB, 35SB, 55SB, 63SB (with dimple), and custom variants.

Support Rods for Wedge Wire Screens

- Width range: 0.70 mm to 15.00 mm
- Thickness range: 0.20 mm to 7.00 mm
- Surface finish: Bright / Matte

Applications:

Filtration systems across sugar, food processing, petrochemical, mining, and coal industries, as well as anti-skid and drainage products.

Material grades supported:

SS 304, 316, 317, 321, 347, 904L, Duplex, Super Duplex, Inconel, Hastelloy, Titanium, and other special alloys.

Supply capacity: **Up to 150 MT per month (size dependent)**

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Half Round Wires

- Width range: 1.00 mm to 6.00 mm
- Thickness range: 0.40 mm to 3.00 mm

- Surface finish: Bright / Matte

Applications:

Wire meshes, cotter pins, and split pins.

Square Wires

- Side range: 1.00 mm to 6.00 mm
- Surface finish: Bright / Matte

Applications:

Piston rings, springs, washers, tensioners, feather keys, and precision mechanical parts.

Hi-Flow Bar Wires

- Width range: 4.00 mm to 7.50 mm
- Thickness range: 2.00 mm to 3.50 mm
- Surface finish: Bright

Applications:

Separation and screening systems in pulp and paper industries.

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DANCERLESS WIRE FLATTENING & PROFILING MILLS

Our Speciality

Kalpatech's Dancerless Mills are engineered to deliver superior dimensional stability, higher productivity, and lower operating costs.

Key features:

- Completely dancerless, closed-loop operation with no wire looping
- Advanced motion control using Yaskawa systems for precise tension, torque, and speed control
- Nano-second response times for stable processing
- Automatic Gauge Control (AGC) options available

- Driven Turkshead and edgers for superior profile accuracy
- Consistent process capability with **Cpk ≥ 2.0**
- **40–50% cost savings** compared to equivalent European and Japanese mills
- Mechanically robust, electronically and software-wise advanced

Supported materials:

Copper and copper alloys, stainless steel, high carbon steel, Inconel, Hastelloy, Titanium, and other super alloys.

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Manufacturable Size Range (Mills)

- Flat wire with round edges: Width 0.50–20.00 mm | Thickness 0.05–10.00 mm
- Rectangular wire with straight edges: Width 1.00–25.00 mm | Thickness 0.50–16.00 mm
- Square wire: 1.00 × 1.00 mm up to 20.00 × 20.00 mm
- Custom profiles (triangular, half round, support rods, circlip wires, guide rails): Up to 300 mm² cross-section

Mill speeds:

- Up to 600 mpm for cross-sections below 1 mm²
 - Up to 350 mpm for cross-sections above 1 mm²
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DANCERLESS MILL APPLICATIONS

Energy Sector

- Continuous Transposed Conductors (CTC)
- Transformer and photovoltaic ribbon wires
- EV winding and rectangular conductor wires
- Nichrome and specialty alloy flat wires

Automotive Sector

- Wiper blade vertebrae
- Circlip and piston ring wires

- Starter ring gear sections
- Flat and wave spring wires
- EV flexible PCB flat wires

Filtration & Mining

- Triangular and dimpled wedge wires
- Support rods and shaker deck wires
- Hi-flow bars for pulp and paper

Other Industries

- Reed wires for weaving
 - Staple and zipper wires
 - Window screen wires
 - Linear guide rail profiles
 - Brush and specialty spring wires
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TRUSTED BY INDUSTRY LEADERS

- **2013–2014:** Supplied multiple mills to Ruby Mica for Nichrome flat wire production, achieving ± 0.002 mm accuracy. Machines continue to run successfully.
 - **2015:** Commissioned a profiling mill at Rockman Industries for curled bush applications, competing against FUHR.
 - **2021:** Delivered a trapezoidal wire profiling mill to Star Circlip, enabling major production shift from legacy mills.
 - **2023:** Supplied a mill for triangular wedge wire production for sugar industry filtration.
 - **2024:** Installed a high-capacity profiling mill at Stumpp Schuele & Somappa Springs for automotive-grade high carbon steel flat wires, producing over 700 MT annually. Competed against DEM.
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KALPTECH ASSURES QUALITY

In-House Testing & Inspection

- UTS testing machine
- Hardness testing equipment
- Grain structure analysis microscope
- Vision-based dimensional measurement system

Laboratory conditions are maintained in line with ISO 17025 requirements. All instruments are calibrated through NABL-accredited laboratories.

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ENQUIRIES & ORDER INFORMATION

To enable accurate and timely proposals, please share:

1. Profile size or drawing
 2. Material grade (as per international standards)
 3. Finish condition (Bright / Matte) and mechanical requirements
 4. Supply form (coil or spool)
 5. Monthly quantity or mill tonnage
 6. Delivery schedule
 7. Port of shipment / destination
 8. End application
 9. Preferred roller material (for mills)
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CONTACT US

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