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Global Thread Whirling Unit Supply, Demand and Key Producers, 2026-2032

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Abstracts

The global Thread Whirling Unit market size is expected to reach $ 248 million by 2032, rising at a market growth of 5.7% CAGR during the forecast period (2026-2032).

Thread Whirling Units are specialized rotary cutting units installed on Swiss-type lathes, CNC turning centers, and precision screw-machining equipment to manufacture high-precision threads through high-speed whirling motion. A cutter ring with multiple inserts rotates around the workpiece while the workpiece rotates more slowly, allowing efficient production of long, slender, and accurate threaded components. They are mainly used for medical bone screws, dental implants, lead screws, worm shafts, aerospace fasteners, precision connectors, micromechanical screws, and specialty threaded parts. This scope refers to thread whirling units and whirling heads, excluding complete CNC lathes, ordinary driven tool holders, general thread milling cutters, and single-point threading tools.The industrial chain of Thread Whirling Units includes upstream suppliers of alloy steel, tool steel, carbide inserts, precision bearings, spindle components, gears, shafts, seals, housings, coolant connectors, coatings, heat-treatment services, grinding services, balancing equipment, CNC-machined parts, and measuring instruments. The midstream consists of precision tooling and machine-tool accessory manufacturers that design and assemble whirling heads, rotary cutter rings, insert seats, spindle assemblies, transmission structures, mounting interfaces, coolant-through channels, sealing systems, and customized units for specific machine platforms. Downstream users include medical implant manufacturers, dental product manufacturers, precision screw producers, Swiss-type lathe users, aerospace fastener suppliers, automotive component factories, lead-screw processors, micromachining shops, connector manufacturers, and high-precision metalworking plants. Supporting services cover unit selection, installation, runout inspection, cutter setup, repair, bearing replacement, balancing, and process optimization.

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Demand for Thread Whirling Units is supported by precision screw machining, medical implant manufacturing, aerospace fasteners, worm shafts, lead screws, and long-thread components that require high surface quality and stable dimensional accuracy. A key market trend is the move toward more compact, rigid, and easy-to-integrate whirling heads that can work with advanced CNC lathes and automated production cells. Opportunities are strongest in medical devices, aerospace components, precision transmission parts, and high-value small-batch machining, where thread quality and machining efficiency are critical. Suppliers can also benefit from demand for improved cutter systems, better vibration control, faster setup, and application-specific customization. Key challenges include strict runout requirements, tool wear control, heat generation, process stability, machine-interface compatibility, operator skill requirements, and the need to balance customization with delivery speed.In 2025, global Thread Whirling Unit production reached approximately 4.80 thousand units, with an average global market price of around US$34,200 per unit. The gross profit margin of major companies in the industry ranged from 31% to 47%. In 2025, the global production capacity of Thread Whirling Units was approximately 6.39 thousand units.

Report Scope

This report studies the global Thread Whirling Unit production, demand, key manufacturers, and key regions.

This report is a detailed and comprehensive analysis of the world market for Thread Whirling Unit and provides market size (US$ million) and Year-over-Year (YoY) Growth, considering 2025 as the base year. This report explores demand trends and competition, as well as details the characteristics of Thread Whirling Unit that contribute to its increasing demand across many markets.

Highlights and key features of the study

Global Thread Whirling Unit total production and demand, 2021-2032, (Units)

Global Thread Whirling Unit total production value, 2021-2032, (USD Million)

Global Thread Whirling Unit production by region & country, production, value, CAGR, 2021-2032, (USD Million) & (Units), (based on production site)

Global Thread Whirling Unit consumption by region & country, CAGR,

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2021-2032 & (Units)

U.S. VS China: Thread Whirling Unit domestic production, consumption, key domestic manufacturers and share

Global Thread Whirling Unit production by manufacturer, production, price, value and market share 2021-2026, (USD Million) & (Units)

Global Thread Whirling Unit production by Type, production, value, CAGR, 2021-2032, (USD Million) & (Units)

Global Thread Whirling Unit production by Application, production, value, CAGR, 2021-2032, (USD Million) & (Units)

This report profiles key players in the global Thread Whirling Unit market based on the following parameters - company overview, production, value, price, gross margin, product portfolio, geographical presence, and key developments. Key companies covered as a part of this study include WTO Werkzeug-Einrichtungen GmbH, heimatec GmbH, W&F Werkzeugtechnik GmbH, SUHNER Schweiz AG, PCM Precision Tooling SA, Madaula, S.A., M.T. S.r.l., KGT-EU S.r.l., ESA Eppinger GmbH, Alberti Umberto S.r.l., etc.

This report also provides key insights about market drivers, restraints, opportunities, new product launches or approvals.

Stakeholders would have ease in decision-making through various strategy matrices used in analyzing the World Thread Whirling Unit market

Detailed Segmentation:

Each section contains quantitative market data including market by value (US$ Millions), volume (production, consumption) & (Units) and average price (K US$/Unit) by manufacturer, by Type, and by Application. Data is given for the years 2021-2032 by year with 2025 as the base year, 2026 as the estimate year, and 2027-2032 as the forecast year.

Global Thread Whirling Unit Market, By Region:

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United States

China

Europe

Japan

South Korea

ASEAN

India

Rest of World

Market Segmentation

Global Thread Whirling Unit Market, Segmentation by Type:

External Thread Whirling Unit

Internal Thread Whirling Unit

Global Thread Whirling Unit Market, Segmentation by Helix-Angle Setting Method:

Fixed-Angle Thread Whirling Unit

Manually Adjustable-Angle Thread Whirling Unit

CNC-Programmable Helix-Angle Thread Whirling Unit

Global Thread Whirling Unit Market, Segmentation by Rated Maximum Output Speed:

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Thread Whirling Unit with Rated Maximum Output Speed Up to 6000 rpm

Thread Whirling Unit with Rated Maximum Output Speed Over 6000 rpm and Up to 12000 rpm

Thread Whirling Unit with Rated Maximum Output Speed Over 12000 rpm

Global Thread Whirling Unit Market, Segmentation by Application:

Medical Device Manufacturing

Automotive Component Manufacturing

Aerospace and Defense Component Manufacturing

Industrial Machinery Component Manufacturing

Energy Equipment Component Manufacturing

Electronics and Semiconductor Equipment Component Manufacturing

Precision Instrument and Watch Component Manufacturing

General Industrial Fastener Manufacturing

Companies Profiled:

WTO Werkzeug-Einrichtungen GmbH

heimatec GmbH

W&F Werkzeugtechnik GmbH

SUHNER Schweiz AG

PCM Precision Tooling SA

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Madaula, S.A.

M.T. S.r.l.

KGT-EU S.r.l.

ESA Eppinger GmbH

Alberti Umberto S.r.l.

Somma Tool Company, Inc.

STAR MICRONICS CO., LTD.

Changzhou Langjue Machinery Equipment Co., Ltd.

Changzhou Zerda Machinery Co., Ltd.

Sphoorti Machine Tools Pvt. Ltd.

Key Questions Answered:

1. How big is the global Thread Whirling Unit market?
2. What is the demand of the global Thread Whirling Unit market?
3. What is the year over year growth of the global Thread Whirling Unit market?
4. What is the production and production value of the global Thread Whirling Unit market?
5. Who are the key producers in the global Thread Whirling Unit market?
6. What are the growth factors driving the market demand?

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