

# Global Cold Cathode (Penning) Vacuum Gauge Supply, Demand and Key Producers, 2026-2032

<https://marketpublishers.com/r/G3D994C523C8EN.html>

Date: February 2026

Pages: 136

Price: US\$ 4,480.00 (Single User License)

ID: G3D994C523C8EN

## Abstracts

The global Cold Cathode (Penning) Vacuum Gauge market size is expected to reach \$ 445 million by 2032, rising at a market growth of 4.0% CAGR during the forecast period (2026-2032).

In 2025, global Cold Cathode (Penning) Vacuum Gauge production reached approximately 133 k units, with an average global market price of around US\$ 2400 per unit, and a gross profit margin of approximately 20%-40%. Cold Cathode (Penning) Vacuum Gauges are ionization vacuum measurement devices used for high and ultra-high vacuum ranges. They create a discharge between electrodes in a magnetic field, ionizing residual gas molecules without a heated filament. The resulting ion current correlates with pressure, enabling measurement typically from about  $10^{-7}$  to  $10^{-1}$  mbar depending on design. Because there is no hot filament, Penning gauges offer long life and better tolerance to oxygen and sudden pressure bursts compared with hot cathode gauges. They are widely used in semiconductor vacuum tools, coating systems, accelerators, vacuum furnaces, and research chambers. Key requirements include stable ignition, low drift, contamination resistance, and compatibility with controllers and vacuum fittings.

The industrial chain of Cold Cathode (Penning) Vacuum Gauges includes upstream components such as stainless steel housings, ceramic insulators, permanent magnets, electrodes, seals (O-rings/metal gaskets), high-voltage power modules, signal conditioning electronics, connectors, and vacuum flanges. Midstream manufacturing covers precision machining, ceramic-to-metal sealing, electrode assembly, magnet alignment, leak testing, calibration, and burn-in. Downstream users include semiconductor equipment OEMs, vacuum system integrators, coating and heat-treatment plants, research labs, and industrial vacuum maintenance providers. Services

include calibration, controller integration, spare parts supply, and technical support.

This report studies the global Cold Cathode (Penning) Vacuum Gauge production, demand, key manufacturers, and key regions.

This report is a detailed and comprehensive analysis of the world market for Cold Cathode (Penning) Vacuum Gauge 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 Cold Cathode (Penning) Vacuum Gauge that contribute to its increasing demand across many markets.

### **Highlights and key features of the study**

Global Cold Cathode (Penning) Vacuum Gauge total production and demand, 2021-2032, (K Units)

Global Cold Cathode (Penning) Vacuum Gauge total production value, 2021-2032, (USD Million)

Global Cold Cathode (Penning) Vacuum Gauge production by region & country, production, value, CAGR, 2021-2032, (USD Million) & (K Units), (based on production site)

Global Cold Cathode (Penning) Vacuum Gauge consumption by region & country, CAGR, 2021-2032 & (K Units)

U.S. VS China: Cold Cathode (Penning) Vacuum Gauge domestic production, consumption, key domestic manufacturers and share

Global Cold Cathode (Penning) Vacuum Gauge production by manufacturer, production, price, value and market share 2021-2026, (USD Million) & (K Units)

Global Cold Cathode (Penning) Vacuum Gauge production by Type, production, value, CAGR, 2021-2032, (USD Million) & (K Units)

Global Cold Cathode (Penning) Vacuum Gauge production by Application, production, value, CAGR, 2021-2032, (USD Million) & (K Units)

This report profiles key players in the global Cold Cathode (Penning) Vacuum Gauge 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 Leybold, Pfeiffer Vacuum, INFICON, MKS Instruments, Edwards Vacuum, Fredericks, ULVAC, KVC, JEOL, Ultrahivac, 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 Cold Cathode (Penning) Vacuum Gauge market

### **Detailed Segmentation:**

Each section contains quantitative market data including market by value (US\$ Millions), volume (production, consumption) & (K Units) and average price (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 Cold Cathode (Penning) Vacuum Gauge Market, By Region:

United States

China

Europe

Japan

South Korea

ASEAN

India

Rest of World

Global Cold Cathode (Penning) Vacuum Gauge Market, Segmentation by Type:

Analog Type

Digital Type

Others

## Global Cold Cathode (Penning) Vacuum Gauge Market, Segmentation by Working Principle:

Active Type

Passive Type

## Global Cold Cathode (Penning) Vacuum Gauge Market, Segmentation by Application:

Semiconductors

Scientific Research

Others

## Companies Profiled:

Leybold

Pfeiffer Vacuum

INFICON

MKS Instruments

Edwards Vacuum

Fredericks

ULVAC

KVC

JEOL

Ultrahivac

Thulir Vacuum Technologies

Thyracont Vacuum Instruments

HOMEYU

Aosong

GUOGUANG ELECTRIC

Chengdu Zhenghua Electronic Instrument

Shanghai Cixi Instruments

**Key Questions Answered:**

1. How big is the global Cold Cathode (Penning) Vacuum Gauge market?
2. What is the demand of the global Cold Cathode (Penning) Vacuum Gauge market?
3. What is the year over year growth of the global Cold Cathode (Penning) Vacuum Gauge market?
4. What is the production and production value of the global Cold Cathode (Penning) Vacuum Gauge market?
5. Who are the key producers in the global Cold Cathode (Penning) Vacuum Gauge market?
6. What are the growth factors driving the market demand?

## Contents

### 1 SUPPLY SUMMARY

- 1.1 CD Weld Stud Introduction
- 1.2 World CD Weld Stud Supply & Forecast
  - 1.2.1 World CD Weld Stud Production Value (2021 & 2025 & 2032)
  - 1.2.2 World CD Weld Stud Production (2021-2032)
  - 1.2.3 World CD Weld Stud Pricing Trends (2021-2032)
- 1.3 World CD Weld Stud Production by Region (Based on Production Site)
  - 1.3.1 World CD Weld Stud Production Value by Region (2021-2032)
  - 1.3.2 World CD Weld Stud Production by Region (2021-2032)
  - 1.3.3 World CD Weld Stud Average Price by Region (2021-2032)
  - 1.3.4 North America CD Weld Stud Production (2021-2032)
  - 1.3.5 Europe CD Weld Stud Production (2021-2032)
  - 1.3.6 China CD Weld Stud Production (2021-2032)
  - 1.3.7 Japan CD Weld Stud Production (2021-2032)
- 1.4 Market Drivers, Restraints and Trends
  - 1.4.1 CD Weld Stud Market Drivers
  - 1.4.2 Factors Affecting Demand
  - 1.4.3 CD Weld Stud Major Market Trends

### 2 DEMAND SUMMARY

- 2.1 World CD Weld Stud Demand (2021-2032)
- 2.2 World CD Weld Stud Consumption by Region
  - 2.2.1 World CD Weld Stud Consumption by Region (2021-2026)
  - 2.2.2 World CD Weld Stud Consumption Forecast by Region (2027-2032)
- 2.3 United States CD Weld Stud Consumption (2021-2032)
- 2.4 China CD Weld Stud Consumption (2021-2032)
- 2.5 Europe CD Weld Stud Consumption (2021-2032)
- 2.6 Japan CD Weld Stud Consumption (2021-2032)
- 2.7 South Korea CD Weld Stud Consumption (2021-2032)
- 2.8 ASEAN CD Weld Stud Consumption (2021-2032)
- 2.9 India CD Weld Stud Consumption (2021-2032)

### 3 WORLD MANUFACTURERS COMPETITIVE ANALYSIS

- 3.1 World CD Weld Stud Production Value by Manufacturer (2021-2026)

- 3.2 World CD Weld Stud Production by Manufacturer (2021-2026)
- 3.3 World CD Weld Stud Average Price by Manufacturer (2021-2026)
- 3.4 CD Weld Stud Company Evaluation Quadrant
- 3.5 Industry Rank and Concentration Rate (CR)
  - 3.5.1 Global CD Weld Stud Industry Rank of Major Manufacturers
  - 3.5.2 Global Concentration Ratios (CR4) for CD Weld Stud in 2025
  - 3.5.3 Global Concentration Ratios (CR8) for CD Weld Stud in 2025
- 3.6 CD Weld Stud Market: Overall Company Footprint Analysis
  - 3.6.1 CD Weld Stud Market: Region Footprint
  - 3.6.2 CD Weld Stud Market: Company Product Type Footprint
  - 3.6.3 CD Weld Stud Market: Company Product Application Footprint
- 3.7 Competitive Environment
  - 3.7.1 Historical Structure of the Industry
  - 3.7.2 Barriers of Market Entry
  - 3.7.3 Factors of Competition
- 3.8 New Entrant and Capacity Expansion Plans
- 3.9 Mergers, Acquisition, Agreements, and Collaborations

## **4 UNITED STATES VS CHINA VS REST OF THE WORLD**

- 4.1 United States VS China: CD Weld Stud Production Value Comparison
  - 4.1.1 United States VS China: CD Weld Stud Production Value Comparison (2021 & 2025 & 2032)
  - 4.1.2 United States VS China: CD Weld Stud Production Value Market Share Comparison (2021 & 2025 & 2032)
- 4.2 United States VS China: CD Weld Stud Production Comparison
  - 4.2.1 United States VS China: CD Weld Stud Production Comparison (2021 & 2025 & 2032)
  - 4.2.2 United States VS China: CD Weld Stud Production Market Share Comparison (2021 & 2025 & 2032)
- 4.3 United States VS China: CD Weld Stud Consumption Comparison
  - 4.3.1 United States VS China: CD Weld Stud Consumption Comparison (2021 & 2025 & 2032)
  - 4.3.2 United States VS China: CD Weld Stud Consumption Market Share Comparison (2021 & 2025 & 2032)
- 4.4 United States Based CD Weld Stud Manufacturers and Market Share, 2021-2026
  - 4.4.1 United States Based CD Weld Stud Manufacturers, Headquarters and Production Site (States, Country)
  - 4.4.2 United States Based Manufacturers CD Weld Stud Production Value

(2021-2026)

4.4.3 United States Based Manufacturers CD Weld Stud Production (2021-2026)

4.5 China Based CD Weld Stud Manufacturers and Market Share

4.5.1 China Based CD Weld Stud Manufacturers, Headquarters and Production Site (Province, Country)

4.5.2 China Based Manufacturers CD Weld Stud Production Value (2021-2026)

4.5.3 China Based Manufacturers CD Weld Stud Production (2021-2026)

4.6 Rest of World Based CD Weld Stud Manufacturers and Market Share, 2021-2026

4.6.1 Rest of World Based CD Weld Stud Manufacturers, Headquarters and Production Site (State, Country)

4.6.2 Rest of World Based Manufacturers CD Weld Stud Production Value (2021-2026)

4.6.3 Rest of World Based Manufacturers CD Weld Stud Production (2021-2026)

## **5 MARKET ANALYSIS BY TYPE**

5.1 World CD Weld Stud Market Size Overview by Type: 2021 VS 2025 VS 2032

5.2 Segment Introduction by Type

5.2.1 Flanged CD Weld Stud

5.2.2 Non-Flanged CD Weld Stud

5.3 Market Segment by Type

5.3.1 World CD Weld Stud Production by Type (2021-2032)

5.3.2 World CD Weld Stud Production Value by Type (2021-2032)

5.3.3 World CD Weld Stud Average Price by Type (2021-2032)

## **6 MARKET ANALYSIS BY MATERIAL**

6.1 World CD Weld Stud Market Size Overview by Material: 2021 VS 2025 VS 2032

6.2 Segment Introduction by Material

6.2.1 Low Carbon Steel

6.2.2 Stainless Steel

6.2.3 Others

6.3 Market Segment by Material

6.3.1 World CD Weld Stud Production by Material (2021-2032)

6.3.2 World CD Weld Stud Production Value by Material (2021-2032)

6.3.3 World CD Weld Stud Average Price by Material (2021-2032)

## **7 MARKET ANALYSIS BY APPLICATION**

## 7.1 World CD Weld Stud Market Size Overview by Application: 2021 VS 2025 VS 2032

### 7.2 Segment Introduction by Application

#### 7.2.1 Automotive

#### 7.2.2 Aerospace

#### 7.2.3 Electronic Equipment

#### 7.2.4 Others

### 7.3 Market Segment by Application

#### 7.3.1 World CD Weld Stud Production by Application (2021-2032)

#### 7.3.2 World CD Weld Stud Production Value by Application (2021-2032)

#### 7.3.3 World CD Weld Stud Average Price by Application (2021-2032)

## 8 COMPANY PROFILES

### 8.1 Tru-Weld Stud Welding

#### 8.1.1 Tru-Weld Stud Welding Details

#### 8.1.2 Tru-Weld Stud Welding Major Business

#### 8.1.3 Tru-Weld Stud Welding CD Weld Stud Product and Services

#### 8.1.4 Tru-Weld Stud Welding CD Weld Stud Production, Price, Value, Gross Margin and Market Share (2021-2026)

#### 8.1.5 Tru-Weld Stud Welding Recent Developments/Updates

#### 8.1.6 Tru-Weld Stud Welding Competitive Strengths & Weaknesses

### 8.2 HBS Stud Weldings

#### 8.2.1 HBS Stud Weldings Details

#### 8.2.2 HBS Stud Weldings Major Business

#### 8.2.3 HBS Stud Weldings CD Weld Stud Product and Services

#### 8.2.4 HBS Stud Weldings CD Weld Stud Production, Price, Value, Gross Margin and Market Share (2021-2026)

#### 8.2.5 HBS Stud Weldings Recent Developments/Updates

#### 8.2.6 HBS Stud Weldings Competitive Strengths & Weaknesses

### 8.3 Northern Precision

#### 8.3.1 Northern Precision Details

#### 8.3.2 Northern Precision Major Business

#### 8.3.3 Northern Precision CD Weld Stud Product and Services

#### 8.3.4 Northern Precision CD Weld Stud Production, Price, Value, Gross Margin and Market Share (2021-2026)

#### 8.3.5 Northern Precision Recent Developments/Updates

#### 8.3.6 Northern Precision Competitive Strengths & Weaknesses

### 8.4 Midwest Fasteners

#### 8.4.1 Midwest Fasteners Details

- 8.4.2 Midwest Fasteners Major Business
- 8.4.3 Midwest Fasteners CD Weld Stud Product and Services
- 8.4.4 Midwest Fasteners CD Weld Stud Production, Price, Value, Gross Margin and Market Share (2021-2026)
- 8.4.5 Midwest Fasteners Recent Developments/Updates
- 8.4.6 Midwest Fasteners Competitive Strengths & Weaknesses
- 8.5 STANLEY Engineered Fastening
  - 8.5.1 STANLEY Engineered Fastening Details
  - 8.5.2 STANLEY Engineered Fastening Major Business
  - 8.5.3 STANLEY Engineered Fastening CD Weld Stud Product and Services
  - 8.5.4 STANLEY Engineered Fastening CD Weld Stud Production, Price, Value, Gross Margin and Market Share (2021-2026)
  - 8.5.5 STANLEY Engineered Fastening Recent Developments/Updates
  - 8.5.6 STANLEY Engineered Fastening Competitive Strengths & Weaknesses
- 8.6 Keystone Fastening Technologies
  - 8.6.1 Keystone Fastening Technologies Details
  - 8.6.2 Keystone Fastening Technologies Major Business
  - 8.6.3 Keystone Fastening Technologies CD Weld Stud Product and Services
  - 8.6.4 Keystone Fastening Technologies CD Weld Stud Production, Price, Value, Gross Margin and Market Share (2021-2026)
  - 8.6.5 Keystone Fastening Technologies Recent Developments/Updates
  - 8.6.6 Keystone Fastening Technologies Competitive Strengths & Weaknesses
- 8.7 Delta Stud Weld
  - 8.7.1 Delta Stud Weld Details
  - 8.7.2 Delta Stud Weld Major Business
  - 8.7.3 Delta Stud Weld CD Weld Stud Product and Services
  - 8.7.4 Delta Stud Weld CD Weld Stud Production, Price, Value, Gross Margin and Market Share (2021-2026)
  - 8.7.5 Delta Stud Weld Recent Developments/Updates
  - 8.7.6 Delta Stud Weld Competitive Strengths & Weaknesses
- 8.8 Southern Stud Weld
  - 8.8.1 Southern Stud Weld Details
  - 8.8.2 Southern Stud Weld Major Business
  - 8.8.3 Southern Stud Weld CD Weld Stud Product and Services
  - 8.8.4 Southern Stud Weld CD Weld Stud Production, Price, Value, Gross Margin and Market Share (2021-2026)
  - 8.8.5 Southern Stud Weld Recent Developments/Updates
  - 8.8.6 Southern Stud Weld Competitive Strengths & Weaknesses
- 8.9 Sunbelt Stud Welding

- 8.9.1 Sunbelt Stud Welding Details
- 8.9.2 Sunbelt Stud Welding Major Business
- 8.9.3 Sunbelt Stud Welding CD Weld Stud Product and Services
- 8.9.4 Sunbelt Stud Welding CD Weld Stud Production, Price, Value, Gross Margin and Market Share (2021-2026)
- 8.9.5 Sunbelt Stud Welding Recent Developments/Updates
- 8.9.6 Sunbelt Stud Welding Competitive Strengths & Weaknesses
- 8.10 Fastener Industries
  - 8.10.1 Fastener Industries Details
  - 8.10.2 Fastener Industries Major Business
  - 8.10.3 Fastener Industries CD Weld Stud Product and Services
  - 8.10.4 Fastener Industries CD Weld Stud Production, Price, Value, Gross Margin and Market Share (2021-2026)
  - 8.10.5 Fastener Industries Recent Developments/Updates
  - 8.10.6 Fastener Industries Competitive Strengths & Weaknesses
- 8.11 IKING Group
  - 8.11.1 IKING Group Details
  - 8.11.2 IKING Group Major Business
  - 8.11.3 IKING Group CD Weld Stud Product and Services
  - 8.11.4 IKING Group CD Weld Stud Production, Price, Value, Gross Margin and Market Share (2021-2026)
  - 8.11.5 IKING Group Recent Developments/Updates
  - 8.11.6 IKING Group Competitive Strengths & Weaknesses
- 8.12 Image Industries
  - 8.12.1 Image Industries Details
  - 8.12.2 Image Industries Major Business
  - 8.12.3 Image Industries CD Weld Stud Product and Services
  - 8.12.4 Image Industries CD Weld Stud Production, Price, Value, Gross Margin and Market Share (2021-2026)
  - 8.12.5 Image Industries Recent Developments/Updates
  - 8.12.6 Image Industries Competitive Strengths & Weaknesses
- 8.13 Bolte GmbH
  - 8.13.1 Bolte GmbH Details
  - 8.13.2 Bolte GmbH Major Business
  - 8.13.3 Bolte GmbH CD Weld Stud Product and Services
  - 8.13.4 Bolte GmbH CD Weld Stud Production, Price, Value, Gross Margin and Market Share (2021-2026)
  - 8.13.5 Bolte GmbH Recent Developments/Updates
  - 8.13.6 Bolte GmbH Competitive Strengths & Weaknesses

## 8.14 Heinz Soyer

8.14.1 Heinz Soyer Details

8.14.2 Heinz Soyer Major Business

8.14.3 Heinz Soyer CD Weld Stud Product and Services

8.14.4 Heinz Soyer CD Weld Stud Production, Price, Value, Gross Margin and Market Share (2021-2026)

8.14.5 Heinz Soyer Recent Developments/Updates

8.14.6 Heinz Soyer Competitive Strengths & Weaknesses

## 8.15 Cox Industries

8.15.1 Cox Industries Details

8.15.2 Cox Industries Major Business

8.15.3 Cox Industries CD Weld Stud Product and Services

8.15.4 Cox Industries CD Weld Stud Production, Price, Value, Gross Margin and Market Share (2021-2026)

8.15.5 Cox Industries Recent Developments/Updates

8.15.6 Cox Industries Competitive Strengths & Weaknesses

## 8.16 Leankco

8.16.1 Leankco Details

8.16.2 Leankco Major Business

8.16.3 Leankco CD Weld Stud Product and Services

8.16.4 Leankco CD Weld Stud Production, Price, Value, Gross Margin and Market Share (2021-2026)

8.16.5 Leankco Recent Developments/Updates

8.16.6 Leankco Competitive Strengths & Weaknesses

## 8.17 Acube Fasteners

8.17.1 Acube Fasteners Details

8.17.2 Acube Fasteners Major Business

8.17.3 Acube Fasteners CD Weld Stud Product and Services

8.17.4 Acube Fasteners CD Weld Stud Production, Price, Value, Gross Margin and Market Share (2021-2026)

8.17.5 Acube Fasteners Recent Developments/Updates

8.17.6 Acube Fasteners Competitive Strengths & Weaknesses

## 9 INDUSTRY CHAIN ANALYSIS

### 9.1 CD Weld Stud Industry Chain

### 9.2 CD Weld Stud Upstream Analysis

9.2.1 CD Weld Stud Core Raw Materials

9.2.2 Main Manufacturers of CD Weld Stud Core Raw Materials

9.3 Midstream Analysis

9.4 Downstream Analysis

9.5 CD Weld Stud Production Mode

9.6 CD Weld Stud Procurement Model

9.7 CD Weld Stud Industry Sales Model and Sales Channels

9.7.1 CD Weld Stud Sales Model

9.7.2 CD Weld Stud Typical Distributors

## **10 RESEARCH FINDINGS AND CONCLUSION**

## **11 APPENDIX**

11.1 Methodology

11.2 Research Process and Data Source

11.3 Disclaimer

## List Of Tables

### LIST OF TABLES

Table 1. World Cold Cathode (Penning) Vacuum Gauge Production Value by Region (2021, 2025 and 2032) & (USD Million)

Table 2. World Cold Cathode (Penning) Vacuum Gauge Production Value by Region (2021-2026) & (USD Million)

Table 3. World Cold Cathode (Penning) Vacuum Gauge Production Value by Region (2027-2032) & (USD Million)

Table 4. World Cold Cathode (Penning) Vacuum Gauge Production Value Market Share by Region (2021-2026)

Table 5. World Cold Cathode (Penning) Vacuum Gauge Production Value Market Share by Region (2027-2032)

Table 6. World Cold Cathode (Penning) Vacuum Gauge Production by Region (2021-2026) & (K Units)

Table 7. World Cold Cathode (Penning) Vacuum Gauge Production by Region (2027-2032) & (K Units)

Table 8. World Cold Cathode (Penning) Vacuum Gauge Production Market Share by Region (2021-2026)

Table 9. World Cold Cathode (Penning) Vacuum Gauge Production Market Share by Region (2027-2032)

Table 10. World Cold Cathode (Penning) Vacuum Gauge Average Price by Region (2021-2026) & (US\$/Unit)

Table 11. World Cold Cathode (Penning) Vacuum Gauge Average Price by Region (2027-2032) & (US\$/Unit)

Table 12. Cold Cathode (Penning) Vacuum Gauge Major Market Trends

Table 13. World Cold Cathode (Penning) Vacuum Gauge Consumption Growth Rate Forecast by Region (2021 & 2025 & 2032) & (K Units)

Table 14. World Cold Cathode (Penning) Vacuum Gauge Consumption by Region (2021-2026) & (K Units)

Table 15. World Cold Cathode (Penning) Vacuum Gauge Consumption Forecast by Region (2027-2032) & (K Units)

Table 16. World Cold Cathode (Penning) Vacuum Gauge Production Value by Manufacturer (2021-2026) & (USD Million)

Table 17. Production Value Market Share of Key Cold Cathode (Penning) Vacuum Gauge Producers in 2025

Table 18. World Cold Cathode (Penning) Vacuum Gauge Production by Manufacturer (2021-2026) & (K Units)

Table 19. Production Market Share of Key Cold Cathode (Penning) Vacuum Gauge Producers in 2025

Table 20. World Cold Cathode (Penning) Vacuum Gauge Average Price by Manufacturer (2021-2026) & (US\$/Unit)

Table 21. Global Cold Cathode (Penning) Vacuum Gauge Company Evaluation Quadrant

Table 22. World Cold Cathode (Penning) Vacuum Gauge Industry Rank of Major Manufacturers, Based on Production Value in 2025

Table 23. Head Office and Cold Cathode (Penning) Vacuum Gauge Production Site of Key Manufacturer

Table 24. Cold Cathode (Penning) Vacuum Gauge Market: Company Product Type Footprint

Table 25. Cold Cathode (Penning) Vacuum Gauge Market: Company Product Application Footprint

Table 26. Cold Cathode (Penning) Vacuum Gauge Competitive Factors

Table 27. Cold Cathode (Penning) Vacuum Gauge New Entrant and Capacity Expansion Plans

Table 28. Cold Cathode (Penning) Vacuum Gauge Mergers & Acquisitions Activity

Table 29. United States VS China Cold Cathode (Penning) Vacuum Gauge Production Value Comparison, (2021 & 2025 & 2032) & (USD Million)

Table 30. United States VS China Cold Cathode (Penning) Vacuum Gauge Production Comparison, (2021 & 2025 & 2032) & (K Units)

Table 31. United States VS China Cold Cathode (Penning) Vacuum Gauge Consumption Comparison, (2021 & 2025 & 2032) & (K Units)

Table 32. United States Based Cold Cathode (Penning) Vacuum Gauge Manufacturers, Headquarters and Production Site (States, Country)

Table 33. United States Based Manufacturers Cold Cathode (Penning) Vacuum Gauge Production Value, (2021-2026) & (USD Million)

Table 34. United States Based Manufacturers Cold Cathode (Penning) Vacuum Gauge Production Value Market Share (2021-2026)

Table 35. United States Based Manufacturers Cold Cathode (Penning) Vacuum Gauge Production (2021-2026) & (K Units)

Table 36. United States Based Manufacturers Cold Cathode (Penning) Vacuum Gauge Production Market Share (2021-2026)

Table 37. China Based Cold Cathode (Penning) Vacuum Gauge Manufacturers, Headquarters and Production Site (Province, Country)

Table 38. China Based Manufacturers Cold Cathode (Penning) Vacuum Gauge Production Value, (2021-2026) & (USD Million)

Table 39. China Based Manufacturers Cold Cathode (Penning) Vacuum Gauge

Production Value Market Share (2021-2026)

Table 40. China Based Manufacturers Cold Cathode (Penning) Vacuum Gauge Production, (2021-2026) & (K Units)

Table 41. China Based Manufacturers Cold Cathode (Penning) Vacuum Gauge Production Market Share (2021-2026)

Table 42. Rest of World Based Cold Cathode (Penning) Vacuum Gauge Manufacturers, Headquarters and Production Site (State, Country)

Table 43. Rest of World Based Manufacturers Cold Cathode (Penning) Vacuum Gauge Production Value, (2021-2026) & (USD Million)

Table 44. Rest of World Based Manufacturers Cold Cathode (Penning) Vacuum Gauge Production Value Market Share (2021-2026)

Table 45. Rest of World Based Manufacturers Cold Cathode (Penning) Vacuum Gauge Production, (2021-2026) & (K Units)

Table 46. Rest of World Based Manufacturers Cold Cathode (Penning) Vacuum Gauge Production Market Share (2021-2026)

Table 47. World Cold Cathode (Penning) Vacuum Gauge Production Value by Type, (USD Million), 2021 & 2025 & 2032

Table 48. World Cold Cathode (Penning) Vacuum Gauge Production by Type (2021-2026) & (K Units)

Table 49. World Cold Cathode (Penning) Vacuum Gauge Production by Type (2027-2032) & (K Units)

Table 50. World Cold Cathode (Penning) Vacuum Gauge Production Value by Type (2021-2026) & (USD Million)

Table 51. World Cold Cathode (Penning) Vacuum Gauge Production Value by Type (2027-2032) & (USD Million)

Table 52. World Cold Cathode (Penning) Vacuum Gauge Average Price by Type (2021-2026) & (US\$/Unit)

Table 53. World Cold Cathode (Penning) Vacuum Gauge Average Price by Type (2027-2032) & (US\$/Unit)

Table 54. World Cold Cathode (Penning) Vacuum Gauge Production Value by Working Principle, (USD Million), 2021 & 2025 & 2032

Table 55. World Cold Cathode (Penning) Vacuum Gauge Production by Working Principle (2021-2026) & (K Units)

Table 56. World Cold Cathode (Penning) Vacuum Gauge Production by Working Principle (2027-2032) & (K Units)

Table 57. World Cold Cathode (Penning) Vacuum Gauge Production Value by Working Principle (2021-2026) & (USD Million)

Table 58. World Cold Cathode (Penning) Vacuum Gauge Production Value by Working Principle (2027-2032) & (USD Million)

Table 59. World Cold Cathode (Penning) Vacuum Gauge Average Price by Working Principle (2021-2026) & (US\$/Unit)

Table 60. World Cold Cathode (Penning) Vacuum Gauge Average Price by Working Principle (2027-2032) & (US\$/Unit)

Table 61. World Cold Cathode (Penning) Vacuum Gauge Production Value by Application, (USD Million), 2021 & 2025 & 2032

Table 62. World Cold Cathode (Penning) Vacuum Gauge Production by Application (2021-2026) & (K Units)

Table 63. World Cold Cathode (Penning) Vacuum Gauge Production by Application (2027-2032) & (K Units)

Table 64. World Cold Cathode (Penning) Vacuum Gauge Production Value by Application (2021-2026) & (USD Million)

Table 65. World Cold Cathode (Penning) Vacuum Gauge Production Value by Application (2027-2032) & (USD Million)

Table 66. World Cold Cathode (Penning) Vacuum Gauge Average Price by Application (2021-2026) & (US\$/Unit)

Table 67. World Cold Cathode (Penning) Vacuum Gauge Average Price by Application (2027-2032) & (US\$/Unit)

Table 68. Leybold Basic Information, Manufacturing Base and Competitors

Table 69. Leybold Major Business

Table 70. Leybold Cold Cathode (Penning) Vacuum Gauge Product and Services

Table 71. Leybold Cold Cathode (Penning) Vacuum Gauge Production (K Units), Price (US\$/Unit), Production Value (USD Million), Gross Margin and Market Share (2021-2026)

Table 72. Leybold Recent Developments/Updates

Table 73. Leybold Competitive Strengths & Weaknesses

Table 74. Pfeiffer Vacuum Basic Information, Manufacturing Base and Competitors

Table 75. Pfeiffer Vacuum Major Business

Table 76. Pfeiffer Vacuum Cold Cathode (Penning) Vacuum Gauge Product and Services

Table 77. Pfeiffer Vacuum Cold Cathode (Penning) Vacuum Gauge Production (K Units), Price (US\$/Unit), Production Value (USD Million), Gross Margin and Market Share (2021-2026)

Table 78. Pfeiffer Vacuum Recent Developments/Updates

Table 79. Pfeiffer Vacuum Competitive Strengths & Weaknesses

Table 80. INFICON Basic Information, Manufacturing Base and Competitors

Table 81. INFICON Major Business

Table 82. INFICON Cold Cathode (Penning) Vacuum Gauge Product and Services

Table 83. INFICON Cold Cathode (Penning) Vacuum Gauge Production (K Units), Price

(US\$/Unit), Production Value (USD Million), Gross Margin and Market Share (2021-2026)

Table 84. INFICON Recent Developments/Updates

Table 85. INFICON Competitive Strengths & Weaknesses

Table 86. MKS Instruments Basic Information, Manufacturing Base and Competitors

Table 87. MKS Instruments Major Business

Table 88. MKS Instruments Cold Cathode (Penning) Vacuum Gauge Product and Services

Table 89. MKS Instruments Cold Cathode (Penning) Vacuum Gauge Production (K Units), Price (US\$/Unit), Production Value (USD Million), Gross Margin and Market Share (2021-2026)

Table 90. MKS Instruments Recent Developments/Updates

Table 91. MKS Instruments Competitive Strengths & Weaknesses

Table 92. Edwards Vacuum Basic Information, Manufacturing Base and Competitors

Table 93. Edwards Vacuum Major Business

Table 94. Edwards Vacuum Cold Cathode (Penning) Vacuum Gauge Product and Services

Table 95. Edwards Vacuum Cold Cathode (Penning) Vacuum Gauge Production (K Units), Price (US\$/Unit), Production Value (USD Million), Gross Margin and Market Share (2021-2026)

Table 96. Edwards Vacuum Recent Developments/Updates

Table 97. Edwards Vacuum Competitive Strengths & Weaknesses

Table 98. Fredericks Basic Information, Manufacturing Base and Competitors

Table 99. Fredericks Major Business

Table 100. Fredericks Cold Cathode (Penning) Vacuum Gauge Product and Services

Table 101. Fredericks Cold Cathode (Penning) Vacuum Gauge Production (K Units), Price (US\$/Unit), Production Value (USD Million), Gross Margin and Market Share (2021-2026)

Table 102. Fredericks Recent Developments/Updates

Table 103. Fredericks Competitive Strengths & Weaknesses

Table 104. ULVAC Basic Information, Manufacturing Base and Competitors

Table 105. ULVAC Major Business

Table 106. ULVAC Cold Cathode (Penning) Vacuum Gauge Product and Services

Table 107. ULVAC Cold Cathode (Penning) Vacuum Gauge Production (K Units), Price (US\$/Unit), Production Value (USD Million), Gross Margin and Market Share (2021-2026)

Table 108. ULVAC Recent Developments/Updates

Table 109. ULVAC Competitive Strengths & Weaknesses

Table 110. KVC Basic Information, Manufacturing Base and Competitors

Table 111. KVC Major Business

Table 112. KVC Cold Cathode (Penning) Vacuum Gauge Product and Services

Table 113. KVC Cold Cathode (Penning) Vacuum Gauge Production (K Units), Price (US\$/Unit), Production Value (USD Million), Gross Margin and Market Share (2021-2026)

Table 114. KVC Recent Developments/Updates

Table 115. KVC Competitive Strengths & Weaknesses

Table 116. JEOL Basic Information, Manufacturing Base and Competitors

Table 117. JEOL Major Business

Table 118. JEOL Cold Cathode (Penning) Vacuum Gauge Product and Services

Table 119. JEOL Cold Cathode (Penning) Vacuum Gauge Production (K Units), Price (US\$/Unit), Production Value (USD Million), Gross Margin and Market Share (2021-2026)

Table 120. JEOL Recent Developments/Updates

Table 121. JEOL Competitive Strengths & Weaknesses

Table 122. Ultrahivac Basic Information, Manufacturing Base and Competitors

Table 123. Ultrahivac Major Business

Table 124. Ultrahivac Cold Cathode (Penning) Vacuum Gauge Product and Services

Table 125. Ultrahivac Cold Cathode (Penning) Vacuum Gauge Production (K Units), Price (US\$/Unit), Production Value (USD Million), Gross Margin and Market Share (2021-2026)

Table 126. Ultrahivac Recent Developments/Updates

Table 127. Ultrahivac Competitive Strengths & Weaknesses

Table 128. Thulir Vacuum Technologies Basic Information, Manufacturing Base and Competitors

Table 129. Thulir Vacuum Technologies Major Business

Table 130. Thulir Vacuum Technologies Cold Cathode (Penning) Vacuum Gauge Product and Services

Table 131. Thulir Vacuum Technologies Cold Cathode (Penning) Vacuum Gauge Production (K Units), Price (US\$/Unit), Production Value (USD Million), Gross Margin and Market Share (2021-2026)

Table 132. Thulir Vacuum Technologies Recent Developments/Updates

Table 133. Thulir Vacuum Technologies Competitive Strengths & Weaknesses

Table 134. Thyracont Vacuum Instruments Basic Information, Manufacturing Base and Competitors

Table 135. Thyracont Vacuum Instruments Major Business

Table 136. Thyracont Vacuum Instruments Cold Cathode (Penning) Vacuum Gauge Product and Services

Table 137. Thyracont Vacuum Instruments Cold Cathode (Penning) Vacuum Gauge

Production (K Units), Price (US\$/Unit), Production Value (USD Million), Gross Margin and Market Share (2021-2026)

Table 138. Thyracont Vacuum Instruments Recent Developments/Updates

Table 139. Thyracont Vacuum Instruments Competitive Strengths & Weaknesses

Table 140. HOMEYU Basic Information, Manufacturing Base and Competitors

Table 141. HOMEYU Major Business

Table 142. HOMEYU Cold Cathode (Penning) Vacuum Gauge Product and Services

Table 143. HOMEYU Cold Cathode (Penning) Vacuum Gauge Production (K Units), Price (US\$/Unit), Production Value (USD Million), Gross Margin and Market Share (2021-2026)

Table 144. HOMEYU Recent Developments/Updates

Table 145. HOMEYU Competitive Strengths & Weaknesses

Table 146. Aosong Basic Information, Manufacturing Base and Competitors

Table 147. Aosong Major Business

Table 148. Aosong Cold Cathode (Penning) Vacuum Gauge Product and Services

Table 149. Aosong Cold Cathode (Penning) Vacuum Gauge Production (K Units), Price (US\$/Unit), Production Value (USD Million), Gross Margin and Market Share (2021-2026)

Table 150. Aosong Recent Developments/Updates

Table 151. Aosong Competitive Strengths & Weaknesses

Table 152. GUOQUANG ELECTRIC Basic Information, Manufacturing Base and Competitors

Table 153. GUOQUANG ELECTRIC Major Business

Table 154. GUOQUANG ELECTRIC Cold Cathode (Penning) Vacuum Gauge Product and Services

Table 155. GUOQUANG ELECTRIC Cold Cathode (Penning) Vacuum Gauge Production (K Units), Price (US\$/Unit), Production Value (USD Million), Gross Margin and Market Share (2021-2026)

Table 156. GUOQUANG ELECTRIC Recent Developments/Updates

Table 157. GUOQUANG ELECTRIC Competitive Strengths & Weaknesses

Table 158. Chengdu Zhenghua Electronic Instrument Basic Information, Manufacturing Base and Competitors

Table 159. Chengdu Zhenghua Electronic Instrument Major Business

Table 160. Chengdu Zhenghua Electronic Instrument Cold Cathode (Penning) Vacuum Gauge Product and Services

Table 161. Chengdu Zhenghua Electronic Instrument Cold Cathode (Penning) Vacuum Gauge Production (K Units), Price (US\$/Unit), Production Value (USD Million), Gross Margin and Market Share (2021-2026)

Table 162. Chengdu Zhenghua Electronic Instrument Recent Developments/Updates

Table 163. Chengdu Zhenghua Electronic Instrument Competitive Strengths & Weaknesses

Table 164. Shanghai Cixi Instruments Basic Information, Manufacturing Base and Competitors

Table 165. Shanghai Cixi Instruments Major Business

Table 166. Shanghai Cixi Instruments Cold Cathode (Penning) Vacuum Gauge Product and Services

Table 167. Shanghai Cixi Instruments Cold Cathode (Penning) Vacuum Gauge Production (K Units), Price (US\$/Unit), Production Value (USD Million), Gross Margin and Market Share (2021-2026)

Table 168. Shanghai Cixi Instruments Recent Developments/Updates

Table 169. Shanghai Cixi Instruments Competitive Strengths & Weaknesses

Table 170. Global Key Players of Cold Cathode (Penning) Vacuum Gauge Upstream (Raw Materials)

Table 171. Global Cold Cathode (Penning) Vacuum Gauge Typical Customers

Table 172. Cold Cathode (Penning) Vacuum Gauge Typical Distributors

## List Of Figures

### LIST OF FIGURES

Figure 1. Cold Cathode (Penning) Vacuum Gauge Picture

Figure 2. World Cold Cathode (Penning) Vacuum Gauge Production Value: 2021 & 2025 & 2032, (USD Million)

Figure 3. World Cold Cathode (Penning) Vacuum Gauge Production Value and Forecast (2021-2032) & (USD Million)

Figure 4. World Cold Cathode (Penning) Vacuum Gauge Production (2021-2032) & (K Units)

Figure 5. World Cold Cathode (Penning) Vacuum Gauge Average Price (2021-2032) & (US\$/Unit)

Figure 6. World Cold Cathode (Penning) Vacuum Gauge Production Value Market Share by Region (2021-2032)

Figure 7. World Cold Cathode (Penning) Vacuum Gauge Production Market Share by Region (2021-2032)

Figure 8. North America Cold Cathode (Penning) Vacuum Gauge Production (2021-2032) & (K Units)

Figure 9. Europe Cold Cathode (Penning) Vacuum Gauge Production (2021-2032) & (K Units)

Figure 10. China Cold Cathode (Penning) Vacuum Gauge Production (2021-2032) & (K Units)

Figure 11. Japan Cold Cathode (Penning) Vacuum Gauge Production (2021-2032) & (K Units)

Figure 12. Cold Cathode (Penning) Vacuum Gauge Market Drivers

Figure 13. Factors Affecting Demand

Figure 14. World Cold Cathode (Penning) Vacuum Gauge Consumption (2021-2032) & (K Units)

Figure 15. World Cold Cathode (Penning) Vacuum Gauge Consumption Market Share by Region (2021-2032)

Figure 16. United States Cold Cathode (Penning) Vacuum Gauge Consumption (2021-2032) & (K Units)

Figure 17. China Cold Cathode (Penning) Vacuum Gauge Consumption (2021-2032) & (K Units)

Figure 18. Europe Cold Cathode (Penning) Vacuum Gauge Consumption (2021-2032) & (K Units)

Figure 19. Japan Cold Cathode (Penning) Vacuum Gauge Consumption (2021-2032) & (K Units)

Figure 20. South Korea Cold Cathode (Penning) Vacuum Gauge Consumption (2021-2032) & (K Units)

Figure 21. ASEAN Cold Cathode (Penning) Vacuum Gauge Consumption (2021-2032) & (K Units)

Figure 22. India Cold Cathode (Penning) Vacuum Gauge Consumption (2021-2032) & (K Units)

Figure 23. Producer Shipments of Cold Cathode (Penning) Vacuum Gauge by Manufacturer Revenue (\$MM) and Market Share (%): 2025

Figure 24. Global Four-firm Concentration Ratios (CR4) for Cold Cathode (Penning) Vacuum Gauge Markets in 2025

Figure 25. Global Four-firm Concentration Ratios (CR8) for Cold Cathode (Penning) Vacuum Gauge Markets in 2025

Figure 26. United States VS China: Cold Cathode (Penning) Vacuum Gauge Production Value Market Share Comparison (2021 & 2025 & 2032)

Figure 27. United States VS China: Cold Cathode (Penning) Vacuum Gauge Production Market Share Comparison (2021 & 2025 & 2032)

Figure 28. United States VS China: Cold Cathode (Penning) Vacuum Gauge Consumption Market Share Comparison (2021 & 2025 & 2032)

Figure 29. United States Based Manufacturers Cold Cathode (Penning) Vacuum Gauge Production Market Share 2025

Figure 30. China Based Manufacturers Cold Cathode (Penning) Vacuum Gauge Production Market Share 2025

Figure 31. Rest of World Based Manufacturers Cold Cathode (Penning) Vacuum Gauge Production Market Share 2025

Figure 32. World Cold Cathode (Penning) Vacuum Gauge Production Value by Type, (USD Million), 2021 & 2025 & 2032

Figure 33. World Cold Cathode (Penning) Vacuum Gauge Production Value Market Share by Type in 2025

Figure 34. Analog Type

Figure 35. Digital Type

Figure 36. Others

Figure 37. World Cold Cathode (Penning) Vacuum Gauge Production Market Share by Type (2021-2032)

Figure 38. World Cold Cathode (Penning) Vacuum Gauge Production Value Market Share by Type (2021-2032)

Figure 39. World Cold Cathode (Penning) Vacuum Gauge Average Price by Type (2021-2032) & (US\$/Unit)

Figure 40. World Cold Cathode (Penning) Vacuum Gauge Production Value by Working Principle, (USD Million), 2021 & 2025 & 2032

Figure 41. World Cold Cathode (Penning) Vacuum Gauge Production Value Market Share by Working Principle in 2025

Figure 42. Active Type

Figure 43. Passive Type

Figure 44. World Cold Cathode (Penning) Vacuum Gauge Production Market Share by Working Principle (2021-2032)

Figure 45. World Cold Cathode (Penning) Vacuum Gauge Production Value Market Share by Working Principle (2021-2032)

Figure 46. World Cold Cathode (Penning) Vacuum Gauge Average Price by Working Principle (2021-2032) & (US\$/Unit)

Figure 47. World Cold Cathode (Penning) Vacuum Gauge Production Value by Application, (USD Million), 2021 & 2025 & 2032

Figure 48. World Cold Cathode (Penning) Vacuum Gauge Production Value Market Share by Application in 2025

Figure 49. Semiconductors

Figure 50. Scientific Research

Figure 51. Others

Figure 52. World Cold Cathode (Penning) Vacuum Gauge Production Market Share by Application (2021-2032)

Figure 53. World Cold Cathode (Penning) Vacuum Gauge Production Value Market Share by Application (2021-2032)

Figure 54. World Cold Cathode (Penning) Vacuum Gauge Average Price by Application (2021-2032) & (US\$/Unit)

Figure 55. Cold Cathode (Penning) Vacuum Gauge Industry Chain

Figure 56. Cold Cathode (Penning) Vacuum Gauge Procurement Model

Figure 57. Cold Cathode (Penning) Vacuum Gauge Sales Model

Figure 58. Cold Cathode (Penning) Vacuum Gauge Sales Channels, Direct Sales, and Distribution

Figure 59. Methodology

Figure 60. Research Process and Data Source

## I would like to order

Product name: Global Cold Cathode (Penning) Vacuum Gauge Supply, Demand and Key Producers, 2026-2032

Product link: <https://marketpublishers.com/r/G3D994C523C8EN.html>

Price: US\$ 4,480.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

[info@marketpublishers.com](mailto:info@marketpublishers.com)

## Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/G3D994C523C8EN.html>