

Global R290 Explosion-proof Refrigerant Charging Equipment Supply, Demand and Key Producers, 2026-2032

<https://marketpublishers.com/r/G290465EC741EN.html>

Date: July 2026

Pages: 125

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

ID: G290465EC741EN

Abstracts

The global R290 Explosion-proof Refrigerant Charging Equipment market size is expected to reach \$ 202 million by 2032, rising at a market growth of 8.4% CAGR during the forecast period (2026-2032).

R290 explosion proof refrigerant charging equipment is specialized industrial equipment used in production lines for air conditioners, heat pumps, refrigerators, freezers and commercial refrigeration equipment. It is designed for R290 propane and other A3 highly flammable refrigerants to complete safe and accurate refrigerant charging during manufacturing. Main product forms include standalone explosion proof refrigerant charging machines, vacuum and charging integrated units, multi station automatic metering and charging stations, explosion proof refrigerant supply skid modules, flammable gas detection and interlock safety units, and line integrated explosion proof charging systems. The standard process integrates multi stage evacuation, pressure holding and leak testing, gravimetric or mass flow metering, accurate refrigerant transfer, residual gas recovery, forced workstation ventilation and purge, explosion proof electrical isolation, and full process safety interlock control. Key technical specifications include charging accuracy, charging rate, compatible refrigerant types, equipment explosion protection rating, flammable gas leak alarm threshold, ultimate vacuum level, production line cycle time, automation communication interface, and safety interlock shutdown response time. The core value of the equipment is to enable high precision, fully traceable and low explosion risk charging of flammable refrigerants under the transition toward low GWP refrigerants, and it is widely used in production lines for residential air conditioners, air source heat pumps, supermarket display cabinets and various commercial refrigeration equipment. In 2025, global shipments of R290 explosion proof refrigerant charging equipment were approximately 3,450 units,

the industry average selling price was about USD 31,000 per unit, and the industry average gross margin was about 38%.

R290 explosion proof refrigerant charging equipment is essentially a manufacturing safety upgrade driven by the transition toward low GWP refrigerants. The upstream supply chain consists of explosion proof electrical components, vacuum pumps, metering devices, weighing modules, valves, gas sensors, PLC control units and safety interlock components. The midstream includes equipment manufacturers and production line integrators, while downstream demand comes mainly from producers of air conditioners, heat pumps, refrigerators, freezers and commercial refrigeration equipment. Because R290 has a very low climate impact but belongs to the A3 flammable refrigerant category, the charging process requires controlled ventilation, leak detection, electrical isolation and automatic shutdown logic. This makes the equipment a dedicated safety and process control system rather than a conventional refrigerant charging machine. The competitive landscape is led by suppliers with long experience in refrigeration production equipment, safety engineering and automated charging systems. European and North American companies remain stronger in high end projects that require explosion protection, advanced process control, traceability and compliance documentation. Chinese manufacturers are gaining relevance in local production line upgrades, cost sensitive projects and faster service response, but many still need stronger evidence in international certification, long term operating records and global customer validation. The industry is also affected by regional supply chain adjustment, including changes in ownership of established equipment assets and the gradual localization of manufacturing and service capabilities in major appliance production regions. Policy pressure and end market technology transition are the main growth drivers. The phase down of high GWP fluorinated refrigerants, wider use of natural refrigerants in commercial refrigeration, and continued investment in efficient heat pumps and cooling equipment are encouraging manufacturers to add flammable refrigerant charging capability. Future demand will be supported by commercial display cabinets, light commercial refrigeration, heat pump production and selected air conditioning applications. However, the market will remain shaped by safety standards, refrigerant charge limits, installation practices and competition from alternative refrigerant routes. Overall, the industry should be viewed as a growing but specialized equipment segment with solid technical barriers, steady replacement demand and moderate long term expansion potential.

This report studies the global R290 Explosion-proof Refrigerant Charging Equipment production, demand, key manufacturers, and key regions.

This report is a detailed and comprehensive analysis of the world market for R290 Explosion-proof Refrigerant Charging Equipment 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 R290 Explosion-proof Refrigerant Charging Equipment that contribute to its increasing demand across many markets.

Highlights and key features of the study

Global R290 Explosion-proof Refrigerant Charging Equipment total production and demand, 2021-2032, (Unit)

Global R290 Explosion-proof Refrigerant Charging Equipment total production value, 2021-2032, (USD Million)

Global R290 Explosion-proof Refrigerant Charging Equipment production by region & country, production, value, CAGR, 2021-2032, (USD Million) & (Unit), (based on production site)

Global R290 Explosion-proof Refrigerant Charging Equipment consumption by region & country, CAGR, 2021-2032 & (Unit)

U.S. VS China: R290 Explosion-proof Refrigerant Charging Equipment domestic production, consumption, key domestic manufacturers and share

Global R290 Explosion-proof Refrigerant Charging Equipment production by manufacturer, production, price, value and market share 2021-2026, (USD Million) & (Unit)

Global R290 Explosion-proof Refrigerant Charging Equipment production by Type, production, value, CAGR, 2021-2032, (USD Million) & (Unit)

Global R290 Explosion-proof Refrigerant Charging Equipment production by Application, production, value, CAGR, 2021-2032, (USD Million) & (Unit)

This report profiles key players in the global R290 Explosion-proof Refrigerant Charging Equipment 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 AGRAMKOW Fluid Systems A/S, Galileo TP Process Equipment S.r.l., FT S.r.l., VTech Process Equipment LLC, Marposs S.p.A., Shanghai Schenck Machinery Co., Ltd., Fives Group, Nanjing Wanfolai Precision Machinery Co., Ltd., Cixi City Senda Refrigeration Technology Co., Ltd., ULVAC, Inc., 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 R290 Explosion-proof Refrigerant Charging Equipment market

Detailed Segmentation:

Each section contains quantitative market data including market by value (US\$ Millions), volume (production, consumption) & (Unit) 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 R290 Explosion-proof Refrigerant Charging Equipment Market, By Region:

United States

China

Europe

Japan

South Korea

ASEAN

India

Rest of World

Global R290 Explosion-proof Refrigerant Charging Equipment Market, Segmentation by Type:

Standalone Explosion-proof Charging Machine

Automatic Charging Station

Refrigerant Supply and Metering Skid

Turnkey Explosion-proof Charging System

Others

Global R290 Explosion-proof Refrigerant Charging Equipment Market, Segmentation by Charging and Metering Method:

Gravimetric Charging

Mass Flow Metering Charging

Volumetric based Charging

Hybrid Metering Charging

Others

Global R290 Explosion-proof Refrigerant Charging Equipment Market, Segmentation by Safety Protection Configuration:

Basic Explosion-proof Configuration

Gas Detection and Interlock Configuration

Integrated Ventilation and Safety System

Others

Global R290 Explosion-proof Refrigerant Charging Equipment Market, Segmentation by Application:

Commercial Refrigeration Industry

Household Appliance Industry

Industrial and Specialty Cooling Industry

Others

Companies Profiled:

AGRAMKOW Fluid Systems A/S

Galileo TP Process Equipment S.r.l.

FT S.r.l.

VTech Process Equipment LLC

Marposs S.p.A.

Shanghai Schenck Machinery Co., Ltd.

Fives Group

Nanjing Wanfolai Precision Machinery Co., Ltd.

Cixi City Senda Refrigeration Technology Co., Ltd.

ULVAC, Inc.

Qingdao Ouruinuo Electronic Technology Co., Ltd.

SIQ Inc.

Key Questions Answered:

1. How big is the global R290 Explosion-proof Refrigerant Charging Equipment market?
2. What is the demand of the global R290 Explosion-proof Refrigerant Charging Equipment market?
3. What is the year over year growth of the global R290 Explosion-proof Refrigerant Charging Equipment market?
4. What is the production and production value of the global R290 Explosion-proof

Refrigerant Charging Equipment market?

5. Who are the key producers in the global R290 Explosion-proof Refrigerant Charging Equipment market?

6. What are the growth factors driving the market demand?

Contents

1 SUPPLY SUMMARY

- 1.1 R290 Explosion-proof Refrigerant Charging Equipment Introduction
- 1.2 World R290 Explosion-proof Refrigerant Charging Equipment Supply & Forecast
 - 1.2.1 World R290 Explosion-proof Refrigerant Charging Equipment Production Value (2021 & 2025 & 2032)
 - 1.2.2 World R290 Explosion-proof Refrigerant Charging Equipment Production (2021-2032)
 - 1.2.3 World R290 Explosion-proof Refrigerant Charging Equipment Pricing Trends (2021-2032)
- 1.3 World R290 Explosion-proof Refrigerant Charging Equipment Production by Region (Based on Production Site)
 - 1.3.1 World R290 Explosion-proof Refrigerant Charging Equipment Production Value by Region (2021-2032)
 - 1.3.2 World R290 Explosion-proof Refrigerant Charging Equipment Production by Region (2021-2032)
 - 1.3.3 World R290 Explosion-proof Refrigerant Charging Equipment Average Price by Region (2021-2032)
 - 1.3.4 North America R290 Explosion-proof Refrigerant Charging Equipment Production (2021-2032)
 - 1.3.5 Europe R290 Explosion-proof Refrigerant Charging Equipment Production (2021-2032)
 - 1.3.6 China R290 Explosion-proof Refrigerant Charging Equipment Production (2021-2032)
 - 1.3.7 Japan R290 Explosion-proof Refrigerant Charging Equipment Production (2021-2032)
- 1.4 Market Drivers, Restraints and Trends
 - 1.4.1 R290 Explosion-proof Refrigerant Charging Equipment Market Drivers
 - 1.4.2 Factors Affecting Demand
 - 1.4.3 R290 Explosion-proof Refrigerant Charging Equipment Major Market Trends

2 DEMAND SUMMARY

- 2.1 World R290 Explosion-proof Refrigerant Charging Equipment Demand (2021-2032)
- 2.2 World R290 Explosion-proof Refrigerant Charging Equipment Consumption by Region
 - 2.2.1 World R290 Explosion-proof Refrigerant Charging Equipment Consumption by

Region (2021-2026)

2.2.2 World R290 Explosion-proof Refrigerant Charging Equipment Consumption

Forecast by Region (2027-2032)

2.3 United States R290 Explosion-proof Refrigerant Charging Equipment Consumption (2021-2032)

2.4 China R290 Explosion-proof Refrigerant Charging Equipment Consumption (2021-2032)

2.5 Europe R290 Explosion-proof Refrigerant Charging Equipment Consumption (2021-2032)

2.6 Japan R290 Explosion-proof Refrigerant Charging Equipment Consumption (2021-2032)

2.7 South Korea R290 Explosion-proof Refrigerant Charging Equipment Consumption (2021-2032)

2.8 ASEAN R290 Explosion-proof Refrigerant Charging Equipment Consumption (2021-2032)

2.9 India R290 Explosion-proof Refrigerant Charging Equipment Consumption (2021-2032)

3 WORLD MANUFACTURERS COMPETITIVE ANALYSIS

3.1 World R290 Explosion-proof Refrigerant Charging Equipment Production Value by Manufacturer (2021-2026)

3.2 World R290 Explosion-proof Refrigerant Charging Equipment Production by Manufacturer (2021-2026)

3.3 World R290 Explosion-proof Refrigerant Charging Equipment Average Price by Manufacturer (2021-2026)

3.4 R290 Explosion-proof Refrigerant Charging Equipment Company Evaluation Quadrant

3.5 Industry Rank and Concentration Rate (CR)

3.5.1 Global R290 Explosion-proof Refrigerant Charging Equipment Industry Rank of Major Manufacturers

3.5.2 Global Concentration Ratios (CR4) for R290 Explosion-proof Refrigerant Charging Equipment in 2025

3.5.3 Global Concentration Ratios (CR8) for R290 Explosion-proof Refrigerant Charging Equipment in 2025

3.6 R290 Explosion-proof Refrigerant Charging Equipment Market: Overall Company Footprint Analysis

3.6.1 R290 Explosion-proof Refrigerant Charging Equipment Market: Region Footprint

3.6.2 R290 Explosion-proof Refrigerant Charging Equipment Market: Company

Product Type Footprint

3.6.3 R290 Explosion-proof Refrigerant Charging Equipment 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: R290 Explosion-proof Refrigerant Charging Equipment Production Value Comparison

4.1.1 United States VS China: R290 Explosion-proof Refrigerant Charging Equipment Production Value Comparison (2021 & 2025 & 2032)

4.1.2 United States VS China: R290 Explosion-proof Refrigerant Charging Equipment Production Value Market Share Comparison (2021 & 2025 & 2032)

4.2 United States VS China: R290 Explosion-proof Refrigerant Charging Equipment Production Comparison

4.2.1 United States VS China: R290 Explosion-proof Refrigerant Charging Equipment Production Comparison (2021 & 2025 & 2032)

4.2.2 United States VS China: R290 Explosion-proof Refrigerant Charging Equipment Production Market Share Comparison (2021 & 2025 & 2032)

4.3 United States VS China: R290 Explosion-proof Refrigerant Charging Equipment Consumption Comparison

4.3.1 United States VS China: R290 Explosion-proof Refrigerant Charging Equipment Consumption Comparison (2021 & 2025 & 2032)

4.3.2 United States VS China: R290 Explosion-proof Refrigerant Charging Equipment Consumption Market Share Comparison (2021 & 2025 & 2032)

4.4 United States Based R290 Explosion-proof Refrigerant Charging Equipment Manufacturers and Market Share, 2021-2026

4.4.1 United States Based R290 Explosion-proof Refrigerant Charging Equipment Manufacturers, Headquarters and Production Site (States, Country)

4.4.2 United States Based Manufacturers R290 Explosion-proof Refrigerant Charging Equipment Production Value (2021-2026)

4.4.3 United States Based Manufacturers R290 Explosion-proof Refrigerant Charging Equipment Production (2021-2026)

4.5 China Based R290 Explosion-proof Refrigerant Charging Equipment Manufacturers

and Market Share

4.5.1 China Based R290 Explosion-proof Refrigerant Charging Equipment Manufacturers, Headquarters and Production Site (Province, Country)

4.5.2 China Based Manufacturers R290 Explosion-proof Refrigerant Charging Equipment Production Value (2021-2026)

4.5.3 China Based Manufacturers R290 Explosion-proof Refrigerant Charging Equipment Production (2021-2026)

4.6 Rest of World Based R290 Explosion-proof Refrigerant Charging Equipment Manufacturers and Market Share, 2021-2026

4.6.1 Rest of World Based R290 Explosion-proof Refrigerant Charging Equipment Manufacturers, Headquarters and Production Site (State, Country)

4.6.2 Rest of World Based Manufacturers R290 Explosion-proof Refrigerant Charging Equipment Production Value (2021-2026)

4.6.3 Rest of World Based Manufacturers R290 Explosion-proof Refrigerant Charging Equipment Production (2021-2026)

5 MARKET ANALYSIS BY TYPE

5.1 World R290 Explosion-proof Refrigerant Charging Equipment Market Size Overview by Type: 2021 VS 2025 VS 2032

5.2 Segment Introduction by Type

5.2.1 Standalone Explosion-proof Charging Machine

5.2.2 Automatic Charging Station

5.2.3 Refrigerant Supply and Metering Skid

5.2.4 Turnkey Explosion-proof Charging System

5.2.5 Others

5.3 Market Segment by Type

5.3.1 World R290 Explosion-proof Refrigerant Charging Equipment Production by Type (2021-2032)

5.3.2 World R290 Explosion-proof Refrigerant Charging Equipment Production Value by Type (2021-2032)

5.3.3 World R290 Explosion-proof Refrigerant Charging Equipment Average Price by Type (2021-2032)

6 MARKET ANALYSIS BY CHARGING AND METERING METHOD

6.1 World R290 Explosion-proof Refrigerant Charging Equipment Market Size Overview by Charging and Metering Method: 2021 VS 2025 VS 2032

6.2 Segment Introduction by Charging and Metering Method

- 6.2.1 Gravimetric Charging
- 6.2.2 Mass Flow Metering Charging
- 6.2.3 Volumetric based Charging
- 6.2.4 Hybrid Metering Charging
- 6.2.5 Others
- 6.3 Market Segment by Charging and Metering Method
 - 6.3.1 World R290 Explosion-proof Refrigerant Charging Equipment Production by Charging and Metering Method (2021-2032)
 - 6.3.2 World R290 Explosion-proof Refrigerant Charging Equipment Production Value by Charging and Metering Method (2021-2032)
 - 6.3.3 World R290 Explosion-proof Refrigerant Charging Equipment Average Price by Charging and Metering Method (2021-2032)

7 MARKET ANALYSIS BY SAFETY PROTECTION CONFIGURATION

- 7.1 World R290 Explosion-proof Refrigerant Charging Equipment Market Size Overview by Safety Protection Configuration: 2021 VS 2025 VS 2032
- 7.2 Segment Introduction by Safety Protection Configuration
 - 7.2.1 Basic Explosion-proof Configuration
 - 7.2.2 Gas Detection and Interlock Configuration
 - 7.2.3 Integrated Ventilation and Safety System
 - 7.2.4 Others
- 7.3 Market Segment by Safety Protection Configuration
 - 7.3.1 World R290 Explosion-proof Refrigerant Charging Equipment Production by Safety Protection Configuration (2021-2032)
 - 7.3.2 World R290 Explosion-proof Refrigerant Charging Equipment Production Value by Safety Protection Configuration (2021-2032)
 - 7.3.3 World R290 Explosion-proof Refrigerant Charging Equipment Average Price by Safety Protection Configuration (2021-2032)

8 MARKET ANALYSIS BY APPLICATION

- 8.1 World R290 Explosion-proof Refrigerant Charging Equipment Market Size Overview by Application: 2021 VS 2025 VS 2032
- 8.2 Segment Introduction by Application
 - 8.2.1 Commercial Refrigeration Industry
 - 8.2.2 Household Appliance Industry
 - 8.2.3 Industrial and Specialty Cooling Industry
 - 8.2.4 Others

8.3 Market Segment by Application

8.3.1 World R290 Explosion-proof Refrigerant Charging Equipment Production by Application (2021-2032)

8.3.2 World R290 Explosion-proof Refrigerant Charging Equipment Production Value by Application (2021-2032)

8.3.3 World R290 Explosion-proof Refrigerant Charging Equipment Average Price by Application (2021-2032)

9 COMPANY PROFILES

9.1 AGRAMKOW Fluid Systems A/S

9.1.1 AGRAMKOW Fluid Systems A/S Details

9.1.2 AGRAMKOW Fluid Systems A/S Major Business

9.1.3 AGRAMKOW Fluid Systems A/S R290 Explosion-proof Refrigerant Charging Equipment Product and Services

9.1.4 AGRAMKOW Fluid Systems A/S R290 Explosion-proof Refrigerant Charging Equipment Production, Price, Value, Gross Margin and Market Share (2021-2026)

9.1.5 AGRAMKOW Fluid Systems A/S Recent Developments/Updates

9.1.6 AGRAMKOW Fluid Systems A/S Competitive Strengths & Weaknesses

9.2 Galileo TP Process Equipment S.r.l.

9.2.1 Galileo TP Process Equipment S.r.l. Details

9.2.2 Galileo TP Process Equipment S.r.l. Major Business

9.2.3 Galileo TP Process Equipment S.r.l. R290 Explosion-proof Refrigerant Charging Equipment Product and Services

9.2.4 Galileo TP Process Equipment S.r.l. R290 Explosion-proof Refrigerant Charging Equipment Production, Price, Value, Gross Margin and Market Share (2021-2026)

9.2.5 Galileo TP Process Equipment S.r.l. Recent Developments/Updates

9.2.6 Galileo TP Process Equipment S.r.l. Competitive Strengths & Weaknesses

9.3 FT S.r.l.

9.3.1 FT S.r.l. Details

9.3.2 FT S.r.l. Major Business

9.3.3 FT S.r.l. R290 Explosion-proof Refrigerant Charging Equipment Product and Services

9.3.4 FT S.r.l. R290 Explosion-proof Refrigerant Charging Equipment Production, Price, Value, Gross Margin and Market Share (2021-2026)

9.3.5 FT S.r.l. Recent Developments/Updates

9.3.6 FT S.r.l. Competitive Strengths & Weaknesses

9.4 VTech Process Equipment LLC

9.4.1 VTech Process Equipment LLC Details

- 9.4.2 VTech Process Equipment LLC Major Business
- 9.4.3 VTech Process Equipment LLC R290 Explosion-proof Refrigerant Charging Equipment Product and Services
- 9.4.4 VTech Process Equipment LLC R290 Explosion-proof Refrigerant Charging Equipment Production, Price, Value, Gross Margin and Market Share (2021-2026)
- 9.4.5 VTech Process Equipment LLC Recent Developments/Updates
- 9.4.6 VTech Process Equipment LLC Competitive Strengths & Weaknesses
- 9.5 Marposs S.p.A.
 - 9.5.1 Marposs S.p.A. Details
 - 9.5.2 Marposs S.p.A. Major Business
 - 9.5.3 Marposs S.p.A. R290 Explosion-proof Refrigerant Charging Equipment Product and Services
 - 9.5.4 Marposs S.p.A. R290 Explosion-proof Refrigerant Charging Equipment Production, Price, Value, Gross Margin and Market Share (2021-2026)
 - 9.5.5 Marposs S.p.A. Recent Developments/Updates
 - 9.5.6 Marposs S.p.A. Competitive Strengths & Weaknesses
- 9.6 Shanghai Schenck Machinery Co., Ltd.
 - 9.6.1 Shanghai Schenck Machinery Co., Ltd. Details
 - 9.6.2 Shanghai Schenck Machinery Co., Ltd. Major Business
 - 9.6.3 Shanghai Schenck Machinery Co., Ltd. R290 Explosion-proof Refrigerant Charging Equipment Product and Services
 - 9.6.4 Shanghai Schenck Machinery Co., Ltd. R290 Explosion-proof Refrigerant Charging Equipment Production, Price, Value, Gross Margin and Market Share (2021-2026)
 - 9.6.5 Shanghai Schenck Machinery Co., Ltd. Recent Developments/Updates
 - 9.6.6 Shanghai Schenck Machinery Co., Ltd. Competitive Strengths & Weaknesses
- 9.7 Fives Group
 - 9.7.1 Fives Group Details
 - 9.7.2 Fives Group Major Business
 - 9.7.3 Fives Group R290 Explosion-proof Refrigerant Charging Equipment Product and Services
 - 9.7.4 Fives Group R290 Explosion-proof Refrigerant Charging Equipment Production, Price, Value, Gross Margin and Market Share (2021-2026)
 - 9.7.5 Fives Group Recent Developments/Updates
 - 9.7.6 Fives Group Competitive Strengths & Weaknesses
- 9.8 Nanjing Wanfolai Precision Machinery Co., Ltd.
 - 9.8.1 Nanjing Wanfolai Precision Machinery Co., Ltd. Details
 - 9.8.2 Nanjing Wanfolai Precision Machinery Co., Ltd. Major Business
 - 9.8.3 Nanjing Wanfolai Precision Machinery Co., Ltd. R290 Explosion-proof

Refrigerant Charging Equipment Product and Services

9.8.4 Nanjing Wanfolai Precision Machinery Co., Ltd. R290 Explosion-proof Refrigerant Charging Equipment Production, Price, Value, Gross Margin and Market Share (2021-2026)

9.8.5 Nanjing Wanfolai Precision Machinery Co., Ltd. Recent Developments/Updates

9.8.6 Nanjing Wanfolai Precision Machinery Co., Ltd. Competitive Strengths & Weaknesses

9.9 Cixi City Senda Refrigeration Technology Co., Ltd.

9.9.1 Cixi City Senda Refrigeration Technology Co., Ltd. Details

9.9.2 Cixi City Senda Refrigeration Technology Co., Ltd. Major Business

9.9.3 Cixi City Senda Refrigeration Technology Co., Ltd. R290 Explosion-proof Refrigerant Charging Equipment Product and Services

9.9.4 Cixi City Senda Refrigeration Technology Co., Ltd. R290 Explosion-proof Refrigerant Charging Equipment Production, Price, Value, Gross Margin and Market Share (2021-2026)

9.9.5 Cixi City Senda Refrigeration Technology Co., Ltd. Recent Developments/Updates

9.9.6 Cixi City Senda Refrigeration Technology Co., Ltd. Competitive Strengths & Weaknesses

9.10 ULVAC, Inc.

9.10.1 ULVAC, Inc. Details

9.10.2 ULVAC, Inc. Major Business

9.10.3 ULVAC, Inc. R290 Explosion-proof Refrigerant Charging Equipment Product and Services

9.10.4 ULVAC, Inc. R290 Explosion-proof Refrigerant Charging Equipment Production, Price, Value, Gross Margin and Market Share (2021-2026)

9.10.5 ULVAC, Inc. Recent Developments/Updates

9.10.6 ULVAC, Inc. Competitive Strengths & Weaknesses

9.11 Qingdao Ouruinuo Electronic Technology Co., Ltd.

9.11.1 Qingdao Ouruinuo Electronic Technology Co., Ltd. Details

9.11.2 Qingdao Ouruinuo Electronic Technology Co., Ltd. Major Business

9.11.3 Qingdao Ouruinuo Electronic Technology Co., Ltd. R290 Explosion-proof Refrigerant Charging Equipment Product and Services

9.11.4 Qingdao Ouruinuo Electronic Technology Co., Ltd. R290 Explosion-proof Refrigerant Charging Equipment Production, Price, Value, Gross Margin and Market Share (2021-2026)

9.11.5 Qingdao Ouruinuo Electronic Technology Co., Ltd. Recent Developments/Updates

9.11.6 Qingdao Ouruinuo Electronic Technology Co., Ltd. Competitive Strengths &

Weaknesses

9.12 SIQ Inc.

9.12.1 SIQ Inc. Details

9.12.2 SIQ Inc. Major Business

9.12.3 SIQ Inc. R290 Explosion-proof Refrigerant Charging Equipment Product and Services

9.12.4 SIQ Inc. R290 Explosion-proof Refrigerant Charging Equipment Production, Price, Value, Gross Margin and Market Share (2021-2026)

9.12.5 SIQ Inc. Recent Developments/Updates

9.12.6 SIQ Inc. Competitive Strengths & Weaknesses

10 INDUSTRY CHAIN ANALYSIS

10.1 R290 Explosion-proof Refrigerant Charging Equipment Industry Chain

10.2 R290 Explosion-proof Refrigerant Charging Equipment Upstream Analysis

10.2.1 R290 Explosion-proof Refrigerant Charging Equipment Core Raw Materials

10.2.2 Main Manufacturers of R290 Explosion-proof Refrigerant Charging Equipment Core Raw Materials

10.3 Midstream Analysis

10.4 Downstream Analysis

10.5 R290 Explosion-proof Refrigerant Charging Equipment Production Mode

10.6 R290 Explosion-proof Refrigerant Charging Equipment Procurement Model

10.7 R290 Explosion-proof Refrigerant Charging Equipment Industry Sales Model and Sales Channels

10.7.1 R290 Explosion-proof Refrigerant Charging Equipment Sales Model

10.7.2 R290 Explosion-proof Refrigerant Charging Equipment Typical Distributors

11 RESEARCH FINDINGS AND CONCLUSION

12 APPENDIX

12.1 Methodology

12.2 Research Process and Data Source

12.3 Disclaimer

List Of Tables

LIST OF TABLES

Table 1. World R290 Explosion-proof Refrigerant Charging Equipment Production Value by Region (2021, 2025 and 2032) & (USD Million)

Table 2. World R290 Explosion-proof Refrigerant Charging Equipment Production Value by Region (2021-2026) & (USD Million)

Table 3. World R290 Explosion-proof Refrigerant Charging Equipment Production Value by Region (2027-2032) & (USD Million)

Table 4. World R290 Explosion-proof Refrigerant Charging Equipment Production Value Market Share by Region (2021-2026)

Table 5. World R290 Explosion-proof Refrigerant Charging Equipment Production Value Market Share by Region (2027-2032)

Table 6. World R290 Explosion-proof Refrigerant Charging Equipment Production by Region (2021-2026) & (Unit)

Table 7. World R290 Explosion-proof Refrigerant Charging Equipment Production by Region (2027-2032) & (Unit)

Table 8. World R290 Explosion-proof Refrigerant Charging Equipment Production Market Share by Region (2021-2026)

Table 9. World R290 Explosion-proof Refrigerant Charging Equipment Production Market Share by Region (2027-2032)

Table 10. World R290 Explosion-proof Refrigerant Charging Equipment Average Price by Region (2021-2026) & (K US\$/Unit)

Table 11. World R290 Explosion-proof Refrigerant Charging Equipment Average Price by Region (2027-2032) & (K US\$/Unit)

Table 12. R290 Explosion-proof Refrigerant Charging Equipment Major Market Trends

Table 13. World R290 Explosion-proof Refrigerant Charging Equipment Consumption Growth Rate Forecast by Region (2021 & 2025 & 2032) & (Unit)

Table 14. World R290 Explosion-proof Refrigerant Charging Equipment Consumption by Region (2021-2026) & (Unit)

Table 15. World R290 Explosion-proof Refrigerant Charging Equipment Consumption Forecast by Region (2027-2032) & (Unit)

Table 16. World R290 Explosion-proof Refrigerant Charging Equipment Production Value by Manufacturer (2021-2026) & (USD Million)

Table 17. Production Value Market Share of Key R290 Explosion-proof Refrigerant Charging Equipment Producers in 2025

Table 18. World R290 Explosion-proof Refrigerant Charging Equipment Production by Manufacturer (2021-2026) & (Unit)

Table 19. Production Market Share of Key R290 Explosion-proof Refrigerant Charging Equipment Producers in 2025

Table 20. World R290 Explosion-proof Refrigerant Charging Equipment Average Price by Manufacturer (2021-2026) & (K US\$/Unit)

Table 21. Global R290 Explosion-proof Refrigerant Charging Equipment Company Evaluation Quadrant

Table 22. World R290 Explosion-proof Refrigerant Charging Equipment Industry Rank of Major Manufacturers, Based on Production Value in 2025

Table 23. Head Office and R290 Explosion-proof Refrigerant Charging Equipment Production Site of Key Manufacturer

Table 24. R290 Explosion-proof Refrigerant Charging Equipment Market: Company Product Type Footprint

Table 25. R290 Explosion-proof Refrigerant Charging Equipment Market: Company Product Application Footprint

Table 26. R290 Explosion-proof Refrigerant Charging Equipment Competitive Factors

Table 27. R290 Explosion-proof Refrigerant Charging Equipment New Entrant and Capacity Expansion Plans

Table 28. R290 Explosion-proof Refrigerant Charging Equipment Mergers & Acquisitions Activity

Table 29. United States VS China R290 Explosion-proof Refrigerant Charging Equipment Production Value Comparison, (2021 & 2025 & 2032) & (USD Million)

Table 30. United States VS China R290 Explosion-proof Refrigerant Charging Equipment Production Comparison, (2021 & 2025 & 2032) & (Unit)

Table 31. United States VS China R290 Explosion-proof Refrigerant Charging Equipment Consumption Comparison, (2021 & 2025 & 2032) & (Unit)

Table 32. United States Based R290 Explosion-proof Refrigerant Charging Equipment Manufacturers, Headquarters and Production Site (States, Country)

Table 33. United States Based Manufacturers R290 Explosion-proof Refrigerant Charging Equipment Production Value, (2021-2026) & (USD Million)

Table 34. United States Based Manufacturers R290 Explosion-proof Refrigerant Charging Equipment Production Value Market Share (2021-2026)

Table 35. United States Based Manufacturers R290 Explosion-proof Refrigerant Charging Equipment Production (2021-2026) & (Unit)

Table 36. United States Based Manufacturers R290 Explosion-proof Refrigerant Charging Equipment Production Market Share (2021-2026)

Table 37. China Based R290 Explosion-proof Refrigerant Charging Equipment Manufacturers, Headquarters and Production Site (Province, Country)

Table 38. China Based Manufacturers R290 Explosion-proof Refrigerant Charging Equipment Production Value, (2021-2026) & (USD Million)

Table 39. China Based Manufacturers R290 Explosion-proof Refrigerant Charging Equipment Production Value Market Share (2021-2026)

Table 40. China Based Manufacturers R290 Explosion-proof Refrigerant Charging Equipment Production, (2021-2026) & (Unit)

Table 41. China Based Manufacturers R290 Explosion-proof Refrigerant Charging Equipment Production Market Share (2021-2026)

Table 42. Rest of World Based R290 Explosion-proof Refrigerant Charging Equipment Manufacturers, Headquarters and Production Site (State, Country)

Table 43. Rest of World Based Manufacturers R290 Explosion-proof Refrigerant Charging Equipment Production Value, (2021-2026) & (USD Million)

Table 44. Rest of World Based Manufacturers R290 Explosion-proof Refrigerant Charging Equipment Production Value Market Share (2021-2026)

Table 45. Rest of World Based Manufacturers R290 Explosion-proof Refrigerant Charging Equipment Production, (2021-2026) & (Unit)

Table 46. Rest of World Based Manufacturers R290 Explosion-proof Refrigerant Charging Equipment Production Market Share (2021-2026)

Table 47. World R290 Explosion-proof Refrigerant Charging Equipment Production Value by Type, (USD Million), 2021 & 2025 & 2032

Table 48. World R290 Explosion-proof Refrigerant Charging Equipment Production by Type (2021-2026) & (Unit)

Table 49. World R290 Explosion-proof Refrigerant Charging Equipment Production by Type (2027-2032) & (Unit)

Table 50. World R290 Explosion-proof Refrigerant Charging Equipment Production Value by Type (2021-2026) & (USD Million)

Table 51. World R290 Explosion-proof Refrigerant Charging Equipment Production Value by Type (2027-2032) & (USD Million)

Table 52. World R290 Explosion-proof Refrigerant Charging Equipment Average Price by Type (2021-2026) & (K US\$/Unit)

Table 53. World R290 Explosion-proof Refrigerant Charging Equipment Average Price by Type (2027-2032) & (K US\$/Unit)

Table 54. World R290 Explosion-proof Refrigerant Charging Equipment Production Value by Charging and Metering Method, (USD Million), 2021 & 2025 & 2032

Table 55. World R290 Explosion-proof Refrigerant Charging Equipment Production by Charging and Metering Method (2021-2026) & (Unit)

Table 56. World R290 Explosion-proof Refrigerant Charging Equipment Production by Charging and Metering Method (2027-2032) & (Unit)

Table 57. World R290 Explosion-proof Refrigerant Charging Equipment Production Value by Charging and Metering Method (2021-2026) & (USD Million)

Table 58. World R290 Explosion-proof Refrigerant Charging Equipment Production

Value by Charging and Metering Method (2027-2032) & (USD Million)

Table 59. World R290 Explosion-proof Refrigerant Charging Equipment Average Price by Charging and Metering Method (2021-2026) & (K US\$/Unit)

Table 60. World R290 Explosion-proof Refrigerant Charging Equipment Average Price by Charging and Metering Method (2027-2032) & (K US\$/Unit)

Table 61. World R290 Explosion-proof Refrigerant Charging Equipment Production Value by Safety Protection Configuration, (USD Million), 2021 & 2025 & 2032

Table 62. World R290 Explosion-proof Refrigerant Charging Equipment Production by Safety Protection Configuration (2021-2026) & (Unit)

Table 63. World R290 Explosion-proof Refrigerant Charging Equipment Production by Safety Protection Configuration (2027-2032) & (Unit)

Table 64. World R290 Explosion-proof Refrigerant Charging Equipment Production Value by Safety Protection Configuration (2021-2026) & (USD Million)

Table 65. World R290 Explosion-proof Refrigerant Charging Equipment Production Value by Safety Protection Configuration (2027-2032) & (USD Million)

Table 66. World R290 Explosion-proof Refrigerant Charging Equipment Average Price by Safety Protection Configuration (2021-2026) & (K US\$/Unit)

Table 67. World R290 Explosion-proof Refrigerant Charging Equipment Average Price by Safety Protection Configuration (2027-2032) & (K US\$/Unit)

Table 68. World R290 Explosion-proof Refrigerant Charging Equipment Production Value by Application, (USD Million), 2021 & 2025 & 2032

Table 69. World R290 Explosion-proof Refrigerant Charging Equipment Production by Application (2021-2026) & (Unit)

Table 70. World R290 Explosion-proof Refrigerant Charging Equipment Production by Application (2027-2032) & (Unit)

Table 71. World R290 Explosion-proof Refrigerant Charging Equipment Production Value by Application (2021-2026) & (USD Million)

Table 72. World R290 Explosion-proof Refrigerant Charging Equipment Production Value by Application (2027-2032) & (USD Million)

Table 73. World R290 Explosion-proof Refrigerant Charging Equipment Average Price by Application (2021-2026) & (K US\$/Unit)

Table 74. World R290 Explosion-proof Refrigerant Charging Equipment Average Price by Application (2027-2032) & (K US\$/Unit)

Table 75. AGRAMKOW Fluid Systems A/S Basic Information, Manufacturing Base and Competitors

Table 76. AGRAMKOW Fluid Systems A/S Major Business

Table 77. AGRAMKOW Fluid Systems A/S R290 Explosion-proof Refrigerant Charging Equipment Product and Services

Table 78. AGRAMKOW Fluid Systems A/S R290 Explosion-proof Refrigerant Charging

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

Table 79. AGRAMKOW Fluid Systems A/S Recent Developments/Updates

Table 80. AGRAMKOW Fluid Systems A/S Competitive Strengths & Weaknesses

Table 81. Galileo TP Process Equipment S.r.l. Basic Information, Manufacturing Base and Competitors

Table 82. Galileo TP Process Equipment S.r.l. Major Business

Table 83. Galileo TP Process Equipment S.r.l. R290 Explosion-proof Refrigerant Charging Equipment Product and Services

Table 84. Galileo TP Process Equipment S.r.l. R290 Explosion-proof Refrigerant Charging Equipment Production (Unit), Price (K US\$/Unit), Production Value (USD Million), Gross Margin and Market Share (2021-2026)

Table 85. Galileo TP Process Equipment S.r.l. Recent Developments/Updates

Table 86. Galileo TP Process Equipment S.r.l. Competitive Strengths & Weaknesses

Table 87. FT S.r.l. Basic Information, Manufacturing Base and Competitors

Table 88. FT S.r.l. Major Business

Table 89. FT S.r.l. R290 Explosion-proof Refrigerant Charging Equipment Product and Services

Table 90. FT S.r.l. R290 Explosion-proof Refrigerant Charging Equipment Production (Unit), Price (K US\$/Unit), Production Value (USD Million), Gross Margin and Market Share (2021-2026)

Table 91. FT S.r.l. Recent Developments/Updates

Table 92. FT S.r.l. Competitive Strengths & Weaknesses

Table 93. VTech Process Equipment LLC Basic Information, Manufacturing Base and Competitors

Table 94. VTech Process Equipment LLC Major Business

Table 95. VTech Process Equipment LLC R290 Explosion-proof Refrigerant Charging Equipment Product and Services

Table 96. VTech Process Equipment LLC R290 Explosion-proof Refrigerant Charging Equipment Production (Unit), Price (K US\$/Unit), Production Value (USD Million), Gross Margin and Market Share (2021-2026)

Table 97. VTech Process Equipment LLC Recent Developments/Updates

Table 98. VTech Process Equipment LLC Competitive Strengths & Weaknesses

Table 99. Marposs S.p.A. Basic Information, Manufacturing Base and Competitors

Table 100. Marposs S.p.A. Major Business

Table 101. Marposs S.p.A. R290 Explosion-proof Refrigerant Charging Equipment Product and Services

Table 102. Marposs S.p.A. R290 Explosion-proof Refrigerant Charging Equipment Production (Unit), Price (K US\$/Unit), Production Value (USD Million), Gross Margin

and Market Share (2021-2026)

Table 103. Marposs S.p.A. Recent Developments/Updates

Table 104. Marposs S.p.A. Competitive Strengths & Weaknesses

Table 105. Shanghai Schenck Machinery Co., Ltd. Basic Information, Manufacturing Base and Competitors

Table 106. Shanghai Schenck Machinery Co., Ltd. Major Business

Table 107. Shanghai Schenck Machinery Co., Ltd. R290 Explosion-proof Refrigerant Charging Equipment Product and Services

Table 108. Shanghai Schenck Machinery Co., Ltd. R290 Explosion-proof Refrigerant Charging Equipment Production (Unit), Price (K US\$/Unit), Production Value (USD Million), Gross Margin and Market Share (2021-2026)

Table 109. Shanghai Schenck Machinery Co., Ltd. Recent Developments/Updates

Table 110. Shanghai Schenck Machinery Co., Ltd. Competitive Strengths & Weaknesses

Table 111. Fives Group Basic Information, Manufacturing Base and Competitors

Table 112. Fives Group Major Business

Table 113. Fives Group R290 Explosion-proof Refrigerant Charging Equipment Product and Services

Table 114. Fives Group R290 Explosion-proof Refrigerant Charging Equipment Production (Unit), Price (K US\$/Unit), Production Value (USD Million), Gross Margin and Market Share (2021-2026)

Table 115. Fives Group Recent Developments/Updates

Table 116. Fives Group Competitive Strengths & Weaknesses

Table 117. Nanjing Wanfolai Precision Machinery Co., Ltd. Basic Information, Manufacturing Base and Competitors

Table 118. Nanjing Wanfolai Precision Machinery Co., Ltd. Major Business

Table 119. Nanjing Wanfolai Precision Machinery Co., Ltd. R290 Explosion-proof Refrigerant Charging Equipment Product and Services

Table 120. Nanjing Wanfolai Precision Machinery Co., Ltd. R290 Explosion-proof Refrigerant Charging Equipment Production (Unit), Price (K US\$/Unit), Production Value (USD Million), Gross Margin and Market Share (2021-2026)

Table 121. Nanjing Wanfolai Precision Machinery Co., Ltd. Recent Developments/Updates

Table 122. Nanjing Wanfolai Precision Machinery Co., Ltd. Competitive Strengths & Weaknesses

Table 123. Cixi City Senda Refrigeration Technology Co., Ltd. Basic Information, Manufacturing Base and Competitors

Table 124. Cixi City Senda Refrigeration Technology Co., Ltd. Major Business

Table 125. Cixi City Senda Refrigeration Technology Co., Ltd. R290 Explosion-proof

Refrigerant Charging Equipment Product and Services

Table 126. Cixi City Senda Refrigeration Technology Co., Ltd. R290 Explosion-proof Refrigerant Charging Equipment Production (Unit), Price (K US\$/Unit), Production Value (USD Million), Gross Margin and Market Share (2021-2026)

Table 127. Cixi City Senda Refrigeration Technology Co., Ltd. Recent Developments/Updates

Table 128. Cixi City Senda Refrigeration Technology Co., Ltd. Competitive Strengths & Weaknesses

Table 129. ULVAC, Inc. Basic Information, Manufacturing Base and Competitors

Table 130. ULVAC, Inc. Major Business

Table 131. ULVAC, Inc. R290 Explosion-proof Refrigerant Charging Equipment Product and Services

Table 132. ULVAC, Inc. R290 Explosion-proof Refrigerant Charging Equipment Production (Unit), Price (K US\$/Unit), Production Value (USD Million), Gross Margin and Market Share (2021-2026)

Table 133. ULVAC, Inc. Recent Developments/Updates

Table 134. ULVAC, Inc. Competitive Strengths & Weaknesses

Table 135. Qingdao Ouruinuo Electronic Technology Co., Ltd. Basic Information, Manufacturing Base and Competitors

Table 136. Qingdao Ouruinuo Electronic Technology Co., Ltd. Major Business

Table 137. Qingdao Ouruinuo Electronic Technology Co., Ltd. R290 Explosion-proof Refrigerant Charging Equipment Product and Services

Table 138. Qingdao Ouruinuo Electronic Technology Co., Ltd. R290 Explosion-proof Refrigerant Charging Equipment Production (Unit), Price (K US\$/Unit), Production Value (USD Million), Gross Margin and Market Share (2021-2026)

Table 139. Qingdao Ouruinuo Electronic Technology Co., Ltd. Recent Developments/Updates

Table 140. Qingdao Ouruinuo Electronic Technology Co., Ltd. Competitive Strengths & Weaknesses

Table 141. SIQ Inc. Basic Information, Manufacturing Base and Competitors

Table 142. SIQ Inc. Major Business

Table 143. SIQ Inc. R290 Explosion-proof Refrigerant Charging Equipment Product and Services

Table 144. SIQ Inc. R290 Explosion-proof Refrigerant Charging Equipment Production (Unit), Price (K US\$/Unit), Production Value (USD Million), Gross Margin and Market Share (2021-2026)

Table 145. SIQ Inc. Recent Developments/Updates

Table 146. SIQ Inc. Competitive Strengths & Weaknesses

Table 147. Global Key Players of R290 Explosion-proof Refrigerant Charging

Equipment Upstream (Raw Materials)

Table 148. Global R290 Explosion-proof Refrigerant Charging Equipment Typical Customers

Table 149. R290 Explosion-proof Refrigerant Charging Equipment Typical Distributors

List Of Figures

LIST OF FIGURES

Figure 1. R290 Explosion-proof Refrigerant Charging Equipment Picture

Figure 2. World R290 Explosion-proof Refrigerant Charging Equipment Production Value: 2021 & 2025 & 2032, (USD Million)

Figure 3. World R290 Explosion-proof Refrigerant Charging Equipment Production Value and Forecast (2021-2032) & (USD Million)

Figure 4. World R290 Explosion-proof Refrigerant Charging Equipment Production (2021-2032) & (Unit)

Figure 5. World R290 Explosion-proof Refrigerant Charging Equipment Average Price (2021-2032) & (K US\$/Unit)

Figure 6. World R290 Explosion-proof Refrigerant Charging Equipment Production Value Market Share by Region (2021-2032)

Figure 7. World R290 Explosion-proof Refrigerant Charging Equipment Production Market Share by Region (2021-2032)

Figure 8. North America R290 Explosion-proof Refrigerant Charging Equipment Production (2021-2032) & (Unit)

Figure 9. Europe R290 Explosion-proof Refrigerant Charging Equipment Production (2021-2032) & (Unit)

Figure 10. China R290 Explosion-proof Refrigerant Charging Equipment Production (2021-2032) & (Unit)

Figure 11. Japan R290 Explosion-proof Refrigerant Charging Equipment Production (2021-2032) & (Unit)

Figure 12. R290 Explosion-proof Refrigerant Charging Equipment Market Drivers

Figure 13. Factors Affecting Demand

Figure 14. World R290 Explosion-proof Refrigerant Charging Equipment Consumption (2021-2032) & (Unit)

Figure 15. World R290 Explosion-proof Refrigerant Charging Equipment Consumption Market Share by Region (2021-2032)

Figure 16. United States R290 Explosion-proof Refrigerant Charging Equipment Consumption (2021-2032) & (Unit)

Figure 17. China R290 Explosion-proof Refrigerant Charging Equipment Consumption (2021-2032) & (Unit)

Figure 18. Europe R290 Explosion-proof Refrigerant Charging Equipment Consumption (2021-2032) & (Unit)

Figure 19. Japan R290 Explosion-proof Refrigerant Charging Equipment Consumption (2021-2032) & (Unit)

Figure 20. South Korea R290 Explosion-proof Refrigerant Charging Equipment Consumption (2021-2032) & (Unit)

Figure 21. ASEAN R290 Explosion-proof Refrigerant Charging Equipment Consumption (2021-2032) & (Unit)

Figure 22. India R290 Explosion-proof Refrigerant Charging Equipment Consumption (2021-2032) & (Unit)

Figure 23. Producer Shipments of R290 Explosion-proof Refrigerant Charging Equipment by Manufacturer Revenue (\$MM) and Market Share (%): 2025

Figure 24. Global Four-firm Concentration Ratios (CR4) for R290 Explosion-proof Refrigerant Charging Equipment Markets in 2025

Figure 25. Global Four-firm Concentration Ratios (CR8) for R290 Explosion-proof Refrigerant Charging Equipment Markets in 2025

Figure 26. United States VS China: R290 Explosion-proof Refrigerant Charging Equipment Production Value Market Share Comparison (2021 & 2025 & 2032)

Figure 27. United States VS China: R290 Explosion-proof Refrigerant Charging Equipment Production Market Share Comparison (2021 & 2025 & 2032)

Figure 28. United States VS China: R290 Explosion-proof Refrigerant Charging Equipment Consumption Market Share Comparison (2021 & 2025 & 2032)

Figure 29. United States Based Manufacturers R290 Explosion-proof Refrigerant Charging Equipment Production Market Share 2025

Figure 30. China Based Manufacturers R290 Explosion-proof Refrigerant Charging Equipment Production Market Share 2025

Figure 31. Rest of World Based Manufacturers R290 Explosion-proof Refrigerant Charging Equipment Production Market Share 2025

Figure 32. World R290 Explosion-proof Refrigerant Charging Equipment Production Value by Type, (USD Million), 2021 & 2025 & 2032

Figure 33. World R290 Explosion-proof Refrigerant Charging Equipment Production Value Market Share by Type in 2025

Figure 34. Standalone Explosion-proof Charging Machine

Figure 35. Automatic Charging Station

Figure 36. Refrigerant Supply and Metering Skid

Figure 37. Turnkey Explosion-proof Charging System

Figure 38. Others

Figure 39. World R290 Explosion-proof Refrigerant Charging Equipment Production Market Share by Type (2021-2032)

Figure 40. World R290 Explosion-proof Refrigerant Charging Equipment Production Value Market Share by Type (2021-2032)

Figure 41. World R290 Explosion-proof Refrigerant Charging Equipment Average Price by Type (2021-2032) & (K US\$/Unit)

Figure 42. World R290 Explosion-proof Refrigerant Charging Equipment Production Value by Charging and Metering Method, (USD Million), 2021 & 2025 & 2032

Figure 43. World R290 Explosion-proof Refrigerant Charging Equipment Production Value Market Share by Charging and Metering Method in 2025

Figure 44. Gravimetric Charging

Figure 45. Mass Flow Metering Charging

Figure 46. Volumetric based Charging

Figure 47. Hybrid Metering Charging

Figure 48. Others

Figure 49. World R290 Explosion-proof Refrigerant Charging Equipment Production Market Share by Charging and Metering Method (2021-2032)

Figure 50. World R290 Explosion-proof Refrigerant Charging Equipment Production Value Market Share by Charging and Metering Method (2021-2032)

Figure 51. World R290 Explosion-proof Refrigerant Charging Equipment Average Price by Charging and Metering Method (2021-2032) & (K US\$/Unit)

Figure 52. World R290 Explosion-proof Refrigerant Charging Equipment Production Value by Safety Protection Configuration, (USD Million), 2021 & 2025 & 2032

Figure 53. World R290 Explosion-proof Refrigerant Charging Equipment Production Value Market Share by Safety Protection Configuration in 2025

Figure 54. Basic Explosion-proof Configuration

Figure 55. Gas Detection and Interlock Configuration

Figure 56. Integrated Ventilation and Safety System

Figure 57. Others

Figure 58. World R290 Explosion-proof Refrigerant Charging Equipment Production Market Share by Safety Protection Configuration (2021-2032)

Figure 59. World R290 Explosion-proof Refrigerant Charging Equipment Production Value Market Share by Safety Protection Configuration (2021-2032)

Figure 60. World R290 Explosion-proof Refrigerant Charging Equipment Average Price by Safety Protection Configuration (2021-2032) & (K US\$/Unit)

Figure 61. World R290 Explosion-proof Refrigerant Charging Equipment Production Value by Application, (USD Million), 2021 & 2025 & 2032

Figure 62. World R290 Explosion-proof Refrigerant Charging Equipment Production Value Market Share by Application in 2025

Figure 63. Commercial Refrigeration Industry

Figure 64. Household Appliance Industry

Figure 65. Industrial and Specialty Cooling Industry

Figure 66. Others

Figure 67. World R290 Explosion-proof Refrigerant Charging Equipment Production Market Share by Application (2021-2032)

Figure 68. World R290 Explosion-proof Refrigerant Charging Equipment Production Value Market Share by Application (2021-2032)

Figure 69. World R290 Explosion-proof Refrigerant Charging Equipment Average Price by Application (2021-2032) & (K US\$/Unit)

Figure 70. R290 Explosion-proof Refrigerant Charging Equipment Industry Chain

Figure 71. R290 Explosion-proof Refrigerant Charging Equipment Procurement Model

Figure 72. R290 Explosion-proof Refrigerant Charging Equipment Sales Model

Figure 73. R290 Explosion-proof Refrigerant Charging Equipment Sales Channels, Direct Sales, and Distribution

Figure 74. Methodology

Figure 75. Research Process and Data Source

I would like to order

Product name: Global R290 Explosion-proof Refrigerant Charging Equipment Supply, Demand and Key Producers, 2026-2032

Product link: <https://marketpublishers.com/r/G290465EC741EN.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

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/G290465EC741EN.html>