

# Global (North America, Europe, Asia-Pacific, South America, Middle East and Africa) Diffraction Gratings Market 2018, Forecast to 2023

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## Abstracts

A diffraction grating is an optical element that diffracts energy into its constituent wavelengths. The groove density, depth and profile of a diffraction grating dictate the spectral range, efficiency, resolution and performance of the diffraction grating.

### SCOPE OF THE REPORT:

This report focuses on the Diffraction Gratings in global market, especially in North America, Europe and Asia-Pacific, South America, Middle East and Africa. This report categorizes the market based on manufacturers, regions, type and application.

The market is driven by various end-user industries, such as spectroscopic, telecommunications and laser applications, as well as for research and education. As the downstream consumption usually follows with developed and rapid economic growth areas, such as BRICS, the developed areas' company prefers investing to underdevelopment regions these years.

A diffraction grating is an optical component with a periodic structure, which splits and diffracts light into several beams travelling in different directions in order of wavelength. Diffractive optics helps bring high-performance spectral analysis-using hyperspectral or Raman-into the field for science and remote sensing, onto the production line for advanced machine vision, and into the laboratory.

The key players are HORIBA, Newport Corporation, Edmund Optics, Shimadzu Corporation, Kaiser Optical Systems, Lightsmyth (Finisar), Plymouth Grating Lab, Zeiss, Optometrics (Dynasil), Headwall Photonics, Spectrogon AB, Jenoptik, Spectrum Scientific, Photop Technologies, Wasatch Photonics, GratingWorks, Shenyang Yibeite Optics. Among them, HORIBA, Newport Corporation and Edmund Optics are the leaders with total revenue share 41% in 2016.

The leading companies own the advantages on better performance, more abundant product's types, better technical and impeccable after-sales service. Consequently, they take the majority of the market share of high-end market. Looking to the future years, the slow downward price trend in recent years will maintain. As competition intensifies, prices gap between different brands will go narrowing. Similarly, there will be fluctuation in gross margin.

The industry is expected to remain innovation-led, with frequent acquisitions and strategic alliances adopted as the key strategies by the players to increase their industry presence. Market stays in mature period with a clear concentration. Meanwhile, optimize product mix and further develop value-added capabilities to maximize margins. Manufacturers can take advantage of this situation by reinforcing their production units and supply-chains to avoid any delay in production turn-around-times (TAT) and supply-lead-times.

Significant and lasting barriers make entry into this market difficult. These barriers include, but are not limited to: (i) product development costs; (ii) capital requirements; (iii) intellectual property rights; (iv) regulatory requirement; and (v) Transitions' unfair methods of competition.

Despite the presence of competition problems, due to the global recovery trend is clear, investors are still optimistic about this area, the future will still have more new investment enter the field. Even so, the market is intensely competitive. The study group recommends the new entrants just having money but without technical advantage and upstream and downstream support do not to enter into this field.

The worldwide market for Diffraction Gratings is expected to grow at a CAGR of roughly 5.5% over the next five years, will reach 250 million US\$ in 2023, from 180 million US\$ in 2017, according to a new GIR (Global Info Research) study.

Market Segment by Manufacturers, this report covers

HORIBA

Newport Corporation

Edmund Optics

Shimadzu Corporation

Kaiser Optical Systems

Lightsmyth (Finisar)

Plymouth Grating Lab

Zeiss

Optometrics (Dynasil)

Headwall Photonics

Spectrogon AB

Jenoptik

Spectrum Scientific

Photop Technologies

Wasatch Photonics

GratingWorks

Shenyang Yibeite Optics

Market Segment by Regions, regional analysis covers

North America (United States, Canada and Mexico)

Europe (Germany, France, UK, Russia and Italy)

Asia-Pacific (China, Japan, Korea, India and Southeast Asia)

South America (Brazil, Argentina, Colombia etc.)

Middle East and Africa (Saudi Arabia, UAE, Egypt, Nigeria and South Africa)

Market Segment by Type, covers

*Global (North America, Europe, Asia-Pacific, South America, Middle East and Africa) Diffraction Gratings Marke...*

Ruled Gratings

Holographic Gratings

Market Segment by Applications, can be divided into

Monochromator and Spectrometer

Laser

Optical Telecom

Astronomy

Others

There are 15 Chapters to deeply display the global Diffraction Gratings market.

Chapter 1, to describe Diffraction Gratings Introduction, product scope, market overview, market opportunities, market risk, market driving force;

Chapter 2, to analyze the top manufacturers of Diffraction Gratings, with sales, revenue, and price of Diffraction Gratings, in 2016 and 2017;

Chapter 3, to display the competitive situation among the top manufacturers, with sales, revenue and market share in 2016 and 2017;

Chapter 4, to show the global market by regions, with sales, revenue and market share of Diffraction Gratings, for each region, from 2013 to 2018;

Chapter 5, 6, 7, 8 and 9, to analyze the market by countries, by type, by application and by manufacturers, with sales, revenue and market share by key countries in these regions;

Chapter 10 and 11, to show the market by type and application, with sales market share and growth rate by type, application, from 2013 to 2018;

Chapter 12, Diffraction Gratings market forecast, by regions, type and application, with sales and revenue, from 2018 to 2023;

Chapter 13, 14 and 15, to describe Diffraction Gratings sales channel, distributors, traders, dealers, Research Findings and Conclusion, appendix and data source

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