

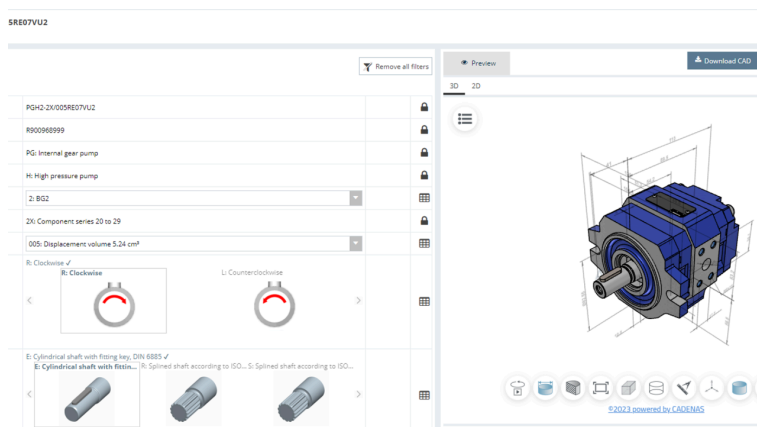
PRESS INFORMATION

Digital Twin for Industrial Hydraulics

Manuela Kessler | 14.11.2023 | Lohr am Main / Germany | PI 063/23

Bosch Rexroth streamlines the engineering of industrial hydraulic solutions with an extensive catalog of configurable 3D models

- Configurable product portfolio virtually entirely represented digitally
- Suitable file formats for all common engineering tools
- Significant time savings when engineering hydraulic solutions



Bosch Rexroth offers an extensive catalog for Industrial Hydraulic products. (Image source: Bosch Rexroth AG)

Bosch Rexroth drives digitalization forward and plans to offer the complete industrial hydraulics product portfolio as digital twins in the future. The foundation is the industrial-neutral standard of the Asset Administration Shell, which ensures cross-manufacturer interoperability and enables seamless value chains. In the new product catalog for industrial hydraulics, interested parties can already find native 3D models for various CAD systems for many products of the Rexroth portfolio. This significantly reduces the time required for searching and inserting the 3D models of the products into the respective engineering environment by up to two-thirds.

As a member of the Industrial Digital Twin Association (IDTA), Bosch Rexroth contributes to standardizing data exchange and actively participates in the development of the Asset Administration Shell. Through Bosch Rexroth's initiated submodel 3D CAD, it will be possible in the future to provide CAD models directly or linked within the Asset Administration Shell.

Companies in the machinery and plant engineering sector face various challenges, including shorter product cycles, increasing demand for customized solutions, and growing cost pressures in the design process, continuously increasing the workload. The faster CAD data is available, the easier and more cost-effective the engineering becomes.

With Bosch Rexroth's new product catalog, 3D models can be made available in the appropriate format for the respective engineering environment with just a few clicks, including all important application information. Compared to the previous workflow, users can benefit from time

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savings of up to 66 % when searching and inserting 3D models into the respective development environment.

The new product catalog will be continually expanded and will ultimately encompass the complete industrial hydraulics portfolio. Users can access it through either the Bosch Rexroth Partcommunity or the public portal 3dfindit by the partner CADENAS.

To enable users to search for and use Bosch Rexroth's diverse industrial hydraulics products directly in CAD systems, the company is collaborating with leading CAD system manufacturers to integrate them into their respective engineering suites.

Furthermore, there is the option of natively connecting the catalog to existing PLM systems. This allows users to immediately identify and reuse proven products and solutions. With automatic integration of application and technical information, the effort required for data verification and data enrichment is also reduced. This approach simplifies effective portfolio management for purchased parts, representing another significant step in accelerating the engineering process.

Basic Information Bosch Rexroth

As one of the world's leading suppliers of drive and control technologies, Bosch Rexroth ensures efficient, powerful and safe movement in machines and systems of any size. The company bundles global application experience in the market segments of Mobile and Industrial Applications as well as Factory Automation. With its intelligent components, customized system solutions, engineering and services, Bosch Rexroth is creating the necessary environment for fully connected applications. Bosch Rexroth offers its customers hydraulics, electric drive and control technology, gear technology and linear motion and assembly technology, including software and interfaces to the Internet of Things. With locations in over 80 countries more than 32,000 associates generated sales revenue of around 7.0 billion euros in 2022.

Basic Information Bosch

The Bosch Group is a leading global supplier of technology and services. It employs roughly 421,000 associates worldwide (as of December 31, 2022). The company generated sales of 88.2 billion euros in 2022. Its operations are divided into four business sectors: Mobility, Industrial Technology, Consumer Goods, and Energy and Building Technology. As a leading IoT provider, Bosch offers innovative solutions for smart homes, Industry 4.0, and connected mobility. Bosch is pursuing a vision of mobility that is sustainable, safe, and exciting. It uses its expertise in sensor technology, software, and services, as well as its own IoT cloud, to offer its customers connected, cross-domain solutions from a single source. The Bosch Group's strategic objective is to facilitate connected living with products and solutions that either contain artificial intelligence (AI) or have been developed or manufactured with its help. Bosch improves quality of life worldwide with products and services that are innovative and spark enthusiasm. In short, Bosch creates technology that is "Invented for life." The Bosch Group comprises Robert Bosch GmbH and its roughly 470 subsidiary and regional companies in over 60 countries. Including sales and service partners, Bosch's global manufacturing, engineering, and sales network covers nearly every country in the world. The basis for the company's future growth is its innovative strength. At 136 locations across the globe, Bosch employs some 85,500 associates in research and development, of which nearly 44,000 are software engineers.

Press Contact

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Please get in touch with our Press Contact



Manuela Kessler

Spokesperson
technology topics
+49 9352 184145

Manuela.Kessler@boschrexroth.de