

# Solid Edge Shape Search

## Re-use existing design data instead of reinventing new ones

### Benefits

- Rapidly find and re-use similar and identical parts and avoid reinventing new ones
- Locate parts missed by traditional keyword-based searches
- Improve productivity and quality
- Reduce costs for part design, tooling, inventory and procurement
- Promote standardization and best practices

### Features

- Launches from Solid Edge with a single click
- Delivers tailored results with customizable filters and settings
- Searches parts authored in all CAD software
- No additional client installation required
- Intuitive, highly configurable user interface

### Summary

There's no need to reinvent the wheel with Solid Edge® software Shape Search, which is a 3D search engine that identifies similar parts based on geometry. This allows designers to re-use existing parts and avoid reinventing new ones.

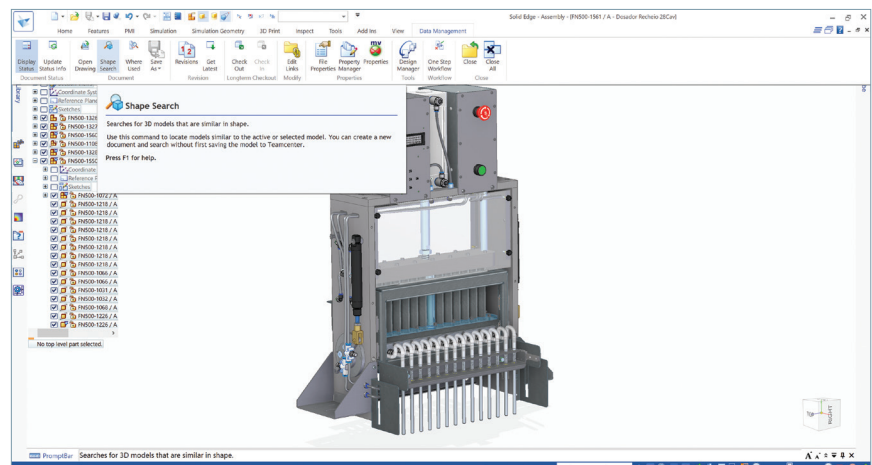
Considering the costs associated with design, documentation, testing, manufacturing or procurement and allocation of space on the shop floor, adding new, unnecessary parts can be expensive.

Resources are often wasted during product development, when new parts are needlessly created and existing parts could be used.

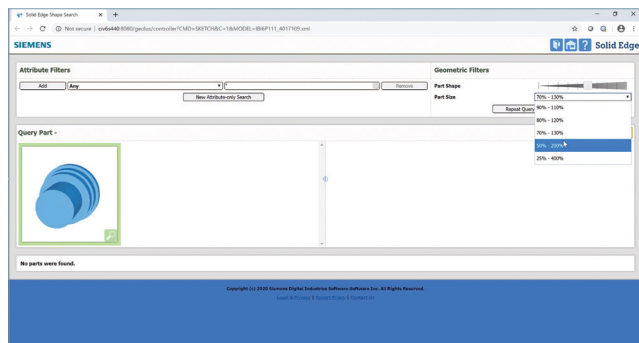
Searching existing parts with Solid Edge Shape Search allows designers to locate similar parts more efficiently than with traditional keyword-based searches. With ever-growing libraries of design data, traditional searches can take hours and fail to yield the correct results, but Solid Edge Shape Search returns accurate, reliable results in seconds.

### 3D search in Solid Edge

Solid Edge Shape Search delivers results in real-time, launching directly from the Solid Edge environment with a single click, requiring no additional client installation. Users can create a rough model in Solid Edge and initiate Solid Edge Shape Search to locate similar existing parts.



# Solid Edge Shape Search



The web-based platform searches not only Solid Edge parts, but also parts authored in other computer-aided design (CAD) software. Smart thumbnail images provide visual feedback, while a wide range of property filters and similar adjustable settings allow users to sort parts.

Once the desired part is identified, users can easily open and compare the models in Solid Edge. Parts can be used as-is or edited to fit design requirements.

## A better way to search

Solid Edge Shape Search can be used to find identical or similar parts even if they are inconsistently or inaccurately named, succeeding where traditional keyword-based searches fail.

Classifying parts by name is time-consuming and encourages errors, such as misspellings. Naming conventions can change over time and vary with engineers, teams, departments and companies, limiting the effectiveness of these searches. Solid Edge Shape Search enables you to overcome these limitations by identifying 3D parts more accurately based on geometry, regardless of naming.

## Standardization and further cost savings

Not only does re-using existing parts save design time and reduce the designer workload, it also promotes best practices and standardization. It is also useful for other product lifecycle management (PLM) users throughout

your organization. Streamlining the product development process and eliminating unnecessary, redundant parts reduces inventory growth.

Additionally, Solid Edge Shape Search capabilities can benefit your organiza-

tion's procurement efforts. When preparing to add new parts to inventory, purchasing agents can use Solid Edge Shape Search to identify similar parts and compare prices and suppliers, enabling a more informed purchasing strategy.

## Solid Edge Shape Search architecture

- **Solid Edge Shape Search is a web service** – The Solid Edge Shape Search Server is a J2EE compliant servlet that provides shape-search functionality. Its architecture is comprised of a database, web application server and web page server
- **Solid Edge Shape Search server** – A dedicated server machine is recommended. The number of parts, peak indexing load and concurrent users define the specification of the server machine. As an example, a server with eight cores and six gigabytes (GB) random access memory (RAM) with 20GB disk for the database and 20GB disk for the thumbnail images will support 1,000 users with a database of 1 million parts
- **Solid Edge Shape Search database** – Supported databases include Microsoft SQL Server and Oracle
- **Web application server** – Supported web application servers include JBoss EAP, Tomcat, IBM WebSphere and Oracle WebLogic
- **Web page server** – Supported web page servers include Apache and Microsoft IIS

Solid Edge Shape Search, an add-on product module for Solid Edge Mechanical Design, is recommended for users who manage files on a mapped network drive or locally with Windows folders. Teamcenter® software users can enable shape search functionalities with another add-on that is tailored to improve experience with Teamcenter.

## Extending value

Solid Edge, which is part of Xcelerator, a comprehensive and integrated portfolio of software and services from Siemens Digital Industries Software, is a portfolio of affordable, easy-to-deploy, maintain and use software tools that advance all aspects of the product development process -- mechanical and electrical design, simulation, manufacturing, technical documentation, data management and cloud-based collaboration.

## Minimum system configuration

- Windows 10 Enterprise or Professional (64-bit only) version 1809 or later
- Java 8 and above, 64-bit
- 16 GB RAM
- 65K colors
- Screen resolution: 1920 x 1080
- 8.5 GB of disk space required for installation

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