



SolidPower – More Power for Your Design

SolidPower automates and accelerates construction processes

SolidPower was developed as a OneSpace Designer design environment with the goal of compiling and automatically rendering standard design processes.

SolidPower covers a multiplicity of useful design tools, with which the most diverse design tasks are simplified and/or automated. Thus, for example boreholes can be placed by making only a very few entries or important information regarding mass or center of gravity calculated by indicating material. Also assemblies in design can be compiled and automatically rendered. This, for example, allows joints to be placed in assembly groups with just a few mouse clicks and entries.

Extensive standard parts library

SolidPower's standard parts library offers access to more than 200 standards with over 37,000 parts. Included are:

- Bolts, nuts/mothers.
- Washers, spring washers.
- Friction bearings, ball bearings, pins, stud bolts, screws.

- Adjusting springs, seals, tension rings, guard rings.
- Profiles, steel construction profiles.
- Front plates, brackets for steel construction.

With an easy-to-use graphics interface, it is not difficult to create standard factory parts and combine them with company-designed parts into characteristic standard series. The catalog can be extended as desired and offers various possibilities for classifying the parts so their order is maintained and standard parts can be found quickly. Different integration and positioning possibilities are offered for standard parts.

Thanks to Model Manager integration, all data, standard parts, and company-produced standard parts can be administered by means of a direct Model Manager interface. Therefore, individual standard parts can be assigned article numbers and these can be administered in the PDM database in connection with the design.

Functionality

- Extensive standard parts library.
- Bolt assistant.
- Boreholes and center holes.
- Master data in parts lists.
- Threads.
- Materials.
- Design assistance.
- Automatic backup.

Benefits

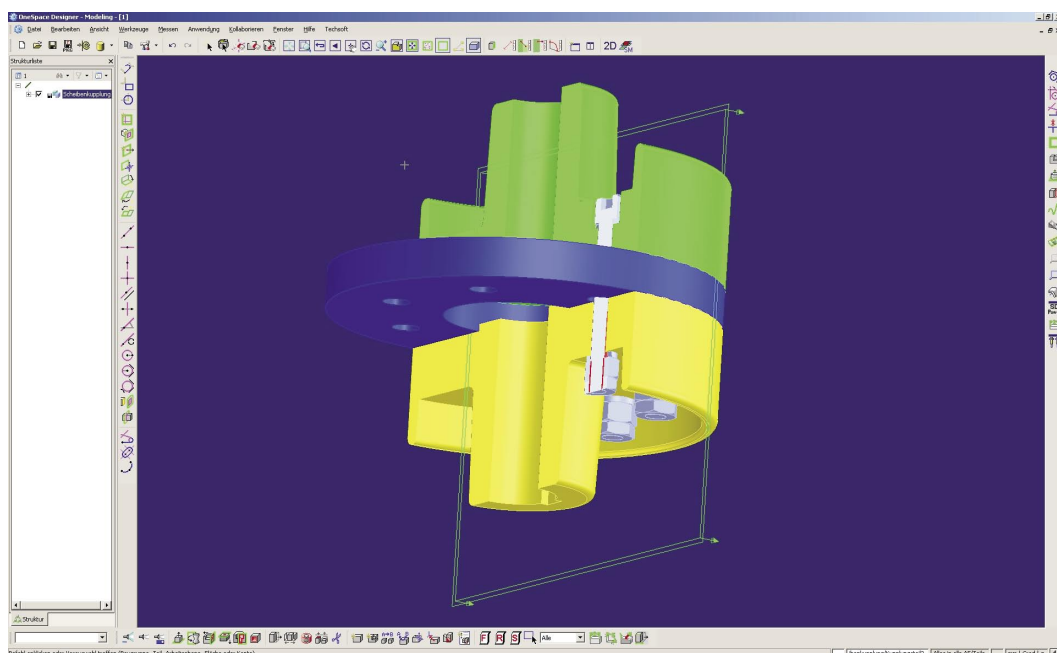
- Numerous automated activities lead to proven reduced assembly times.
- Standardized design through use of standard parts.
- Increased cost savings by re-using company's own standard parts.

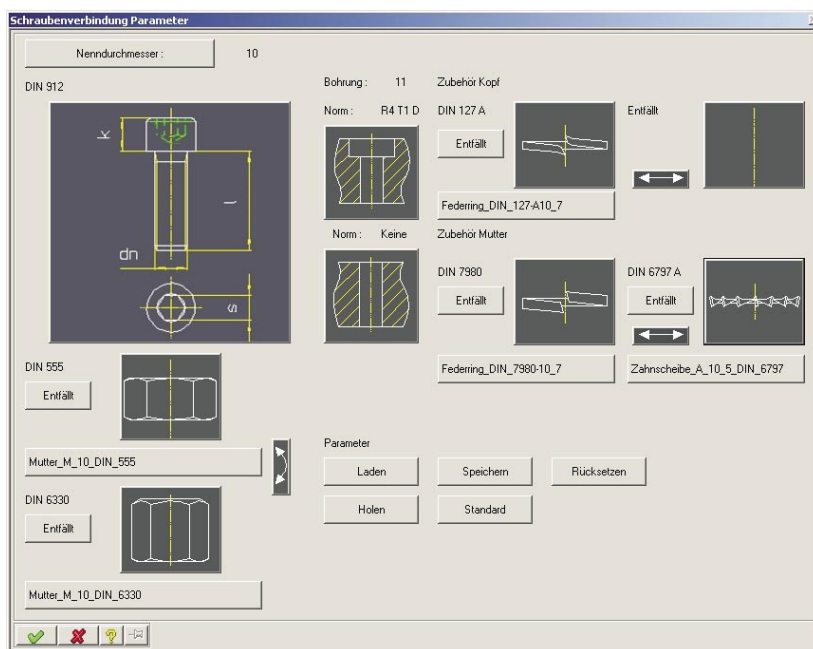
Bolt assistant

Bolt assistant simplifies plotting and changing bolt joints and boreholes. Compilation of bolt joints, including pertinent boreholes, is menu-controlled. Individual bolt joints and samples can also be produced.

Menu control also applies to subsequent modification of bolt joints, whereby the associated bore-

holes are likewise changed. When altering boreholes, individual boreholes, assembly groups of boreholes, and bore samples can be changed; it is also possible to revise drilling type and depth accordingly.





Boreholes and center holes

Drilling parameters can be entered according to DIN specifications or user-defined. Boreholes are supported by



many parts and bore patterns. Subsequent modifications of boreholes (such as copying, changing linear and radial hole patterns and hole circle diameter, and reversal of boreholes and part threads) are possible. Center holes are available in four forms according to DIN 332, size selection depending on wave diameter.

Master data of parts used in bill of materials

In connection with OneSpace Designer Modeling, SolidPower enables the user to administer BOM master data easily. The handy master data editor handles core data flexibly and accepts pre-set values. Rough-measurement calculation for steel construction profiles and other components, weight, and density are similarly supported.

In conjunction with Annotation, simple production and administration of BOM is supported. Easy-to-use functions, such as BOM browser, master data editor, BOM output in numerous formats (HTML, PDF, XLS, XML), and automatic placement of position markings or weight computations ensure efficient handling of BOMs.

Threads

With thread functions, it is possible to mark thread surfaces in OneSpace Designer, where company-

specific thread tables are supported.

Materials

SolidPower allows materials to be administered in material tables, materials to be assigned by selection in materials tables, and materials to be recalled from parts.

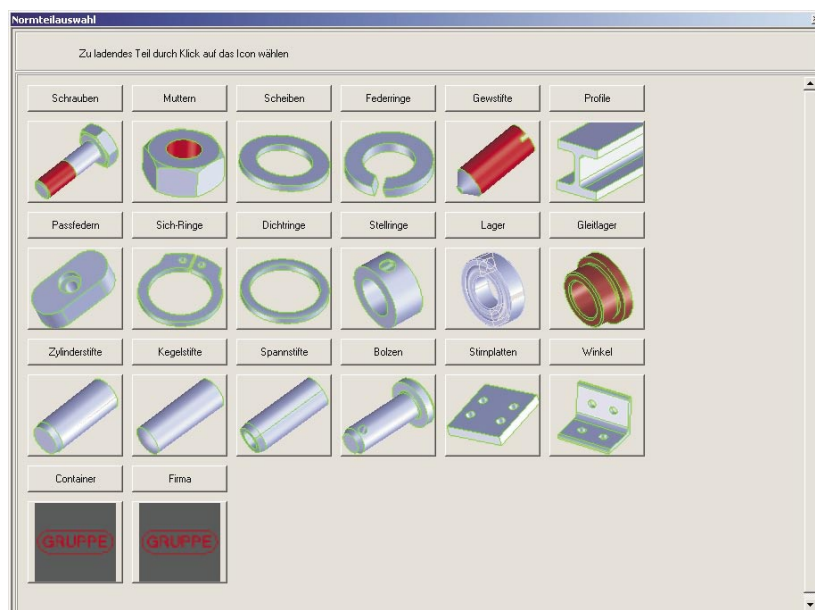
Design assistance

Design assistance merges numerous additional useful functions during the design process.

Automatic backup

With automatic backup, cyclical data protection in adjustable time intervals becomes possible. Data can be saved by packet or session; choice of backup data can be selected as desired.





Overview of SolidPower's standard parts library

Bolts

DIN558, DIN931, DIN933, DIN601, DIN6914, DIN7990, DIN912, DIN6912, DIN7984, DIN84, din7991, DIN963, DIN965, DIN7968, DIN7969, DIN835, DIN908, DIN85, DIN316, DIN427, DIN561, DIN564, DIN580; DIN603, DIN938, DIN939, DIN940, DIN960, DIN961, DIN964, DIN966, DIN6921, DIN6922, DIN 7604, DIN7964, DIN7985, DIN1207, DIN1580, DIN2009, DB2010, DIN7045, DIN7046, DIN7047, DIN24014, DIN24017, DIN24018, DIN28676, DIN28765; ISO 7380

Nuts/mothers

DIN555, DIN934, DIN6915, DIN982, DIN980 form M/V, DIN982m, DIN985, DIN7967, DIN582, DIN935, DIN508, DIN1804, DIN315, DIN557, DIN562, DIN917, DIN929, DIN936, DIN937, DIN979, DIN986, DIN1587, DIN6330, DIN6331, DIN24032, DIN24035, DIN24036, DIN28673 type 1, DIN28673 type 2, DIN28675

Seals

DIN7603 form A, DIN7603 form B, DIN7603 form C, DIN3760 form A, DIN37960 form AS

Washers

DIN125 form A/B, DIN126, DIN433, DIN6916, DIN7989, DIN6797 form A/J, DIN6798 form A/J/V, DIN434, DIN435, DIN6917, DIN6918, DIN988 form A/S, DIN137 form B, DIN137 form A, DIN1440, DIN6340, DIN7349, DIN9021

Adjusting springs

DIN6885 form A, DIN6885 form B, DIN6885 form C, DIN6885 form D, DIN6885 form E, DIN6885 form F, DIN6885 form G, DIN6885 form H, DIN6885 form J

Tension rings

DIN705 A, DIN705 B, DIN705 C

Spring washers

DIN127 form A/B, DIN 7980, DIN128 form A/B

Stud bolts

DIN913, DIN914, DIN915, DIN916, DIN417, DIN551, DIN553, DIN926, DIN24766, DIN27434, DIN27435

Guard rings

DIN471, DIN471 form T2, DIN472, DIN472 form T2. DIN6799

Friction bearings

DIN1494, DIN1850 form U, G, J, V, K, M, N, P, R, S and T

Cylindrical pins

DIN7, DIN6325, DIN7979, DIN22338 form A, B and C, DIN28734 form A and B

Tapered pins

DIN1, DIN22339, DIN7978

Tightening pins and clamping sleeves

DIN14481, DIN7346, DIN28752

Screws

DIN1444 form A and B, DIN22340 form A and B, DIN22341 form A and B

Steel assembly profiles

DIN1027 Z-steel

Bearings

Grooved ball bearings, single-row, different types
Grooved ball bearings, double-row, different types
Inclined ball bearings, single-row, different types
Inclined ball bearings, double-row

Four-point contact bearings

Pin bearings, different types
Cylindrical roller bearings, single-row, different types

Cylindrical roller bearings, double-row, different types
Cross cylindrical bearings, different types
Self-aligning (ball) bearings, double-row, different types
Self-aligning roller bearings, double-row, different types
Axial groove (ball) bearings, one-sided, different types
Axial groove (ball) bearings, two-sided, different types
Axial pin bearing, different types
Axial cylindrical roller bearing, different types
Axial self-aligning roller bearing, different types

Profiles

WUG rolled	DIN 1029
WUG edged	DIN 1029
WGL rolled	DIN 1028
WGL edged	DIN 1028
INP	DIN 1025
IPE	DIN 1025 T5
HEA (IPBL)	DIN 1025 T3
LIFT (IPB)	DIN 1025 T2
HEM (IPBV)	DIN 1025 T5
UNP rolled	DIN 1026
UNP edged	DIN 1026
UPE	DIN 1026

Section pipe

Square, outside round-cornered
Square, outside and inside round-cornered
Rectangular, outside round-cornered
Rectangular, outside & inside round-cornered

Front plates

Front plates with 2 or 4 boreholes – IH1A, IH1B and IH1E according to DAST standard
Front plates with 8 boreholes – IH2A, IH2B and IH2E according to DAST standard
Front plates with 6 boreholes – IH3A, IH3B and IH3E according to DAST standard
Front plates with 12 boreholes – IH3A and IH4B according to DAST standard
Front plates for articulated front plate connections – IS and ISH according to DAST standard

Brackets

Brackets – IW and IWH according to DAST standard

For further information

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