SolidWorks Feature Palette® Libraries

The IDEAL-PARTS libraries comprises four products representing 10,000 standard fasteners, bearings, holes and sections for SolidWorks. NUTS’N BOLTS, BALL’N ROLLER BEARINGS, TAP’N CLEAR and CHANNELS’N BEAMS feature native, multi configuration parts with integrated Smart Mates™ allowing automatic DRAG, DROP & MATE.

Standard Windows installation and seamless integration through the SolidWorks Feature Palette® means designers and engineers can be productive immediately. The parts are modelled for efficiency and realism, displaying correctly in technical drawings and photo-realistic renderings. PhotoWorks® materials are already assigned, allowing for the creation of impressive visuals for client and in-house presentation.

IDEAL-PARTS has the following advantages:
- biggest range of metric parts
- simple, robust installation
- no need to learn new programs
- correct representation of parts in 3D and in 2D
- engineering reference data included
- PhotoWorks™ materials already assigned
- SmartMates programmed where applicable
- Engineering material-properties assigned
- full manual included, plus on-line access to our Frequently-Asked-Questions (FAQ) list

BALL’N ROLLER BEARINGS are listed by number and size in the parts list (BOM) and display correctly when sectioned in drawings. Engineering data like abutment dimensions, limiting speeds and forces are included in each of the more than 7,000 part- configurations, eliminating the need to consult external references, improving efficiency. Keys, seals and rod-ends are included for added convenience.

NUTS’N BOLTS features 38 metric bolts, screws, nuts, washers, pins and clips in more than 1,900 commercially available sizes. Threads are represented as SolidWorks Cosmetic-Thread features providing accurate representation in 2D documentation. An additional 400 sheetmetal captive fasteners are included with proper call-outs!

CHANNELS’N BEAMS features the full range of BHP® and Tubemakers® range of hot-rolled and cold-formed profiles. It also includes three types of structural washers.

TAP’N CLEAR is a collection of more than 170 metric holes from M1.6 to M36. It features tapped holes and clearance holes including countersunk and counterbored, in close, medium and free tolerances. This library is available FREE at our web-site.

For complete details, product trials and technical support please visit www.ideal-parts.com or contact us at info@ideal-parts.com
<table>
<thead>
<tr>
<th>nuts’n bolts</th>
<th>ball’n roller bearings</th>
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| **Bolts & Screws** | **Angular-Contact-Ball Bearings**
| Socket Head Cap Screw | open-40°
| Countersunk Head Cap Screw | high-speed-open-15°
| Button Head Screw | **Double-Row-Ball-Bearings**
| Socket Head Shoulder Screw | steel-cage open
| Socket Low Head Cap Screw | steel-cage shielded
| Grub Screw Plain Cup | polyamide-cage
| Grub Screw Knurled Cup | polyamide-cage shielded
| Hex Bolt | polyamide-cage sealed
| Hex Bolt Flange-Head | **Double-Row-Self-Aligning-Ball-Bearings**
| Hex Head Set Screw | open
| Machine Screw Phillips Pan Head | shielded
| Machine Screw Phillips CSK | sealed
| Selftapp Phillips Pan AB* | flanged-open
| Selftapp Phillips CSK AB* | flanged-shielded
| **Nuts** | **Single-Row-Ball-Bearings**
| Anchor-Sert | open
| Hex-Nut Plain | shielded
| Lock-Nut | sealed
| Nyloc Nut | flanged-sealed
| Nyloc Nut Thin | **Thrust-Ball-Bearings**
| Slotted Nut | extra-small (TAM)
| Castle Nut | single direction flat-back
| Dome Nut | **Roller Bearings**
| Wing Nut | single direction spherical-back
| Flange Nut | single direction aligning-seat
| Pressed Nut Square | double direction flat-back
| Pressed Nut Hexagonal | double direction spherical-back
| Connecting Nut | double direction aligning-washer
| **Washers** | **Cylindrical-Roller-Bearings**
| Plain Washer | single-row retain on inner
| Spring-Lock Washer | single-row retain on outer
| Internal Lock Washer | single-row retain 2 outer & 1 inner
| External Lock Washer | single-row retain 1 outer and 2 inner
| Struc. Washer – Hardened Tempered | single-row 2 outer, 1 inner & outer flange
| Struc. Washer – Square Tapere d 8° | single-row 2 outer, 1 inner & thrust collar
| Struc. Washer – Connet® Load Indicator | double-row retain on inner
| **Pins** | double-row retain on inner-taper-bore
| Spring Pin | double-row retain on outer
| Dowel Pin | double-row retain on outer-taper-bore
| Clevis Pin* | full-complement-open
| Cotter Pin* | **Spherical-Roller Bearings**
| **Clips** | full-complement-open
| E-Clip** | plain
| Internal Circclip** | oil-groove/holes
| External Circclip** | plain
| Push-On Fixing | oil-groove/holes
| **channels’n beams** | **Spherical-Roller-Thrust Bearings**
| Equal Angle | plain
| Parallel Flange Channel | oil-groove/holes
| Rails | **Linear Bearings**
| Tapered Flange Beam | **Linear-Ball Bearings**
| Unequal Angle | compact-open
| Universal Beam | compact-seal
| Universal Bearing Pile | light-open
| Universal Column | light-seal
| Welded Beam | light-segment-open
| Welded Column | light-segment-seal
| **cold formed** | heavy-open
| Equal Angle | heavy-open-lube
| Channel | heavy-seal
| Circular Hollow Section | heavy-seal-lube
| Flat | heavy-split-open
| Rail Hollow Section | heavy-split-open-lube
| Rectangular Hollow Section | heavy-split-seal
| Square Hollow Section | **Spherical-Bushings**
| **structural washers** | heavy-segment-open
| Structural Washer Hardened Tempered | heavy-segment-seal
| Structural Washer Square Tapered 8deg | **Miscellaneous Keys**
| Structural Washer Coronet® Load Indicator | **Key-Parallel round-round**
| **tap’n clear** | **Key-Parallel flat-flat**
| clearance holes | **Key-Parallel flat-round**
| SHCS-Counterbore - close fit | **Key-Taper round-round**
| SHCS-Counterbore - medium fit | **Key-Taper flat-flat**
| SHCS-Counterbore - free fit | **Key-Gib-Head**
| Countersink - close fit | **Key-Woodruff**
| Countersink - medium fit | **Rod-End Bearings**
| Countersink - free fit | male
| Clearance Hole - close fit | female
| Clearance Hole - medium fit | **Sealing Rings**
| Clearance Hole - loose fit | Single-Lip
| tapped holes | **Double-Lip**
| Blind Hole - Tapped | **Spherical-Bushings**
| Through Hole - Partially tapped | Pillowball Spherical Bushing
| Through Hole - Through tapped |