



The IDEAL-PARTS library contains more than 12,000 standard fasteners, bearings, steel profiles and holes for SolidWorks. They are native, multi configuration parts with integrated SmartMates™ allowing automatic DRAG, DROP and MATE.

Standard Microsoft® Windows installation and seamless integration through the SolidWorks Design Library means CAD users, designers and engineers are instantly more productive.

The parts are modelled for efficiency and realism, displaying correctly in technical drawings, BOMs, callouts and photo-realistic renderings. PhotoView360™ materials are assigned for the creation of impressive visuals for client and in-house presentations. Also programmed are mass-properties, hatch patterns and RealView™ materials.

IDEAL-PARTS have the following advantages:

- biggest range of standard Australian metric parts
- all threads defined
- standard Microsoft® Windows installation
- accessed through the SolidWorks interface
- correct representation of parts in 3D and in 2D
- BOM, Callout and Weldment Cut-List names
- engineering reference data included
- engineering material-properties assigned
- PhotoView360 materials assigned
- SmartMates for drag and drop
- fully customisable
- updated for every new release of SolidWorks
- low cost upgrades
- consistent naming conventions
- modelled accurately and robustly
- minimum file size and memory footprint

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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 7000 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 45 metric bolts, screws, nuts, washers, pins and clips in more than 2000 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. Pop rivet shanks show the right length for the material thickness, hundreds of PSM® plastic and light alloy screws and inserts, plus Eurosert Riv-Nuts complement the range.

SHEETMETAL FASTENERS are drag and drop Library Features with full thread and part call-outs. Retained fasteners including PS, PF, PFH, PTO, PBSO, TR, ARB, ARBSO, MINIARB, MINI-OFF and many more.

CHANNELS'N BEAMS features the full range of OneSteel® and Tubemakers® range of hot-rolled and cold-formed profiles as individual part-files and separately as Weldment features. Weldment cut lists show full name e.g. "CHS 60.3 x 2.9 C350L0 Ultrapipe"

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 counter-bored, in close, medium and free tolerances. This library is available free free from our web-site.

For complete details, please visit our website or contact us at ip@ideal-industrial.com



Solution Partner

IDEAL PARTS™

STANDARD PARTS FOR SOLIDWORKS®

NUTS'N BOLTS

| | | | |
|----------------|---------------------------------|-----------------------|---------------|
| Bolts & Screws | Socket Head Cap Screw | SHCS | |
| | Countersunk Head Cap Screw | CSGS | |
| | Button Head Socket Screw | BHSS | |
| | Socket Head Shoulder Screw | SHSS | |
| | Socket Low Head Cap Screw | SLHCS | |
| | Grub Screw Plain Cup | GSC | |
| | Grub Screw Knurled Cup | GSK | |
| | Hex Bolt | HB | |
| | Hex Bolt Flange-Head | HBF | |
| | Hex Head Set Screw | HHSS | |
| | Machine Screw Phillips Pan | MSPP | |
| | Machine Screw Phillips CSK | MSPC | |
| | Selftap Phillips Pan AB* | SPP-AB | |
| | Selftap Phillips CSK AB* | SPC-AB | |
| | Anchor-Sert | AS | |
| Nuts | Hex-Nut Plain | HNP | |
| | Lock-Nut | LN | |
| | Nyloc Nut | NN | |
| | Nyloc Nut Thin | NNT | |
| | Slotted Nut | SN | |
| | Castle Nut | CN | |
| | Dome Nut | DN | |
| | Wing Nut | WN | |
| | Flange Nut | FN | |
| | Pressed Nut Square | PS | |
| | Pressed Nut Hexagonal | PH | |
| | Connecting Nut | CNN | |
| | Plain Washer | PW | |
| | Spring-Lock Washer | SLW | |
| | Internal Lock Washer | ILW | |
| Washers | External Lock Washer | ELW | |
| | Struc.Washer Hard Tempered | SW-HT | |
| | Struc.Washer Sqr. Tapered 8° | SW-ST | |
| | Struc.Washer Coronet® Load Ind. | SW-LI | |
| | Spring Pin | SP | |
| | Dowel Pin | DP | |
| | Clevis Pin* | CLV | |
| | Cotter Pin* | COT | |
| | E-Clip** | EC | |
| | Internal Circlip** | ICC | |
| | External Circlip** | ECC | |
| | Push-On Fixing | POF | |
| | Blind Rivets | Plain Head | BR |
| | | Large Flange Head | BR-LF |
| | | Countersunk Head 120° | BR-CSK-120deg |

SHEETMETAL FASTENERS

| | | | |
|----------------|------------------------|------------------------|----------|
| Self Clinching | Nutsert | PS | |
| | Flush-Nutsert | PF | |
| | Studsert | PFH | |
| | Blind Standoff | PBSO | |
| | Through-Hole Standoff | PTSO | |
| | Thread-Locking Nutsert | MINILOK | |
| | Blind | Tri-Lobe Blind-Nut | TR |
| | | Anchor-Sert | AS |
| | Anchor | ARB Series | ARB |
| | | ARB Self-Locking | ASL |
| | Rivet Bushes | ARB Tank-Type | ARB-TANK |
| | | ARB Miniature | MINIARB |
| | | ARB Standoff | ARBSO |
| | | ARB Miniature Standoff | MINIOFF |

CHANNELS'N BEAMS

| | | | |
|--------------------|-------------|-------------------------|-------|
| Cold Formed | Equal Angle | CA | |
| | Channel | CC | |
| | Flat | CF | |
| | Circular | CHS | |
| | Hand Rail | HAND-RAIL | |
| | Rectangular | RHS | |
| | Square | SHS | |
| | SILO | SILO | |
| | Hot Rolled | Equal Angle | EA |
| | | Parallel Flange Channel | PFC |
| | | Tapered Flange Beam | TFB |
| | | Unequal Angle | UA |
| | | Universal Beam | UB |
| | | Universal Bearing Pile | UBP |
| | | Universal Column | UC |
| Rail | | Rail | RAIL |
| | | Welded Beam | WB |
| Welded | | Welded Column | WC |
| | | Hardened Tempered | SW-HT |
| Structural Washers | | Square Tapered 8° | SW-ST |
| | | Coronet® Load Indicator | SW-LI |

BALL'N ROLLER BEARINGS

BALL BEARINGS

| | | | | |
|-------------------------------|----------------------------------|---|---------------------------------|---------------------|
| Angular-Contact-Ball-Bearings | open-40° | ACBB-40 | | |
| | high-speed-open-15° | HS-ACBB-15 | | |
| | steel-cage open | DRBB-J-open-steel | | |
| | steel-cage shielded | DRBB-ZZ-J-shield-steel | | |
| | polyamide-cage | DRBB-TNG-open-poly | | |
| | polyamide-cage shielded | DRBB-ZZ-TNG-shield-poly | | |
| | polyamide-cage sealed | DRBB-2RS-TNG-seal-poly | | |
| | Double-Row-Ball-Bearings | open | DRSABB-open | |
| | | open shielded | MBB-open | |
| | | sealed | MBB-ZZ-shield | |
| | | flanged-open | MBB-VV-seal | |
| | | flanged-shielded | MBBF-flange-open | |
| | | flanged-sealed | MBBF-ZZ-flange-shield | |
| | | Double-Row-Self-Aligning-B.B. Miniature-Ball-Bearings | open | MBBF-VV-flange-seal |
| | | | open shielded | SRBB-open |
| sealed | | | SRBB-ZZ-shield | |
| snap-groove | | | SRBB-VV-seal | |
| snap-ring | | | SRBB-N-snap-groove | |
| Thrust-Ball-Bearings | | | extra-small/miniature (TAM) | SRBB-NR-snap-ring |
| | | | extra-small/miniature (TG) | TBB-S-TAM |
| | | | single direction on flat-back | TBB-S-TG |
| | | | single direction spherical-back | TBB-S-F |
| | single direction aligning-seat | | TBB-S-S | |
| | double direction flat-back | | TBB-S-A | |
| | double direction spherical-back | | TBB-D-F | |
| | double direction aligning-washer | | TBB-D-S | |
| | | | TBB-D-A | |

ROLLER BEARINGS

| | | | |
|---------------------------------------|----------------------------------|---|----------------|
| Crossed-Roller-Bearings | full-complement-open | INA-SX-open | |
| | caged & full-complement-open | IKO-CRBC+CRB-open | |
| | caged & full-complement-sealed | IKO-CRBC-UU+CRB-UU-seal | |
| | high rigidity-open | IKO-CRBH-open | |
| | high rigidity-sealed | IKO-CRBH-UU-seal | |
| | slim-type | IKO-CRBS-open | |
| | Cylindrical-Roller-Bearings | full-complement-open | NACHI-XRN-open |
| | | single-row retain on inner | CRB-N |
| | | single-row retain on outer | CRB-NU |
| | | single-row retain 2 outer & 1 inner | CRB-NJ |
| | | single-row retain 1 outer and 2 inner | CRB-NF |
| | | single-row 2 outer, 1 inner & inner flange | CRB-NH |
| | | single-row 1 outer, 2 inner & outer flange | CRB-NP |
| | | single-row 2 outer, 1 inner & thrust collar | CRB-NUP |
| | | double-row retain on inner | CRB-NN |
| double-row retain on inner-taper-bore | | CRB-NN-K | |
| double-row retain on outer | | CRB-NNU | |
| double-row retain on outer-taper-bore | | CRB-NNU-K | |
| Spherical-Roller-Bearings | | plain | SRB |
| | | oil-groove/holes | SRB-W33-oil |
| | | plain | SRB-K-taper |
| | oil-groove/holes | SRB-W33k-oil-taper | |
| | Spherical-Roller-Thrust-Bearings | plain | SRTB |
| | | Tapered-Roller-Bearings | TRB |
| | | FC-TRB | |

LINEAR BEARINGS

| | | |
|-------------------------|------------------------|--------------------------|
| Linear-Ball-Bearings | compact-open | LB-COMP-open |
| | compact-seal | LB-COMP-seal |
| | light-open | LB-LIGHT-open |
| | light-seal | LB-LIGHT-seal |
| | light-segment-open | LB-LIGHT-seg-open |
| | light-segment-seal | LB-LIGHT-seg-seal |
| | heavy-open | LB-HEAVY-open |
| | heavy-open-lube | LB-HEAVY-open-tube |
| | heavy-seal | LB-HEAVY-seal |
| | heavy-seal-lube | LB-HEAVY-seal-lube |
| | heavy-split-open | LB-HEAVY-split-open |
| | heavy-split-open-lube | LB-HEAVY-split-open-tube |
| | heavy-split-seal | LB-HEAVY-split-seal |
| | heavy-split-seal-lube | LB-HEAVY-split-seal-lube |
| | heavy-segment-open | LB-HEAVY-seg-open |
| heavy-segment-open-lube | LB-HEAVY-seg-open-lube | |
| heavy-segment-seal | LB-HEAVY-seg-seal | |
| heavy-segment-seal-lube | LB-HEAVY-seg-seal-lube | |

MISCELLANEOUS

| | | | |
|------|--------------------------|----------------------------|----------------------------|
| Keys | Key-Parallel round-round | KEY-PAR-A | |
| | Key-Parallel flat-flat | KEY-PAR-B | |
| | Key-Parallel flat-round | KEY-PAR-C | |
| | Key-Taper round-round | KEY-TAPER-A | |
| | Key-Taper flat-flat | KEY-TAPER-B | |
| | Key-Gib-Head | KEY-GIB | |
| | Key-Woodruff | WOODRUFF | |
| | Rod-End-Bearings | male | RE-M |
| | | female | RE-F |
| | | Sealing-Rings | Sealing-Ring-Single-Lip-G |
| | Sealing-Rings | Double-Lip | Sealing-Ring-Double-Lip-SB |
| | | Pillball Spherical Bushing | SB |

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