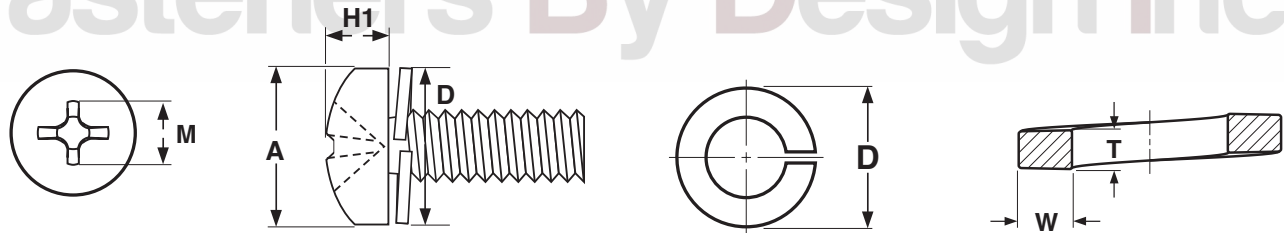


ISO 7045 Pan Phillips  
Helical Split L/W

Fasteners By Design Inc.



| METRIC - ISO 7045 PAN PHIL SPLIT LOCKWASHER SEMS |                 |               |      |                |      |                    |                             |      |           |       | ISO 7045<br>ASME B18.13.1M |  |
|--|-----------------|---------------|------|----------------|------|--------------------|-----------------------------|------|-----------|-------|----------------------------|--|
| Machine Screw Dimensions                         |                 |               |      |                |      |                    | Split Lockwasher Dimensions |      |           |       | Phillips<br>Driver Size    |  |
| Nominal<br>Size                                  | Thread<br>Pitch | A             |      | H1             |      | M                  | D                           |      | T         | W     |                            |  |
|  |                 | Head Diameter |      | Height of Head |      | Recess<br>Diameter | Outside Diameter            |      | Thickness | Width |                            |  |
|  |                 | Max           | Min  | Max            | Min  | Ref                | Max                         | Min  | Min       | Min   |                            |  |
| M2   | 0.4             | 4             | 3.7  | 1.6            | 1.46 | 2.2                | 3.7                         | -    | 0.60      | -     | 1                          |  |
| M2.5   | 0.45            | 5             | 4.7  | 2.1            | 1.96 | 2.70               | 4.81                        | 4.60 | 0.79      | 1.19  | 1                          |  |
| M3   | 0.5             | 5.6           | 5.3  | 2.40           | 2.26 | 3                  | 5.73                        | 5.49 | 1.02      | 1.40  | 1                          |  |
| M4   | 0.7             | 8             | 7.64 | 3.1            | 2.92 | 4.4                | 7.00                        | 6.74 | 1.19      | 1.57  | 2                          |  |
| M5   | 0.8             | 9.5           | 9.14 | 3.7            | 3.52 | 4.9                | 8.34                        | 8.08 | 1.42      | 1.78  | 2                          |  |
| Tolerance on Length                              |                 |               |      |                |      |                    | over 3mm to 6mm             |      | ± 0.24    |       |                            |  |
|  |                 |               |      |                |      |                    | over 6mm to 10mm            |      | ± 0.29    |       |                            |  |
|  |                 |               |      |                |      |                    | over 10mm to 18 mm          |      | ±0.35     |       |                            |  |
|  |                 |               |      |                |      |                    | over 18mm to 30 mm          |      | ±0.42     |       |                            |  |

|                                     |  |   |
|-------------------------------------|--|---|
| <b>Description</b>                  | A cross-recessed, pan head machine screw with a free-spinning, captive, helical split lockwasher.  |   |
| <b>Applications/<br/>Advantages</b> | The washer/screw assembly makes this a locking screw with the washer providing the locking action. Machine pre-assembly provides cost savings to the end user. The split lockwasher variety is preferred for use with hardened bearing surfaces. |   |
| <b>Material</b>                     | <i>Steel</i>   | <i>Stainless</i>  |
|                                     | Screw: C1008 or equivalent carbon steel<br>Washer: Spring Steel  | Screw: Class 304 SS<br>Washer: Class 304 SS                     |
| <b>Hardness</b>                     | Screw: Rockwell B 67 minimum<br>Washer: HV 430 - 530   | -   |
| <b>Tensile Strength</b>             | 400 N/mm <sup>2</sup> (applies to screws with a minimum nominal length of 2.5d (where d is the nominal diameter of the screw))   |   |
| <b>Plating</b>                      | Sems are available in a clear zinc finish and baked after plating.   | Stainless sems are usually supplied without a secondary finish. |

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