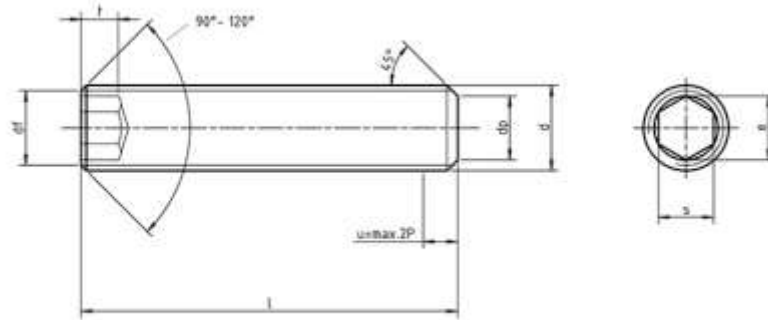


## Metric DIN 913 Hexagon Socket Set Screws with Flat Point

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### Dimensions of Metric DIN 913 hexagon socket set screws with flat point

| Thread d | M1.4    | M1.6                                 | M2    | M2.5  | M3    | M4    | M5    | M6   | M8   | M10   | M12   | M16   | M20   | M24    |        |
|----------|---------|--------------------------------------|-------|-------|-------|-------|-------|------|------|-------|-------|-------|-------|--------|--------|
| P        | 0.3     | 0.35                                 | 0.4   | 0.45  | 0.5   | 0.7   | 0.8   | 1    | 1.25 | 1.5   | 1.75  | 2     | 2.5   | 3      |        |
| df       | approx. | Lower limit of minor thread diameter |       |       |       |       |       |      |      |       |       |       |       |        |        |
| dp       | max.    | 0.7                                  | 0.8   | 1     | 1.5   | 2     | 2.5   | 3.5  | 4    | 5.5   | 7     | 8.5   | 12    | 15     | 18     |
|          | min.    | 0.45                                 | 0.55  | 0.75  | 1.25  | 1.75  | 2.25  | 3.2  | 3.7  | 5.2   | 6.64  | 8.14  | 11.57 | 14.57  | 17.57  |
| e        | min.    | 0.803                                | 0.803 | 1.003 | 1.427 | 1.73  | 2.3   | 2.87 | 3.44 | 4.58  | 5.72  | 6.86  | 9.15  | 11.43  | 13.72  |
| s        | Nom.    | 0.7                                  | 0.7   | 0.9   | 1.3   | 1.5   | 2     | 2.5  | 3    | 4     | 5     | 6     | 8     | 10     | 12     |
|          | min.    | 0.711                                | 0.711 | 0.889 | 1.27  | 1.52  | 2.02  | 2.52 | 3.02 | 4.02  | 5.02  | 6.02  | 8.025 | 10.025 | 12.032 |
|          | max.    | 0.724                                | 0.724 | 0.902 | 1.295 | 1.545 | 2.045 | 2.56 | 3.08 | 4.095 | 5.095 | 6.095 | 8.115 | 10.115 | 12.142 |
| t        | min.    | 0.6                                  | 0.7   | 0.8   | 1.2   | 1.2   | 1.5   | 2    | 2    | 3     | 4     | 4.8   | 6.4   | 8      | 10     |
|          | min.    | 1.4                                  | 1.5   | 1.7   | 2     | 2     | 2.5   | 3    | 3.5  | 5     | 6     | 8     | 10    | 12     | 15     |



### Weights of Metric DIN 913 hexagon socket set screws with flat point

| Thread d |       |       | M1.4  | M1.6  | M2    | M2.5  | M3   | M4   | M5   | M6   | M8   | M10  | M12  | M16  | M20  | M24 |
|----------|-------|-------|---|-------|-------|-------|------|------|------|------|------|------|------|------|------|-----|
| P        |       |       | 0.3   | 0.35  | 0.4   | 0.45  | 0.5  | 0.7  | 0.8  | 1    | 1.25 | 1.5  | 1.75 | 2    | 2.5  | 3   |
| l        |       |       | Weight (7.85kg/dm <sup>3</sup> ) kg/1000pcs |       |       |       |      |      |      |      |      |      |      |      |      |     |
| Nominal  | min.  | max.  |   |       |       |       |      |      |      |      |      |      |      |      |      |     |
| 2.5      | 2.3   | 2.7   | 0.018                                       | 0.023 |       |       |      |      |      |      |      |      |      |      |      |     |
| 3        | 2.8   | 3.2   | 0.022                                       | 0.029 | 0.044 | 0.075 | 0.1  |      |      |      |      |      |      |      |      |     |
| 4        | 3.76  | 4.24  | 0.029                                       | 0.037 | 0.059 | 0.1   | 0.14 | 0.22 |      |      |      |      |      |      |      |     |
| 5        | 4.76  | 5.24  | 0.036                                       | 0.046 | 0.074 | 0.125 | 0.18 | 0.3  | 0.44 |      |      |      |      |      |      |     |
| 6        | 5.76  | 6.24  | 0.043                                       | 0.056 | 0.089 | 0.15  | 0.22 | 0.38 | 0.56 | 0.76 |      |      |      |      |      |     |
| 8        | 7.71  | 8.29  |   |       | 0.119 | 0.199 | 0.31 | 0.53 | 0.8  | 1.11 | 1.89 |      |      |      |      |     |
| 10       | 9.71  | 10.29 |   |       | 0.148 | 0.249 | 0.4  | 0.68 | 1.04 | 1.46 | 2.52 | 3.78 |      |      |      |     |
| 12       | 11.65 | 12.35 |   |       |       |       | 0.49 | 0.83 | 1.28 | 1.81 | 3.15 | 4.78 |      |      |      |     |
| 16       | 15.65 | 16.35 |   |       |       |       | 0.67 | 1.13 | 1.76 | 2.51 | 4.41 | 6.78 | 9.6  |      |      |     |
| 20       | 19.58 | 20.42 |   |       |       |       | 0.85 | 1.43 | 2.24 | 3.21 | 5.67 | 8.76 | 12.4 | 21.5 | 32.3 |     |
| 25       | 24.58 | 25.42 |   |       |       |       |      |      | 2.84 | 4.09 | 7.26 | 11.2 | 16   | 28   | 42.6 | 57  |
| 30       | 29.58 | 30.42 |   |       |       |       |      |      |      | 4.97 | 8.85 | 13.7 | 19.6 | 34.6 | 52.9 | 72  |
| 35       | 34.5  | 35.5  |   |       |       |       |      |      |      | 5.85 | 10.4 | 16.2 | 23.2 | 41.1 | 63.2 | 87  |
| 40       | 39.5  | 40.5  |   |       |       |       |      |      |      |      | 12   | 18.7 | 26.8 | 47.7 | 73.5 | 102 |
| 45       | 44.5  | 45.5  |   |       |       |       |      |      |      |      |      |      |      |      | 83.8 | 117 |
| 50       | 49.5  | 50.5  |   |       |       |       |      |      |      |      |      |      |      |      | 94.1 | 132 |
| 55       | 54.4  | 55.6  |   |       |       |       |      |      |      |      |      |      |      |      |      | 147 |
| 60       | 59.4  | 60.6  |   |       |       |       |      |      |      |      |      |      |      |      |      | 162 |

Metric DIN 913 hexagon socket set screws with flat point are headless and fully threaded screws with an internal hexagonal drive at one end and a flat surface at the other. They are to be inserted through pre-drilled aligned holes and used to reset or relocate hard shafts. Aspen Fasteners offers one of the most complete ranges of metric set screws and other inch and metric industrial fasteners for immediate delivery from stock. The following sizes of DIN 913 hexagon socket set screws with flat point are available for immediate shipping from stock: Diameters ranging from M2 to M20 with lengths up to 100mm in steel and stainless steel A2 and A4. View parts by clicking on the following link: [DIN 913 hexagon socket set screws with flat point](#)

Aspen Fasteners 4807 Rockside Road, Suite 400, Independence, OH 44131 USA  
[www.aspenfasteners.com](http://www.aspenfasteners.com) | [aspensales@aspenfasteners.com](mailto:aspensales@aspenfasteners.com) | 1-800-479-0056

Headquarters: Independence OH USA; Montreal QC Canada;  
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DIN (Deutsches Institut für Normung - German Institute for Standardization) standards are issued for a variety of components including industrial fasteners as Metric DIN 913 hexagon socket set screws with flat point. The DIN standards remain common in Germany, Europe and globally even though the transition to ISO standards is taking place. DIN standards continue to be used for parts which do not have ISO equivalents or for which there is no need for standardization. The ISO equivalent for DIN 913 hexagon socket set screws with flat point is ISO 4026.

**1) Mechanical properties of stainless steel for metric DIN 913 hexagon socket set screws with flat point**

Stainless steels can be divided into three groups of steel - austenitic, ferritic and martensitic. Austenitic steel is by far the most common type (>90% of commercial fasteners). The steel groups and strength classes are designated by a four-digit sequence of letters and numbers (eg A2-70) as shown in the following table. DIN EN ISO 3506 governs screws and nuts made from stainless steel.

| Steel group | Steel grade | Strength class | Screws, Nuts and Bolts             |                      |           |                            |
|-------------|-------------|----------------|------------------------------------|----------------------|-----------|----------------------------|
|             |             |                | Tensile strength N/mm <sup>2</sup> | Tensile strength PSI | Dia range | Nut Load N/mm <sup>2</sup> |
| Austenitic  | A2 and A4   | 50             | 500                                | 70,000               | <=M39     | 500                        |
|             |             | 70             | 700                                | 100,000              | <=M20     | 700                        |
|             |             | 80             | 800                                | 118,000              | <=M20     | 800                        |

The tensile stress is calculated with reference to the tensile stress area (see DIN EN ISO 3506-1979). Nuts to be paired with same grade of stainless steel screws

| Steel group | Property Strength class | Made From | Characteristics  |
|-------------|-------------------------|-----------|--|
| Austenitic  | 50                      | A1, A2    | Soft; cold worked, turned and soft pressed fasteners     |
|             | 70                      | A2, A4    | Cold worked, normal strength formed fasteners            |
|             | 80                      | A2, A4    | Extreme cold worked, high strength, special applications |

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2) Chemical composition of stainless steel metric DIN 913 hexagon socket set screws with flat point

| Grade      | USA Grade  | Material designation | Material no. | C %    | Si ≤ % | Mn ≤ % | Cr %         | Mo %       | Ni %         |
|------------|------------|----------------------|--------------|--------|--------|--------|--------------|------------|--------------|
| <b>A 2</b> | <b>304</b> | X 5Cr Ni 1810        | 1.4301       | ≤ 0.07 | 1.0    | 2.0    | 17.5 to 19.5 | -          | 8.0 to 10.5  |
|            |            | X 2 Cr Ni 1811       | 1.4306       | ≤ 0.03 | 1.0    | 2.0    | 18.0 to 20.0 | -          | 10 to 12.0   |
|            |            | X 8 Cr Ni 19/10      | 1.4303       | ≤ 0.07 | 1.0    | 2.0    | 17.0 to 19.0 | -          | 11.0 to 13.0 |
| <b>A 4</b> | <b>316</b> | X 5 Cr Ni Mo 1712    | 1.4401       | ≤ 0.07 | 1.0    | 2.0    | 16.5 to 18.5 | 2.0 to 2.5 | 10.0 to 13.0 |
|            |            | X 2 Cr Ni Mo 1712    | 1.4404       | ≤ 0.03 | 1.0    | 2.0    | 16.5 to 18.5 | 2.0 to 2.5 | 10 to 13     |

3) Chemical composition of steel metric DIN 913 hexagon socket set screws with flat point

| PROPERTY CLASS     | MATERIAL AND TREATMENT   | CHEMICAL COMPOSITION LIMITS % |      |       |       | TEMPERING TEMP °C MIN. |
|--------------------|--|-------------------------------|------|-------|-------|------------------------|
|                    |  | C                             |      | P     | S     |                        |
|                    |  | min.                          | max. | max.  | max.  |                        |
| 4.6, 4.8, 5.8, 6.8 | Low or medium carbon steel   | -                             | 0.55 | 0.05  | 0.06  | -                      |
| 8.8                | Medium carbon steel quenched, tempered   | 0.25                          | 0.55 | 0.04  | 0.05  | 425                    |
| 9.8                | Medium carbon steel quenched, tempered   | 0.25                          | 0.55 | 0.04  | 0.05  | 425                    |
| 10.9               | Medium carbon steel additives e.g. boron, Mn, Cr or Alloy steel - quenched, tempered | 0.20                          | 0.55 | 0.04  | 0.05  | 425                    |
| 12.9               | Alloy steel - quenched, tempered   | 0.20                          | 0.50 | 0.035 | 0.035 | 380                    |

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**4) Mechanical properties of steel for metric DIN 913 hexagon socket set screws with flat point**

| MECHANICAL PROPERTY                             |          | PROPERTY CLASS |     |     |     |            |           |     |      |      |  |
|---|----------|----------------|-----|-----|-----|------------|-----------|-----|------|------|--|
|   |          | 4.8            | 5.6 | 5.8 | 6.8 | 8.8        |           | 9.8 | 10.9 | 12.9 |  |
|   |          |                |     |     |     | Up to M 16 | Over M 16 |     |      |      |  |
| Tensile Strength (Rm, N/mm <sup>2</sup> )       | nom.     | 400            | 500 |     | 600 | 800        |           | 900 | 1000 | 1200 |  |
|   | min.     | 420            | 500 | 520 | 600 | 800        | 830       | 900 | 1040 | 1220 |  |
| Vickers Hardness                                | min.     | 130            | 155 | 160 | 190 | 250        | 255       | 290 | 320  | 385  |  |
|   | max.     | 250            |     |     |     | 320        | 336       | 360 | 380  | 435  |  |
| Brinell Hardness                                | min.     | 124            | 147 | 152 | 181 | 319        | 242       | 266 | 295  | 353  |  |
|   | max.     | 238            |     |     |     | 385        | 319       | 342 | 363  | 412  |  |
| Rockwell Hardness                               | min. HR  | 71             | 79  | 82  | 89  | -          |           |     |      |      |  |
|   | HRC      | -              | -   | -   | -   | 20         | 23        | 28  | 32   | 39   |  |
|   | HR       | 95             |     |     |     | 99         | -         |     |      |      |  |
|   | max. HRC | -              | -   | -   | -   | 32         | 34        | 37  | 39   | 44   |  |
| Yield Stress ReL. N/mm <sup>2</sup>             | nom.     | 320            | 300 | 400 | 480 | -          |           |     |      |      |  |
|   | min.     | 340            | 300 | 420 | 480 | -          |           |     |      |      |  |
| Stress at permanent set limit N/mm <sup>2</sup> | nom.     | -              |     |     |     | 640        |           | 720 | 900  | 1080 |  |
|   | min.     | -              |     |     |     | 640        | 660       | 720 | 940  | 1100 |  |

**5) Metric DIN 913 hexagon socket set screws with flat point available at Aspen Fasteners**

(click to view available sizes and prices)



**[A2 Stainless Steel](#)**



**[A4 Stainless Steel](#)**



**[Steel](#)**

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