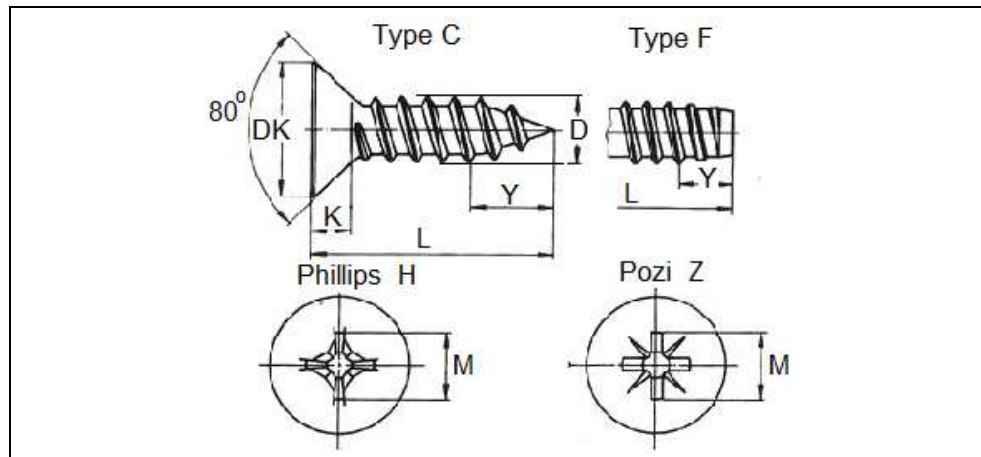


Metric DIN 7982C - Cross Recessed Flat Countersunk Head Self-Tapping Sheet Metal Screws

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Dimensions of Metric DIN 7982C Flat Countersunk Head Self-Tapping Sheet Metal Screws

| Thread size | | | 2.2 | 2.9 | 3.5 | (3.9) | 4.2 | 4.8 | 5.5 | 6.3 |
|---------------------|--------------------------|----------------|------|------|------|-------|------|------|-------|-------|
| P | | | 0.8 | 1.1 | 1.3 | 1.3 | 1.4 | 1.6 | 1.8 | 1.8 |
| a | max. | | 0.8 | 1.1 | 1.3 | 1.3 | 1.4 | 1.6 | 1.8 | 1.8 |
| DK | nominal=max. | | 4.2 | 5.6 | 6.9 | 7.5 | 8.2 | 9.5 | 10.8 | 12.5 |
| | min. | | 3.9 | 5.3 | 6.54 | 7.14 | 7.84 | 9.14 | 10.37 | 12.07 |
| K | nominal=max. | | 1.8 | 2.2 | 2.6 | 2.8 | 3.05 | 3.55 | 3.95 | 4.55 |
| | min. | | 1.55 | 1.95 | 2.35 | 2.55 | 2.75 | 3.25 | 3.65 | 4.25 |
| Cross recess | | No. | 1 | 1 | 2 | 2 | 2 | 2 | 3 | 3 |
| Type H | m | approx. | 2.6 | 3 | 4.2 | 4.4 | 4.6 | 5 | 6.5 | 7.1 |
| | Penetration depth | min. | 0.86 | 1.35 | 1.4 | 1.63 | 1.8 | 2.26 | 2.49 | 3 |
| | | max. | 1.32 | 1.8 | 2.03 | 2.26 | 2.46 | 2.87 | 3.15 | 3.66 |
| Type Z | m | approx. | 2.4 | 2.9 | 3.9 | 4.1 | 4.3 | 4.7 | 6.2 | 6.7 |
| | Penetration depth | min. | 1.1 | 1.58 | 1.47 | 1.7 | 1.88 | 2.28 | 2.51 | 3.02 |
| | | max. | 1.35 | 1.83 | 1.93 | 2.16 | 2.34 | 2.74 | 2.97 | 3.48 |
| y | max. | Type C | 2 | 2.6 | 3.2 | 3.5 | 3.7 | 4.3 | 5 | 6 |
| | | Type F | 1.6 | 2.1 | 2.5 | 2.7 | 2.8 | 3.2 | 3.6 | 3.6 |

Weight of Metric DIN 7982 Flat Countersunk Head Self-Tapping Sheet Metal Screws

| L nominal | Type C | | Type F | | Weight kg/1000 pcs | | | | | | | |
|--------------|--------|------|--------|------|--------------------|-------|------|------|------|------|------|------|
| | min. | max. | min. | max. | | | | | | | | |
| 4.5 | 3.7 | 5.3 | 3.7 | 4.5 | 0.174 | | | | | | | |
| 6.5 | 5.7 | 7.3 | 5.7 | 6.5 | 0.214 | 0.424 | | | | | | |
| 9.5 | 8.7 | 10.3 | 8.7 | 9.5 | 0.274 | 0.532 | 0.84 | 1.07 | 1.26 | 1.85 | | |
| 13 | 12.2 | 13.8 | 12.2 | 13 | 0.344 | 0.658 | 1.02 | 1.29 | 1.5 | 2.18 | 3.24 | 4.32 |
| 16 | 15.2 | 16.8 | 15.2 | 16 | 0.404 | 0.766 | 1.17 | 1.48 | 1.71 | 2.46 | 3.62 | 4.86 |
| 19 | 18.2 | 19.8 | 18.2 | 19 | | 0.874 | 1.32 | 1.67 | 1.92 | 2.74 | 4 | 5.4 |
| 22 | 21.2 | 22.8 | 20.7 | 22 | | | 1.47 | 1.86 | 2.13 | 3.02 | 4.38 | 5.94 |
| 25 | 24.2 | 25.8 | 23.7 | 25 | | | 1.62 | 2.05 | 2.34 | 3.3 | 4.76 | 6.48 |
| 32 | 30.7 | 33.3 | 30.7 | 32 | | | | | 2.83 | 3.96 | 5.67 | 7.74 |
| 38 | 36.7 | 39.3 | 36.7 | 38 | | | | | | 4.52 | 6.45 | 8.82 |

Metric DIN 7982C Cross Recessed Flat Countersunk Head Self-Tapping Sheet Metal Screws are designed to cut threads into pre-drilled untapped holes of the substrate into which they are screwed. The recommended pilot hole sizes vary, depending on the diameter of the screw to be used and thickness of the substrate material. These screws are available in zinc plated steel as well as stainless steel A2 and A4. Metric DIN 7982C Cross Recessed Flat Countersunk Head Self-Tapping Sheet Metal Screws are fully threaded with a coarse thread and a gimlet point (Form C). Recommended to be used in thin gauge sheet metal, resinous plywood, and composite materials. The flat head is ideal where the head is to sit flush with the substrate when fully engaged. The flat head has an 80 degree countersink. Available drives include phillips, pozidrive and 6-lobe Torx-style. Aspen Fasteners offers over 500.000 unique fastener products from stock in inch and metric standard in a variety of materials and finishes. The following sizes metric DIN 7982C Cross Recessed Flat Countersunk Head Self-Tapping Sheet Metal Screws are available for immediate shipping from stock: Diameters ranging from M2.2 to M6.3 up to 100mm long in zinc plated steel and stainless steel A2 and A4. View parts by clicking on the following link: [DIN 7982 flat head self-tapping sheet metal screws](#)

DIN (Deutsches Institut für Normung - German Institute for Standardization) standards are issued for a variety of components including industrial fasteners as metric DIN 7982C Cross Recessed Flat Countersunk Head Self-Tapping Sheet Metal Screws. 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 of a metric DIN 7982C Cross Recessed Flat Countersunk Head Self-Tapping Sheet Metal Screws is ISO 7050.

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Distribution Centers: Boston MA; Chicago IL; Cincinnati KY; Dallas TX; Denver CO; Houston TX; Jersey City NJ; Los Angeles CA; Miami FL;
San Francisco CA; Seattle WA; Washington VA; Toronto ON; Calgary AB; Vancouver BC; Jiutepec (Temixco); Mexico City; Monterrey

1) Mechanical properties of stainless steel for metric DIN 7982 Flat Countersunk Head Self-Tapping Sheet Metal Screws

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 ² | Tensile strength PSI | Dia range | Nut Load N/mm ² |
| 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 |

2) Chemical composition of stainless steel metric DIN 7982 Flat Countersunk Head Self-Tapping Sheet Metal Screws

| Grade | USA Grade | Material designation | Material no. | C % | Si ≤ % | Mn ≤ % | Cr % | Mo % | Ni % |
|------------|------------|----------------------|--------------|--------|--------|--------|--------------|------------|--------------|
| A 2 | 304 | 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 |
| A 4 | 316 | 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 7982 Flat Countersunk Head Self-Tapping Sheet Metal Screws

| 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 |

4) Mechanical properties of steel for metric DIN 7982 Flat Countersunk Head Self-Tapping Sheet Metal Screws

| 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 ²) | 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 ² | nom. | 320 | 300 | 400 | 480 | - | | | | | |
| | min. | 340 | 300 | 420 | 480 | - | | | | | |
| Stress at permanent set limit N/mm ² | nom. | - | | | | 640 | | 720 | 900 | 1080 | |
| | min. | - | | | | 640 | 660 | 720 | 940 | 1100 | |

Disclaimer

Dimensional data and technical information for metric DIN 7982C Cross Recessed Flat Countersunk Head Self-Tapping Sheet Metal Screws was obtained from publicly available sources and not acquired through standards agencies. It has been completed and compiled for reference purposes only; where discrepancies are found they are subject to change without notice. Aspen Fasteners makes no warranties or representations regarding the accuracy and validity of the compiled information and data. Contact the relevant standards authorities for accurate and detailed information.