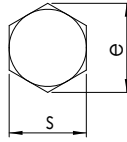
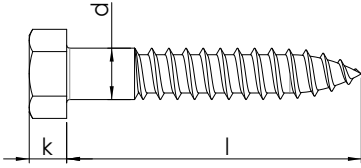


Teknik Bilgiler / Technical Informations

| Thread size / Anma çapı (d) | M2 | M2,5 | M3 | M4 | M5 | M6 | M8 | M10 |
|----------------------------------|------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Head height / Kafa yükseliği k | 1,30 | 1,60 | 2,00 | 2,60 | 3,30 | 3,90 | 5,00 | 6,00 |
| Head dia / Kafa çapı d2 | 3,80 | 4,50 | 5,50 | 7,00 | 8,50 | 10,00 | 13,00 | 16,00 |
| Socket width / Yarık genişliği n | 0,50 | 0,60 | 0,80 | 1,00 | 1,20 | 1,60 | 2,00 | 2,50 |
| Socket depth / Yarık derinliği t | min. 0,60 max. 0,80 | 0,70 0,90 | 0,90 1,15 | 1,20 1,50 | 1,50 1,80 | 1,80 2,20 | 2,10 2,60 | 2,40 3,00 |

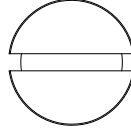
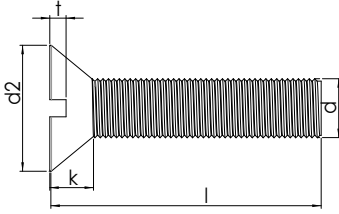
| Thread size / Anma çapı (d) | M2 | M2,5 | M3 | M4 | M5 | M6 | M8 | M10 |
|-----------------------------|-------|-------|-----------------------|------|------|------|-------|-------|
| Length / Boy (l) | min. | max. | Weight / Ağırlık gr/p | | | | | |
| 5 | 4,75 | 5,25 | 0,20 | 0,33 | 0,56 | 1,09 | | |
| 6 | 5,75 | 6,25 | 0,22 | 0,36 | 0,60 | 1,17 | 2,06 | |
| 8 | 7,70 | 8,30 | 0,25 | 0,42 | 0,69 | 1,33 | 2,20 | 3,56 |
| 10 | 9,70 | 10,30 | 0,29 | 0,48 | 0,78 | 1,47 | 2,55 | 3,92 |
| 12 | 11,65 | 12,35 | 0,33 | 0,54 | 0,87 | 1,63 | 2,80 | 4,27 |
| 16 | 14,65 | 15,35 | 0,40 | 0,66 | 1,04 | 1,95 | 3,30 | 4,98 |
| 20 | 19,60 | 20,40 | 0,48 | 0,78 | 1,22 | 2,25 | 3,78 | 5,69 |
| 25 | 24,60 | 25,40 | | 1,44 | 2,64 | 4,40 | 6,56 | 12,60 |
| 30 | 29,60 | 30,40 | | 1,66 | 3,02 | 5,02 | 7,45 | 14,20 |
| 35 | 34,50 | 35,50 | | 1,88 | 3,41 | 5,62 | 8,25 | 15,80 |
| 40 | 39,50 | 40,50 | | 2,10 | 3,80 | 6,25 | 9,20 | 17,40 |
| 45 | 44,50 | 45,50 | | | 4,17 | 6,88 | 10,00 | 18,90 |
| 50 | 50,50 | 50,50 | | | 4,57 | 7,50 | 10,90 | 20,60 |
| 55 | 54,00 | 56,00 | | | | | | 22,10 |
| 60 | 59,00 | 61,00 | | | | | | 38,60 |



Teknik Bilgiler / Technical Informations

| Thread size / Anma çapı (d) | | 4 | 5 | 6 | 7 | 8 | 10 | 12 | 16 | 20 |
|---------------------------------|---------|------|------|-------|-------|-------|-------|-------|-------|-------|
| Head height / Kafa yüksekliği k | Nominal | 2,80 | 3,50 | 4,00 | 5,00 | 5,50 | 7,00 | 8,00 | 10,00 | 13,00 |
| | min. | 2,50 | 3,13 | 3,63 | 4,63 | 5,13 | 6,55 | 7,55 | 9,55 | 12,10 |
| | max. | 3,10 | 3,88 | 4,38 | 5,38 | 5,88 | 7,45 | 8,45 | 10,45 | 13,90 |
| Head with / Anahtar ağı s | min. | 6,64 | 7,64 | 9,64 | 11,57 | 12,57 | 16,57 | 18,48 | 23,16 | 29,16 |
| | max. | 7,00 | 8,00 | 10,00 | 12,00 | 13,00 | 17,00 | 19,00 | 24,00 | 30,00 |
| Diagonal / Köşegen e | | 7,50 | 8,63 | 10,89 | 13,07 | 14,20 | 18,72 | 20,88 | 26,17 | 32,95 |

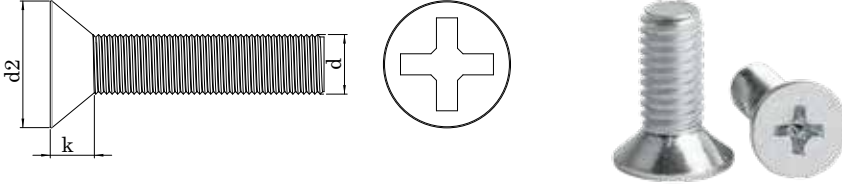
| Thread size / Anma çapı (d) | | 4 | 5 | 6 | 7 | 8 | 10 | 12 | 16 | 20 |
|-----------------------------|--------|-----------------------|------|------|-------|-------|-------|-------|--------|--------|
| Length / Boy (l) | min. | | | | | | | | | |
| | max. | | | | | | | | | |
| | | Weight / Ağırlık gr/p | | | | | | | | |
| 16 | 15,10 | 16,90 | 1,71 | 2,92 | | | | | | |
| 20 | 18,95 | 21,05 | 2,01 | 3,42 | 5,02 | | | | | |
| 25 | 23,95 | 26,05 | 2,41 | 4,02 | 5,82 | 11,50 | | | | |
| 30 | 28,95 | 31,05 | 2,81 | 4,62 | 6,62 | 12,90 | 23,60 | | | |
| 35 | 33,75 | 36,25 | 3,11 | 5,12 | 7,42 | 14,20 | 25,80 | 36,20 | | |
| 40 | 38,75 | 41,25 | 3,51 | 5,82 | 8,22 | 15,60 | 28,00 | 39,20 | | |
| 45 | 43,75 | 46,25 | | 6,43 | 8,94 | 16,90 | 30,00 | 42,10 | | |
| 50 | 48,75 | 51,25 | | 7,03 | 9,64 | 18,20 | 32,10 | 45,40 | 84,10 | |
| 55 | 53,50 | 56,50 | | | 10,50 | 19,60 | 34,30 | 48,60 | 89,70 | |
| 60 | 58,50 | 61,50 | | | 11,20 | 20,90 | 36,50 | 51,80 | 94,90 | 165,00 |
| 70 | 68,50 | 71,50 | | | | 23,60 | 40,70 | 57,80 | 107,00 | 182,00 |
| 80 | 78,50 | 81,50 | | | | 26,50 | 45,20 | 64,50 | 118,00 | 201,00 |
| 100 | 98,25 | 101,75 | | | | 32,00 | 54,00 | 77,10 | 141,00 | 238,00 |
| 120 | 118,25 | 121,75 | | | | | | 89,50 | 163,00 | 275,00 |
| 150 | 148,00 | 152,00 | | | | | | | 198,00 | 328,00 |



Teknik Bilgiler / Technical Informations

| Thread size / Anma çapı (d) | | M2 | M2,5 | M3 | M4 | M5 | M6 | M8 | M10 |
|----------------------------------|--------------|------|------|------|------|------|-------|-------|-------|
| Head height / Kafa yükseliği | max. | 1,20 | 1,50 | 1,65 | 2,20 | 2,50 | 3,00 | 4,00 | 5,00 |
| Head dia / Kafa çapı | d2 min. | 3,50 | 4,40 | 5,30 | 7,80 | 8,84 | 10,57 | 14,07 | 17,57 |
| | d2 max. | 3,80 | 4,70 | 5,60 | 7,14 | 9,20 | 11,00 | 14,50 | 18,00 |
| | Nominal size | 0,50 | 0,60 | 0,80 | 1,00 | 1,20 | 1,80 | 2,00 | 2,50 |
| Socket width / Yarık genişliği | min. | 0,56 | 0,66 | 0,86 | 1,06 | 1,26 | 1,66 | 2,06 | 2,56 |
| | max. | 0,70 | 0,80 | 1,00 | 1,20 | 1,51 | 1,91 | 2,31 | 2,81 |
| Socket depth / Yarık derinliği t | min. | 0,40 | 0,50 | 0,60 | 0,80 | 1,00 | 1,20 | 1,60 | 2,00 |
| | max. | 0,60 | 0,70 | 0,85 | 1,10 | 1,30 | 1,60 | 2,10 | 2,60 |

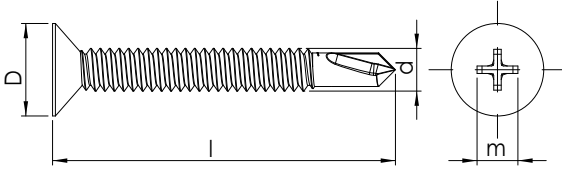
| Thread size / Anma çapı (d) | | M2 | M2,5 | M3 | M4 | M5 | M6 | M8 | M10 | |
|-----------------------------|-------|-----------------------|------|------|------|-------|------|------|-------|------|
| Length / Boy (l) | min. | | | | | | | | | |
| | max. | | | | | | | | | |
| | | Weight / Ağırlık gr/p | | | | | | | | |
| 5 | 4,75 | 5,25 | 0,14 | 0,24 | 0,34 | 0,676 | | | | |
| 6 | 5,75 | 6,25 | 0,15 | 0,27 | 0,38 | 0,74 | 1,21 | | | |
| 8 | 7,70 | 8,30 | 0,19 | 0,33 | 0,47 | 0,91 | 1,45 | 2,19 | | |
| 10 | 9,70 | 10,30 | 0,23 | 0,39 | 0,56 | 1,06 | 1,70 | 2,54 | 5,03 | |
| 12 | 11,65 | 12,35 | 0,27 | 0,45 | 0,64 | 1,22 | 1,95 | 2,89 | 5,67 | 9,59 |
| 16 | 15,65 | 16,35 | 0,34 | 0,57 | 0,82 | 1,53 | 2,44 | 3,61 | 6,94 | 11,6 |
| 20 | 19,60 | 20,40 | | 0,69 | 1,00 | 1,84 | 2,94 | 4,31 | 8,21 | 13,6 |
| 25 | 24,60 | 25,40 | | 0,84 | 1,22 | 2,22 | 3,55 | 5,19 | 9,79 | 16,1 |
| 30 | 29,60 | 30,40 | | | 1,44 | 2,61 | 4,16 | 6,08 | 11,4 | 18,6 |
| 35 | 34,50 | 35,50 | | | | 3,00 | 4,76 | 6,96 | 13,00 | 21,1 |
| 40 | 39,50 | 40,50 | | | | 3,38 | 5,39 | 7,84 | 14,6 | 23,6 |
| 45 | 44,50 | 45,50 | | | | | 6,02 | 8,73 | 16,2 | 26,1 |
| 50 | 49,50 | 50,50 | | | | | 6,65 | 9,61 | 17,8 | 28,6 |
| 55 | 54,00 | 56,00 | | | | | | | 19,4 | 31,1 |
| 60 | 59,00 | 61,00 | | | | | | | | 33,7 |



Teknik Bilgiler / Technical Informations

| Thread size / Anma çapı (d) | | M2 | M2,5 | M3 | M4 | M5 | M6 | M8 | M10 |
|-------------------------------------|------|------|------|------|------|------|-------|-------|-------|
| Head height / Kafa yüksekliği k | max. | 1,20 | 1,50 | 1,65 | 2,20 | 2,50 | 3,00 | 4,00 | 5,00 |
| | min. | 3,50 | 4,40 | 5,30 | 7,14 | 8,84 | 10,57 | 14,07 | 17,27 |
| Head dia / Kafa çapı d ₂ | max. | 3,80 | 4,70 | 5,60 | 7,50 | 9,20 | 11,00 | 14,50 | 18,00 |
| | a | max. | 0,80 | 0,90 | 1,00 | 1,40 | 1,60 | 2,00 | 2,50 |
| PH | m | 2,35 | 2,70 | 2,90 | 4,40 | 4,60 | 6,60 | 8,70 | 9,60 |
| | min. | 0,95 | 1,25 | 1,50 | 1,90 | 2,10 | 2,80 | 3,90 | 4,80 |
| | max. | 1,25 | 1,55 | 1,80 | 2,40 | 2,60 | 3,30 | 4,40 | 5,30 |
| PZ | m | 2,20 | 2,50 | 2,80 | 4,00 | 4,40 | 6,10 | 8,50 | 9,40 |
| | min. | 0,92 | 1,22 | 1,48 | 1,60 | 2,05 | 2,46 | 3,86 | 4,77 |
| | max. | 1,17 | 1,47 | 1,78 | 2,05 | 2,51 | 2,92 | 4,32 | 5,23 |

| Thread size / Anma çapı (d) | | M2 | M2,5 | M3 | M4 | M5 | M6 | M8 | M10 |
|-----------------------------|-------|-----------------------|------|------|------|------|------|-------|-------|
| Length / Boy (l) | min. | Weight / Ağırlık gr/p | | | | | | | |
| | 5 | 4,75 | 0,14 | 0,24 | 0,34 | 0,68 | | | |
| 6 | 5,75 | 0,15 | 0,27 | 0,38 | 0,75 | 1,21 | | | |
| 8 | 7,7 | 0,19 | 0,33 | 0,47 | 0,90 | 1,45 | 2,19 | | |
| 10 | 9,7 | 0,23 | 0,39 | 0,56 | 1,06 | 1,70 | 2,54 | 5,03 | |
| 12 | 11,65 | 0,27 | 0,45 | 0,64 | 1,22 | 1,95 | 2,89 | 5,67 | 9,59 |
| 16 | 15,65 | 0,34 | 0,57 | 0,82 | 1,53 | 2,44 | 3,61 | 6,94 | 11,80 |
| 20 | 19,6 | 0,42 | 0,69 | 1,00 | 1,84 | 2,94 | 4,31 | 8,21 | 13,80 |
| 25 | 24,6 | | 0,84 | 1,22 | 2,22 | 3,55 | 5,19 | 9,79 | 16,10 |
| 30 | 29,6 | | | 1,44 | 2,61 | 4,16 | 6,08 | 11,70 | 16,80 |
| 35 | 34,5 | | | | 2,99 | 4,76 | 6,96 | 13,00 | 21,10 |
| 40 | 39,5 | | | | 3,36 | 5,39 | 7,84 | 14,60 | 23,60 |
| 45 | 44,5 | | | | | 6,02 | 8,73 | 16,20 | 26,70 |
| 50 | 49,5 | | | | | 6,65 | 9,61 | 17,90 | 28,80 |
| 55 | 54 | | | | | | | 19,40 | 31,10 |
| 60 | 59 | | | | | | | | 33,20 |

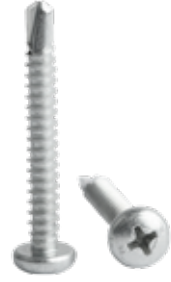
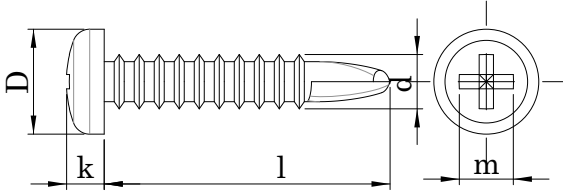


Teknik Bilgiler / Technical Informations

| Thread size / Anma çapı (d) | 3,9 | 4,2 | 4,8 |
|-----------------------------|------|------|------|
| D | 7,50 | 8,10 | 9,50 |
| m | 4,60 | 4,70 | 5,10 |
| ph | 2,00 | 2,00 | 2,00 |

| Thread size / Anma çapı (d) | 3,9 | 4,2 | 4,8 | |
|--------------------------------|------|------|------|------|
| Drill range / Delme kapasitesi | min. | 0.70 | 0.70 | 1.75 |
| | max. | 2.40 | 3.00 | 4.40 |

| Thread size / Anma çapı (d) | | | 3,9 | 4,2 | 4,8 |
|-----------------------------|-----------|--------|-----------------------|------|------|
| Length / Boy (l) | min. max. | | Weight / Ağırlık gr/p | | |
| | 13 | 12,20 | 13,50 | 0,90 | 1,12 |
| 16 | 15,20 | 16,50 | 1,05 | 1,35 | 1,85 |
| 19 | 18,20 | 19,70 | 1,27 | 1,53 | 2,15 |
| 22 | 21,20 | 22,70 | 1,35 | 1,73 | 2,30 |
| 25 | 24,00 | 26,00 | 1,60 | 1,95 | 2,55 |
| 32 | 30,80 | 32,60 | 1,91 | 2,30 | 3,25 |
| 38 | 37,00 | 39,00 | 2,30 | 2,82 | 3,72 |
| 45 | 43,40 | 45,40 | | 3,20 | 4,35 |
| 50 | 49,50 | 51,50 | | 3,65 | 4,81 |
| 60 | 58,80 | 61,20 | | | 5,65 |
| 70 | 68,80 | 71,20 | | | 6,45 |
| 80 | 78,80 | 81,20 | | | 7,38 |
| 90 | 88,90 | 91,20 | | | 8,30 |
| 100 | 98,80 | 101,20 | | | 9,18 |

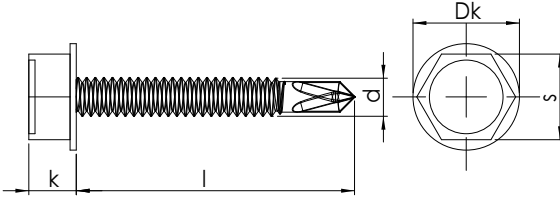


Teknik Bilgiler / Technical Informations

| | 3,9 | 4,2 | 4,8 |
|-----------|-----|------|------|
| d | 3,9 | 4,2 | 4,8 |
| D | 7,5 | 8,2 | 9,5 |
| k | 2,8 | 3,05 | 3,55 |
| m | 4,4 | 4,6 | 5 |
| ph | 2 | 2 | 2 |

| Thread size / Anma çapı (d) | 3,9 | 4,2 | 4,8 |
|---------------------------------------|------|------|------|
| Drill range / Delme kapasitesi | | | |
| min. | 0.70 | 0.70 | 1.75 |
| max. | 2.40 | 3.00 | 4.40 |

| Thread size / Anma çapı (d) | | | 3,9 | 4,2 | 4,8 |
|-----------------------------|-------|--------|-----------------------|------|------|
| Length / Boy (l) | min. | max. | Weight / Ağırlık gr/p | | |
| | 13 | 12,10 | 13,90 | 1,20 | 1,47 |
| 16 | 15,10 | 16,90 | 1,31 | 1,67 | 2,41 |
| 19 | 18,00 | 20,00 | 1,47 | 1,90 | 2,65 |
| 22 | 21,00 | 23,00 | 1,65 | 2,14 | 2,90 |
| 25 | 24,00 | 26,00 | 1,82 | 2,30 | 3,25 |
| 32 | 30,75 | 33,25 | 2,24 | 2,37 | 3,72 |
| 38 | 36,75 | 39,25 | 2,59 | 3,21 | 4,30 |
| 45 | 43,75 | 46,25 | | | 4,80 |
| 50 | 48,75 | 51,25 | | | 5,48 |
| 60 | 58,80 | 61,20 | | | 6,21 |
| 70 | 68,80 | 71,20 | | | 7,06 |
| 80 | 78,80 | 81,20 | | | 7,85 |
| 90 | 88,80 | 91,20 | | | 8,80 |
| 100 | 98,80 | 101,20 | | | 9,62 |

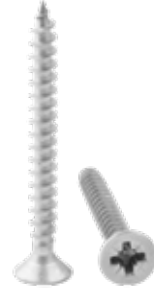
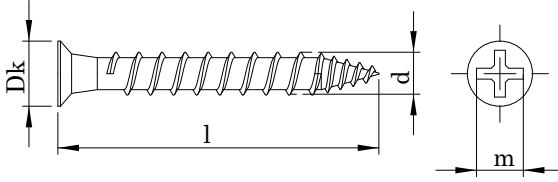


Teknik Bilgiler / Technical Informations

| | 4,2 | 4,8 | 5,5 | 6,3 |
|----|------|-------|-------|-------|
| d | 4,2 | 4,8 | 5,5 | 6,3 |
| k | 4,25 | 4,45 | 5,50 | 6,45 |
| dk | 8,80 | 10,50 | 11,00 | 13,50 |
| s | 7,0 | 8,0 | 8,0 | 10,0 |

| Thread size / Anma çapı (d) | 4,2 | 4,8 | 5,5 | 6,3 |
|--|--------------|--------------|--------------|-----------|
| Drill range / Delme kapasitesi from to | 0,70 3,00 | 1,75 4,40 | 1,75 5,25 | 2,60 - |

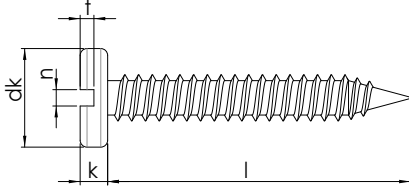
| Thread size / Anma çapı (d) | | | 4,2 | 4,8 | 5,5 | 6,3 |
|-----------------------------|-----------|-------|-----------------------|------|-------|-------|
| Length / Boy (l) | min. max. | | Weight / Ağırlık gr/p | | | |
| | 16 | 15,10 | 17,00 | 3,92 | 4,63 | |
| 19 | 18,00 | 20,50 | 4,16 | 4,88 | | |
| 25 | 24,00 | 26,50 | | 5,48 | 6,30 | 8,84 |
| 32 | 30,50 | 33,50 | | 5,93 | 7,17 | 9,86 |
| 38 | 36,50 | 39,50 | | | 7,80 | 10,83 |
| 50 | 48,75 | 51,50 | | | 9,11 | 12,49 |
| 60 | 58,80 | 61,20 | | | 10,40 | 14,30 |



Teknik Bilgiler / Technical Informations

| Thread size / Anma çapı (d) | | 3 | 3.5 | 4 | 4.5 | 5 | 6 |
|--------------------------------|---------|---------------|------|---------------|------|---------------|-------|
| Major Dia / Diş üstü çapı | dk min. | 3,00 | 3,30 | 3,75 | 4,25 | 4,30 | 5,25 |
| | dk max. | 3,20 | 3,50 | 4,00 | 4,50 | 5,00 | 6,00 |
| Head Dia / Kafa çapı | d min. | 6,00 | 6,64 | 7,64 | 7,64 | 10,05 | 12,05 |
| | d max. | 6,30 | 7,00 | 8,00 | 8,00 | 9,64 | 11,57 |
| Pz (m) | min. | 1,00 | 2,00 | 2,00 | 2,00 | 2,00 | 3,00 |
| Material / Malzeme | | C1018-C1022 | | | | | |
| Drill range / Delme kapasitesi | | 0.05-0.18 mm. | | 0.10-0.23 mm. | | 0.10-0.28 mm. | |

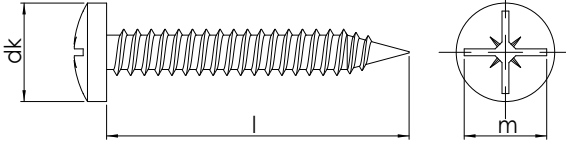
| Thread size / Anma çapı (d) | | | 3 | 3.5 | 4 | 4.5 | 5 | 6 |
|-----------------------------|--------|--------|-----------------------|------|------|------|------|-------|
| Length / Boy (l) | min. | max. | Weight / Ağırlık gr/p | | | | | |
| | 13 | 12,10 | 13,90 | 0,39 | 0,64 | | | |
| 16 | 15,10 | 16,90 | 0,53 | 0,71 | 0,96 | | | |
| 18 | 17,10 | 18,90 | | 0,77 | 1,18 | | | |
| 20 | 19,00 | 21,00 | 0,70 | 0,83 | 1,51 | | | |
| 25 | 24,00 | 26,00 | 0,79 | 1,04 | 1,62 | 1,88 | | |
| 30 | 28,75 | 31,25 | 0,88 | 1,28 | 1,93 | 2,20 | 2,80 | |
| 40 | 38,75 | 41,25 | 1,10 | 1,42 | 2,20 | 2,80 | 3,45 | |
| 45 | 43,75 | 46,25 | | 1,65 | 2,40 | 3,03 | 3,78 | |
| 50 | 48,50 | 51,50 | | 1,88 | 2,72 | 3,15 | 3,90 | 6,44 |
| 60 | 58,50 | 61,50 | | 2,00 | 3,24 | 3,27 | 4,78 | 7,47 |
| 70 | 68,00 | 72,00 | | | 3,75 | | 5,47 | 8,73 |
| 80 | 78,00 | 82,00 | | | | | 6,16 | 10,40 |
| 90 | 88,00 | 92,00 | | | | | 6,85 | 11,45 |
| 100 | 98,00 | 102,00 | | | | | 7,54 | 12,50 |
| 120 | 117,50 | 122,50 | | | | | | 14,64 |
| 150 | 147,50 | 152,50 | | | | | | 18,92 |



Teknik Bilgiler / Technical Informations

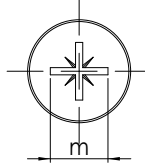
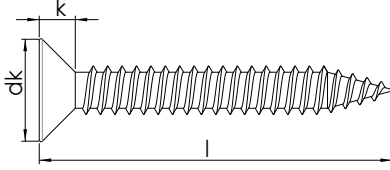
| Thread size / Anma çapı (d) | | 2.2 | 2.9 | 3.5 | 3.9 | 4.2 | 4.8 | 5.5 | 6.3 |
|---------------------------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Head dia / Kafa çapı dk | min. | 4,20 | 5,60 | 6,90 | 7,50 | 8,20 | 9,50 | 10,80 | 12,50 |
| | max. | 3,90 | 5,30 | 6,54 | 7,14 | 7,84 | 9,14 | 10,37 | 12,07 |
| Head height / Kafa yüksekliği k | min. | 1,15 | 1,50 | 1,85 | 2,00 | 2,15 | 2,50 | 2,85 | 3,30 |
| | max. | 1,35 | 1,75 | 2,10 | 2,25 | 2,45 | 2,80 | 3,20 | 3,65 |
| Socket width / Yarı Genişliği n | nominal size | 0,60 | 0,80 | 1,00 | 1,00 | 1,20 | 1,20 | 1,60 | 1,60 |
| | min. / max. | 0,66 / 0,80 | 0,66 / 1,00 | 1,06 / 1,20 | 1,06 / 1,06 | 1,26 / 1,51 | 1,26 / 1,51 | 1,66 / 1,91 | 1,66 / 1,91 |
| Socket depth / Yarı Derinliği t | min. | 0,55 | 0,75 | 0,95 | 1,05 | 1,15 | 1,35 | 1,55 | 1,8 |
| | max. | 0,80 | 1,00 | 1,25 | 1,40 | 1,50 | 1,70 | 1,95 | 2,20 |

| Thread size / Anma çapı (d) | | 2.2 | 2.9 | 3.5 | 3.9 | 4.2 | 4.8 | 5.5 | 6.3 |
|-----------------------------|-------|-----------------------|------|------|------|------|------|------|------|
| Length / Boy (l) | min. | | | | | | | | |
| | max. | | | | | | | | |
| | | Weight / Ağırlık gr/p | | | | | | | |
| 4.5 | 3,70 | 5,30 | 0,17 | | | | | | |
| 6.5 | 5,70 | 7,30 | 0,21 | 0,42 | | | | | |
| 9.5 | 8,70 | 10,30 | 0,27 | 0,53 | 0,84 | 1,07 | 1,26 | 1,85 | |
| 13 | 12,20 | 13,80 | 0,34 | 0,66 | 1,02 | 1,29 | 1,50 | 2,18 | 3,24 |
| 16 | 15,20 | 16,80 | 0,40 | 0,77 | 1,17 | 1,48 | 1,71 | 2,46 | 3,82 |
| 19 | 18,20 | 19,80 | | 0,87 | 1,32 | 1,67 | 1,92 | 2,74 | 4,00 |
| 22 | 21,20 | 22,80 | | | 1,47 | 1,86 | 2,13 | 3,02 | 4,38 |
| 25 | 24,20 | 25,80 | | | 1,62 | 2,05 | 2,34 | 3,30 | 4,76 |
| 32 | 30,70 | 33,30 | | | | | 2,83 | 3,96 | 5,67 |
| 38 | 36,70 | 39,30 | | | | | | 4,52 | 6,45 |
| | | | | | | | | | 8,82 |



| Teknik Bilgiler / Technical Informations | | | | | | | | | |
|--|------|------|------|------|------|------|------|-------|-------|
| Thread size / Anma çapı (d) | | 2.2 | 2.9 | 3.5 | 3.9 | 4.2 | 4.8 | 5.5 | 6.3 |
| Head dia / Kafa çapı dk | min. | 3,90 | 5,30 | 6,54 | 7,14 | 6,20 | 9,14 | 10,37 | 12,07 |
| | max. | 4,20 | 5,60 | 6,90 | 7,50 | 7,84 | 9,50 | 10,80 | 12,50 |
| Head height / Kafa yüksekliği k | min. | 1,55 | 1,95 | 2,35 | 2,55 | 2,75 | 3,25 | 3,65 | 4,25 |
| | max. | 1,80 | 2,20 | 2,60 | 2,80 | 3,05 | 3,55 | 3,95 | 4,55 |
| Cross Recess No. | | | 1 | | | 2 | | 3 | |
| PH | m | 2.60 | 3.00 | 4.20 | 4.40 | 4.60 | 5.00 | 6.50 | 7.10 |
| | min. | 0,86 | 1,35 | 1,40 | 1,63 | 1,80 | 2,26 | 2,49 | 3,00 |
| | max. | 1,32 | 1,80 | 2,03 | 2,26 | 2,48 | 2,87 | 3,15 | 3,66 |
| PZ | m | 2.40 | 2.90 | 3.90 | 4.10 | 4.30 | 4.70 | 6.20 | 6.70 |
| | min. | 1,10 | 1,58 | 1,47 | 1,70 | 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 |

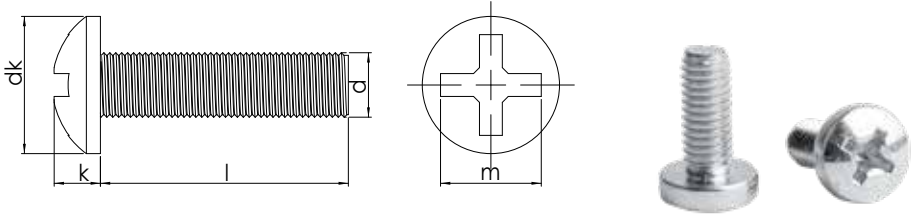
| Thread size / Anma çapı (d) | | | 2.2 | 2.9 | 3.5 | 3.9 | 4.2 | 4.8 | 5.5 | 6.3 |
|-----------------------------|------|------|-----------------------|------|------|------|------|------|------|------|
| Length / Boy (l) | min. | max. | Weight / Ağırlık gr/p | | | | | | | |
| | 4.5 | 3,7 | 5,3 | 0,17 | | | | | | |
| 6.5 | 5,7 | 7,3 | 0,21 | 0,42 | | | | | | |
| 9.5 | 8,7 | 10,3 | 0,27 | 0,53 | 0,84 | 1,07 | 1,28 | 1,85 | | |
| 13 | 12,2 | 13,5 | 0,34 | 0,66 | 1,02 | 1,28 | 1,50 | 2,18 | 3,24 | 4,32 |
| 16 | 15,2 | 16,8 | 0,40 | 0,74 | 1,17 | 1,48 | 1,71 | 2,46 | 3,62 | 4,85 |
| 19 | 18,2 | 19,8 | | 0,87 | 1,32 | 1,57 | 1,92 | 2,74 | 4,00 | 5,40 |
| 22 | 21,2 | 22,8 | | | 1,47 | 1,86 | 2,13 | 3,02 | 4,38 | 5,94 |
| 25 | 24,2 | 25,8 | | | 1,62 | 2,05 | 2,34 | 3,30 | 4,76 | 6,48 |
| 32 | 30,7 | 33,3 | | | | | 2,83 | 3,96 | 5,67 | 7,74 |
| 38 | 36,7 | 39,3 | | | | | | 4,52 | 6,45 | 8,82 |



Teknik Bilgiler / Technical Informations

| Thread size / Anma çapı (d) | | 2.2 | 2.9 | 3.5 | 3.9 | 4.2 | 4.8 | 5.5 | 6.3 |
|---------------------------------|------|-----------|------|------|------|------|------|-------|-------|
| Head dia / Kafa çapı | dk | min. 4,00 | 5,20 | 6,44 | 7,14 | 7,74 | 9,14 | 10,37 | 12,40 |
| | | max. 4,30 | 5,50 | 6,80 | 7,50 | 8,10 | 9,50 | 10,80 | 11,97 |
| Head height / Kafa yüksekliği k | | 1.30 | 1.70 | 2.10 | 2.30 | 2.50 | 3.00 | 3.40 | 3.80 |
| Cross Recess No. | | 1 | | 2 | | 3 | | | |
| PH | m | 2,50 | 3,00 | 4,20 | 4,60 | 4,70 | 5,10 | 6,80 | 7,10 |
| | min. | 1,02 | 1,40 | 1,62 | 2,03 | 2,11 | 2,59 | 2,95 | 3,33 |
| | max. | 1,32 | 1,70 | 2,12 | 2,53 | 2,62 | 3,10 | 3,53 | 3,91 |
| PZ | m | 2,40 | 2,80 | 4,00 | 4,20 | 4,40 | 5,00 | 6,30 | 7,00 |
| | min. | 1,10 | 1,48 | 1,60 | 1,85 | 2,05 | 2,64 | 2,72 | 3,38 |
| | max. | 1,35 | 1,73 | 2,06 | 2,31 | 2,51 | 2,51 | 3,18 | 3,84 |

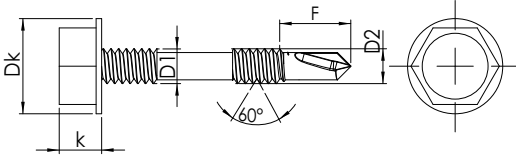
| Thread size / Anma çapı (d) | | 2.2 | 2.9 | 3.5 | 3.9 | 4.2 | 4.8 | 5.5 | 6.3 |
|-----------------------------|------|-----------------------|------|------|------|------|------|------|------|
| Length / Boy (l) | min. | Weight / Ağırlık gr/p | | | | | | | |
| | max. | | | | | | | | |
| 6.5 | 5,7 | 7,3 | 0,14 | 0,24 | | | | | |
| 9.5 | 8,7 | 10,3 | 0,20 | 0,35 | 0,55 | 0,66 | 0,78 | 1,10 | |
| 13 | 12,2 | 13,8 | 0,27 | 0,48 | 0,72 | 0,88 | 1,02 | 1,45 | 2,11 |
| 16 | 15,2 | 16,8 | 0,33 | 0,58 | 0,87 | 1,07 | 1,23 | 1,75 | 2,49 |
| 19 | 18,2 | 19,8 | | 0,69 | 1,02 | 1,25 | 1,44 | 2,05 | 2,87 |
| 22 | 21,2 | 22,8 | | | 1,17 | 1,45 | 1,65 | 2,35 | 3,26 |
| 25 | 24,2 | 25,8 | | | 1,32 | 1,64 | 1,86 | 2,65 | 3,65 |
| 32 | 30,7 | 33,3 | | | | | 2,35 | 3,35 | 4,56 |
| 38 | 36,7 | 39,3 | | | | | | | 5,43 |
| | | | | | | | | | 7,03 |



Teknik Bilgiler / Technical Informations

| Thread size / Anma çapı (d) | | M2 | M2.5 | M3 | M4 | M5 | M6 | M8 | M10 | |
|--|--------------|------|------|------|------|-------|-------|-------|-------|------|
| Head dia / Kafa çapı | Nominal size | 1,60 | 2,00 | 2,40 | 3,10 | 3,80 | 4,60 | 6,00 | 7,50 | |
| | k | min. | 1,48 | 1,88 | 2,28 | 2,95 | 3,65 | 3,45 | 5,85 | 7,02 |
| | max. | 1,72 | 2,12 | 2,52 | 3,25 | 3,95 | 4,75 | 4,75 | 7,68 | |
| Head height / Kafa yüksekliği dk | min. | 3,70 | 4,70 | 5,70 | 7,64 | 9,64 | 11,57 | 15,57 | 19,48 | |
| | max. | 4,00 | 5,00 | 6,00 | 8,00 | 10,00 | 12,00 | 16,00 | 20,00 | |
| Cross Recess No. | | 1 | | 2 | | 3 | | 4 | | |
| Type H penetration depth / Penetrasyon derinliği | M | 2,50 | 2,70 | 3,10 | 4,60 | 5,30 | 6,80 | 9,00 | 10,20 | |
| | min. | 1,10 | 1,30 | 1,70 | 2,04 | 2,77 | 3,03 | 4,18 | 5,38 | |
| Type Z penetration depth / Penetrasyon derinliğiPZ | M | 2,40 | 2,60 | 3,00 | 4,30 | 5,00 | 6,70 | 8,80 | 9,90 | |
| | min. | 1,10 | 1,27 | 1,68 | 1,90 | 2,64 | 3,02 | 4,06 | 5,23 | |
| | max. | 1,35 | 1,52 | 1,93 | 2,36 | 3,10 | 3,48 | 4,52 | 5,69 | |

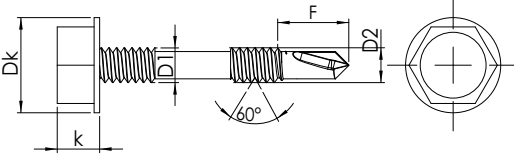
| Thread size / Anma çapı (d) | | M2 | M2.5 | M3 | M4 | M5 | M6 | M8 | M10 | |
|-----------------------------|-------|-----------------------|------|------|------|------|------|------|-------|-------|
| Length / Boy (l) | min. | Weight / Ağırlık gr/p | | | | | | | | |
| | max. | | | | | | | | | |
| 5 | 4,75 | 5,25 | 0,21 | 0,40 | 0,68 | 1,41 | | | | |
| 6 | 5,75 | 5,25 | 0,13 | 0,43 | 0,71 | 1,48 | 2,66 | | | |
| 8 | 7,70 | 8,30 | 0,27 | 0,49 | 0,79 | 1,63 | 2,91 | | | |
| 10 | 9,70 | 10,30 | 0,31 | 0,54 | 0,87 | 1,79 | 3,16 | 5,14 | 10,90 | |
| 12 | 11,65 | 12,35 | 0,34 | 0,60 | 0,95 | 1,94 | 3,41 | 5,49 | 11,50 | 21,20 |
| 15 | 15,65 | 16,35 | 0,42 | 0,72 | 1,07 | 2,18 | 3,91 | 6,19 | 12,50 | 23,20 |
| 20 | 19,60 | 20,40 | 0,49 | 0,85 | 1,27 | 2,56 | 4,41 | 6,89 | 14,20 | 25,20 |
| 25 | 24,60 | 25,40 | | 1,00 | 1,47 | 2,94 | 5,03 | 7,77 | 15,80 | 27,70 |
| 30 | 29,60 | 30,40 | | 1,18 | 1,71 | 3,44 | 5,68 | 8,64 | 17,50 | 30,20 |
| 35 | 34,50 | 35,50 | | | | 3,94 | 6,5 | 9,63 | 19,10 | 32,70 |
| 40 | 39,50 | 40,50 | | | | 4,44 | 7,3 | 10,5 | 20,70 | 35,70 |
| 45 | 44,50 | 45,50 | | | | | 8,00 | 11,4 | 22,30 | 37,70 |
| 50 | 49,50 | 50,50 | | | | | 8,70 | 12,3 | 23,90 | 41,20 |
| 55 | 54,00 | 56,00 | | | | | | | 25,50 | 43,70 |
| 60 | 59,00 | 61,00 | | | | | | | 27,10 | 46,20 |



Teknik Bilgiler / Technical Informations

| | | | |
|--|---|------|--------|
| Thread size / Anma çapı (d) | | | 5,5-14 |
| Head height / Kafa yüksekliği | k | min. | 5,15 |
| | | max. | 5,45 |
| Head width / Anahtar ağızı | s | min. | 7,78 |
| | | max. | 8,00 |
| Drilling point length / Matkap uç uzunluğu | F | min. | 6,00 |
| | | max. | 7,00 |
| Major Dia / Diş üstü çapı | | min. | 5,20 |
| | | max. | 5,45 |
| Material / Malzeme | | | 1022A |

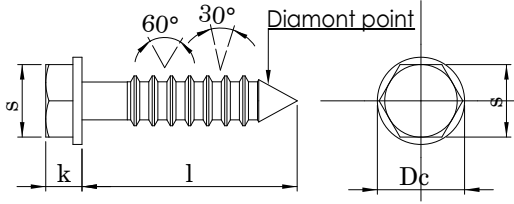
| Thread size / Anma çapı (d) | | | 5,5-14 |
|-----------------------------|-------|--------|-----------------------|
| Length / Boy (l) | min. | max. | Weight / Ağırlık gr/p |
| 66 | 64,8 | 67,00 | 11,48 |
| 76 | 74,8 | 78,00 | 12,68 |
| 90 | 88,5 | 91,00 | 14,35 |
| 105 | 103,5 | 106,00 | 14,64 |
| 120 | 118,5 | 120,00 | 17,63 |
| 130 | 128,5 | 130,00 | 19,20 |



Teknik Bilgiler / Technical Informations

| | | | |
|--|---|--------------|----------------|
| Thread size / Anma çapı (d) | | | 5,5-24 |
| Head heigth / Kafa yüksekliği | k | min. max. | 5,15 5,45 |
| Head width / Anahtar ağzı | s | min. max. | 7,78 8,000 |
| Drilling point length / Matkap uç uzunluğu | F | min. max. | 14,00 15,00 |
| Major Dia / Diş üstü çapı | | min. max. | 5,20 5,45 |
| Material / Malzeme | | | 1022A |

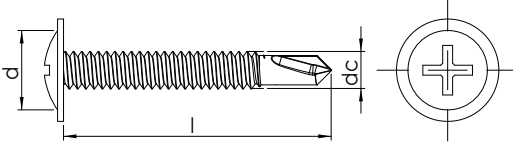
| Thread size / Anma çapı (d) | min. | max. | 5,5-24 |
|-----------------------------|-------|------|-----------------------|
| Length / Boy (l) | | | Weight / Ağırlık gr/p |
| 32 | 31 | 33 | 8,42 |
| 50 | 49 | 51 | 9,40 |
| 60 | 58,5 | 61 | 10,50 |
| 66 | 64,8 | 67 | 11,48 |
| 76 | 74,8 | 78 | 12,68 |
| 90 | 88,5 | 91 | 14,35 |
| 105 | 103,5 | 108 | 16,87 |
| 120 | 118,5 | 121 | 18,91 |
| 135 | 133,5 | 136 | 20,96 |



Teknik Bilgiler / Technical Informations

| | | |
|---------------------------------|------|-------|
| Thread size / Anma çapı (d) | | 6,3 |
| Head heigth / Kafa yüksekliği k | min. | 4,60 |
| | max. | 4,90 |
| Head width / Anahtar ağzı s | min. | 7,78 |
| | max. | 8,00 |
| Major Dia / Diş üstü çapı | min. | 6,20 |
| | max. | 6,50 |
| Diameter Washer / Pul Çapı dc | min. | 0,70 |
| | max. | 0,90 |
| Material / Malzeme | | 1022A |

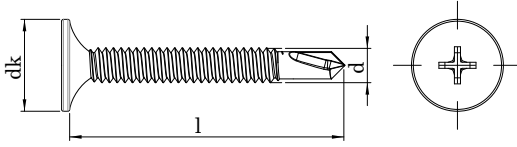
| Thread size / Anma çapı (d) | | | 6,3 |
|-----------------------------|------|------|-----------------------|
| Length / Boy (l) | min. | max. | Weight / Ağırlık gr/p |
| 50 | 49 | 51 | 9,57 |
| 75 | 74 | 76 | 13,10 |
| 105 | 104 | 106 | 17,60 |
| 125 | 124 | 126 | 20,41 |
| 135 | 134 | 136 | 23,22 |



Teknik Bilgiler / Technical Informations

| Thread size / Anma çapı (d) | | 3,9 | 4,2 |
|-------------------------------|------|-------|-------|
| Major Dia / Diş üstü çapı dc | min. | 3,73 | 4,04 |
| | max. | 3,91 | 4,22 |
| Head Dia / Kafa çapı d | min. | 9,70 | 10,60 |
| | max. | 10,00 | 11,00 |
| Head height / Kafa yüksekliği | min. | 2,00 | 2,00 |
| | max. | 2,40 | 2,40 |
| Material / Malzeme | | 1022A | 1022A |

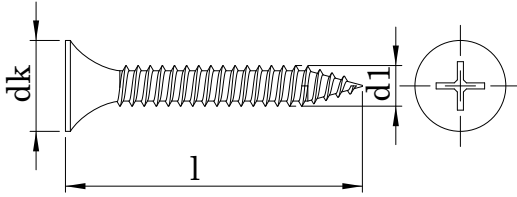
| Thread size / Anma çapı (d) | | | Weight / Ağırlık gr/p | |
|-----------------------------|-------|-------|-----------------------|------|
| | | | 3,9 | 4,2 |
| Length / Boy (l) | min. | max. | | |
| | | | | |
| 13 | 12,1 | 13,9 | 1,50 | - |
| 16 | 15,1 | 16,9 | 1,64 | 1,91 |
| 19 | 18,00 | 20,00 | 1,90 | 2,38 |
| 25 | 24 | 26 | 2,28 | - |



Teknik Bilgiler / Technical Informations

| | | |
|-----------------------------|------|-------|
| Thread size / Anma çapı (d) | | 3,5 |
| Major Dia / Diş üstü çapı d | min. | 3,35 |
| | max. | 3,53 |
| Head Dia / Kafa çapı dk | min. | 8,14 |
| | max. | 8,50 |
| Material / Malzeme | | 1022A |

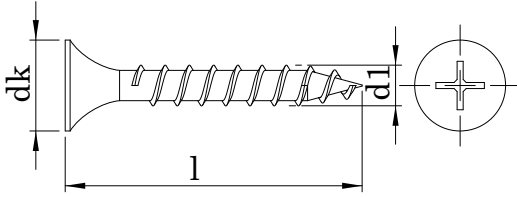
| Thread size / Anma çapı (d) | 3,5 | | |
|-----------------------------|-------|-------|-----------------------|
| Length / Boy (l) | min. | max. | Weight / Ağırlık gr/p |
| 25 | 24,00 | 26,00 | 1,48 |
| 35 | 34,00 | 36,00 | 1,90 |
| 45 | 43,80 | 45,80 | 2,44 |



Teknik Bilgiler / Technical Informations

| | | |
|------------------------------|------|-------|
| Thread size / Anma çapı (d) | | 3,5 |
| Major Dia / Diş üstü çapı d1 | min. | 3,40 |
| | max. | 3,70 |
| Head Dia / Kafa çapı dk | min. | 8,14 |
| | max. | 8,50 |
| Material / Malzeme | | 1022A |

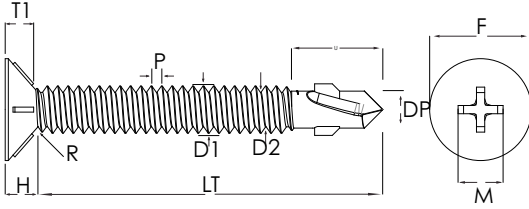
| Thread size / Anma çapı (d) | 3,5 | | |
|-----------------------------|-------|-------|-----------------------|
| Length / Boy (l) | min. | max. | Weight / Ağırlık gr/p |
| 25 | 24,00 | 26,00 | 1,40 |
| 35 | 34,00 | 36,00 | 1,80 |
| 45 | 44,00 | 46,00 | 2,21 |



Teknik Bilgiler / Technical Informations

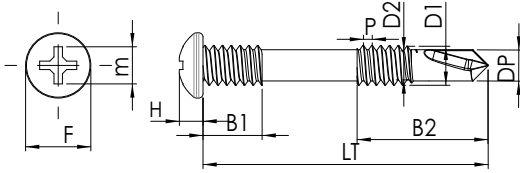
| | | |
|-----------------------------|------|-------|
| Thread size / Anma çapı (d) | | 3,5 |
| Major Dia / Diş üstü çapı d | min. | 3,40 |
| | max. | 3,70 |
| Head Dia / Kafa çapı dk | min. | 8,14 |
| | max. | 8,50 |
| Material / Malzeme | | 1022A |

| | | | |
|-----------------------------|------|------|-----------------------|
| Thread size / Anma çapı (d) | 3,5 | | |
| Length / Boy (l) | min. | max. | Weight / Ağırlık gr/p |
| 25 | 24 | 26 | 1,34 |
| 35 | 34 | 36 | 1,77 |
| 45 | 44 | 46 | 2,22 |



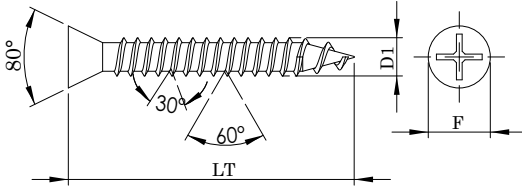
Teknik Bilgiler / Technical Informations

| | Min. | Max. | Length/ Uzunluk | LT Tolerance/ Tolerans | | Weight/ Ağırlık |
|----|-------|-------|--------------------|------------------------|-------|--------------------|
| | | | | Min. | Max. | |
| F | 11,60 | 11,90 | 60 | 59,80 | 61,20 | 11,00 |
| H | 4,60 | 4,90 | 65 | 64,80 | 66,20 | 11,90 |
| D1 | 6,20 | 6,45 | 70 | 69,80 | 71,20 | 12,70 |
| D2 | 5,05 | 5,23 | 80 | 79,80 | 81,20 | 17,42 |
| T1 | 3,33 | 3,91 | | | | |
| U | 18,20 | 18,60 | | | | |
| DP | 5,50 | 5,80 | | | | |
| P | | 1,60 | | | | |



Teknik Bilgiler / Technical Informations

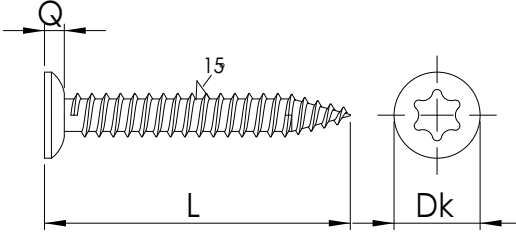
| Spec | 5x50 Dimension | |
|------------------|----------------|-------|
| | Min. | Max. |
| D1 | 5,30 | 5,50 |
| F | 8,80 | 9,10 |
| P | | 1,06 |
| H | 3,25 | 3,55 |
| T1 | 2,26 | 2,87 |
| M | | 4,90 |
| DP | 4,60 | 4,80 |
| B1 | 10,50 | 12,00 |
| B2 | 19,50 | 21,50 |
| LT | 49,00 | 51,00 |
| Weight / Ağırlık | 6,2 Gr. | |



Teknik Bilgiler / Technical Informations

| Thread size / Anma çapı (d) | | 3,9 | 4,2 | 4,8 |
|------------------------------|------|-------|-------|-------|
| Major Dia / Diş üstü çapı D1 | min. | 3,73 | 4,04 | 4,62 |
| | max. | 3,91 | 4,22 | 4,80 |
| Head Dia / Kafa çapı dk F | min. | 7,14 | 7,74 | 9,14 |
| | max. | 7,50 | 8,10 | 9,50 |
| Material / Malzeme | | 1022A | 1022A | 1022A |

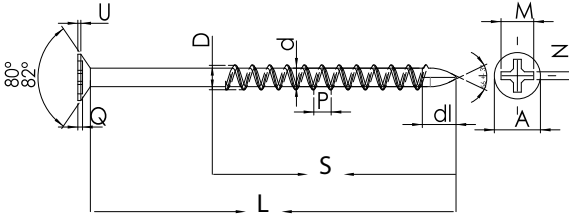
| Thread size / Anma çapı (d) | | | 3,9 | 4,2 | 4,8 |
|-----------------------------|-------|-------|-----------------------|------|------|
| Length / Boy (l) | min. | max. | Weight / Ağırlık gr/p | | |
| | | | | | |
| 19 | 18,20 | 19,80 | 1,05 | | |
| 22 | 21,20 | 22,80 | 1,32 | | |
| 25 | 24,20 | 25,80 | 1,35 | | |
| 38 | 36,70 | 38,30 | 1,86 | 2,47 | 4,25 |



Teknik Bilgiler / Technical Informations

| | | |
|------------------------------|------|-------|
| Thread size / Anma çapı (d) | | 7,5 |
| Major Dia / Diş üstü çapı D1 | min. | 7,40 |
| | max. | 7,60 |
| Head Dia / Kafa çapı dk | min. | 10,80 |
| | max. | 11,80 |

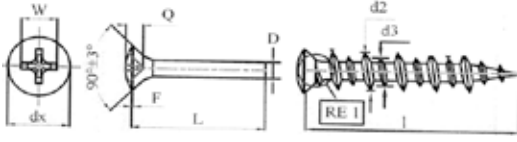
| Thread size / Anma çapı (d) | 7,5 | | Weight / Ağırlık gr/p |
|-----------------------------|--------|--------|-----------------------|
| Length / Boy (l) | min. | max. | |
| 60 | 59,00 | 61,00 | 11,76 |
| 80 | 78,75 | 81,25 | 15,89 |
| 100 | 98,75 | 101,25 | 20,02 |
| 120 | 78,50 | 121,50 | 22,00 |
| 150 | 148,50 | 151,50 | 28,00 |
| 180 | 178,00 | 182,00 | 33,00 |
| 200 | 198,00 | 202,00 | 37,00 |



Teknik Bilgiler / Technical Informations

| Size / Boyut | 3,5-4 | |
|--------------|-------|------|
| A | 7,05 | 6,61 |
| U | 0,5 | 0,2 |
| M | Min. | 4,09 |
| N | Min. | 0,74 |
| Phillips | #2 | |
| Q | 2,41 | 1,83 |
| h | Min. | 0,30 |
| D | 3,58 | 3,45 |
| d | 2,30 | 2,10 |
| dl | Ref. | 3,00 |
| dp | 2,85 | 2,65 |
| dt | 0,10 | 0,06 |

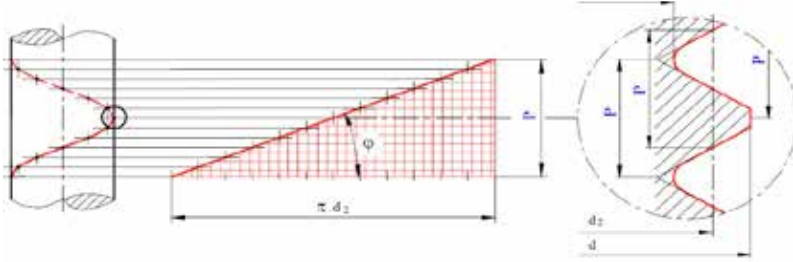
| Thread size / Anma çapı (d) | 3,5 | | 4 | |
|-----------------------------|-------|-------------|-------|-------------|
| Length / Boy (l) | S | L | S | L |
| 50 | 27,00 | 49,50-50,00 | 27,00 | 49,50-50,00 |
| Weight / Ağırlık gr/p | 2,00 | | 3,00 | |

Teknik Bilgiler / *Technical Informations*

| dx | D | F | Q | W | d2 | d3 |
|-----------|-------------|-----------|---------|----------|----------|-------------|
| 6,7 - 7,3 | 2,68 - 2,72 | min. 0,60 | 2 - 2,5 | MIN. 4,6 | 3,75 - 4 | 2,95 - 3,65 |

| Thread size / Anma çapı (d) | 4,2 |
|-----------------------------|-----------------------|
| Length / Boy (l) | Weight / Ağırlık gr/p |
| 25 | 1,38 |
| 32 | 1,66 |
| 40 | 1,72 |

Vida helis şeklindeki bir kamanın, yani bir dik üçgenin bir silindirin üzerine sarılmasıyla elde edilir. Standartlaştırılmış vidalarda bütün ölçüler ve tanımlamalar standartlar ile tam olarak belirlenmiştir.



Helisel eğrilerde olduğu gibi burada da vida helisini üç ana faktör karakterize eder:

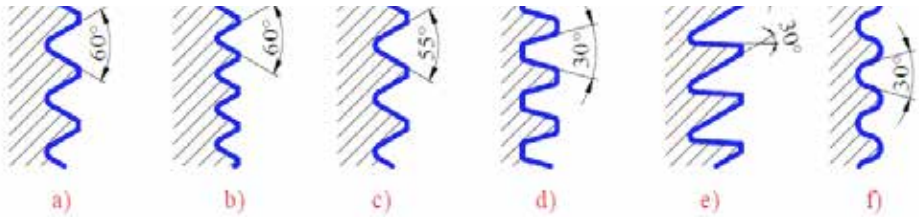
Adım, hatve (P) : Vidanın 360° dönüşünde almış olduğu, dönme eksenini yönündeki yol.

Bölüm dairesi çapı (d2): Vida bir kanal şeklinde olduğundan burada üç çap vardır.

Vidanın değerleri bölüm dairesi çapı "d2" ile tanımlanır. Diğer çaplar başka amaçlarla kullanılır. Fakat hatve her üç çap içinde aynı büyüklüktedir.

Helis açısı (φ): Helis açısının tanjant değeri, hatvenin bölüm dairesi çap çemberinin boyuna ($\pi \cdot d2$) bölünmesiyle bulunur.

VİDA ÇEŞİTLERİ



Metrik Diş

Metrik İnce Diş

Whitworth Diş

Trapez Diş

Testere Diş

Yuvarlak Diş