

Таблица 2.3

Значения допусков для размеров до 500 мм

| Интервал размеров , Мм | Квалитет | | | | | | | | | | | | | | | | | | | |
|---------------------------------|----------|-----|-----|-----|-----|----|----|----|----|----|-----|-----|-----|-----|-----|------|------|------|------|------|
| | 0 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| | 1 | | | | | | | | | | | | | | | | | | | |
| Допуск IT, мкм | | | | | | | | | | | | | | | | | | | | |
| До 3 | 0,3 | 0,5 | 0,8 | 1,2 | 2 | 3 | 4 | 6 | 10 | 14 | 25 | 40 | 60 | 100 | 140 | 250 | 400 | 600 | 1000 | 1400 |
| Св.3 до 6 | 0,4 | 0,6 | 1 | 1,5 | 2,5 | 4 | 5 | 8 | 12 | 18 | 30 | 48 | 75 | 120 | 180 | 300 | 480 | 750 | 1200 | 1800 |
| “ 6 “ 10 | 0,4 | 0,6 | 1 | 1,5 | 2,5 | 4 | 6 | 9 | 15 | 22 | 36 | 58 | 90 | 150 | 220 | 360 | 580 | 900 | 1500 | 2200 |
| “ 10 “ 18 | 0,5 | 0,8 | 1,2 | 2 | 3 | 5 | 8 | 11 | 18 | 27 | 43 | 70 | 110 | 180 | 270 | 430 | 700 | 1100 | 1800 | 2700 |
| “ 18 “ 30 | 0,6 | 1 | 1,5 | 2,5 | 4 | 6 | 9 | 13 | 21 | 33 | 52 | 84 | 130 | 210 | 330 | 520 | 840 | 1300 | 2100 | 3300 |
| “ 30 “ 50 | 0,6 | 1 | 1,5 | 2,5 | 4 | 7 | 11 | 16 | 25 | 39 | 62 | 100 | 160 | 250 | 390 | 620 | 1000 | 1600 | 2500 | 3900 |
| “ 50 “ 80 | 0,8 | 1,2 | 2 | 3 | 5 | 8 | 13 | 19 | 30 | 46 | 74 | 120 | 190 | 300 | 460 | 740 | 1200 | 1900 | 3000 | 4600 |
| “ 80 “ 120 | 1 | 1,5 | 2,5 | 4 | 6 | 10 | 15 | 22 | 35 | 54 | 87 | 140 | 220 | 350 | 540 | 870 | 1400 | 2200 | 3500 | 5400 |
| “120 “180 | 1,2 | 2 | 3,5 | 5 | 8 | 12 | 18 | 25 | 40 | 63 | 100 | 160 | 250 | 400 | 630 | 1000 | 1600 | 2500 | 4000 | 6300 |
| “180 “250 | 2 | 3 | 4,5 | 7 | 10 | 14 | 20 | 29 | 46 | 72 | 115 | 185 | 290 | 460 | 720 | 1150 | 1850 | 2900 | 4600 | 7200 |
| “250 “315 | 2,5 | 4 | 6 | 8 | 12 | 16 | 23 | 32 | 50 | 75 | 110 | 170 | 260 | 400 | 600 | 900 | 1350 | 2050 | 3100 | 4650 |
| “315 “400 | 3 | 5 | 7 | 9 | 13 | 18 | 25 | 36 | 55 | 84 | 125 | 190 | 285 | 440 | 660 | 1000 | 1500 | 2250 | 3450 | 5200 |
| “400 “500 | 4 | 6 | 8 | 10 | 15 | 20 | 28 | 40 | 60 | 90 | 135 | 205 | 310 | 470 | 705 | 1070 | 1605 | 2410 | 3615 | 5420 |

Значения основных отклонений валов для размеров до 500 мм

| Интервал размеров, мм | Обозначение основного отклонения | | | | | | | | | | | | | | | | | | |
|--------------------------|----------------------------------|------|------|-----|------|------|-----|-----|----|-----|---|------------------------------|---------------------------|-----|----|-----------|-------------|--|--|
| | a* | b* | c | cd | d | E | ef | f | fg | g | h | j | J | | | k | | | |
| | Квалитет | | | | | | | | | | | | | | | | | | |
| | Все квалитеты | | | | | | | | | | | | 5 и 6 | 7 | 8 | От 4 до 7 | До 3 и св.7 | | |
| | Верхнее отклонение es, мкм | | | | | | | | | | | | Нижнее отклонение ei, мкм | | | | | | |
| До 3 | -270 | -140 | -60 | -34 | -20 | -14 | -10 | -6 | -4 | -2 | 0 | Предельные отклонения ± IT/2 | -2 | -4 | -6 | 0 | 0 | | |
| Св. 3 до 6 | -270 | -140 | -70 | -46 | -30 | -20 | -14 | -10 | -6 | -4 | 0 | | -2 | -4 | — | +1 | 0 | | |
| “ 6 “ 10 | -280 | -150 | -80 | -56 | -40 | -25 | -18 | -13 | -8 | -5 | 0 | | -2 | -5 | — | +1 | 0 | | |
| “10 “ 14 | -290 | -150 | -95 | — | -50 | -32 | — | -16 | — | -6 | 0 | | -3 | -6 | — | +1 | 0 | | |
| “14 “ 18 | | | | | | | | | | | | | -4 | -8 | — | +2 | 0 | | |
| “18 “ 24 | -300 | -160 | -110 | — | -65 | -40 | — | -20 | — | -7 | 0 | | -5 | -10 | — | +2 | 0 | | |
| “24 “ 30 | | | | | | | | | | | | | -7 | -12 | — | +2 | 0 | | |
| “30 “40 | -310 | -170 | -120 | — | -80 | -50 | — | -25 | — | -9 | 0 | | -9 | -15 | — | +3 | 0 | | |
| “40 “ 50 | -320 | -180 | -130 | | | | | | | | | | -11 | -18 | — | +3 | 0 | | |
| “50 “ 65 | -340 | -190 | -140 | — | -100 | -60 | — | -30 | — | -10 | 0 | | -13 | -21 | — | +4 | 0 | | |
| “65 “ 80 | -360 | -200 | -150 | | | | | | | | | | -16 | -26 | — | +4 | 0 | | |
| “80 “ 100 | -380 | -220 | -170 | — | -120 | -72 | — | -36 | — | -12 | 0 | | -18 | -28 | — | +4 | 0 | | |
| “100 “ 120 | -410 | -240 | -180 | | | | | | | | | | -20 | -32 | — | +4 | 0 | | |
| “120 “ 140 | -460 | -260 | -200 | — | -145 | -85 | — | -43 | — | -14 | 0 | | -20 | -32 | — | +5 | 0 | | |
| “140 “160 | -520 | -280 | -210 | | | | | | | | | | -22 | -34 | — | +5 | 0 | | |
| “160 “ 180 | -580 | -310 | -230 | — | -170 | -100 | — | -50 | — | -15 | 0 | | -24 | -36 | — | +6 | 0 | | |
| “180 “ 200 | -660 | -340 | -240 | | | | | | | | | | -26 | -38 | — | +6 | 0 | | |
| “200 “ 225 | -740 | -380 | -260 | — | -190 | -110 | — | -56 | — | -17 | 0 | | -28 | -40 | — | +7 | 0 | | |
| “225 “ 250 | -820 | -420 | -280 | | | | | | | | | | -30 | -42 | — | +7 | 0 | | |
| “250 “ 280 | -920 | -480 | -300 | — | -210 | -125 | — | -62 | — | -18 | 0 | | -32 | -44 | — | +8 | 0 | | |
| “280 “ 315 | -1050 | -540 | -330 | | | | | | | | | | -34 | -46 | — | +8 | 0 | | |
| “315 “355 | -1200 | -600 | -360 | — | -230 | -135 | — | -68 | — | -20 | 0 | | -36 | -48 | — | +9 | 0 | | |
| “355 “ 400 | -1350 | -680 | -400 | | | | | | | | | | -38 | -50 | — | +9 | 0 | | |
| “400 “ 450 | -1500 | -760 | -440 | — | -230 | -135 | — | -68 | — | -20 | 0 | | -40 | -52 | — | +10 | 0 | | |

| Интервал размеров, мм | Обозначение основного отклонения | | | | | | | | | | | | | |
|-----------------------------|----------------------------------|-----|-----|------|------|------|------|------|------|------|------|-------|-------|-------|
| | m | n | p | r | s | t | u | v | x | y | z | za | zb | zc |
| | Квалитет | | | | | | | | | | | | | |
| | Все квалитеты | | | | | | | | | | | | | |
| | Нижнее отклонение ei, мкм | | | | | | | | | | | | | |
| До 3 | +2 | +4 | +6 | +10 | +14 | — | +18 | — | +20 | — | +26 | +32 | +40 | +60 |
| Св. 3 до 6 | +4 | +8 | +12 | +15 | +19 | — | +23 | — | +28 | — | +35 | +42 | +50 | +80 |
| “ 6 “ 10 | +6 | +10 | +15 | +19 | +23 | — | +28 | — | +34 | — | +42 | +52 | +67 | +97 |
| “10 “ 14 | +7 | +12 | +18 | +23 | +28 | — | +33 | — | +40 | — | +50 | +64 | +90 | +130 |
| “14 “ 18 | | | | | | | | | | | | | | |
| “18 “ 24 | +8 | +15 | +22 | +28 | +35 | — | +41 | +47 | +54 | +63 | +73 | +98 | +136 | +188 |
| “24 “ 30 | | | | | | | | | | | | | | |
| “30 “ 40 | +9 | +17 | +26 | +34 | +43 | +48 | +60 | +68 | +80 | +94 | +112 | +148 | +200 | +274 |
| “40 “ 50 | | | | | | | | | | | | | | |
| “50 “ 65 | +11 | +20 | +32 | +41 | +53 | +66 | +87 | +102 | +122 | +144 | +172 | +226 | +300 | +405 |
| “65 “ 80 | | | | | | | | | | | | | | |
| “80 “ 100 | +13 | +23 | +37 | +51 | +71 | +91 | +124 | +146 | +178 | +214 | +258 | +335 | +445 | +585 |
| “100 “ 120 | | | | | | | | | | | | | | |
| “120 “ 140 | +15 | +27 | +43 | +63 | +92 | +122 | +170 | +202 | +248 | +300 | +365 | +470 | +620 | +800 |
| “140 “160 | | | | | | | | | | | | | | |
| “160 “ 180 | +17 | +31 | +50 | +77 | +122 | +166 | +236 | +284 | +350 | +425 | +520 | +670 | +880 | +1150 |
| “180 “ 200 | | | | | | | | | | | | | | |
| “200 “ 225 | +20 | +34 | +56 | +80 | +130 | +180 | +258 | +310 | +385 | +470 | +575 | +740 | +960 | +1250 |
| “225 “ 250 | | | | | | | | | | | | | | |
| “250 “ 280 | +20 | +34 | +56 | +94 | +158 | +218 | +315 | +385 | +475 | +580 | +710 | +920 | +1200 | +1550 |
| “280 “ 315 | | | | | | | | | | | | | | |
| “315 “355 | +21 | +37 | +62 | +108 | +190 | +268 | +390 | +475 | +590 | +730 | +900 | +1150 | +1500 | +1900 |

| | | | | | | | | | | | | | | |
|------------|-----|-----|-----|------|------|------|------|------|------|-------|-------|-------|-------|-------|
| “355 “ 400 | | | | +114 | +208 | +294 | +435 | +530 | +660 | +820 | +1000 | +1300 | +1650 | +2100 |
| “400 “ 450 | +23 | +40 | +68 | +126 | +232 | +330 | +490 | +595 | +740 | +920 | +1100 | +1450 | +1850 | +2400 |
| “450 “ 500 | | | | +132 | +252 | +360 | +540 | +660 | +820 | +1000 | +1250 | +1600 | +2100 | +2600 |

Таблица 2.5

Значения основных отклонений отверстий для размеров до 500 мм

| Интервал размеров, мм | Обозначение основного отклонения | | | | | | | | | | | | | | | | | | | | | |
|--------------------------|----------------------------------|------|------|-----|------|------|-----|-----|----|-----|---|-----------------------------|-----------------------------|-----|-----|------|------|-------|------|-------|-------|---|
| | A* | B* | C | CD | D | E | EF | F | FG | G | H | JS | J | | | K | | M | | N | | От Р до ZC |
| | Квалитет | | | | | | | | | | | | | | | | | | | | | |
| | Все квалитеты | | | | | | | | | | | | 6 | 7 | 8 | До 8 | Св.8 | До 8 | Св.8 | До 8 | Св.8* | До 7 |
| | Нижнее отклонение EI, мкм | | | | | | | | | | | | Верхнее отклонение ES , мкм | | | | | | | | | |
| До 3 | +270 | +140 | +60 | +34 | +20 | +14 | +10 | +6 | +4 | +2 | 0 | Предельные отклонения ±IT/2 | +2 | +4 | +6 | 0 | 0 | -2 | -2 | -4 | -4 | Отклонение, как для квалитетов св.7, увеличенное на Δ |
| Св. 3 до 6 | +270 | +140 | +70 | +46 | +30 | +20 | +14 | +10 | +6 | +4 | 0 | | +5 | +6 | +10 | -1+Δ | - | -4+Δ | -4 | -8+Δ | 0 | |
| " 6 " 10 | +280 | +150 | +80 | +56 | +40 | +25 | +18 | +13 | +8 | +5 | 0 | | +5 | +8 | +12 | -1+Δ | - | -6+Δ | -6 | -10+Δ | | |
| "10 " 14 | +290 | +150 | +95 | — | +50 | +32 | — | +16 | — | +6 | 0 | | +6 | +10 | +15 | -1+Δ | — | -7+Δ | -7 | -12+Δ | 0 | |
| "14 " 18 | | | | | | | | | | | | | +8 | +12 | +20 | -2+Δ | - | -8+Δ | -8 | -15+Δ | 0 | |
| "18 " 24 | +300 | +160 | +110 | — | +65 | +40 | — | +20 | — | +7 | 0 | | +8 | +12 | +20 | -2+Δ | — | -8+Δ | -8 | -15+Δ | 0 | |
| "24 " 30 | | | | | | | | | | | | | +10 | +14 | +24 | -2+Δ | - | -9+Δ | -9 | -17+Δ | 0 | |
| "30 " 40 | +310 | +170 | +120 | — | +80 | +50 | — | +25 | — | +9 | 0 | | +10 | +14 | +24 | -2+Δ | - | -9+Δ | -9 | -17+Δ | 0 | |
| "40 " 50 | +320 | +180 | +130 | | | | | | | | | | +13 | +18 | +28 | -2+Δ | — | -11+Δ | -11 | -20+Δ | 0 | |
| "50 " 65 | +340 | +190 | +140 | — | +100 | +60 | — | +30 | — | +10 | 0 | | +16 | +22 | +34 | -3+Δ | — | -13+Δ | -13 | -23+Δ | 0 | |
| "65 " 80 | +360 | +200 | +150 | | | | | | | | | | +18 | +26 | +41 | -3+Δ | — | -15+Δ | -15 | -27+Δ | 0 | |
| "80 " 100 | +380 | +220 | +170 | — | +120 | +72 | — | +36 | — | +12 | 0 | | +22 | +30 | +47 | -4+Δ | — | -17+Δ | -17 | -31+Δ | 0 | |
| "100 " 120 | +410 | +240 | +180 | | | | | | | | | | +25 | +36 | +55 | -4+Δ | - | -20+Δ | -20 | -34+Δ | 0 | |
| "120 " 140 | +460 | +260 | +200 | — | +145 | +85 | — | +43 | — | +14 | 0 | | +29 | +39 | +60 | -4+Δ | - | -21+Δ | -21 | -37+Δ | 0 | |
| "140 " 160 | +520 | +280 | +210 | | | | | | | | | | +33 | +43 | +66 | -5+Δ | — | -23+Δ | -23 | -40+Δ | 0 | |
| "160 " 180 | +580 | +310 | +230 | — | +170 | +100 | — | +50 | — | +15 | 0 | | | | | | | | | | | |
| "180 " 200 | +660 | +340 | +240 | | | | | | | | | | | | | | | | | | | |
| "200 " 225 | +740 | +380 | +260 | — | +190 | +110 | — | +56 | — | +17 | 0 | | | | | | | | | | | |
| "225 " 250 | +820 | +420 | +280 | | | | | | | | | | | | | | | | | | | |
| "250 " 280 | +920 | +480 | +300 | — | +210 | +125 | — | +62 | — | +18 | 0 | | | | | | | | | | | |
| "280 " 315 | +1050 | +540 | +330 | | | | | | | | | | | | | | | | | | | |
| "315 " 355 | +1200 | +600 | +360 | — | +230 | +135 | — | +68 | — | +20 | 0 | | | | | | | | | | | |
| "355 " 400 | +1350 | +680 | +400 | | | | | | | | | | | | | | | | | | | |
| "400 " 450 | +1500 | +760 | +440 | — | +250 | +150 | — | +75 | — | +22 | 0 | | | | | | | | | | | |
| "450 " 500 | +1650 | +840 | +480 | | | | | | | | | | | | | | | | | | | |

*Основные отклонения N для квалитетов свыше 8 не применяются для номинальных размеров до 1 мм

Окончание таблицы 2.5

| Интервал размеров, мм | Обозначение основного отклонения | | | | | | | | | | | | Поправка Δ, мкм Для квалитетов | | | | | |
|--------------------------|----------------------------------|-----|------|------|------|------|------|------|------|------|------|-------|-----------------------------------|-----|---|---|----|----|
| | P | R | S | T | U | V | X | Y | Z | ZA | ZB | ZC | | | | | | |
| | Квалитет | | | | | | | | | | | | | | | | | |
| | Св.7 | | | | | | | | | | | | 3 | 4 | 5 | 6 | 7 | 8 |
| | Верхнее отклонение ES, мкм | | | | | | | | | | | | | | | | | |
| До 3 | -6 | -10 | -14 | - | -18 | - | -20 | - | -26 | -32 | -40 | -60 | Δ = 0 | | | | | |
| Св. 3 до 6 | -12 | -15 | -19 | - | -23 | - | -28 | - | -35 | -42 | -50 | -80 | 1 | 1,5 | 1 | 3 | 4 | 6 |
| “ 6 “ 10 | -15 | -19 | -23 | - | -28 | - | -34 | - | -42 | -52 | -67 | -97 | 1 | 1,5 | 2 | 3 | 6 | 8 |
| “10 “ 14 | -18 | -23 | -28 | - | -33 | - | -40 | - | -50 | -64 | -90 | -130 | 1 | 2 | 3 | 3 | 7 | 9 |
| “14 “ 18 | | | | | | | | | | | | | | | | | | |
| “18 “ 24 | -22 | -28 | -35 | - | -41 | -47 | -54 | -63 | -73 | -98 | -136 | -188 | 1,5 | 2 | 3 | 4 | 8 | 12 |
| “24 “ 30 | | | | | | | | | | | | | | | | | | |
| “30 “ 40 | -26 | -34 | -43 | -48 | -60 | -68 | -80 | -94 | -112 | -148 | -200 | -274 | 1,5 | 3 | 4 | 5 | 9 | 14 |
| “40 “ 50 | | | | | | | | | | | | | | | | | | |
| “50 “ 65 | -32 | -41 | -53 | -66 | -87 | -102 | -122 | -144 | -172 | -226 | -300 | -405 | 2 | 3 | 5 | 6 | 11 | 16 |
| “65 “ 80 | | | | | | | | | | | | | | | | | | |
| “80 “ 100 | -37 | -51 | -71 | -91 | -124 | -146 | -178 | -214 | -258 | -335 | -445 | -585 | 2 | 4 | 5 | 7 | 13 | 19 |
| “100 “ 120 | | | | | | | | | | | | | | | | | | |
| “120 “ 140 | -43 | -63 | -92 | -122 | -170 | -202 | -248 | -300 | -365 | -470 | -620 | -800 | 3 | 4 | 6 | 7 | 15 | 23 |
| “140 “ 160 | | | | | | | | | | | | | | | | | | |
| “160 “ 180 | | -68 | -108 | -146 | -210 | -252 | -310 | -380 | -465 | -600 | -780 | -1000 | | | | | | |

| | | | | | | | | | | | | | | | | | | |
|-----------|-----|------|------|------|------|------|------|-------|-------|-------|-------|-------|---|---|---|----|----|----|
| "180 "200 | -50 | -77 | -122 | -166 | -236 | -284 | -350 | -425 | -520 | -670 | -880 | -1150 | 3 | 4 | 6 | 9 | 17 | 26 |
| "200 "225 | | -80 | -130 | -180 | -258 | -310 | -385 | -470 | -575 | -740 | -960 | -1250 | | | | | | |
| "225 "250 | | -84 | -140 | -196 | -284 | -340 | -425 | -520 | -640 | -820 | -1050 | -1350 | | | | | | |
| "250 "280 | -56 | -94 | -158 | -218 | -315 | -385 | -475 | -580 | -710 | -920 | -1200 | -1550 | 4 | 4 | 7 | 9 | 20 | 29 |
| "280 "315 | | -98 | -170 | -240 | -350 | -425 | -525 | -650 | -790 | -1000 | -1300 | -1700 | | | | | | |
| "315 "355 | -62 | -108 | -190 | -268 | -390 | -475 | -590 | -730 | -900 | -1150 | -1500 | -1900 | 4 | 5 | 7 | 11 | 21 | 32 |
| "355 "400 | | -114 | -208 | -294 | -435 | -530 | -660 | -820 | -1000 | -1300 | -1650 | -2100 | | | | | | |
| "400 "450 | -68 | -126 | -232 | -330 | -490 | -595 | -740 | -920 | -1100 | -1450 | -1850 | -2400 | 5 | 5 | 7 | 13 | 23 | 34 |
| "450 "500 | | -132 | -252 | -360 | -540 | -660 | -820 | -1000 | -1250 | -1600 | -2100 | -2600 | | | | | | |