



IMPÉRIO DOS METAIS

BUCHAS (TM-23 E TM0620)

| Diâmetro Externo (pol.) | Diâmetro Interno (pol.) | Diâmetro Externo (mm) | Diâmetro Interno (mm) | Peso (kg/pç de 500mm) |
|-------------------------|-------------------------|-----------------------|-----------------------|-----------------------|
| 7/8 | 1/2 | 22,22 | 12,70 | 1,57 |
| 7/8 | 5/8 | 22,22 | 15,87 | 1,28 |
| 1 | 1/2 | 25,40 | 12,70 | 2,14 |
| 1 | 5/8 | 25,40 | 15,87 | 1,85 |
| 1 | 3/4 | 25,40 | 19,05 | 1,49 |
| 1 1/8 | 1/2 | 28,57 | 12,70 | 2,78 |
| 1 1/8 | 5/8 | 28,57 | 15,87 | 2,49 |
| 1 1/8 | 3/4 | 28,57 | 19,05 | 2,13 |
| 1 1/8 | 7/8 | 28,57 | 22,22 | 1,71 |
| 1 1/4 | 1/2 | 31,75 | 12,70 | 3,49 |
| 1 1/4 | 5/8 | 31,75 | 15,87 | 3,20 |
| 1 1/4 | 3/4 | 31,75 | 19,05 | 2,85 |
| 1 1/4 | 7/8 | 31,75 | 22,22 | 2,42 |
| 1 1/4 | 1 | 31,75 | 25,40 | 1,92 |
| 1 3/8 | 1/2 | 34,92 | 12,70 | 4,27 |
| 1 3/8 | 5/8 | 34,92 | 15,87 | 3,99 |
| 1 3/8 | 3/4 | 34,92 | 19,05 | 3,63 |
| 1 3/8 | 7/8 | 34,92 | 22,22 | 3,20 |
| 1 3/8 | 1 | 34,92 | 25,40 | 2,70 |
| 1 3/8 | 1 1/8 | 34,92 | 28,57 | 2,13 |
| 1 1/2 | 1/2 | 38,10 | 12,70 | 5,13 |
| 1 1/2 | 5/8 | 38,10 | 15,87 | 4,84 |
| 1 1/2 | 3/4 | 38,10 | 19,05 | 4,49 |
| 1 1/2 | 7/8 | 38,10 | 22,22 | 4,06 |
| 1 1/2 | 1 | 38,10 | 25,40 | 3,56 |
| 1 1/2 | 1 1/8 | 38,10 | 28,57 | 2,99 |
| 1 1/2 | 1 1/4 | 38,10 | 31,75 | 2,35 |
| 1 5/8 | 1/2 | 41,27 | 12,70 | 6,05 |
| 1 5/8 | 5/8 | 41,27 | 15,87 | 5,77 |
| 1 5/8 | 3/4 | 41,27 | 19,05 | 5,41 |
| 1 5/8 | 7/8 | 41,27 | 22,22 | 4,98 |
| 1 5/8 | 1 | 41,27 | 25,40 | 4,48 |
| 1 5/8 | 1 1/8 | 41,27 | 28,57 | 3,92 |
| 1 5/8 | 1 1/4 | 41,27 | 31,75 | 3,27 |
| 1 5/8 | 1 3/8 | 41,27 | 34,92 | 2,56 |
| 1 3/4 | 1/2 | 44,45 | 12,70 | 7,05 |
| 1 3/4 | 5/8 | 44,45 | 15,87 | 6,77 |



IMPÉRIO DOS METAIS

| | | | | |
|-------|-------|-------|-------|-------|
| 1 3/4 | 3/4 | 44,45 | 19,05 | 6,41 |
| 1 3/4 | 7/8 | 44,45 | 22,22 | 5,98 |
| 1 3/4 | 1 | 44,45 | 25,40 | 5,48 |
| 1 3/4 | 1 1/8 | 44,45 | 28,57 | 4,91 |
| 1 3/4 | 1 1/4 | 44,45 | 31,75 | 4,27 |
| 1 3/4 | 1 3/8 | 44,45 | 34,92 | 3,56 |
| 1 3/4 | 1 1/2 | 44,45 | 38,10 | 2,78 |
| 1 7/8 | 1/2 | 47,62 | 12,70 | 8,12 |
| 1 7/8 | 5/8 | 47,62 | 15,87 | 7,83 |
| 1 7/8 | 3/4 | 47,62 | 19,05 | 7,48 |
| 1 7/8 | 7/8 | 47,62 | 22,22 | 7,05 |
| 1 7/8 | 1 | 47,62 | 25,40 | 6,55 |
| 1 7/8 | 1 1/8 | 47,62 | 28,57 | 5,98 |
| 1 7/8 | 1 1/4 | 47,62 | 31,75 | 5,34 |
| 1 7/8 | 1 3/8 | 47,62 | 34,92 | 4,63 |
| 1 7/8 | 1 1/2 | 47,62 | 38,10 | 3,84 |
| 1 7/8 | 1 5/8 | 47,62 | 41,27 | 2,99 |
| 2 | 1/2 | 50,80 | 12,70 | 9,26 |
| 2 | 5/8 | 50,80 | 15,87 | 8,98 |
| 2 | 3/4 | 50,80 | 19,05 | 8,62 |
| 2 | 7/8 | 50,80 | 22,22 | 8,19 |
| 2 | 1 | 50,80 | 25,40 | 7,69 |
| 2 | 1 1/8 | 50,80 | 28,57 | 7,12 |
| 2 | 1 1/4 | 50,80 | 31,75 | 6,48 |
| 2 | 1 3/8 | 50,80 | 34,92 | 5,77 |
| 2 | 1 1/2 | 50,80 | 38,10 | 4,98 |
| 2 | 1 5/8 | 50,80 | 41,27 | 4,13 |
| 2 | 1 3/4 | 50,80 | 44,45 | 3,20 |
| 2 1/8 | 1/2 | 53,97 | 12,70 | 10,47 |
| 2 1/8 | 5/8 | 53,97 | 15,87 | 10,18 |
| 2 1/8 | 3/4 | 53,97 | 19,05 | 9,83 |
| 2 1/8 | 7/8 | 53,97 | 22,22 | 9,40 |
| 2 1/8 | 1 | 53,97 | 25,40 | 8,90 |
| 2 1/8 | 1 1/8 | 53,97 | 28,57 | 8,33 |
| 2 1/8 | 1 1/4 | 53,97 | 31,75 | 7,69 |
| 2 1/8 | 1 3/8 | 53,97 | 34,92 | 6,98 |
| 2 1/8 | 1 1/2 | 53,97 | 38,10 | 6,19 |
| 2 1/8 | 1 5/8 | 53,97 | 41,27 | 5,34 |
| 2 1/8 | 1 3/4 | 53,97 | 44,45 | 4,41 |
| 2 1/4 | 1/2 | 57,15 | 12,70 | 11,75 |
| 2 1/4 | 5/8 | 57,15 | 15,87 | 11,47 |
| 2 1/4 | 3/4 | 57,15 | 19,05 | 11,11 |
| 2 1/4 | 7/8 | 57,15 | 22,22 | 10,69 |



IMPÉRIO DOS METAIS

| | | | | |
|-------|-------|-------|-------|-------|
| 2 1/4 | 1 | 57,15 | 25,40 | 10,19 |
| 2 1/4 | 1 1/8 | 57,15 | 28,57 | 9,62 |
| 2 1/4 | 1 1/4 | 57,15 | 31,75 | 8,97 |
| 2 1/4 | 1 3/8 | 57,15 | 34,92 | 8,26 |
| 2 1/4 | 1 1/2 | 57,15 | 38,10 | 7,48 |
| 2 1/4 | 1 5/8 | 57,15 | 41,27 | 6,62 |
| 2 1/4 | 1 3/4 | 57,15 | 44,45 | 5,70 |
| 2 1/4 | 1 7/8 | 57,15 | 47,62 | 4,70 |
| 2 3/8 | 1/2 | 60,32 | 12,70 | 13,11 |
| 2 3/8 | 5/8 | 60,32 | 15,87 | 12,82 |
| 2 3/8 | 3/4 | 60,32 | 19,05 | 12,46 |
| 2 3/8 | 7/8 | 60,32 | 22,22 | 12,04 |
| 2 3/8 | 1 | 60,32 | 25,40 | 11,54 |
| 2 3/8 | 1 1/8 | 60,32 | 28,57 | 10,97 |
| 2 3/8 | 1 1/4 | 60,32 | 31,75 | 10,33 |
| 2 3/8 | 1 3/8 | 60,32 | 34,92 | 9,61 |
| 2 3/8 | 1 1/2 | 60,32 | 38,10 | 8,83 |
| 2 3/8 | 1 5/8 | 60,32 | 41,27 | 7,97 |
| 2 3/8 | 1 3/4 | 60,32 | 44,45 | 7,05 |
| 2 3/8 | 1 7/8 | 60,32 | 47,62 | 6,05 |
| 2 3/8 | 2 | 60,32 | 50,80 | 4,98 |
| 2 1/2 | 1/2 | 63,50 | 12,70 | 14,53 |
| 2 1/2 | 5/8 | 63,50 | 15,87 | 14,25 |
| 2 1/2 | 3/4 | 63,50 | 19,05 | 13,89 |
| 2 1/2 | 7/8 | 63,50 | 22,22 | 13,46 |
| 2 1/2 | 1 | 63,50 | 25,40 | 12,96 |
| 2 1/2 | 1 1/8 | 63,50 | 28,57 | 12,40 |
| 2 1/2 | 1 1/4 | 63,50 | 31,75 | 11,75 |
| 2 1/2 | 1 3/8 | 63,50 | 34,92 | 11,04 |
| 2 1/2 | 1 1/2 | 63,50 | 38,10 | 10,26 |
| 2 1/2 | 1 5/8 | 63,50 | 41,27 | 9,40 |
| 2 1/2 | 1 3/4 | 63,50 | 44,45 | 8,47 |
| 2 1/2 | 1 7/8 | 63,50 | 47,62 | 7,48 |
| 2 1/2 | 2 | 63,50 | 50,80 | 6,41 |
| 2 1/2 | 2 1/8 | 63,50 | 53,97 | 5,27 |
| 2 5/8 | 1/2 | 66,67 | 12,70 | 16,03 |
| 2 5/8 | 5/8 | 66,67 | 15,87 | 15,74 |
| 2 5/8 | 3/4 | 66,67 | 19,05 | 15,38 |
| 2 5/8 | 7/8 | 66,67 | 22,22 | 14,96 |
| 2 5/8 | 1 | 66,67 | 25,40 | 14,46 |
| 2 5/8 | 1 1/8 | 66,67 | 28,57 | 13,89 |
| 2 5/8 | 1 1/4 | 66,67 | 31,75 | 13,25 |
| 2 5/8 | 1 3/8 | 66,67 | 34,92 | 12,53 |



IMPÉRIO DOS METAIS

| | | | | |
|-------|-------|-------|-------|-------|
| 2 5/8 | 1 1/2 | 66,67 | 38,10 | 11,75 |
| 2 5/8 | 1 5/8 | 66,67 | 41,27 | 10,90 |
| 2 5/8 | 1 3/4 | 66,67 | 44,45 | 9,97 |
| 2 5/8 | 1 7/8 | 66,67 | 47,62 | 8,97 |
| 2 5/8 | 2 | 66,67 | 50,80 | 7,90 |
| 2 5/8 | 2 1/8 | 66,67 | 53,97 | 6,76 |
| 2 5/8 | 2 1/4 | 66,67 | 57,15 | 5,55 |
| 2 3/4 | 1/2 | 69,85 | 12,70 | 17,60 |
| 2 3/4 | 5/8 | 69,85 | 15,87 | 17,31 |
| 2 3/4 | 3/4 | 69,85 | 19,05 | 16,95 |
| 2 3/4 | 7/8 | 69,85 | 22,22 | 16,53 |
| 2 3/4 | 1 | 69,85 | 25,40 | 16,03 |
| 2 3/4 | 1 1/8 | 69,85 | 28,57 | 15,46 |
| 2 3/4 | 1 1/4 | 69,85 | 31,75 | 14,82 |
| 2 3/4 | 1 3/8 | 69,85 | 34,92 | 14,10 |
| 2 3/4 | 1 1/2 | 69,85 | 38,10 | 13,32 |
| 2 3/4 | 1 5/8 | 69,85 | 41,27 | 12,47 |
| 2 3/4 | 1 3/4 | 69,85 | 44,45 | 11,54 |
| 2 3/4 | 1 7/8 | 69,85 | 47,62 | 10,54 |
| 2 3/4 | 2 | 69,85 | 50,80 | 9,47 |
| 2 3/4 | 2 1/8 | 69,85 | 53,97 | 8,33 |
| 2 3/4 | 2 1/4 | 69,85 | 57,15 | 7,12 |
| 2 3/4 | 2 3/8 | 69,85 | 60,32 | 5,84 |
| 2 7/8 | 1/2 | 73,02 | 12,70 | 19,23 |
| 2 7/8 | 5/8 | 73,02 | 15,87 | 18,95 |
| 2 7/8 | 3/4 | 73,02 | 19,05 | 18,59 |
| 2 7/8 | 7/8 | 73,02 | 22,22 | 18,16 |
| 2 7/8 | 1 | 73,02 | 25,40 | 17,66 |
| 2 7/8 | 1 1/8 | 73,02 | 28,57 | 17,09 |
| 2 7/8 | 1 1/4 | 73,02 | 31,75 | 16,45 |
| 2 7/8 | 1 3/8 | 73,02 | 34,92 | 15,74 |
| 2 7/8 | 1 1/2 | 73,02 | 38,10 | 14,96 |
| 2 7/8 | 1 5/8 | 73,02 | 41,27 | 14,10 |
| 2 7/8 | 1 3/4 | 73,02 | 44,45 | 13,17 |
| 2 7/8 | 1 7/8 | 73,02 | 47,62 | 12,18 |
| 2 7/8 | 2 | 73,02 | 50,80 | 11,11 |
| 2 7/8 | 2 1/8 | 73,02 | 53,97 | 9,97 |
| 2 7/8 | 2 1/4 | 73,02 | 57,15 | 8,76 |
| 2 7/8 | 2 3/8 | 73,02 | 60,32 | 7,47 |
| 2 7/8 | 2 1/2 | 73,02 | 63,50 | 6,12 |
| 3 | 1/2 | 76,20 | 12,70 | 20,95 |
| 3 | 5/8 | 76,20 | 15,87 | 20,66 |
| 3 | 3/4 | 76,20 | 19,05 | 20,30 |



IMPÉRIO DOS METAIS

| | | | | |
|-------|-------|-------|-------|-------|
| 3 | 7/8 | 76,20 | 22,22 | 19,88 |
| 3 | 1 | 76,20 | 25,40 | 19,38 |
| 3 | 1 1/8 | 76,20 | 28,57 | 18,81 |
| 3 | 1 1/4 | 76,20 | 31,75 | 18,17 |
| 3 | 1 3/8 | 76,20 | 34,92 | 17,45 |
| 3 | 1 1/2 | 76,20 | 38,10 | 16,67 |
| 3 | 1 5/8 | 76,20 | 41,27 | 15,81 |
| 3 | 1 3/4 | 76,20 | 44,45 | 14,89 |
| 3 | 1 7/8 | 76,20 | 47,62 | 13,89 |
| 3 | 2 | 76,20 | 50,80 | 12,82 |
| 3 | 2 1/8 | 76,20 | 53,97 | 11,68 |
| 3 | 2 1/4 | 76,20 | 57,15 | 10,47 |
| 3 | 2 3/8 | 76,20 | 60,32 | 9,19 |
| 3 | 2 1/2 | 76,20 | 63,50 | 7,83 |
| 3 | 2 5/8 | 76,20 | 66,67 | 6,41 |
| 3 1/8 | 1/2 | 79,37 | 12,70 | 22,72 |
| 3 1/8 | 5/8 | 79,37 | 15,87 | 22,44 |
| 3 1/8 | 3/4 | 79,37 | 19,05 | 22,08 |
| 3 1/8 | 7/8 | 79,37 | 22,22 | 21,65 |
| 3 1/8 | 1 | 79,37 | 25,40 | 21,16 |
| 3 1/8 | 1 1/8 | 79,37 | 28,57 | 20,59 |
| 3 1/8 | 1 1/4 | 79,37 | 31,75 | 19,94 |
| 3 1/8 | 1 3/8 | 79,37 | 34,92 | 19,23 |
| 3 1/8 | 1 1/2 | 79,37 | 38,10 | 18,45 |
| 3 1/8 | 1 5/8 | 79,37 | 41,27 | 17,59 |
| 3 1/8 | 1 3/4 | 79,37 | 44,45 | 16,66 |
| 3 1/8 | 1 7/8 | 79,37 | 47,62 | 15,67 |
| 3 1/8 | 2 | 79,37 | 50,80 | 14,60 |
| 3 1/8 | 2 1/8 | 79,37 | 53,97 | 13,46 |
| 3 1/8 | 2 1/4 | 79,37 | 57,15 | 12,25 |
| 3 1/8 | 2 3/8 | 79,37 | 60,32 | 10,97 |
| 3 1/8 | 2 1/2 | 79,37 | 63,50 | 9,61 |
| 3 1/8 | 2 5/8 | 79,37 | 66,67 | 8,19 |
| 3 1/4 | 1/2 | 82,55 | 12,70 | 24,58 |
| 3 1/4 | 5/8 | 82,55 | 15,87 | 24,29 |
| 3 1/4 | 3/4 | 82,55 | 19,05 | 23,94 |
| 3 1/4 | 7/8 | 82,55 | 22,22 | 23,51 |
| 3 1/4 | 1 | 82,55 | 25,40 | 23,01 |
| 3 1/4 | 1 1/8 | 82,55 | 28,57 | 22,44 |
| 3 1/4 | 1 1/4 | 82,55 | 31,75 | 21,80 |
| 3 1/4 | 1 3/8 | 82,55 | 34,92 | 21,09 |
| 3 1/4 | 1 1/2 | 82,55 | 38,10 | 20,30 |
| 3 1/4 | 1 5/8 | 82,55 | 41,27 | 19,45 |



IMPÉRIO DOS METAIS

| | | | | |
|-------|-------|-------|-------|-------|
| 3 1/4 | 1 3/4 | 82,55 | 44,45 | 18,52 |
| 3 1/4 | 1 7/8 | 82,55 | 47,62 | 17,52 |
| 3 1/4 | 2 | 82,55 | 50,80 | 16,45 |
| 3 1/4 | 2 1/8 | 82,55 | 53,97 | 15,32 |
| 3 1/4 | 2 1/4 | 82,55 | 57,15 | 14,10 |
| 3 1/4 | 2 3/8 | 82,55 | 60,32 | 12,82 |
| 3 1/4 | 2 1/2 | 82,55 | 63,50 | 11,46 |
| 3 1/4 | 2 5/8 | 82,55 | 66,67 | 10,04 |
| 3 1/4 | 2 3/4 | 82,55 | 69,85 | 8,54 |
| 3 3/8 | 1/2 | 85,72 | 12,70 | 26,50 |
| 3 3/8 | 5/8 | 85,72 | 15,87 | 26,21 |
| 3 3/8 | 3/4 | 85,72 | 19,05 | 25,86 |
| 3 3/8 | 7/8 | 85,72 | 22,22 | 25,43 |
| 3 3/8 | 1 | 85,72 | 25,40 | 24,93 |
| 3 3/8 | 1 1/8 | 85,72 | 28,57 | 24,36 |
| 3 3/8 | 1 1/4 | 85,72 | 31,75 | 23,72 |
| 3 3/8 | 1 3/8 | 85,72 | 34,92 | 23,01 |
| 3 3/8 | 1 1/2 | 85,72 | 38,10 | 22,22 |
| 3 3/8 | 1 5/8 | 85,72 | 41,27 | 21,37 |
| 3 3/8 | 1 3/4 | 85,72 | 44,45 | 20,44 |
| 3 3/8 | 1 7/8 | 85,72 | 47,62 | 19,44 |
| 3 3/8 | 2 | 85,72 | 50,80 | 18,37 |
| 3 3/8 | 2 1/8 | 85,72 | 53,97 | 17,24 |
| 3 3/8 | 2 1/4 | 85,72 | 57,15 | 16,02 |
| 3 3/8 | 2 3/8 | 85,72 | 60,32 | 14,74 |
| 3 3/8 | 2 1/2 | 85,72 | 63,50 | 13,39 |
| 3 3/8 | 2 5/8 | 85,72 | 66,67 | 11,96 |
| 3 3/8 | 2 3/4 | 85,72 | 69,85 | 10,46 |
| 3 3/8 | 2 7/8 | 85,72 | 73,02 | 8,90 |
| 3 1/2 | 1/2 | 88,90 | 12,70 | 28,50 |
| 3 1/2 | 5/8 | 88,90 | 15,87 | 28,21 |
| 3 1/2 | 3/4 | 88,90 | 19,05 | 27,86 |
| 3 1/2 | 7/8 | 88,90 | 22,22 | 27,43 |
| 3 1/2 | 1 | 88,90 | 25,40 | 26,93 |
| 3 1/2 | 1 1/8 | 88,90 | 28,57 | 26,36 |
| 3 1/2 | 1 1/4 | 88,90 | 31,75 | 25,72 |
| 3 1/2 | 1 3/8 | 88,90 | 34,92 | 25,01 |
| 3 1/2 | 1 1/2 | 88,90 | 38,10 | 24,22 |
| 3 1/2 | 1 5/8 | 88,90 | 41,27 | 23,37 |
| 3 1/2 | 1 3/4 | 88,90 | 44,45 | 22,44 |
| 3 1/2 | 1 7/8 | 88,90 | 47,62 | 21,44 |
| 3 1/2 | 2 | 88,90 | 50,80 | 20,37 |
| 3 1/2 | 2 1/8 | 88,90 | 53,97 | 19,23 |



IMPÉRIO DOS METAIS

| | | | | |
|-------|-------|-------|-------|-------|
| 3 1/2 | 2 1/4 | 88,90 | 57,15 | 18,02 |
| 3 1/2 | 2 3/8 | 88,90 | 60,32 | 16,74 |
| 3 1/2 | 2 1/2 | 88,90 | 63,50 | 15,38 |
| 3 1/2 | 2 5/8 | 88,90 | 66,67 | 13,96 |
| 3 1/2 | 2 3/4 | 88,90 | 69,85 | 12,46 |
| 3 1/2 | 2 7/8 | 88,90 | 73,02 | 10,90 |
| 3 1/2 | 3 | 88,90 | 76,20 | 9,26 |
| 3 5/8 | 1/2 | 92,07 | 12,70 | 30,56 |
| 3 5/8 | 5/8 | 92,07 | 15,87 | 30,28 |
| 3 5/8 | 3/4 | 92,07 | 19,05 | 29,92 |
| 3 5/8 | 7/8 | 92,07 | 22,22 | 29,49 |
| 3 5/8 | 1 | 92,07 | 25,40 | 28,99 |
| 3 5/8 | 1 1/8 | 92,07 | 28,57 | 28,42 |
| 3 5/8 | 1 1/4 | 92,07 | 31,75 | 27,78 |
| 3 5/8 | 1 3/8 | 92,07 | 34,92 | 27,07 |
| 3 5/8 | 1 1/2 | 92,07 | 38,10 | 26,28 |
| 3 5/8 | 1 5/8 | 92,07 | 41,27 | 25,43 |
| 3 5/8 | 1 3/4 | 92,07 | 44,45 | 24,50 |
| 3 5/8 | 1 7/8 | 92,07 | 47,62 | 23,51 |
| 3 5/8 | 2 | 92,07 | 50,80 | 22,44 |
| 3 5/8 | 2 1/8 | 92,07 | 53,97 | 21,30 |
| 3 5/8 | 2 1/4 | 92,07 | 57,15 | 20,08 |
| 3 5/8 | 2 3/8 | 92,07 | 60,32 | 18,80 |
| 3 5/8 | 2 1/2 | 92,07 | 63,50 | 17,45 |
| 3 5/8 | 2 5/8 | 92,07 | 66,67 | 16,02 |
| 3 5/8 | 2 3/4 | 92,07 | 69,85 | 14,52 |
| 3 5/8 | 2 7/8 | 92,07 | 73,02 | 12,96 |
| 3 5/8 | 3 | 92,07 | 76,20 | 11,32 |
| 3 5/8 | 3 1/8 | 92,07 | 79,37 | 9,61 |
| 3 3/4 | 1/2 | 95,25 | 12,70 | 32,70 |
| 3 3/4 | 5/8 | 95,25 | 15,87 | 32,42 |
| 3 3/4 | 3/4 | 95,25 | 19,05 | 32,06 |
| 3 3/4 | 7/8 | 95,25 | 22,22 | 31,63 |
| 3 3/4 | 1 | 95,25 | 25,40 | 31,13 |
| 3 3/4 | 1 1/8 | 95,25 | 28,57 | 30,56 |
| 3 3/4 | 1 1/4 | 95,25 | 31,75 | 29,92 |
| 3 3/4 | 1 3/8 | 95,25 | 34,92 | 29,21 |
| 3 3/4 | 1 1/2 | 95,25 | 38,10 | 28,42 |
| 3 3/4 | 1 5/8 | 95,25 | 41,27 | 27,57 |
| 3 3/4 | 1 3/4 | 95,25 | 44,45 | 26,64 |
| 3 3/4 | 1 7/8 | 95,25 | 47,62 | 25,65 |
| 3 3/4 | 2 | 95,25 | 50,80 | 24,58 |
| 3 3/4 | 2 1/8 | 95,25 | 53,97 | 23,44 |



IMPÉRIO DOS METAIS

| | | | | |
|-------|-------|--------|-------|-------|
| 3 3/4 | 2 1/4 | 95,25 | 57,15 | 22,22 |
| 3 3/4 | 2 3/8 | 95,25 | 60,32 | 20,94 |
| 3 3/4 | 2 1/2 | 95,25 | 63,50 | 19,59 |
| 3 3/4 | 2 5/8 | 95,25 | 66,67 | 18,16 |
| 3 3/4 | 2 3/4 | 95,25 | 69,85 | 16,67 |
| 3 3/4 | 2 7/8 | 95,25 | 73,02 | 15,10 |
| 3 3/4 | 3 | 95,25 | 76,20 | 13,46 |
| 3 3/4 | 3 1/8 | 95,25 | 79,37 | 11,75 |
| 3 3/4 | 3 1/4 | 95,25 | 82,55 | 9,97 |
| 3 7/8 | 1/2 | 98,42 | 12,70 | 34,91 |
| 3 7/8 | 5/8 | 98,42 | 15,87 | 34,62 |
| 3 7/8 | 3/4 | 98,42 | 19,05 | 34,26 |
| 3 7/8 | 7/8 | 98,42 | 22,22 | 33,84 |
| 3 7/8 | 1 | 98,42 | 25,40 | 33,34 |
| 3 7/8 | 1 1/8 | 98,42 | 28,57 | 32,77 |
| 3 7/8 | 1 1/4 | 98,42 | 31,75 | 32,13 |
| 3 7/8 | 1 3/8 | 98,42 | 34,92 | 31,41 |
| 3 7/8 | 1 1/2 | 98,42 | 38,10 | 30,63 |
| 3 7/8 | 1 5/8 | 98,42 | 41,27 | 29,78 |
| 3 7/8 | 1 3/4 | 98,42 | 44,45 | 28,85 |
| 3 7/8 | 1 7/8 | 98,42 | 47,62 | 27,85 |
| 3 7/8 | 2 | 98,42 | 50,80 | 26,78 |
| 3 7/8 | 2 1/8 | 98,42 | 53,97 | 25,64 |
| 3 7/8 | 2 1/4 | 98,42 | 57,15 | 24,43 |
| 3 7/8 | 2 3/8 | 98,42 | 60,32 | 23,15 |
| 3 7/8 | 2 1/2 | 98,42 | 63,50 | 21,79 |
| 3 7/8 | 2 5/8 | 98,42 | 66,67 | 20,37 |
| 3 7/8 | 2 3/4 | 98,42 | 69,85 | 18,87 |
| 3 7/8 | 2 7/8 | 98,42 | 73,02 | 17,31 |
| 3 7/8 | 3 | 98,42 | 76,20 | 15,66 |
| 3 7/8 | 3 1/8 | 98,42 | 79,37 | 13,96 |
| 3 7/8 | 3 1/4 | 98,42 | 82,55 | 12,17 |
| 3 7/8 | 3 3/8 | 98,42 | 85,72 | 10,32 |
| 4 | 1/2 | 101,60 | 12,70 | 37,19 |
| 4 | 5/8 | 101,60 | 15,87 | 36,91 |
| 4 | 3/4 | 101,60 | 19,05 | 36,55 |
| 4 | 7/8 | 101,60 | 22,22 | 36,12 |
| 4 | 1 | 101,60 | 25,40 | 35,62 |
| 4 | 1 1/8 | 101,60 | 28,57 | 35,05 |
| 4 | 1 1/4 | 101,60 | 31,75 | 34,41 |
| 4 | 1 3/8 | 101,60 | 34,92 | 33,70 |
| 4 | 1 1/2 | 101,60 | 38,10 | 32,91 |
| 4 | 1 5/8 | 101,60 | 41,27 | 32,06 |



IMPÉRIO DOS METAIS

| | | | | |
|-------|-------|--------|-------|-------|
| 4 | 1 3/4 | 101,60 | 44,45 | 31,13 |
| 4 | 1 7/8 | 101,60 | 47,62 | 30,14 |
| 4 | 2 | 101,60 | 50,80 | 29,06 |
| 4 | 2 1/8 | 101,60 | 53,97 | 27,93 |
| 4 | 2 1/4 | 101,60 | 57,15 | 26,71 |
| 4 | 2 3/8 | 101,60 | 60,32 | 25,43 |
| 4 | 2 1/2 | 101,60 | 63,50 | 24,08 |
| 4 | 2 5/8 | 101,60 | 66,67 | 22,65 |
| 4 | 2 3/4 | 101,60 | 69,85 | 21,15 |
| 4 | 2 7/8 | 101,60 | 73,02 | 19,59 |
| 4 | 3 | 101,60 | 76,20 | 17,95 |
| 4 | 3 1/8 | 101,60 | 79,37 | 16,24 |
| 4 | 3 1/4 | 101,60 | 82,55 | 14,46 |
| 4 | 3 3/8 | 101,60 | 85,72 | 12,61 |
| 4 | 3 1/2 | 101,60 | 88,90 | 10,68 |
| 4 1/8 | 1/2 | 104,77 | 12,70 | 39,54 |
| 4 1/8 | 5/8 | 104,77 | 15,87 | 39,25 |
| 4 1/8 | 3/4 | 104,77 | 19,05 | 38,90 |
| 4 1/8 | 7/8 | 104,77 | 22,22 | 38,47 |
| 4 1/8 | 1 | 104,77 | 25,40 | 37,97 |
| 4 1/8 | 1 1/8 | 104,77 | 28,57 | 37,40 |
| 4 1/8 | 1 1/4 | 104,77 | 31,75 | 36,76 |
| 4 1/8 | 1 3/8 | 104,77 | 34,92 | 36,05 |
| 4 1/8 | 1 1/2 | 104,77 | 38,10 | 35,26 |
| 4 1/8 | 1 5/8 | 104,77 | 41,27 | 34,41 |
| 4 1/8 | 1 3/4 | 104,77 | 44,45 | 33,48 |
| 4 1/8 | 1 7/8 | 104,77 | 47,62 | 32,48 |
| 4 1/8 | 2 | 104,77 | 50,80 | 31,41 |
| 4 1/8 | 2 1/8 | 104,77 | 53,97 | 30,27 |
| 4 1/8 | 2 1/4 | 104,77 | 57,15 | 29,06 |
| 4 1/8 | 2 3/8 | 104,77 | 60,32 | 27,78 |
| 4 1/8 | 2 1/2 | 104,77 | 63,50 | 26,42 |
| 4 1/8 | 2 5/8 | 104,77 | 66,67 | 25,00 |
| 4 1/8 | 2 3/4 | 104,77 | 69,85 | 23,50 |
| 4 1/8 | 2 7/8 | 104,77 | 73,02 | 21,94 |
| 4 1/8 | 3 | 104,77 | 76,20 | 20,30 |
| 4 1/8 | 3 1/8 | 104,77 | 79,37 | 18,59 |
| 4 1/8 | 3 1/4 | 104,77 | 82,55 | 16,80 |
| 4 1/8 | 3 3/8 | 104,77 | 85,72 | 14,95 |
| 4 1/8 | 3 1/2 | 104,77 | 88,90 | 13,03 |
| 4 1/8 | 3 5/8 | 104,77 | 92,07 | 11,03 |
| 4 1/4 | 1/2 | 107,95 | 12,70 | 41,96 |
| 4 1/4 | 5/8 | 107,95 | 15,87 | 41,68 |



IMPÉRIO DOS METAIS

| | | | | |
|-------|-------|--------|-------|-------|
| 4 1/4 | 3/4 | 107,95 | 19,05 | 41,32 |
| 4 1/4 | 7/8 | 107,95 | 22,22 | 40,90 |
| 4 1/4 | 1 | 107,95 | 25,40 | 40,40 |
| 4 1/4 | 1 1/8 | 107,95 | 28,57 | 39,83 |
| 4 1/4 | 1 1/4 | 107,95 | 31,75 | 39,18 |
| 4 1/4 | 1 3/8 | 107,95 | 34,92 | 38,47 |
| 4 1/4 | 1 1/2 | 107,95 | 38,10 | 37,69 |
| 4 1/4 | 1 5/8 | 107,95 | 41,27 | 36,83 |
| 4 1/4 | 1 3/4 | 107,95 | 44,45 | 35,91 |
| 4 1/4 | 1 7/8 | 107,95 | 47,62 | 34,91 |
| 4 1/4 | 2 | 107,95 | 50,80 | 33,84 |
| 4 1/4 | 2 1/8 | 107,95 | 53,97 | 32,70 |
| 4 1/4 | 2 1/4 | 107,95 | 57,15 | 31,49 |
| 4 1/4 | 2 3/8 | 107,95 | 60,32 | 30,21 |
| 4 1/4 | 2 1/2 | 107,95 | 63,50 | 28,85 |
| 4 1/4 | 2 5/8 | 107,95 | 66,67 | 27,43 |
| 4 1/4 | 2 3/4 | 107,95 | 69,85 | 25,93 |
| 4 1/4 | 2 7/8 | 107,95 | 73,02 | 24,36 |
| 4 1/4 | 3 | 107,95 | 76,20 | 22,72 |
| 4 1/4 | 3 1/8 | 107,95 | 79,37 | 21,01 |
| 4 1/4 | 3 1/4 | 107,95 | 82,55 | 19,23 |
| 4 1/4 | 3 3/8 | 107,95 | 85,72 | 17,38 |
| 4 1/4 | 3 1/2 | 107,95 | 88,90 | 15,45 |
| 4 1/4 | 3 5/8 | 107,95 | 92,07 | 13,46 |
| 4 1/4 | 3 3/4 | 107,95 | 95,25 | 11,39 |
| 4 1/4 | 3 7/8 | 107,95 | 98,42 | 9,26 |
| 4 3/8 | 1/2 | 111,12 | 12,70 | 44,45 |
| 4 3/8 | 5/8 | 111,12 | 15,87 | 44,17 |
| 4 3/8 | 3/4 | 111,12 | 19,05 | 43,81 |
| 4 3/8 | 7/8 | 111,12 | 22,22 | 43,39 |
| 4 3/8 | 1 | 111,12 | 25,40 | 42,89 |
| 4 3/8 | 1 1/8 | 111,12 | 28,57 | 42,32 |
| 4 3/8 | 1 1/4 | 111,12 | 31,75 | 41,67 |
| 4 3/8 | 1 3/8 | 111,12 | 34,92 | 40,96 |
| 4 3/8 | 1 1/2 | 111,12 | 38,10 | 40,18 |
| 4 3/8 | 1 5/8 | 111,12 | 41,27 | 39,32 |
| 4 3/8 | 1 3/4 | 111,12 | 44,45 | 38,40 |
| 4 3/8 | 1 7/8 | 111,12 | 47,62 | 37,40 |
| 4 3/8 | 2 | 111,12 | 50,80 | 36,33 |
| 4 3/8 | 2 1/8 | 111,12 | 53,97 | 35,19 |
| 4 3/8 | 2 1/4 | 111,12 | 57,15 | 33,98 |
| 4 3/8 | 2 3/8 | 111,12 | 60,32 | 32,70 |
| 4 3/8 | 2 1/2 | 111,12 | 63,50 | 31,34 |



IMPÉRIO DOS METAIS

| | | | | |
|-------|-------|--------|--------|-------|
| 4 3/8 | 2 5/8 | 111,12 | 66,67 | 29,92 |
| 4 3/8 | 2 3/4 | 111,12 | 69,85 | 28,42 |
| 4 3/8 | 2 7/8 | 111,12 | 73,02 | 26,85 |
| 4 3/8 | 3 | 111,12 | 76,20 | 25,21 |
| 4 3/8 | 3 1/8 | 111,12 | 79,37 | 23,50 |
| 4 3/8 | 3 1/4 | 111,12 | 82,55 | 21,72 |
| 4 3/8 | 3 3/8 | 111,12 | 85,72 | 19,87 |
| 4 3/8 | 3 1/2 | 111,12 | 88,90 | 17,94 |
| 4 3/8 | 3 5/8 | 111,12 | 92,07 | 15,95 |
| 4 3/8 | 3 3/4 | 111,12 | 95,25 | 13,88 |
| 4 3/8 | 3 7/8 | 111,12 | 98,42 | 11,75 |
| 4 1/2 | 1 | 114,30 | 25,40 | 45,45 |
| 4 1/2 | 1 1/8 | 114,30 | 28,57 | 44,89 |
| 4 1/2 | 1 1/4 | 114,30 | 31,75 | 44,24 |
| 4 1/2 | 1 3/8 | 114,30 | 34,92 | 43,53 |
| 4 1/2 | 1 1/2 | 114,30 | 38,10 | 42,75 |
| 4 1/2 | 1 5/8 | 114,30 | 41,27 | 41,89 |
| 4 1/2 | 1 3/4 | 114,30 | 44,45 | 40,96 |
| 4 1/2 | 1 7/8 | 114,30 | 47,62 | 39,97 |
| 4 1/2 | 2 | 114,30 | 50,80 | 38,90 |
| 4 1/2 | 2 1/8 | 114,30 | 53,97 | 37,76 |
| 4 1/2 | 2 1/4 | 114,30 | 57,15 | 36,55 |
| 4 1/2 | 2 3/8 | 114,30 | 60,32 | 35,26 |
| 4 1/2 | 2 1/2 | 114,30 | 63,50 | 33,91 |
| 4 1/2 | 2 5/8 | 114,30 | 66,67 | 32,49 |
| 4 1/2 | 2 3/4 | 114,30 | 69,85 | 30,99 |
| 4 1/2 | 2 7/8 | 114,30 | 73,02 | 29,42 |
| 4 1/2 | 3 | 114,30 | 76,20 | 27,78 |
| 4 1/2 | 3 1/8 | 114,30 | 79,37 | 26,07 |
| 4 1/2 | 3 1/4 | 114,30 | 82,55 | 24,29 |
| 4 1/2 | 3 3/8 | 114,30 | 85,72 | 22,44 |
| 4 1/2 | 3 1/2 | 114,30 | 88,90 | 20,51 |
| 4 1/2 | 3 5/8 | 114,30 | 92,07 | 18,52 |
| 4 1/2 | 3 3/4 | 114,30 | 95,25 | 16,45 |
| 4 1/2 | 3 7/8 | 114,30 | 98,42 | 14,32 |
| 4 1/2 | 4 | 114,30 | 101,60 | 12,10 |
| 4 5/8 | 1 | 117,47 | 25,40 | 48,09 |
| 4 5/8 | 1 1/8 | 117,47 | 28,57 | 47,52 |
| 4 5/8 | 1 1/4 | 117,47 | 31,75 | 46,87 |
| 4 5/8 | 1 3/8 | 117,47 | 34,92 | 46,16 |
| 4 5/8 | 1 1/2 | 117,47 | 38,10 | 45,38 |
| 4 5/8 | 1 5/8 | 117,47 | 41,27 | 44,52 |
| 4 5/8 | 1 3/4 | 117,47 | 44,45 | 43,60 |



IMPÉRIO DOS METAIS

| | | | | |
|-------|-------|--------|--------|-------|
| 4 5/8 | 1 7/8 | 117,47 | 47,62 | 42,60 |
| 4 5/8 | 2 | 117,47 | 50,80 | 41,53 |
| 4 5/8 | 2 1/8 | 117,47 | 53,97 | 40,39 |
| 4 5/8 | 2 1/4 | 117,47 | 57,15 | 39,18 |
| 4 5/8 | 2 3/8 | 117,47 | 60,32 | 37,90 |
| 4 5/8 | 2 1/2 | 117,47 | 63,50 | 36,54 |
| 4 5/8 | 2 5/8 | 117,47 | 66,67 | 35,12 |
| 4 5/8 | 2 3/4 | 117,47 | 69,85 | 33,62 |
| 4 5/8 | 2 7/8 | 117,47 | 73,02 | 32,05 |
| 4 5/8 | 3 | 117,47 | 76,20 | 30,41 |
| 4 5/8 | 3 1/8 | 117,47 | 79,37 | 28,70 |
| 4 5/8 | 3 1/4 | 117,47 | 82,55 | 26,92 |
| 4 5/8 | 3 3/8 | 117,47 | 85,72 | 25,07 |
| 4 5/8 | 3 1/2 | 117,47 | 88,90 | 23,14 |
| 4 5/8 | 3 5/8 | 117,47 | 92,07 | 21,15 |
| 4 5/8 | 3 3/4 | 117,47 | 95,25 | 19,08 |
| 4 5/8 | 3 7/8 | 117,47 | 98,42 | 16,95 |
| 4 5/8 | 4 | 117,47 | 101,60 | 14,73 |
| 4 5/8 | 4 1/8 | 117,47 | 104,77 | 12,46 |
| 4 3/4 | 1 | 120,65 | 25,40 | 50,80 |
| 4 3/4 | 1 1/8 | 120,65 | 28,57 | 50,23 |
| 4 3/4 | 1 1/4 | 120,65 | 31,75 | 49,59 |
| 4 3/4 | 1 3/8 | 120,65 | 34,92 | 48,87 |
| 4 3/4 | 1 1/2 | 120,65 | 38,10 | 48,09 |
| 4 3/4 | 1 5/8 | 120,65 | 41,27 | 47,24 |
| 4 3/4 | 1 3/4 | 120,65 | 44,45 | 46,31 |
| 4 3/4 | 1 7/8 | 120,65 | 47,62 | 45,31 |
| 4 3/4 | 2 | 120,65 | 50,80 | 44,24 |
| 4 3/4 | 2 1/8 | 120,65 | 53,97 | 43,10 |
| 4 3/4 | 2 1/4 | 120,65 | 57,15 | 41,89 |
| 4 3/4 | 2 3/8 | 120,65 | 60,32 | 40,61 |
| 4 3/4 | 2 1/2 | 120,65 | 63,50 | 39,25 |
| 4 3/4 | 2 5/8 | 120,65 | 66,67 | 37,83 |
| 4 3/4 | 2 3/4 | 120,65 | 69,85 | 36,33 |
| 4 3/4 | 2 7/8 | 120,65 | 73,02 | 34,77 |
| 4 3/4 | 3 | 120,65 | 76,20 | 33,12 |
| 4 3/4 | 3 1/8 | 120,65 | 79,37 | 31,42 |
| 4 3/4 | 3 1/4 | 120,65 | 82,55 | 29,63 |
| 4 3/4 | 3 3/8 | 120,65 | 85,72 | 27,78 |
| 4 3/4 | 3 1/2 | 120,65 | 88,90 | 25,86 |
| 4 3/4 | 3 5/8 | 120,65 | 92,07 | 23,86 |
| 4 3/4 | 3 3/4 | 120,65 | 95,25 | 21,79 |
| 4 3/4 | 3 7/8 | 120,65 | 98,42 | 19,66 |



IMPÉRIO DOS METAIS

| | | | | |
|-------|-------|--------|--------|-------|
| 4 3/4 | 4 | 120,65 | 101,60 | 17,45 |
| 4 3/4 | 4 1/8 | 120,65 | 104,77 | 15,17 |
| 4 3/4 | 4 1/4 | 120,65 | 107,95 | 12,81 |
| 4 7/8 | 1 | 123,82 | 25,40 | 53,57 |
| 4 7/8 | 1 1/8 | 123,82 | 28,57 | 53,00 |
| 4 7/8 | 1 1/4 | 123,82 | 31,75 | 52,36 |
| 4 7/8 | 1 3/8 | 123,82 | 34,92 | 51,65 |
| 4 7/8 | 1 1/2 | 123,82 | 38,10 | 50,86 |
| 4 7/8 | 1 5/8 | 123,82 | 41,27 | 50,01 |
| 4 7/8 | 1 3/4 | 123,82 | 44,45 | 49,08 |
| 4 7/8 | 1 7/8 | 123,82 | 47,62 | 48,09 |
| 4 7/8 | 2 | 123,82 | 50,80 | 47,02 |
| 4 7/8 | 2 1/8 | 123,82 | 53,97 | 45,88 |
| 4 7/8 | 2 1/4 | 123,82 | 57,15 | 44,66 |
| 4 7/8 | 2 3/8 | 123,82 | 60,32 | 43,38 |
| 4 7/8 | 2 1/2 | 123,82 | 63,50 | 42,03 |
| 4 7/8 | 2 5/8 | 123,82 | 66,67 | 40,60 |
| 4 7/8 | 2 3/4 | 123,82 | 69,85 | 39,11 |
| 4 7/8 | 2 7/8 | 123,82 | 73,02 | 37,54 |
| 4 7/8 | 3 | 123,82 | 76,20 | 35,90 |
| 4 7/8 | 3 1/8 | 123,82 | 79,37 | 34,19 |
| 4 7/8 | 3 1/4 | 123,82 | 82,55 | 32,41 |
| 4 7/8 | 3 3/8 | 123,82 | 85,72 | 30,56 |
| 4 7/8 | 3 1/2 | 123,82 | 88,90 | 28,63 |
| 4 7/8 | 3 5/8 | 123,82 | 92,07 | 26,64 |
| 4 7/8 | 3 3/4 | 123,82 | 95,25 | 24,57 |
| 4 7/8 | 3 7/8 | 123,82 | 98,42 | 22,43 |
| 4 7/8 | 4 | 123,82 | 101,60 | 20,22 |
| 4 7/8 | 4 1/8 | 123,82 | 104,77 | 17,94 |
| 4 7/8 | 4 1/4 | 123,82 | 107,95 | 15,59 |
| 4 7/8 | 4 3/8 | 123,82 | 111,12 | 13,17 |
| 5 | 1 | 127,00 | 25,40 | 56,43 |
| 5 | 1 1/8 | 127,00 | 28,57 | 55,86 |
| 5 | 1 1/4 | 127,00 | 31,75 | 55,22 |
| 5 | 1 3/8 | 127,00 | 34,92 | 54,50 |
| 5 | 1 1/2 | 127,00 | 38,10 | 53,72 |
| 5 | 1 5/8 | 127,00 | 41,27 | 52,86 |
| 5 | 1 3/4 | 127,00 | 44,45 | 51,94 |
| 5 | 1 7/8 | 127,00 | 47,62 | 50,94 |
| 5 | 2 | 127,00 | 50,80 | 49,87 |
| 5 | 2 1/8 | 127,00 | 53,97 | 48,73 |
| 5 | 2 1/4 | 127,00 | 57,15 | 47,52 |
| 5 | 2 3/8 | 127,00 | 60,32 | 46,24 |



IMPÉRIO DOS METAIS

| | | | | |
|-------|-------|--------|--------|-------|
| 5 | 2 1/2 | 127,00 | 63,50 | 44,88 |
| 5 | 2 5/8 | 127,00 | 66,67 | 43,46 |
| 5 | 2 3/4 | 127,00 | 69,85 | 41,96 |
| 5 | 2 7/8 | 127,00 | 73,02 | 40,39 |
| 5 | 3 | 127,00 | 76,20 | 38,75 |
| 5 | 3 1/8 | 127,00 | 79,37 | 37,05 |
| 5 | 3 1/4 | 127,00 | 82,55 | 35,26 |
| 5 | 3 3/8 | 127,00 | 85,72 | 33,41 |
| 5 | 3 1/2 | 127,00 | 88,90 | 31,48 |
| 5 | 3 5/8 | 127,00 | 92,07 | 29,49 |
| 5 | 3 3/4 | 127,00 | 95,25 | 27,42 |
| 5 | 3 7/8 | 127,00 | 98,42 | 25,29 |
| 5 | 4 | 127,00 | 101,60 | 23,08 |
| 5 | 4 1/8 | 127,00 | 104,77 | 20,80 |
| 5 | 4 1/4 | 127,00 | 107,95 | 18,44 |
| 5 | 4 3/8 | 127,00 | 111,12 | 16,02 |
| 5 | 4 1/2 | 127,00 | 114,30 | 13,53 |
| 5 1/8 | 1 | 130,17 | 25,40 | 59,34 |
| 5 1/8 | 1 1/8 | 130,17 | 28,57 | 58,77 |
| 5 1/8 | 1 1/4 | 130,17 | 31,75 | 58,13 |
| 5 1/8 | 1 3/8 | 130,17 | 34,92 | 57,42 |
| 5 1/8 | 1 1/2 | 130,17 | 38,10 | 56,64 |
| 5 1/8 | 1 5/8 | 130,17 | 41,27 | 55,78 |
| 5 1/8 | 1 3/4 | 130,17 | 44,45 | 54,85 |
| 5 1/8 | 1 7/8 | 130,17 | 47,62 | 53,86 |
| 5 1/8 | 2 | 130,17 | 50,80 | 52,79 |
| 5 1/8 | 2 1/8 | 130,17 | 53,97 | 51,65 |
| 5 1/8 | 2 1/4 | 130,17 | 57,15 | 50,44 |
| 5 1/8 | 2 3/8 | 130,17 | 60,32 | 49,15 |
| 5 1/8 | 2 1/2 | 130,17 | 63,50 | 47,80 |
| 5 1/8 | 2 5/8 | 130,17 | 66,67 | 46,38 |
| 5 1/8 | 2 3/4 | 130,17 | 69,85 | 44,88 |
| 5 1/8 | 2 7/8 | 130,17 | 73,02 | 43,31 |
| 5 1/8 | 3 | 130,17 | 76,20 | 41,67 |
| 5 1/8 | 3 1/8 | 130,17 | 79,37 | 39,96 |
| 5 1/8 | 3 1/4 | 130,17 | 82,55 | 38,18 |
| 5 1/8 | 3 3/8 | 130,17 | 85,72 | 36,33 |
| 5 1/8 | 3 1/2 | 130,17 | 88,90 | 34,40 |
| 5 1/8 | 3 5/8 | 130,17 | 92,07 | 32,41 |
| 5 1/8 | 3 3/4 | 130,17 | 95,25 | 30,34 |
| 5 1/8 | 3 7/8 | 130,17 | 98,42 | 28,20 |
| 5 1/8 | 4 | 130,17 | 101,60 | 25,99 |
| 5 1/8 | 4 1/8 | 130,17 | 104,77 | 23,72 |



IMPÉRIO DOS METAIS

| | | | | |
|-------|-------|--------|--------|-------|
| 5 1/8 | 4 1/4 | 130,17 | 107,95 | 21,36 |
| 5 1/8 | 4 3/8 | 130,17 | 111,12 | 18,94 |
| 5 1/8 | 4 1/2 | 130,17 | 114,30 | 16,44 |
| 5 1/8 | 4 5/8 | 130,17 | 117,47 | 13,88 |
| 5 1/4 | 1 | 133,35 | 25,40 | 62,34 |
| 5 1/4 | 1 1/4 | 133,35 | 31,75 | 61,13 |
| 5 1/4 | 1 3/8 | 133,35 | 34,92 | 60,42 |
| 5 1/4 | 1 1/2 | 133,35 | 38,10 | 59,63 |
| 5 1/4 | 1 5/8 | 133,35 | 41,27 | 58,78 |
| 5 1/4 | 1 3/4 | 133,35 | 44,45 | 57,85 |
| 5 1/4 | 1 7/8 | 133,35 | 47,62 | 56,85 |
| 5 1/4 | 2 | 133,35 | 50,80 | 55,78 |
| 5 1/4 | 2 1/8 | 133,35 | 53,97 | 54,65 |
| 5 1/4 | 2 1/4 | 133,35 | 57,15 | 53,43 |
| 5 1/4 | 2 3/8 | 133,35 | 60,32 | 52,15 |
| 5 1/4 | 2 1/2 | 133,35 | 63,50 | 50,80 |
| 5 1/4 | 2 5/8 | 133,35 | 66,67 | 49,37 |
| 5 1/4 | 2 3/4 | 133,35 | 69,85 | 47,87 |
| 5 1/4 | 2 7/8 | 133,35 | 73,02 | 46,31 |
| 5 1/4 | 3 | 133,35 | 76,20 | 44,67 |
| 5 1/4 | 3 1/8 | 133,35 | 79,37 | 42,96 |
| 5 1/4 | 3 1/4 | 133,35 | 82,55 | 41,17 |
| 5 1/4 | 3 3/8 | 133,35 | 85,72 | 39,33 |
| 5 1/4 | 3 1/2 | 133,35 | 88,90 | 37,40 |
| 5 1/4 | 3 5/8 | 133,35 | 92,07 | 35,41 |
| 5 1/4 | 3 3/4 | 133,35 | 95,25 | 33,34 |
| 5 1/4 | 3 7/8 | 133,35 | 98,42 | 31,20 |
| 5 1/4 | 4 | 133,35 | 101,60 | 28,99 |
| 5 1/4 | 4 1/8 | 133,35 | 104,77 | 26,71 |
| 5 1/4 | 4 1/4 | 133,35 | 107,95 | 24,36 |
| 5 1/4 | 4 3/8 | 133,35 | 111,12 | 21,94 |
| 5 1/4 | 4 1/2 | 133,35 | 114,30 | 19,44 |
| 5 1/4 | 4 5/8 | 133,35 | 117,47 | 16,88 |
| 5 1/4 | 4 3/4 | 133,35 | 120,65 | 14,24 |
| 5 3/8 | 1 | 136,52 | 25,40 | 65,40 |
| 5 3/8 | 1 1/4 | 136,52 | 31,75 | 64,19 |
| 5 3/8 | 1 3/8 | 136,52 | 34,92 | 63,48 |
| 5 3/8 | 1 1/2 | 136,52 | 38,10 | 62,69 |
| 5 3/8 | 1 5/8 | 136,52 | 41,27 | 61,84 |
| 5 3/8 | 1 3/4 | 136,52 | 44,45 | 60,91 |
| 5 3/8 | 1 7/8 | 136,52 | 47,62 | 59,91 |
| 5 3/8 | 2 | 136,52 | 50,80 | 58,84 |
| 5 3/8 | 2 1/8 | 136,52 | 53,97 | 57,70 |



IMPÉRIO DOS METAIS

| | | | | |
|-------|-------|--------|--------|-------|
| 5 3/8 | 2 1/4 | 136,52 | 57,15 | 56,49 |
| 5 3/8 | 2 3/8 | 136,52 | 60,32 | 55,21 |
| 5 3/8 | 2 1/2 | 136,52 | 63,50 | 53,85 |
| 5 3/8 | 2 5/8 | 136,52 | 66,67 | 52,43 |
| 5 3/8 | 2 3/4 | 136,52 | 69,85 | 50,93 |
| 5 3/8 | 2 7/8 | 136,52 | 73,02 | 49,37 |
| 5 3/8 | 3 | 136,52 | 76,20 | 47,73 |
| 5 3/8 | 3 1/8 | 136,52 | 79,37 | 46,02 |
| 5 3/8 | 3 1/4 | 136,52 | 82,55 | 44,23 |
| 5 3/8 | 3 3/8 | 136,52 | 85,72 | 42,38 |
| 5 3/8 | 3 1/2 | 136,52 | 88,90 | 40,46 |
| 5 3/8 | 3 5/8 | 136,52 | 92,07 | 38,46 |
| 5 3/8 | 3 3/4 | 136,52 | 95,25 | 36,40 |
| 5 3/8 | 3 7/8 | 136,52 | 98,42 | 34,26 |
| 5 3/8 | 4 | 136,52 | 101,60 | 32,05 |
| 5 3/8 | 4 1/8 | 136,52 | 104,77 | 29,77 |
| 5 3/8 | 4 1/4 | 136,52 | 107,95 | 27,42 |
| 5 3/8 | 4 3/8 | 136,52 | 111,12 | 25,00 |
| 5 3/8 | 4 1/2 | 136,52 | 114,30 | 22,50 |
| 5 3/8 | 4 5/8 | 136,52 | 117,47 | 19,94 |
| 5 3/8 | 4 3/4 | 136,52 | 120,65 | 17,30 |
| 5 3/8 | 4 7/8 | 136,52 | 123,82 | 14,59 |
| 5 1/2 | 1 | 139,70 | 25,40 | 68,54 |
| 5 1/2 | 1 1/4 | 139,70 | 31,75 | 67,33 |
| 5 1/2 | 1 3/8 | 139,70 | 34,92 | 66,62 |
| 5 1/2 | 1 1/2 | 139,70 | 38,10 | 65,83 |
| 5 1/2 | 1 5/8 | 139,70 | 41,27 | 64,98 |
| 5 1/2 | 1 3/4 | 139,70 | 44,45 | 64,05 |
| 5 1/2 | 1 7/8 | 139,70 | 47,62 | 63,05 |
| 5 1/2 | 2 | 139,70 | 50,80 | 61,98 |
| 5 1/2 | 2 1/8 | 139,70 | 53,97 | 60,84 |
| 5 1/2 | 2 1/4 | 139,70 | 57,15 | 59,63 |
| 5 1/2 | 2 3/8 | 139,70 | 60,32 | 58,35 |
| 5 1/2 | 2 1/2 | 139,70 | 63,50 | 56,99 |
| 5 1/2 | 2 5/8 | 139,70 | 66,67 | 55,57 |
| 5 1/2 | 2 3/4 | 139,70 | 69,85 | 54,07 |
| 5 1/2 | 3 | 139,70 | 76,20 | 50,87 |
| 5 1/2 | 3 1/4 | 139,70 | 82,55 | 47,37 |
| 5 1/2 | 3 3/8 | 139,70 | 85,72 | 45,52 |
| 5 1/2 | 3 1/2 | 139,70 | 88,90 | 43,60 |
| 5 1/2 | 3 5/8 | 139,70 | 92,07 | 41,60 |
| 5 1/2 | 3 3/4 | 139,70 | 95,25 | 39,54 |
| 5 1/2 | 3 7/8 | 139,70 | 98,42 | 37,40 |



IMPÉRIO DOS METAIS

| | | | | |
|-------|-------|--------|--------|-------|
| 5 1/2 | 4 | 139,70 | 101,60 | 35,19 |
| 5 1/2 | 4 1/4 | 139,70 | 107,95 | 30,56 |
| 5 1/2 | 4 3/8 | 139,70 | 111,12 | 28,14 |
| 5 1/2 | 4 1/2 | 139,70 | 114,30 | 25,64 |
| 5 1/2 | 4 5/8 | 139,70 | 117,47 | 23,08 |
| 5 1/2 | 4 3/4 | 139,70 | 120,65 | 20,44 |
| 5 1/2 | 4 7/8 | 139,70 | 123,82 | 17,73 |
| 5 1/2 | 5 | 139,70 | 127 | 14,95 |
| 5 5/8 | 1 | 142,87 | 25,40 | 71,74 |
| 5 5/8 | 1 1/4 | 142,87 | 31,75 | 70,53 |
| 5 5/8 | 1 3/8 | 142,87 | 34,92 | 69,82 |
| 5 5/8 | 1 1/2 | 142,87 | 38,10 | 69,03 |
| 5 5/8 | 1 5/8 | 142,87 | 41,27 | 68,18 |
| 5 5/8 | 1 3/4 | 142,87 | 44,45 | 67,25 |
| 5 5/8 | 1 7/8 | 142,87 | 47,62 | 66,25 |
| 5 5/8 | 2 | 142,87 | 50,80 | 65,18 |
| 5 5/8 | 2 1/8 | 142,87 | 53,97 | 64,05 |
| 5 5/8 | 2 1/4 | 142,87 | 57,15 | 62,83 |
| 5 5/8 | 2 3/8 | 142,87 | 60,32 | 61,55 |
| 5 5/8 | 2 1/2 | 142,87 | 63,50 | 60,20 |
| 5 5/8 | 2 5/8 | 142,87 | 66,67 | 58,77 |
| 5 5/8 | 2 3/4 | 142,87 | 69,85 | 57,27 |
| 5 5/8 | 3 | 142,87 | 76,20 | 54,07 |
| 5 5/8 | 3 1/4 | 142,87 | 82,55 | 50,58 |
| 5 5/8 | 3 3/8 | 142,87 | 85,72 | 48,73 |
| 5 5/8 | 3 1/2 | 142,87 | 88,90 | 46,80 |
| 5 5/8 | 3 5/8 | 142,87 | 92,07 | 44,81 |
| 5 5/8 | 3 3/4 | 142,87 | 95,25 | 42,74 |
| 5 5/8 | 3 7/8 | 142,87 | 98,42 | 40,60 |
| 5 5/8 | 4 | 142,87 | 101,60 | 38,39 |
| 5 5/8 | 4 1/4 | 142,87 | 107,95 | 33,76 |
| 5 5/8 | 4 3/8 | 142,87 | 111,12 | 31,34 |
| 5 5/8 | 4 1/2 | 142,87 | 114,30 | 28,84 |
| 5 5/8 | 4 5/8 | 142,87 | 117,47 | 26,28 |
| 5 5/8 | 4 3/4 | 142,87 | 120,65 | 23,64 |
| 5 5/8 | 4 7/8 | 142,87 | 123,82 | 20,93 |
| 5 5/8 | 5 | 142,87 | 127 | 18,15 |
| 5 3/4 | 1 | 146,05 | 25,40 | 75,02 |
| 5 3/4 | 1 1/4 | 146,05 | 31,75 | 73,81 |
| 5 3/4 | 1 3/8 | 146,05 | 34,92 | 73,10 |
| 5 3/4 | 1 1/2 | 146,05 | 38,10 | 72,32 |
| 5 3/4 | 1 5/8 | 146,05 | 41,27 | 71,46 |
| 5 3/4 | 1 3/4 | 146,05 | 44,45 | 70,53 |



IMPÉRIO DOS METAIS

| | | | | |
|-------|-------|--------|--------|-------|
| 5 3/4 | 1 7/8 | 146,05 | 47,62 | 69,54 |
| 5 3/4 | 2 | 146,05 | 50,80 | 68,47 |
| 5 3/4 | 2 1/8 | 146,05 | 53,97 | 67,33 |
| 5 3/4 | 2 1/4 | 146,05 | 57,15 | 66,12 |
| 5 3/4 | 2 3/8 | 146,05 | 60,32 | 64,83 |
| 5 3/4 | 2 1/2 | 146,05 | 63,50 | 63,48 |
| 5 3/4 | 2 5/8 | 146,05 | 66,67 | 62,06 |
| 5 3/4 | 2 3/4 | 146,05 | 69,85 | 60,56 |
| 5 3/4 | 2 7/8 | 146,05 | 73,02 | 58,99 |
| 5 3/4 | 3 | 146,05 | 76,20 | 57,35 |
| 5 3/4 | 3 1/8 | 146,05 | 79,37 | 55,64 |
| 5 3/4 | 3 1/4 | 146,05 | 82,55 | 53,86 |
| 5 3/4 | 3 3/8 | 146,05 | 85,72 | 52,01 |
| 5 3/4 | 3 1/2 | 146,05 | 88,90 | 50,08 |
| 5 3/4 | 3 5/8 | 146,05 | 92,07 | 48,09 |
| 5 3/4 | 3 3/4 | 146,05 | 95,25 | 46,02 |
| 5 3/4 | 3 7/8 | 146,05 | 98,42 | 43,88 |
| 5 3/4 | 4 | 146,05 | 101,60 | 41,67 |
| 5 3/4 | 4 1/8 | 146,05 | 104,77 | 39,40 |
| 5 3/4 | 4 1/4 | 146,05 | 107,95 | 37,04 |
| 5 3/4 | 4 3/8 | 146,05 | 111,12 | 34,62 |
| 5 3/4 | 4 1/2 | 146,05 | 114,30 | 32,12 |
| 5 3/4 | 4 5/8 | 146,05 | 117,47 | 29,56 |
| 5 3/4 | 4 3/4 | 146,05 | 120,65 | 26,92 |
| 5 3/4 | 4 7/8 | 146,05 | 123,82 | 24,22 |
| 5 3/4 | 5 | 146,05 | 127 | 21,43 |
| 5 3/4 | 5 1/8 | 146,05 | 130,17 | 18,59 |
| 5 3/4 | 5 1/4 | 146,05 | 133,35 | 15,66 |
| 5 7/8 | 2 | 149,22 | 50,80 | 71,81 |
| 5 7/8 | 2 1/4 | 149,22 | 57,15 | 69,46 |
| 5 7/8 | 2 3/8 | 149,22 | 60,32 | 68,18 |
| 5 7/8 | 2 1/2 | 149,22 | 63,50 | 66,82 |
| 5 7/8 | 2 5/8 | 149,22 | 66,67 | 65,40 |
| 5 7/8 | 2 3/4 | 149,22 | 69,85 | 63,90 |
| 5 7/8 | 2 7/8 | 149,22 | 73,02 | 62,33 |
| 5 7/8 | 3 | 149,22 | 76,20 | 60,69 |
| 5 7/8 | 3 1/8 | 149,22 | 79,37 | 58,99 |
| 5 7/8 | 3 1/4 | 149,22 | 82,55 | 57,20 |
| 5 7/8 | 3 1/2 | 149,22 | 88,90 | 53,42 |
| 5 7/8 | 3 5/8 | 149,22 | 92,07 | 51,43 |
| 5 7/8 | 3 3/4 | 149,22 | 95,25 | 49,36 |
| 5 7/8 | 3 7/8 | 149,22 | 98,42 | 47,23 |
| 5 7/8 | 4 | 149,22 | 101,60 | 45,02 |



IMPÉRIO DOS METAIS

| | | | | |
|-------|-------|--------|--------|-------|
| 5 7/8 | 4 1/8 | 149,22 | 104,77 | 42,74 |
| 5 7/8 | 4 1/4 | 149,22 | 107,95 | 40,38 |
| 5 7/8 | 4 3/8 | 149,22 | 111,12 | 37,96 |
| 5 7/8 | 4 1/2 | 149,22 | 114,30 | 35,47 |
| 5 7/8 | 4 5/8 | 149,22 | 117,47 | 32,91 |
| 5 7/8 | 4 3/4 | 149,22 | 120,65 | 30,26 |
| 5 7/8 | 4 7/8 | 149,22 | 123,82 | 27,56 |
| 5 7/8 | 5 | 149,22 | 127 | 24,78 |
| 5 7/8 | 5 1/8 | 149,22 | 130,17 | 21,93 |
| 5 7/8 | 5 1/4 | 149,22 | 133,35 | 19,01 |
| 5 7/8 | 5 3/8 | 149,22 | 136,52 | 16,02 |
| 6 | 2 | 152,40 | 50,80 | 75,24 |
| 6 | 2 1/8 | 152,40 | 53,97 | 74,10 |
| 6 | 2 1/4 | 152,40 | 57,15 | 72,88 |
| 6 | 2 3/8 | 152,40 | 60,32 | 71,60 |
| 6 | 2 1/2 | 152,40 | 63,50 | 70,25 |
| 6 | 2 5/8 | 152,40 | 66,67 | 68,82 |
| 6 | 2 3/4 | 152,40 | 69,85 | 67,33 |
| 6 | 2 7/8 | 152,40 | 73,02 | 65,76 |
| 6 | 3 | 152,40 | 76,20 | 64,12 |
| 6 | 3 1/8 | 152,40 | 79,37 | 62,41 |
| 6 | 3 1/4 | 152,40 | 82,55 | 60,63 |
| 6 | 3 3/8 | 152,40 | 85,72 | 58,78 |
| 6 | 3 1/2 | 152,40 | 88,90 | 56,85 |
| 6 | 3 5/8 | 152,40 | 92,07 | 54,86 |
| 6 | 3 3/4 | 152,40 | 95,25 | 52,79 |
| 6 | 3 7/8 | 152,40 | 98,42 | 50,65 |
| 6 | 4 | 152,40 | 101,60 | 48,44 |
| 6 | 4 1/8 | 152,40 | 104,77 | 46,16 |
| 6 | 4 1/4 | 152,40 | 107,95 | 43,81 |
| 6 | 4 3/8 | 152,40 | 111,12 | 41,39 |
| 6 | 4 1/2 | 152,40 | 114,30 | 38,89 |
| 6 | 4 5/8 | 152,40 | 117,47 | 36,33 |
| 6 | 4 3/4 | 152,40 | 120,65 | 33,69 |
| 6 | 4 7/8 | 152,40 | 123,82 | 30,99 |
| 6 | 5 | 152,40 | 127 | 28,20 |
| 6 | 5 1/8 | 152,40 | 130,17 | 25,36 |
| 6 | 5 1/4 | 152,40 | 133,35 | 22,43 |
| 6 | 5 3/8 | 152,40 | 136,52 | 19,44 |
| 6 | 5 1/2 | 152,40 | 139,70 | 16,37 |
| 6 1/4 | 2 | 158,75 | 50,80 | 82,29 |
| 6 1/4 | 2 1/4 | 158,75 | 57,15 | 79,94 |
| 6 1/4 | 2 1/2 | 158,75 | 63,50 | 77,30 |



IMPÉRIO DOS METAIS

| | | | | |
|-------|-------|--------|--------|-------|
| 6 1/4 | 2 3/4 | 158,75 | 69,85 | 74,38 |
| 6 1/4 | 3 | 158,75 | 76,20 | 71,17 |
| 6 1/4 | 3 1/4 | 158,75 | 82,55 | 67,68 |
| 6 1/4 | 3 1/2 | 158,75 | 88,90 | 63,90 |
| 6 1/4 | 3 3/4 | 158,75 | 95,25 | 59,84 |
| 6 1/4 | 4 | 158,75 | 101,60 | 55,50 |
| 6 1/4 | 4 1/4 | 158,75 | 107,95 | 50,86 |
| 6 1/4 | 4 1/2 | 158,75 | 114,30 | 45,95 |
| 6 1/4 | 4 3/4 | 158,75 | 120,65 | 40,74 |
| 6 1/4 | 5 | 158,75 | 127 | 35,26 |
| 6 1/4 | 5 1/4 | 158,75 | 133,35 | 29,48 |
| 6 1/4 | 5 1/2 | 158,75 | 139,70 | 23,43 |
| 6 1/2 | 2 | 165,10 | 50,80 | 89,63 |
| 6 1/2 | 2 1/4 | 165,10 | 57,15 | 87,28 |
| 6 1/2 | 2 1/2 | 165,10 | 63,50 | 84,64 |
| 6 1/2 | 2 3/4 | 165,10 | 69,85 | 81,72 |
| 6 1/2 | 3 | 165,10 | 76,20 | 78,51 |
| 6 1/2 | 3 1/4 | 165,10 | 82,55 | 75,02 |
| 6 1/2 | 3 1/2 | 165,10 | 88,90 | 71,24 |
| 6 1/2 | 3 3/4 | 165,10 | 95,25 | 67,18 |
| 6 1/2 | 4 | 165,10 | 101,60 | 62,83 |
| 6 1/2 | 4 1/4 | 165,10 | 107,95 | 58,20 |
| 6 1/2 | 4 1/2 | 165,10 | 114,30 | 53,29 |
| 6 1/2 | 4 3/4 | 165,10 | 120,65 | 48,08 |
| 6 1/2 | 5 | 165,10 | 127 | 42,60 |
| 6 1/2 | 5 1/4 | 165,10 | 133,35 | 36,82 |
| 6 1/2 | 5 1/2 | 165,10 | 139,70 | 30,77 |
| 6 1/2 | 5 3/4 | 165,10 | 146,05 | 24,42 |
| 6 1/2 | 6 | 165,10 | 152,40 | 17,80 |
| 6 3/4 | 2 | 171,45 | 50,80 | 97,25 |
| 6 3/4 | 2 1/4 | 171,45 | 57,15 | 94,90 |
| 6 3/4 | 2 1/2 | 171,45 | 63,50 | 92,26 |
| 6 3/4 | 2 3/4 | 171,45 | 69,85 | 89,34 |
| 6 3/4 | 3 | 171,45 | 76,20 | 86,14 |
| 6 3/4 | 3 1/4 | 171,45 | 82,55 | 82,64 |
| 6 3/4 | 3 1/2 | 171,45 | 88,90 | 78,87 |
| 6 3/4 | 3 3/4 | 171,45 | 95,25 | 74,81 |
| 6 3/4 | 4 | 171,45 | 101,60 | 70,46 |
| 6 3/4 | 4 1/4 | 171,45 | 107,95 | 65,83 |
| 6 3/4 | 4 1/2 | 171,45 | 114,30 | 60,91 |
| 6 3/4 | 4 3/4 | 171,45 | 120,65 | 55,71 |
| 6 3/4 | 5 | 171,45 | 127 | 50,22 |
| 6 3/4 | 5 1/4 | 171,45 | 133,35 | 44,45 |



IMPÉRIO DOS METAIS

| | | | | |
|-------|-------|--------|--------|--------|
| 6 3/4 | 5 1/2 | 171,45 | 139,70 | 38,39 |
| 6 3/4 | 5 3/4 | 171,45 | 146,05 | 32,05 |
| 6 3/4 | 6 | 171,45 | 152,40 | 25,42 |
| 7 | 2 | 177,80 | 50,80 | 105,16 |
| 7 | 2 1/4 | 177,80 | 57,15 | 102,81 |
| 7 | 2 1/2 | 177,80 | 63,50 | 100,17 |
| 7 | 2 3/4 | 177,80 | 69,85 | 97,25 |
| 7 | 3 | 177,80 | 76,20 | 94,04 |
| 7 | 3 1/4 | 177,80 | 82,55 | 90,55 |
| 7 | 3 1/2 | 177,80 | 88,90 | 86,78 |
| 7 | 3 3/4 | 177,80 | 95,25 | 82,71 |
| 7 | 4 | 177,80 | 101,60 | 78,37 |
| 7 | 4 1/4 | 177,80 | 107,95 | 73,74 |
| 7 | 4 1/2 | 177,80 | 114,30 | 68,82 |
| 7 | 4 3/4 | 177,80 | 120,65 | 63,62 |
| 7 | 5 | 177,80 | 127 | 58,13 |
| 7 | 5 1/4 | 177,80 | 133,35 | 52,36 |
| 7 | 5 1/2 | 177,80 | 139,70 | 46,30 |
| 7 | 5 3/4 | 177,80 | 146,05 | 39,96 |
| 7 | 6 | 177,80 | 152,40 | 33,33 |
| 7 | 6 1/2 | 177,80 | 165,10 | 19,22 |
| 7 1/2 | 3 | 190,50 | 76,20 | 110,72 |
| 7 1/2 | 3 1/2 | 190,50 | 88,90 | 103,45 |
| 7 1/2 | 4 | 190,50 | 101,60 | 95,04 |
| 7 1/2 | 4 1/2 | 190,50 | 114,30 | 85,49 |
| 7 1/2 | 5 | 190,50 | 127 | 74,80 |
| 7 1/2 | 5 1/2 | 190,50 | 139,70 | 62,97 |
| 7 1/2 | 6 | 190,50 | 152,40 | 50,00 |
| 7 1/2 | 6 1/2 | 190,50 | 165,10 | 35,89 |
| 7 1/2 | 6 3/4 | 190,50 | 171,45 | 28,41 |
| 8 | 3 | 203,20 | 76,20 | 128,53 |
| 8 | 3 1/2 | 203,20 | 88,90 | 121,26 |
| 8 | 4 | 203,20 | 101,60 | 112,85 |
| 8 | 4 1/2 | 203,20 | 114,30 | 103,30 |
| 8 | 5 | 203,20 | 127 | 92,62 |
| 8 | 5 1/2 | 203,20 | 139,70 | 80,79 |
| 8 | 6 | 203,20 | 152,40 | 67,82 |
| 8 | 6 1/2 | 203,20 | 165,10 | 53,71 |
| 8 | 7 | 203,20 | 177,80 | 38,46 |
| 8 1/2 | 3 | 215,90 | 76,20 | 147,48 |
| 8 1/2 | 3 1/2 | 215,90 | 88,90 | 140,22 |
| 8 1/2 | 4 | 215,90 | 101,60 | 131,81 |
| 8 1/2 | 4 1/2 | 215,90 | 114,30 | 122,26 |



IMPÉRIO DOS METAIS

| | | | | |
|--------|-------|--------|--------|--------|
| 8 1/2 | 5 | 215,90 | 127 | 111,57 |
| 8 1/2 | 5 1/2 | 215,90 | 139,70 | 99,74 |
| 8 1/2 | 6 | 215,90 | 152,40 | 86,77 |
| 8 1/2 | 6 1/2 | 215,90 | 165,10 | 72,66 |
| 8 1/2 | 7 | 215,90 | 177,80 | 57,41 |
| 8 1/2 | 7 1/2 | 215,90 | 190,50 | 41,02 |
| 9 | 3 | 228,60 | 76,20 | 167,58 |
| 9 | 4 | 228,60 | 101,60 | 151,90 |
| 9 | 4 1/2 | 228,60 | 114,30 | 142,35 |
| 9 | 5 | 228,60 | 127 | 131,66 |
| 9 | 5 1/2 | 228,60 | 139,70 | 119,83 |
| 9 | 6 | 228,60 | 152,40 | 106,86 |
| 9 | 6 1/2 | 228,60 | 165,10 | 92,75 |
| 9 | 7 | 228,60 | 177,80 | 77,51 |
| 9 | 7 1/2 | 228,60 | 190,50 | 61,12 |
| 9 | 8 | 228,60 | 203,20 | 43,59 |
| 9 1/2 | 4 | 241,30 | 101,60 | 173,13 |
| 9 1/2 | 4 1/2 | 241,30 | 114,30 | 163,59 |
| 9 1/2 | 5 | 241,30 | 127 | 152,90 |
| 9 1/2 | 5 1/2 | 241,30 | 139,70 | 141,07 |
| 9 1/2 | 6 | 241,30 | 152,40 | 128,10 |
| 9 1/2 | 6 1/2 | 241,30 | 165,10 | 113,99 |
| 9 1/2 | 7 | 241,30 | 177,80 | 98,74 |
| 9 1/2 | 7 1/2 | 241,30 | 190,50 | 82,35 |
| 9 1/2 | 8 | 241,30 | 203,20 | 64,82 |
| 9 1/2 | 8 1/2 | 241,30 | 215,90 | 46,15 |
| 10 | 4 | 254,00 | 101,60 | 195,51 |
| 10 | 4 1/2 | 254,00 | 114,30 | 185,96 |
| 10 | 5 | 254,00 | 127 | 175,27 |
| 10 | 5 1/2 | 254,00 | 139,70 | 163,44 |
| 10 | 6 | 254,00 | 152,40 | 150,47 |
| 10 | 6 1/2 | 254,00 | 165,10 | 136,36 |
| 10 | 7 | 254,00 | 177,80 | 121,11 |
| 10 | 7 1/2 | 254,00 | 190,50 | 104,72 |
| 10 | 8 | 254,00 | 203,20 | 87,19 |
| 10 | 9 | 254,00 | 228,60 | 48,71 |
| 10 1/2 | 4 | 266,70 | 101,60 | 219,02 |
| 10 1/2 | 4 1/2 | 266,70 | 114,30 | 209,47 |
| 10 1/2 | 5 | 266,70 | 127 | 198,78 |
| 10 1/2 | 5 1/2 | 266,70 | 139,70 | 186,95 |
| 10 1/2 | 6 | 266,70 | 152,40 | 173,99 |
| 10 1/2 | 6 1/2 | 266,70 | 165,10 | 159,88 |
| 10 1/2 | 7 | 266,70 | 177,80 | 144,63 |



IMPÉRIO DOS METAIS

| | | | | |
|--------|--------|--------|--------|--------|
| 10 1/2 | 7 1/2 | 266,70 | 190,50 | 128,24 |
| 10 1/2 | 8 | 266,70 | 203,20 | 110,71 |
| 10 1/2 | 9 | 266,70 | 228,60 | 72,23 |
| 10 1/2 | 9 1/2 | 266,70 | 241,30 | 51,28 |
| 11 | 4 | 279,40 | 101,60 | 243,68 |
| 11 | 4 1/2 | 279,40 | 114,30 | 234,13 |
| 11 | 5 | 279,40 | 127 | 223,44 |
| 11 | 5 1/2 | 279,40 | 139,70 | 211,61 |
| 11 | 6 | 279,40 | 152,40 | 198,64 |
| 11 | 6 1/2 | 279,40 | 165,10 | 184,53 |
| 11 | 7 | 279,40 | 177,80 | 169,28 |
| 11 | 7 1/2 | 279,40 | 190,50 | 152,89 |
| 11 | 8 | 279,40 | 203,20 | 135,36 |
| 11 | 8 1/2 | 279,40 | 215,90 | 116,69 |
| 11 | 9 | 279,40 | 228,60 | 96,88 |
| 11 | 10 | 279,40 | 254 | 53,84 |
| 11 1/2 | 4 | 292,10 | 101,60 | 269,47 |
| 11 1/2 | 4 1/2 | 292,10 | 114,30 | 259,92 |
| 11 1/2 | 5 | 292,10 | 127 | 249,23 |
| 11 1/2 | 5 1/2 | 292,10 | 139,70 | 237,40 |
| 11 1/2 | 6 | 292,10 | 152,40 | 224,43 |
| 11 1/2 | 6 1/2 | 292,10 | 165,10 | 210,32 |
| 11 1/2 | 7 | 292,10 | 177,80 | 195,07 |
| 11 1/2 | 7 1/2 | 292,10 | 190,50 | 178,68 |
| 11 1/2 | 8 | 292,10 | 203,20 | 161,16 |
| 11 1/2 | 8 1/2 | 292,10 | 215,90 | 142,49 |
| 12 | 4 | 304,80 | 101,60 | 296,40 |
| 12 | 4 1/2 | 304,80 | 114,30 | 286,85 |
| 12 | 5 | 304,80 | 127 | 276,17 |
| 12 | 5 1/2 | 304,80 | 139,70 | 264,34 |
| 12 | 6 | 304,80 | 152,40 | 251,37 |
| 12 | 6 1/2 | 304,80 | 165,10 | 237,26 |
| 12 | 7 | 304,80 | 177,80 | 222,01 |
| 12 | 7 1/2 | 304,80 | 190,50 | 205,62 |
| 12 | 8 | 304,80 | 203,20 | 188,09 |
| 12 | 8 1/2 | 304,80 | 215,90 | 169,42 |
| 12 | 9 | 304,80 | 228,60 | 149,61 |
| 12 | 9 1/2 | 304,80 | 241,30 | 128,66 |
| 12 | 10 | 304,80 | 254 | 106,57 |
| 12 | 10 1/2 | 304,80 | 266,70 | 83,34 |
| 12 | 11 | 304,80 | 279,40 | 58,97 |
| 13 | 5 | 330,20 | 127 | 333,45 |
| 13 | 6 | 330,20 | 152,40 | 308,66 |



IMPÉRIO DOS METAIS

| | | | | |
|----|----|--------|--------|--------|
| 13 | 7 | 330,20 | 177,80 | 279,30 |
| 13 | 8 | 330,20 | 203,20 | 245,38 |
| 13 | 9 | 330,20 | 228,60 | 206,90 |
| 13 | 10 | 330,20 | 254 | 163,86 |
| 13 | 11 | 330,20 | 279,40 | 116,26 |
| 13 | 12 | 330,20 | 304,80 | 64,10 |
| 14 | 5 | 355,60 | 127 | 395,30 |
| 14 | 6 | 355,60 | 152,40 | 370,50 |
| 14 | 7 | 355,60 | 177,80 | 341,15 |
| 14 | 8 | 355,60 | 203,20 | 307,23 |
| 14 | 9 | 355,60 | 228,60 | 268,75 |
| 14 | 10 | 355,60 | 254 | 225,71 |
| 14 | 11 | 355,60 | 279,40 | 178,11 |
| 14 | 12 | 355,60 | 304,80 | 125,95 |
| 14 | 13 | 355,60 | 330,20 | 69,22 |
| 15 | 5 | 381,00 | 127 | 461,71 |
| 15 | 6 | 381,00 | 152,40 | 436,91 |
| 15 | 7 | 381,00 | 177,80 | 407,55 |
| 15 | 8 | 381,00 | 203,20 | 373,64 |
| 15 | 9 | 381,00 | 228,60 | 335,16 |
| 15 | 10 | 381,00 | 254 | 292,12 |
| 15 | 11 | 381,00 | 279,40 | 244,52 |
| 15 | 12 | 381,00 | 304,80 | 192,36 |
| 15 | 13 | 381,00 | 330,20 | 135,63 |
| 15 | 14 | 381,00 | 355,60 | 74,35 |

Observações importantes

- Os pesos informados são apenas orientativos.
- As variações ocorrem de acordo com as tolerâncias especificadas pelos fabricantes.
- Algumas dimensões mencionadas, não fazem parte da linha padrão de produção, devendo sempre ser consultada a quantidade mínima para fabricação.
- Outras dimensões não relacionadas poderão ser fornecidas mediante consulta.
- As informações aqui apresentadas poderão sofrer alterações sem prévio aviso.