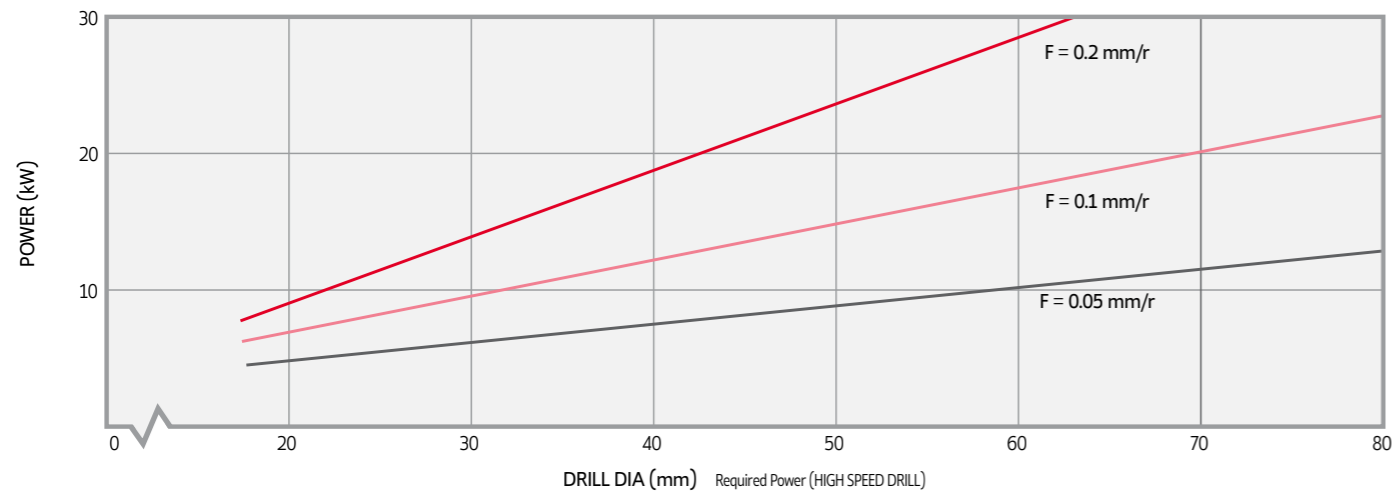


Recommended Speeds and Feeds | Parâmetros de Corte Recomendados Recomendaciones de Datos de Corte

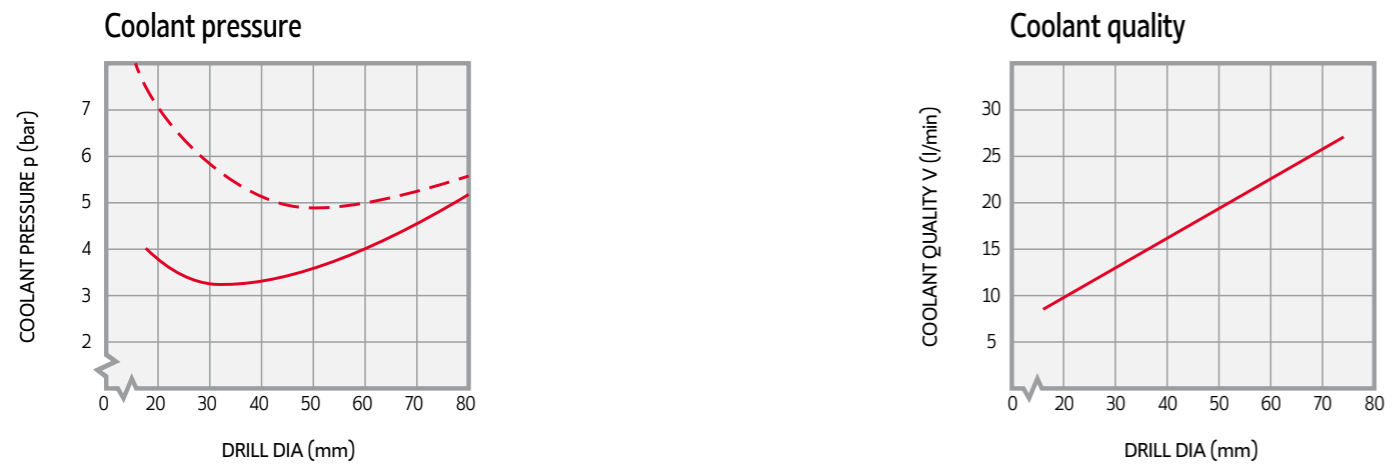
| ISO | Material Group Grupo Materiais Grupo Materiales | Vc (m/min) | Ø13-15,5 | Ø16-20 | Ø20,5-25 | Ø25,5-30 | Ø31-41 | Ø42-58 | Ø59-80 |
|----------|---|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| P | UNALLOYED STEEL (-0,25%) | 180-260 | 0,05-0,08 | 0,06-0,10 | 0,07-0,12 | 0,09-0,15 | 0,11-0,18 | 0,15-0,28 | 0,11-0,18 |
| | LOW-ALLOY STEEL (0,25%-) | 150-240 | 0,05-0,08 | 0,06-0,10 | 0,07-0,12 | 0,09-0,15 | 0,11-0,18 | 0,15-0,28 | 0,11-0,18 |
| | LOW-ALLOY STEEL | 120-240 | 0,05-0,08 | 0,06-0,10 | 0,07-0,12 | 0,09-0,15 | 0,11-0,18 | 0,15-0,28 | 0,11-0,18 |
| | HIGH-ALLOY STEEL | 130-220 | 0,05-0,08 | 0,06-0,10 | 0,07-0,12 | 0,09-0,15 | 0,11-0,18 | 0,15-0,28 | 0,11-0,18 |
| M | STAINLESS STEEL | 150-220 | 0,04-0,08 | 0,05-0,09 | 0,06-0,12 | 0,07-0,13 | 0,08-0,16 | 0,10-0,20 | 0,08-0,16 |
| K | GREY CAST IRON | 150-250 | 0,05-0,11 | 0,07-0,13 | 0,08-0,12 | 0,10-0,18 | 0,14-0,26 | 0,18-0,35 | 0,14-0,26 |
| | CAST IRON WITH NODULAR CAST | 120-200 | 0,05-0,11 | 0,06-0,13 | 0,07-0,12 | 0,08-0,18 | 0,14-0,26 | 0,18-0,35 | 0,14-0,26 |
| N | ALUMINIUM FORGING ALLOYS | 300-380 | 0,04-0,06 | 0,05-0,07 | 0,06-0,08 | 0,07-0,09 | 0,10-0,14 | 0,12-0,17 | 0,10-0,14 |
| | ALUMINIUM CAST ALLOYS | 260-330 | 0,04-0,06 | 0,05-0,07 | 0,06-0,08 | 0,07-0,09 | 0,10-0,14 | 0,12-0,17 | 0,10-0,14 |
| S | SUPER-ALLOYS AND TITANIUM | 40-80 | 0,03-0,05 | 0,04-0,06 | 0,04-0,07 | 0,05-0,08 | 0,06-0,10 | 0,07-0,13 | 0,06-0,10 |

Power Requirements | Requisitos de Potência | Requisitos de Potencia



• These chart is based on machining experiences using steels with a hardness of 200-250HB and cutting speed of 100m/min.
• For cast iron the effective power requirement is around 30% lower.

Coolant Application Chart | Tabela Aplicação de Refrigeração | Tabla Aplicación de Refrigerante



Hole Tolerance and Maximum Hole Size With Radial Adjustment | Tolerância do Furo e Dimensão Máxima do Furo com Ajuste Radial | Tolerancia de los Agujeros y el Tamaño Del agujero Máximo con Ajuste Radial

| Drill D | Radial Adjust | Max Hole D |
|---------|---------------|------------|
| 13.00 | 1.50 | 16.00 |
| 13.50 | 1.50 | 16.50 |
| 14.00 | 1.50 | 17.00 |
| 14.50 | 1.50 | 17.50 |
| 15.00 | 1.50 | 18.00 |
| 15.50 | 1.50 | 18.50 |
| 16.00 | 1.50 | 19.00 |
| 16.50 | 1.50 | 19.50 |
| 17.00 | 1.50 | 20.00 |
| 17.50 | 1.50 | 20.50 |
| 18.00 | 1.40 | 20.80 |
| 18.50 | 1.30 | 21.10 |
| 19.00 | 1.20 | 21.40 |
| 20.00 | 1.00 | 22.00 |
| 21.00 | 1.60 | 24.20 |
| 22.00 | 1.50 | 25.00 |
| 23.00 | 1.25 | 25.50 |
| 24.00 | 1.00 | 26.00 |
| 25.00 | 0.80 | 26.60 |
| 26.00 | 2.50 | 31.00 |
| 27.00 | 2.20 | 31.40 |
| 28.00 | 2.10 | 32.20 |
| 29.00 | 1.80 | 32.60 |
| 30.00 | 1.50 | 33.00 |
| 31.00 | 3.50 | 38.00 |
| 32.00 | 3.20 | 38.40 |

| Drill D | Radial Adjust | Max Hole D |
|---------|---------------|------------|
| 33.00 | 3.00 | 39.00 |
| 34.00 | 2.80 | 39.60 |
| 35.00 | 2.50 | 40.00 |
| 36.00 | 2.30 | 40.60 |
| 37.00 | 2.00 | 41.00 |
| 38.00 | 1.80 | 41.60 |
| 39.00 | 1.50 | 42.00 |
| 40.00 | 1.20 | 42.40 |
| 41.00 | 1.00 | 43.00 |
| 42.00 | 4.20 | 50.40 |
| 43.00 | 4.00 | 51.00 |
| 44.00 | 3.70 | 51.40 |
| 45.00 | 3.50 | 52.00 |
| 46.00 | 3.30 | 52.60 |
| 47.00 | 3.00 | 53.00 |
| 48.00 | 2.70 | 53.40 |
| 49.00 | 2.50 | 54.00 |
| 50.00 | 2.20 | 54.40 |
| 51.00 | 2.00 | 55.00 |
| 52.00 | 1.80 | 55.60 |
| 53.00 | 1.50 | 56.00 |
| 54.00 | 1.20 | 56.40 |
| 55.00 | 0.80 | 56.60 |
| 56.00 | 0.60 | 57.20 |
| 58.00 | 0.40 | 58.80 |