

TABLA DE APLICACIONES GUIDE D'APPLICATION / APPLICATION GUIDE / ANWENDUNGSHANDBUCH



$$r.p.m. = \frac{Vc \times 1.000}{\pi \times \phi}$$

| Ref./ Réf. / Ref. | 2102 | 2101 | 2102/5 | 2101/5 | 2114 | 2113 | 2190 | 2191 | 2180 | 2179 | 2274 | 2275 | 2148 | 2147 | 2147/5 | 2154 | 2153 | 2153/5 | 2189 |
|------------------------|--------|---------|--------|---------|--------|---------|----------|----------|----------|----------|--------|--------|----------|-----------|---------|----------|-----------|--------|----------|
| Rosca/ Filetage/Thread | M-MF | M-MF | M-MF | M-MF | M-MF | M-MF | M-MF | M-MF | M-MF | M-MF | M-MF | M-MF | UNC | UNC | UNC | UNF | UNF | UNF | UN |
| DIN | 371 | 376-374 | 371 | 376-374 | 371 | 376-374 | 371 | 376-374 | 371 | 376-374 | 371 | 376 | 371 | 376-374 | 376-374 | 374 | 374 | 374 | 374 |
| Form. | C(2-3) | C(2-3) | C(2-3) | C(2-3) | A(6-8) | A(6-8) | E(1,5-2) | E(1,5-2) | C(2-3) | C(2-3) | D(2-3) | D(2-3) | C(2-3) | C(2-3) | C(2-3) | C(2-3) | C(2-3) | C(2-3) | C(2-3) |
| Ejec./Exec./Exec. | | | LH | LH | | | | | | | | | | | LH | | | LH | |
| Tol. | 6H | 6H | 6H | 6H | 6H | 6H | 6H | 6H | 6H | 6H | 6H | 6H | 6H | 6H | 6H | 6H | 6H | 6H | 6H |
| Mat. | HSSE | HSSE | HSSE | HSSE | HSSE | HSSE | HSSE | HSSE | HSSE | HSSE | HM | HM | HSSE | HSSE | HSSE | HSSE | HSSE | HSSE | HSSE |
| Rec./Rev./Coat. | | | | | | | | | TIAISIN+ | TIAISIN+ | TICN+ | TICN+ | | | | | | | |
| Prof./ Depth | 1,5xD | 1,5xD | 1,5xD | 1,5xD | 1,5xD | 1,5xD | 1,5xD | 1,5xD | 1,5xD | 1,5xD | 1,5xD | 1,5xD | 1,5xD | 1,5xD | 1,5xD | 1,5xD | 1,5xD | 1,5xD | 1,5xD |
| Gama/Gamme/Range | 1-10 | 3-63 | 3-10 | 5-30 | 2-10 | 3-52 | 3-10 | 6-16 | 3-10 | 8-20 | 3-10 | 12-16 | N.4-5/16 | 1/4-1"1/2 | 1/4-1" | N.4-5/16 | 1/4-1"1/2 | 1/4-1" | 1"1/8-2" |
| Pag. | 148 | 149 | 151 | 151 | 152 | 152 | 153 | 153 | 154 | 154 | 155 | 155 | 195 | 195 | 196 | 203 | 203 | 204 | 211 |

| Mat. | | Vc (m/min) | | | | | | | | | | | | | | | | | | | | | |
|-------|---------|------------|---|---|---|---|---|---|---|---|---|---|---|--|--|---|---|---|---|---|---|---|---|
| P.1 | <600 | ○ | ○ | ○ | ○ | ○ | ○ | | | | | | | | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| P.2 | <800 | | ● | ● | ● | ● | ● | ● | ● | | | | | | | | ● | ● | ● | ● | ● | ● | ● |
| P.3 | <1000 | ○ | ○ | ○ | ○ | ○ | ○ | | | | | | | | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| P.4 | <1200 | | | | | | | | | | | | | | | | | | | | | | |
| P.5 | <1400 | | | | | | | | | | | | | | | | | | | | | | |
| M.1 | <950 | | | | | | | | | | | | | | | | | | | | | | |
| M.2 | | | | | | | | | | | | | | | | | | | | | | | |
| M.3 | <1200 | | | | | | | | | | | | | | | | | | | | | | |
| M.4 | | | | | | | | | | | | | | | | | | | | | | | |
| K.1 | <500 | | | | | | | | | ● | ● | | | | | | | | | | | | |
| K.2 | | | | | | | | | | | | | | | | | | | | | | | |
| K.3 | <800 | | | | | | | | | ● | ● | | | | | | | | | | | | |
| K.4.1 | | ○ | ○ | ○ | ○ | ○ | ○ | | | | | | | | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| K.4.2 | <1400 | | | | | | | | | | | | | | | | | | | | | | |
| N.1.1 | | | | | | | | | | | | | | | | | | | | | | | |
| N.1.2 | Al | | | | | | | | | | | | | | | | | | | | | | |
| N.1.3 | | | | | | | | | | | | | | | | | | | | | | | |
| N.2.1 | | | | | | | | | | | | | | | | | | | | | | | |
| N.2.2 | Cu | | | | | | | ● | ● | ○ | ○ | | | | | | | | | | | | |
| N.2.3 | | ○ | ○ | ○ | ○ | ○ | ○ | | | | | | | | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| N.2.4 | | | | | | | | | | | | | | | | | | | | | | | |
| N.3.1 | Mg/Zn | | | | | | | | | | | | | | | | | | | | | | |
| N.4.1 | | | | | | | | | | | | | | | | | | | | | | | |
| N.4.2 | Plastic | | | | | | | | | | | | | | | | | | | | | | |
| N.4.3 | | | | | | | | | | | | | | | | | | | | | | | |
| S.1.1 | Ni | | | | | | | | | | | | | | | | | | | | | | |
| S.1.2 | | | | | | | | | | | | | | | | | | | | | | | |
| S.2.1 | | | | | | | | | | | | | | | | | | | | | | | |
| S.2.2 | Ti | | | | | | | | | | | | | | | | | | | | | | |
| S.2.3 | | | | | | | | | | | | | | | | | | | | | | | |
| H.1 | 50 HRC | | | | | | | | | | | ● | ● | | | | | | | | | | |
| H.2 | 55 HRC | | | | | | | | | | | ● | ● | | | | | | | | | | |
| H.3 | 60 HRC | | | | | | | | | | | ● | ● | | | | | | | | | | |

● Optima / Optimun ○ Alternativo / Alternative

TABLA DE APLICACIONES GUIDE D'APPLICATION / APPLICATION GUIDE / ANWENDUNGSHANDBUCH



$$\text{r.p.m.} = \frac{\text{Vc} \times 1.000}{\pi \times \text{Ø}}$$

| | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|----------|------------|----------|------------|----------|---------------|----------|------------|----------|------------|----------|------------|----------|------------|----------|------------|----------|------------|----------|------------|----------|------------|----------|
| Ref./ Réf. / Ref. | 2104 | 2103 | 2104/5 | 2103/5 | 2111 | 2272 | 2110 | 2109 | 2168 | 2169 | 2407 | 2408 | 2250 | 2251 | 2116 | 2115 | 2254 | 2255 | 2126 | 2125 | 2176 | 2175 | |
| Rosca/ Filetage/Thread | M-MF | M-MF | M-MF | M-MF | M-MF | M-MF | M-MF | M-MF | M-MF | M-MF | M-MF | M-MF | M-MF | M-MF | M-MF | M-MF | M-MF | M-MF | M-MF | M-MF | M-MF | M-MF | M-MF |
| DIN | 371 | 374 376 | 371 | 374 376 | 371 | 374 376-EL | 371 | 374 376 | 371 | 374 376 | 371 | 374 376 | 371 | 374 376 | 371 | 374 376 | 371 | 374 376 | 371 | 374 376 | 371 | 374 376 | 371 |
| Form. | B(3,5-5) | B(3,5-5) | B(3,5-5) | B(3,5-5) | B(3,5-5) | B(3,5-5) | B(3,5-5) | B(3,5-5) | B(3,5-5) | B(3,5-5) | B(3,5-5) | B(3,5-5) | B(3,5-5) | B(3,5-5) | B(3,5-5) | B(3,5-5) | B(3,5-5) | B(3,5-5) | B(3,5-5) | B(3,5-5) | B(3,5-5) | B(3,5-5) | |
| Ejec./Exéc./Exec. | | | LH | LH | | | | | | | | | | | | | | | | | | | |
| Tol. | 6H | 6H | 6H | 6H | 6H | 6H | 6H+01 | 6H+0,1 | 6G | 6G | 4H | 4H | 6H | 6H | 6H | 6H | 6HX | 6HX | 6H | 6H | 6HX | 6HX | |
| Mat. | HSSE | HSSE | HSSE | HSSE | HSSE | HSSE | HSSE | HSSE | HSSE | HSSE | HSSE | HSSE | HSSE | HSSE | HSSE | HSSE | HSSE-PM | HSSE-PM | HSSE-PM | HSSE-PM | HSSE-PM | HSSE-PM | HSSE-PM |
| Rec./Rev./Coat. | | | | | | | | | | | | | VAP | VAP | TIN+ | TIN+ | HL | HL | TIAISIN+ | TIAISIN+ | TIAISIN+ | TIAISIN+ | TIAISIN+ |
| Prof./ Depth | 3xD | 3xD | 3xD | 3xD | 3xD | 3xD | 3xD | 3xD | 3xD | 3xD | 3xD | 3xD | 3xD | 3xD | 3xD | 3xD | 3xD | 3xD | 3xD | 3xD | 3xD | 2xD | 2xD |
| Gama/Gamme/Range | 2-10 | 3-52 | 3-10 | 20-24 | 3-12 | 8-16 | 3-10 | 8-16 | 3-10 | 8-20 | 3-10 | 12 | 2-10 | 3-24 | 2-10 | 3-24 | 2-10 | 8-24 | 3-10 | 8-24 | 3-10 | 8-20 | |
| Pag. | 156 | 156 | 158 | 158 | 159 | 159 | 160 | 160 | 161 | 161 | 162 | 162 | 163 | 163 | 164 | 164 | 165 | 165 | 166 | 166 | 167 | 167 | |

| Mat. | | Vc (m/min) | | | | | | | | | | | | | | | | | | | | | |
|-------|--------|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|---------|-------|-------|
| P.1 | <600 | 15-25 | 15-25 | 15-25 | 15-25 | 15-25 | 15-25 | 15-25 | 15-25 | 15-25 | 15-25 | 15-25 | 15-25 | 15-25 | 15-25 | 20-30 | 20-30 | 20-40 | 20-40 | | | | |
| | P.2 | <800 | 10-20 | 10-20 | 10-20 | 10-20 | 10-20 | 10-20 | 10-20 | 10-20 | 10-20 | 10-20 | 10-20 | 10-20 | 10-20 | 15-25 | 15-25 | 20-40 | 20-40 | | | | |
| | | <1000 | 10-15 | 10-15 | 10-15 | 10-15 | 10-15 | 10-15 | 10-15 | 10-15 | 10-15 | 10-15 | 10-15 | 10-15 | 10-15 | 12-18 | 12-18 | 15-30 | 15-30 | 10-15 | 10-15 | | |
| | P.4 | <1200 | | | | | | | | | | | | | | 8-12 | 8-12 | 10-20 | 10-20 | 6-10 | 6-10 | 6-10 | 6-10 |
| | P.5 | <1400 | | | | | | | | | | | | | | | | 5-10 | 5-10 | 0-4-6 | 0-4-6 | 0-4-6 | 0-4-6 |
| M.1 | <950 | 7-10 | 7-10 | 7-10 | 7-10 | 7-10 | 7-10 | 7-10 | 7-10 | 7-10 | 7-10 | 7-10 | 7-10 | 7-10 | 9-12 | 9-12 | 5-15 | 5-15 | | | | | |
| | | 5-8 | 5-8 | 5-8 | 5-8 | 5-8 | 5-8 | 5-8 | 5-8 | 5-8 | 5-8 | 5-8 | 5-8 | 5-8 | 6-10 | 6-10 | 5-15 | 5-15 | | | | | |
| | <1200 | | | | | | | | | | | | | 5-8 | 5-8 | 6-10 | 6-10 | 5-10 | 5-10 | 6-12 | 6-12 | | |
| | | | | | | | | | | | | | | | | | | 5-10 | 5-10 | | | 0-4-6 | 0-4-6 |
| K.1 | <500 | | | | | | | | | | | | | | | 10-15 | 10-15 | 10-30 | 10-30 | | | | |
| | | | | | | | | | | | | | | | | 10-15 | 10-15 | 10-30 | 10-30 | | | | |
| | <800 | | | | | | | | | | | | | | | 15-20 | 15-20 | 10-20 | 10-20 | | | | |
| | | 10-15 | 10-15 | 10-15 | 10-15 | 10-15 | 10-15 | 10-15 | 10-15 | 10-15 | 10-15 | 10-15 | 10-15 | 10-15 | 10-15 | 15-20 | 15-20 | 10-30 | 10-30 | | | | |
| | K.4.2 | <1400 | | | | | | | | | | | | | | | | 5-15 | 5-15 | 0-10-20 | 0-10-20 | 10-20 | 10-20 |
| N.1.1 | Al | | | | | | | | | | | | | | | 15-25 | 15-25 | 10-30 | 10-30 | | | | |
| | | 10-15 | 10-15 | 10-15 | 10-15 | 10-15 | 10-15 | 10-15 | 10-15 | 10-15 | 10-15 | 10-15 | 10-15 | 10-15 | 15-25 | 15-25 | 10-30 | 10-30 | | | | | |
| | | | | | | | | | | | | | | | | 15-25 | 15-25 | 10-30 | 10-30 | | | | |
| | Cu | | | | | | | | | | | | | | | | | 10-30 | 10-30 | 0-4-6 | 0-4-6 | 0-4-6 | 0-4-6 |
| | | 10-20 | 10-20 | 10-20 | 10-20 | 10-20 | 10-20 | 10-20 | 10-20 | 10-20 | 10-20 | 10-20 | 10-20 | 10-20 | 10-20 | 15-25 | 15-25 | 10-30 | 10-30 | | | | |
| | | | | | | | | | | | | | | | | | | 10-30 | 10-30 | | | | |
| | Mg/Zn | | | | | | | | | | | | | | | | | 5-15 | 5-15 | | | | |
| | | | | | | | | | | | | | | | | | | 10-30 | 10-30 | 10-15 | 10-15 | 10-15 | 10-15 |
| | N.4.1 | Plastic | 10-15 | 10-15 | 10-15 | 10-15 | 10-15 | 10-15 | 10-15 | 10-15 | 10-15 | 10-15 | 10-15 | 10-15 | 10-15 | 12-18 | 12-18 | 10-30 | 10-30 | | | | |
| | | | | | | | | | | | | | | | | | 10-30 | 10-30 | | | | | |
| | | | | | | | | | | | | | | | | | | 10-30 | 10-30 | 10-15 | 10-15 | 10-15 | 10-15 |
| S.1.1 | Ni | | | | | | | | | | | | | | | | | 2-8 | 2-8 | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| | Ti | | | | | | | | | | | | | | | | | 10-15 | 10-15 | | | | |
| | | | | | | | | | | | | | | | | | | 2-8 | 2-8 | 0-6-8 | 0-6-8 | 0-6-8 | 0-6-8 |
| H.1 | 50 HRC | | | | | | | | | | | | | | | | | | | | | | |
| H.2 | 55 HRC | | | | | | | | | | | | | | | | | | | | | | |
| H.3 | 60 HRC | | | | | | | | | | | | | | | | | | | | | | |

● Optima / Optimun ○ Alternativo / Alternative

| | | | | | |
|--------------------------------------|---|--|--|--|---|
| P Aceros Aciers Steels Stähle | M Aceros Inox Aciers Inox Stainless Steels Edelstahl | K Fundicion Fonte Cast Iron Gusseisen | N Metales no ferrosos Métal non Ferraux Non Ferrous metals NE-Metalle | S Titanio y Superalloys Titanium et Superalloys Titanium and Superalloys Titan und Superlegierungen | H Materiales Duros Materiels Durs Hard materials Hartmaterialien |
|--------------------------------------|---|--|--|--|---|

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|-------------|----------|----------|----------|-----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|----------|----------|----------|-----------|-----------|-----------|------|----|
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2133 | 2132 | 2258 | 2259 | 2150 | 2149 | 2262 | 2263 | 2234 | 2235 | 2156 | 2155 | 2276 | 2277 | 2280 | 2281 | 2138 | 2137 | 2145 | 2284 | 2286 | 2248 | 2266 | 2268 | 2270 | | |
| M-MF | M-MF | M-MF | M-MF | UNC | UNC | UNC | UNC | UNC | UNC | UNF | UNF | UNF | UNF | UNF | UNF | BSW | BSW | G | G | G | M-MF | M-MF | M-MF | M-MF | | |
| 371 | 374 | 371 | 374 | 371 | 376 | 371 | 376 | 371 | 376 | 371 | 374 | 371 | 374 | 371 | 374 | 371 | 376 | 5156 | 5156 | 5156 | ISO 529 | JIS B4430 | JIS B4430 | JIS B4430 | | |
| B(3,5-5)-AZ | B(3,5-5)-AZ | B(3,5-5) | B(3,5-5) | B(3,5-5) | B(3,5-5) | B(3,5-5) | B(3,5-5) | B(3,5-5) | B(3,5-5) | B(3,5-5) | B(3,5-5) | B(3,5-5) | B(3,5-5) | B(3,5-5) | B(3,5-5) | B(3,5-5) | B(3,5-5) | B(3,5-5) | B(3,5-5) | B(3,5-5) | B(3,5-5) | B(3,5-5) | B(3,5-5) | B(3,5-5) | | |
| 6H | 6H | 6HX | 6HX | 2B | 2B | 2B | 2B | 2B | 2B | 2B | 2B | 2B | 2B | 2B | 2B | 2B | 2B | Med | Med | Med | Med | Med | 6H | 6H | 6H | 6H |
| HSSE | HSSE | HSSE-PM | HSSE-PM | HSSE | HSSE | HSSE | HSSE | HSSE | HSSE | HSSE | HSSE | HSSE | HSSE | HSSE | HSSE | HSSE | HSSE | HSSE | HSSE | HSSE | HSS | HSSE | HSSE | HSSE | HSSE | |
| | | HL | HL | | | VAP | VAP | TIN+ | TIN+ | | | VAP | VAP | TIN+ | TIN+ | | | VAP | VAP | TIN+ | | | VAP | TIN | TIN | |
| 3xD | 3xD | 3xD | 3xD | 3xD | 3xD | 3xD | 3xD | 3xD | 3xD | 3xD | 3xD | 3xD | 3xD | 3xD | 3xD | 3xD | 3xD | 3xD | 3xD | 3xD | 3xD | 3xD | 3xD | 3xD | 3xD | |
| 3-10 | 4-16 | 3-10 | 12-16 | N.4-3/8 | 1/4-1"1/4 | N.4-3/8 | 7/16-1" | N.4-3/8 | 7/16-1" | N.4-3/8 | 1/4-1" | N.4-3/8 | 7/16-1" | N.4-3/8 | 7/16-1" | 1/8-3/8 | 1/4-1" | 1/8-1"1/2 | 1/8-1" | 1/8-1" | 3-30 | 3-20 | 3-20 | 3-20 | 3-20 | |
| 168 | 168 | 169 | 169 | 197 | 197 | 198 | 198 | 199 | 199 | 205 | 205 | 206 | 206 | 207 | 207 | 214 | 214 | 219 | 219 | 220 | 191 | 192 | 193 | 194 | 194 | |

Vc (m/min)

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | 20-50 | 20-50 | 15-25 | 15-25 | 15-25 | 15-25 | 20-30 | 20-30 | 15-25 | 15-25 | 15-25 | 15-25 | 20-30 | 20-30 | 15-25 | 15-25 | 15-25 | 15-25 | 20-30 | 10-20 | 15-25 | 15-25 | 20-30 |
| | | 20-50 | 20-50 | 10-20 | 10-20 | 10-20 | 10-20 | 15-25 | 15-25 | 10-20 | 10-20 | 10-20 | 10-20 | 15-25 | 15-25 | 10-20 | 10-20 | 10-20 | 10-20 | 15-25 | 5-15 | 10-20 | 10-20 | 15-25 |
| | | 15-40 | 15-40 | 10-15 | 10-15 | 10-15 | 10-15 | 12-18 | 12-18 | 10-15 | 10-15 | 10-15 | 10-15 | 12-18 | 12-18 | 10-15 | 10-15 | 10-15 | 10-15 | 12-18 | | 10-15 | 10-15 | 12-18 |
| | | 10-20 | 10-20 | | | | | 8-12 | 8-12 | | | | | 8-12 | 8-12 | | | | | 8-12 | | | | 8-12 |
| | | 5-10 | 5-10 | | | | | | | | | | | | | | | | | | | | | |
| | | 5-15 | 5-15 | 7-10 | 7-10 | 7-10 | 7-10 | 9-12 | 9-12 | 7-10 | 7-10 | 7-10 | 7-10 | 9-12 | 9-12 | 7-10 | 7-10 | 7-10 | 7-10 | 9-12 | | 7-10 | 7-10 | 9-12 |
| | | 5-15 | 5-15 | 5-8 | 5-8 | 5-8 | 5-8 | 6-10 | 6-10 | 5-8 | 5-8 | 5-8 | 5-8 | 6-10 | 6-10 | 5-8 | 5-8 | 5-8 | 5-8 | 6-10 | | 5-8 | 5-8 | 6-10 |
| | | 5-10 | 5-10 | | | 5-8 | 5-8 | 6-10 | 6-10 | | | 5-8 | 5-8 | 6-10 | 6-10 | | | 5-8 | 5-8 | 6-10 | | | | |
| | | 5-10 | 5-10 | | | | | | | | | | | | | | | | | | | | | |
| | | 10-40 | 10-40 | | | | | 10-15 | 10-15 | | | | | 10-15 | 10-15 | | | | | 10-15 | | | | |
| | | 10-40 | 10-40 | | | | | 10-15 | 10-15 | | | | | 10-15 | 10-15 | | | | | 10-15 | | | | |
| | | 10-20 | 10-20 | | | | | 15-20 | 15-20 | | | | | 15-20 | 15-20 | | | | | 15-20 | | | | |
| | | 10-40 | 10-40 | 10-15 | 10-15 | 10-15 | 10-15 | 15-20 | 15-20 | 10-15 | 10-15 | 10-15 | 10-15 | 15-20 | 15-20 | 10-15 | 10-15 | 10-15 | 10-15 | 15-20 | 5-15 | 10-15 | 10-15 | 15-20 |
| | | 5-15 | 5-15 | | | | | | | | | | | | | | | | | | | | | |
| 10-20 | 10-20 | 10-40 | 10-40 | | | | | 15-25 | 15-25 | | | | | 15-25 | 15-25 | | | | | 15-25 | | | | |
| 10-15 | 10-15 | 10-40 | 10-40 | 10-15 | 10-15 | 10-15 | 10-15 | 15-25 | 15-25 | 10-15 | 10-15 | 10-15 | 10-15 | 15-25 | 15-25 | 10-15 | 10-15 | 10-15 | 10-15 | 15-25 | 10-15 | 10-15 | 10-15 | 15-20 |
| | | 10-40 | 10-40 | | | | | 15-25 | 15-25 | | | | | 15-25 | 15-25 | | | | | 15-25 | | | | |
| 6-8 | 6-8 | 10-40 | 10-40 | | | | | 15-25 | 15-25 | | | | | 15-25 | 15-25 | | | | | 15-25 | | | | |
| | | 10-40 | 10-40 | | | | | 15-25 | 15-25 | | | | | 15-25 | 15-25 | | | | | 15-25 | | | | |
| | | 10-40 | 10-40 | 10-20 | 10-20 | 10-20 | 10-20 | 15-25 | 15-25 | 10-20 | 10-20 | 10-20 | 10-20 | 15-25 | 15-25 | 10-20 | 10-20 | 10-20 | 10-20 | 15-25 | 5-15 | 10-20 | 10-20 | 15-25 |
| | | 10-40 | 10-40 | | | | | | | | | | | | | | | | | | | | | |
| 10-20 | 10-20 | 5-15 | 5-15 | | | | | | | | | | | | | | | | | | | | | |
| 10-15 | 10-15 | 10-40 | 10-40 | 10-15 | 10-15 | 10-15 | 10-15 | 12-18 | 12-18 | 10-15 | 10-15 | 10-15 | 10-15 | 12-18 | 12-18 | 10-15 | 10-15 | 10-15 | 10-15 | 12-18 | 10-15 | 10-15 | 10-15 | 12-18 |
| | | 10-40 | 10-40 | | | | | | | | | | | | | | | | | | | | | |
| | | 2-8 | 2-8 | | | | | | | | | | | | | | | | | | | | | |
| | | 10-15 | 10-15 | | | | | | | | | | | | | | | | | | | | | |
| | | 2-8 | 2-8 | | | | | | | | | | | | | | | | | | | | | |

● Optima / Optimun ○ Alternativo / Alternative



| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------|------------|---------|------------|---------|---------|---------|---------|---------|---------|---------|--------|---------|---------|---------|---------|---------|---------|--------|--------|--------|----------|--------------|--------------|--------------|--------------|
| 2182 | 2181 | 2260 | 2261 | 2152 | 2151 | 2264 | 2265 | 2236 | 2237 | 2158 | 2157 | 2278 | 2279 | 2282 | 2283 | 2140 | 2139 | 2146 | 2285 | 2287 | 2806 | 2249 | 2267 | 2269 | 2271 |
| M-MF | M-MF | M-MF | M-MF | UNC | UNC | UNC | UNC | UNC | UNC | UNF | UNF | UNF | UNF | UNF | UNF | BSW | BSW | G | G | G | M-MF | M-MF | M-MF | M-MF | M-MF |
| 371 | 374 376 | 371 | 374 376 | 371 | 376 | 371 | 376 | 371 | 376 | 371 | 374 | 371 | 374 | 371 | 374 | 371 | 376 | 5156 | 5156 | 5156 | ISO 529 | JIS B4430 | JIS B4430 | JIS B4430 | JIS B4430 |
| C(2-3) | C(2-3) | C(2-3) | C(2-3) | C(2-3) | C(2-3) | C(2-3) | C(2-3) | C(2-3) | C(2-3) | C(2-3) | C(2-3) | C(2-3) | C(2-3) | C(2-3) | C(2-3) | C(2-3) | C(2-3) | C(2-3) | C(2-3) | C(2-3) | D(3,5-5) | C(2-3) | C(2-3) | C(2-3) | C(2-3) |
| R45° | R45° | R45° | R45° | R35° | R35° | R35° | R35° | R35° | R35° | R35° | R35° | R35° | R35° | R35° | R35° | R35° | R35° | R35° | R35° | R35° | R35° | R25° | R35° | R35° | R35° |
| 6H | 6H | 6HX | 6HX | 2B | 2B | 2B | 2B | 2B | 2B | 2B | 2B | 2B | 2B | 2B | 2B | 2B | 2B | 2B | 2B | 2B | Med | Med | Med | Med | Med |
| HSSE | HSSE | HSSE-PM | HSSE-PM | HSSE | HSSE | HSSE | HSSE | HSSE | HSSE | HSSE | HSSE | HSSE | HSSE | HSSE | HSSE | HSSE | HSSE | HSSE | HSSE | HSSE | HSSE | HSSE | HSS | HSSE | HSSE |
| | | HL | HL | | | VAP | VAP | TIN+ | TIN+ | | | VAP | VAP | TIN+ | TIN+ | | | | | VAP | TIN+ | | | VAP | TIN |
| 2,5xD | 2,5xD | 2,5xD | 2,5xD | 2,5xD | 2,5xD | 2,5xD | 2,5xD | 2,5xD | 2,5xD | 2,5xD | 2,5xD | 2,5xD | 2,5xD | 2,5xD | 2,5xD | 2,5xD | 2,5xD | 2,5xD | 2,5xD | 2,5xD | 2,5xD | 1,5xD | 2,5xD | 2,5xD | 2,5xD |
| M3-M10 | M6-M16 | M3-M10 | M12-M16 | N.4-3/8 | 1/4-1/4 | N.4-3/8 | 7/16-1" | N.4-3/8 | 7/16-1" | N.4-3/8 | 1/4-1" | N.4-3/8 | 7/16-1" | N.4-3/8 | 7/16-1" | 1/8-3/8 | 3/16-1" | 1/8-1" | 1/8-1" | 1/8-1" | | | | | |
| 183 | 183 | 184 | 184 | 200 | 200 | 201 | 201 | 202 | 202 | 208 | 208 | 209 | 209 | 210 | 210 | 215 | 215 | 220 | 221 | 221 | 190 | 191 | 192 | 193 | 194 |

Vc (m/min)

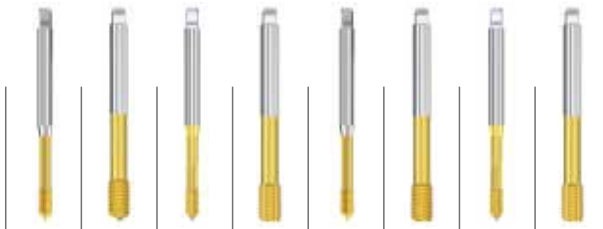
| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | | ● 20-50 | ● 20-50 | ○ 15-25 | ○ 15-25 | ● 15-25 | ● 15-25 | ● 20-30 | ● 20-30 | ○ 15-25 | ○ 15-25 | ● 15-25 | ● 15-25 | ● 20-30 | ● 20-30 | ○ 15-25 | ○ 15-25 | ○ 15-25 | ○ 15-25 | ● 20-30 | ○ 15-25 | ○ 10-20 | ○ 15-25 | ○ 15-25 | ○ 20-30 |
| | | ● 20-50 | ● 20-50 | ● 10-20 | ● 10-20 | ● 10-20 | ● 10-20 | ● 15-25 | ● 15-25 | ● 10-20 | ● 10-20 | ● 10-20 | ● 10-20 | ● 15-25 | ● 15-25 | ● 10-20 | ● 10-20 | ● 10-20 | ● 10-20 | ● 15-25 | ● 10-20 | ● 5-15 | ● 10-20 | ● 10-20 | ● 15-25 |
| | | ● 15-40 | ● 15-40 | ○ 10-15 | ○ 10-15 | ○ 10-15 | ○ 10-15 | ● 12-18 | ● 12-18 | ○ 10-15 | ○ 10-15 | ○ 10-15 | ○ 10-15 | ○ 12-18 | ○ 12-18 | ○ 10-15 | ○ 10-15 | ○ 10-15 | ○ 10-15 | ○ 12-18 | | | ○ 10-15 | ○ 10-15 | ○ 12-18 |
| | | ● 10-20 | ● 10-20 | | | | | ○ 8-12 | ○ 8-12 | | | | | ○ 8-12 | ○ 8-12 | | | | | ○ 8-12 | | | | | |
| | | ● 5-10 | ● 5-10 | | | | | | | | | | | | | | | | | | | | | | |
| | | ● 5-15 | ● 5-15 | ○ 7-10 | ○ 7-10 | ● 7-10 | ● 7-10 | ● 9-12 | ● 9-12 | ○ 7-10 | ○ 7-10 | ● 7-10 | ● 7-10 | ● 9-12 | ● 9-12 | ○ 7-10 | ○ 7-10 | ○ 7-10 | ○ 7-10 | ● 7-10 | ● 9-12 | | ○ 7-10 | ○ 7-10 | ○ 9-12 |
| | | ● 5-15 | ● 5-15 | ○ 5-8 | ○ 5-8 | ● 5-8 | ● 5-8 | ● 6-10 | ● 6-10 | ○ 5-8 | ○ 5-8 | ● 5-8 | ● 5-8 | ● 6-10 | ● 6-10 | ○ 5-8 | ○ 5-8 | ○ 5-8 | ○ 5-8 | ● 5-8 | ● 6-10 | | ○ 5-8 | ○ 5-8 | ○ 6-10 |
| | | ● 5-10 | ● 5-10 | | | ○ 5-8 | ○ 5-8 | ○ 6-10 | ○ 6-10 | | | ○ 5-8 | ○ 5-8 | ○ 6-10 | ○ 6-10 | | | | | ○ 5-8 | ○ 6-10 | | | | |
| | | ● 5-10 | ● 5-10 | | | | | | | | | | | | | | | | | | | | | | |
| | | ● 10-40 | ● 10-40 | | | | | | | | | | | | | | | | | | | | | | |
| | | ● 10-40 | ● 10-40 | | | | | | | | | | | | | | | | | | | | | | |
| | | ● 10-20 | ● 10-20 | | | | | ● 15-20 | ● 15-20 | | | | | ● 15-20 | ● 15-20 | | | | | | 15-20 | | | | |
| | | ● 10-40 | ● 10-40 | ○ 10-15 | ○ 10-15 | ○ 10-15 | ○ 10-15 | ● 15-20 | ● 15-20 | ○ 10-15 | ○ 10-15 | ○ 10-15 | ○ 10-15 | ● 15-20 | ● 15-20 | ○ 10-15 | ○ 10-15 | ○ 10-15 | ○ 10-15 | ○ 10-15 | 15-20 | 10-15 | 5-15 | 10-15 | 15-20 |
| | | ● 5-15 | ● 5-15 | | | | | | | | | | | | | | | | | | | | | | |
| ● 10-20 | ● 10-20 | ● 10-40 | ● 10-40 | | | | | | | | | | | | | | | | | | | | | | |
| ○ 10-15 | ○ 10-15 | ● 10-40 | ● 10-40 | ○ 10-15 | ○ 10-15 | | | | | ○ 10-15 | ○ 10-15 | | | | | ○ 10-15 | ○ 10-15 | ○ 10-15 | ○ 10-15 | | ○ 10-15 | ○ 10-15 | ○ 10-15 | ○ 10-15 | ○ 15-20 |
| | | ● 10-40 | ● 10-40 | | | | | | | | | | | | | | | | | | | | | | |
| ○ 6-8 | ○ 6-8 | ● 10-40 | ● 10-40 | | | | | ● 15-25 | ● 15-25 | | | | | ● 15-25 | ● 15-25 | | | | | ● 15-25 | | | | | |
| | | ● 10-40 | ● 10-40 | | | | | | | | | | | | | | | | | | | | | | |
| | | ● 10-40 | ● 10-40 | ● 10-20 | ● 10-20 | ● 10-20 | ● 10-20 | ● 15-25 | ● 15-25 | ● 10-20 | ● 10-20 | ● 10-20 | ● 10-20 | ● 15-25 | ● 15-25 | ● 10-20 | ● 10-20 | ● 10-20 | ● 10-20 | ● 15-25 | ● 10-20 | ● 5-15 | ● 10-20 | ● 10-20 | ● 15-25 |
| | | ● 10-40 | ● 10-40 | | | | | | | | | | | | | | | | | | | | | | |
| ○ 10-20 | ○ 10-20 | ● 5-15 | ● 5-15 | | | | | | | | | | | | | | | | | | | | | | |
| ○ 10-15 | ○ 10-15 | ● 10-40 | ● 10-40 | ○ 10-15 | ○ 10-15 | ○ 10-15 | ○ 10-15 | ○ 12-18 | ○ 12-18 | ○ 10-15 | ○ 10-15 | ○ 10-15 | ○ 10-15 | ○ 12-18 | ○ 12-18 | ○ 10-15 | ○ 10-15 | ○ 10-15 | ○ 10-15 | ○ 12-18 | ○ 10-15 | ○ 10-15 | ○ 10-15 | ○ 10-15 | ○ 12-18 |
| | | ● 10-40 | ● 10-40 | | | | | | | | | | | | | | | | | | | | | | |
| | | ● 2-8 | ● 2-8 | | | | | | | | | | | | | | | | | | | | | | |
| | | ● 10-15 | ● 10-15 | | | | | | | | | | | | | | | | | | | | | | |
| | | ● 2-8 | ● 2-8 | | | | | | | | | | | | | | | | | | | | | | |

● Optima / Optimun ○ Alternativo / Alternative

| | | | | | |
|---|--|---|---|---|--|
| P Aceros Aciers Steele Stähle | M Aceros Inox Aciers Inox Stainless Steels Edelstahl | K Fundicion Fonte Cast Iron Gusseisen | N Metales no ferrosos Métal non Ferraux Non Ferrous metals NE-Metalle | S Titanio y Superalaciones Titanium et Supealliajes Titanium and Superalloys Titan und Superlegierungen | H Materiales Duros Materiels Durs Hard materials Hartmaterialien |
|---|--|---|---|---|--|

TABLA DE APLICACIONES GUIDE D'APPLICATION / APPLICATION GUIDE / ANWENDUNGSHANDBUCH

$$\text{r.p.m.} = \frac{V_c \times 1.000}{\pi \times \phi}$$



| | | | | | | | | |
|------------------------|---------|------------|---------|------------|---------|------------|---------|------------|
| Ref./ Réf. / Ref. | 2188 | 2187 | 2214 | 2213 | 2216 | 2215 | 2218 | 2217 |
| Rosca/ Filetage/Thread | M | M | M | M | M | M | M | M |
| DIN | 371 | 374 376 | 371 | 374 376 | 371 | 374 376 | 371 | 374 376 |
| Form. | C(2-3) | C(2-3) | C(2-3) | C(2-3) | C(2-3) | C(2-3) | C(2-3) | C(2-3) |
| Ejec./Exéc./Exec. | A>12% | A>12% | A>12% | A>12% | A>12% | A>12% | A>12% | A>12% |
| Tol. | 6HX | 6HX | 6HX | 6HX | 6GX | 6GX | 6GX | 6GX |
| Mat. | HSSE-PM | HSSE-PM | HSSE-PM | HSSE-PM | HSSE-PM | HSSE-PM | HSSE-PM | HSSE-PM |
| Rec./Rev./Coat. | TIN | TIN | TIN | TIN | TIN | TIN | TIN | TIN |
| Prof./ Depth | 1,5xD | 1,5xD | 3xD | 3xD | 1,5xD | 1,5xD | 3xD | 3xD |
| Gama/Gamme/Range | M3-M10 | M12-M16 | M3-M10 | M8-M16 | M3-M10 | M12 | M3-M10 | M12 |
| Pag. | 185 | 185 | 186 | 186 | 187 | 187 | 188 | 188 |

| Mat. | | Vc (m/min) | | | | | | | | | |
|-------|---------|------------|-------|-------|---|---|---|---|---|---|--|
| P.1 | <600 | • | • | • | • | • | • | • | • | | |
| | P.2 | <800 | • | • | • | • | • | • | • | | |
| | | P.3 | <1000 | • | • | • | • | • | • | • | |
| | | | P.4 | <1200 | | | | | | | |
| | | | P.5 | <1400 | | | | | | | |
| M.1 | <950 | • | • | • | • | • | • | • | • | | |
| | | • | • | • | • | • | • | • | • | | |
| | M.2 | • | • | • | • | • | • | • | • | | |
| | | M.3 | <1200 | | | | | | | | |
| M.4 | <1200 | | | | | | | | | | |
| K.1 | <500 | | | | | | | | | | |
| | | K.2 | | | | | | | | | |
| | | K.3 | <800 | | | | | | | | |
| | | | K.4.1 | | | | | | | | |
| | K.4.2 | <1400 | | | | | | | | | |
| N.1.1 | Al | • | • | • | • | • | • | • | • | | |
| | | • | • | • | • | • | • | • | • | | |
| | | N.1.2 | | | | | | | | | |
| | Cu | • | • | • | • | • | • | • | • | | |
| | | N.2.1 | | | | | | | | | |
| | | N.2.2 | | | | | | | | | |
| | N.2.3 | • | • | • | • | • | • | • | • | | |
| | | N.2.4 | | | | | | | | | |
| | N.3.1 | Mg/Zn | • | • | • | • | • | • | • | | |
| N.4.1 | Plastic | | | | | | | | | | |
| N.4.2 | | | | | | | | | | | |
| N.4.3 | | | | | | | | | | | |
| S.1.1 | Ni | | | | | | | | | | |
| | | S.1.2 | | | | | | | | | |
| | Ti | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | |
| | | S.2.1 | | | | | | | | | |
| | | S.2.2 | | | | | | | | | |
| S.2.3 | | | | | | | | | | | |
| H.1 | 50 HRC | | | | | | | | | | |
| | H.2 | 55 HRC | | | | | | | | | |
| | H.3 | 60 HRC | | | | | | | | | |

● Optima / Optimun ○ Alternativo / Alternative



Aceros
Aciers
Steele
Stähle



Aceros Inox
Aciers Inox
Stainless Steels
Edelstahl



Fundición
Fonte
Cast Iron
Gusseisen



Metales no ferrosos
Métal non Ferraux
Non Ferrous metals
NE-Metalle



Titanio y Superalloys
Titanium et Superalloys
Titanium and Superalloys
Titan und Superlegierungen



Materiales Duros
Materiels Durs
Hard materials
Hartmaterialien

TABLA DE APLICACIONES GUIDE D'APPLICATION / APPLICATION GUIDE / ANWENDUNGSHANDBUCH

$$r.p.m. = \frac{Vc \times 1.000}{\pi \times \phi}$$



| Ref./ Réf. / Ref. | 2411 | 2412 |
|------------------------|------------|----------|
| Rosca/ Filetage/Thread | M-MF | G |
| DIN | 6535 | 6535 |
| Form. | | |
| Ejec./Exéc./Exec. | R15° | R15° |
| Tol. | h6 | h6 |
| Mat. | HM | HM |
| Rec./Rev./Coat. | TiAlCN | TiAlCN |
| Prof./ Depth | | |
| Gama/Gamme/Range | M2-M24 | G1/16-1" |
| Pag. | 225 | 226 |
| Mat. | Vc (m/min) | |
| P.1 | <600 | 150-200 |
| P.2 | <800 | 120-170 |
| P.3 | <1000 | 100-140 |
| P.4 | <1200 | 80-120 |
| P.5 | <1400 | 70-110 |
| M.1 | <950 | 130-180 |
| M.2 | | 90-140 |
| M.3 | <1200 | 80-120 |
| M.4 | | 70-110 |
| K.1 | <500 | 130-180 |
| K.2 | | 120-160 |
| K.3 | <800 | 100-150 |
| K.4.1 | | 100-150 |
| K.4.2 | <1400 | 80-120 |
| N.1.1 | Al | 500-900 |
| N.1.2 | | 300-500 |
| N.1.3 | | 200-400 |
| N.2.1 | Cu | 150-250 |
| N.2.2 | | 130-180 |
| N.2.3 | | 100-140 |
| N.2.4 | | 60-80 |
| N.3.1 | Mg/Zn | 100-140 |
| N.4.1 | Plastic | 120-170 |
| N.4.2 | | 70-100 |
| N.4.3 | | |
| S.1.1 | Ni | 60-80 |
| S.1.2 | | 50-70 |
| S.2.1 | Ti | 60-80 |
| S.2.2 | | 50-70 |
| S.2.3 | | 30-50 |
| H.1 | 50 HRC | 60-100 |
| H.2 | 55 HRC | 30-60 |
| H.3 | 60 HRC | 20-40 |

P Aceros
Aciers
Steels
Stähle

M Aceros Inox
Aciers Inox
Stainless Steels
Edelstahl

K Fundicion
Fonte
Cast Iron
Gusseisen

N Metales no ferrosos
Aciers Inox
Stainless Steels
NE-Metalle

S Titanio y Superalaciones
Titanium et Superalloys
Titanium and Superalloys
Titan und Superlegierungen

H Materiales Duros
Materiels Durs
Hard materials
Hartmaterialien

● Optima / Optimun ○ Alternativo / Alternative



TABLA DE APLICACIONES GUIDE D'APPLICATION / APPLICATION GUIDE / ANWENDUNGSHANDBUCH

$$r.p.m. = \frac{Vc \times 1.000}{\pi \times \phi}$$



| | | | | | | | | | | | | | |
|------------------------|----------|--------|--------|--------|--------|---------|---------|--------|------------|--------|--------|----------|----------|
| Ref./ Réf. / Ref. | 2301 | 2301/5 | 2302 | 2314 | 2303 | 2324 | 2304 | 2304/5 | 2305 | 2306 | 2306/5 | 2316 | 2317 |
| Rosca/ Filetage/Thread | M-MF | M | M | M | M | M | BSW | BSW | BSF | G | G | G | G |
| DIN | 352-2181 | 352 | 352 | 352 | 352 | 352 | 352 | 352 | 2181 | 5157 | 5157 | 5157 | 5157 |
| Form. | | | | | | | | | | | | E(1,5-2) | E(1,5-2) |
| Ejec./Exéc./Exec. | | LH | | | | | | LH | | | LH | | |
| Tol. | 6H | 6H | 6H | 6HX | 6HX | 6HX | Med | Med | Med | Med | Med | Med | +0,1 |
| Mat. | HSS | HSS | HSS | HSSE | HSSE | HSSE-PM | HSS | HSS | HSS | HSS | HSS | HSS | HSS |
| Rec./Rev./Coat. | | | TIN | | VAP | TICN | | | | | | | |
| Prof./ Depth | | | | | | | | | | | | | |
| Gama/Gamme/Range | M1-M64 | M3-M30 | M3-M20 | M3-M16 | M3-M20 | M4-M16 | 3/32-3" | 1/8-1" | 3/16-1"1/2 | 1/8-3" | 1/8-1" | 1/8-1" | 1/8-1" |
| Pag. | 227 | 229 | 231 | 230 | 230 | 231 | 232 | 233 | 233 | 234 | 234 | 235 | 235 |

| Mat. | | Vc (m/min) | | | | | | | | | | | | |
|-------|---------|------------|---|---|---|---|---|---|---|---|---|---|---|---|
| P.1 | <600 | ● | ● | ● | ○ | ○ | | ● | ● | ● | ● | ● | | |
| P.2 | <800 | ● | ● | ● | ● | ● | ○ | ● | ● | ● | ● | ● | | |
| P.3 | <1000 | | | ○ | ● | ● | ● | | | | | | | |
| P.4 | <1200 | | | | ○ | ○ | ● | | | | | | | |
| P.5 | <1400 | | | | | | ● | | | | | | | |
| M.1 | <950 | | | | ○ | ● | | | | | | | | |
| M.2 | | | | | ○ | ● | | | | | | | | |
| M.3 | | | | | | | ○ | | | | | | | |
| M.4 | <1200 | | | | | | ○ | | | | | | | |
| K.1 | <500 | | | | | | | | | | | | | |
| K.2 | | | | | | | | | | | | | | |
| K.3 | <800 | | | | | | | | | | | | | |
| K.4.1 | | ○ | ○ | ○ | ○ | | | ○ | ○ | ○ | ○ | ○ | | |
| K.4.2 | <1400 | | | | | | | ○ | | | | | | |
| N.1.1 | | | | | | | | | | | | | | |
| N.1.2 | Al | ○ | ○ | ○ | | | | ○ | ○ | ○ | ○ | ○ | | |
| N.1.3 | | ● | ● | ● | | | | ● | ● | ● | ● | ● | | |
| N.2.1 | | | | | | | | | | | | | | |
| N.2.2 | Cu | | | | | | | | | | | | ● | ● |
| N.2.3 | | ● | ● | ● | ○ | ○ | ○ | ● | ● | ● | ● | ● | | |
| N.2.4 | | | | | | | | | | | | | | |
| N.3.1 | Mg/Zn | | | | | | | | | | | | | |
| N.4.1 | | | | | | | | | | | | | | |
| N.4.2 | Plastic | | | | | | | | | | | | | |
| N.4.3 | | | | | | | | | | | | | | |
| S.1.1 | Ni | | | | | | | | | | | | | |
| S.1.2 | | | | | | | | | | | | | | |
| S.2.1 | | | | | | ● | | | | | | | | |
| S.2.2 | Ti | | | | | | | | | | | | | |
| S.2.3 | | | | | | | | | | | | | | |
| H.1 | 50 HRC | | | | | | | | | | | | | |
| H.2 | 55 HRC | | | | | | | | | | | | | |
| H.3 | 60 HRC | | | | | | | | | | | | | |

● Optima / Optimun ○ Alternativo / Alternative



Aceros
Aciers
Steele
Stähle



Aceros Inox
Aciers Inox
Stainless Steels
Edelstahl



Fundicion
Fonte
Cast Iron
Gusseisen



Metales no ferrosos
Métal non Ferraux
Non Ferrous metals
NE-Metalle



Titanio y Superalloys
Titanium et Supealloys
Titanium and Superalloys
Titan und Superlegierungen



Materiales Duros
Materiels Durs
Hard materials
Hartmaterialien

TABLA DE APLICACIONES GUIDE D'APPLICATION / APPLICATION GUIDE / ANWENDUNGSHANDBUCH

$$r.p.m. = \frac{Vc \times 1.000}{\pi \times \phi}$$



| | | | | | | | | | | | |
|------------------------|--------|--------|--------|--------|---------|--------|---------|--------|--------|--------|--------|
| Ref./ Réf. / Ref. | 2501 | 2501/5 | 2514 | 2512 | 2502 | 2502/5 | 2503 | 2504 | 2504/5 | 2522 | 2521 |
| Rosca/ Filetage/Thread | M-MF | M | M | M | BSW | BSW | BSF | G | G | G | G |
| DIN | 22568 | 22568 | 22568 | 22568 | 22568 | 22568 | 22568 | 24231 | 24231 | 24231 | 24231 |
| Form. | | | | | | | | | | | |
| Ejec./Exéc./Exec. | | LH | | | | LH | | | LH | | |
| Tol. | 6g | 6g | 6g | 6g | Med | Med | Med | Med | Med | Med | -0,1 |
| Mat. | HSS | HSS | HSSE | HSSE | HSS | HSS | HSS | HSS | HSS | HSS | HSS |
| Rec./Rev./Coat. | | | NIT | VAP | | | | | | | |
| Prof./ Depth | | | | | | | | | | | |
| Gama/Gamme/Range | M1-M64 | M3-M30 | M3-M16 | M3-M20 | 3/32-2" | 1/8-1" | 3/16-1" | 1/8-2" | 1/8-1" | 1/8-1" | 1/8-1" |
| Pag. | 243 | 245 | 246 | 246 | 247 | 247 | 248 | 248 | 249 | 250 | 250 |

| Mat. | | Vc (m/min) | | | | | | | | | | |
|-------|---------|------------|---|---|---|---|---|---|---|---|---|---|
| P.1 | <600 | ● | ● | ○ | ○ | ● | ● | ● | ● | ● | | |
| P.2 | <800 | ● | ● | ● | ● | ● | ● | ● | ● | ● | | |
| P.3 | <1000 | | | ● | ● | | | | | | | |
| P.4 | <1200 | | | ○ | ○ | ○ | | | | | | |
| P.5 | <1400 | | | | | | | | | | | |
| M.1 | <950 | | | ○ | ● | | | | | | | |
| M.2 | | | | ○ | ● | | | | | | | |
| M.3 | | | | | | | | | | | | |
| M.4 | <1200 | | | | | | | | | | | |
| K.1 | <500 | | | | | | | | | | | |
| K.2 | | | | | | | | | | | | |
| K.3 | <800 | | | | | | | | | | | |
| K.4.1 | | | | | | | | | | | | |
| K.4.2 | <1400 | | | | | | | | | | | |
| N.1.1 | | | | | | | | | | | | |
| N.1.2 | Al | ○ | ○ | | | ○ | ○ | ○ | ○ | ○ | | |
| N.1.3 | | ● | ● | | | ● | ● | ● | ● | ● | | |
| N.2.1 | | | | | | | | | | | | |
| N.2.2 | Cu | | | | | | | | | | ● | ● |
| N.2.3 | | ● | ● | ○ | ○ | ● | ● | ● | ● | ● | | |
| N.2.4 | | | | | | | | | | | | |
| N.3.1 | Mg/Zn | | | | | | | | | | | |
| N.4.1 | | | | | | | | | | | | |
| N.4.2 | Plastic | | | | | | | | | | | |
| N.4.3 | | | | | | | | | | | | |
| S.1.1 | Ni | | | | | | | | | | | |
| S.1.2 | | | | | | | | | | | | |
| S.2.1 | | | | | | | | | | | | |
| S.2.2 | Ti | | | | ● | | | | | | | |
| S.2.3 | | | | | | | | | | | | |
| H.1 | 50 HRC | | | | | | | | | | | |
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