## Cutting Data

| Material | Hardness BHN | Cutting Speed SFM MPM | SNAP 2/3/4 GS IPR mm/rev | SNAP 2/3/4 DF/DR IPR mm/rev | SNAP 5/8/12/20 GS IPR mm/rev | SNAP 5/8/12/20 DF/DR IPR mm/rev |
|---|---|---|---|---|---|---|
| Carbon Steels | *100-250* | 150-210<br>45-64 | .003-.008<br>.075-.2 | .001-.003<br>.025-.075 | .004-.012<br>.1-.3 | .001-.003<br>.025-.075 |
| Free Machining Alloy | *125-250*<br>*125-340* | 100-260<br>67-107 | .003-.006<br>.075-.15 | .001-.002<br>.0025-.05 | .004-.012<br>.1-.3 | .001-.002<br>.0025-.05 |
| High Alloy Steel | *250-350* | 65-160<br>20-49 | .003-.006<br>.075-.15 | .001-.002<br>.0025-.05 | .004-.008<br>.1-.2 | .001-.002<br>.0025-.05 |
| Stainless Steel | *140-250* | 30-100<br>9-30 | .002-.005<br>.05-.125 | .001-.002<br>.0025-.05 | .002-.006<br>.05-.15 | .001-.002<br>.0025-.05 |
| Steel Castings | *90-225*<br>*150-250* | 130-230<br>40-70 | .002-.006<br>.05-.15 | .001-.002<br>.0025-.05 | .004-.012<br>.1-.3 | .001-.002<br>.0025-.05 |
| Grey Cast Iron | *150-250*<br>*200-330* | 150-300<br>45-91 | .003-.008<br>.075-.2 | .001-.003<br>.0025-.075 | .004-.012<br>.1-.3 | .001-.003<br>.0025-.075 |
| Nodular Cast Iron | *140-220*<br>*220-310* | 130-220<br>40-67 | .003-.006<br>.075-.15 | .001-.002<br>.0025-.05 | .004-.012<br>.1-.3 | .001-.002<br>.0025-.05 |
| Aluminum Alloys | *30-180* | 210-400<br>64-121 | .003-.008<br>.075-.2 | .001-.003<br>.025-.075 | .004-.012<br>.1-.3 | .001-.003<br>.025-.075 |
| Nickel-based Alloys | *140-220*<br>*220-310* | 30-65<br>9-20 | .001-.004<br>.025-.1 | .001-.002<br>.025-.05 | .001-.004<br>.025-.1 | .001-.002<br>.025-.05 |
| Titanium Alloys | | 30-65<br>9-20 | .001-.004<br>.025-.1 | .001-.002<br>.025-.05 | .001-.004<br>.025-.1 | .001-.002<br>.025-.05 |
| Copper-Brass-Bronze | *80-85*<br>*135-202* | 65-300<br>20-91 | .002-.006<br>.05-.15 | .001-.003<br>.025-.075 | .002-.006<br>.05-.15 | .001-.003<br>.025-.075 |

**NOTE:** All listed cutting data are standard values only. In case of hard-to-machine materials, we recommend applying cutting speeds that are at the lower end of the range.

**IMPORTANT:**
RECOMMENDED MAXIMUM SPEED IS 6,000 RPM FOR SNAP SERIES 2,3,4. Please contact HEULE for further assistance with your application.