





# POWERFEED13+™ HARDWARE

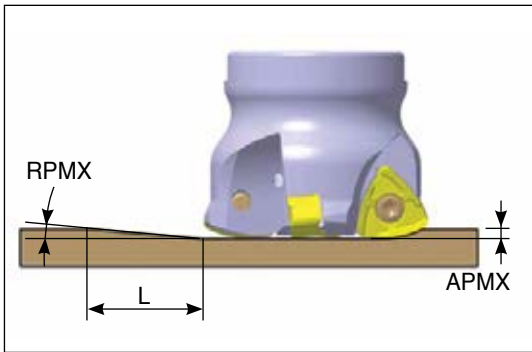
|                  |  |  |  |  |  |
|------------------|---|---|---|---|--|
|                  | Insert Screw  | Driver  | Retention Bolt  | Optional Coolant Bolt   |  |
| DG6P-20R01       | SM50-106-50   | DS-0034   | SD06-46   | SD-06-89  |  |
| DG5P-20R01       | SM50-106-50   | DS-0034   | SD06-46   | SD-06-89  |  |
| DG6P-25R01       | SM50-106-50   | DS-0034   | SD06-46   | SD-06-89  |  |
| DG5P-25R01       | SM50-106-50   | DS-0034   | SD06-46   | SD-06-89  |  |
| DG6P-30R01       | SM50-106-50   | DS-0034   | SD08-46   | SD-08-92  |  |
| DG6P-30R02       | SM50-106-50   | DS-0034   | SD08-46   | SD-08-92  |  |
| DG6P-40R01       | SM50-106-50   | DS-0034   | SD-12-82  | SD-12-99  |  |
| DG5P-40R01       | SM50-106-50   | DS-0034   | SD-12-82  | SD-12-99  |  |
| DG6P-60R01       | SM50-106-50   | DS-0034   | SD-12-82  | SD-12-99  |  |
| 1DG1P-1202781R01 | SM50-106-50   | DS-0034   | -   | -   |  |
| 1DG1P-12047S9R01 | SM50-106-50   | DS-0034   | -   | -   |  |
| 1DG1P-12017X8R01 | SM50-106-50   | DS-0034   | -   | -   |  |
| 1DG1P-1503386R01 | SM50-106-50   | DS-0034   | -   | -   |  |
| 1DG1P-15073S5R01 | SM50-106-50   | DS-0034   | -   | -   |  |
| 1DG1P-15017X8R01 | SM50-106-50   | DS-0034   | -   | -   |  |

# POWERFEED13+™ OPERATING GUIDELINES

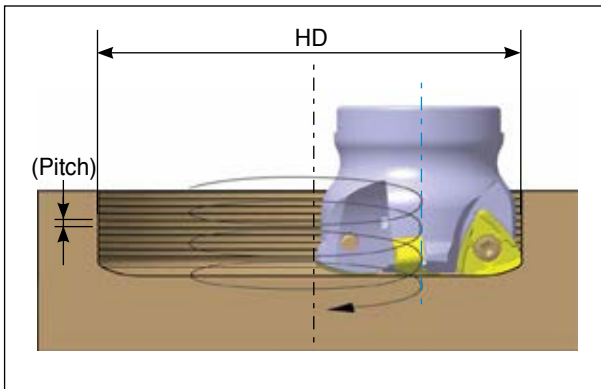
| Series DG6P, 1DG1P |                                       |           |                 |             | IN2505 | IN2504 | IN2510 | IN2530 | IN2035 | IN7035 | Coolant |
|--------------------|---------------------------------------|-----------|-----------------|-------------|--------|--------|--------|--------|--------|--------|---------|
| Material           | Brinnell Hardness                     | SFM       | Feed per Insert |             |        |        |        |        |        |        |         |
| Cast Iron          | Gray                                  | 190 - 550 | 450-1300        | .020 - .160 | 2      |        | 1      |        |        |        | No      |
|                    | Nodular                               | 140 - 200 | 330 - 820       | .020 - .120 | 2      |        | 1      |        |        |        |         |
| Steel              | Low Carbon 1018, 8620                 | 85-225    | 430 - 985       | .020 - .180 | 1      |        |        | 2      |        |        | No      |
|                    | High Carbon F-6180                    | 275-375   | 390 - 820       | .015 - .157 | 1      |        |        | 2      |        |        |         |
|                    | Alloyed Steel 4140                    | 375-480   | 400 - 850       | .010 - .140 | 1      | 3      |        | 2      |        |        |         |
|                    | Tool Steel P20 - H13                  | 250-470   | 165 - 750       |             | 1      | 3      |        | 2      |        |        |         |
| Stainless Steel    | 300 Series, 304, 316                  | -         | 260 - 560       |             | 4      | 5      |        | 3      | 1      | 2      | Yes     |
|                    | 400 Series 15-5PH, 17-4 PH            | -         | 330 - 685       | .020 - .100 | 4      | 5      |        | 3      | 1      | 2      |         |
|                    | 13-8PH                                | -         | 200 - 600       |             | 4      |        |        | 3      | 1      | 2      |         |
| Nickel Alloys      | Inconel 600, 706, 718, 903, Hastelloy | -         | 60 - 150        | .015 - .080 | 4      | 5      |        | 3      | 1      | 2      | Yes     |
| Titanium           | 6AL-4V                                | -         | 80 - 120        | .010 - .030 | 4      | 5      |        | 3      | 1      | 2      | Yes     |
| Hard Steel         | All                                   |           | 150 - 400       | .020 - .050 | 2      | 1      |        |        |        |        | No      |

Note: Feed and speed recommendations are starting operating parameters. They are only guidelines from which further optimization should take place. Operating parameters are influenced by many machining variables. These variables may cause for reductions in feeds and speed or dramatic increases. Additionally, DOC and WOC may need to be revised to optimize the tools performance.

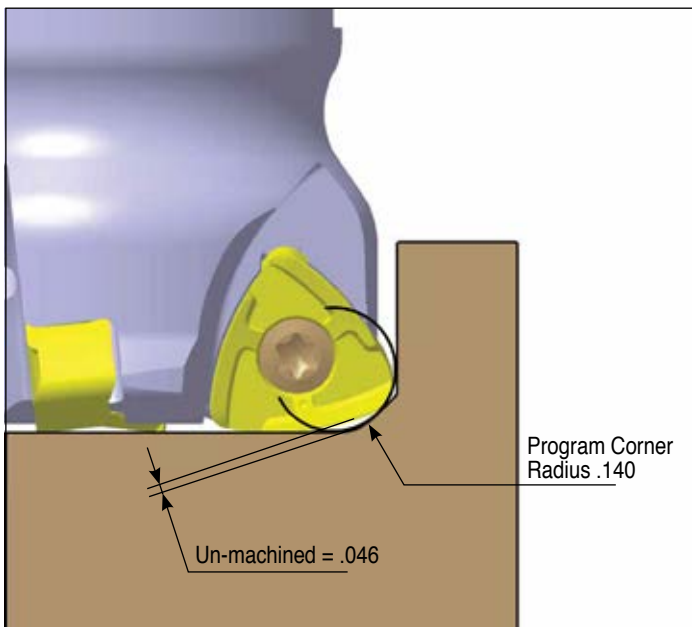
# POWER FEED 13+ PROGRAMMING TECHNICAL DATA



| DCX<br>Cutting<br>Dia. Max. | RMPX<br>Ramp Angle<br>Max. | L     | APMX<br>Depth of<br>Cut Max. |
|-----------------------------|----------------------------|-------|------------------------------|
| 1.25                        | .9                         | 4.97  | .078                         |
| 1.50                        | 1.5                        | 2.97  | .078                         |
| 2.00                        | .8                         | 5.58  | .078                         |
| 2.50                        | .6                         | 7.44  | .078                         |
| 3.00                        | .4                         | 11.17 | .078                         |
| 4.00                        | .3                         | 14.89 | .078                         |
| 6.00                        | .2                         | 22.34 | .078                         |



| DCX<br>Cutting<br>Dia. Max. | MIN. Diameter<br>Milled Hole | APCPR<br>*MAX. Advance<br>Per Cutter<br>Path Rev. | MAX. Diameter<br>Milled Hole | APCPR<br>*MAX. Advance<br>Per Cutter<br>Path Rev. |
|-----------------------------|------------------------------|---|------------------------------|---|
| 1.25                        | 1.56                         | .015  | 2.500                        | .060  |
| 1.50                        | 1.98                         | .039  | 3.00                         | .065  |
| 2.00                        | 2.94                         | .041  | 4.00                         | .065  |
| 2.50                        | 3.92                         | .046  | 5.00                         | .065  |
| 3.00                        | 4.91                         | .041  | 6.00                         | .065  |
| 4.00                        | 6.91                         | .047  | 8.00                         | .065  |
| 6.00                        | 10.91                        | .053  | 12.00                        | .065  |



## Programming Tips:

- During programming verify the tool is defined correctly within the CAM system
- Maintain the shortest allowable tool length (L/D Ratio) for maximum rigidity
- Climb cut when possible
- Utilize favorable stock entry techniques to increase tool life (Example: Ramping, horizontal arcing and vertical arcing)