

Link do produktu: <https://techart-narzedzia.pl/frez-palcowy-vhm-fi-3-mm-weglikowy-50-hrc-4f-l50-p-334.html>



## FREZ PALCOWY VHM fi 3 mm WĘGLIKOWY 50 HRC 4F L50

|                    |                                                       |
|--------------------|-------------------------------------------------------|
| Cena               | <b>28,00 zł</b>                                       |
| Kod producenta     | <b>50 HRC 4F L50</b>                                  |
| Materiał wykonania | <b>VHM</b>                                            |
| Średnica trzpienia | <b>inna</b>                                           |
| Rodzaj frezu       | <b>czołowy, palcowy, trzpieniowy, walcowo-czołowy</b> |
| Średnica           | <b>3 mm</b>                                           |
| Marka              | <b>TechArt</b>                                        |
| Kod producenta     | <b>50 HRC 4F L50</b>                                  |

### Opis produktu

Witam, posiadamy własne maszyny CNC. Frezy przedstawione na tej aukcji są używane podczas naszej produkcji seryjnej jak i jednostkowej. Produkty wystawione na sprzedaż są nowe.

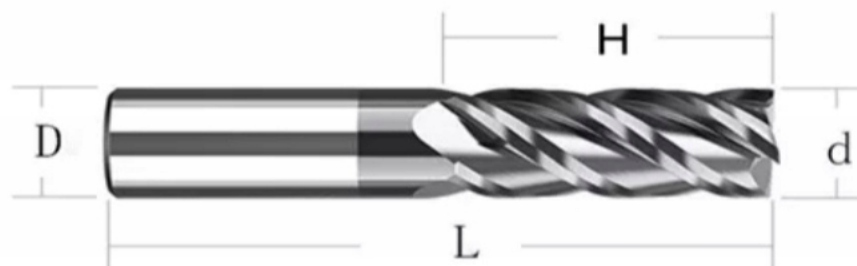
## Frez 4 piórowy fi 3 50HRC wykonany z węgliku spiekanego

1. Długość całkowita - 50 mm
2. Długość robocza - 10 mm
3. Chwyt walcowy - fi 3 mm
4. Ilość ostrzy - 4
5. Powłoka - TiN+Si
6. Kąt 45 stopni

Frez do półwykończeniowej i wykończeniowej obróbki, o wysokiej odporności na ścieranie. Znajduje wielofunkcyjne zastosowanie na centrach obróbkowych. Obrabiane materiały: stal, stal nierdzewna, żeliwo, stopy ogniotrwałe.

Cena dotyczy 1 freza i jest ceną brutto.

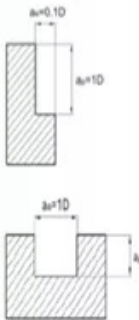
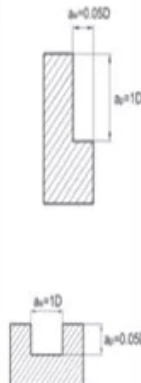
Na stanie posiadamy więcej frezów o różnych rozmiarach i średnicach, wiertła składane, płytki wieloostrowe, głowice frezerskie. Zapraszamy



Unit of Measure: mm

| Specification  | Blade Diameter (d) | Blade Length (H) | Shank Diameter (D) | Full Length (L) |
|----------------|--------------------|------------------|--------------------|-----------------|
| d1.0*D4*L50    | 1.0                | 3                | 4                  | 50              |
| d1.5*D4*L50    | 1.5                | 4                | 4                  | 50              |
| d2.0*D4*L50    | 2.0                | 6                | 4                  | 50              |
| d2.5*D4*L50    | 2.5                | 7                | 4                  | 50              |
| d3.0*D4*L50    | 3.0                | 8                | 4                  | 50              |
| d3.5*D4*L50    | 3.5                | 10               | 4                  | 50              |
| d4.0*D4*L50    | 4.0                | 10               | 4                  | 50              |
| d4.0*D4*L75    | 4.0                | 10               | 4                  | 75              |
| d4.0*D4*L100   | 4.0                | 10               | 4                  | 100             |
| d5.0*D5*L50    | 5.0                | 13               | 5                  | 50              |
| d6.0*D6*L50    | 6.0                | 15               | 6                  | 50              |
| d6.0*D6*L75    | 6.0                | 15               | 6                  | 75              |
| d6.0*D6*L100   | 6.0                | 15               | 6                  | 100             |
| d6.0*D6*L150   | 6.0                | 30               | 6                  | 150             |
| d8.0*D8*L60    | 8.0                | 20               | 8                  | 60              |
| d8.0*D8*L75    | 8.0                | 20               | 8                  | 75              |
| d8.0*D8*L100   | 8.0                | 32               | 8                  | 100             |
| d8.0*D8*L150   | 8.0                | 40               | 8                  | 150             |
| d10.0*D10*L75  | 10.0               | 25               | 10                 | 75              |
| d10.0*D10*L100 | 10.0               | 40               | 10                 | 100             |
| d10.0*D10*L150 | 10.0               | 55               | 10                 | 150             |
| d12.0*D12*L75  | 12.0               | 30               | 12                 | 75              |
| d12.0*D12*L100 | 12.0               | 45               | 12                 | 100             |
| d12.0*D12*L150 | 12.0               | 60               | 12                 | 150             |
| d14.0*D14*L100 | 14.0               | 45               | 14                 | 100             |
| d14.0*D14*L150 | 14.0               | 60               | 14                 | 150             |
| d16.0*D16*L100 | 16.0               | 45               | 16                 | 100             |
| d16.0*D16*L150 | 16.0               | 60               | 16                 | 150             |
| d18.0*D18*L100 | 18.0               | 45               | 18                 | 100             |
| d18.0*D18*L150 | 18.0               | 60               | 18                 | 150             |
| d20.0*D20*L100 | 20.0               | 45               | 20                 | 100             |
| d20.0*D20*L150 | 20.0               | 60               | 20                 | 150             |

## Parameters of HRC 50° 4 Flutes End Mill

| Processed material         | Cast iron<br>Nodular cast iron                                                                                                                                                                                                         |                          | Carbon steel<br>Alloy steel<br>~750N/mm <sup>2</sup> |                          | Carbon steel<br>Alloy steel<br>~30HRC       |                          | Preharded steel<br>Quenching and<br>tempering steel<br>~40HRC                         |                          | Stainless steel                             |                          | Preharded steel<br>Quenching and<br>tempering steel<br>~50HRC |                          |  |  |  |  |  |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|------------------------------------------------------|--------------------------|---------------------------------------------|--------------------------|---------------------------------------------------------------------------------------|--------------------------|---------------------------------------------|--------------------------|---------------------------------------------------------------|--------------------------|--|--|--|--|--|
| Diameter<br>(mm)           | Rotational<br>speed<br>(min <sup>-1</sup> )                                                                                                                                                                                            | Feed<br>rate<br>(mm/min) | Rotational<br>speed<br>(min <sup>-1</sup> )          | Feed<br>rate<br>(mm/min) | Rotational<br>speed<br>(min <sup>-1</sup> ) | Feed<br>rate<br>(mm/min) | Rotational<br>speed<br>(min <sup>-1</sup> )                                           | Feed<br>rate<br>(mm/min) | Rotational<br>speed<br>(min <sup>-1</sup> ) | Feed<br>rate<br>(mm/min) | Rotational<br>speed<br>(min <sup>-1</sup> )                   | Feed<br>rate<br>(mm/min) |  |  |  |  |  |
| 1                          | 20000                                                                                                                                                                                                                                  | 250                      | 20000                                                | 250                      | 20000                                       | 200                      | 20000                                                                                 | 200                      | 20000                                       | 90                       | 20000                                                         | 150                      |  |  |  |  |  |
| 2                          | 15000                                                                                                                                                                                                                                  | 400                      | 15000                                                | 400                      | 15000                                       | 360                      | 15000                                                                                 | 350                      | 11150                                       | 100                      | 13000                                                         | 225                      |  |  |  |  |  |
| 3                          | 14000                                                                                                                                                                                                                                  | 680                      | 14000                                                | 680                      | 13000                                       | 630                      | 10600                                                                                 | 525                      | 7500                                        | 120                      | 8500                                                          | 410                      |  |  |  |  |  |
| 4                          | 10800                                                                                                                                                                                                                                  | 700                      | 10800                                                | 700                      | 10000                                       | 640                      | 8000                                                                                  | 535                      | 5500                                        | 125                      | 6500                                                          | 420                      |  |  |  |  |  |
| 5                          | 8200                                                                                                                                                                                                                                   | 730                      | 8200                                                 | 730                      | 7600                                        | 670                      | 6400                                                                                  | 560                      | 4500                                        | 125                      | 5000                                                          | 440                      |  |  |  |  |  |
| 6                          | 7000                                                                                                                                                                                                                                   | 750                      | 7000                                                 | 750                      | 6400                                        | 690                      | 5300                                                                                  | 575                      | 3700                                        | 135                      | 4200                                                          | 450                      |  |  |  |  |  |
| 8                          | 5200                                                                                                                                                                                                                                   | 740                      | 5200                                                 | 740                      | 4800                                        | 680                      | 4000                                                                                  | 565                      | 2800                                        | 135                      | 3200                                                          | 460                      |  |  |  |  |  |
| 10                         | 4200                                                                                                                                                                                                                                   | 730                      | 4200                                                 | 730                      | 3800                                        | 670                      | 3200                                                                                  | 560                      | 2200                                        | 135                      | 2500                                                          | 435                      |  |  |  |  |  |
| 12                         | 3500                                                                                                                                                                                                                                   | 730                      | 3500                                                 | 730                      | 3200                                        | 670                      | 2650                                                                                  | 560                      | 1850                                        | 135                      | 2100                                                          | 435                      |  |  |  |  |  |
| 14                         | 3000                                                                                                                                                                                                                                   | 680                      | 3000                                                 | 680                      | 2700                                        | 630                      | 2300                                                                                  | 525                      | 1600                                        | 125                      | 1800                                                          | 410                      |  |  |  |  |  |
| 16                         | 2600                                                                                                                                                                                                                                   | 680                      | 2600                                                 | 680                      | 2400                                        | 630                      | 2000                                                                                  | 525                      | 1400                                        | 120                      | 1600                                                          | 410                      |  |  |  |  |  |
| 18                         | 2300                                                                                                                                                                                                                                   | 670                      | 2300                                                 | 670                      | 2100                                        | 620                      | 1800                                                                                  | 515                      | 1250                                        | 105                      | 1400                                                          | 405                      |  |  |  |  |  |
| 20                         | 2050                                                                                                                                                                                                                                   | 670                      | 2050                                                 | 670                      | 1900                                        | 620                      | 1600                                                                                  | 515                      | 1100                                        | 105                      | 1250                                                          | 405                      |  |  |  |  |  |
| Maximum<br>Depth of<br>Cut |                                                                                                                                                     |                          |                                                      |                          |                                             |                          |  |                          |                                             |                          |                                                               |                          |  |  |  |  |  |
|                            | <table border="1" data-bbox="585 1209 820 1321"><thead><tr><th>Cutter diameter</th><th>cutting depth</th></tr></thead><tbody><tr><td>Ø1 &lt; D &lt; Ø3</td><td>0.15D</td></tr><tr><td>Ø3 &lt; D</td><td>0.3D</td></tr></tbody></table> |                          |                                                      |                          |                                             |                          | Cutter diameter                                                                       | cutting depth            | Ø1 < D < Ø3                                 | 0.15D                    | Ø3 < D                                                        | 0.3D                     |  |  |  |  |  |
| Cutter diameter            | cutting depth                                                                                                                                                                                                                          |                          |                                                      |                          |                                             |                          |                                                                                       |                          |                                             |                          |                                                               |                          |  |  |  |  |  |
| Ø1 < D < Ø3                | 0.15D                                                                                                                                                                                                                                  |                          |                                                      |                          |                                             |                          |                                                                                       |                          |                                             |                          |                                                               |                          |  |  |  |  |  |
| Ø3 < D                     | 0.3D                                                                                                                                                                                                                                   |                          |                                                      |                          |                                             |                          |                                                                                       |                          |                                             |                          |                                                               |                          |  |  |  |  |  |