

## Technical information

Art.-Nr. 733 / 1 - example tempering steel



### VHM - Schaftfräser Starmax

Art.-Nr.  
**733**

Flutes  
**4**



#### Tool data



#### Tool recommendation



#### Capabilities



## Areas of application and special features

HPC bestseller in tempering steel <32 HRC  
Uneven partition and uneven helix.

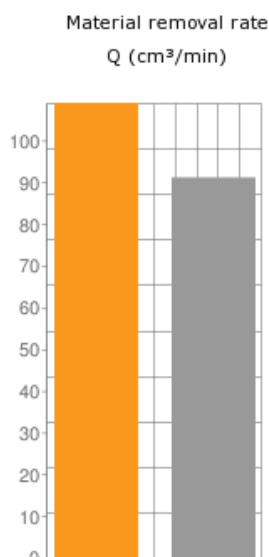
## Competitive advantages and profitability

competition to Gühring, Hoffmann, WNT, Precitool, SGS and Widia

## Example application

Art.-Nr.: **733.120.99**  
Material: **Tempering steel <850 N/mm² (<25 HRC)**

| Inovatools – Roughing |              |         |                           |
|-----------------------|--------------|---------|---------------------------|
| D1                    | 12,00        | mm      | Diameter                  |
| z                     | 4            |         | Flutes                    |
| ae                    | 12,000       | mm      | Row pitch                 |
| ap                    | 12,000       | mm      | Cutting depth             |
| vc                    | 113,14       | m/min   | Cutting speed             |
| n                     | 3001         | U/min   | Rotation speed            |
| fz                    | 0,06307      | mm      | Feed per tooth            |
| vf                    | 757,07       | mm/min  | Feed rate                 |
| Q                     | 109,01848000 | cm³/min | Material removal rate     |
| hm                    | 0,04015      | mm      | Middle chipping thickness |
| K/M                   |              | €/std   | Machine hourly cost       |
| K/W                   |              | €       | Tool cost                 |
| T                     |              | min     | Tool life                 |
| V                     | 1090,18      | cm³     | Processing volume         |
| Tb                    | 10           | min     | Process time              |
| €/Ws                  |              | €       | Cost workpiece            |



Competitor:  
Art.-Nr.: **Inovatools 733.120.99**

| Calculator |             |         |                           |
|------------|-------------|---------|---------------------------|
| D1         | 12,00       | mm      | Diameter                  |
| z          | 4           |         | Flutes                    |
| ae         | 6           | mm      | Row pitch                 |
| ap         | 12          | mm      | Cutting depth             |
| vc         | 160         | m/min   | Cutting speed             |
| n          | 4244        | U/min   | Rotation speed            |
| fz         | 0,075       | mm      | Feed per tooth            |
| vf         | 1273,24     | mm/min  | Feed rate                 |
| Q          | 91,67324722 | cm³/min | Material removal rate     |
| hm         | 0,04775     | mm      | Middle chipping thickness |
| K/M        |             | €/std   | Machine hourly cost       |
| K/W        |             | €       | Tool cost                 |
| T          |             | min     | Tool life                 |
| V          | 3666,93     | cm³     | Processing volume         |
| Tb         | 40,00       | min     | Process time              |
| €/Ws       |             | €       | Cost workpiece            |

**Art.-Nr. 733 / 1** - example tempering steel

[illegible]