



| Code         | 8100    | 8100V   | 8200   | 8200V  | 8525    | 8532    | 8532V   | 8570     | 8570V   | 8900      | 8900      |
|--------------|---------|---------|--------|--------|---------|---------|---------|----------|---------|-----------|-----------|
| Coating      |         |         |        |        |         |         |         |          |         |           |           |
| DIN          | ~856    | ~856    | ~856   | ~856   | 1824A   | 842     | 842     | 847      | 847     | 3972      | 3972      |
| Type         | N       | N       | N      | N      |         | N       | N       | N        | N       | N         | N         |
| Material     | HSS     | HSSCo5  | HSS    | HSSCo5 | HSS     | HSS     | HSSCo5  | HSS      | HSSCo5  | HSS       | HSSCo5    |
| Dimens. (mm) | R1-R25  | R1-R12  | R1-R20 | R1-R20 | 20°-30° | 45°-60° | 45°-60° | 45°-120° | 45°-90° | m.0,5-m.6 | m.0,5-m.6 |
| Page         | 186-187 | 186-187 | 188    | 188    | 189     | 190-191 | 190-191 | 192      | 192     | 193       | 193       |

|   |     |   |   |   |   |   |   |   |   |   |   |
|---|-----|---|---|---|---|---|---|---|---|---|---|
| P | P.1 |   |   |   |   |   |   |   |   |   |   |
|   | P.2 |   |   |   |   |   |   |   |   |   |   |
|   | P.3 |   | • |   | • |   | • |   | • |   |   |
|   | P.4 | • | • | • | • | • | • | • | • | • | • |
|   | P.5 |   |   |   |   |   |   |   |   |   |   |
|   | P.6 |   | • |   | • |   | • |   | • |   |   |
| M | M.1 |   |   |   |   |   |   |   |   |   |   |
|   | M.2 |   | • |   | • |   | • |   | • |   |   |
|   | M.3 |   |   |   |   |   |   |   |   |   |   |
| K | K.1 | • | • | • | • | • | • | • | • | • | • |
|   | K.2 | • | • | • | • | • | • | • | • | • | • |
| N | N.1 |   |   |   |   |   |   |   |   |   |   |
|   | N.2 |   |   |   |   |   |   |   |   |   |   |
|   | N.3 |   |   |   |   |   |   |   |   |   |   |
|   | N.4 |   |   |   |   | • | • | • | • |   |   |
| S | S.1 |   |   |   |   |   |   |   |   |   |   |
|   | S.2 |   |   |   |   |   | • |   | • |   |   |
| H | H.1 |   |   |   |   |   |   |   |   |   |   |
|   | H.2 |   |   |   |   |   |   |   |   |   |   |

# Half circle milling cutters

convex

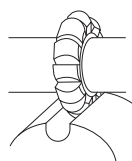
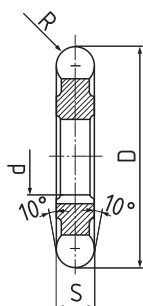


810070 810075V

**CZ** Frézy půlkruhové | vypouklé

**DE** Halbrund-Profilfräser | konvex

**RU** Фрезы полукруглые | выпуклые



**8100**



**8100V**



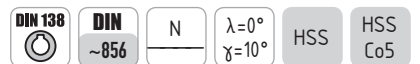
| D<br>js 16 | S<br>s 10 | d<br>H 7 | R    | Z<br>8100 | Z<br>8100V | 810070 |  |  |  | 810075V |  |  |  |
|------------|-----------|----------|------|-----------|------------|--------|--|--|--|---------|--|--|--|
| 50         | 2         | 16       | 1    | 14        | 16         | .010   |  |  |  | .010    |  |  |  |
| 50         | 2,5       | 16       | 1,25 | 14        | 16         | .0125  |  |  |  | .0125   |  |  |  |
| 50         | 3         | 16       | 1,5  | 14        | 16         | .015   |  |  |  | .015    |  |  |  |
| 50         | 3,2       | 16       | 1,6  | 14        | 16         | .016   |  |  |  |         |  |  |  |
| 50         | 4         | 16       | 2    | 14        | 16         | .020   |  |  |  | .020    |  |  |  |
| 63         | 5         | 22       | 2,5  | 12        | 12         | .025   |  |  |  | .025    |  |  |  |
| 63         | 6         | 22       | 3    | 12        | 12         | .030   |  |  |  | .030    |  |  |  |
| 63         | 6,3       | 22       | 3,15 | 12        |            | .0315  |  |  |  |         |  |  |  |
| 63         | 7         | 22       | 3,5  | 12        | 12         | .035   |  |  |  | .035    |  |  |  |
| 63         | 8         | 22       | 4    | 12        | 12         | .040   |  |  |  | .040    |  |  |  |
| 63         | 9         | 22       | 4,5  | 12        | 12         | .045   |  |  |  | .045    |  |  |  |
| 63         | 10        | 22       | 5    | 12        | 12         | .050   |  |  |  | .050    |  |  |  |
| 80         | 11        | 27       | 5,5  | 12        | 12         | .055   |  |  |  | .055    |  |  |  |
| 80         | 12        | 27       | 6    | 12        | 12         | .060   |  |  |  | .060    |  |  |  |
| 80         | 12,6      | 27       | 6,3  | 12        |            | .063   |  |  |  |         |  |  |  |
| 80         | 13        | 27       | 6,5  | 12        |            | .065   |  |  |  |         |  |  |  |
| 80         | 14        | 27       | 7    | 12        | 12         | .070   |  |  |  | .070    |  |  |  |
| 80         | 15        | 27       | 7,5  | 12        |            | .075   |  |  |  |         |  |  |  |
| 80         | 16        | 27       | 8    | 12        | 12         | .080   |  |  |  | .080    |  |  |  |

**Cutting conditions** | Řezné podmínky | Schnittbedingungen | Условия резания

|          |                 |                |                | fz (mm/z)      |       |       |       |       |       |       |
|----------|-----------------|----------------|----------------|----------------|-------|-------|-------|-------|-------|-------|
| Material |                 | A <sub>p</sub> | A <sub>e</sub> | V <sub>c</sub> | Ø 50  | Ø 63  | Ø 80  | Ø 100 | Ø 125 | Ø 160 |
| 810070   |                 |                |                |                |       |       |       |       |       |       |
| P.1      | ≤ 600 N/mm²     | 1xR            | 1xS            | 30             | 0,08  | 0,100 | 0,120 | 0,140 | 0,142 | 0,145 |
| P.4      | ≤ 900 N/mm²     | 1xR            | 1xS            | 20             | 0,08  | 0,100 | 0,120 | 0,140 | 0,142 | 0,145 |
| K.1      | ≤ 820 N/mm²     | 1xR            | 1xS            | 25             | 0,08  | 0,100 | 0,120 | 0,140 | 0,142 | 0,145 |
| K.2      | > 800 N/mm²     | 1xR            | 1xS            | 17             | 0,08  | 0,100 | 0,120 | 0,140 | 0,142 | 0,145 |
| 810075V  |                 |                |                |                |       |       |       |       |       |       |
| P.1      | ≤ 600 N/mm²     | 1xR            | 1xS            | 37,5           | 0,080 | 0,100 | 0,120 | 0,140 | 0,142 |       |
| P.3      | ≤ 1100 N/mm²    | 1xR            | 1xS            | 18             | 0,080 | 0,100 | 0,120 | 0,140 | 0,142 |       |
| P.4      | ≤ 900 N/mm²     | 1xR            | 1xS            | 25             | 0,080 | 0,100 | 0,120 | 0,140 | 0,142 |       |
| P.6      | > 1100 N/mm²    | 1xR            | 1xS            | 16             | 0,056 | 0,070 | 0,084 | 0,098 | 0,099 |       |
| M.2      | 750 - 850 N/mm² | 1xR            | 1xS            | 10             | 0,080 | 0,100 | 0,120 | 0,140 | 0,142 |       |
| K.1      | ≤ 820 N/mm²     | 1xR            | 1xS            | 30             | 0,080 | 0,100 | 0,120 | 0,140 | 0,142 |       |
| K.2      | > 800 N/mm²     | 1xR            | 1xS            | 22             | 0,080 | 0,100 | 0,120 | 0,140 | 0,142 |       |

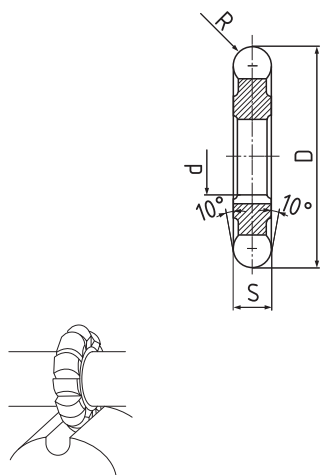
# Half circle milling cutters

convex



810070 810075V

**CZ** Frézy půlkruhové | vypouklé  
**DE** Halbrund-Profilfräser | konvex  
**RU** Фрезы полукруглые | выпуклые



**8100**



**8100V**



| D<br>js 16 | S<br>s 10 | d<br>H 7 | R    | Z    |       |        |  |         |  |
|------------|-----------|----------|------|------|-------|--------|--|---------|--|
|            |           |          |      | 8100 | 8100V | 810070 |  | 810075V |  |
| 100        | 17        | 32       | 8,5  | 12   |       | .085   |  |         |  |
| 100        | 18        | 32       | 9    | 12   | 12    | .090   |  | .090    |  |
| 100        | 19        | 32       | 9,5  | 12   |       | .095   |  |         |  |
| 100        | 20        | 32       | 10   | 12   | 12    | .100   |  | .100    |  |
| 100        | 22        | 32       | 11   | 12   |       | .110   |  |         |  |
| 100        | 24        | 32       | 12   | 12   | 12    | .120   |  | .120    |  |
| 100        | 25        | 32       | 12,5 | 12   |       | .125   |  |         |  |
| 125        | 28        | 40       | 14   | 12   |       | .140   |  |         |  |
| 125        | 30        | 32       | 15   | 12   |       | .150   |  |         |  |
| 125        | 32        | 32       | 16   | 12   |       | .160   |  |         |  |
| 125        | 36        | 40       | 18   | 12   |       | .180   |  |         |  |
| 125        | 40        | 32       | 20   | 12   |       | .200   |  |         |  |
| 160        | 50        | 40       | 25   | 12   |       | .250   |  |         |  |

**Cutting conditions** | Řezné podmínky | Schnittbedingungen | Условия резания

|                |                 | fz (mm/z) |     |      |       |       |       |       |       |       |
|----------------|-----------------|-----------|-----|------|-------|-------|-------|-------|-------|-------|
| Material       | Ap              | Ae        | Vc  | Ø 50 | Ø 63  | Ø 80  | Ø 100 | Ø 125 | Ø 160 |       |
| <b>810070</b>  |                 |           |     |      |       |       |       |       |       |       |
| P.1            | ≤ 600 N/mm²     | 1xR       | 1xS | 30   | 0,08  | 0,100 | 0,120 | 0,140 | 0,142 | 0,145 |
| P.4            | ≤ 900 N/mm²     | 1xR       | 1xS | 20   | 0,08  | 0,100 | 0,120 | 0,140 | 0,142 | 0,145 |
| K.1            | ≤ 820 N/mm²     | 1xR       | 1xS | 25   | 0,08  | 0,100 | 0,120 | 0,140 | 0,142 | 0,145 |
| K.2            | > 800 N/mm²     | 1xR       | 1xS | 17   | 0,08  | 0,100 | 0,120 | 0,140 | 0,142 | 0,145 |
| <b>810075V</b> |                 |           |     |      |       |       |       |       |       |       |
| P.1            | ≤ 600 N/mm²     | 1xR       | 1xS | 37,5 | 0,080 | 0,100 | 0,120 | 0,140 | 0,142 |       |
| P.3            | ≤ 1100 N/mm²    | 1xR       | 1xS | 18   | 0,080 | 0,100 | 0,120 | 0,140 | 0,142 |       |
| P.4            | ≤ 900 N/mm²     | 1xR       | 1xS | 25   | 0,080 | 0,100 | 0,120 | 0,140 | 0,142 |       |
| P.6            | > 1100 N/mm²    | 1xR       | 1xS | 16   | 0,056 | 0,070 | 0,084 | 0,098 | 0,099 |       |
| M.2            | 750 - 850 N/mm² | 1xR       | 1xS | 10   | 0,080 | 0,100 | 0,120 | 0,140 | 0,142 |       |
| K.1            | ≤ 820 N/mm²     | 1xR       | 1xS | 30   | 0,080 | 0,100 | 0,120 | 0,140 | 0,142 |       |
| K.2            | > 800 N/mm²     | 1xR       | 1xS | 22   | 0,080 | 0,100 | 0,120 | 0,140 | 0,142 |       |

# Half circle milling cutters

concave

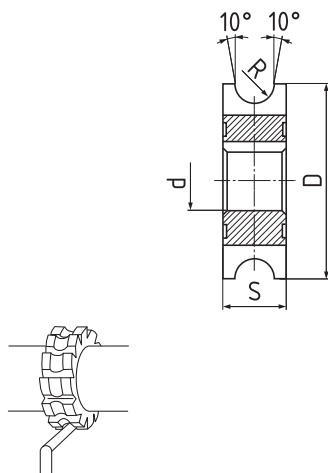


820070 820075V

**CZ** Frézy půlkruhové | vyduté

**DE** Halbrund-Profilfräser | konkav

**RU** Фрезы полукруглые | вогнутые



**8200**



**8200V**



| D<br>js 16 | S<br>js 16 | d<br>H 7 | R    | Z<br>8200 | Z<br>8200V | 820070 | 820075V |
|------------|------------|----------|------|-----------|------------|--------|---------|
| 50         | 6          | 16       | 1    | 14        | 14         | .010   | .010    |
| 50         | 6          | 16       | 1,25 | 14        | 14         | .0125  | .0125   |
| 50         | 8          | 16       | 1,5  |           | 14         |        | .015    |
| 50         | 8          | 16       | 1,6  | 14        |            | .016   |         |
| 50         | 9          | 16       | 2    | 14        | 14         | .020   | .020    |
| 63         | 10         | 22       | 2,5  | 12        | 14         | .025   | .025    |
| 63         | 12         | 22       | 3    | 12        | 12         | .030   | .030    |
| 63         | 12         | 22       | 3,15 | 12        |            | .0315  |         |
| 63         | 16         | 22       | 3,5  | 12        |            | .035   |         |
| 63         | 16         | 22       | 4    | 12        | 12         | .040   | .040    |
| 63         | 18         | 22       | 4,5  | 12        |            | .045   |         |
| 63         | 20         | 22       | 5    | 12        | 10         | .050   | .050    |
| 80         | 24         | 27       | 6    | 12        | 10         | .060   | .060    |
| 80         | 24         | 27       | 6,3  | 12        |            | .063   |         |
| 80         | 24         | 27       | 7    | 12        |            | .070   |         |
| 80         | 32         | 27       | 8    | 12        | 10         | .080   | .080    |
| 100        | 32         | 32       | 9    | 12        | 10         | .090   | .090    |
| 100        | 36         | 32       | 10   | 12        | 10         | .100   | .100    |
| 100        | 40         | 32       | 12   | 12        | 10         | .120   | .120    |
| 100        | 40         | 32       | 12,5 | 12        |            | .125   |         |
| 125        | 50         | 32       | 16   | 10        |            | .160   |         |
| 125        | 60         | 32       | 20   | 10        | 10         | .200   | .200    |

**Cutting conditions** | Řezné podmínky | Schnittbedingungen | Условия резания

|                |                 | fz (mm/z) |     |      |       |       |       |       |        |
|----------------|-----------------|-----------|-----|------|-------|-------|-------|-------|--------|
| Material       | Ap              | Ae        | Vc  | Ø 50 | Ø 63  | Ø 80  | Ø 100 | Ø 125 |        |
| <b>820070</b>  |                 |           |     |      |       |       |       |       |        |
| P.1            | ≤ 600 N/mm²     | 1xR       | 2xR | 30   | 0,08  | 0,100 | 0,120 | 0,140 | 0,142  |
| P.4            | ≤ 900 N/mm²     | 1xR       | 2xR | 20   | 0,08  | 0,100 | 0,120 | 0,140 | 0,142  |
| K.1            | ≤ 820 N/mm²     | 1xR       | 2xR | 25   | 0,08  | 0,100 | 0,120 | 0,140 | 0,142  |
| K.2            | > 800 N/mm²     | 1xR       | 2xR | 17   | 0,08  | 0,100 | 0,120 | 0,140 | 0,142  |
| <b>820075V</b> |                 |           |     |      |       |       |       |       |        |
| P.1            | ≤ 600 N/mm²     | 1xR       | 2xR | 37,5 | 0,080 | 0,100 | 0,120 | 0,140 | 0,142  |
| P.3            | ≤ 1100 N/mm²    | 1xR       | 2xR | 18   | 0,080 | 0,100 | 0,120 | 0,140 | 0,142  |
| P.4            | ≤ 900 N/mm²     | 1xR       | 2xR | 25   | 0,080 | 0,100 | 0,120 | 0,140 | 0,142  |
| P.6            | > 1100 N/mm²    | 1xR       | 2xR | 16   | 0,056 | 0,070 | 0,084 | 0,098 | 0,0994 |
| M.2            | 750 - 850 N/mm² | 1xR       | 2xR | 10   | 0,080 | 0,100 | 0,120 | 0,140 | 0,142  |
| K.1            | ≤ 820 N/mm²     | 1xR       | 2xR | 30   | 0,080 | 0,100 | 0,120 | 0,140 | 0,142  |
| K.2            | > 800 N/mm²     | 1xR       | 2xR | 22   | 0,080 | 0,100 | 0,120 | 0,140 | 0,142  |

# Single angle milling cutters

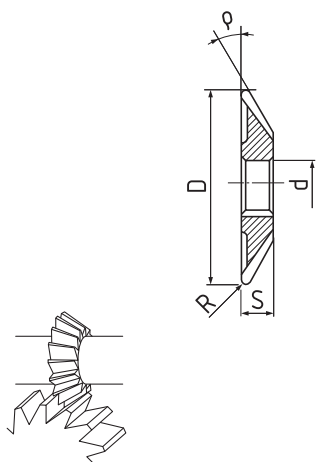


HSS

**CZ** Frézy úhlové | jednostranné

**DE** Aufsteck-Winkelfräser | einseitig

**RU** Фрезы угловые | односторонние



**8525**



| $\rho$<br>$\pm 30'$ | D<br>js 16 | S<br>js 16 | d<br>H 7 | R   | Z  | 852570  |  |  |
|---------------------|------------|------------|----------|-----|----|---------|--|--|
| 20°                 | 63         | 6          | 16       | 1   | 14 | .020063 |  |  |
| 20°                 | 100        | 10         | 27       | 1,5 | 18 | .020100 |  |  |
| 25°                 | 63         | 6          | 22       | 1   | 14 | .025063 |  |  |
| 25°                 | 80         | 10         | 22       | 1   | 16 | .025080 |  |  |
| 25°                 | 100        | 14         | 27       | 1,5 | 18 | .025100 |  |  |
| 25°                 | 125        | 18         | 27       | 2   | 20 | .025125 |  |  |
| 25°                 | 160        | 22         | 32       | 2,5 | 22 | .025160 |  |  |
| 30°                 | 63         | 8          | 22       | 1   | 14 | .030063 |  |  |
| 30°                 | 100        | 14         | 27       | 1,5 | 18 | .030100 |  |  |

**Cutting conditions** | Řezné podmínky | Schnittbedingungen | Условия резания

| Material   |                         | $A_p$ | $A_e$ | $V_c$ | fz (mm/z) |       |       |       |       |
|------------|-------------------------|-------|-------|-------|-----------|-------|-------|-------|-------|
|            |                         |       |       |       | Ø 63      | Ø 80  | Ø 100 | Ø 125 | Ø 160 |
| <b>P.1</b> | ≤ 600 N/mm <sup>2</sup> |       | 1xS   | 30    | 0,035     | 0,040 | 0,043 | 0,048 | 0,052 |
| <b>P.4</b> | ≤ 900 N/mm <sup>2</sup> |       | 1xS   | 20    | 0,035     | 0,040 | 0,043 | 0,048 | 0,052 |
| <b>K.1</b> | ≤ 820 N/mm <sup>2</sup> |       | 1xS   | 25    | 0,035     | 0,040 | 0,043 | 0,048 | 0,052 |
| <b>K.2</b> | > 800 N/mm <sup>2</sup> |       | 1xS   | 17    | 0,035     | 0,040 | 0,043 | 0,048 | 0,052 |
| <b>N.4</b> | ≤ 800 N/mm <sup>2</sup> |       | 1xS   | 50-90 | 0,035     | 0,040 | 0,043 | 0,048 | 0,052 |

# Single angle milling cutters

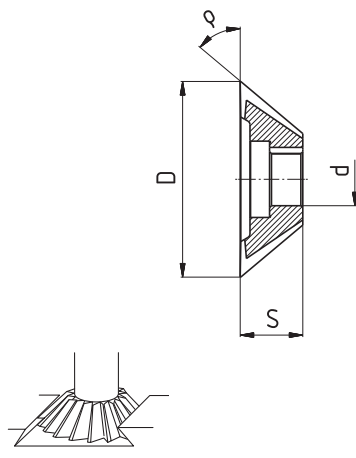


853270 853275V

**CZ** Frézy úhlové | čelní

**DE** Aufsteck-Winkelfräser | einseitig

**RU** Фрезы угловые | одноугловые



**8532**



**8532V**



| $\rho$<br>$\pm 20'$ | D<br>js 16 | S<br>js 14 | d<br>H 7 | Z<br>8532 | Z<br>8532V | 853270  | 853275V |
|---------------------|------------|------------|----------|-----------|------------|---------|---------|
| 45°                 | 40         | 10/12*     | 10       | 14        | 14         | .045040 | .045040 |
| 45°                 | 50         | 13/15*     | 13       | 16        | 16         | .045050 | .045050 |
| 45°                 | 63         | 18         | 16       | 18        | 16         | .045063 | .045063 |
| 45°                 | 80         | 22/23*     | 22       | 20        | 18         | .045080 | .045080 |
| 45°                 | 100        | 28/30*     | 27       | 22        | 20         | .045100 | .045100 |
| 45°                 | 125        | 36         | 32       | 24        |            | .045125 |         |
| 45°                 | 160        | 45         | 40       | 28        |            | .045160 |         |
| 50°                 | 40         | 13         | 10       | 14        | 14         | .050040 | .050040 |
| 50°                 | 50         | 16         | 13       | 16        | 16         | .050050 | .050050 |
| 50°                 | 63         | 20         | 16       | 18        | 16         | .050063 | .050063 |
| 50°                 | 80         | 25         | 22       | 20        | 18         | .050080 | .050080 |
| 50°                 | 100        | 32         | 27       | 22        | 20         | .050100 | .050100 |
| 50°                 | 125        | 40         | 32       | 24        |            | .050125 |         |
| 50°                 | 160        | 50         | 40       | 28        |            | .050160 |         |
| 55°                 | 40         | 13         | 10       | 14        |            | .055040 |         |
| 55°                 | 50         | 16         | 13       | 16        |            | .055050 |         |
| 55°                 | 63         | 20         | 16       | 18        |            | .055063 |         |
| 55°                 | 80         | 25         | 22       | 20        |            | .055080 |         |
| 55°                 | 100        | 32         | 27       | 22        |            | .055100 |         |
| 55°                 | 125        | 40         | 32       | 24        |            | .055125 |         |

**Cutting conditions** | Řezné podmínky | Schnittbedingungen | Условия резания

|          |                 |                |                |                | fz (mm/z) |       |       |       |       |       |       |
|----------|-----------------|----------------|----------------|----------------|-----------|-------|-------|-------|-------|-------|-------|
| Material |                 | A <sub>p</sub> | A <sub>e</sub> | V <sub>c</sub> | Ø 40      | Ø 50  | Ø 63  | Ø 80  | Ø 100 | Ø 125 | Ø 160 |
| 853070   |                 |                |                |                |           |       |       |       |       |       |       |
| P.1      | ≤ 600 N/mm²     | 0,8xS          | 1xD            | 30             | 0,025     | 0,03  | 0,035 | 0,040 | 0,043 | 0,048 | 0,052 |
| P.4      | ≤ 900 N/mm²     | 0,8xS          | 1xD            | 20             | 0,025     | 0,03  | 0,035 | 0,040 | 0,043 | 0,048 | 0,052 |
| K.1      | ≤ 820 N/mm²     | 0,8xS          | 1xD            | 25             | 0,025     | 0,03  | 0,035 | 0,040 | 0,043 | 0,048 | 0,052 |
| K.2      | > 800 N/mm²     | 0,8xS          | 1xD            | 17             | 0,025     | 0,03  | 0,035 | 0,040 | 0,043 | 0,048 | 0,052 |
| N.4      | ≤ 800 N/mm²     | 0,8xS          | 1xD            | 50-90          | 0,025     | 0,03  | 0,035 | 0,040 | 0,043 | 0,048 | 0,052 |
| 853075V  |                 |                |                |                |           |       |       |       |       |       |       |
| P.1      | ≤ 600 N/mm²     | 0,8xS          | 1xD            | 37,5           | 0,025     | 0,03  | 0,035 | 0,040 | 0,043 |       |       |
| P.3      | ≤ 1100 N/mm²    | 0,8xS          | 1xD            | 18             | 0,025     | 0,03  | 0,035 | 0,040 | 0,043 |       |       |
| P.4      | ≤ 900 N/mm²     | 0,8xS          | 1xD            | 25             | 0,025     | 0,03  | 0,035 | 0,040 | 0,043 |       |       |
| P.6      | > 1100 N/mm²    | 0,8xS          | 1xD            | 16             | 0,018     | 0,021 | 0,025 | 0,028 | 0,030 |       |       |
| M.2      | 750 - 850 N/mm² | 0,8xS          | 1xD            | 10             | 0,025     | 0,03  | 0,035 | 0,040 | 0,043 |       |       |
| K.1      | ≤ 820 N/mm²     | 0,8xS          | 1xD            | 30             | 0,025     | 0,03  | 0,035 | 0,040 | 0,043 |       |       |
| K.2      | > 800 N/mm²     | 0,8xS          | 1xD            | 22             | 0,025     | 0,03  | 0,035 | 0,040 | 0,043 |       |       |
| N.4      | ≤ 800 N/mm²     | 0,8xS          | 1xD            | 60-100         | 0,025     | 0,03  | 0,035 | 0,040 | 0,043 |       |       |
| S.2      | ≤ 1250 N/mm²    | 0,8xS          | 1xD            | 9              | 0,018     | 0,021 | 0,025 | 0,028 | 0,030 |       |       |

# Single angle milling cutters

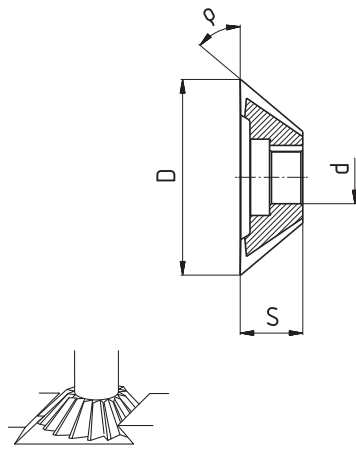


853270 853275V

**CZ** Frézy úhlové | čelní

**DE** Aufsteck-Winkelfräser | einseitig

**RU** Фрезы угловые | одноугловые



**8532**

**8532V**



| $\rho$<br>$\pm 20'$ | D<br>js 16 | S<br>js 14 | d<br>H 7 | Z<br>8532 | Z<br>8532V | 853270  | 853275V |
|---------------------|------------|------------|----------|-----------|------------|---------|---------|
| 60°                 | 40         | 13         | 10       | 14        | 14         | .060040 | .060040 |
| 60°                 | 50         | 16         | 13       | 16        | 16         | .060050 | .060050 |
| 60°                 | 63         | 20         | 16       | 18        | 16         | .060063 | .060063 |
| 60°                 | 80         | 25         | 22       | 20        | 18         | .060080 | .060080 |
| 60°                 | 100        | 32         | 27       | 22        | 20         | .060100 | .060100 |
| 60°                 | 125        | 40         | 32       | 26        |            | .060125 |         |
| 60°                 | 160        | 50         | 40       | 28        |            | .060160 |         |

\*) = 853275V

**Cutting conditions** | Řezné podmínky | Schnittbedingungen | Условия резания

|                |                             | fz (mm/z)      |                |        |       |       |       |       |       |       |       |
|----------------|-----------------------------|----------------|----------------|--------|-------|-------|-------|-------|-------|-------|-------|
| Material       | A <sub>p</sub>              | A <sub>e</sub> | V <sub>c</sub> | Ø 40   | Ø 50  | Ø 63  | Ø 80  | Ø 100 | Ø 125 | Ø 160 |       |
| <b>853070</b>  |                             |                |                |        |       |       |       |       |       |       |       |
| <b>P.1</b>     | ≤ 600 N/mm <sup>2</sup>     | 0,8xS          | 1xD            | 30     | 0,025 | 0,03  | 0,035 | 0,040 | 0,043 | 0,048 | 0,052 |
| <b>P.4</b>     | ≤ 900 N/mm <sup>2</sup>     | 0,8xS          | 1xD            | 20     | 0,025 | 0,03  | 0,035 | 0,040 | 0,043 | 0,048 | 0,052 |
| <b>K.1</b>     | ≤ 820 N/mm <sup>2</sup>     | 0,8xS          | 1xD            | 25     | 0,025 | 0,03  | 0,035 | 0,040 | 0,043 | 0,048 | 0,052 |
| <b>K.2</b>     | > 800 N/mm <sup>2</sup>     | 0,8xS          | 1xD            | 17     | 0,025 | 0,03  | 0,035 | 0,040 | 0,043 | 0,048 | 0,052 |
| <b>N.4</b>     | ≤ 800 N/mm <sup>2</sup>     | 0,8xS          | 1xD            | 50-90  | 0,025 | 0,03  | 0,035 | 0,040 | 0,043 | 0,048 | 0,052 |
| <b>853075V</b> |                             |                |                |        |       |       |       |       |       |       |       |
| <b>P.1</b>     | ≤ 600 N/mm <sup>2</sup>     | 0,8xS          | 1xD            | 37,5   | 0,025 | 0,03  | 0,035 | 0,040 | 0,043 |       |       |
| <b>P.3</b>     | ≤ 1100 N/mm <sup>2</sup>    | 0,8xS          | 1xD            | 18     | 0,025 | 0,03  | 0,035 | 0,040 | 0,043 |       |       |
| <b>P.4</b>     | ≤ 900 N/mm <sup>2</sup>     | 0,8xS          | 1xD            | 25     | 0,025 | 0,03  | 0,035 | 0,040 | 0,043 |       |       |
| <b>P.6</b>     | > 1100 N/mm <sup>2</sup>    | 0,8xS          | 1xD            | 16     | 0,018 | 0,021 | 0,025 | 0,028 | 0,030 |       |       |
| <b>M.2</b>     | 750 - 850 N/mm <sup>2</sup> | 0,8xS          | 1xD            | 10     | 0,025 | 0,03  | 0,035 | 0,040 | 0,043 |       |       |
| <b>K.1</b>     | ≤ 820 N/mm <sup>2</sup>     | 0,8xS          | 1xD            | 30     | 0,025 | 0,03  | 0,035 | 0,040 | 0,043 |       |       |
| <b>K.2</b>     | > 800 N/mm <sup>2</sup>     | 0,8xS          | 1xD            | 22     | 0,025 | 0,03  | 0,035 | 0,040 | 0,043 |       |       |
| <b>N.4</b>     | ≤ 800 N/mm <sup>2</sup>     | 0,8xS          | 1xD            | 60-100 | 0,025 | 0,03  | 0,035 | 0,040 | 0,043 |       |       |
| <b>S.2</b>     | ≤ 1250 N/mm <sup>2</sup>    | 0,8xS          | 1xD            | 9      | 0,018 | 0,021 | 0,025 | 0,028 | 0,030 |       |       |

# Double angle milling cutters

symmetrical

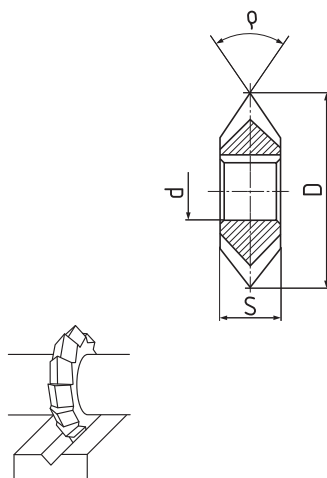


857070 857075V

**CZ** Frézy úhlové | oboustranné, souměrné

**DE** Aufsteck-Winkelfräser | doppelseitig, symmetrisch

**RU** Фрезы двухугловые | симметричные



**8570**



**8570V**



| ρ<br>± 30' | D<br>js 16 | S<br>js 16 | d<br>H 7 | Z<br>8570 | Z<br>8570V | 857070  | 857075V |
|------------|------------|------------|----------|-----------|------------|---------|---------|
| 45°        | 50         | 8          | 16       | 22        | 16         | .045050 | .045050 |
| 45°        | 63         | 10         | 22       | 24        | 16         | .045063 | .045063 |
| 45°        | 80         | 12         | 27       | 26        | 20         | .045080 | .045080 |
| 45°        | 100        | 18         | 32       | 28        | 20         | .045100 | .045100 |
| 60°        | 50         | 10         | 16       | 18        | 16         | .060050 | .060050 |
| 60°        | 63         | 14         | 22       | 20        | 16         | .060063 | .060063 |
| 60°        | 80         | 18         | 27       | 22        | 18         | .060080 | .060080 |
| 60°        | 100        | 25         | 32       | 24        | 20         | .060100 | .060100 |
| 90°        | 50         | 14         | 16       | 16        | 16         | .090050 | .090050 |
| 90°        | 63         | 20         | 22       | 18        | 16         | .090063 | .090063 |
| 90°        | 80         | 22         | 27       | 20        | 18         | .090080 | .090080 |
| 90°        | 100        | 32         | 32       | 24        | 20         | .090100 | .090100 |
| 120°       | 50         | 14         | 16       | 16        | 16         | .120050 |         |
| 120°       | 63         | 20         | 22       | 16        | 16         | .120063 |         |
| 120°       | 80         | 25         | 27       | 20        | 20         | .120080 |         |
| 120°       | 100        | 36         | 32       | 24        | 24         | .120100 |         |

**Cutting conditions** | Řezné podmínky | Schnittbedingungen | Условия резания

|                |                 | fz (mm/z)      |                |        |       |       |       |       |
|----------------|-----------------|----------------|----------------|--------|-------|-------|-------|-------|
| Material       | A <sub>p</sub>  | A <sub>e</sub> | V <sub>c</sub> | Ø 50   | Ø 63  | Ø 80  | Ø 100 |       |
| <b>857070</b>  |                 |                |                |        |       |       |       |       |
| P.1            | ≤ 600 N/mm²     | 0,8xS          | 0,1xD          | 30     | 0,03  | 0,035 | 0,040 | 0,043 |
| P.4            | ≤ 900 N/mm²     | 0,8xS          | 0,1xD          | 20     | 0,03  | 0,035 | 0,040 | 0,043 |
| K.1            | ≤ 820 N/mm²     | 0,8xS          | 0,1xD          | 25     | 0,03  | 0,035 | 0,040 | 0,043 |
| K.2            | > 800 N/mm²     | 0,8xS          | 0,1xD          | 17     | 0,03  | 0,035 | 0,040 | 0,043 |
| N.4            | ≤ 800 N/mm²     | 0,8xS          | 0,1xD          | 50-90  | 0,03  | 0,035 | 0,040 | 0,043 |
| <b>857075V</b> |                 |                |                |        |       |       |       |       |
| P.1            | ≤ 600 N/mm²     | 0,8xS          | 0,1xD          | 37,5   | 0,03  | 0,035 | 0,040 | 0,043 |
| P.3            | ≤ 1100 N/mm²    | 0,8xS          | 0,1xD          | 18     | 0,03  | 0,035 | 0,040 | 0,043 |
| P.4            | ≤ 900 N/mm²     | 0,8xS          | 0,1xD          | 25     | 0,03  | 0,035 | 0,040 | 0,043 |
| P.6            | > 1100 N/mm²    | 0,8xS          | 0,1xD          | 16     | 0,021 | 0,025 | 0,028 | 0,030 |
| M.2            | 750 - 850 N/mm² | 0,8xS          | 0,1xD          | 10     | 0,03  | 0,035 | 0,040 | 0,043 |
| K.1            | ≤ 820 N/mm²     | 0,8xS          | 0,1xD          | 30     | 0,03  | 0,035 | 0,040 | 0,043 |
| K.2            | > 800 N/mm²     | 0,8xS          | 0,1xD          | 22     | 0,03  | 0,035 | 0,040 | 0,043 |
| N.4            | ≤ 800 N/mm²     | 0,8xS          | 0,1xD          | 60-100 | 0,03  | 0,035 | 0,040 | 0,043 |
| S.2            | ≤ 1250 N/mm²    | 0,8xS          | 0,1xD          | 9      | 0,021 | 0,025 | 0,028 | 0,030 |

# Involute gear cutters for spur wheels

pressure angle 20°



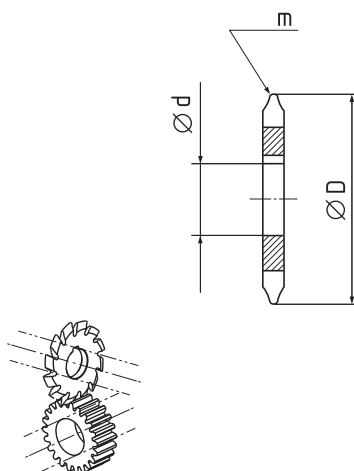
890070

890075

**CZ** Tvarové frézy na evolventní ozubení | úhel záběru 20°

**DE** Zahnformfräser für Stirnräder | eingriffs winkel 20°

**RU** Модульные фрезы | угол зацепления 20°



**8900**

**8900**



| m    | D<br>js 16 | d<br>H 7 | Z  | 890070     | 890075     |
|------|------------|----------|----|------------|------------|
| 0,5  | 40         | 16       | 12 | .0050(1-8) | .0050(1-8) |
| 0,75 | 40         | 16       | 12 | .0075(1-8) | .0075(1-8) |
| 1    | 50         | 16       | 12 | .0100(1-8) | .0100(1-8) |
| 1,25 | 50         | 16       | 12 | .0125(1-8) | .0125(1-8) |
| 1,5  | 63         | 22       | 12 | .0150(1-8) | .0150(1-8) |
| 1,75 | 63         | 22       | 12 | .0175(1-8) | .0175(1-8) |
| 2    | 63         | 22       | 12 | .0200(1-8) | .0200(1-8) |
| 2,25 | 63         | 22       | 12 | .0250(1-8) | .0250(1-8) |
| 2,5  | 63         | 22       | 12 | .0225(1-8) | .0225(1-8) |
| 2,75 | 70         | 27       | 12 | .0275(1-8) | .0275(1-8) |
| 3    | 70         | 27       | 12 | .0300(1-8) | .0300(1-8) |
| 3,25 | 70         | 27       | 12 | .0325(1-8) | .0325(1-8) |
| 3,5  | 80         | 27       | 12 | .0350(1-8) | .0350(1-8) |
| 3,75 | 80         | 27       | 12 | .0375(1-8) | .0375(1-8) |
| 4    | 80         | 27       | 12 | .0400(1-8) | .0400(1-8) |
| 4,25 | 80         | 27       | 12 | .0425(1-8) | .0425(1-8) |
| 4,5  | 90         | 27       | 12 | .0450(1-8) | .0450(1-8) |
| 4,75 | 90         | 27       | 12 | .0475(1-8) | .0475(1-8) |
| 5    | 90         | 32       | 12 | .0500(1-8) | .0500(1-8) |
| 5,5  | 90/95*     | 32       | 12 | .0550(1-8) | .0550(1-8) |
| 6    | 100        | 32       | 12 | .0600(1-8) | .0600(1-8) |

\*) = D 890070

**Number of teeth** (on the spur wheel)

Počet zubů (ozubeného kola) | Zähnezahl (au dem Stimrad) | Количество зубьев (шестерны)

|                 | 1     | 2     | 3     | 4     | 5     | 6     | 7      | 8      |
|-----------------|-------|-------|-------|-------|-------|-------|--------|--------|
| Z <sub>0z</sub> | 12-13 | 14-16 | 17-20 | 21-25 | 26-34 | 35-54 | 55-134 | 135-00 |

**Cutting conditions** | Řezné podmínky | Schnittbedingungen | Условия резания

|                  |                | fz (mm/z)      |                |       |       |       |       |       |       |       |
|------------------|----------------|----------------|----------------|-------|-------|-------|-------|-------|-------|-------|
| Material         | A <sub>p</sub> | A <sub>e</sub> | V <sub>c</sub> | Ø 40  | Ø 50  | Ø 63  | Ø 70  | Ø 80  | Ø 90  | Ø 100 |
| <b>Modul 1-5</b> |                |                |                |       |       |       |       |       |       |       |
| P.1              | ≤ 600 N/mm²    | 2,1xModul      | 20             | 0,010 | 0,013 | 0,016 | 0,018 | 0,021 | 0,023 | 0,026 |
| P.4              | ≤ 900 N/mm²    | 2,1xModul      | 15             | 0,010 | 0,013 | 0,016 | 0,018 | 0,021 | 0,023 | 0,026 |
| K.1              | ≤ 820 N/mm²    | 2,1xModul      | 12             | 0,011 | 0,014 | 0,018 | 0,020 | 0,023 | 0,026 | 0,029 |
| K.2              | > 800 N/mm²    | 2,1xModul      | 10             | 0,010 | 0,013 | 0,016 | 0,018 | 0,021 | 0,023 | 0,026 |
| <b>Modul 6</b>   |                |                |                |       |       |       |       |       |       |       |
| P.1              | ≤ 600 N/mm²    | 2,1xModul      | 20             | 0,026 | 0,033 | 0,041 | 0,046 | 0,053 | 0,059 | 0,066 |
| P.4              | ≤ 900 N/mm²    | 2,1xModul      | 15             | 0,022 | 0,027 | 0,035 | 0,038 | 0,044 | 0,049 | 0,055 |
| K.1              | ≤ 820 N/mm²    | 2,1xModul      | 12             | 0,022 | 0,027 | 0,035 | 0,038 | 0,044 | 0,049 | 0,055 |
| K.2              | > 800 N/mm²    | 2,1xModul      | 10             | 0,021 | 0,026 | 0,033 | 0,037 | 0,042 | 0,047 | 0,053 |