

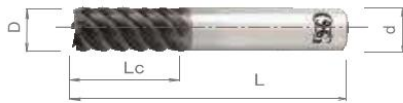


# HY-PRO® CARB

Performance Sub-Micrograin Carbide End Mills

## List HP450

Multiple Flute



|                            |                |              |  |            |                    |
|----------------------------|----------------|--------------|--|------------|--------------------|
| <b>SPEED FEED</b><br>P1241 | <b>CARBIDE</b> | <b>TiAlN</b> |  | <b>50°</b> | <b>SHANK</b><br>h6 |
|----------------------------|----------------|--------------|--|------------|--------------------|

| Milling Diameter Tolerance |               |
|----------------------------|---------------|
| 1/8 ≤ D ≤ 1                | +0 / -0.0015" |

Units: Inch

| EDP Number | Mill Diameter | Overall Length | Length of Cut | Shank Diameter | Number of Flutes |
|------------|---------------|----------------|---------------|----------------|------------------|
| TiAlN      | D             | L              | Lc            | d              |                  |
| HP450-1250 | 1/8           | 1-1/2          | 1/2           | 1/8            | 4                |
| HP450-1875 | 3/16          | 2              | 5/8           | 3/16           | 4                |
| HP450-2500 | 1/4           | 2-1/2          | 3/4           | 1/4            | 6                |
| HP450-3125 | 5/16          | 2-1/2          | 13/16         | 5/16           | 6                |
| HP450-3750 | 3/8           | 2-1/2          | 1             | 3/8            | 6                |
| HP450-4375 | 7/16          | 2-3/4          | 1             | 7/16           | 6                |

| EDP Number | Mill Diameter | Overall Length | Length of Cut | Shank Diameter | Number of Flutes |
|------------|---------------|----------------|---------------|----------------|------------------|
| TiAlN      | D             | L              | Lc            | d              |                  |
| HP450-5000 | 1/2           | 3              | 1             | 1/2            | 6                |
| HP450-5625 | 9/16          | 3-1/2          | 1-1/8         | 9/16           | 6                |
| HP450-6250 | 5/8           | 3-1/2          | 1-1/4         | 5/8            | 6                |
| HP450-7500 | 3/4           | 4              | 1-1/2         | 3/4            | 6                |
| HP450-8750 | 7/8           | 4              | 1-1/2         | 7/8            | 6                |
| HP450-1000 | 1             | 4              | 1-1/2         | 1              | 8                |

Packed: 1 pc.  
Available TiAlN coating only.



## List HP450

Multiple Flute



|                            |                |              |  |            |                    |
|----------------------------|----------------|--------------|--|------------|--------------------|
| <b>SPEED FEED</b><br>P1241 | <b>CARBIDE</b> | <b>TiAlN</b> |  | <b>50°</b> | <b>SHANK</b><br>h6 |
|----------------------------|----------------|--------------|--|------------|--------------------|

| Milling Diameter Tolerance |               |
|----------------------------|---------------|
| 3 ≤ D ≤ 25                 | +0 / -0.038mm |

Units: mm

| EDP Number | Mill Diameter | Overall Length | Length of Cut | Shank Diameter | Number of Flutes |
|------------|---------------|----------------|---------------|----------------|------------------|
| TiAlN      | D             | L              | Lc            | d              |                  |
| HP450-1181 | 3             | 51             | 10            | 6              | 4                |
| HP450-1575 | 4             | 51             | 14            | 6              | 4                |
| HP450-1969 | 5             | 51             | 16            | 6              | 4                |
| HP450-2362 | 6             | 64             | 19            | 6              | 6                |
| HP450-3150 | 8             | 64             | 21            | 8              | 6                |
| HP450-3937 | 10            | 64             | 25            | 10             | 6                |
| HP450-4724 | 12            | 76             | 25            | 12             | 6                |

| EDP Number | Mill Diameter | Overall Length | Length of Cut | Shank Diameter | Number of Flutes |
|------------|---------------|----------------|---------------|----------------|------------------|
| TiAlN      | D             | L              | Lc            | d              |                  |
| HP450-5512 | 14            | 89             | 30            | 14             | 6                |
| HP450-6299 | 16            | 89             | 35            | 16             | 6                |
| HP450-7087 | 18            | 102            | 35            | 18             | 6                |
| HP450-7874 | 20            | 102            | 38            | 20             | 6                |
| HP450-8661 | 22            | 102            | 38            | 22             | 6                |
| HP450-9843 | 25            | 102            | 38            | 25             | 8                |

Packed: 1 pc.  
Available TiAlN coating only.



### OSG's Performance & Savings

Want to turbo-charge performance? Try EXOCARB® WXS® - List 4440 or 4540 (p. 886 or 887)

| List No. | Work Material            |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
|----------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
|          | P                        |                          |                          |                          |                          | M                        |                          |                          | K                        | N                        |                          | S                        |                          | H                        |                          |                          |                          |
|          | Carbon Steels            |                          |                          | Alloy Steels             | Die Steels               | Stainless Steels         |                          |                          | Cast Iron                | Aluminum                 |                          | Nickel Alloy             | Titanium                 | Hardened Steels          |                          |                          |                          |
|          | Low                      | Med.                     | High                     | 4140                     |                          | 300                      | 400                      | 17-4 PH                  |                          |                          | 6061                     | Casting                  | Inconel                  | 6Al4V (30 HRC)           | ~35 HRC                  | 35-45 HRC                | 45-50 HRC                |
|          | 1010                     | 1035                     | 1045                     | 1065                     | 4340                     |                          |                          |                          |                          | 7075                     |                          |                          |                          |                          |                          |                          |                          |
| HP450    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

good  best

