

# Flat Bottom Plunge

**Cutter Series**  
FHU

**Insert Series**  
WN\*U

**Diameters**  
.750" - 1.500"

**Radial Stepover**  
WNMU04 - .15"  
WNMU06 - .23"

**Materials**  
Steel, Iron, Stainless Steel,  
Hi-Temp Alloy, Aluminum



## Flat Bottom Plunge Mills with 6 Positive & Economical Cutting Edges!

### Features & Benefits

- 6 smooth-cutting edges (3+3)
- Geometry produces a Flat Bottom on the piece part
- Multiple corner radii, grades and geometries for all materials
- Ideal for roughing in unstable conditions and light duty machines
- Ideal for relieving corners in a pocket
- Same insert used with end mills and face mills

**PRODUCT  
ANNOUNCEMENT  
• UPDATE •  
2019**



Multi-Purpose



Non-Ferrous



## SERIES FHU (STRAIGHT SHANK) (04 INSERTS)

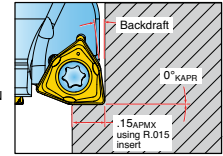
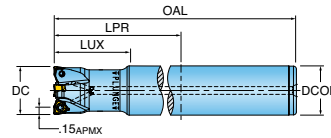
### FLAT BOTTOM PLUNGE ROUGH MILL



Plunging



Coolant



| Part Number    | DC<br>Cutting<br>Dia. | LUX<br>Usable Length<br>Max. | LPR<br>Protruding<br>Length | OAL<br>Overall<br>Length | ZEFF<br>Effective<br>Teeth | DCON<br>Shank<br>Dia. |
|----------------|-----------------------|------------------------------|-----------------------------|--------------------------|----------------------------|-----------------------|
| FHU-07030S7R01 | 0.750                 | 1.50                         | 3.00                        | 5.00                     | 3                          | 0.750                 |
| FHU-10032S1R01 | 1.000                 | 1.50                         | 3.25                        | 5.50                     | 4                          | 1.000                 |

Note: Cutter body can be modified; shorten by cutting off back end or add usable length by turning back neck diameter.

## SERIES FHU (TOP-ON STYLE) (04 INSERTS)

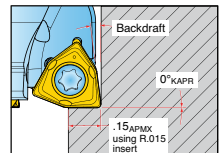
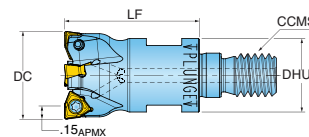
### FLAT BOTTOM PLUNGE ROUGH MILL



Plunging



Coolant

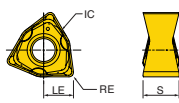


| Part Number    | DC<br>Cutting<br>Dia. | LF<br>Functional<br>Length | ZEFF<br>Effective<br>Teeth | CCMS<br>Connection Code<br>Machine Side | DHUB<br>Hub<br>Dia. |
|----------------|-----------------------|----------------------------|----------------------------|-----------------------------------------|---------------------|
| FHU-07012X6R01 | 0.750                 | 1.25                       | 3                          | TopOn M10                               | 0.69                |
| FHU-10015X7R01 | 1.000                 | 1.50                       | 4                          | TopOn M12                               | 0.81                |

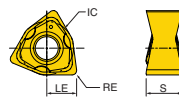
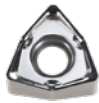


## 04 INSERTS

### WMNU\_N



### WMCU\_FN-P



| Part Number    | Application   | RE/BCH<br>Corner Radius/<br>Chamfer | LE<br>Cutting Edge<br>Length | IC<br>Inscribed<br>Circle Dia. | S<br>Thickness<br>(To Cutting Edge) | NOI<br>Number of<br>Indexes | IH<br>Insert<br>Hand | Grade | IN10K | IN535 | IN2035 | IN2504 | IN2505 | IN2530 | IN4030 |
|----------------|---------------|-------------------------------------|------------------------------|--------------------------------|-------------------------------------|-----------------------------|----------------------|-------|-------|-------|--------|--------|--------|--------|--------|
| WNMU04T304N    | Multi-Purpose | 0.015 R                             | 0.150                        | 0.248                          | 0.157                               | 6                           | Neutral              |       |       | •     | •      | •      | •      | •      | •      |
| WNCU04T304FN-P | Non-Ferrous   | 0.015 R                             | 0.150                        | 0.248                          | 0.157                               | 6                           | Neutral              | •     |       |       |        |        |        |        |        |

## 04 HARDWARE



Insert Screw



Driver



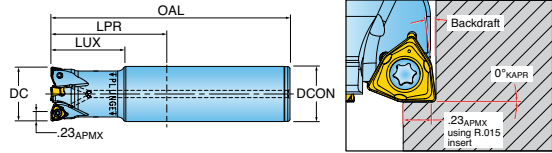
Wrench

|                |             |         |       |
|----------------|-------------|---------|-------|
| FHU-07012X6R01 | SM25-064-00 | DS-T08W | 615MM |
| FHU-07030S7R01 | SM25-064-00 | DS-T08W | -     |
| FHU-10015X7R01 | SM25-064-00 | DS-T08W | 617MM |
| FHU-10032S1R01 | SM25-064-00 | DS-T08W | -     |



## SERIES FHU (STRAIGHT SHANK) (06 INSERTS)

### FLAT BOTTOM PLUNGE ROUGH MILL

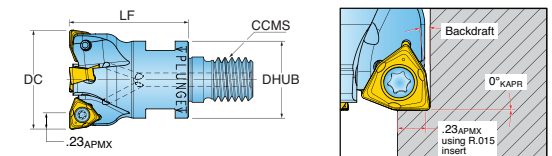


| Part Number    | DC Cutting Dia. | LUX Usable Length Max. | LPR Protruding Length | OAL Overall Length | ZEFF Effective Teeth | DCON Shank Dia. |
|----------------|-----------------|------------------------|-----------------------|--------------------|----------------------|-----------------|
| FHU-12037S9R01 | 1.250           | 2.00                   | 3.75                  | 6.00               | 3                    | 1.250           |
| FHU-15038S5R01 | 1.500           | 2.00                   | 3.84                  | 6.50               | 4                    | 1.500           |

Note: Cutter body can be modified; shorten by cutting off back end or add usable length by turning back neck diameter.

## SERIES FHU (TOP-ON STYLE) (06 INSERTS)

### FLAT BOTTOM PLUNGE ROUGH MILL



| Part Number    | DC Cutting Dia. | LF Functional Length | ZEFF Effective Teeth | CCMS Connection Code Machine Side | DHUB Hub Dia. |
|----------------|-----------------|----------------------|----------------------|-----------------------------------|---------------|
| FHU-12017X8R01 | 1.250           | 1.75                 | 3                    | TopOn M16                         | 1.13          |
| FHU-15017X8R01 | 1.500           | 1.75                 | 4                    | TopOn M16                         | 1.13          |



## 06 INSERTS

| WMNU_N                                                                            |               |                                     | WMCU_FN-P                                                                         |                                |                                     |                             |                      |       |       |        |        |        |        |        |
|-----------------------------------------------------------------------------------|---------------|-------------------------------------|-----------------------------------------------------------------------------------|--------------------------------|-------------------------------------|-----------------------------|----------------------|-------|-------|--------|--------|--------|--------|--------|
|  |               |                                     |  |                                |                                     |                             |                      |       |       |        |        |        |        |        |
| Part Number                                                                       | Application   | RE/BCH<br>Corner Radius/<br>Chamfer | LE<br>Cutting Edge<br>Length                                                      | IC<br>Inscribed<br>Circle Dia. | S<br>Thickness<br>(To Cutting Edge) | NOI<br>Number of<br>Indexes | IH<br>Insert<br>Hand | Grade | IN10K | IN6335 | IN2035 | IN2504 | IN2505 | IN2530 |
| WNMU060604N                                                                       | Multi-Purpose | 0.015 R                             | 0.230                                                                             | 0.370                          | 0.254                               | 6                           | Neutral              |       |       | •      | •      | •      | •      | •      |
| WNMU060608N                                                                       | Multi-Purpose | 0.031 R                             | 0.230                                                                             | 0.370                          | 0.244                               | 6                           | Neutral              |       |       | •      | •      | •      | •      | •      |
| WNCU060608FN-P                                                                    | Non-Ferrous   | 0.031 R                             | 0.230                                                                             | 0.370                          | 0.249                               | 6                           | Neutral              | •     |       |        |        |        |        |        |

## 06 HARDWARE

|  |              |  |  |  |  |
|-----------------------------------------------------------------------------------|--------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--|
|                                                                                   | Insert Screw | Driver Handle                                                                     | Driver Blade                                                                      | Wrench                                                                            |  |
| FHU-12017X8R01                                                                    | SM35-088-60  | DS-A00T                                                                           | DS-T106B                                                                          | 622MM                                                                             |  |
| FHU-12037S9R01                                                                    | SM35-088-60  | DS-A00T                                                                           | DS-T106B                                                                          | -                                                                                 |  |
| FHU-15017X8R01                                                                    | SM35-088-60  | DS-A00T                                                                           | DS-T106B                                                                          | 622MM                                                                             |  |
| FHU-15038S5R01                                                                    | SM35-088-60  | DS-A00T                                                                           | DS-T106B                                                                          | -                                                                                 |  |

## OPERATING GUIDELINES

| DiPos Hexa - Series FHU |                                                     |                      |             |                 | IN10K | IN6335<br>IN2035 | IN2504 | IN2505 | IN2530                                   |         |
|-------------------------|-----------------------------------------------------|----------------------|-------------|-----------------|-------|------------------|--------|--------|------------------------------------------|---------|
| Material                |                                                     | Brinnell<br>Hardness | SFM         | Feed per Insert |       |                  |        |        |                                          | Coolant |
| Aluminum                | 7075-T6, 6061-T6, 2024                              | -                    | 1500 – 5000 | .003 – .008     | 1     |                  |        |        |                                          | Yes     |
| Cast Iron               | Gray                                                | 150-250              | 300 – 1000  | .003 – .008     |       |                  | 1      | 2      |                                          | No      |
|                         | Nodular                                             |                      | 300 – 600   |                 |       |                  |        |        |                                          |         |
| Steel                   | Low Carbon 1018, 8620                               | 150 – 250            | 400 – 1000  | .003 – .008     |       |                  | 3      | 2      | 1                                        | No      |
|                         | High Carbon F-6180, Nitralloy 52100                 | 250 – 400            | 350 – 500   | .003 – .007     |       |                  |        |        |                                          |         |
|                         | Alloyed Steel 4140, 4340, 6150                      | 150 – 300            | 300 – 700   | .003 – .008     |       |                  |        |        |                                          |         |
|                         | Tool Steel A-6, D-1, D-2, P20                       | Up to 300            |             |                 |       |                  |        |        |                                          |         |
| Stainless<br>Steel      | 300 Series, 304, 316                                | -                    | 300 – 550   | .003 – .008     | 1     |                  | 3      | 2      | May not be<br>required at<br>high speeds |         |
|                         | 400 Series 15-5PH, 17-4 PH                          | Up to 320            | 350 – 600   |                 |       |                  |        |        |                                          |         |
|                         | 13-8PH                                              | -                    | 200 – 400   |                 |       |                  |        |        |                                          | Yes     |
| Nickel Alloys           | Inconel 600, 706, 718, 903,<br>Hastelloy, Waspalloy | -                    | 75 – 120    | .003 – .006     |       | 1                |        | 2      | 3                                        | Yes     |
| Titanium                | 6AL-4V                                              | -                    | 100 – 150   | .003 – .006     |       | 1                |        | 3      | 2                                        | Yes     |
| Hard Steel              | All                                                 | 375-650              | 150 – 350   | .003 – .005     |       |                  | 1      | 2      |                                          | No      |