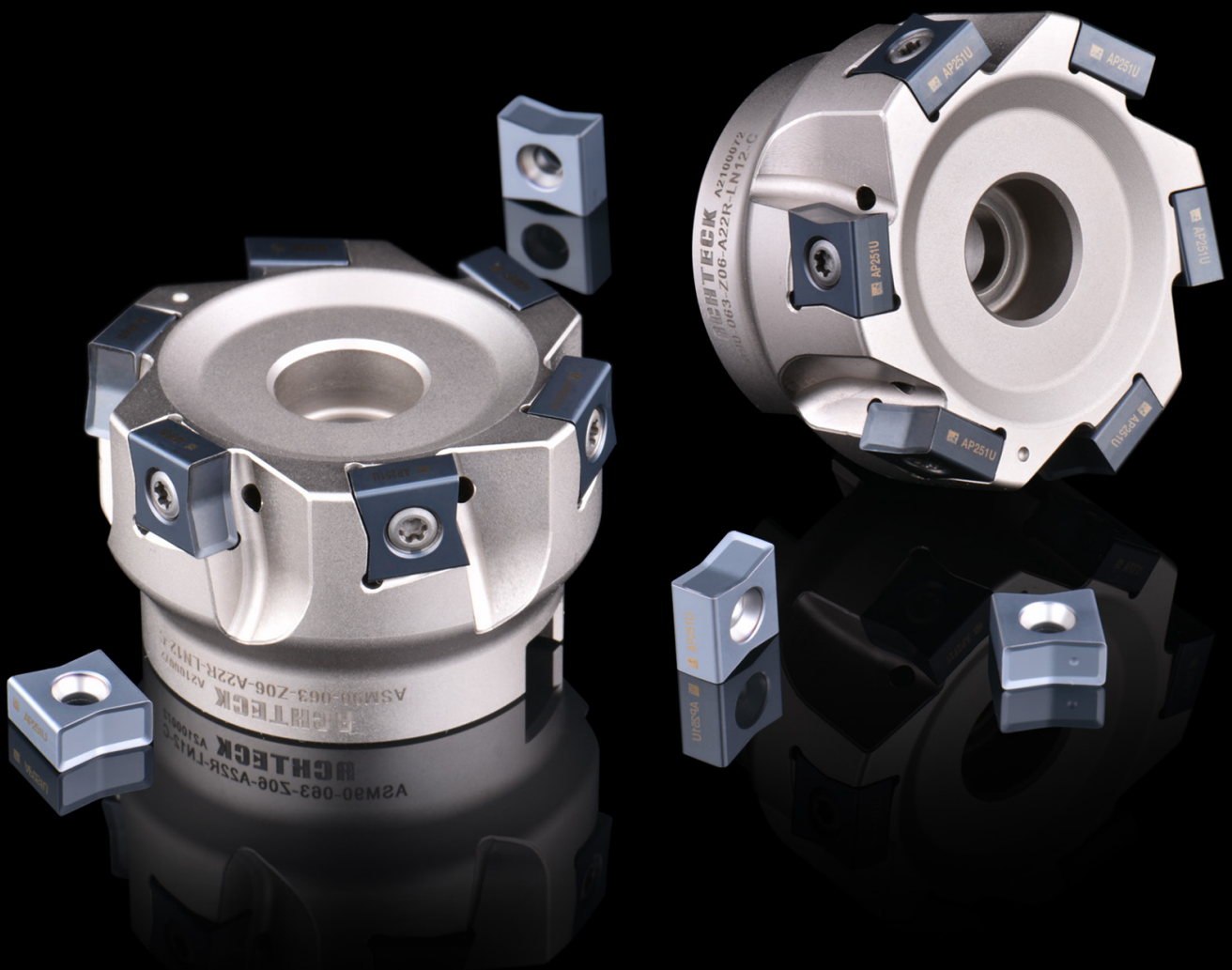


ASM90-LN12

Shoulder Milling Tools

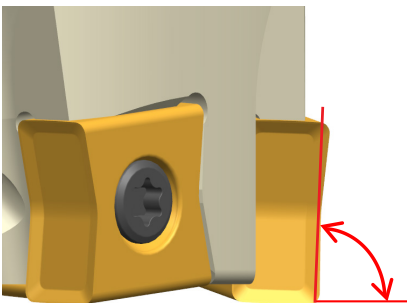
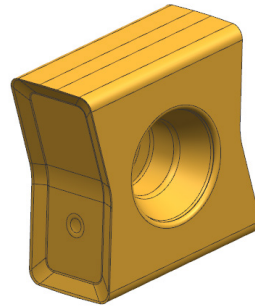


Product introduction

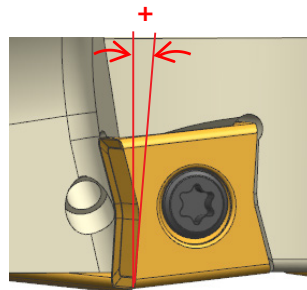
Achteck advances a brand new shoulder milling cutter---ASM90-LN12, which has four left and four right hand cutting edges. The $\varnothing 63$ - $\varnothing 200$ cutters, both left and both left and right hand tool body, are available in the stock, which further enriches the choice of shoulder milling products. The inserts are peripheral ground, and can be used in steel, stainless steel, cast iron and other materials roughing and finishing milling.

Insert features

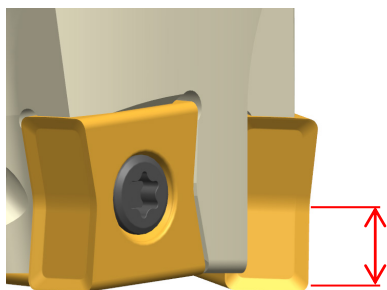
- Negative tangential insert
- Left and right hand, total eight cutting edges
- Cutting edge with a short wiper design
- E class peripheral ground insert
- MM4 geometry
- Insert grade: AP251U, AP403M, AP251K, AC151K



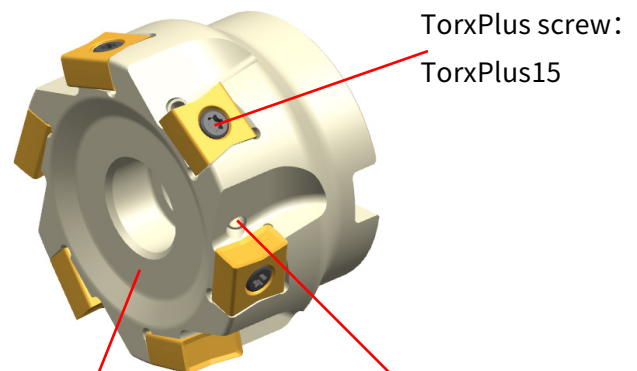
Approach angle: 89°



Positive rake on axial direction



Ap max: 5mm



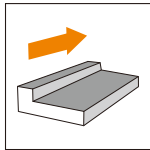
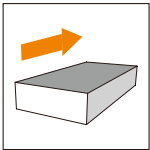
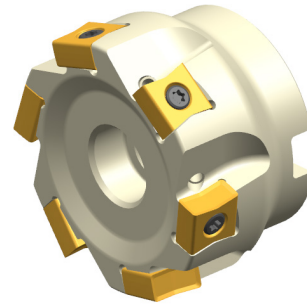
TorxPlus screw:
TorxPlus15

Nickel plating treatment
on cutter surface

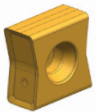

Accurate coolant
hole design

• Cutter features

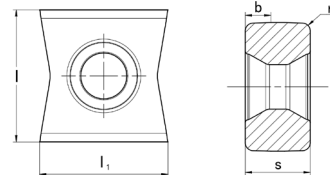
- Cutter diameter range (Dc): $\phi 63$ - $\phi 250$ mm
- With close and coarse pitch cutter design
- Suitable for steel, stainless steel and cast iron roughing and finishing milling
- Cutter coupling type: Shell mill arbor
- Application range: Shoulder milling and face milling
- $\phi 63$ - $\phi 160$ mm cutters, both left and right hand tool body are available in the stock
 $\phi 200$ - $\phi 250$ mm cutters are non-stocked standard



• Insert geometry introduction

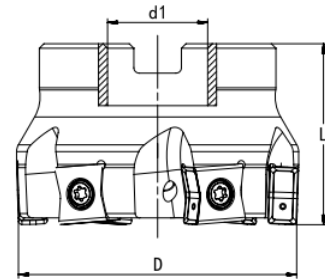
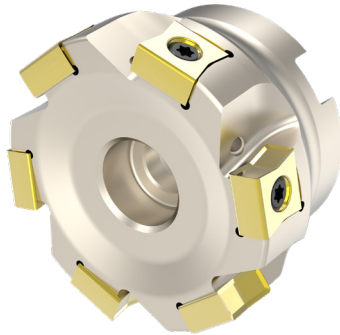
| Insert | Geometry | Edge shape | Applications |
|---|----------|---|--|
|  | MM4 |  | <ul style="list-style-type: none"> • Used for medium machining conditions • First choice for general machining |

• Insert



| Product code | Dimension (mm) | | | | | Grade | | | | | | |
|---------------|----------------|----------------|------|-----|-----|--------|--------|--------|--------|--------|--------|--------|
| | l | l ₁ | s | r | b | AP251U | AP351U | AC301P | AP403M | AC151K | AP251K | AW100K |
| LNET 1206-MM4 | 12.7 | 12.3 | 6.35 | 0.8 | 2.5 | ● | | | ● | ● | ● | |

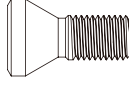
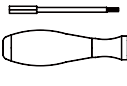
Marked: ● Stocked

● Cutter


| Product code | D | d1 | L | apmax | Coolant | Z | Stock | Insert |
|---------------------------|-----|----|----|-------|---------|----|-------|---------------|
| ASM90-063-Z06-A22R-LN12-C | 63 | 22 | 40 | 5 | | 6 | ● | LNET 1206-MM4 |
| ASM90-063-Z08-A22R-LN12 | 63 | 22 | 40 | 5 | | 8 | ● | |
| ASM90-080-Z08-A27R-LN12-C | 80 | 27 | 50 | 5 | | 8 | ● | |
| ASM90-080-Z10-A27R-LN12 | 80 | 27 | 50 | 5 | | 10 | ● | |
| ASM90-100-Z09-A32R-LN12 | 100 | 32 | 50 | 5 | | 9 | ● | |
| ASM90-100-Z13-A32R-LN12 | 100 | 32 | 50 | 5 | | 13 | ● | |
| ASM90-125-Z10-A40R-LN12 | 125 | 40 | 63 | 5 | | 10 | ● | |
| ASM90-125-Z16-A40R-LN12 | 125 | 40 | 63 | 5 | | 16 | ● | |
| ASM90-160-Z13-A40R-LN12 | 160 | 40 | 63 | 5 | | 13 | ● | |
| ASM90-160-Z21-A40R-LN12 | 160 | 40 | 63 | 5 | | 21 | ● | |
| ASM90-200-Z16-A60R-LN12 | 200 | 60 | 63 | 5 | | 16 | ○ | |
| ASM90-200-Z26-A60R-LN12 | 200 | 60 | 63 | 5 | | 26 | ○ | |
| ASM90-250-Z20-A60R-LN12 | 250 | 60 | 63 | 5 | | 20 | ○ | |
| ASM90-250-Z32-A60R-LN12 | 250 | 60 | 63 | 5 | | 32 | ○ | |
| ASM90-063-Z06-A22L-LN12-C | 63 | 22 | 40 | 5 | | 6 | ● | |
| ASM90-063-Z08-A22L-LN12 | 63 | 22 | 40 | 5 | | 8 | ● | |
| ASM90-080-Z08-A27L-LN12-C | 80 | 27 | 50 | 5 | | 8 | ● | |
| ASM90-080-Z10-A27L-LN12 | 80 | 27 | 50 | 5 | | 10 | ● | |
| ASM90-100-Z09-A32L-LN12 | 100 | 32 | 50 | 5 | | 9 | ● | |
| ASM90-100-Z13-A32L-LN12 | 100 | 32 | 50 | 5 | | 13 | ● | |
| ASM90-125-Z10-A40L-LN12 | 125 | 40 | 63 | 5 | | 10 | ● | |
| ASM90-125-Z16-A40L-LN12 | 125 | 40 | 63 | 5 | | 16 | ● | |
| ASM90-160-Z13-A40L-LN12 | 160 | 40 | 63 | 5 | | 13 | ● | |
| ASM90-160-Z21-A40L-LN12 | 160 | 40 | 63 | 5 | | 21 | ● | |
| ASM90-200-Z16-A60L-LN12 | 200 | 60 | 63 | 5 | | 16 | ○ | |
| ASM90-200-Z26-A60L-LN12 | 200 | 60 | 63 | 5 | | 26 | ○ | |
| ASM90-250-Z20-A60L-LN12 | 250 | 60 | 63 | 5 | | 20 | ○ | |
| ASM90-250-Z32-A60L-LN12 | 250 | 60 | 63 | 5 | | 32 | ○ | |

 Marked: ● Stocked
 ○ Non-stocked

• Spare parts

| Cutter diameter Dc (mm) | Spare parts | | |
|-------------------------|---|---|--------|
| | Screw | Wrench | Torque |
| Ø63-Ø250 |  |  | 3.5Nm |
| | SP040112 | DT-TP15 | |

• Case study

Workpiece: Engine block

Material: GG25

Cutter: ASM90-080-Z10-A27R-LN12

Insert: LNET 1206-MM4

Insert Grade: AP251K

Operation: Finish milling side face



| Cutting parameter | Existing | Achteck |
|-------------------|----------|----------|
| Vc [m/min] | 165 | 165 |
| fz [mm] | 0.08 | 0.08 |
| ap [mm] | 0.5 | 0.5 |
| Coolant | Emulsion | Emulsion |

