



# A BRAND AT-2 R-SPEC

High-Efficiency Thread Mill with End-Cutting Edge

**Super High Efficiency Threading**

## PRIMARY TARGETS

- Customers threading Aluminum material.
- Customers threading into Cast hole.
- Customers looking for thread processing efficiency.

## SOLUTIONS

- Threading time can be dramatically reduced.
- Useful for preventing shifting of cutting position in cast hole.
- Possible to thread with air blow.

## WHAT OUR CUSTOMERS SEE

- Achieves drilling and threading by continuous helical with single tool.
- ***Fastest threading process in the world!***

## HOW DOES IT WORK?

### End cutting geometry with roughing teeth

- Helical drilling while rough cutting the thread form suppress bending of the tool with load.

### Left hand cutting

- Tool specification enables climb cutting which prolong tool life.

### DLC-IGUSS coating

- Prevent welding achieves long tool life also semi dry cutting.



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# A Brand AT-2 R-SPEC

## High-Efficiency Thread Mill with End-Cutting Edge

### A Brand AT-2 R-SPEC

The OSG A Brand AT-2 R-SPEC high-efficiency thread mill is engineered to dramatically reduce machining time in non-ferrous metal applications such as aluminum alloy by its continuous helical cutting ability, which combines drilling and threading into a single process. The AT-2 R-SPEC is also effective as a countermeasure against cutting position misalignment in cast holes.



### Features & Benefits

- **Left-Hand Cut Configuration** for climb milling.
- **End Cutting Edge** for simultaneous helical drilling and threading.
- **Special Cutting Edge Shape** so bending of the tool can be controlled.
- **2-Flute** provides wide chip room.
- **Roughing Teeth (2 Ridges)** provides higher efficiency by load distribution.

### List Numbers

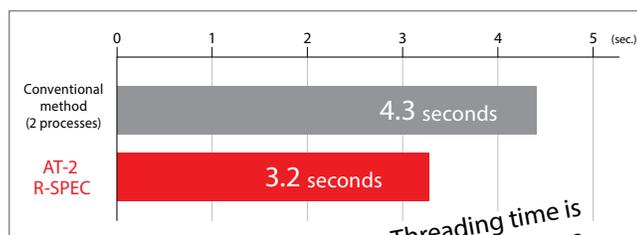
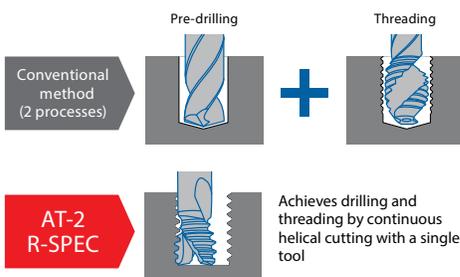
16647 - A Brand AT-2 R-SPEC (Inch)  
16642 - A Brand AT-2 R-SPEC (Metric)

### Size Range

#4-1/2"  
M3-M12

### Threading Time Dramatically Reduced

#### Time Comparison with Conventional Method

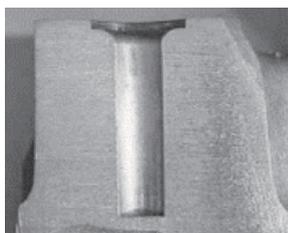


M6x1 Threading length 10mm ADC12 material  
**Conventional drill** : Vc=126m/min, f=0.6mm/rev  
**Tap** : Vc=94m/min (ATC: 1 time)  
**AT-2 R-SPEC** : Vc=220m/min, f=1.2mm/rev

Threading time is reduced by more than **25%**!

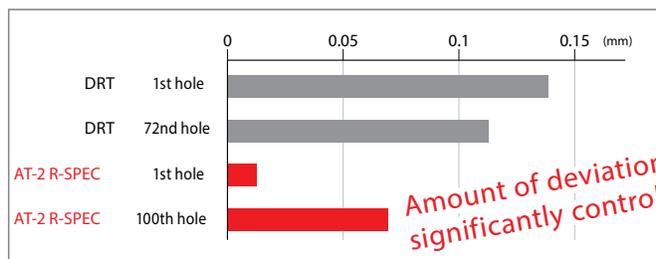
### Prevent Shifting of Cutting Position in Cast Hole

#### Comparison of Hole Position Accuracy with Drill Tap (DRT)



Rough position settings and inclined nature of cast holes can cause position shifting in following processes...

#### Comparison of hole position accuracy with drill tap (DRT)



M8x1.25 Depth 18mm AC material  
 Cutting test by shifting the axial center of Ø4.3 pilot hole by 0.7 mm  
**Drill tap** : Vc=100m/min, f=1.25mm/rev  
**AT-2 R-SPEC** : Vc=220m/min, f=1.2mm/rev

Amount of deviation is significantly controlled!

For more information use your phone to scan the QR code to the right and visit: [osgtool.com/at-2-r-spec](http://osgtool.com/at-2-r-spec)

