

# Sandvik Alpha<sup>®</sup> 340 asymmetric drilling tools for mining and tunneling



# A revolution in top hammer drilling

The new Sandvik Alpha® asymmetric drilling tools are the latest innovation in Top Hammer drilling for mine development and tunneling. Inspired by the force of evolution and powered for a successful drilling operation.

## The power of innovation

Innovating for tomorrow is in our DNA. The power and durability of the evolution are a source of inspiration for the asymmetric thread in the new Sandvik Alpha® 340. We call it a (r)evolution and the future of mine development and tunneling.

”When we develop new drilling tools, our aim is always to reduce the stress levels in the product since lower stress levels equal longer fatigue life. We were thrilled to learn that our field test results were an instant success.”

John Hammargren  
Senior Engineer, Top Hammer Tools



# Sandvik Alpha® asymmetric drilling tools thread

Compared with the Sandvik Alpha® 330, the Sandvik Alpha® 340 asymmetric drilling tools provide a more robust design, ready for even more demanding challenges.

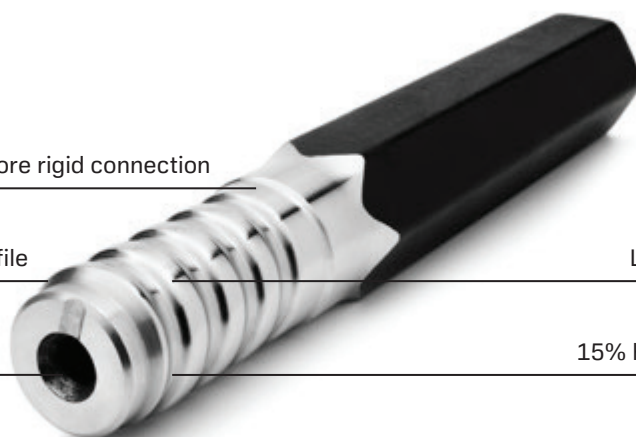
Greater guide diameter for a more rigid connection

Strong, asymmetric thread profile

Bigger flushing hole

Larger thread diameter

15% higher fatigue strength



# 50%

The new Sandvik Alpha® asymmetric drilling tools have a rod life that lasts up to 50% longer than the industry standard R32.

# Made to last long and drill straight

The short, robust asymmetric thread design and strong guide create rigidity and accurate hole drilling. This also increases the product's service life and lowers the cost per meter.

Our innovative PowerCarbide® grades enable our buttons to retain their shape as long as possible. This ensures longer grinding intervals, fewer bit changes, and improved safety.

High-precision collaring in complex rock formations and against uneven surfaces.

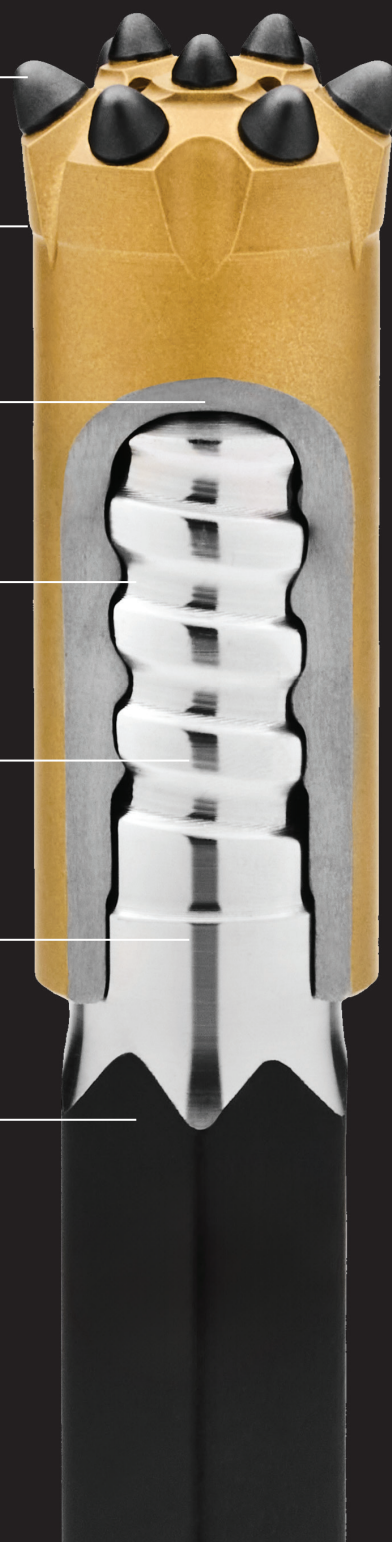
Improved flushing for higher drill speed and reduced risk of jamming.

Strong, asymmetric thread profile with a stronger geometry which reduce stress levels in the contact flank of the thread.

Uncoupling drill bits has never been easier. This removes a source of frustration, and reduce tensile stresses in the drill string.

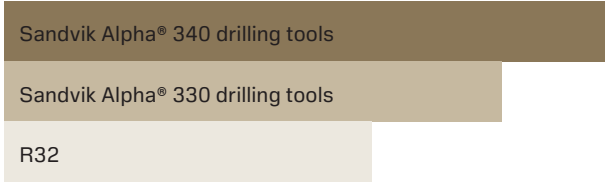
Drilling accuracy is crucial to ensure the desired direction and profile in the tunnel. Straight holes mean higher rate of advance and reduced overbreak.

Lower costper meter, higher ROP, less overbreak, and prolonged product life for increased profit and higher productivity.

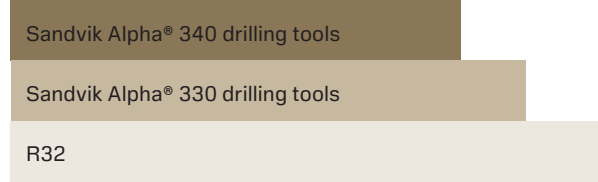


# Proved efficiency with the new Sandvik Alpha® asymmetric drilling tools

## Rod life



## Cost per meter



## PowerCarbide® for optimized drilling

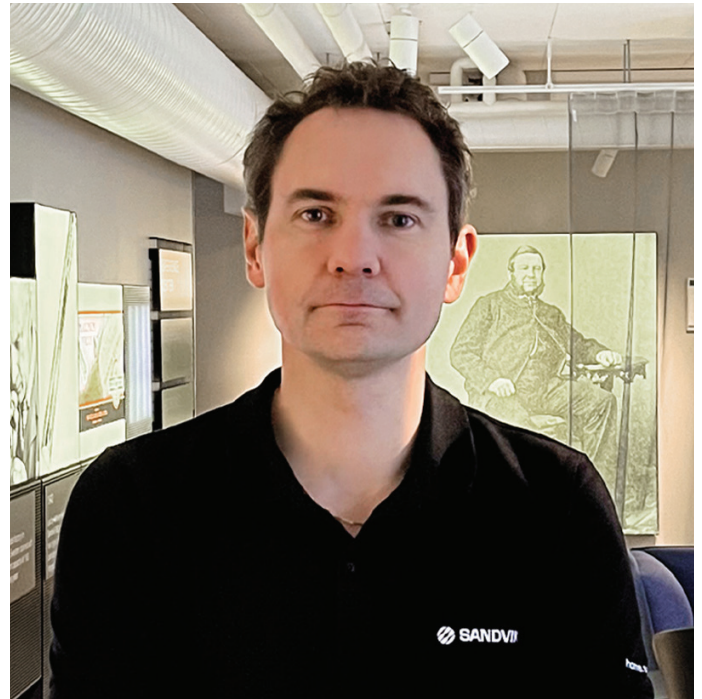
PowerCarbide® is our most advanced materials technology and can optimize any drilling application. In the Sandvik Alpha® asymmetric drilling tools, we use three types of PowerCarbide® – SH70, GC81, and XT49.

SH70 is a "self-hardening" grade that become more wear-resistant and tougher as drilling progresses.

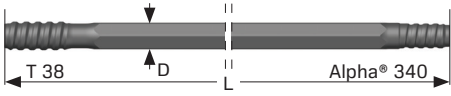
The GC81 carbide has a hardness gradient grade with high wear-resistant on the outside, while the center provides the needed toughness.

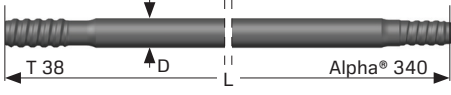
"Our customers liked the old Sandvik Alpha® 330 drilling tools and didn't see any reason to change them. That was until they tried the new Sandvik Alpha® 340 asymmetric drilling tools... The results coming back from our users are astonishing."

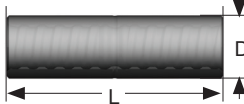
Robert Grandin  
Product Manager, Top Hammer Tools

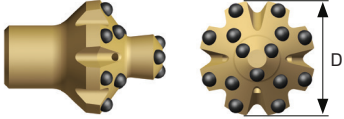






| Rods   | Dimensions |     |        |    |        | Part number  |
|--|------------|-----|--------|----|--------|--------------|
|  | L          |     |        | D  |        |              |
|  | mm         | ft  | in     | mm | in     |              |
| Drifter rod, T38 – Hex 35 – Alpha® 340<br><br>Flushing hole Ø 11.0 mm. | 2475       | 8'  | 1 1/2" | 35 | 1 3/8" | 7324-8024-20 |
|  | 3090       | 10' | 1 1/2" | 35 | 1 3/8" | 7324-8031-20 |
|  | 3700       | 12' | 1 1/2" | 35 | 1 3/8" | 7324-8037-20 |
|  | 4305       | 14' | 1 1/2" | 35 | 1 3/8" | 7324-8043-20 |
|  | 4915       | 16' | 1 1/2" | 35 | 1 3/8" | 7324-8049-20 |
|  | 5525       | 18' | 1 1/2" | 35 | 1 3/8" | 7324-8055-20 |

|  |      |    |        |    |        |              |
|--|------|----|--------|----|--------|--------------|
| Drifter rod, T38 – Round 39 – Alpha® 340<br><br>Flushing hole Ø 12.3 mm. | 4915 | 16 | 1 1/2" | 39 | 1 1/2" | 7324-7949-20 |
|  | 5525 | 18 | 1 1/2" | 39 | 1 1/2" | 7324-7955-20 |
|  | 6135 | 20 | 1 1/2" | 39 | 1 1/2" | 7324-7961-20 |
|  | 6440 | 21 | 1 1/2" | 39 | 1 1/2" | 7324-7964-20 |

| Coupling sleeves   | Thread         | Dimensions |    |        |    |    | Part number |
|--|----------------|------------|----|--------|----|----|-------------|
|  |                | L          |    |        | D  |    |             |
|  |                | mm         | ft | in     | mm | in |             |
| Coupling sleeve, T38, Alpha® 340<br> | T38-T38        | 191        | -  | 7 1/2" | 52 | 2" | 7314-3652   |
|  | T38-Alpha® 340 | 188        | -  | 7 3/8" | 52 | 2" | 7314-8052   |

| Reaming bit   | Flushing hole, mm | Buttons, mm |          | Angle | Diameter D |          | Part number |                |
|---|-------------------|-------------|----------|-------|------------|----------|-------------|----------------|
|   |                   | Front No    | Gauge No |       | Front No   | Gauge No |             |                |
|   |                   | Size        | No size  |       | Size       | size     |             |                |
| Reaming tools for cut holes / Reaming bit, Alpha® 340<br> | 3×7               | 1×7         | 3×13     | 12×13 | 35°        | 102      | 4"          | 7580-5602P-S70 |
|   | 3×7               | 1×7         | 3×13     | 16×13 | 35°        | 127      | 5"          | 7580-5627P-S70 |

| Pilot adapter 12° taper  | Thread     | Dimensions |    |     |    |          | Part number |
|--|------------|------------|----|-----|----|----------|-------------|
|  |            | L          |    |     | D  |          |             |
|  |            | mm         | ft | in  | mm | in       |             |
| Reaming tools for cut holes / Pilot adapter, 12° taper<br> | Alpha® 340 | 278        | -  | 11" | 40 | 1 37/64" | 7821-8040   |

| Reaming bit 12° taper  | Buttons, mm | Angle | Diameter D |          | Part number |               |
|--|-------------|-------|------------|----------|-------------|---------------|
|  |             |       | Front No   | Gauge No |             |               |
|  |             |       | Size       | size     |             |               |
| Reaming tools for cut holes / Reaming bit, 12° taper<br> | 4×10        | 8×12  | 35°        | 89       | 3 1/2"      | 7721-4889-S48 |
|  | 4×13        | 8×13  | 35°        | 102      | 4"          | 7721-4802-S48 |
|  | 8×13        | 8×13  | 35°        | 127      | 5"          | 7721-4827-S48 |

