

### Sandvik Alpha® 340 asymmetric drilling tools for mining and tunneling



# A revolution in top hammer drilling

The new Sandvik Alpha<sup>®</sup> 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<sup>®</sup> 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."



## Sandvik Alpha® asymmetric drilling tools thread

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



# 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<sup>®</sup> 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									
	Sandvik Alpha® 340 drilling tools								
	Sandvik Alpha® 330 drilling tools								
	R32								

#### Cost per meter

Sandvik Alpha® 340 drilling tools

Sandvik Alpha® 330 drilling tools

R32

#### PowerCarbide<sup>®</sup> for optimized drilling

PowerCarbide<sup>®</sup> is our most advanced materials technology and can optimize any drilling application. In the Sandvik Alpha<sup>®</sup> asymmetric drilling tools, we use three types of PowerCarbide<sup>®</sup> – 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."



#### Technical specifications Sandvik Alpha® 340 bit thread

	Flushing	hole, mm	Buttons, mm		Angle		Diame D	ter	Bit classification	Part number
Bits	Front No Size	Gauge No Size	Front No Size	Gauge No Size	Front		mm	in		
Speedy bit, type 60										
	3×4,5	-	3×8	6×9	10°	35°	43	1 11/16"	D	7580-6043-F49
	3×5	_	3×8	6×10	10°	35°	45	1 3/4"	Ð	7580-6043-F49
	3×5	-	3×9	6×10	10°	35°	48	1 7/8"	D	7580-6048-F49
	3×6	-	3×9	6×10	10°	40°	51	2"	٥	7580-6051-F49
Top center bit, type 51										
	2×5	1×5	2×9	7×10	10°	30°	43	1 11/16"	•	7580-5143A-S81
	2×6	1×6	2×9	7×10	10°	30°	45	1 3/4"	•	7580-5145A-S70
	2×6	1×6	2×9	7×10	10°	30°	45	1 3/4"	•	7580-5145A-S81
	3×5	1×5	3×9	8×10	10°	30°	48	1 7/8"	٠	7580-5148A-S81
Button bit, type 52										
	1×5	2×6	2×9	5×10	0°	35°	43	1 11/16"	•	7580-5243A-S70
	1×5	2×6	2×9	5×11	0°	30°	45	1 3/4"	•	7580-5245A-S70
	1×6	2×7.5	2×9	5×11	0°	35°	48	1 7/8"	•	7580-5248A-S70
Button bit, type 43/53/16										
	3×4	1×4	3×8	6×10	10°	35°	43	1 11/16"	•	7580-4343A-R70
	3×4.5	1×4.5	3×8	6×10	0°	30°	45	1 3/4"	•	7580-5345A-R48
	3×4.5	1×4.5	3×8	6×10	0°	25°	45	1 3/4"	Ð	7580-5345A-S48
	3×4.5	1×4.5	3×8	6×10	5°	30°	45	1 3/4"	•	7580-4345A-S70
	3×4.5	1×4.5	3×8	6×10	5°	30°	45	1 3/4"	•	7580-4345A-S81
	3×5	1×5	3×9	6×10	5°	35°	48	1 7/8"	Ð	7580-4348A-R48
	3×5	1×5	3×9	6×10	5°	35°	48	1 7/8"	•	7580-4348A-S70
	3×6	1×6	3×9	6×11	10°	35°	51	2"	•	7580-4351A-S70
	3×7	-	3×11	6×12	0°	30°	64	2 1/2"	٢	7580-1664-S70
Button bit, type 54										
	2×6	1×6	9	9	0°	35°	44*	1 47/64"	0	7580-54440A-S48
* No oversize on bit diameter										
Button bit, type 18										
	4×7	-	5×11	8×12	0°	35°	76	3"	•	7580-1876-S70
Button bit, Retrac										
	3×6	1×6	3×9	6×10	0°	35°	51	2"	Đ	7580-4651A-S70

		Dimensions					Part number
		L			D		
Rods		mm	ft	in	mm	in	
Drifter rod, T38 – Hex 35 – Alpha® 340							
		2475	8'	1 1/2"	35	1 3/8"	7324-8024-20
Hex D-35		3090	10'	1 1/2"	35	1 3/8"	7324-8031-20
		3700	12'	1 1/2"	35	1 3/8"	7324-8037-20
T 38 D H Alpha® 340		4305	14'	1 1/2"	35	1 3/8"	7324-8043-20
L	-	4915	16'	1 1/2"	35	1 3/8"	7324-8049-20
Flushing hole Ø 11.0 mm.		5525	18'	1 1/2"	35	1 3/8"	7324-8055-20
Drifter rod, T38 – Round 39 – Alpha® 340							
		4915	16	1 1/2"	39	1 1/2"	7324-7949-20
¥ II	1	5525	18	1 1/2"	39	1 1/2"	7324-7955-20
		6135	20	1 1/2"	39	1 1/2"	7324-7961-20
<u>− T 38</u>		6440	21	1 1/2"	39	1 1/2"	7324-7964-20
Flushing hole Ø 12.3 mm.							
Coupling sleeves Th	nread	Dimensions					Part number
		L			D		
		mm	ft	in	mm	in	
Coupling sleeve, T38, Alpha® 340							
¥	38-T38	191	-	7 1/2"	52	2"	7314-3652
D T	38-Alpha® 340	188	-	7 3/8"	52	2"	7314-8052
<l> ▲</l>							
Reaming bit Flushing mm		g hole,	Buttons, mm		Angle	Diameter D	Part number
	Front No	Gauge Size No size	Front No Size	Gauge No size		mm in	
Reaming tools for cut holes / Reaming bit, Alpha® 3	340						
	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	Dimension	IS				Part number
		L			D		
		mm	ft	in	mm	in	
Reaming tools for cut holes / Pilot adapter, 12° tap	er						
	_Alpha® 34	.0 278	_	11"	40	1 37/64"	7821-8040
Reaming bit 12° taper		Buttons, mm		Angle	Diameto D	er	Part number
		Front No	Gauge No				

Reaming tools for cut holes / Reaming bit, 12° taper



mm			D		
Front No Gauge No Size size			mm	in	
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

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