



ALESA AG

Schulstrasse 11
CH-5707 Seengen



ALESA DELTA

Less vibration even with longer tools



The new DELTA indexable inserts have six ground cutting edges and are mounted tangentially on the milling body. Various features of "Twist" have been taken over, including the 20° positive helix angle and the completely ground surfaces and angles. This high positive cutting approach not only means small cutting forces but also allows higher productivity on modern machining centres. The high helix angle in combination with the small cutting forces has a positive effect on the spindle load. Depending on the material, the workpiece is also less affected by work hardening and deformations due to strain. The tangential arrangement of the inserts produces maximum stiffness in the milling body thanks to stronger cross sections.

The large support surface in the insert seat allows good heat transfer and thermal stability, even in dry cutting. It has been demonstrated in practice that a good compromise between hardness (wear resistance), toughness (edge stability) and high-temperature strength is achieved. Combined with the proven AlCrN-VA coating, the high positive-ground cutting edges offer a very long tool life and high process safety.

Features

- Six ground cutting edges
- Mounted tangentially on the milling body
- Completely ground surfaces and angles
- Maximum stiffness
- Good heat transfer

Advantages

- Higher productivity by six ground cutting edges
- The high helix angle in combination with the small cutting forces has a positive effect on the spindle load
- Less vibration even with longer tools





ALESA DELTA Milling tools

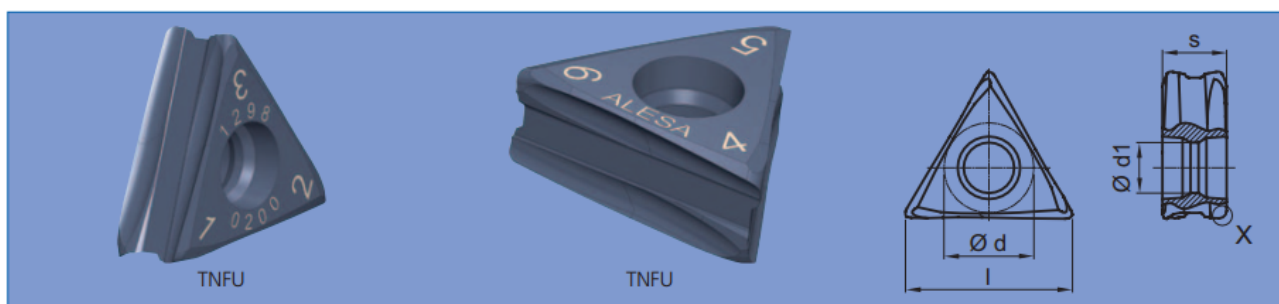
TN 11 / 18 R 90° / Ø 25 – 83



Part No	Type	D mm	I2 mm	d2 mm	G	I1 mm				Accessories kit No	WSP
1306.0382	25-TN 11 R	25	38	20.0		90	✓	4	r	1494.0630	TNFU 11 S4
1308.0382	25-TN 11 R	25	35	12.5	M12	55	✓	4	r	1494.0630	TNFU 11 S4
1306.0422	32-TN 11 R	32	38	25.0		96	✓	5	r	1494.0635	TNFU 11 S4
1308.0422	32-TN 11 R	32	42	17.0	M16	64	✓	5	r	1494.0635	TNFU 11 S4



Part No	Type	D mm	H mm	d1 mm	d2 mm	I1 mm	ap mm				Accessories kit No	WSP
1303.0463	43-TN 11 R	43	32	16.0	8.5	18	8	✓	6	r	1494.0640	TNFU 11 S4
1304.0463	43-TN 18 R	43	32	16.0	8.5	18	13	✓	4	r	1494.0800	TNFU 18 07
1304.0483	53-TN 18 R	53	40	22.0	11	20	13	✓	6	r	1494.0801	TNFU 18 07
1304.0503	66-TN 18 R	66	40	22.0	11	20	13	✓	7	r	1494.0802	TNFU 18 07
1304.0523	83-TN 18 R	83	50	27.0	14	22	13	✓	9	r	1494.0803	TNFU 18 07



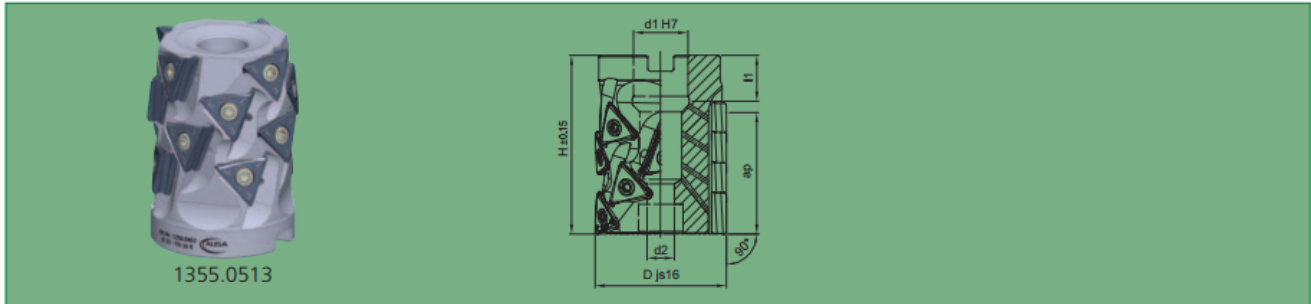
Cutting material	Coating	Part No	ISO Code	l mm	s mm	d mm	d1 mm	Detail X			Mat. classification					
											1	2	3	4	5	6
Carbide CTS	AlCrN-VA	1297.0200	TNFU 11 S4 04 FR-321	11.2	4.2	6	3.4	R 0.4	●	○	●	●	○	●	○	
		1297.0650	TNFU 11 S4 PF FR-321	11.2	4.2	6	3.4	0.2x45°	●	○	●	●	○	●	○	
		1298.0200	TNFU 18 07 08 FR-321	18.3	7	9.8	5.5	R 0.8	●	○	●	●	○	●	○	
	DLC-H	1298.0650	TNFU 18 07 PF FR-321	18.3	7	9.8	5.5	0.2x45°	●	○	●	●	○	●	○	
		1297.0201	TNFU 11 S4 04 FR-321	11.2	4.2	6	3.4	R 0.4	○	●		○	●		●	
		1297.0651	TNFU 11 S4 PF FR-321	11.2	4.2	6	3.4	0.2x45°	○	●		○	●		●	
		1298.0201	TNFU 18 07 08 FR-321	18.3	7	9.8	5.5	R 0.8	○	●		○	●		●	
1298.0651	TNFU 18 07 PF FR-321	18.3	7	9.8	5.5	0.2x45°	○	●		○	●		●			



ALESA DELTA shell end mill

TN 18 R 90° / Ø 43 – 83

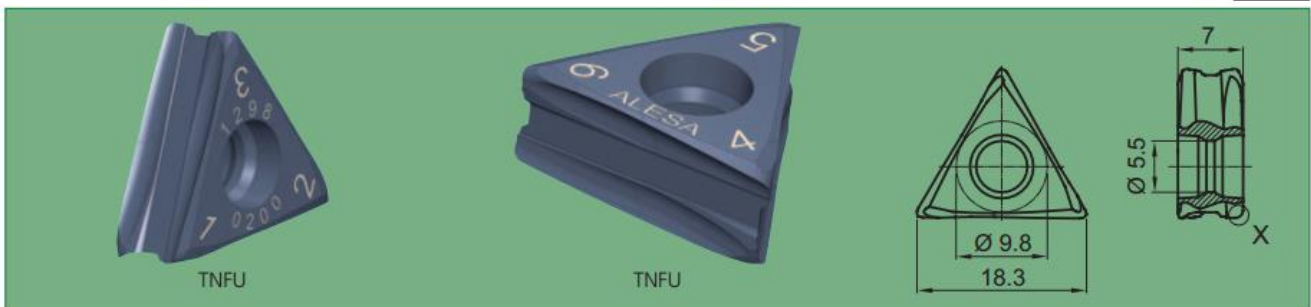
1356



Part No	Type	D mm	H mm	d1 mm	d2 mm	l1 mm	ap mm				Accessories kit No	WSP
1356.0463	43-TN 18 R 3x3	43	60	16.0	8.5	18	36	✓		r	1494.0820	TN 18 07
1356.0483	53-TN 18 R 4x4	53	72	22.0	11	20	48	✓		r	1494.0821	TN 18 07
1356.0503	66-TN 18 R 5x5	66	85	27.0	14	22	60	✓		r	1494.0822	TN 18 07
1356.0523	83-TN 18 R 6x6	83	100	32.0	18	25	72	✓		r	1494.0823	TN 18 07

Tool will be delivered with holder, all screws and torque wrench, but without indexable inserts.

ap = 13 mm



Cutting material	Coating	Part No	ISO Code	Detail X				Mat. classification					
								1	2	3	4	5	6
Carbide CTS	AlCrN-VA	1298.0200	TN 18 07 08 FR-321	R 0.8	r	●	○	●	●	○	●	○	
		1298.0650	TN 18 07 PF FR-321	0.2x45°	r	●	○	●	●	○	●	○	
	DLC-H	1298.0201	TN 18 07 08 FR-321	R 0.8	r	○	●	○	○	○	○	○	
		1298.0651	TN 18 07 PF FR-321	0.2x45°	r	○	●	○	○	○	○	○	

Accessories / spare parts

Part No	Torx screw				Screw-driver		Hex socket head screw			
	Qty	Article	Type	Torque	Article	Type	Article	Type	Torque	
1494.0820	9	1490.0385	M 5 x 11.5	5 Nm	1492.0650	T20 / 5Nm	1490.0700	M 8 x 50	30 Nm	
1494.0821	16	1490.0395	M 5 x 14.5	5 Nm	1492.0650	T20 / 5Nm	1490.0710	M 10 x 60	50 Nm	
1494.0822	25	1490.0395	M 5 x 14.5	5 Nm	1492.0650	T20 / 5Nm	1490.0728	M 12 x 70	90 Nm	
1494.0823	36	1490.0395	M 5 x 14.5	5 Nm	1492.0650	T20 / 5Nm	1490.0738	M 16 x 80	160 Nm	



ALESA DELTA: the spiral ground indexable insert for a smooth and vibration-free chip removal for any metals.



Best results at ae > 10-20% of the diameter.



Profile milling