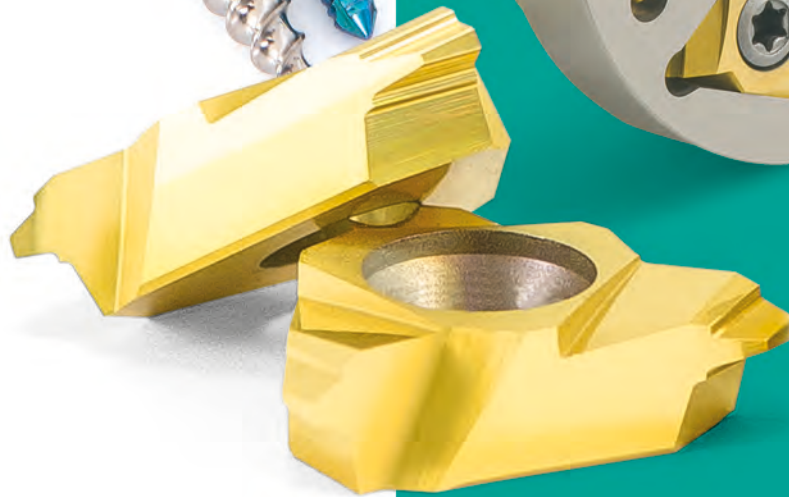
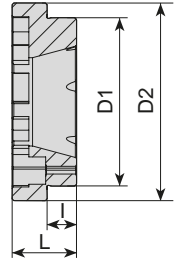
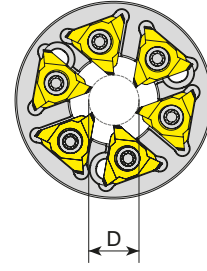


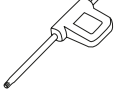


# WHIRLING

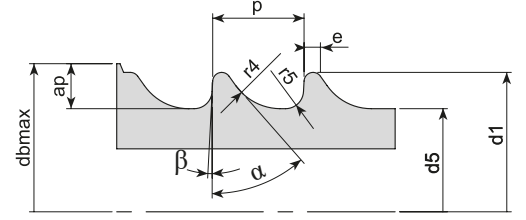
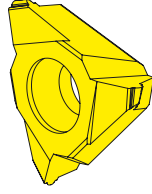
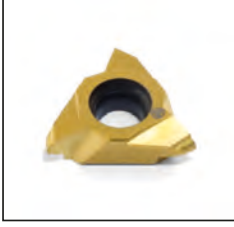
**WHIRLING UÇLARI ve TAKIMLARI**  
*WHIRLING INSERTS and TOOLHOLDERS*  
*WENDESCHNEIDPLATTEN UND WERKZEUGHALTER ZUM*  
*GEWINDEWIRBELN*



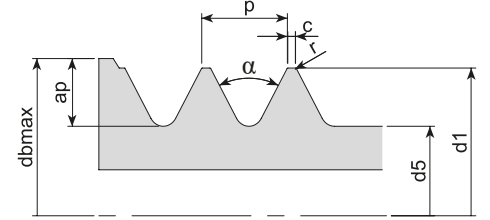
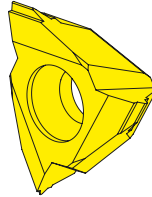
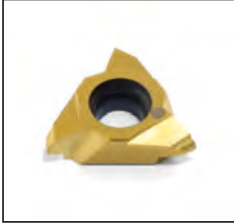


Makine Machine Maschine	Tahrikli Whirling Ünitesi Aggregate Whirling Unit Wirbelspindel	Whirling Ring Kodu Whirling Ring Code Wirbelring	Stok Stock Lager	Takım Ölçüleri (mm) Dimension (mm) Abmessung (mm)						Kesici Uç Insert Wendeschneidplatte	Yedek Parçaları / Spare Parts / Ersatzteile	
				Z	D	D1	D2	I	L		Sıkma Vidası Screw Schraube	Tork Anahtar Torx Key Torx-Schlüssel
STAR	5914 72 00/68172	ATW-301-T09-D1240-Z06	●	6	12	40	47	7	15			
CITIZEN	BTW1000	ATW-302-T09-D1233-Z06	○	6	12	33	47	4	18.5			
	GSW101	ATW-303-T09-D0620-Z06	○	6	6	20	35	3.2	15			
	MWS101/KSW101	ATW-304-T09-D1240-Z06	○	6	12	40	46	2.5	15.5			
	LSW101/BSW215/ LSW215315											
	LSW424											
TORNOS	306101/307087	ATW-306-T09-D1240-Z06	○	6	12	40	57	3.5	15			
	417617	ATW-307-T09-D1250-Z06	○	6	12	50	67	3.5	15.4			
WTO	TN762004	ATW-308-T09-D1142-Z06	●	6	11	31.97	42	6.7	18.2			
	TN762006	ATW-309-T09-D2054-Z08	○	8	20	56.5	54	1.5	13.8			
TSUGAMI	3234 Y342	ATW-310-T09-D1252-Z06	○	6	12	52	65	8.7	17			
	3268 Y452	ATW-311-T09-D1252-Z06	○	6	12	52	52	10	10			
	3268 Y271	ATW-312-T09-D1252-Z06	○	6	12	52	54	6	19			
	3214 Y342	ATW-313-T09-D1650-Z06	○	6	16	50	62	8.5	20			
	3234 Y342	ATW-314-T09-D2052-Z06	○	6	20	52	65	8.7	17			
HANWHA	MADAULA	ATW-315-T09-D1245-Z06	○	6	12	45	56	8.5	15			

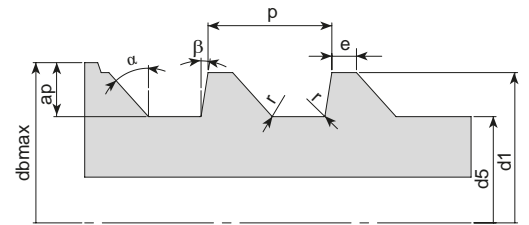
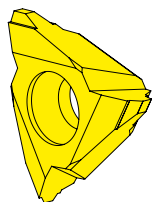
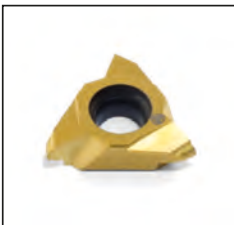




Uç Kodu Insert Code Wendeplatten-Bezeichnung	Kalite Grade Sorte		Standart ISO5835	Uç Ölçüleri (mm) Insert Dimension (mm) Abmessung (mm)									
	VK15U	VK15U01		P	e	d1	d5	r4	r5	$\alpha$	$\beta$	ap	dbmax
T09.HA150.D12	○	○	HA1.5	0.5	0.1	1.35 to 1.5	1.0 to 1.1	0.30	0.1	35°	3°	4	9
T09.HA200.D12	○	○	HA2.0	0.6	0.1	1.85 to 2.0	1.2 to 1.3	0.40	0.1	35°	3°	4	9
T09.HA270.D12	●	●	HA2.7	1	0.1	2.55 to 2.7	1.75 to 1.9	0.60	0.2	35°	3°	4	9.5
T09.HA350.D12	●	●	HA3.5	1.25	0.1	3.35 to 3.5	2.25 to 2.4	0.80	0.2	35°	3°	4	10
T09.HA400.D12	○	○	HA4.0	1.5	0.1	3.85 to 4.0	2.75 to 2.9	0.80	0.2	35°	3°	4	10.5
T09.HA450.D12	●	●	HA4.5	1.75	0.1	4.35 to 4.5	2.85 to 3.0	1.00	0.3	35°	3°	4	11
T09.HA500.D12	○	○	HA5.0	1.75	0.1	4.85 to 5.0	3.35 to 3.5	1.00	0.3	35°	3°	4	11
T09.HB400.D12	○	○	HB4.0	1.75	0.1	3.85 to 4.0	1.75 to 1.9	0.80	0.3	25°	5°	4	9.5
T09.HB650.D12	○	○	HB6.5	2.75	0.2	6.35 to 6.5	2.85 to 3.0	1.20	0.8	25°	5°	4	11

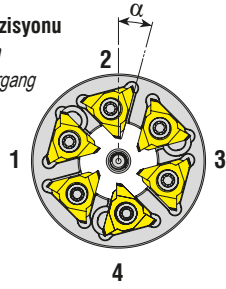


Uç Kodu Insert Code Wendeplatten-Bezeichnung	Kalite Grade Sorte		Standart ISO9268	Uç Ölçüleri (mm) Insert Dimension (mm) Abmessung (mm)								
	VK15U	VK15U01		P	e	d1	d5	$\alpha$	c	r	ap	dbmax
T09.HC290.D12	○	○	HC2.9	1.06	0.1	2.79 to 2.90	2.03 to 2.18	60°	0.1	0.01	4	10.5
T09.HC350.D12	○	○	HC3.5	1.27	0.1	3.43 to 3.53	2.51 to 2.64	60°	0.1	0.01	4	11
T09.HC390.D12	○	○	HC3.9	1.27	0.1	3.78 to 3.91	2.77 to 2.92	60°	0.1	0.01	4	11.5
T09.HC420.D12	○	○	HC4.2	1.27	0.1	4.09 to 4.22	2.95 to 3.25	60°	0.1	0.01	4	12



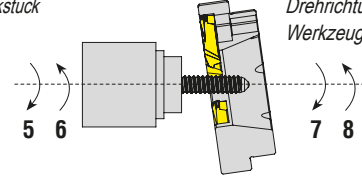
Uç Kodu Insert Code Wendeplatten-Bezeichnung	Kalite Grade Sorte		Standart ISO9268	Uç Ölçüleri (mm) Insert Dimension (mm) Abmessung (mm)									
	VK15U	VK15U01		P	e	d1	d5	e	r	$\alpha$	$\beta$	ap	dbmax
T09.HD400.D12	○	○	HD4.0	1.59	0.1	3.97 to 4.03	2.89 to 2.95	0.1	0.01	45°	10°	4	11.5
T09.HD450.D12	○	○	HD4.5	2.18	0.1	4.47 to 4.53	2.89 to 2.95	0.1	0.01	45°	10°	4	12

Kesme başlangıç pozisyonu  
Cutting Start Position  
Startposition Schneidvorgang



Y Eksen  
Y Axis  
Y-Achse

İş parçası dönüş yönü  
Turning Direction of Workpiece  
Drehrichtung Werkstück



Whirling ünitesi dönüş yönü  
Turning Direction of Whirling unit  
Drehrichtung Gewindewirbel  
Werkzeug

Makine Özellikleri Machine Specifications Angaben zur Maschine		Malzeme Özellikleri Material Specifications Material Besonderheiten
<b>Makine Üreticisi</b> Machine Manufacturer Maschinenhersteller		<b>Malzeme (DIN, AISI v.b.)</b> Material (DIN, AISI etc.) Material DIN, AISI etc.
<b>Makine Modeli</b> Machine Model Maschinenbezeichnung		<b>Ham Malzeme Çapı</b> Raw Material Diameter Rohmaterial Durchmesser
<b>Canlı Takım Üreticisi</b> Live Tool Manufacturer Hersteller angetriebene Werkzeuge		<b>Diş Profili</b> Thread Profile Gewindeprofil
<b>Canlı Takım Tipi</b> Live Tool Type Ausführung angetriebene Werkzeuge		<b>Profil Teknik Resmi</b> Profile Technical Drawing Profilzeichnung
<b>Y - Eksen</b> Y - Axis Y - Achse	<b>Var</b> Exist <input type="checkbox"/> Ja	<b>Yok</b> None <input type="checkbox"/> Nein
<b>Yüksek Basıncılı Soğutma</b> High Pressure Coolant Hochdruckkühlung	<b>Var</b> Exist <input type="checkbox"/> Ja	<b>Yok</b> None <input type="checkbox"/> Nein
<b>Kesme Başlangıç Pozisyonu</b> Cutting Start Position Startposition Schneidvorgang	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/>	<b>Hatve</b> Pitch Steigung
<b>Whirling Ünitesi Dönüş Yönü</b> Turning Direction of Whirling Unit Drehrichtung Gewindewirbel-Werkzeug	5 <input type="checkbox"/> 6 <input type="checkbox"/>	<b>Tek Ağız</b> One Start Eingängig
<b>İş Parçası Dönüş Yönü</b> Turning Direction of Workpiece Drehrichtung Werkstück	7 <input type="checkbox"/> 8 <input type="checkbox"/>	<b>İki Ağız</b> Two Starts Zweigängig
<b>α Açısı</b> α Angle α Winkel	<b>Not: Bu açı ürün performansına etki ettiğinden bildirilmesi gerekmektedir. Aksi halinde ring tarafımıza gönderilmelidir.</b> Note: This angle effects the performance of inserts. If doesn't known, tool body should be send to AKKO. Hinweis: Dieser Winkel beeinflusst die Leistung der Wendeschneidplatte. Sollte dieser Winkel unbekannt sein, können Sie das Werkzeug zur Fa. AKKO schicken.	
<b>Not / Note / Notizen :</b>		