

BARALAR

AYARLI DELİK İŞLEME BARALARI
ADJUSTABLE BORING HEADS

*konusulan
the spoken kalite...
quality...*



AKKO **A** **BH** **R** - **D18x22**

W16 - **L90** - **CC06**

2 Kesiş Stili / Cutter Style

BH : Delik İşleme / Boring Head

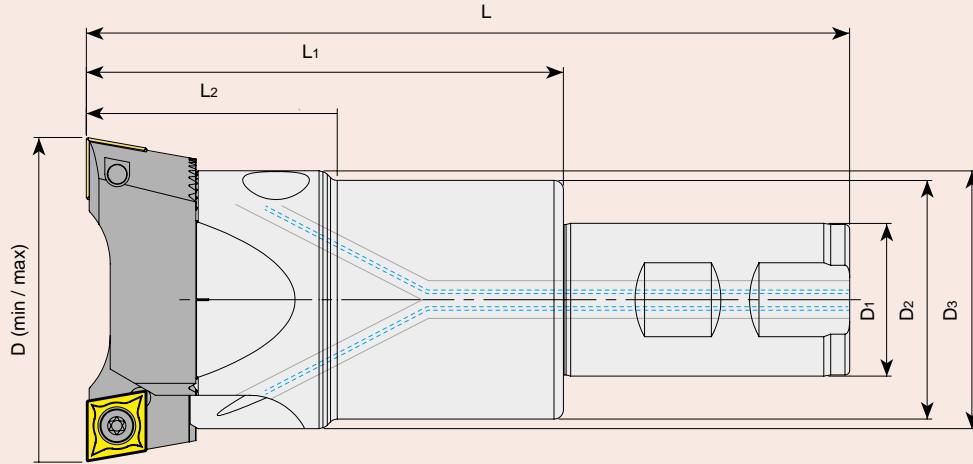
3 İşlem Tipi / Cutter Type

R : Kaba Baralama / Rough Boring
F : Hassas Baralama / Fine Boring

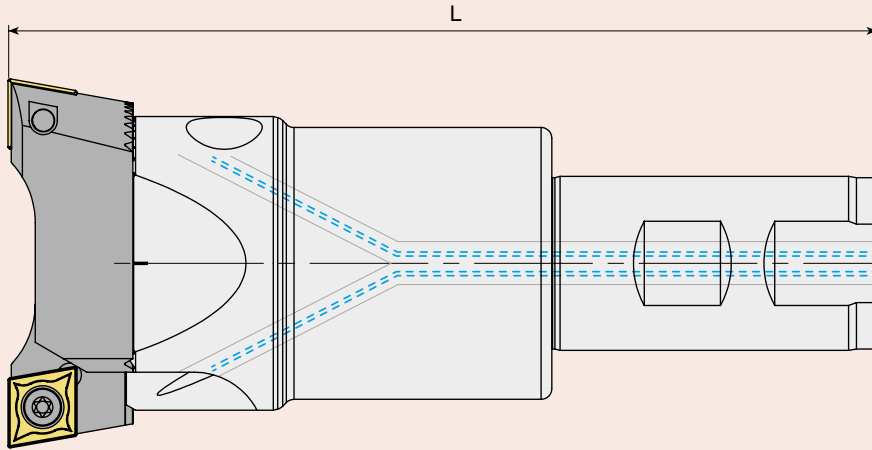
5 Montaj Formu / Assembly Form

W : Weldon

4 Ölçü Aralığı / Boring Range

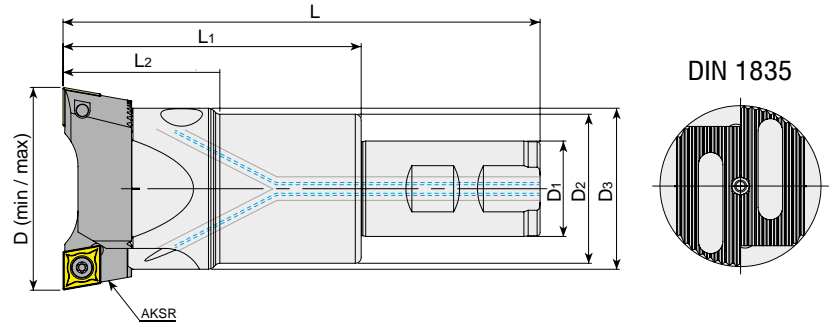


6 Takım Boyu / Tool Length



7 Kesici Uç / Insert

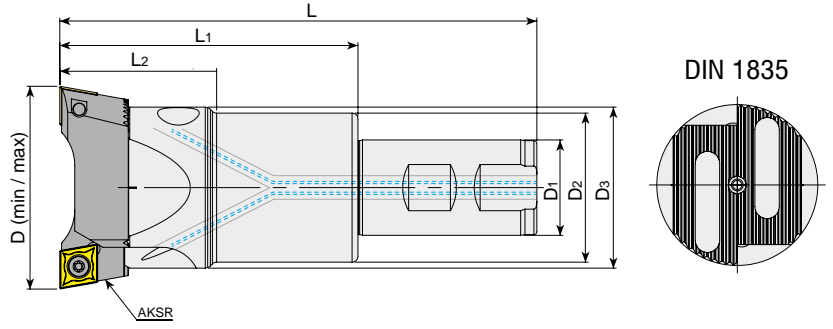
CC06 : CC.. 0602..
CC09 : CC.. 09T3..
CC12 : CC.. 1204..



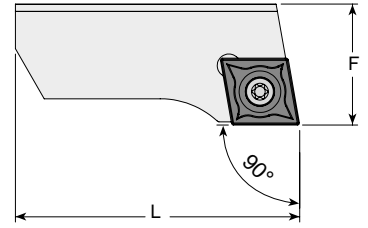
Takım Kodu Ordering Code	Stok Stock	Ölçü Aralığı Boring Range D (min/max)	Takım Ölçüleri (mm) Dimension (mm)						Kartuş Cartridge	Bara Gövde Takım Kodu Boring Head Body Code
			D ₁	D ₂	D ₃	L	L ₁	L ₂		
ABHR-D18x22-W16-L90-CC06	●	18-22	16	-	-	90	42	-	AK.. 18-22	ABHRS-D16x42-W16-L90
ABHR-D18x22-W16-L150-CC06	●	18-22	16	-	-	150	102	-		ABHRS-D16x102-W16-L150
ABHR-D18x22-W16-L200-CC06	●	18-22	16	-	-	200	152	-		ABHRS-D16x152-W16-L200
ABHR-D22x28-W20-L100-CC06	●	22-28	20	-	-	100	50	-	AK.. 22-28	ABHRS-D20x50-W20-L100
ABHR-D22x28-W20-L150-CC06	●	22-28	20	-	-	150	100	-		ABHRS-D20x100-W20-L150
ABHR-D22x28-W20-L200-CC06	●	22-28	20	-	-	200	150	-		ABHRS-D20x150-W20-L200
ABHR-D28x38-W20-L110-CC06	●	28-38	20	25	-	110	60	-	AK.. 28-38	ABHRS-D25x60-W20-L110
ABHR-D28x38-W20-L160-CC06	●	28-38	20	25	-	160	110	-		ABHRS-D25x110-W20-L160
ABHR-D28x38-W20-L230-CC06	●	28-38	20	25	-	230	180	-		ABHRS-D25x180-W20-L230
ABHR-D36x50-W25-L120-CC06	●	36-50	25	32	-	120	64	-	AK.. 36-50	ABHRS-D32X64-W25-L120
ABHR-D36x50-W25-L170-CC06	●	36-50	25	32	-	170	114	-		ABHRS-D32X114-W25-L170
ABHR-D36x50-W25-L250-CC06	●	36-50	25	32	-	250	194	-		ABHRS-D32X194-W25-L250
ABHR-D36x50-W25-L120-CC09	●	36-50	25	32	-	120	64	-	AK.. 36-50-09	ABHRS-D32X64-W25-L120
ABHR-D36x50-W25-L170-CC09	●	36-50	25	32	-	170	114	-		ABHRS-D32X114-W25-L170
ABHR-D36x50-W25-L250-CC09	●	36-50	25	32	-	250	194	-		ABHRS-D32X194-W25-L250
ABHR-D50x68-W32-L140-CC09	●	50-68	32	40	-	140	80	-	AK.. 50-68	ABHRS-D40x80-W32-L140
ABHR-D50x68-W32-L200-CC09	●	50-68	32	40	-	200	140	-		ABHRS-D40x140-W32-L200
ABHR-D50x68-W32-L280-CC09	●	50-68	32	40	-	280	220	-		ABHRS-D40x220-W32-L280
ABHR-D50x68-W32-L140-CC12	●	50-68	32	40	-	140	80	-	AK.. 50-68-12	ABHRS-D40x80-W32-L140
ABHR-D50x68-W32-L200-CC12	●	50-68	32	40	-	200	140	-		ABHRS-D40x140-W32-L200
ABHR-D50x68-W32-L280-CC12	●	50-68	32	40	-	280	220	-		ABHRS-D40x220-W32-L280
ABHR-D68x90-W32-L160-CC12	●	68-90	32	50	54	160	100	50	AK.. 68-90	ABHRS-D50x100-W32-L160
ABHR-D68x90-W32-L210-CC12	●	68-90	32	50	54	210	150	50		ABHRS-D50x150-W32-L210
ABHR-D68x90-W32-L280-CC12	●	68-90	32	50	54	280	220	50		ABHRS-D50x220-W32-L280
ABHR-D90x120-W32-L140-CC12	●	90-120	32	63	72	140	80	63	AK.. 90-120	ABHRS-D63x80-W32-L140
ABHR-D90x120-W40-L200-CC12	●	90-120	40	63	72	200	130	63		ABHRS-D63x130-W40-L200
ABHR-D90x120-W40-L300-CC12	●	90-120	40	63	72	300	230	63		ABHRS-D63x230-W40-L300
ABHR-D120x160-W40-L210-CC12	●	120-160	40	80	95	210	140	75	AK.. 120-160	ABHRS-D80x140-W40-L210
ABHR-D120x160-W40-L300-CC12	●	120-160	40	80	95	300	230	75		ABHRS-D80x230-W40-L300
ABHR-D160x200-W40-L210-B-CC12	●	160-200	40	80	95	210	140	75	AK.. 160-800	ABHRS-D80x140-W40-L210
ABHR-D160x200-W40-L300-B-CC12	●	160-200	40	80	95	300	230	75		ABHRS-D80x230-W40-L300

R: Sağ/Right L: Sol/Left ● Stokta/In Stock ○ Stokta Yok/Non Stock Item
Siparişte, gövde ve kartuş set olarak verilecektir. / When ordered, body and cartridge will be sent as set.

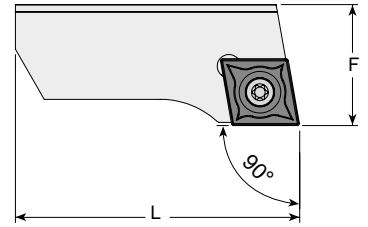
Sipariş Örneği/Ordering Example : 1 ad./pcs. ABHR-D18x22-W16-L90-CC06



Takım Kodu Ordering Code	Stok Stock	Ölçü Aralığı Boring Range D (min/max)	Takım Ölçüleri (mm) Dimension (mm)					Yedek Parçaları Spare Parts					
			D ₁	D ₂	D ₃	L	L ₁	L ₂	Montaj Vidası Mounting Screw	Montaj Vida Anahtarı Allen Key	Pabuç Clamp	Ayar Vidası Adjusting Screw	Ayar Vida Anahtarı Allen Key
ABHRS-D16x42-W16-L90	●	18-22	16	-	-	90	42	-					
ABHRS-D16x102-W16-L150	●	18-22	16	-	-	150	102	-	2525-M3x14	AAL-02-2.5	ABKS-D16	2715-M3x4	
ABHRS-D16x152-W16-L200	●	18-22	16	-	-	200	152	-					
ABHRS-D20x50-W20-L100	●	22-28	20	-	-	100	50	-					
ABHRS-D20x100-W20-L150	●	22-28	20	-	-	150	100	-	2503-M4x15	AAL-03-3	ABKS-D20	2715-M3x5	AAL-09-1.5
ABHRS-D20x150-W20-L200	●	22-28	20	-	-	200	150	-					
ABHRS-D25x60-W20-L110	●	28-38	20	25	-	110	60	-					
ABHRS-D25x110-W20-L160	●	28-38	20	25	-	160	110	-	2503-M4x20	AAL-03-3	ABKS-D25	2715-M3x8	
ABHRS-D25x180-W20-L230	●	28-38	20	25	-	230	180	-					
ABHRS-D32X64-W25-L120	●	36-50	25	32	-	120	64	-					
ABHRS-D32X114-W25-L170	●	36-50	25	32	-	170	114	-	2504-M5x25	AAL-05-4	ABKS-D32	2702-M4x12	AAL-01-2
ABHRS-D32X194-W25-L250	●	36-50	25	32	-	250	194	-					
ABHRS-D40x80-W32-L140	●	50-68	32	40	-	140	80	-					
ABHRS-D40x140-W32-L200	●	50-68	32	40	-	200	140	-	2505-M6x30	AAL-07-5	ABKS-D40	2725-M5x14	
ABHRS-D40x220-W32-L280	●	50-68	32	40	-	280	220	-					AAL-02-2.5
ABHRS-D50x100-W32-L160	●	68-90	32	50	54	160	100	50					
ABHRS-D50x150-W32-L210	●	68-90	32	50	54	210	150	50	2506-M8x35	AAL-08-6	ABKS-D50	2725-M5x12	
ABHRS-D50x220-W32-L280	●	68-90	32	50	54	280	220	50					
ABHRS-D63x80-W32-L140	●	90-120	32	63	72	140	80	63					
ABHRS-D63x130-W40-L200	●	90-120	40	63	72	200	130	63	2508-M10x40	AAL-11-8	ABKS-D63	2703-M6x16	AAL-03-3
ABHRS-D63x230-W40-L300	●	90-120	40	63	72	300	230	63					
ABHRS-D80x140-W40-L210	●	120-160	40	80	95	210	140	75	2510-M12x40				
ABHRS-D80x230-W40-L300	●	120-160	40	80	95	300	230	75					
ABHRS-D80x140-W40-L210	●	160-200	40	80	95	210	140	75	2510-M12x40	AAL-12-10	ABKS-D80	2704-M8x25	AAL-05-4
ABHRS-D80x230-W40-L300	●	160-200	40	80	95	300	230	75					



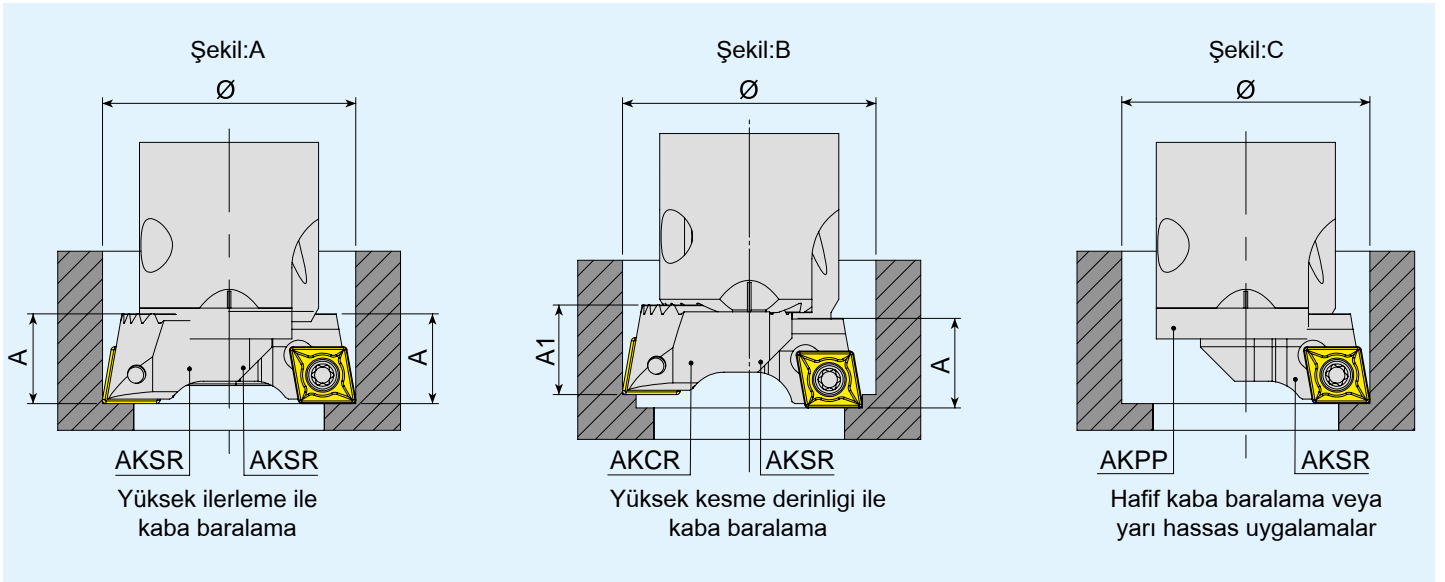
Takım Kodu Ordering Code	Stok Stock	Takım Ölçüleri (mm) Dimension (mm)		Kesici Uç Insert	Yedek Parçaları Spare Parts		
		Ölçü Aralığı Boring Range	F		L	Sıkma Vidası Screw	Tork Anahtar Torx Key
AKSR 18-22	●	18-22	9	15	CC.. 0602..	4008-M2.5x6	80-T08
AKSR 22-28	●	22-28	10	19			
AKSR 28-38	●	28-38	13	23			
AKSR 36-50	●	36-50	16	32	CC.. 09T3..	4015-M3.5x8	80-T15
AKSR 36-50-09	●	36-50	16	32			
AKSR 50-68	●	50-68	20	40			
AKSR 50-68-12	●	50-68	20	40	CC.. 1204..	1020-M5x11	80-T20
AKSR 68-90	●	68-90	23	54			
AKSR 90-120	●	90-120	28	70			
AKSR 120-160	●	120-160	32	95			
AKSR 160-800	●	160-800	32	120			



Takım Kodu Ordering Code	Stok Stock	Takım Ölçüleri (mm) Dimension (mm)		Kesici Uç Insert	Yedek Parçaları Spare Parts		
		Ölçü Aralığı Boring Range	F		L	Sıkma Vidası Screw	Tork Anahtar Torx Key
AKCR 28-38	●	28-38	12.8	23	CC.. 0602..	4008-M2.5x6	80-T08
AKCR 36-50	●	36-50	15.8	32			
AKCR 36-50-09	●	36-50	15.8	32			
AKCR 50-68	●	50-68	19.7	40	CC.. 09T3..	4015-M3.5x8	80-T15
AKCR 50-68-12	●	50-68	19.7	40			
AKCR 68-90	●	68-90	22.7	54			
AKCR 90-120	●	90-120	27.7	70	CC.. 1204..	1020-M5x11	80-T20
AKCR 120-160	●	120-160	31.7	95			
AKCR 160-800	●	160-800	31.7	120			

R: Sağ/Right L: Sol/Left ● Stokta/In Stock ○ Stokta Yok/Non Stock Item
ISO Ucuna Uygunudur. / Compatiple with ISO Insert.

Sipariş Örneği/Ordering Example : 1 ad./pcs. AKSR 18-22



1. Kesici kenarların radyal ayarı, takım ölçme ekipmanı ile yapılmalıdır.
2. İki uçlu baralama takımı, ağır talaş kaldırma işlemini içeren kaba baralama işlemleri içindir. Çift uçlu baralama takımı ile:
 - Yüksek ilerleme oranında kaba baralama işlemleri için, aynı düzlemdeki iki AKSR kartuşu, aynı radyal mesafeye ayarlanır. (Şekil A)
 - Aynı düzlemde olmayan bir AKCR kartuşu ve bir AKSR kartuşu yüksek derinlikte kaba baralama işlemleri için kullanılır. (Şekil B)
 - i. Kaba baralama işleminde, alınacak paso miktarı tam olarak ikiye bölünüp, düzgün bir kesim sağlanmış olur, ancak bu durumda tur başına ilerleme tek ağız olarak hesaplanmalıdır. ($f=f_1$)
 - ii. Hassas baralama işleminde, alınacak paso miktarı AKSR kartuş için ara kaba olarak ve AKCR kartuş için hassas bara olarak çaplar ayarlanır ve bu sayede bazı ara kaba işleme ihtiyaç kalmaz.
3. Tek kartuşlu baralama takımları, normal talaş kaldırma işlemini içeren kaba ve hassas baralama işlemleri içindir. Dişleri koruma plakası, AKPP daima kullanılmalıdır. (Şekil C)

1. Radial setting of the cutting edges should be carried out with tool presetting equipment.
2. Boring bars fitted with two insert pockets are for roughing operations involving heavy chip removal. The double-insert boring bars include:
 - Two AKSR cartridges on the same plane with two cutting edges set at identical radial distance for high feed rate roughing operations. (fig. A)
 - An AKCR cartridge and an AKSR cartridge not on the same plane for high-debth roughing operations. (fig. B)
 - i. With the rough boring operation, this allows double the cutting width, using only a single feed rate. ($f=f_1$)
 - ii. With the finish boring operation, the cutting width is divided so that some of the intermediate machining can be omitted.
3. Boring bars fitted with a single cartridge are for roughing and finishing operations involving normal chip removal. The serrated surface protection plate AKPP should always be used (fig. C)

