



ZMAC Boring Heads come complete with ZMAC Boring Unit. See below part no. for spares.

Different codes for the Triangular Insert unit & Rhomboid Insert unit are shown below: column 1: Boring unit, column 2: Cartridge, column 3: Insert, column 6: Insert clamp screw, column 7: Insert clamp handle, but all other parts (column 31 to 34, 36, 39) are common to both.

N.B. Other manufacturers ISO Standard Insert Tip may have different centre hole diameters.

Boring Range	1 ZMAC Unit	2 Cartridge	3 Triangular Insert	6 Insert Clamp Screw	7 Insert Clamp Handle	31 Dial Ring	32 Lock Flange	33 Wave Spring	34 Preload Nut	36 Lock Screw	39 Adjustment Handle	40 Unit Clamp Bolt
15.9 ~ 20.2	M 2HZ- 16	M 2HZ- 16C	3MP-C,B	M2045	T6	9M216D	9M216L	9M216W	9M216P	M361	M392	M2045
19.8 ~ 25.2	M 2HZ- 20	M 2HZ- 20C				9M220D	9M220L		9M220P	M362		
24.8 ~ 32.2	M 3HZ- 25	M 3HZ- 25C				9M325D	9M325L		9M325P	M363		
31.8 ~ 42.2	M 4HZ- 32	M 4HZ- 32C				9M432D	9M432L		9M432P	M365		
41.8 ~ 55.2	M 5HZ- 42	M 5HZ- 42C	6MP-C,B	M2577	T8	9M542D	9M542L	M335	9M542P	M364	ZM395	M2577
54.8 ~ 70.2	M 5HZ- 55	M 5HZ- 55C				9M770D	9M770L		9M770P	M366		
69.8 ~ 85.2	M 7HZ- 70	M 7HZ- 70C				9M108D	9M108L		9M108P	M367		
84.8 ~ 100.2	M10HZ- 85	M10HZ- 85C								M368		
99.5 ~ 140.5	M10HZ-100	M10HZ-100C								M369		
139.5 ~ 180.5	M10HZ-140	M10HZ-140C										

- Each unit and Cartridge are supplied with out Insert Tip.
- Cartridge are not be supplied alone, please order ZMAC unit.
- Cartridge for base forming of bore is an option. Please specify the diameter and width of base forming.
- For Diamond Insert Tip (6MP-D), M2562D\* must be used.

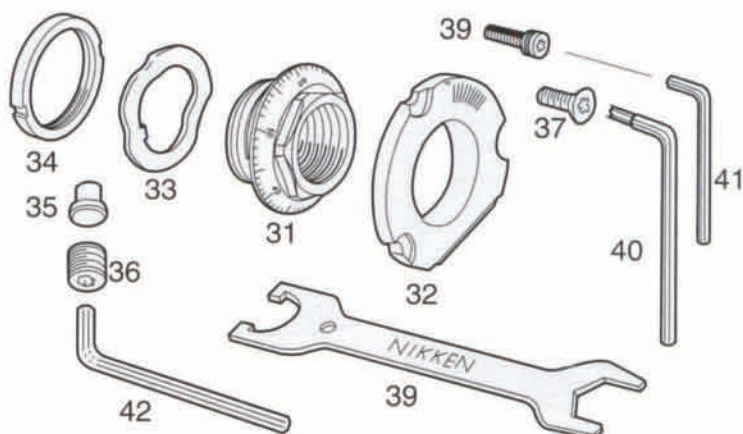
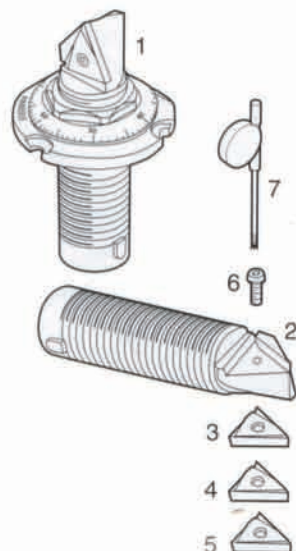
Boring Range	1	2	3	6	7	Boring Range	Cartridge Head		Head Clamp Bolt	
	ZMAC Unit	Cartridge	Rhomboid Insert	Insert Clamp Screw	Insert Clamp Handle					
31.8 ~ 42.2	M 4HZ- 32R	M 4HZ- 32RC	CC06-C	M2560	T8	41.8 ~ 55.2	M 5HZ- 42CH	M 5HZ- 42RCH	M512	
41.8 ~ 55.2	M 5HZ- 42R	M 5HZ- 42RC		M2577		54.8 ~ 70.2	M 5HZ- 42CH	M 5HZ- 42RCH	M512	
54.8 ~ 70.2	M 5HZ- 55R	M 5HZ- 55RC				69.8 ~ 85.2	M 7HZ- 70CH	M 7HZ- 70RCH	M625	
69.8 ~ 85.2	M 7HZ- 70R	M 7HZ- 70RC	CC08-C	M4090	T15	84.8 ~ 100.2	M10HZ- 85CH	M10HZ- 85RCH	M825	
84.8 ~ 100.2	M10HZ- 85R	M10HZ- 85RC		M4012		99.5 ~ 140.5	M10HZ-100CH	M10HZ-100RCH	M835	
99.5 ~ 140.5	M10HZ-100R	M10HZ-100RC	CC12-C	M5012		139.5 ~ 180.5	M10HZ-100CH	M10HZ-100RCH	M835	
139.5 ~ 180.5	M10HZ-140R	M10HZ-140RC								

For **ZMAC42** or larger type, Cartridge is made up 2 parts, therefore it's possible to exchange cartridge heads.

# MICRO-CUT BORING UNIT PARTS LIST

**NIKKEN** IMP

Boring Range	1 BCB Unit	2 Cartridge	3 Insert for Alloy Steel	4 Insert for Cast Iron	5 Insert for Steel, Stainless Steel	6 Insert Clamp Bolt	7 Insert Clamp Handle
12.7 ~ 14.5	M 1-12.7	-	1MP-E	1MP-F	1MP-T	M61	10S
14.5 ~ 19.5	M 1-14.5	-					
19 ~ 22.5	M 2-19	M 2-19 C	3MS-E	3MS-F	3MS-T	M68	13S
22 ~ 29.5	M 2-22	M 2-22 C				M63	
29 ~ 41	M 3-29	M 3-29 C					
38 ~ 50	M 5-38	M 5-38 C	6MP-E	6MP-F	6MP-C	M2577	T8
48 ~ 65	M 5-48	M 5-48 C					
62 ~ 90	M 7-62	M 7-62 C	10MP-E	10MP-T	10MP-T	M67	20S
82 ~ 110						M60	
100 ~ 140	M10-100	M10-100C					



Boring Range	31 Dial Ring	32 Lock Flange	33 Wave Spring	34 Pre-Load Nut	35 Lock Metal	36 Lock Screw	37 Unit Mounting Bolt A	38 Unit Mounting Bolt B	39 Adjustment Handle	40 Wrench for Unit Mounting Bolt A	41 Wrench for Unit Mounting Bolt B	42 Wrench for Lock Screw
12.7 ~ 14.5	B311	B321	B331	B341	B351	B361	-	B381	M391	-	M1.27	M1.5
14.5 ~ 19.5												
19 ~ 22.5	B312	B322	9M216W	9M216P	B352	B362	-	B382	M392	-	T6	M2
22 ~ 29.5						M363						
29 ~ 41	B313	B323	M333	9M325P	B353	B363	-	B384	M393	-	13S	M2.5
38 ~ 50	B315	B325	M335	9M542P	B355	B365		B386	M395	-	20S	M3
48 ~ 65		B326			B356	B366	M375	-		M405	-	M4
62 ~ 90	B317	B327	M337	9M770P	B357	B367	M377	B387	M397	M407	M405	M5
82 ~ 110						B368						
100 ~ 140	B310	B320	M330	9M108P	B350	B360	M370	B380	M390	M400		M6