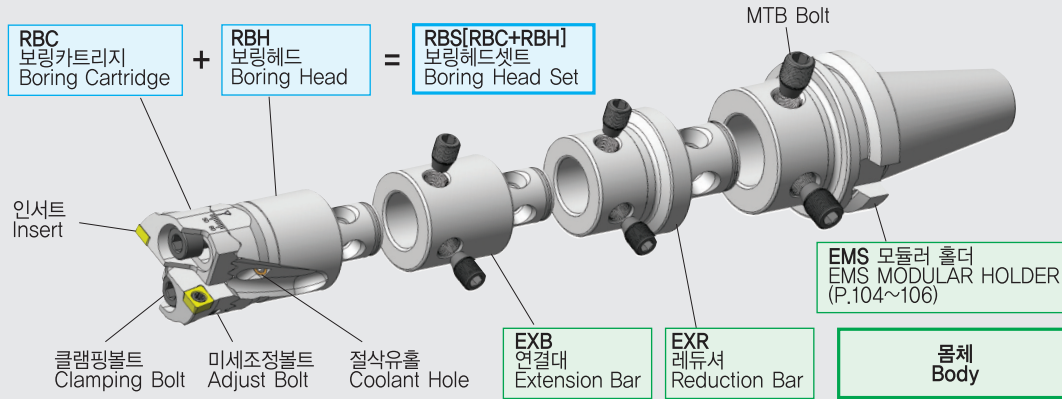


## Construction System of RB Boring Tool's Code No.



### RBC-047060CC06 □

보링헤드세트 Boring Head Set

보링최소경:  $\phi 47.0$  Boring diameter Min:  $\phi 47.0$

보링최대경:  $\phi 60.0$  Boring diameter Max:  $\phi 60.0$

인서트 Insert

스페셜타입 Non-standard

### RBH-402250

보링헤드 Boring Head

EMS 그룹: 40 EMS group: 40

샹크경:  $\phi 22.0$  Shank dia:  $\phi 22.0$

헤드길이: 50.0 Head length: 50.0

### RBS-047060CP

보링헤드세트 Boring Head Set (RBC+RBH=RBS)

보링최소경:  $\phi 47.0$  Boring diameter Min:  $\phi 47.0$

보링최대경:  $\phi 60.0$  Boring diameter Max:  $\phi 60.0$

C: CCMT인서트 S: SPMT인서트 C: CCMT insrt S: SPMT insert

P: 기본형 standard type H: 인서트높이단차 High-low insert F: 다른 인서트각도 Non-standard angle

#### □ 황삭보링헤드세트 조립예

보링카트리지	+	보링헤드	=	보링헤드세트
RBC-036047-CC06	+	RBH-321844	=	RBS-036047CP
RBC-098125-SC12	+	RBH-804576	=	RBS-098125SP

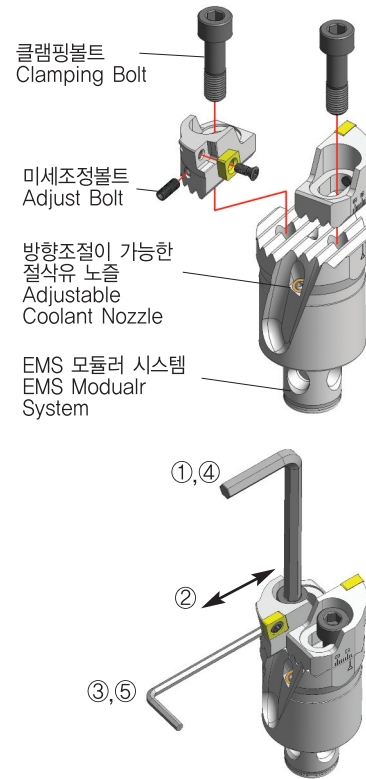


## ● 황삭보링헤드 셋팅 순서

- ① 카트리지가 움직일 수 있을 정도로 클램핑볼트를 풀어 줍니다.
- ② 헤드의 눈금기준선과 가공하고자 하는 치수에 근접하게 카트리지를 움직여 줍니다. (이때 가공경보다 적게 맞춥니다.)
- ③ 톨프리셋트에 올려 인서트 날끝을 맞춘후, 미세조정볼트를 시계방향으로 돌려 보링경을 맞춥니다.
- ④ 클램핑볼트를 강하게 조여줍니다.
- ⑤ 적절한 힘을 주어 미세조정볼트가 느슨하지 않도록 조여줍니다.

## ● BORING HEAD SETTING ORDER

- ① Loosen the clamping bolt so that the cartridge is loose.
- ② Move the cartridge near the dotted reference line on the head according to the desired processing measurement. (At this point, make sure that it is less than the processing gauge)
- ③ Increase the projector to adjust the edge of the insert blade, and turn the precision control bolt clockwise to adjust the boring gauge.
- ④ Firmly tighten the clamping bolt.
- ⑤ Tighten the precision control bolt so that it is not loose.

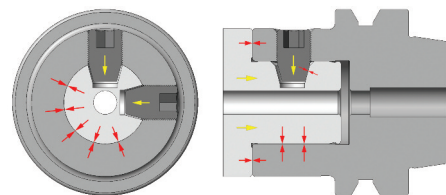


## ● EMS 모듈러 시스템

- ① 황삭보링툴 헤드 및 바디의 연결은 EMS Modular System으로 체결됩니다.
- ② EMS Modular System은 2면 구속으로 체결강성이 뛰어납니다.
- ③ 연결대, 레듀서 및 스탠다드타입 톨홀더와 롱타입 톨홀더로 보링깊이를 조절할 수 있습니다.

## ● EMS Modular System

- ① The head and body of the rough boring tool is connected using EMS Modular System.
- ② EMS Modular System has a dual binding mechanism for excellent binding strength.
- ③ Boring depth can be controlled using the Extension, reducer, and standard/long type tool holder.

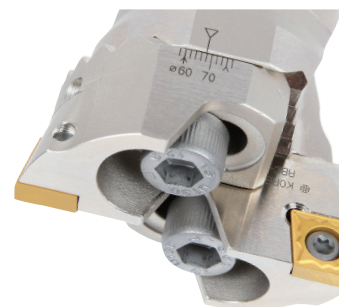


## ● 눈금 보는 방법

- ① 치수 단위는 Metric이며, 눈금과 눈금 사이는  $\varnothing 2\text{mm}$ 입니다.
- ② 보링최소경과 최대경 눈금에  $\wedge$  로 표시되어 있습니다.

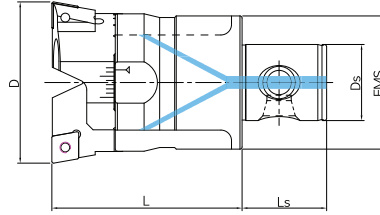
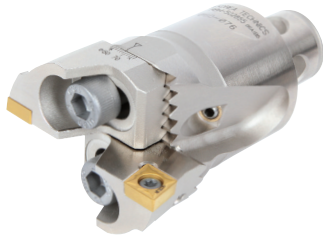
## ● How to read the dotted lines.

- ① The measurement unit is in metrics, and the distance between each dot is  $\varnothing 2\text{mm}$ .
- ② The minimum and maximum boring gauge is marked with a  $\wedge$ .



# RB-BORING

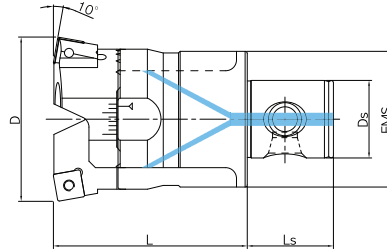
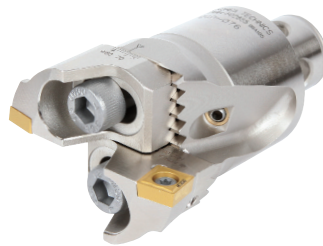
## RBS-CP / RBS-SP



● 황삭보링툴 헤드 셋트(카트리지와헤드) Boring Head Set(Cartridge+Head)

▶ RBS-CP

Group	Code No.	보링범위 Boring Range(D)	치수 Dimension(mm)				조립부품 Assembly	
			EMS	DS	L	Ls	Cartridge	Head
EMS25	RBS-028036CP	ø28~ø36	25	14	50	16	RBC-028036-CC06	RBH-251437
EMS32	RBS-036047CP	ø36~ø47	32	18	60	20	RBC-036047-CC06	RBH-321844
EMS40	RBS-047060CP	ø47~ø60	40	22	70	25	RBC-047060-CC09	RBH-402250
EMS50	RBS-060076CP	ø60~ø76	50	28	80	30	RBC-060076-CC12	RBH-502855
EMS63	RBS-076098CP	ø76~ø98	63	36	90	40	RBC-076098-CC12	RBH-633660
EMS80	RBS-098125CP	ø98~ø125	80	45	115	50	RBC-098125-CC12	RBH-804576



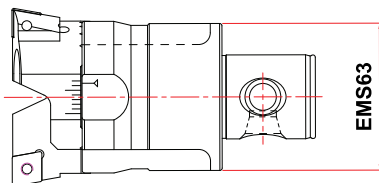
● 황삭보링툴 헤드 셋트(카트리지와헤드) Boring Head Set(Cartridge+Head)

▶ RBS-SP

Group	Code No.	보링범위 Boring Range(D)	치수 Dimension(mm)				조립부품 Assembly	
			EMS	DS	L	Ls	Cartridge	Head
EMS25	RBS-028036SP	ø28~ø36	25	14	50	16	RBC-028036-SC06	RBH-251437
EMS32	RBS-036047SP	ø36~ø47	32	18	60	20	RBC-036047-SC06	RBH-321844
EMS40	RBS-047060SP	ø47~ø60	40	22	70	25	RBC-047060-SC09	RBH-402250
EMS50	RBS-060076SP	ø60~ø76	50	28	80	30	RBC-060076-SC12	RBH-502855
EMS63	RBS-076098SP	ø76~ø98	63	36	90	40	RBC-076098-SC12	RBH-633660
EMS80	RBS-098125SP	ø98~ø125	80	45	115	50	RBC-098125-SC12	RBH-804576

● 툴링 팁! Tooling Tip!

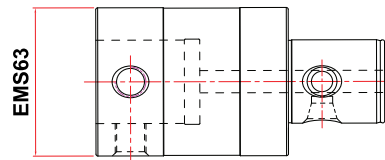
- 황삭보링툴 헤드 및 바디의 연결은 EMS Modular System으로 체결되며, EMS Modular System은 대경사이즈 기준으로 Group이 정해집니다. 헤드와 연결대, 헤드와 모듈러 홀더, 연결대와 모듈러 홀더 툴링시에 같은 Group끼리 연결하시면 됩니다.
- The head and body of the rough boring tool is connected using EMS Modular System, and the EMS Modular System's groups were assigned based on the large gauge size. Connect the head and connecting rod, head and EMS Modular Holder, connecting rod and EMS Modular Holder according to the same groups when tooling.

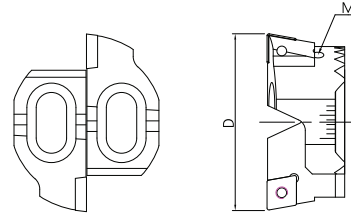
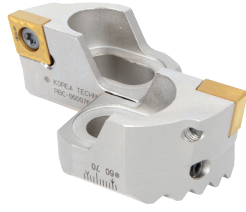


Correct



GROUP:EMS63

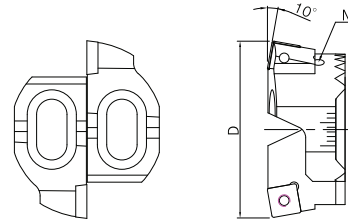
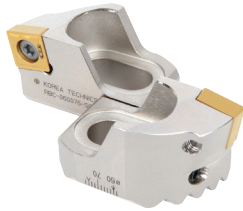




### ● 황삭 보링틀 카트리지 Boring Cartridge

#### ▶ RBC (CCMT)

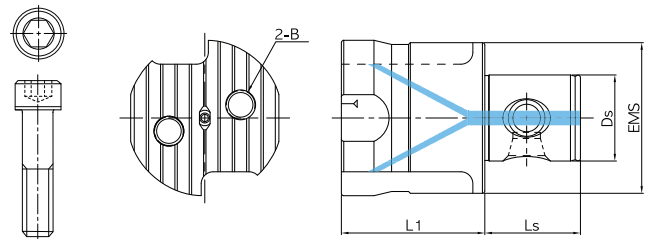
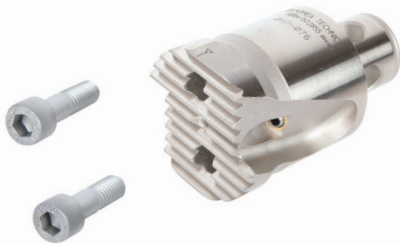
Group	Code No.	보링범위 Boring Range(D)	Insert	부품 Component		
				미세조정볼트 Adjust Bolt(M)	Screw	Driver
EMS25	RBC-028036-CC06	ø28~ø36	CCMT060204	M0306SS	TSB-25055	T-8
EMS32	RBC-036047-CC06	ø36~ø47		M0408SS		
EMS40	RBC-047060-CC09	ø47~ø60	CCMT09T308	M0410SS	TSB-35080	T-15
EMS50	RBC-060076-CC12	ø60~ø76	CCMT120408	M0514SS		
EMS63	RBC-076098-CC12	ø76~ø98		M0515SS	TSB-50125	T-20
EMS80	RBC-098125-CC12	ø98~ø125		M0620SS		



### ● 황삭 보링틀 카트리지 Boring Cartridge

#### ▶ RBC (SCMT)

Group	Code No.	보링범위 Boring Range(D)	Insert	부품 Component		
				미세조정볼트 Adjust Bolt(M)	Screw	Driver
EMS25	RBC-028036-SC06	ø28~ø36	SCMT060204	M0306SS	TSB-25055	T-8
EMS32	RBC-036047-SC06	ø36~ø47		M0408SS		
EMS40	RBC-047060-SC09	ø47~ø60	SCMT09T308	M0410SS	TSB-35080	T-15
EMS50	RBC-060076-SC12	ø60~ø76	SCMT120408	M0514SS		
EMS63	RBC-076098-SC12	ø76~ø98		M0515SS	TSB-50125	T-20
EMS80	RBC-098125-SC12	ø98~ø125		M0620SS		



### ● 황삭 보링틀 헤드 Boring Head

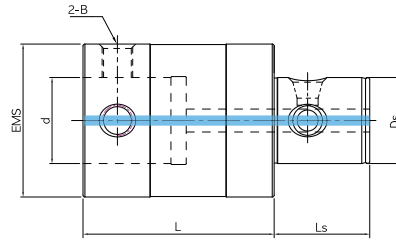
#### ▶ RBH

Group	Code No.	보링범위 Boring Range(D)	치수 Dimension(mm)				부품 Component
			EMS	Ds	L1	Ls	
EMS25	RBH-251437	ø28~ø36	25	14	37.5	16	M0420HC-HT
EMS32	RBH-321844	ø36~ø47	32	18	44.5	20	M0630HC-HT
EMS40	RBH-402250	ø47~ø60	40	22	50	25	M0835HC-HT
EMS50	RBH-502855	ø60~ø76	50	28	55	30	M1040HC-HT
EMS63	RBH-633660	ø76~ø98	63	36	60	40	M1245HC-HT
EMS80	RBH-804576	ø98~ø125	80	45	76.5	50	M1455HC-HT



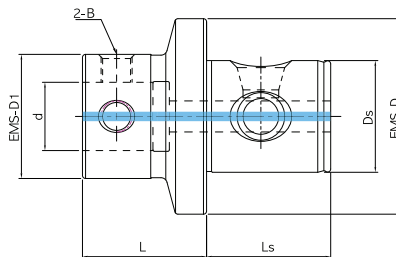
# RB-BORING

## EXB / EXR



### ● EMB 연결대 EXB Extension Bar

Group	Code No.	치수 Dimension(mm)					부품 Component	
		EMS	d	L	Ds	Ls	B	
EMS25	EXB-2514030	25	14	30	14	16	MTB-06085	
	50							
EMS32	EXB-3218030	32	18	30	18	20	MTB-08115	
	60							
EMS40	EXB-4022040	40	22	40	22	25	MTB-10145	
	80							
EMS50	EXB-5028050	50	28	50	28	30	MTB-12175	
	90							
EMS63	EXB-6336060	63	36	60	36	40	MTB-16225	
	100							
EMS80	EXB-8045070	80	45	70	45	50	MTB-16260	
	110							



### ● EXR 레듀서 EXB Reduction Bar

Group	Code No.	치수 Dimension(mm)						부품 Component	
		Ds	d	L	Ls	EMS-D	EMS-D1	B	
EMS32/EMS25	EXR-1814030	18	14	30	20	32	25	MTB-06085	
EMS40/EMS25	EXR-2214030	22	14	30	25	40	25	MTB-08115	
EMS40/EMS32	EXR-2218030		18	30					
EMS50/EMS25	EXR-2814030	28	14	30	28	50	25	MTB-06085	
EMS50/EMS32	EXR-2818030		18	30					
EMS50/EMS40	EXR-2822040	36	22	40	40	63	40	MTB-10145	
EMS63/EMS32	EXR-3618030		18	30					
EMS63/EMS40	EXR-3622040	36	22	40	40	63	40	MTB-10145	
EMS63/EMS50	EXR-3628040		28	40					
EMS80/EMS40	EXR-4522040	45	22	40	50	80	40	MTB-10145	
EMS80/EMS50	EXR-4528040		28	40					
EMS80/EMS63	EXR-4536060	45	36	60	50	80	50	MTB-12175	
			60	60					

※ 보링툴 연결대, 레듀서 및 보링헤드와 체결되는 툴홀더는 'EMS 모듈러 툴홀더' (P.104~P.106)입니다.

※ The tool holder that locks with EXB, EXR and Boring Head is EMS Modular Tool Holder.(P.104~P.106)

