

가  
.

8



## (SYMBOL)

CAD

(block)

’  
( )



1.

가

2.

3.

(attribute)

(BOM)

4. AutoCAD

5.

### ■ BLOCK

가

6.

7.

‘ 0 ’

8.

가

9.



● NGIS

## ■ 가

1999 가 (NGIS, National Geographical Information System) ( ) .

KICS.KO -10.0067 : NGIS 가 ( )

TTA-KO -10.0096 : NGIS 가 ( 가 , )

1	2	3		

1. : (A, B, C)

<b>A</b>		
<b>B</b>		
<b>C</b>	/	, ,
<b>D</b>		, ,
<b>E</b>	/	, , ,
<b>F</b>		
<b>S</b>		
<b>Z</b>		, ,

2. : (E,F,G)

3. : , 000( )~999( ) 3

【 】 ZA001 :



ZA002 :



SB101 :



SB102 :



1

가

가

■

가

가 CALS

1	2	3				4			
		(-)							
	( )								

1. : (C), (A), (L),  
(E), (M) 1 . [ 1 ]
2. - : [ ] (G),  
(E), (D), [ ](S), (P), (M), (L), (X)  
(R) (C) 가 1
3. : 4  
ANNO ANNO . [

【 】

→ CGWATMH (WATer Man H ole)



→ CGELECPL (ELEctrical P oLe)



IP → CEIPMRK (IP MaRK)



4.

:

가

4

가

.

4

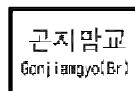
]

【 】

"CMSB107-1"



"CMSB427-2"







GIS, UIS, FMS

NGIS

가

(TBM,가 )

 18	 1	(NGIS)  7311	 CGTBMRK
---	--	---	--

가

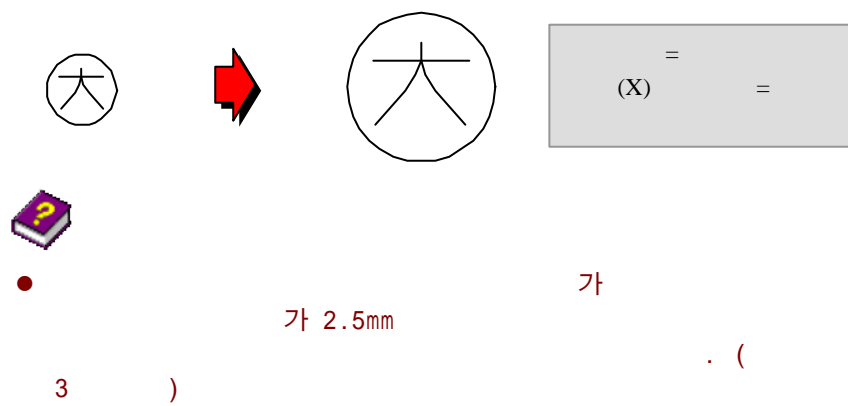
가

가

	가	
1	가 가 1×1 ,	
	1 : 1	/
		/
	(attribute) data 가	

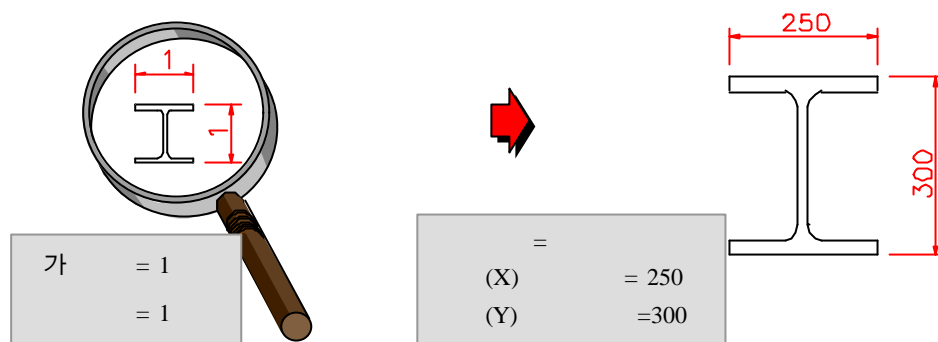
■ (simple)

가



# ■ 1 (unit)

L- , H-

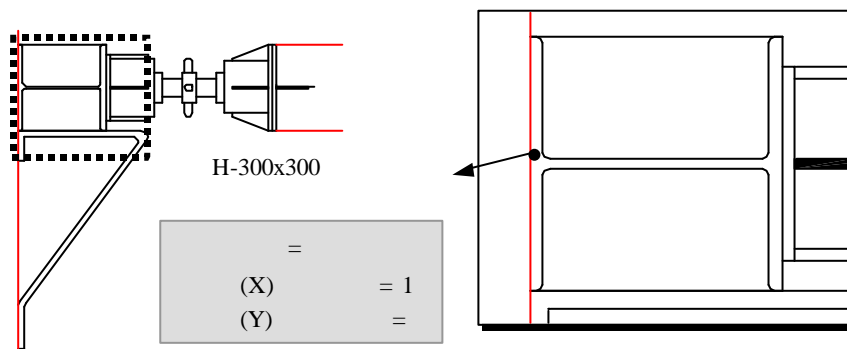


● 1

(Base point)

● 1

# ■ (real size)

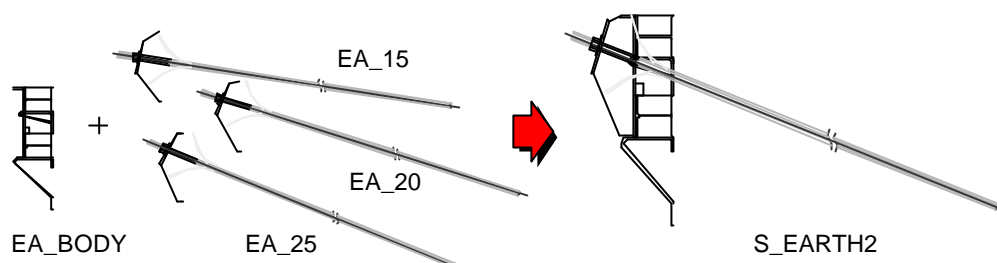


●

1:1

■ (multiple)

가



- EARTH ANCHOR  
가 25 EA\_20 EA\_25 EA\_BODY EA\_20
- 
- 
- (EXPLODE)

■ (attribute)

가

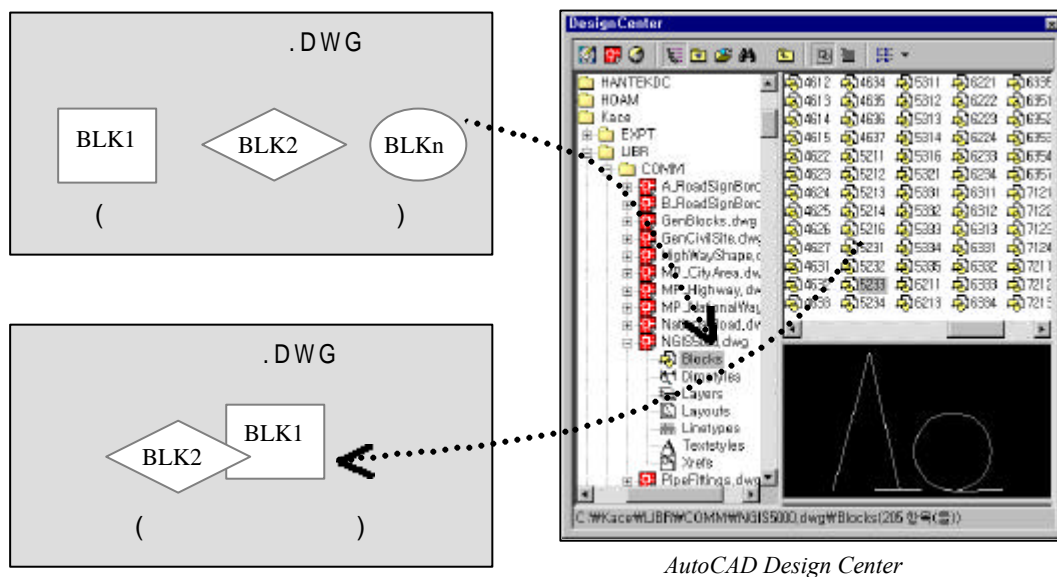


- EARTH ANCHOR  
가 25 EA\_20 EA\_25 EA\_BODY EA\_20
-



가

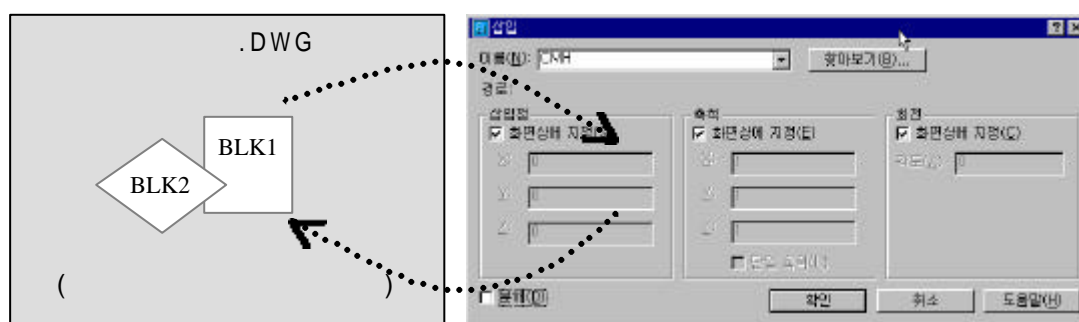
AutoCAD 2000 Design Center



가

INSERT

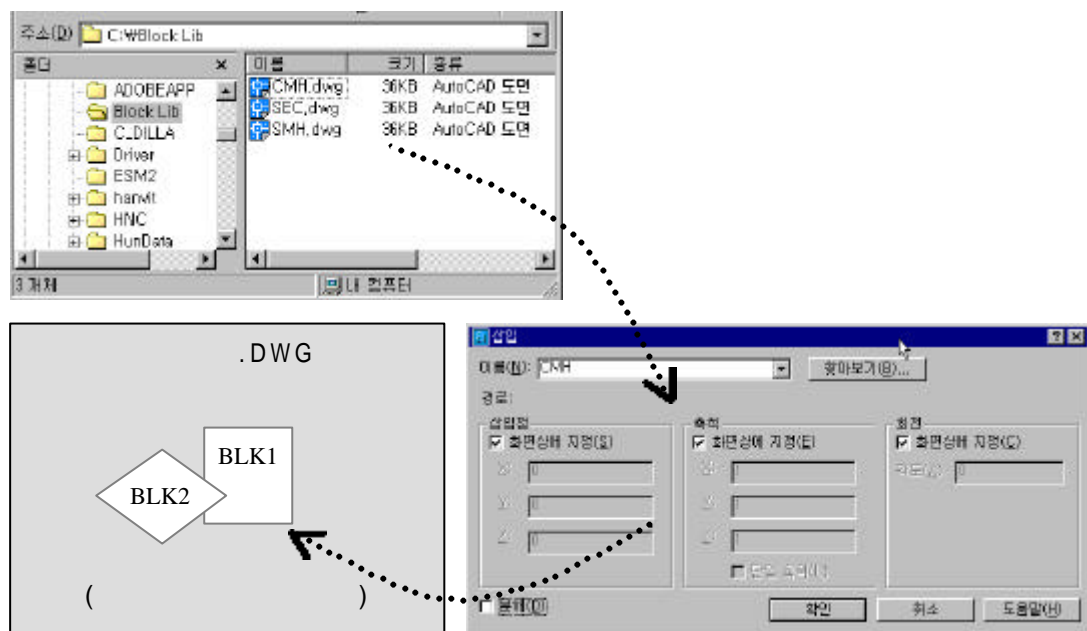
가



가

,

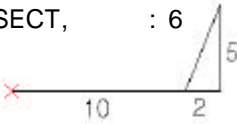
가



8-1.



가 10  
 .  
 .  
 (Insertion  
 point),

LAYER : CG-SECT, : 6  
 SEC 

0  
 CMH 

0  
 SMH 

✕ 블록 입력점(Insert Point)



, 가  
 . , 가


가			
	0	BYBLOCK BYLAYER	SEC
	0	BYLAYER	CMH, SMH
		BYBLOCK	



10

가

## 7-2. BLOCK, BMAKE( )

: (DRAW) → (BLOCK) → (MAKE)  
 Command : BLOCK, -BMAKE  
 Tool Bar : (DRAW) → 

: -BLOCK

[?]: SEC

: END <- ( )

: 1

:

: BLOCK BMAKE 

1.

.

가

OOPS

2.

3.

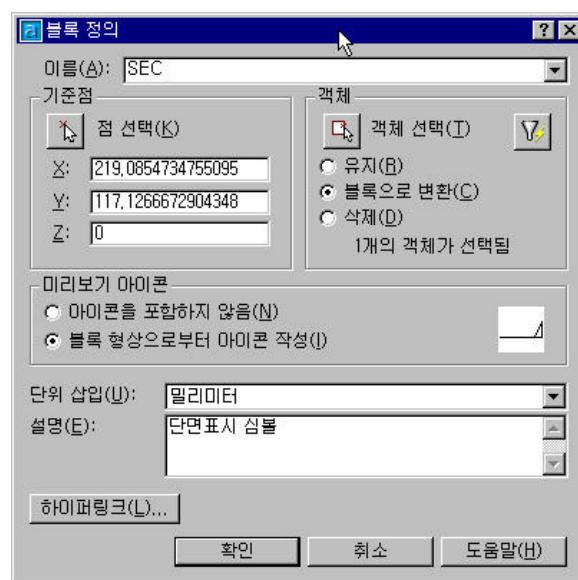
4.

5.

6.


AutoCAD DesignCenter (ADCENTER)

CMH, SMH




X,Y,Z

### 8-3. (INSERT, DDINSERT)

: (INSERT) → ..(BLOCK)  
 Command : INSERT, -BMAKE  
 Tool Bar : (DRAW) → 

: -INSERT

[?] <SEC>: SEC  
 [ (S)/X/Y/Z/ (R)/ (PS)/PX/PY/PZ/ (PR)]:  
 X , , [ (C)/XYZ] <1>:  
 Y <X >:  
 <0>:

: INSERT DDINSERT 

1.

2.



3.

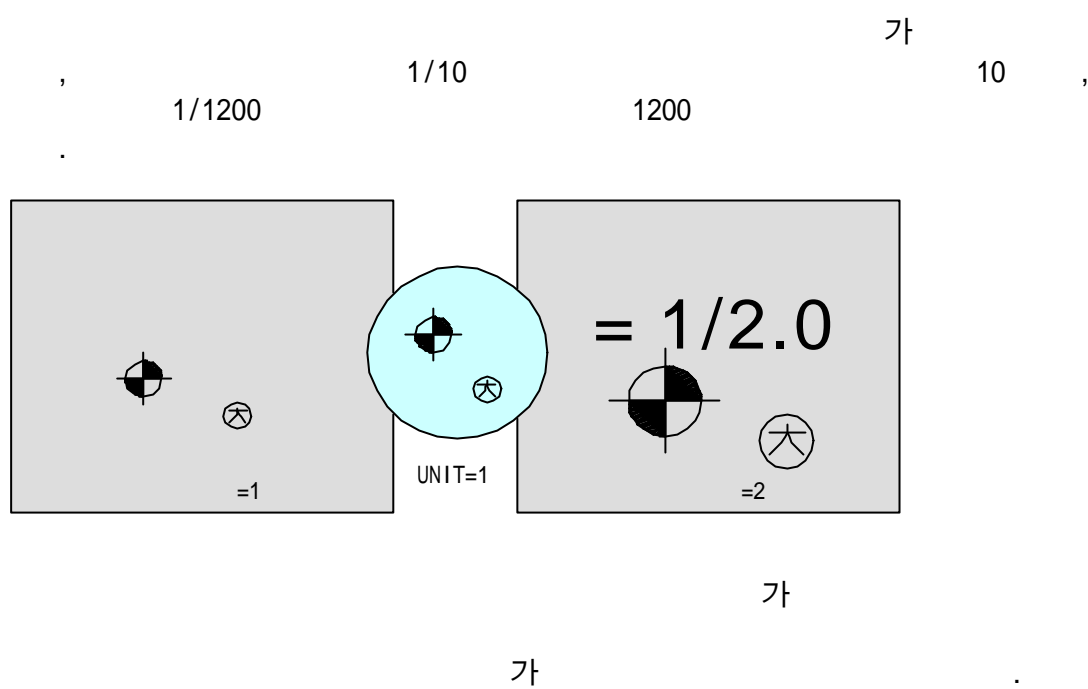
[ (S)/X/Y/Z/ (R)/ (PS)/PX/PY/PZ/ (PR)]:  
 X , , [ (C)/XYZ] <1>: 2  
 Y <X >: 2  
 <0>:

가 'σ

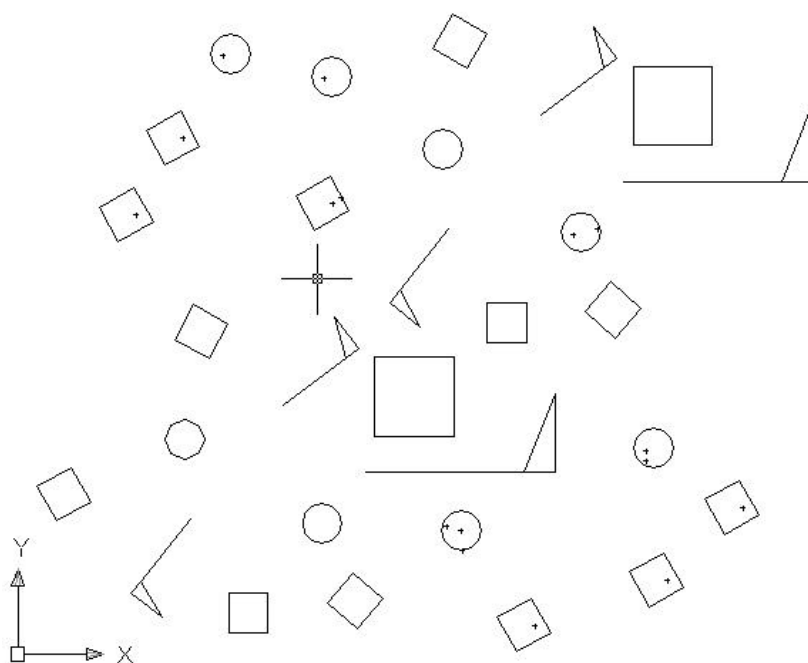
가

가

가



CMH, SMH



## 8-4. (EXPLODE)

: EXPLODE



: 1

: 1

, 2

: 1

, 3

:

1

2 가 : 3D solid, Block, Region, 2D polyline, Body, Polyline, Polyface mesh, 3D polyline, XY Circle Arc



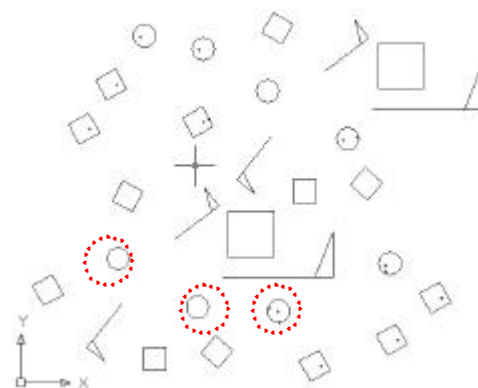
before EXPLODE



after EXPLODE

가

CMH (EXPLODE)



## 8-5.

CMH



1.

CMH

2.

CMH

1

3.

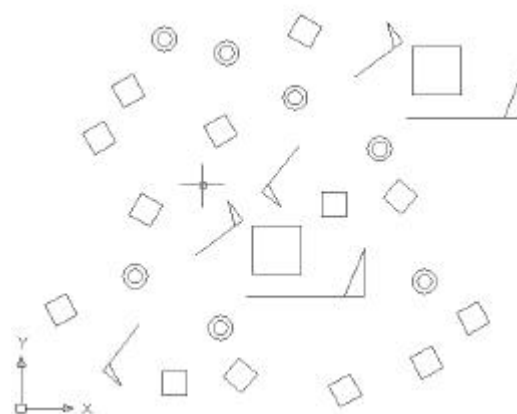
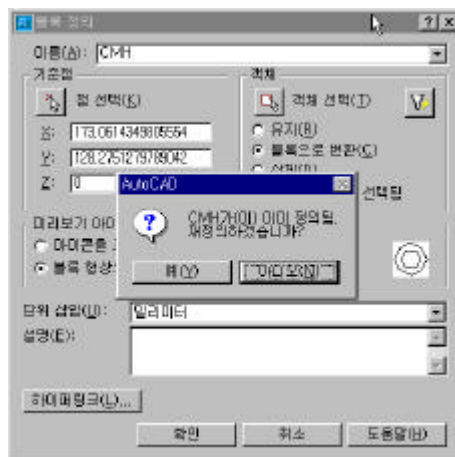
4.

(SMH)

```

: -BLOCK
[?]: CMH
CMH ? [ (Y)/ (N)] <N>: Y
: CEN <-
:
: 2
:
"CMH"
: BLOCK BMAKE

```



CMH

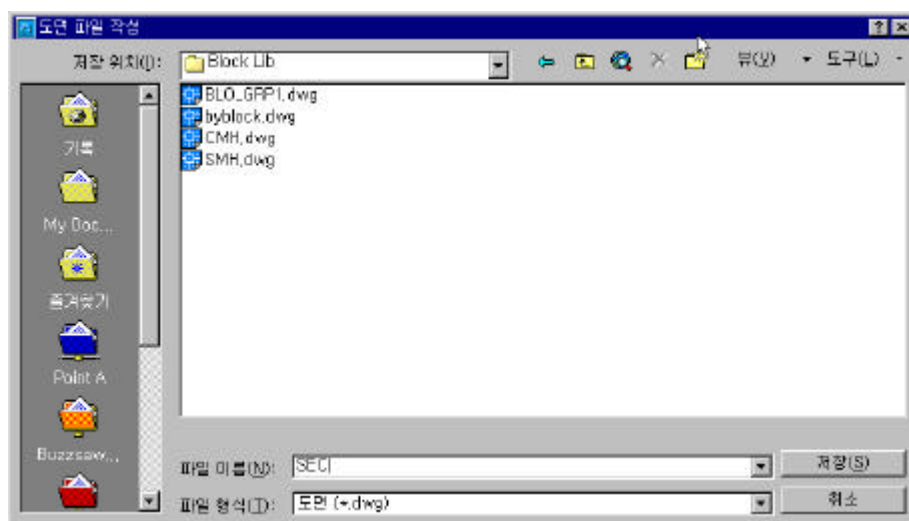


## 8-6. WBLOCK( )

Command : WBLOCK, -WBLOCK

가

: -WBLOCK



[ = ( = ) / \* ( ) ] < > : SEC



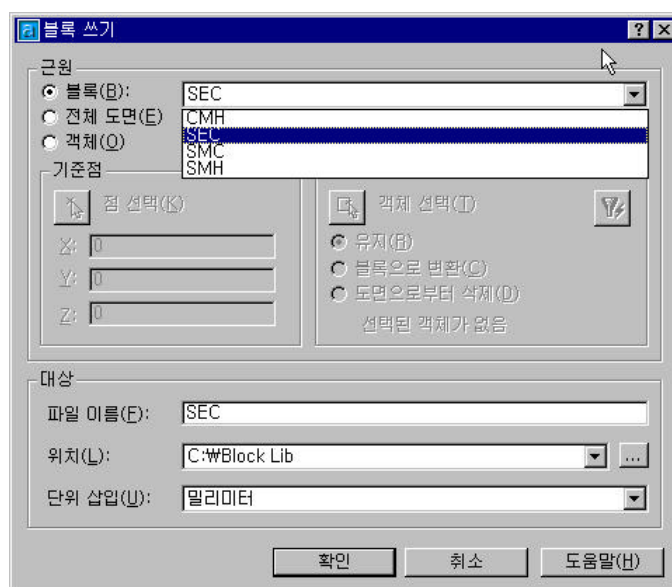
● \*  
=  
: WBLOCK

1.

(Block) :  
(Entire Drawing)  
(Object) :

2.

3.



## 8-7.

, WBLOCK

1.

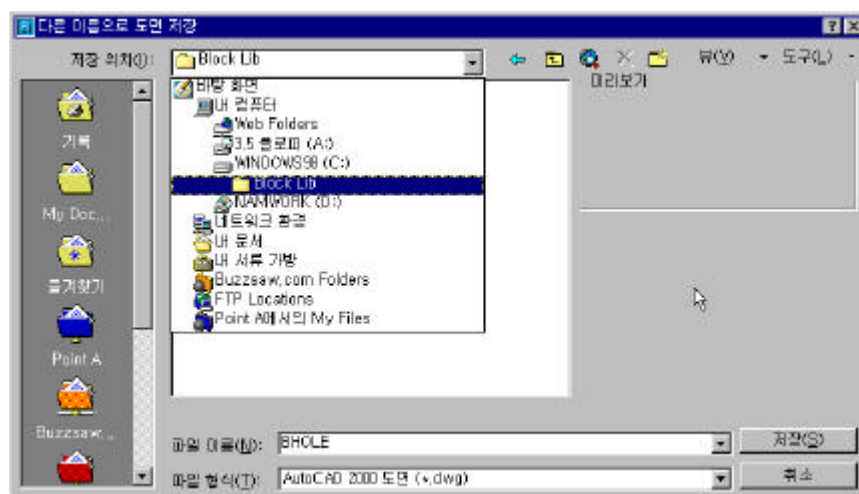
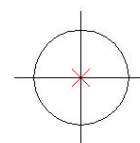
2. D=5, =0

3. BASE

: BASE

&lt;0.0000,0.0000,0.0000&gt;: CEN &lt;- ( )

4. SAVE



DONUT

: =0, =35 :  
 : CS-BARS  
 : CSRBARS

H- STEEL GRATING COVERED ( )

1:1

: 1x1 :  
 : CS-STLM  
 : CSHBEAM, CGDRNMH

(ATTRIBUTE)

ADCENTER