

TNO-6320E

2M H.264 Explosion-proof Camera



Key Features

- Max. 2megapixel (1920 x 1080) resolution
- Max. 60fps@2M all resolutions
- 4.44 ~ 142.6mm (32x) optical zoom, 16x digital zoom
- 0.15Lux@F1.6(color), 0.015Lux@F1.6(B/W)
- H.264, MJPEG dual codec, Multiple streaming
- Day & Night (ICR), WDR (120dB)
- Face detection, Tampering, Virtual line support
- Explosion-proof certificate
: CE2460 EX II 2 GD Ex d IIC T6 Gb IP67 Ex tb IIIC T85°C Db
- Stainless 316L, Built-in Wiper
- IP67, IK10

Accessories (Optional)



SBE-100WM



SBE-100PM



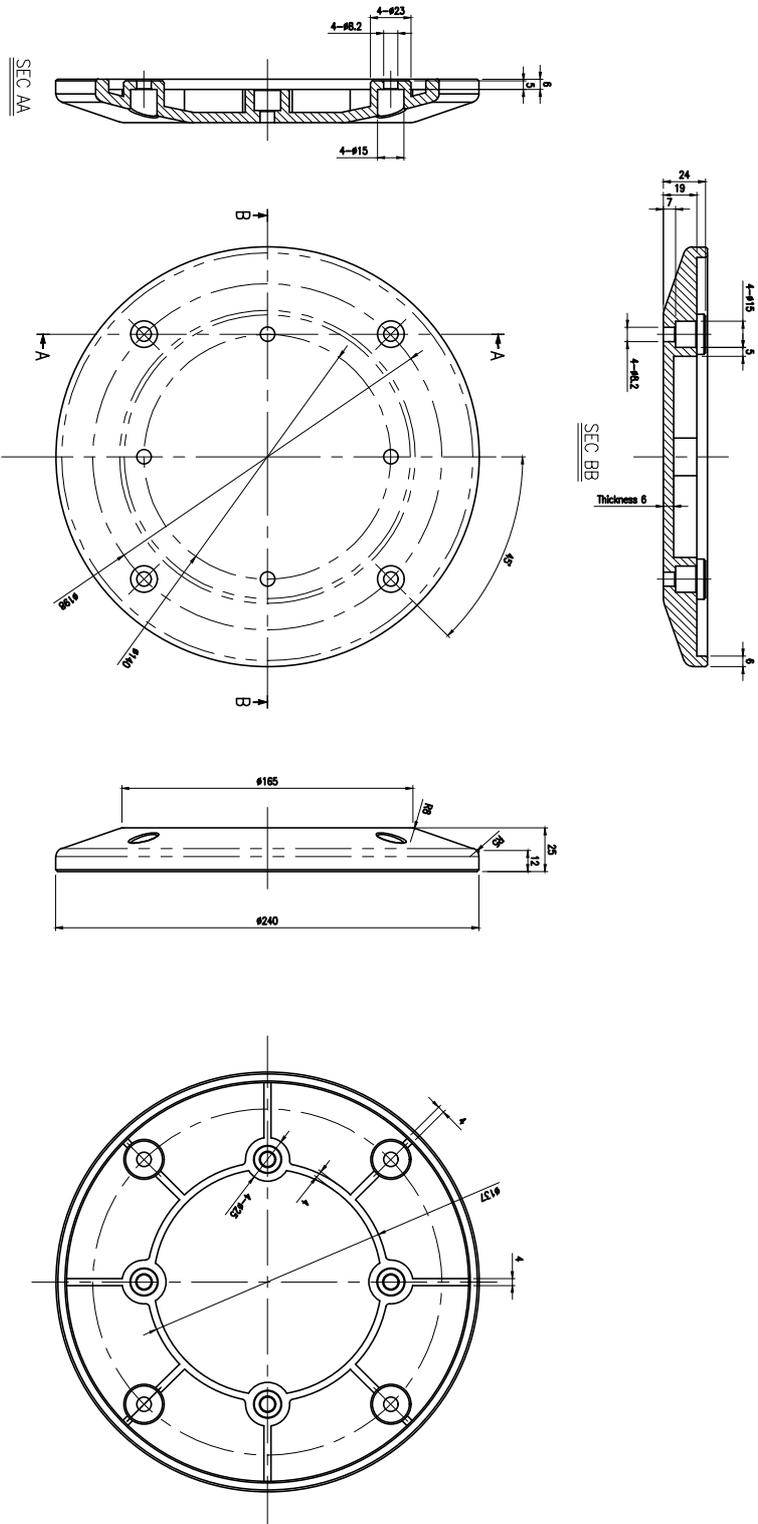
SBE-100CM

Video	
Imaging Device	1/2.8" 2MP CMOS
Effective Pixels	1944(H)x1104(V)
Min. Illumination	Color: 0.15Lux(F1.6, 1/30sec) B/W: 0.015Lux(F1.6, 1/30sec)
Lens	
Focal Length (Zoom Ratio)	4.44~142.6mm(32x) zoom
Max. Aperture Ratio	F1.6 (Wide)~F4.4 (Tele)
Angular Field of View	H: 62.8°(Wide)~2.23°(Tele) / V: 36.80°(Wide)~1.26°(Tele)
Min. Object Distance	1.5m(59.06ft)
Focus Control	Oneshot AF
Lens Type	DC auto iris
Operational	
Camera Title	Displayed up to 45 characters
Day & Night	Auto(ICR)
Backlight Compensation	BLC, HLC, WDR, SSSDR
Wide Dynamic Range	120dB
Digital Noise Reduction	SSNRⅢ
Digital Image Stabilization	Support
Defog	Support
Motion Detection	4ea, rectangular zone
Privacy Masking	32ea, rectangular zone - Mosaic
Gain Control	Low / Middle / High
White Balance	ATW / AWC / Manual / Indoor / Outdoor
Electronic Shutter Speed	Minimum / Maximum / Anti flicker (2~1/12,000sec)
Video Rotation	Flip, Mirror
Analytics	Face detection, Motion detection, Appear/Disappear, Enter/Exit, Tampering, Virtual line
Alarm I/O	Input 1ea / Output 1ea
Alarm Triggers	Analytics, Network disconnect, Alarm input
Alarm Events	File upload via FTP and e-mail Notification via e-mail NAS recording at event triggers Alarm output
Wiper	Support
Network	
Ethernet	RJ-45(10/100BASE-T)
Video Compression	H.264: Main/Baseline/High, MJPEG
Resolution	1920x1080, 1280x1024, 1280x960, 1280x720, 1024x768, 800x600, 800x448, 720x576, 720x480, 640x480, 640x360, 320x240
Max. Framerate	H.264: Max. 60fps/50fps(60Hz/50Hz) MJPEG: Max. 30fps/25fps(60Hz/50Hz)
Smart Codec	Manual(5ea area)

Bitrate Control	H.264: CBR or VBR MJPEG: VBR
Streaming	Unicast(10 users) / Multicast Multiple streaming(Up to 10 profiles)
Protocol	IPv4, IPv6, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTCP,RTSP, NTP, HTTP, HTTPS, SSL/TLS, DHCP, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, PIM-SM, UPnP, Bonjour
Security	HTTPS(SSL) Login Authentication Digest Login Authentication IP Address Filtering User access Log 802.1X Authentication(EAP-TLS, EAP-LEAP)
Application Programming Interface	ONVIF Profile S SUNAPI (HTTP API) SVNP 1.2 Wisenet open platform
Web Viewer	Supported OS: Windows 7, 8.1, 10, Mac OS X 10.10, 10.11, 10.12 Recommended Browser: Google Chrome Supported Browser: MS Explore11,~MS Edge, Mozilla Firefox(Window 64bit only), Apple Safari(Mac OS X only)
Memory	512MB RAM, 128MB Flash
Environmental	
Operating Temperature / Humidity	-40°C~+60°C (-40°F~+140°F) / Less than 90% RH * Start up should be done at above -30°C
Storage Temperature / Humidity	-30°C~+60°C (-22°F~+140°F) / Less than 90% RH
Certification	IP67, IK10 CE2460, EX II 2 GD, Ex d IIC T6 Gb IP67 Ex tb IIIC T85°C Db
Electrical	
Input Voltage	24VAC
Power Consumption	24VAC: Max 28W
Mechanical	
Color / Material	Silver / Stainless(SUS316L)
Product dimensions / weight	Ø162 x 244mm(Ø6.38 x 9.61"), 7Kg(15.43 lb)

- The latest product information / specification can be found at hanwha-security.com
- Design and specifications are subject to change without notice.
- Wisenet is the proprietary brand of Hanwha Techwin , formerly known as Samsung Techwin.

REV	LIST OF MODIFICATION	REASON OF MODIFICATION	DATE	NAME	APPR
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NOTE

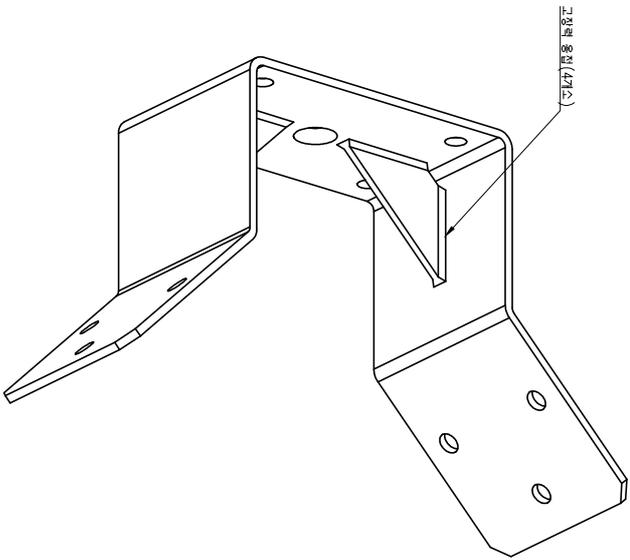
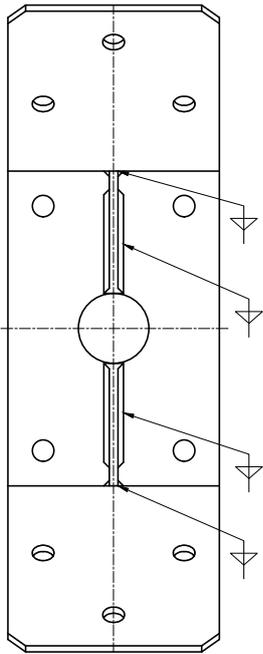
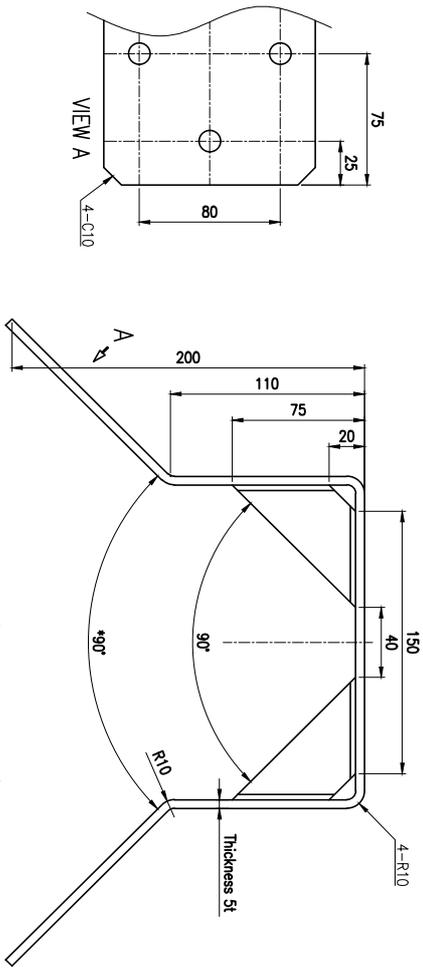
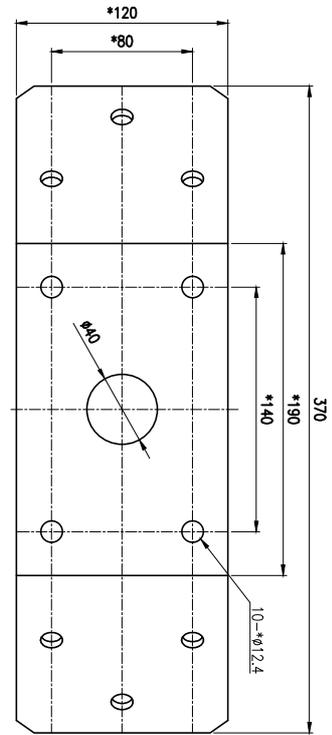
1. THE BASIS OF ASSESSMENT OF APPEARANCE IS APPROVAL SAMPLE.
2. MANUFACTURER MUST PRODUCE MASS PRODUCTION AFTER A DESIGNERS APPROVAL.
3. IF THIS PART IS APPLIED TO THE ROHS, MUST USE ONLY THE MATERIAL WHICH PASSED THE BODY BURDEN TEST OF A QUALIFIED TEST LAB.
4. THE DIMENSION WHICH IS OMITTED IN THIS DRAWING REFERS TO THE 3D DATA.
5. MUST CHECK THE *** DIMENSION PERIODICALLY.
6. THE SURFACE FINISHED SPECIFICATION MUST BE COMPLETED.
7. AFTER ASSEMBLY, THE VISIBLE SURFACE MUST BE WARROR BUFFING.
8. THE SURFACE FINISH SPECIFICATION MUST BE WARROR BUFFING.
9. DO HAVE LESS THAN 0.5 ON ALL CHAMFER THAT ARE NOT SPECIFIED.
10. BURR ON THE EDGE MUST BE MINIMIZED.
11. Δ 2 GD Ex d ITC Gb 16, -40°C ≤ ts ≤ +60°C, J667 Ex tb ITC Db 1689°C

General tolerance that are not specified		DIM'S GRADE			NO.		TITLE		DWG. NO.		MATERIAL		FINISH		REMARK	
1-4 MAX.	5-16	16-63	63-250	250-500	500-1000	APPROVED	CHECKED	DESIGN	CH.CHA	SCALE	MIRROR BUFFING	MODEL	TITLE	DWG. NO.	REF. NO.	EXP SERIES
±0.05	±0.10	±0.20	±0.30	±0.50	±1.50	344052A05Z	344052A05Z	344052A05Z	344052A05Z	1:2	REAR	344052A05Z	PEDESTAL	344052A05Z	Rev.01	

외주제작용	<input type="checkbox"/>
출	<input type="checkbox"/>
승 인 용	<input type="checkbox"/>
영 산 용	<input checked="" type="checkbox"/>

권우이 엔지니어링
2016.11.09

작성/수정	2016.11.09
확인	
승인	
승인	
승인	



REV	LIST OF MODIFICATION	REASON OF MODIFICATION	DATE	NAME	APPR

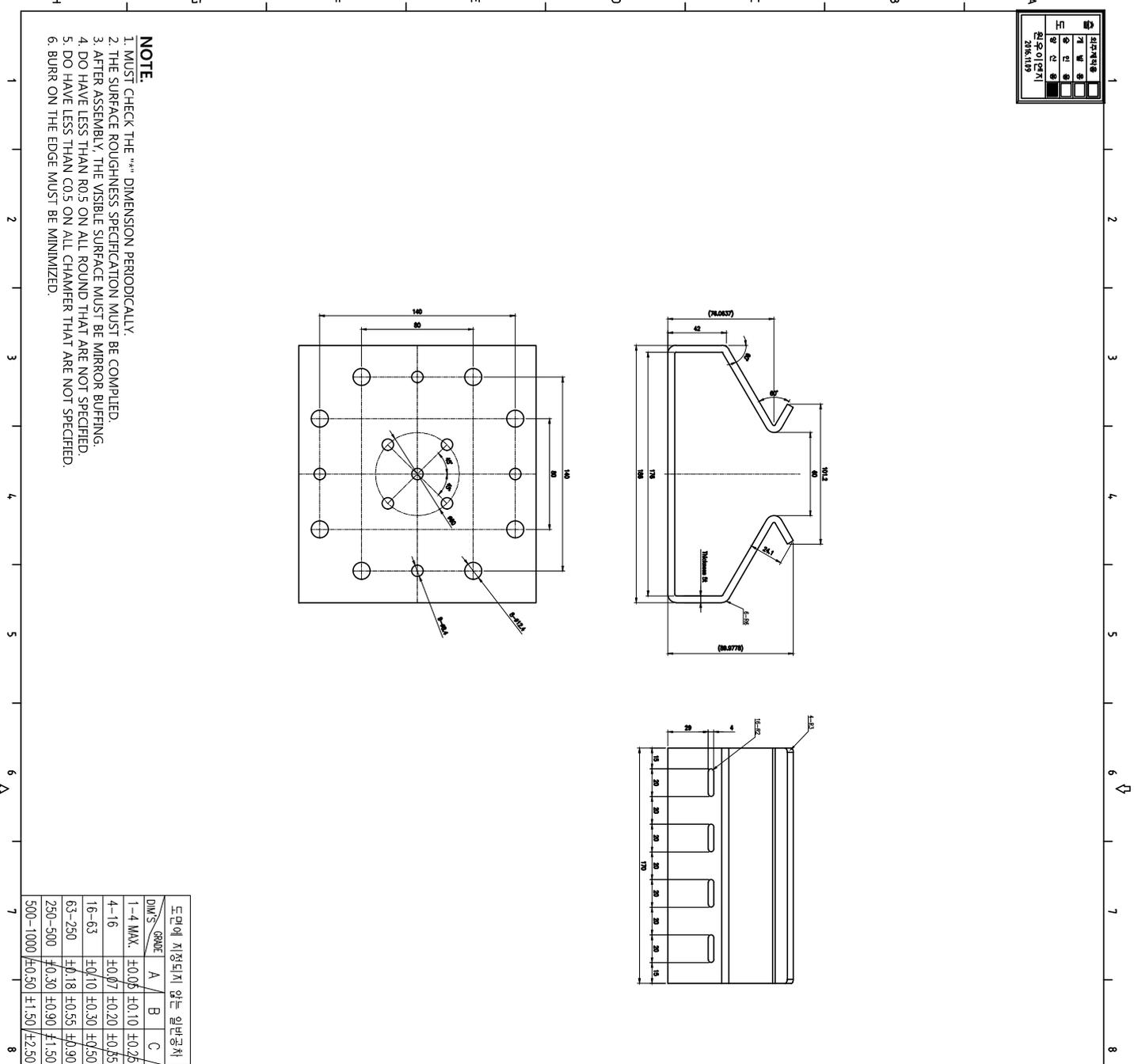
NOTE.

1. MUST CHECK THE "R" DIMENSION PERIODICALLY.
2. THE SURFACE ROUGHNESS SPECIFICATION MUST BE COMPLIED.
3. AFTER ASSEMBLY, THE VISIBLE SURFACE MUST BE MIRROR BUFFING.
4. DO HAVE LESS THAN R0.5 ON ALL ROUND THAT ARE NOT SPECIFIED.
5. DO HAVE LESS THAN C0.5 ON ALL CHAMFER THAT ARE NOT SPECIFIED.
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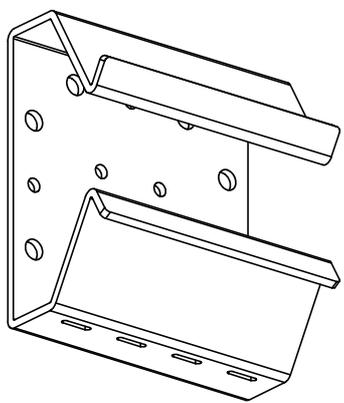
도면에 지정되지 않는 일반공차	A	B	C
DIMS GRADE			
1-4 MAX.	±0.05	±0.10	±0.25
4-16	±0.07	±0.20	±0.55
16-63	±0.10	±0.30	±0.50
63-250	±0.18	±0.55	±0.90
250-500	±0.30	±0.90	±1.50
500-1000	±0.50	±1.50	±2.50

APPROVED	G.S.KIM	MATERIAL	SUS304	MODEL	TNU/TNO-6320E
CHECKED		FINISH	NI Plating	TITLE	CORNER BRACKET
DESIGN	D.Y.HAM	REF. NO.		DWG. NO.	316052A40
DRAWN		SCALE	1/1	REF. NO.	
		DATE	2016.08.21		
					SHEET 1 OF 1

입력사항	기밀	중간	출판
한우이엔지	○	○	○
2016.11.19			



REV	LIST OF MODIFICATION	REASON OF MODIFICATION	DATE	NAME	APPR
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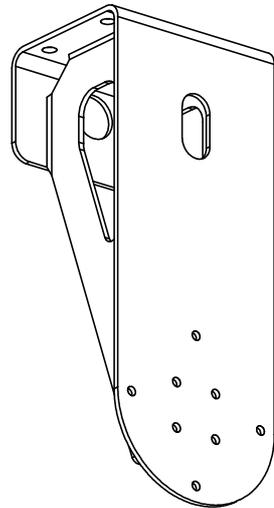
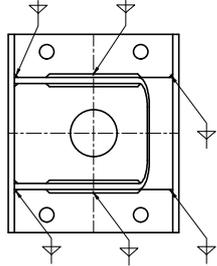
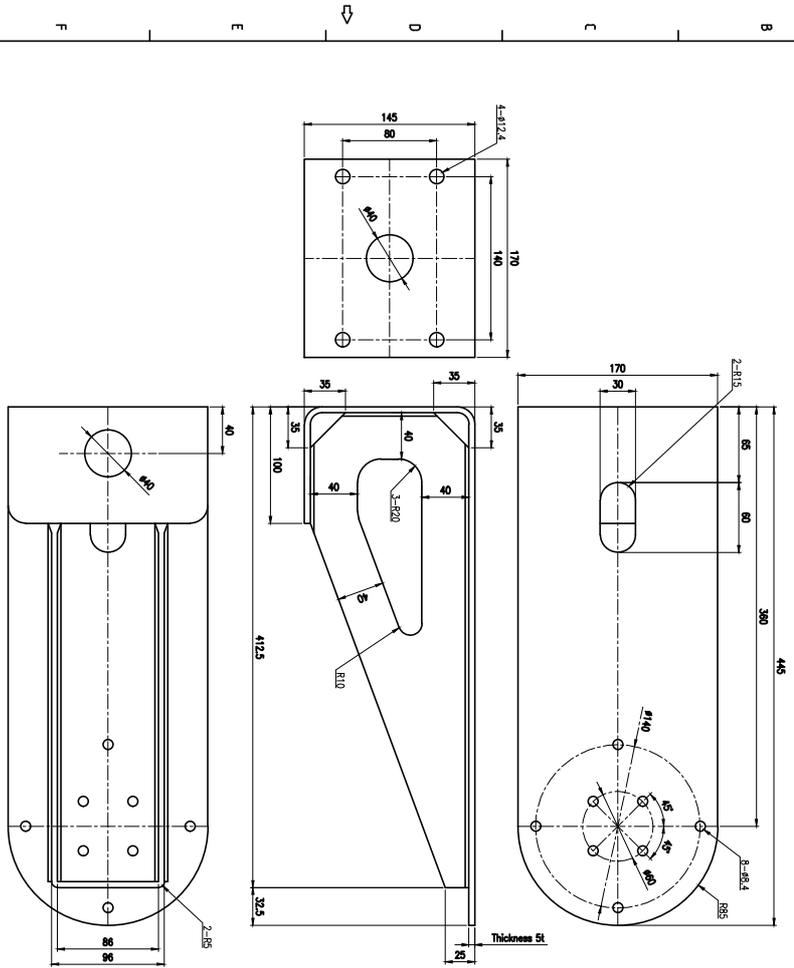
DIM'S	도면에 지정되지 않는 일반공차		
	A	B	C
1-4 MAX.	±0.05	±0.10	±0.25
4-16	±0.07	±0.20	±0.65
16-63	±0.10	±0.30	±0.50
63-250	±0.18	±0.55	±0.90
250-500	±0.30	±0.90	±1.50
500-1000	±0.50	±1.50	±2.50

 WORLDWIDE ENGINEERING	APPROVED	G.S.KIM	MATERIAL	SUS304	MODEL	POLE BRACKET
	CHECKED	D.Y.HAM	FINISH	NI Pading	TITLE	-
	DESIGN				DWG. NO.	316052A30
	DRAWN				REF. NO.	Rev.0

SCALE	1/1	DWG. DATE	2016.08.21	SHEET	1 OF 1
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AZ1594mm X 4,20mm

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개	개	<input type="checkbox"/>
승	승	<input type="checkbox"/>
인	인	<input type="checkbox"/>
용	용	<input type="checkbox"/>
원	원	<input type="checkbox"/>
우	우	<input type="checkbox"/>
이	이	<input type="checkbox"/>
엔	엔	<input type="checkbox"/>
지	지	<input type="checkbox"/>
2016.11.09		



REV	LIST OF MODIFICATION	REASON OF MODIFICATION	DATE	NAME	APPR
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도면에 지정되지 않는 일반공차				
DIMS	GRADE	A	B	C
1-4	MAX.	±0.05	±0.10	±0.25
4-16		±0.07	±0.20	±0.65
16-63		±0.10	±0.30	±0.50
63-250		±0.18	±0.55	±0.90
250-500		±0.30	±0.90	±1.50
500-1000		±0.50	±1.50	±2.50

	APPROVED	G.S.KIM	MATERIAL	SUS304	MODEL	TNU/TNO-6320E
	CHECKED		FINISH	NI Pading	TITLE	WALL BRACKET
	DESIGN	D.Y.HAM			DWG. NO.	316052A00
	DRAWN				REF. NO.	

SCALE	1/1	DATE	2016.08.08
		SHEET	1 OF 1

