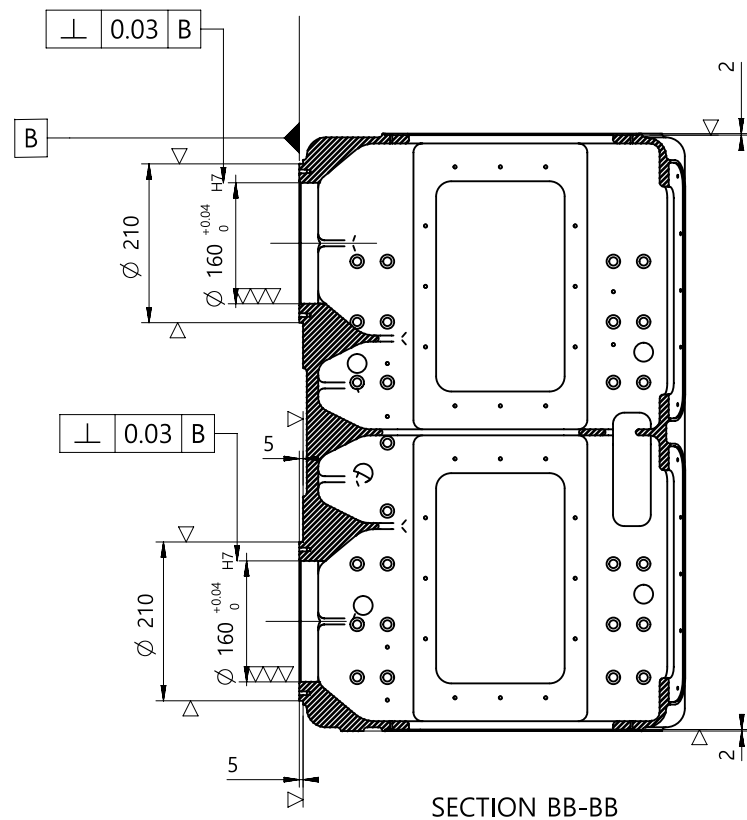
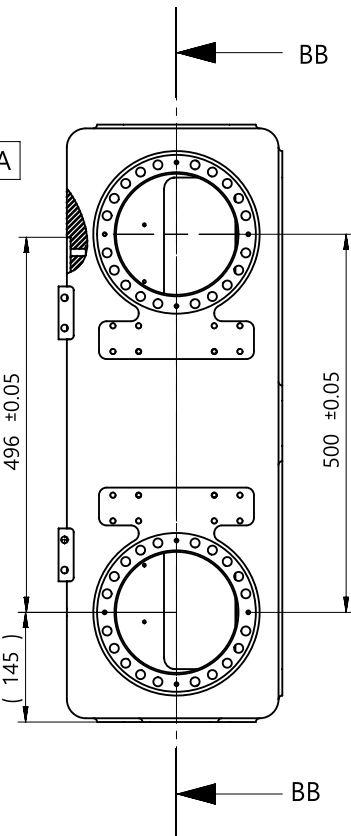
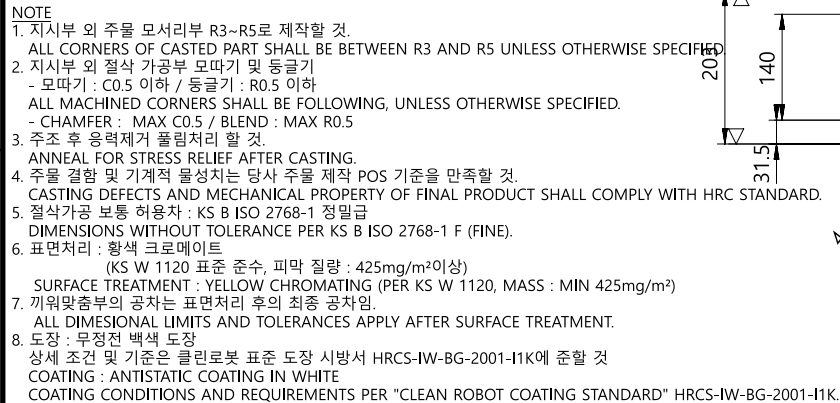


H	
	G

FEC

A

B

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HYUNDAI ROBOTICS CO., LTD.

GENERAL TOLERANCE UNLESS NOTED Satisfied with Length & Thickness (길이와 두께 공차 동시 만족 조건)					
SAND CASTING ± (사형주조)	C1 정밀	C2 보통	C1 정밀	C2 보통	
≤10	1.5	2	0.3	0.9	
~25	1.5	2	0.4	1.0	
~50	1.5	2	0.5	1.1	
~120	1.5	2	0.7	1.2	
~250	2	2.5	0.9	1.4	
~400	2.5	3.5	1.1	1.8	
~800	4	5	1.6	2.5	
~1600	5	7	-	4	
~3150	-	10	-	7	
THICKNESS					
≤6	1.2	2	0.6	1.2	
~10	1.2	2	0.7	1.4	
~18	1.5	2.5	0.8	1.6	
~30	2	3	0.9	1.8	
~50	2.5	4	1.0	2.2	

MACHINING ±	F 정밀	M 보통	C 거친
0.5~3	0.05	0.1	0.2
~6	0.05	0.1	0.3
~30	0.1	0.2	0.5
~120	0.15	0.3	0.8
~400	0.2	0.5	1.2
~1M	0.3	0.8	2
~2M	0.5	1.2	3
~4M	-	2	4

WELDING ±	LENGTH A 정밀	B 보통	E 정밀	F 보통
2~30	1	1	-	-
~120	1	2	0.5	1
~400	1	2	1	1.5
~1M	2	3	1.5	3
~2M	3	4	2	4.5
~4M	4	6	3	6
~8M	5	8	4	8
~12M	6	10	5	10
~16M	7	12	6	12
~20M	8	14	7	14

STANDARD FOR SURFACE ROUGHNESS	
MARKS	Ra Rz
~	✓ Rz 2.5 Rz 100
▽	✓ Ra 0.3 Rz 2.5
▽▽	✓ Ra 1.6 Rz 6.3
▽▽▽	✓ Ra 0.2 Rz 0.8

NOTE

- 지시부 외 주물 모서리부 R3~R5로 제작할 것.
ALL CORNERS OF CASTED PART SHALL BE BETWEEN R3 AND R5 UNLESS OTHERWISE SPECIFIED.
- 지시부 외 절삭 가공부 모따기 및 둥글기
- 모따기 : C0.5 이하 / 둥글기 : R0.5 이하
ALL MACHINED CORNERS SHALL BE FOLLOWING, UNLESS OTHERWISE SPECIFIED.
- CHAMFER : MAX C0.5 / BLEND : MAX R0.5
- 주조 후 응력제거 풀림처리 할 것.
ANNEAL FOR STRESS RELIEF AFTER CASTING.
- 주물 결함 및 기계적 물성치는 당사 주물 제작 POS 기준을 만족할 것.
CASTING DEFECTS AND MECHANICAL PROPERTY OF FINAL PRODUCT SHALL COMPLY WITH HRC STANDARD.
- 절삭가공 보통 허용차 : KS B ISO 2768-1 정밀급
DIMENSIONS WITHOUT TOLERANCE PER KS B ISO 2768-1 F (FINE).
- 표면처리 : 황색 크로메이트
(KS W 1120 표준 준수, 피막 질량 : 425mg/m²이상)
SURFACE TREATMENT : YELLOW CHROMATING (PER KS W 1120, MASS : MIN 425mg/m²)
- 끼워맞춤부의 공차는 표면처리 후의 최종 공차임.
ALL DIMESIONAL LIMITS AND TOLERANCES APPLY AFTER SURFACE TREATMENT.
- 도장 : 무정전 백색 도장
상세 조건 및 기준은 클린로봇 표준 도장 시방서 HRCS-IW-BG-2001-I1K에 준할 것
COATING : ANTISTATIC COATING IN WHITE
COATING CONDITIONS AND REQUIREMENTS PER "CLEAN ROBOT COATING STANDARD" HRCS-IW-BG-2001-I1K.

강동호		박재현	ECO00002080/6G ARM BASE 도면 클렌징 작업		04
2021-11-02		2021-11-02			
강동호		박재현	ECO00000419/HC1863B, HC1853B ZA COVER TAP 및 HOLE 위치 변경		03
2021-11-02		2021-11-02			
주찬욱		박재현	ECO00000374/HC1863B ZA 마운팅 메이트		02
2021-10-15		2021-10-25			
유소영		박재현	First Issue.	-	00
2021-06-23		2021-06-23			
DSND	CHKD	CHKD	APPD	REASON FOR MODIFICATION	QTY REV
PART NAME				PART NO.	
FRAME,BASE				P9900034120/04	
SURFACE TREATMENT		Yellow Chromating-Antistatic Liquid Coating		MATERIAL	AC4C-T6
SCALE	1 : 1	WEIGHT	39.762 kg	CONFIDENTIAL CODE	A
SHEET	2 / 4	REMARK			

A3(297x420mm)

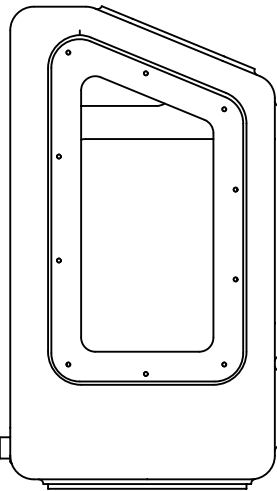
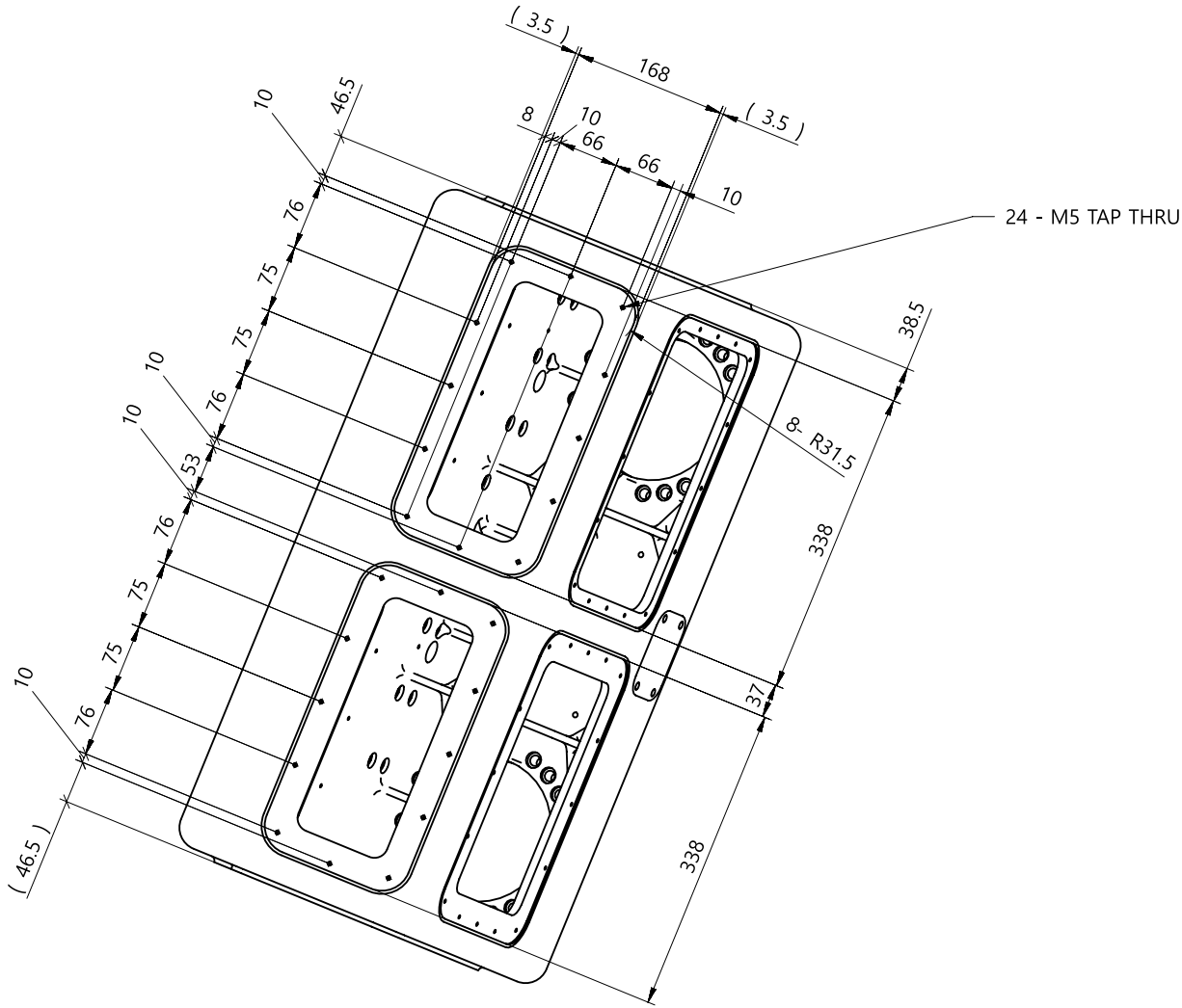
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GENERAL TOLERANCE UNLESS NOTED Satisfied with Length & Thickness (길이와 두께 공차 동시 만족 조건)					
SAND CASTING ± (사형주조)	FCD45		AC4C		
	C1 정밀	C2 보통	C1 정밀	C2 보통	
LENGTH	≤10	1.5	2	0.3	0.9
	~25	1.5	2	0.4	1.0
	~50	1.5	2	0.5	1.1
	~120	1.5	2	0.7	1.2
	~250	2	2.5	0.9	1.4
	~400	2.5	3.5	1.1	1.8
THICKNESS	~800	4	5	1.6	2.5
	~1600	5	7	-	4
	~3150	-	10	-	7
	≤6	1.2	2	0.6	1.2
	~10	1.2	2	0.7	1.4
	~18	1.5	2.5	0.8	1.6
	~30	2	3	0.9	1.8
	~50	2.5	4	1.0	2.2

MACHINING ±	F 정밀	M 보통	C 거친
0.5~3	0.05	0.1	0.2
~6	0.05	0.1	0.3
~30	0.1	0.2	0.5
~120	0.15	0.3	0.8
~400	0.2	0.5	1.2
~1M	0.3	0.8	2
~2M	0.5	1.2	3
~4M	-	2	4

WELDING ±	LENGTH		GEOMETRIC	
	A 정밀	B 보통	E 정밀	F 보통
2~30	1	1	-	-
~120	1	2	0.5	1
~400	1	2	1	1.5
~1M	2	3	1.5	3
~2M	3	4	2	4.5
~4M	4	6	3	6
~8M	5	8	4	8
~12M	6	10	5	10
~16M	7	12	6	12
~20M	8	14	7	14

STANDARD FOR SURFACE ROUGHNESS	
MARKS	Ra
	Rz
~	✓
▽	✓ Ra 2.5 Rz 100
▴ ▽	✓ Ra 6.3 Rz 25
▴ ▽ ▴ ▽	✓ Ra 1.6 Rz 6.3
▴ ▽ ▴ ▽ ▴ ▽	✓ Ra 0.7 Rz 0.8



NOTE

- 지시부 외 주물 모서리부 R3~R5로 제작할 것.
ALL CORNERS OF CASTED PART SHALL BE BETWEEN R3 AND R5 UNLESS OTHERWISE SPECIFIED.
- 지시부 외 절삭 가공부 모따기 및 둥글기
- 모따기 : C0.5 이하 / 둥글기 : R0.5 이하
ALL MACHINED CORNERS SHALL BE FOLLOWING, UNLESS OTHERWISE SPECIFIED.
- CHAMFER : MAX C0.5 / BLEND : MAX R0.5
- 주조 후 응력제거 풀림처리 할 것.
ANNEAL FOR STRESS RELIEF AFTER CASTING.
- 주물 결함 및 기계적 물성치는 당사 주물 제작 POS 기준을 만족할 것.
CASTING DEFECTS AND MECHANICAL PROPERTY OF FINAL PRODUCT SHALL COMPLY WITH HRC STANDARD.
- 절삭가공 보통 허용차 : KS B ISO 2768-1 정밀급
DIMENSIONS WITHOUT TOLERANCE PER KS B ISO 2768-1 F (FINE).
- 표면처리 : 황색 크로메이트
(KS W 1120 표준 준수, 피막 질량 : 425mg/m²이상)
SURFACE TREATMENT : YELLOW CHROMATING (PER KS W 1120, MASS : MIN 425mg/m²)
- 끼워맞춤부의 공차는 표면처리 후의 최종 공차임.
ALL DIMENSIONAL LIMITS AND TOLERANCES APPLY AFTER SURFACE TREATMENT.
- 도장 : 무정전 백색 도장
상세 조건 및 기준은 클린로봇 표준 도장 시방서 HRCS-IW-BG-2001-I1K에 준할 것
COATING : ANTISTATIC COATING IN WHITE
COATING CONDITIONS AND REQUIREMENTS PER "CLEAN ROBOT COATING STANDARD" HRCS-IW-BG-2001-I1K.

강동호			박재현	ECO00002080/6G ARM BASE 도면 클렌징 작업		04
2021-11-02			2021-11-02			
강동호			박재현	ECO00000419/HC1863B, HC1853B ZA COVER TAP 및 HOLE 위치 변경		03
2021-11-02			2021-11-02			
주찬욱			박재현	ECO00000374/HC1863B ZA 마운팅 메이트		02
2021-10-15			2021-10-25			
유소영			박재현	First Issue.	-	00
2021-06-23			2021-06-23			
DSND	CHKD	CHKD	APPD	REASON FOR MODIFICATION		QTY REV.
PART NAME				PART NO.		
FRAME,BASE				P9900034120/04		
SURFACE TREATMENT		Yellow Chromating-Antistatic Liquid Coating			MATERIAL	AC4C-T6
SCALE	1 : 1	WEIGHT	39.762 kg	CONFIDENTIAL CODE	A	
SHEET	3 / 4	REMARK				

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GENERAL TOLERANCE UNLESS NOTED Satisfied with Length & Thickness (길이와 두께 공차 동시 만족 조건)					
SAND CASTING ± (사형주조)	FCD45		AC4C		
	C1 정밀	C2 보통	C1 정밀	C2 보통	
LENGTH	≤10	1.5	2	0.3	0.9
	~25	1.5	2	0.4	1.0
	~50	1.5	2	0.5	1.1
	~120	1.5	2	0.7	1.2
	~250	2	2.5	0.9	1.4
	~400	2.5	3.5	1.1	1.8
	~800	4	5	1.6	2.5
THICKNESS	~1600	5	7	-	4
	~3150	-	10	-	7
	≤6	1.2	2	0.6	1.2
	~10	1.2	2	0.7	1.4
	~18	1.5	2.5	0.8	1.6
	~30	2	3	0.9	1.8
	~50	2.5	4	1.0	2.2

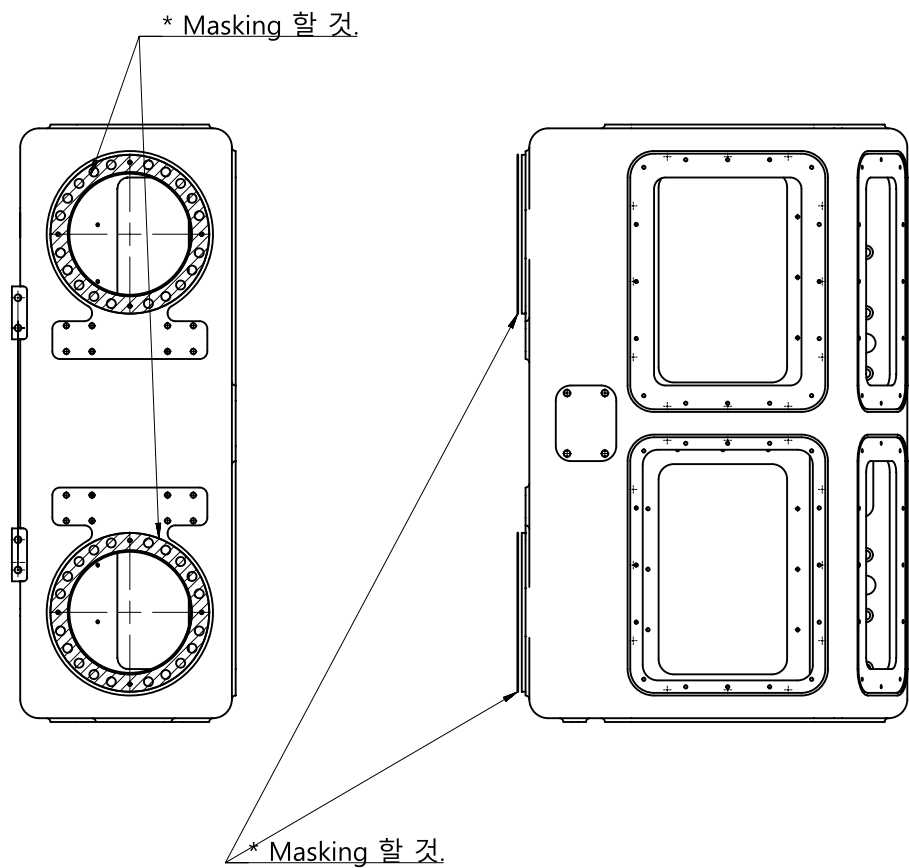
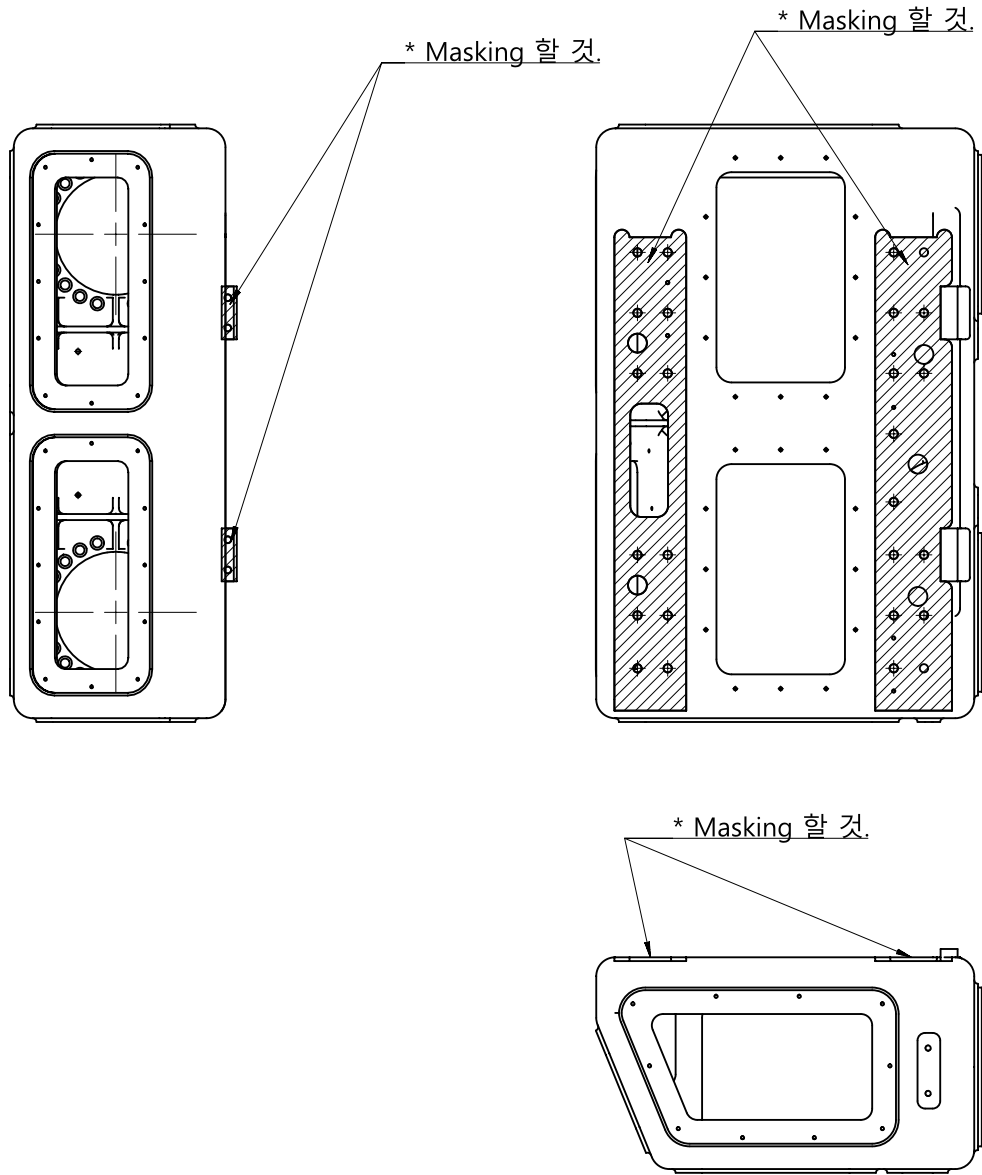
MACHINING ±	F 정밀	M 보통	C 거친
0.5~3	0.05	0.1	0.2
~6	0.05	0.1	0.3
~30	0.1	0.2	0.5
~120	0.15	0.3	0.8
~400	0.2	0.5	1.2
~1M	0.3	0.8	2
~2M	0.5	1.2	3
~4M	-	2	4

WELDING ±	LENGTH		GEOMETRIC	
	A 정밀	B 보통	E 정밀	F 보통
2~30	1	1	-	-
~120	1	2	0.5	1
~400	1	2	1	1.5
~1M	2	3	1.5	3
~2M	3	4	2	4.5
~4M	4	6	3	6
~8M	5	8	4	8
~12M	6	10	5	10
~16M	7	12	6	12
~20M	8	14	7	14

STANDARD FOR SURFACE ROUGHNESS	
MARKS	Ra
	Rz
~	✓
▽	✓ Rz 25 Rz 100
▽▽	✓ Ra 6.3 Rz 25
▽▽▽	✓ Ra 1.6 Rz 6.3
▽▽▽▽	✓ Ra 0.8 Rz 0.8

NOTE

- 마스킹부 도장 금지(도면 해칭 및 " — " 부위)
- TAP, HOLE 가공부 내측에 도료 유입 차단 할 것.
DO NOT COAT ON MASKING AREA (HATCHED OR NOTED WITH " — ")
COMPLETELY BLOCK TAP AND HOLE.
- 기계 가공면 PUTTY 도포 금지
DO NOT APPLY PUTTY ON MACHINED SURFACE.



강동호			박재현	ECO00002080/6G ARM BASE 도면 클렌징 작업		04
2021-11-02			2021-11-02			
강동호			박재현	ECO00000419/HC1863B, HC1853B ZA COVER TAP 및 HOLE 위치 변경		03
2021-11-02			2021-11-02			
주찬욱			박재현	ECO00000374/HC1863B ZA 마운팅 메이트		02
2021-10-15			2021-10-25			
유소영			박재현	First Issue.	-	00
2021-06-23			2021-06-23			
DSND	CHKD	CHKD	APPD	REASON FOR MODIFICATION		QTY REV
PART NAME					PART NO.	
FRAME,BASE					P9900034120/04	
SURFACE TREATMENT		Yellow Chromating-Antistatic Liquid Coating			MATERIAL	AC4C-T6
SCALE	1 : 1	WEIGHT	39.762 kg	CONFIDENTIAL CODE	A	
SHEET	4 / 4	REMARK				
						HYUNDAI ROBOTICS

A3(297x420mm)