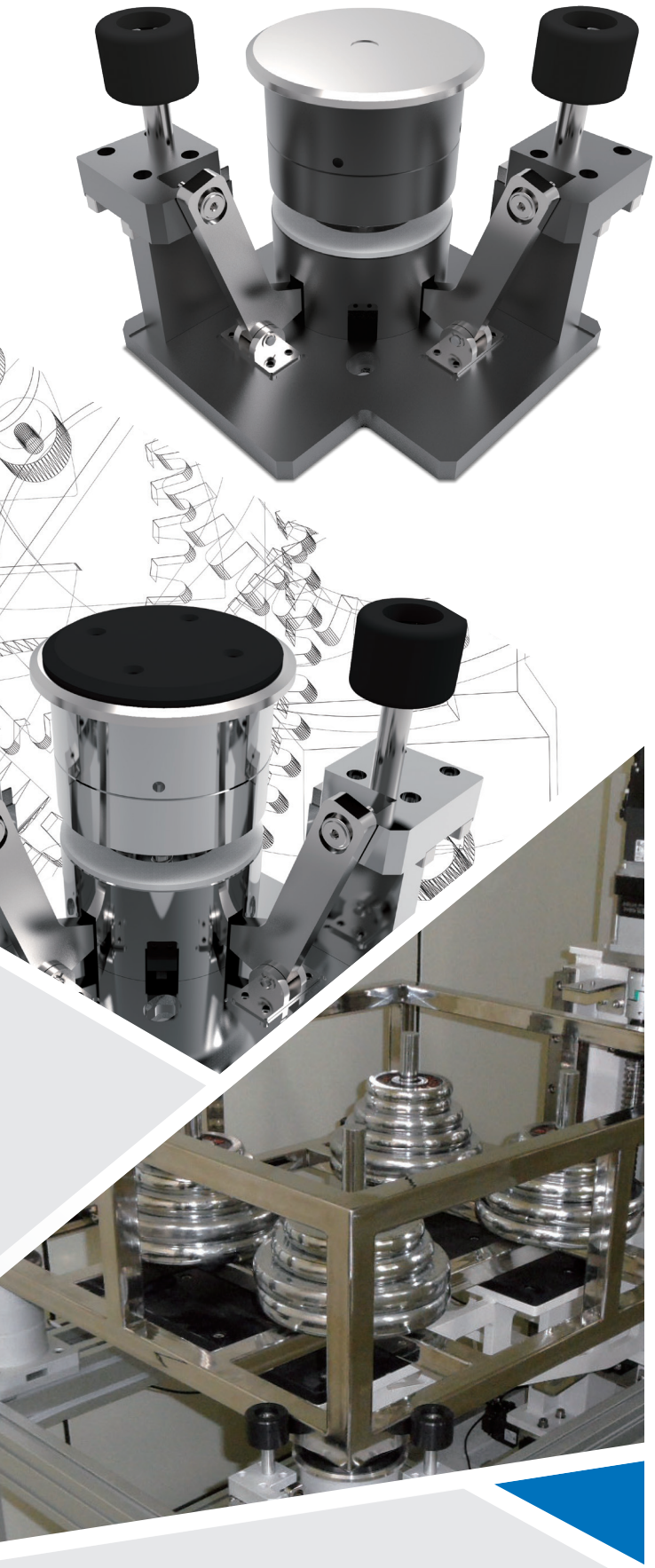
www.irumautomation.com



이룸자동화
IRUMAUTOMATION

정위치 자동 정렬장치
Product Catalog

IRUM
AUTOMATION

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IRUM
AUTOMATION

다양한 자동화장비와 자동 정렬장치 전문기업

이룸자동화는

자동화기계 제조기술을 기반으로
편리하고 유용한 정위치 자동 정렬장치를 개발하였습니다.

이룸자동화의 정위치 자동 정렬장치는 기존의 정렬방법과
차별화된 특허기술로 국내외 시장에서 큰 기대를 모으고 있습니다.
에너지를 사용하지 않고 정렬이 가능한 제품으로 각 사용용도에 적합하도록
다양한 제품을 출시하였으며 제품성능향상, 가격인하, 후속제품 개발을 위해
지속적으로 힘쓰고 있습니다.

기계공학 제조 산업을 선도할 무한 성장 가능성을 지닌 이룸자동화입니다.

IRUMAUTOMATION History

- 2016. 08 — 아이디티(IDT) 설립
- 2018. 02 — 특허등록 1건(카세트 정위치 자동 정렬장치)
- 2018. 05 — 사업장 변경
- 2018. 06 — 대덕연구개발특구 입주 및 공장등록
- 2018. 09 — 기업명변경 _ 이룸자동화

남다른 기술, 새로운 편리함을 이룹니다.

고객의 니즈 충족에 목적을 둔 신기술을 확보하고 제품을 개발합니다.
기술력을 바탕으로 편리하고 유용한 기계장치를 개발하고, 고객의 마음을 움직일 수 있는 제품을 생산합니다.

창의적인 기술, 인류와 문명이 공존하는 세상을 꿈꿉니다.

창의적인 아이디어와 연구개발로 기존의 복합한 기계장치들을 개선하고 에너지 및 자원 절약, 환경, 근로여건 개선 등 사회문제와 함께하며 인류문명 발전에 기여합니다.

신뢰 + 교류 + 협력 = 동반성장

'고객에게 신뢰받는 기업'은 자사의 영업철학 이며, 임직원 간의 신뢰로 기업경쟁력을 키우고, 교류와 협력을 통한 시너지로 동반성장과 국가기술발전 기반을 마련합니다.

사업분야

정위치 자동 정렬장치

디스플레이 장비

Loader, Unloader, Sorter, Scriber & Scrap Sorter, 수평적재기, Tray 이재기, Pallet 이재기, 출하 System,
전후공정 Inline, 검사기, Vision 검사기, 세정기, 현상기, Rework, Laminator 및 기타 공정설계,
여러 공정장비를 복합한 Inline 구성 등

반도체 장비

반도체센서 X-ray 검사기, 반도체센서 Probe, Wafer Vision 검사기, 진공 Chamber 및 기타

자동차/중장비 조립장비

자동차 엔진조립 Line, 자동차 조립 자동화장비, 굴삭기 조립 자동화장비, 검사기,
Vision 검사기 및 기타

물류장비

Roller Conveyor, Belt Conveyor, Chain Conveyor, Transfer Robot, 반송 System 및 기타

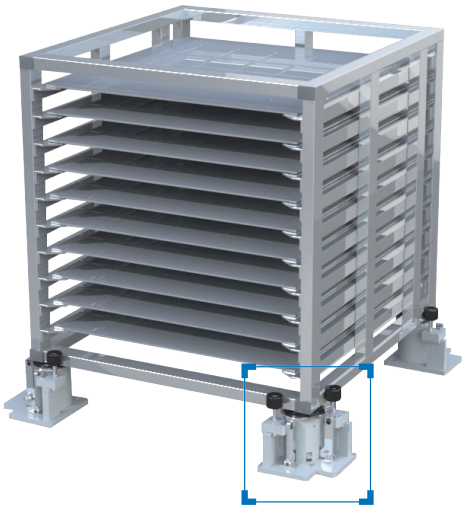
연구소, 대학교, 기업 등의 연구설비 및 기타

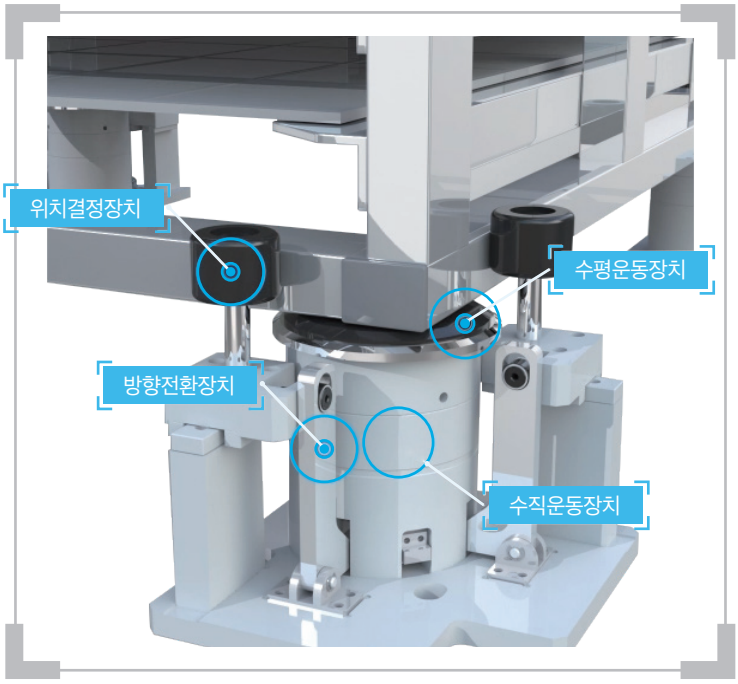
진동 Screen, 디스플레이 Panel 현상 Tester, 소재 정전기 Tester, 분체기, 볼트 전조기, AutoDamper,
내화학용 진자센서 및 각 산업분야에 필요로 하는 자동화기계 및 기구물 등

정위치 자동 정렬 장치란?

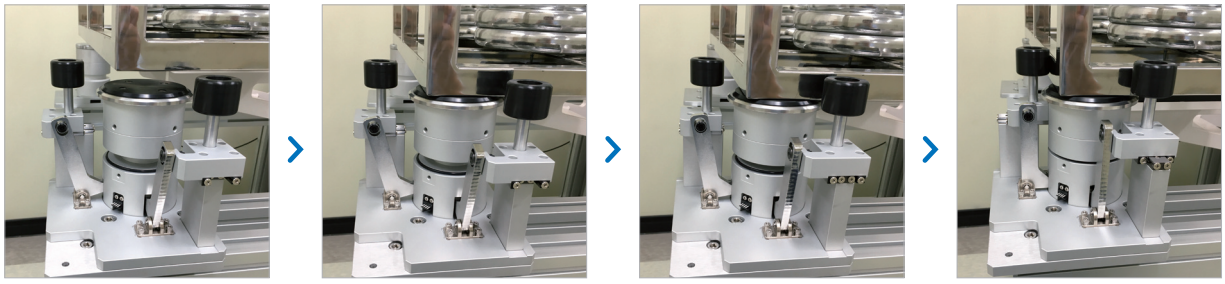
자동화 생산설비에 사용되는 기계장치로 대상물의 자중을 활용하여 대상물을 정위치에 정렬하는 제품입니다.
전기, 압축공기 등 에너지를 사용하지 않고 대상물을 자동 정렬하는 제품으로, 정렬 하고자 하는 대상물의 모서리 하단에 제품을 설치하고 상부로부터 정렬 대상물를 투입하면 대상물의 자중에 의해 자동으로 정렬됩니다.
이룸자동화에서는 카세트 정위치 자동 정렬장치 및 기타 여러 정렬장치들을 출시하였으며,
보다 우수한 성능의 제품을 위해 지속적으로 개발에 매진하고 있습니다.

○ 정위치 자동 정렬장치



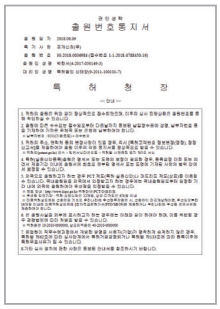


○ 실제 작동 단계

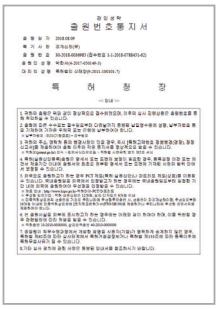


○ 기술인증

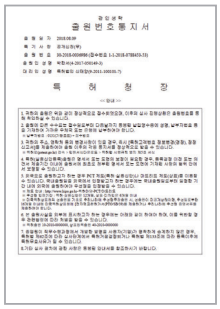
특허출원
10-1825193



디자인 출원
30-2018-0036984



디자인 출원
30-2018-0036985

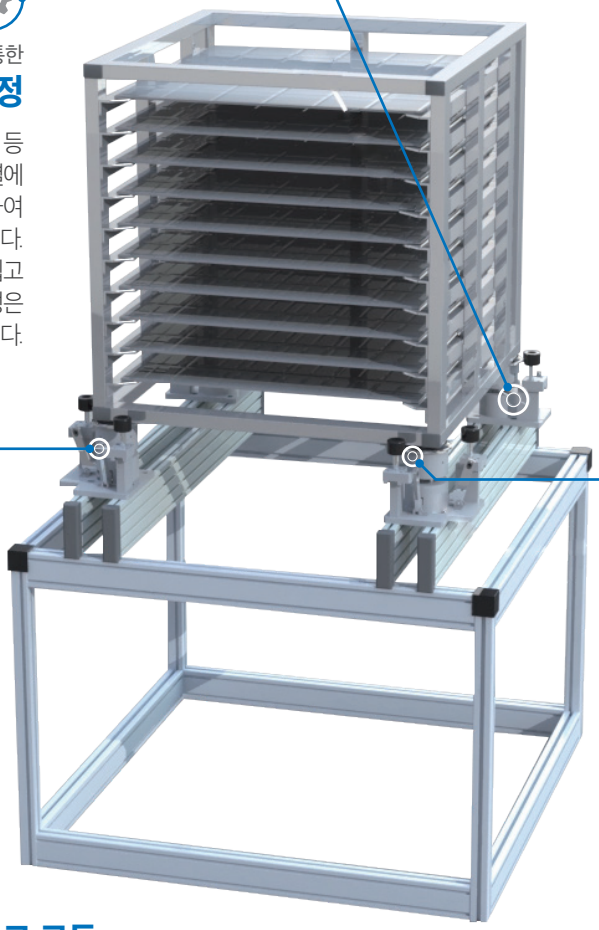


디자인 출원
30-2018-0036986

중국 실용신안 출원
CN201821410429.8

주변장치 일체화를 통한
간편 설비 및 공정

제어, 전기, 공압 장치 등 복잡한 주변 장치 없이 정렬에 필요한 여러 요소를 일체화 하여 간편하게 구성하였습니다. 이에 생산설비 제작이 쉽고 빨라지며, 사용자의 편리성은 한층 업그레이드됩니다.



생산설비 단순화로
비용절감

생산설비 단순화로 에너지 공급 장치 설치비용 및 에너지 사용료, 기타 운영비 등을 절감합니다. 제조가격 인하의 한계성을 극복하여 기존 기술 대비 저렴한 가격으로 고객을 만족시킵니다.

전기, 압축공기없이
대상물 자중만으로 구동

대상물의 자중에 의하여 자동 정렬되는 방식으로 전기, 압축공기 등을 별도로 사용하지 않습니다. 사용자는 에너지 소모 과정에서 발생하는 소음과 전자파의 불편에서 벗어나게 되고 불필요한 에너지 소비를 줄여 자원 절약에 기여합니다.

다양한 산업 분야의 부품 정렬 공정에 최적화

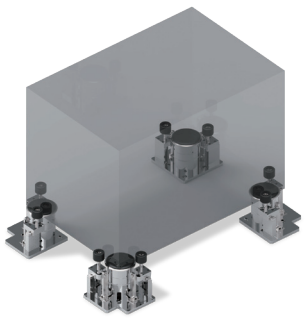
자동화 생산 설비 필수 장치

○ 제품 활용 분야

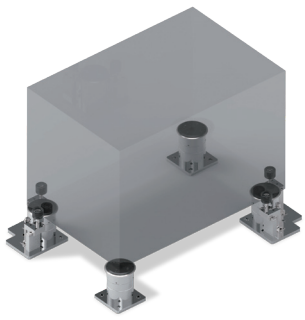
1	디스 플레이공정(LCD, OLED, 터치패널 등) 카세트 정렬장치
2	반도체공정 Wafer 카세트 정렬장치
3	태양광공정 Solar Panel 카세트 정렬장치
4	Pallet 정렬장치(출하용 Pallet, 각 산업별 전용 Pallet 등)
5	Tray 정렬장치(연구용 부품 Tray, 각 산업별 전용 Tray 등)
6	전원(전기)공급이 어려운 이동형 정렬장치
7	물, 케미컬 등 액체가 사용되어 전기장치 구성이 까다로운 설비의 정렬장치
8	그 외 대상물의 정렬을 필요로 하는 장치

○ 3D 설치 예시

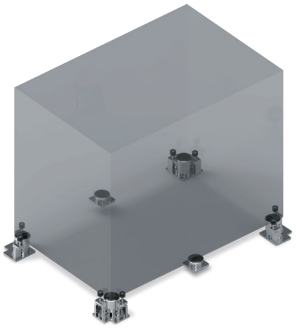
1) 기본설치



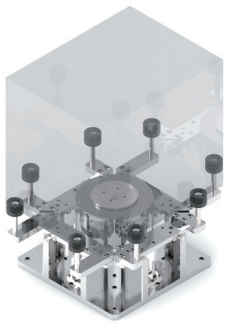
2) 2-2설치



3) 4-2설치(대형대상물용)

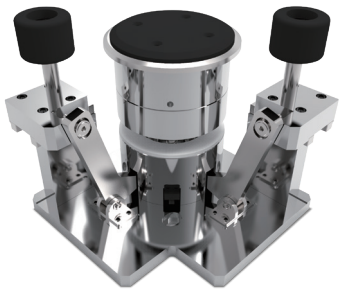


4) 소형대상물용



○ 제품목록

1



정위치 자동 정렬장치

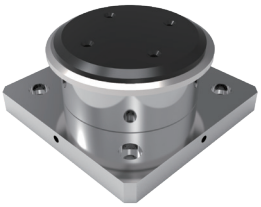
2

내수 & 내화학용 정위치
자동 정렬장치

3

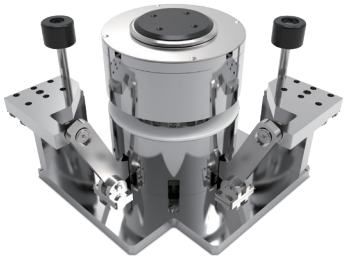
안착감지센서내장
Floating Unit

4



Floating Unit

5

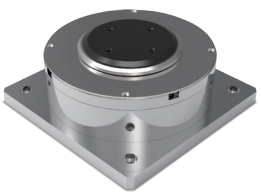


정위치 자동 정렬장치
(고하중용)

6

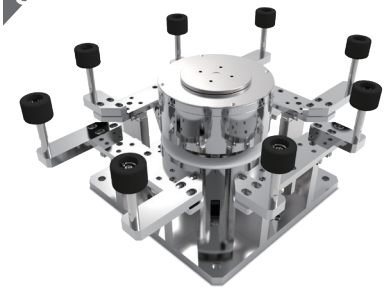
안착감지센서내장
Floating Unit(고하중용)

7



Flating Unit(고하중용)

8



소형대상물용
자동 정렬장치

제품 선정 방법 및 도면

EFAU-15	제품 선정 방법	9
EFAU-15	제품도면	12
EFAU-30	제품 선정 방법	22
EFAU-30	제품도면	25
EF4A	제품 선정 방법	32
EF4A	제품도면	35

EFAU-15

EF00-15-000-0-00-00
① ② ③ ④ ⑤ ⑥

① 제품명
- EF2A _ Energy-Free 2-axis Align Unit
- EFFS _ Energy-Free Floating Sensor Unit
- EFFU _ Energy-Free Floating Unit

② 수평 이동범위 (mm, Floating Range) _ 15

③ 안착 Stage 재질
- SUS _ SUS304
- UPE _ UHMW-PE

④ 안착확인 Sensor
- S _ 설치
- 무기호 _ 미설치

⑤ 제품 유형
- N _ 일반형
- W _ 방수형
- A1 _ Shock - Absorber 설치(소형 경하중)
- A2 _ Shock - Absorber 설치(소형 저하중)
- A3 _ Shock - Absorber 설치(소형 중하중)

⑥ Absorber 단계설정
- 01 ~ 12

○EFAU-15 사양

품 번	Stage 직경 (mm, Ø)	Floating Range (mm)	Clamp Stoke (mm)	가반하중 (Kg)	권장사용하중(Kg)		내충격하중 (Kg)	제품무게 (Kg)
					최소	최대		
EF2A-15-SUS-S-N	109	±15	±25	300	3	300	230	4.4
EF2A-15-UPE-S-N	98							
EF2A-15-SUS-S-A1	109				5	30		
EF2A-15-UPE-S-A1	98							
EF2A-15-SUS-S-A2	109				5	60		4.5
EF2A-15-UPE-S-A2	98							
EF2A-15-SUS-S-A3	109				10	300		
EF2A-15-UPE-S-A3	98							
EF2A-15-SUS-0-W	109				3	300		4.4
EFFS-15-SUS-S-N	109							2.5
EFFS-15-UPE-S-N	98							
EFFS-15-SUS-S-A1	109				5	30		
EFFS-15-UPE-S-A1	98							
EFFS-15-SUS-S-A2	109				5	60		2.6
EFFS-15-UPE-S-A2	98							
EFFS-15-SUS-S-A3	109				10	300		
EFFS-15-UPE-S-A3	98							
EFFU-15-SUS	109							1.5
EFFU-15-UPE	98							

○ 제품 선정 가이드

1. 정렬 대상물의 최소 및 최대 무게를 정합니다.
2. 제품(EFAU)의 종류 및 설치수량을 정합니다.
3. 대상물 안착 스테이지 재질을 정합니다.
4. 안착확인센서 설치 여부를 정합니다. (센서 설치 시 대상물 안착완료에 대한 출력신호를 받을 수 있습니다.)
5. Absorber 설치여부를 선정합니다.
6. Absorber 설치제품은 대상물의 최소 및 최대 무게에 맞추어 다음의 그래프를 참고하여
   Absorber 종류 및 단수를 정합니다.

○ 주의사항

1. 그래프 산출은 자사에서 자체적으로 실험한 Data에 근거하며 설치방법, 사용조건 및 환경 등에 따라 다를 수 있습니다.
   ※ 테스트 조건 : 대상물 무게중심=중앙, 대상물 하강속도=10mm/sec, 상온 20℃
2. 그래프는 제품 1개당 제품 부하하중별 정렬시간을 나타낸 것입니다.
3. 일반형(N)은 Absorber가 없으며 대상물 하강에 따라 즉시 응답합니다.
4. 일반형(N)은 제품 내충격하중을 초과하지 않도록 안전한 속도에서 사용합니다.
5. 일반형(N)은 정렬 시 대상물과 대상물운반장치의 마찰이 발생할 수 있습니다.

○ 제품의 Absorber 선정 예

사용조건)

하중 100Kg~200Kg의 사용범위의 대상물을 하강속도 10mm/sec 사용조건에서 EF2A-15 제품 4개 설치의 경우?

< 선정결과 >

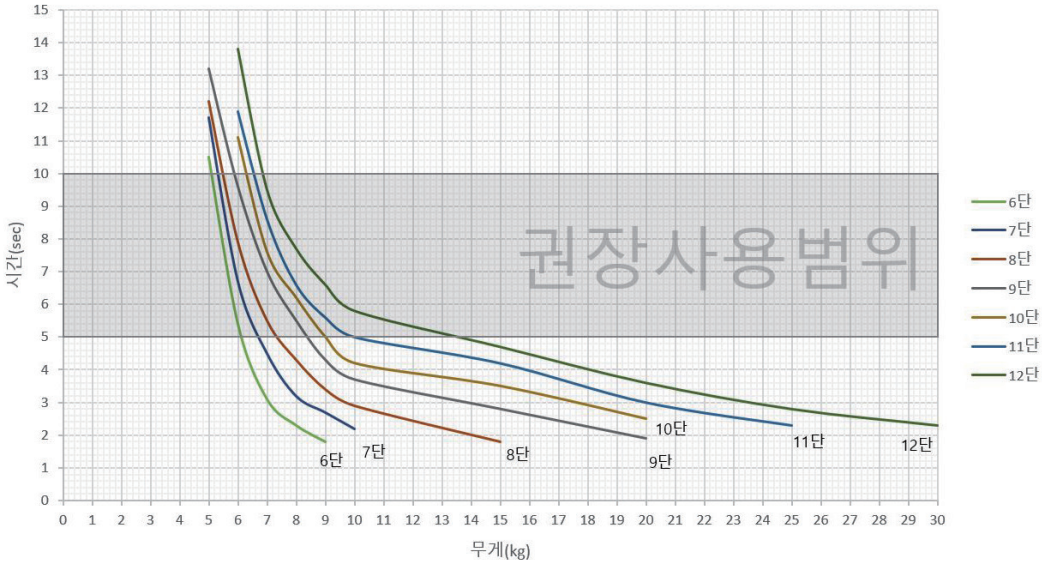
1) EFAU-15-000-0-A3-08 : 약 11sec/최소하중, 약 3.7sec/최대하중

2) EFAU-15-000-0-A3-09 : 약 15sec/최소하중, 약 5.3sec/최대하중

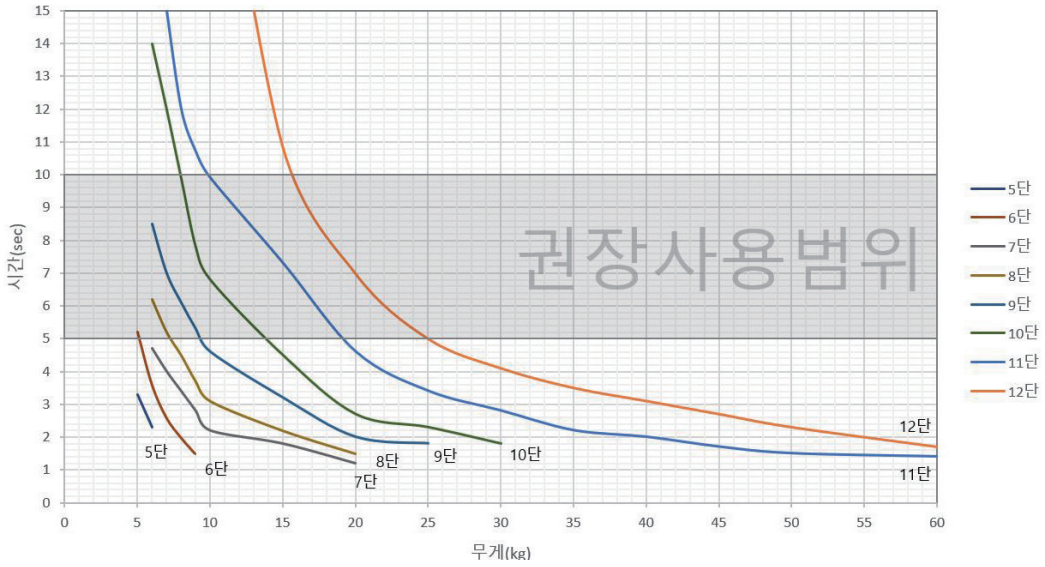
※ 그 외 제품선정에 있어 의문사항은 자사로 문의 바랍니다.

EFAU-15 Absorber 단수, 부하하중 별 정렬시간

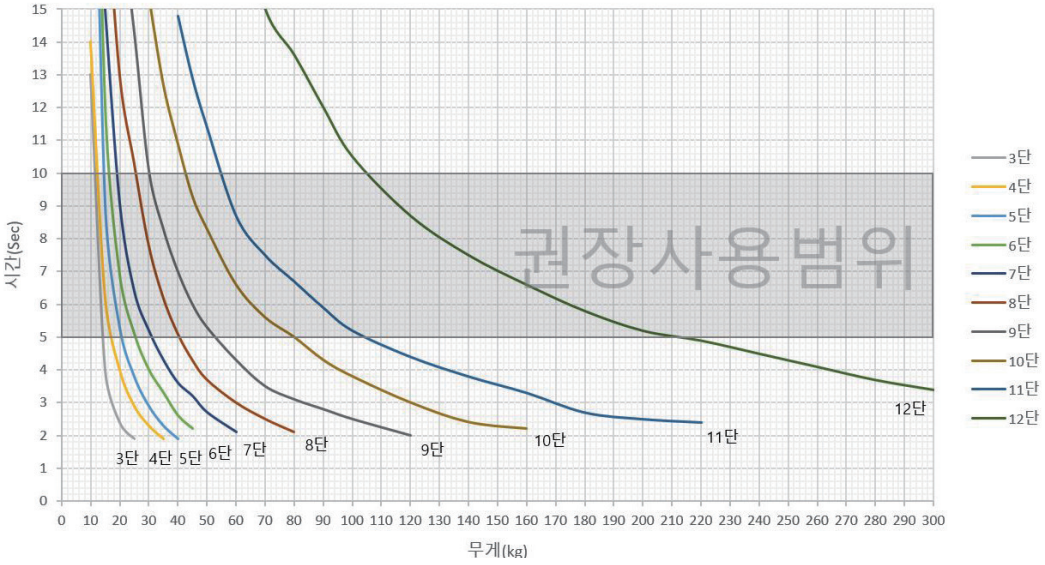
○ A1



○ A2

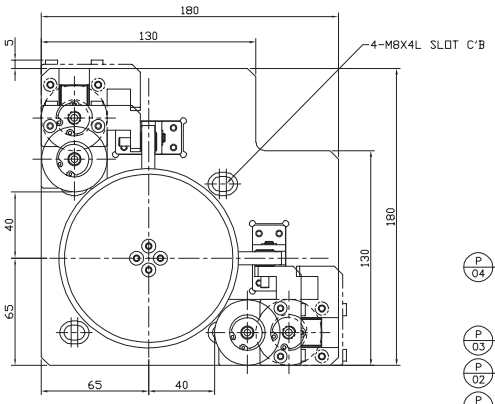


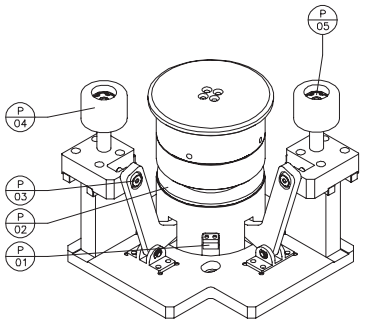
○ A3

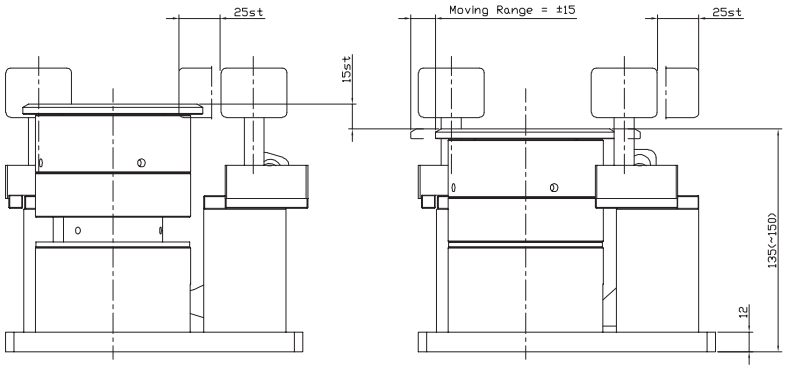


EF2A-15-SUS-S-N

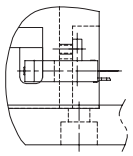
NO	DESCRIPTION	SPECIFICATION	QTY	MATRIAL	REMARKS
P01	SENSOR	EE-SX673A	1	-	-
P02	DAMPER	3t X Ø93	1	ACETAL	White Color
P03	CAM FOLLOWER BEARING	CF5	2	Standard	-
P04	ROLLER	Ø40 X 30	2	UHMW-PE	Black Color
P05	BALL BEARING	608ZZ	4	Standard	-







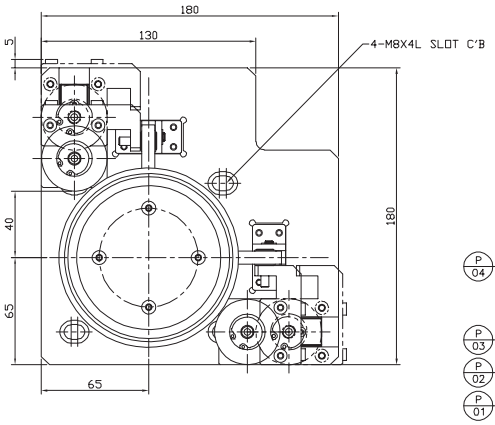
작동전 작동후

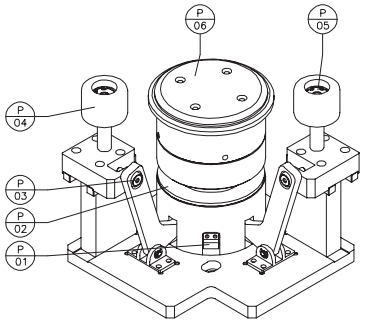


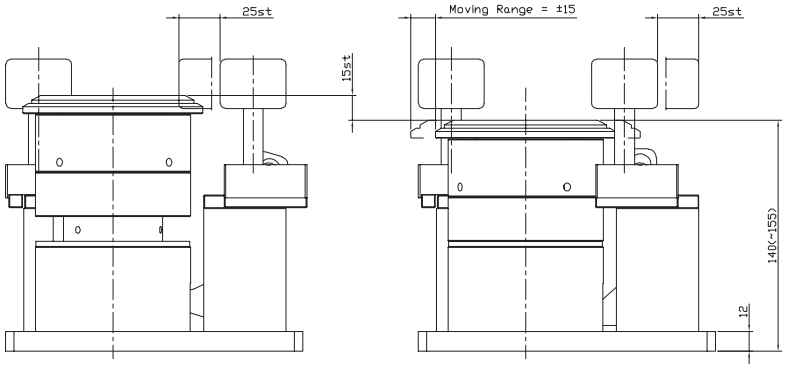
센서 설치부(S=1/2)

EF2A-15-UPE-S-N

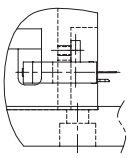
NO	DESCRIPTION	SPECIFICATION	QTY	MATRIAL	REMARKS
P01	SENSOR	EE-SX674A	1	-	-
P02	DAMPER	3t X Ø94	1	ACETAL	ACETAL
P03	CAM FOLLOWER BEARING	CF5	2	Standard	Standard
P04	ROLLER	Ø40 X 31	2	UHMW-PE	UHMW-PE
P05	BALL BEARING	609ZZ	4	Standard	Standard
P06	STAGE	Ø98 X 6	1	UHMW-PE	UHMW-PE







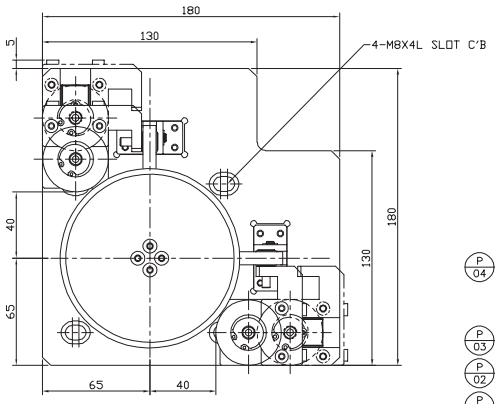
작동전 작동후

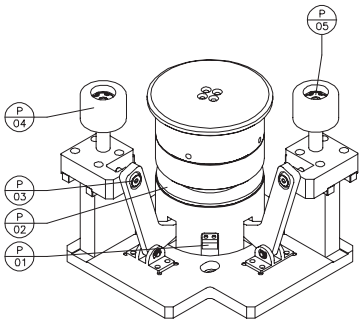


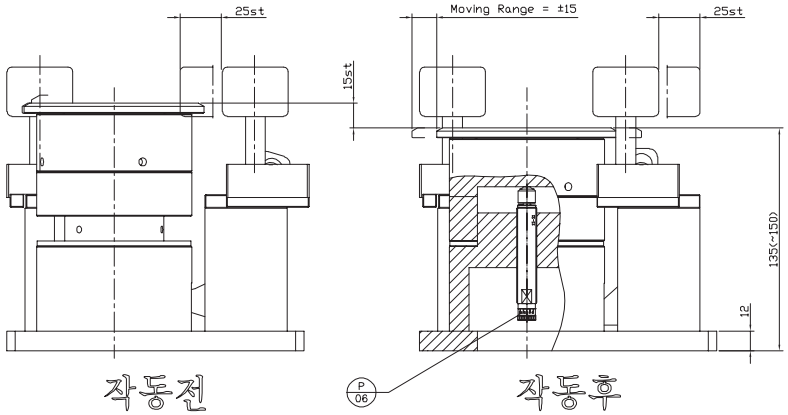
센서 설치부(S=1/2)

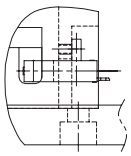
EF2A-15-SUS-S-A1

NO	DESCRIPTION	SPECIFICATION	Q'TY	MATRIAL	REMARKS
P01	SENSOR	EE-SX673A	1	-	-
P02	DAMPER	3t X Ø93	1	ACETAL	White Color
P03	CAM FOLLOWER BEARING	CF5	2	Standard	-
P04	ROLLER	Ø40 X 30	2	UHMW-PE	Black Color
P05	BALL BEARING	608ZZ	4	Standard	-
P06	SHOCK ABSORBER	A1	1	-	-



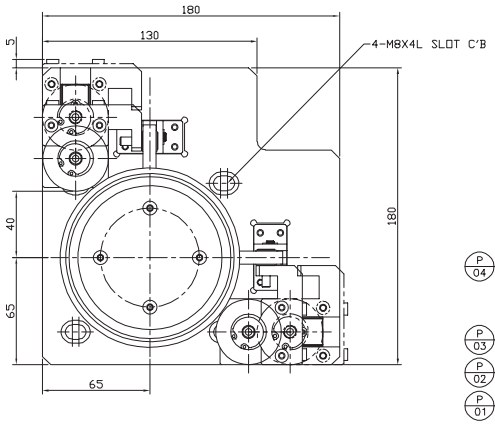


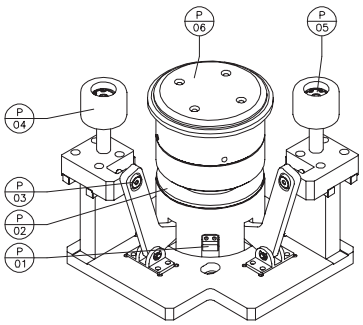


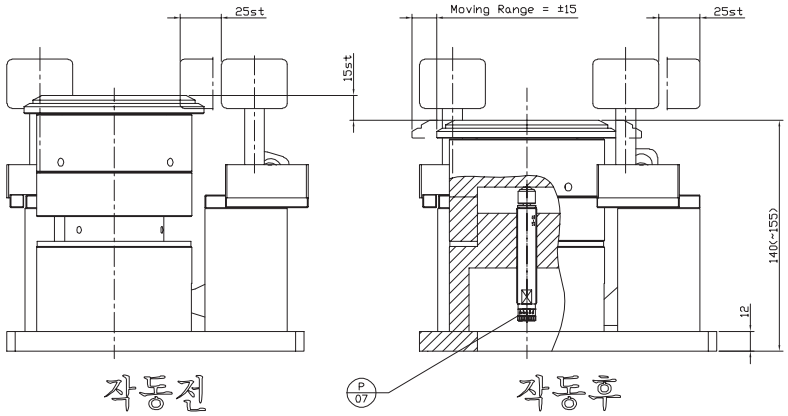


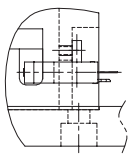
EF2A-15-UPE-S-A1

NO	DESCRIPTION	SPECIFICATION	Q'TY	MATRIAL	REMARKS
P01	SENSOR	EE-SX673A	1	-	-
P02	DAMPER	3t X Ø93	1	ACETAL	White Color
P03	CAM FOLLOWER BEARING	CF5	2	Standard	-
P04	ROLLER	Ø40 X 30	2	UHMW-PE	Black Color
P05	BALL BEARING	608ZZ	4	Standard	-
P06	STAGE	Ø98 X 6	1	UHMW-PE	Black Color
P07	SHOCKABSORBER	A1	1	-	-



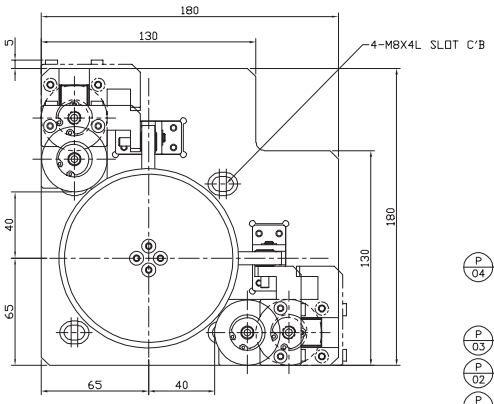


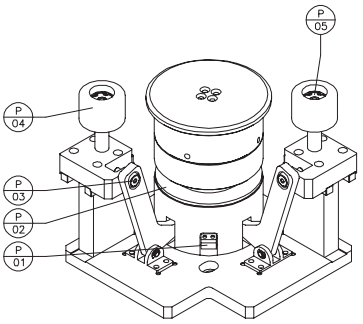


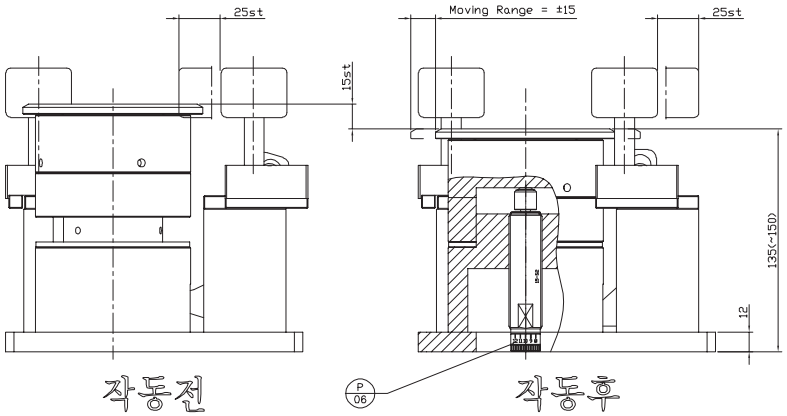


EF2A-15-SUS-S-A2

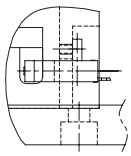
NO	DESCRIPTION	SPECIFICATION	Q'TY	MATRIAL	REMARKS
P01	SENSOR	EE-SX673A	1	-	-
P02	DAMPER	3t X Ø93	1	ACETAL	White Color
P03	CAM FOLLOWER BEARING	CF5	2	Standard	-
P04	ROLLER	Ø40 X 30	2	UHMW-PE	Black Color
P05	BALL BEARING	608ZZ	4	Standard	-
P06	SHOCK ABSORBER	A2	1	-	-







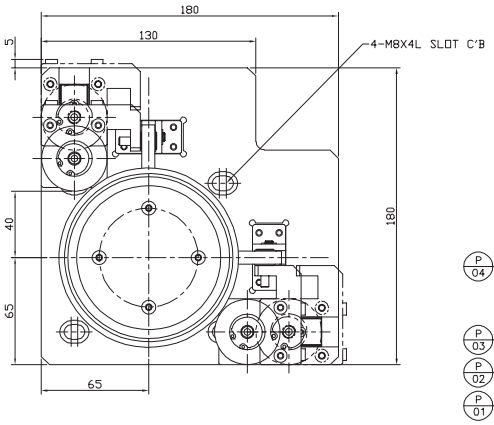
작동전 작동후

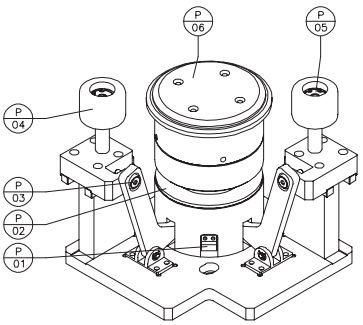


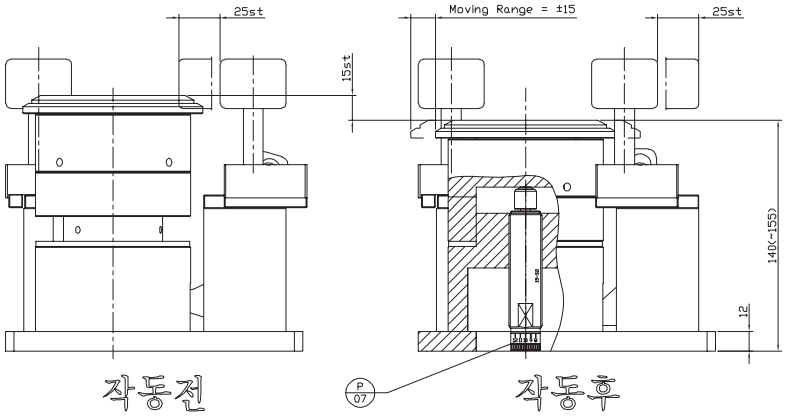
센서 설치부(S=1/2)

EF2A-15-UPE-S-A2

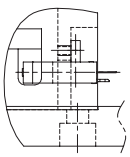
NO	DESCRIPTION	SPECIFICATION	Q'TY	MATRIAL	REMARKS
P01	SENSOR	EE-SX673A	1	-	-
P02	DAMPER	3t X Ø93	1	ACETAL	White Color
P03	CAM FOLLOWER BEARING	CF5	2	Standard	-
P04	ROLLER	Ø40 X 30	2	UHMW-PE	Black Color
P05	BALL BEARING	608ZZ	4	Standard	-
P06	STAGE	Ø98 X 6	1	UHMW-PE	Black Color
P07	SHOCK ABSORBER	A2	1	-	-







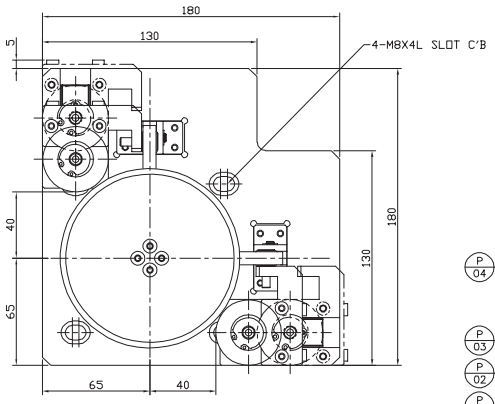
작동전 작동후

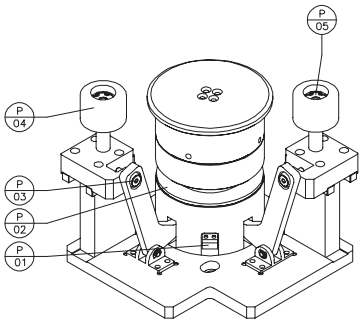


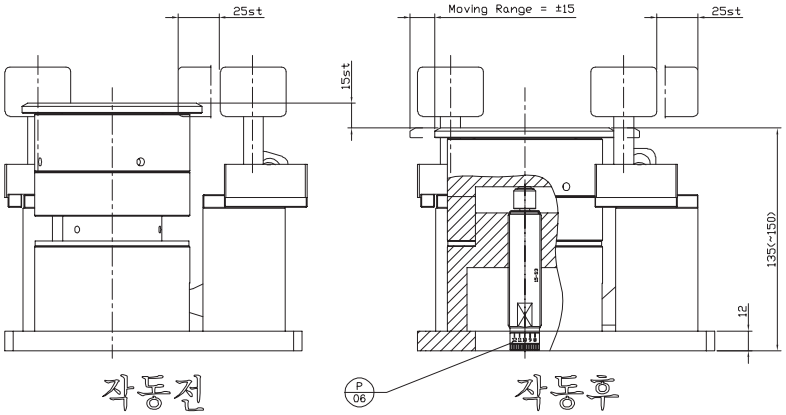
센서 설치부(S=1/2)

EF2A-15-SUS-S-A3

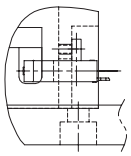
NO	DESCRIPTION	SPECIFICATION	Q'TY	MATRIAL	REMARKS
P01	SENSOR	EE-SX673A	1	-	-
P02	DAMPER	3t X Ø93	1	ACETAL	White Color
P03	CAM FOLLOWER BEARING	CF5	2	Standard	-
P04	ROLLER	Ø40 X 30	2	UHMW-PE	Black Color
P05	BALL BEARING	608ZZ	4	Standard	-
P06	SHOCK ABSORBER	A3	1	-	-







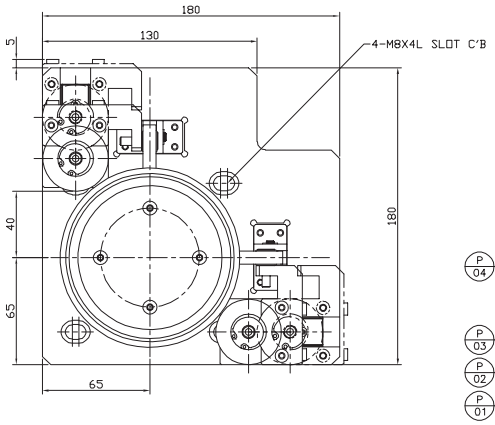
작동전 작동후

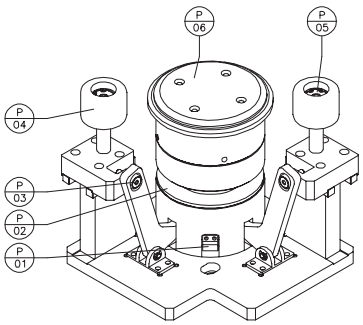


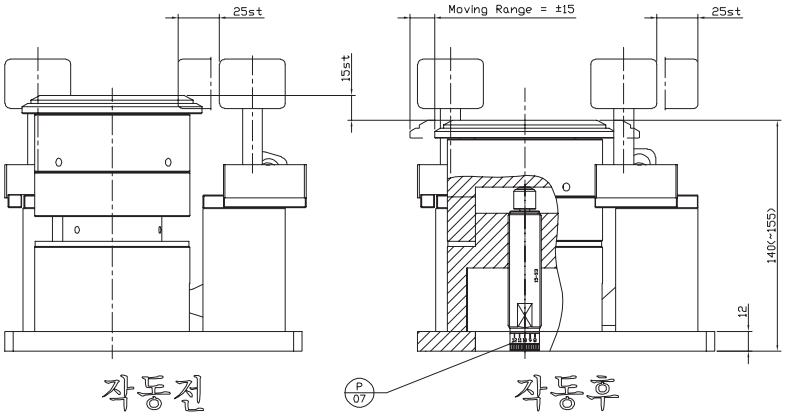
센서 설치부(S=1/2)

EF2A-15-UPE-S-A3

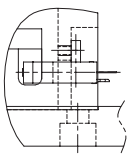
NO	DESCRIPTION	SPECIFICATION	Q'TY	MATRIAL	REMARKS
P01	SENSOR	EE-SX673A	1	-	-
P02	DAMPER	3t X Ø93	1	ACETAL	White Color
P03	CAM FOLLOWER BEARING	CF5	2	Standard	-
P04	ROLLER	Ø40 X 30	2	UHMW-PE	Black Color
P05	BALL BEARING	608ZZ	4	Standard	-
P06	STAGE	Ø98 X 6	1	UHMW-PE	Black Color
P07	SHOCK ABSORBER	A3	1	-	-







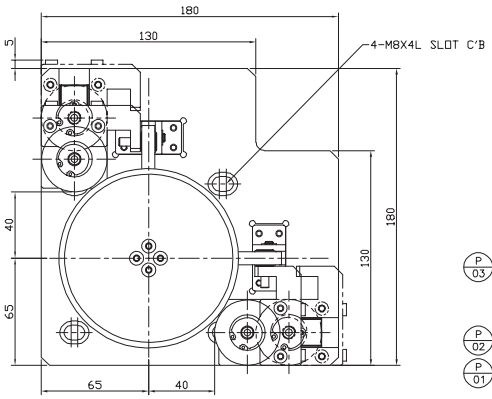
작동전 작동후

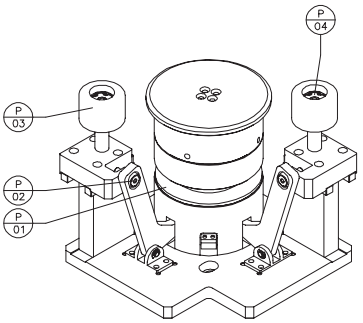


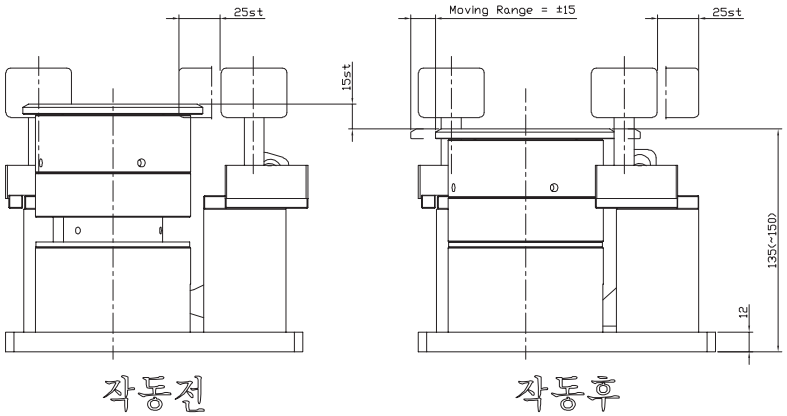
센서 설치부(S=1/2)

EF2A-15-SUS-0-W

NO	DESCRIPTION	SPECIFICATION	Q'TY	MATRIAL	REMARKS
P01	DAMPER	3t X Ø93	1	ACETAL	White Color
P02	CAM FOLLOWER BEARING	CF5	2	SUS/THK	-
P03	ROLLER	Ø40 X 30	2	UHMW-PE	Black Color
P04	BALL BEARING	608ZZ	4	SUS	-



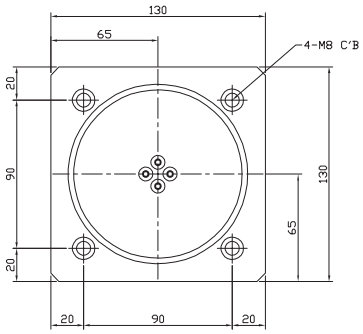


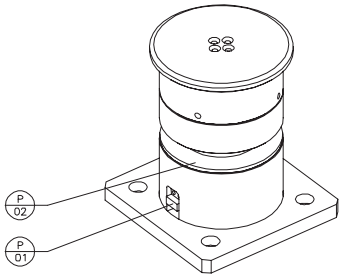


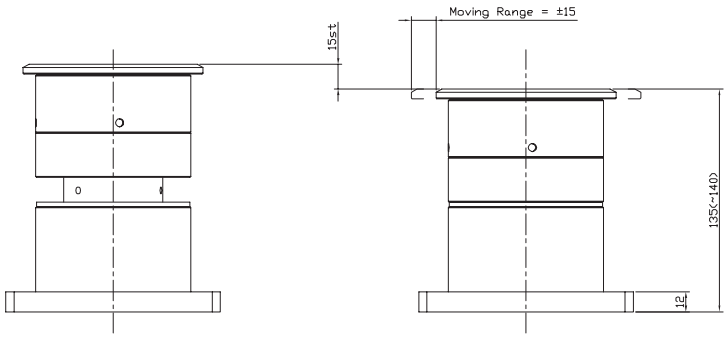
작동전 작동후

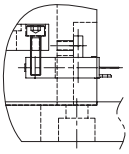
EFFS-15-SUS-S-N

NO	DESCRIPTION	SPECIFICATION	Q'TY	MATRIAL	REMARKS
P01	SENSOR	EE-SX673A	1	-	-
P02	DAMPER	3t X Ø93	4	ACETAL	White Color





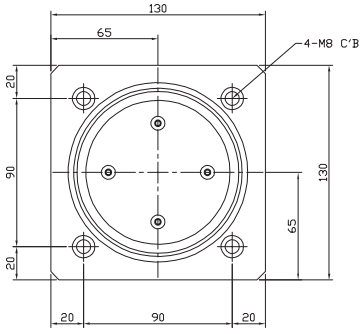


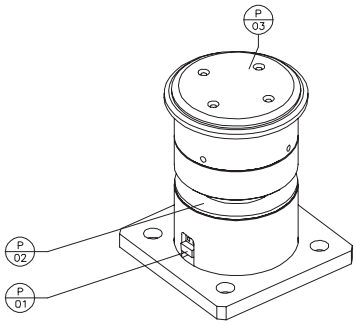


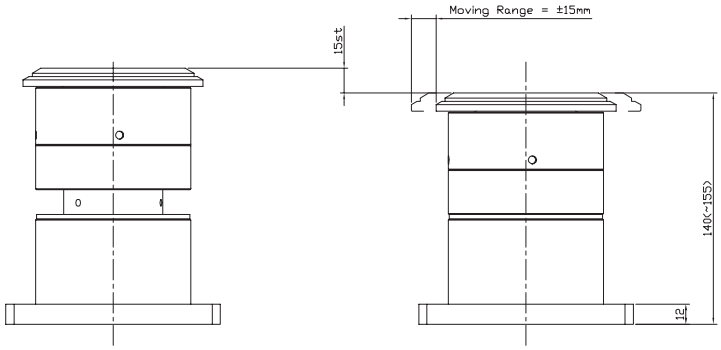
작동전 작동후

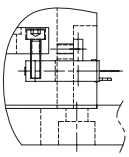
EFFS-15-UPE-S-N

NO	DESCRIPTION	SPECIFICATION	Q'TY	MATRIAL	REMARKS
P01	SENSOR	EE-SX674A	1	-	-
P02	DAMPER	3t X Ø94	1	ACETAL	White Color
P03	STAGE	Ø98 X 6	1	UHMW-PE	Black Color





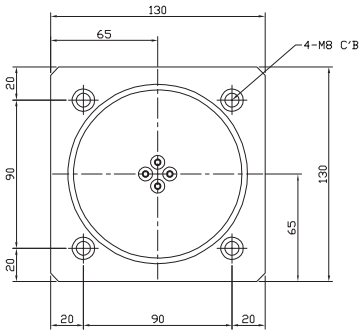


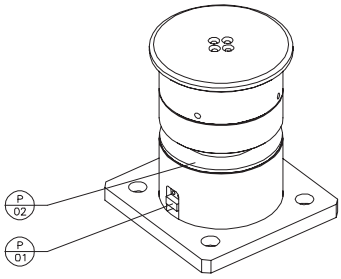


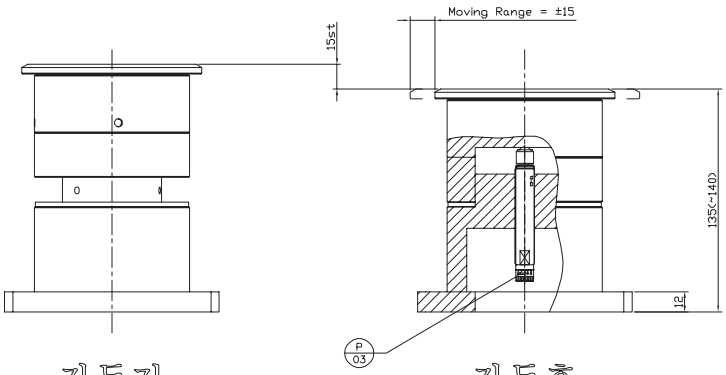
작동전 작동후

EFFS-15-SUS-S-A1

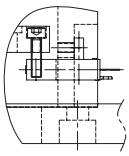
NO	DESCRIPTION	SPECIFICATION	Q'TY	MATRIAL	REMARKS
P01	SENSOR	EE-SX673A	1	-	-
P02	DAMPER	3t X Ø93	1	ACETAL	White Color
P03	SHOCK ABSORBER	A1	1	-	-







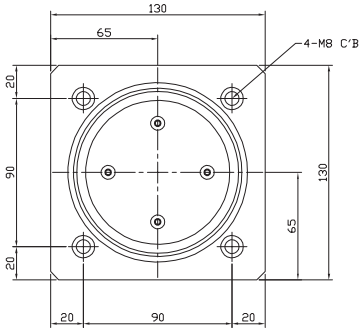
작동전 작동후

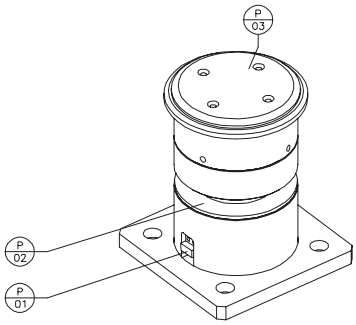


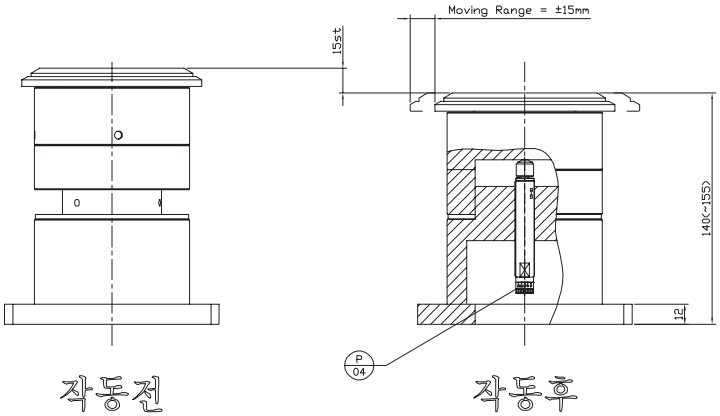
센서 설치부(S=1/2)

EFFS-15-UPE-S-A1

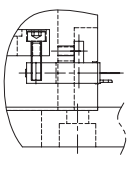
NO	DESCRIPTION	SPECIFICATION	Q'TY	MATRIAL	REMARKS
P01	SENSOR	EE-SX674A	1	-	-
P02	DAMPER	3t X Ø94	1	ACETAL	White Color
P03	STAGE	Ø98 X 6	1	UHMW-PE	Black Color
P04	SHOCK ABSORBER	A1	1	-	-







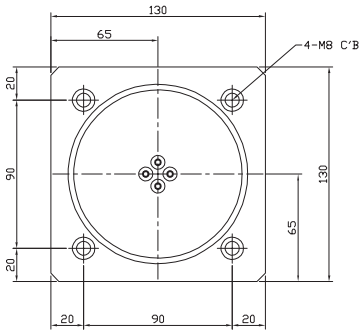
작동전 작동후

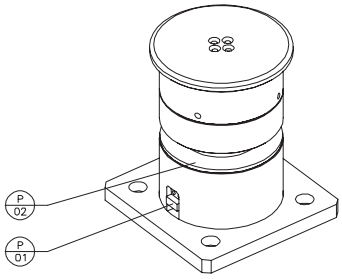


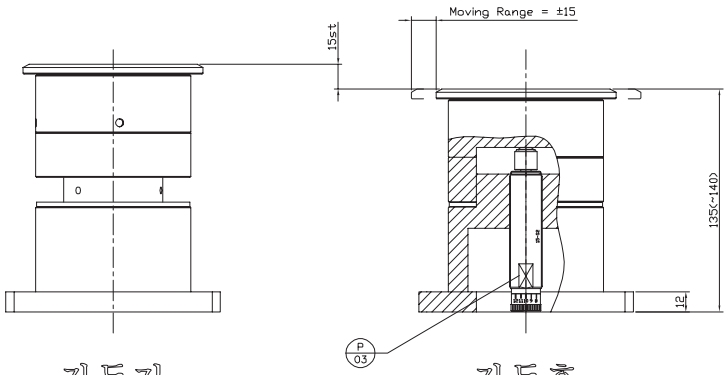
센서 설치부(S=1/2)

EFFS-15-SUS-S-A2

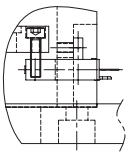
NO	DESCRIPTION	SPECIFICATION	Q'TY	MATRIAL	REMARKS
P01	SENSOR	EE-SX673A	1	-	-
P02	DAMPER	3t X Ø93	1	ACETAL	White Color
P03	SHOCK ABSORBER	A2	1	-	-







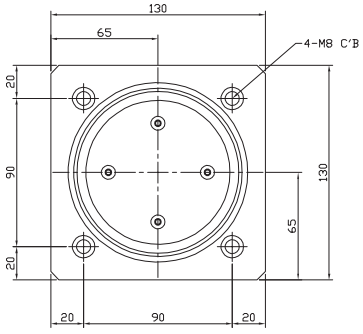
작동전 작동후

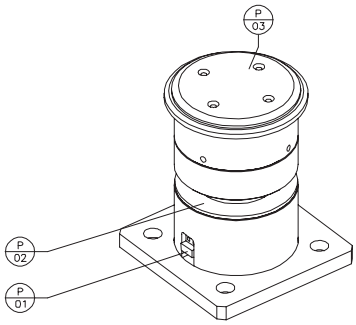


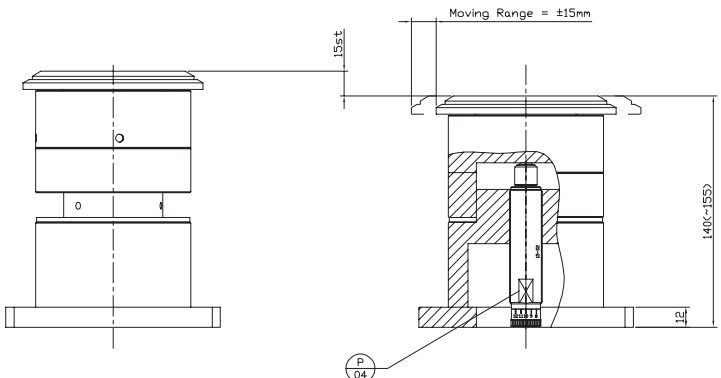
센서 설치부(S=1/2)

EFFS-15-UPE-S-A2

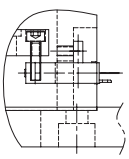
NO	DESCRIPTION	SPECIFICATION	Q'TY	MATRIAL	REMARKS
P01	SENSOR	EE-SX674A	1	-	-
P02	DAMPER	3t X Ø94	1	ACETAL	White Color
P03	STAGE	Ø98 X 6	1	UHMW-PE	Black Color
P04	SHOCK ABSORBER	A2	1	-	-







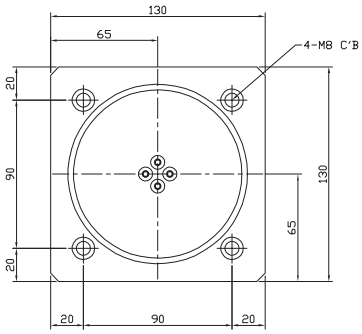
작동전 작동후

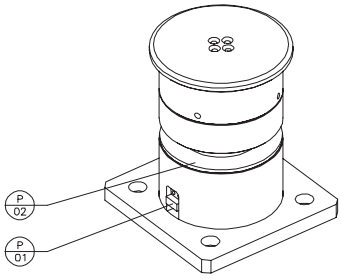


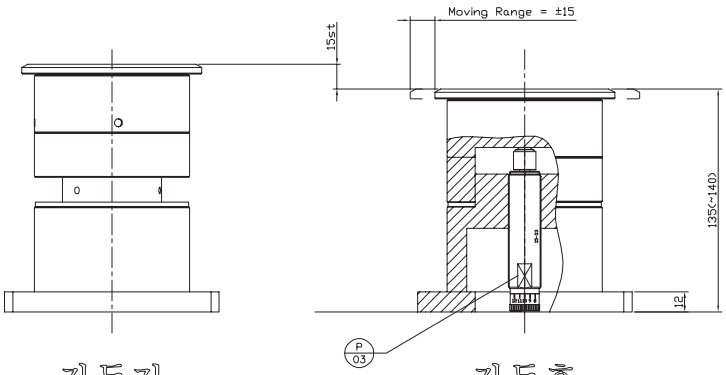
센서 설치부(S=1/2)

EFFS-15-SUS-S-A3

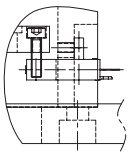
NO	DESCRIPTION	SPECIFICATION	Q'TY	MATRIAL	REMARKS
P01	SENSOR	EE-SX673A	1	-	-
P02	DAMPER	3t X Ø93	1	ACETAL	White Color
P03	SHOCK ABSORBER	A3	1	-	-







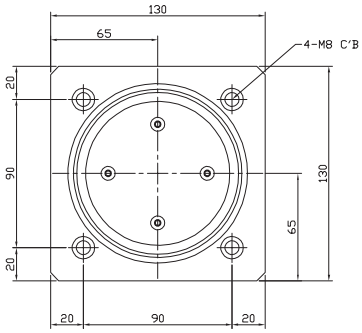
작동전 작동후

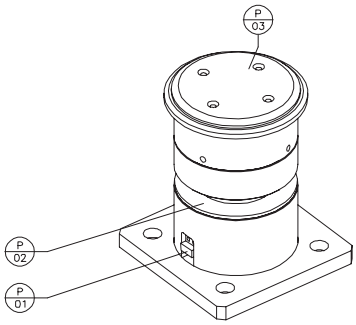


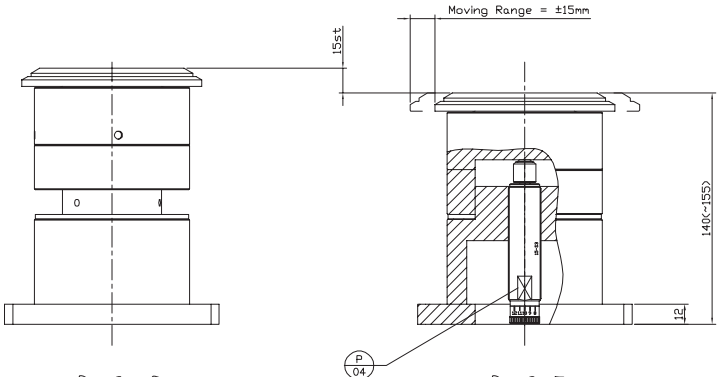
센서 설치부(S=1/2)

EFFS-15-UPE-S-A3

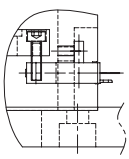
NO	DESCRIPTION	SPECIFICATION	Q'TY	MATRIAL	REMARKS
P01	SENSOR	EE-SX674A	1	-	-
P02	DAMPER	3t X Ø94	1	ACETAL	White Color
P03	STAGE	Ø98 X 6	1	UHMW-PE	Black Color
P04	SHOCK ABSORBER	A3	1	-	-





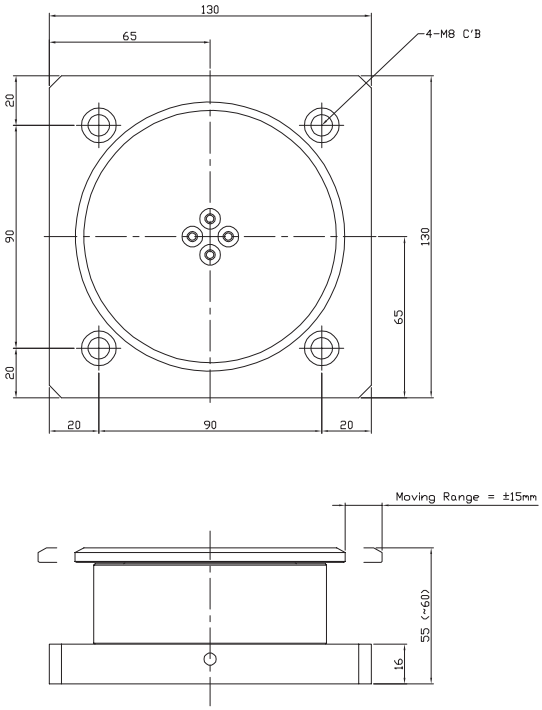


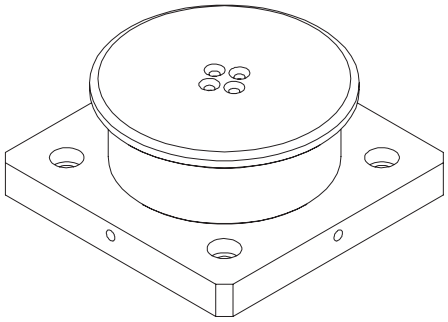
작동전 작동후



센서 설치부(S=1/2)

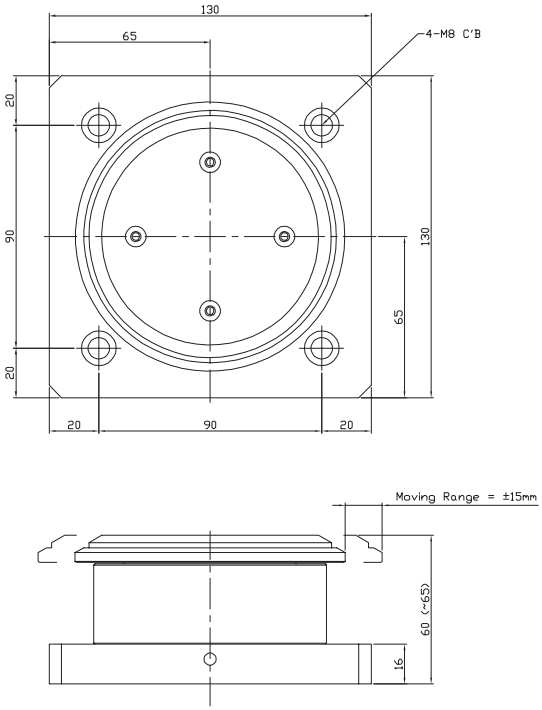
EFFU-15-SUS

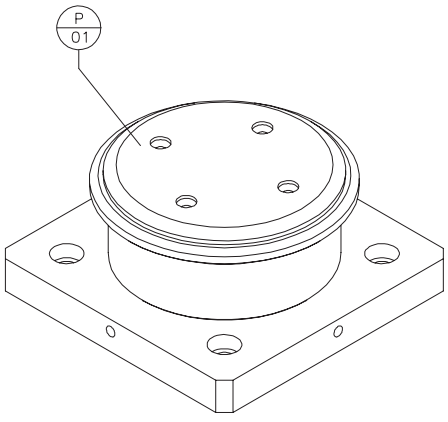




EFFU-15-UPE

NO	DESCRIPTION	SPECIFICATION	QTY	MATRIAL	REMARKS
P01	STAGE	Ø98 X 6	1	UHMW-PE	Black Color





EFAU-30

EF00-30-000-0-00-00
① ② ③ ④ ⑤ ⑥

① 제품명
- EF2A _ Energy-Free 2-axis Align Unit
- EFFS _ Energy-Free Floating Sensor Unit
- EFFU _ Energy-Free Floating Unit

② 수평 이동범위 (mm, Floating Range) _ 30

③ 안착 Stage 재질
- SUS _ SUS304
- UPE _ UHMW-PE

④ 안착확인 Sensor
- S _ 설치
- 무기호 _ 미설치

⑤ 제품 유형
- N _ 일반형
- A4 _ Shock - Absorber 설치(대형 중하중)
- A5 _ Shock - Absorber 설치(대형 고하중)

⑥ Absorber 단계설정
- 01 ~ 12

○EFAU-30 사양

품 번	Stage 직경 (mm, Ø)	Floating Range (mm)	Clamp Stoke (mm)	가반하중 (Kg)	권장사용하중(Kg)		내충격하중 (Kg)	제품무게 (Kg)
					최소	최대		
EF2A-30-SUS-S-N	109	±30	±30	500	10	500	390	14.7
EF2A-30-UPE-S-N	98							
EF2A-30-SUS-S-A4	109				15			15.5
EF2A-30-UPE-S-A4	98							
EF2A-30-SUS-S-A5	109							
EF2A-30-UPE-S-A5	98							
EFFS-30-SUS-S-N	109				10			10.1
EFFS-30-UPE-S-N	98							
EFFS-30-SUS-S-A4	109				15			10.8
EFFS-30-UPE-S-A4	98							
EFFS-30-SUS-S-A5	109							
EFFS-30-UPE-S-A5	98							
EFFU-30-SUS	109							4.8
EFFU-30-UPE	98							

○ 제품 선정 가이드

1. 정렬 대상물의 최소 및 최대 무게를 정합니다.
2. 제품(EFAU)의 종류 및 설치수량을 정합니다.
3. 대상물 안착 스테이지 재질을 정합니다.
4. 안착확인센서 설치 여부를 정합니다. (센서 설치 시 대상물 안착완료에 대한 출력신호를 받을 수 있습니다.)
5. Absorber 설치여부를 선정합니다.
6. Absorber 설치제품은 대상물의 최소 및 최대 무게에 맞추어 다음의 그래프를 참고하여
   Absorber 종류 및 단수를 정합니다.

○ 주의사항

1. 그래프 산출은 자사에서 자체적으로 실험한 Data에 근거하며 설치방법, 사용조건 및 환경 등에 따라 다를 수 있습니다.
   ※ 테스트 조건 : 대상물 무게중심=중앙, 대상물 하강속도=10mm/sec, 상온 20℃
2. 그래프는 제품 1개당 제품 부하하중별 정렬시간을 나타낸 것입니다.
3. 일반형(N)은 Absorber가 없으며 대상물 하강에 따라 즉시 응답합니다.
4. 일반형(N)은 제품 내충격하중을 초과하지 않도록 안전한 속도에서 사용합니다.
5. 일반형(N)은 정렬 시 대상물과 대상물운반장치의 마찰이 발생할 수 있습니다.

○ 제품의 Absorber 선정 예

사용조건)

하중 500Kg~800Kg의 사용범위의 대상물을 하강속도 10mm/sec 사용조건에서 EF2A-30 제품 4개 설치의 경우?

< 선정결과 >

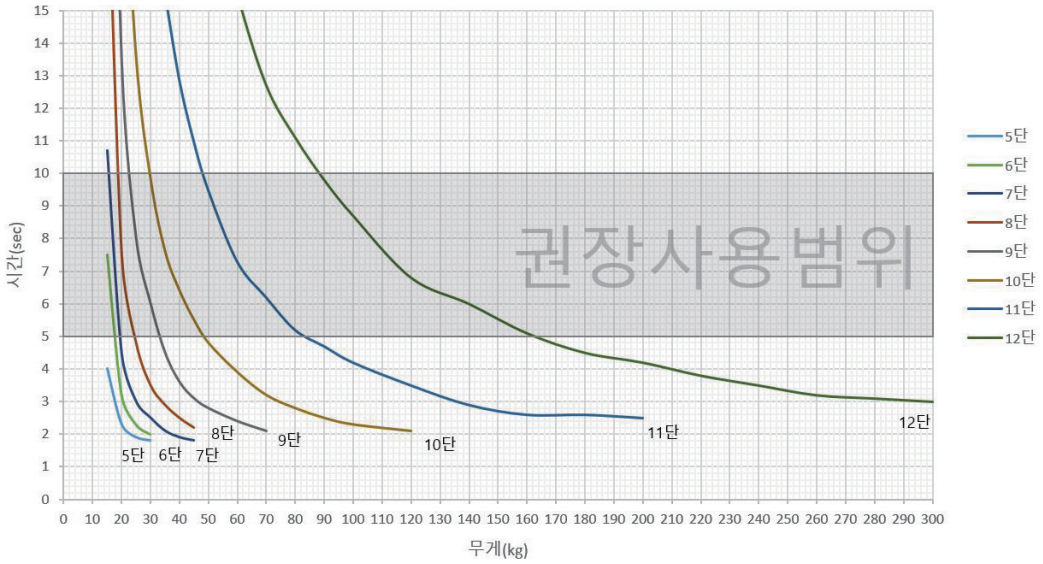
1) EFAU-30-000-0-A5-08 : 약 7sec/최소하중, 약 4.7sec/최대하중

※ 300Kg 이상의 Data는 산출하지 못하였으나 A5 Absorber를 9단이상으로 사용 시 500Kg까지 사용 가능합니다.
(추후 산출 및 Update 예정)

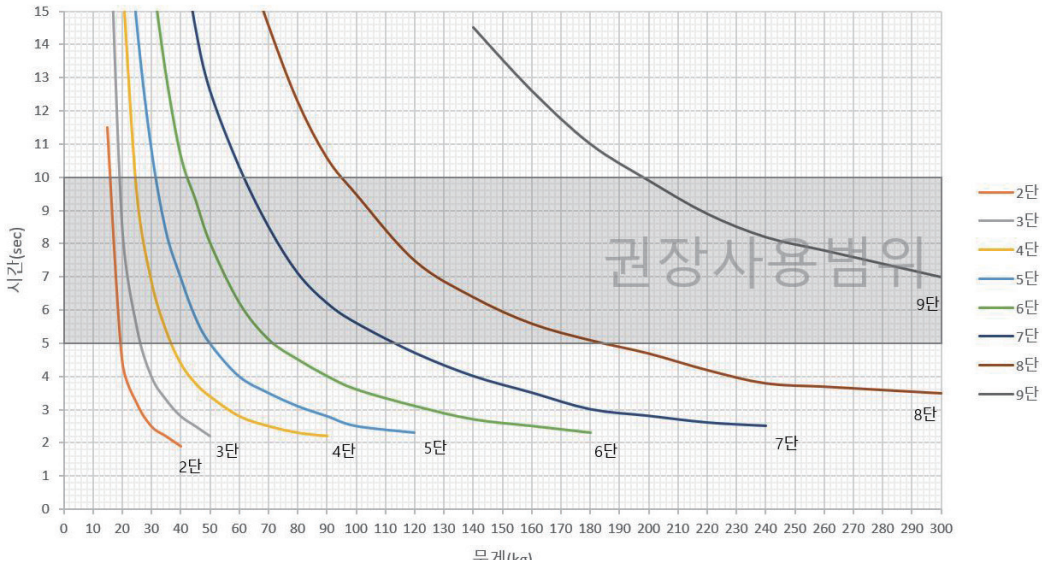
※ 그 외 제품선정에 있어 의문사항은 자사로 문의 바랍니다.

EFAU-30 Absorber 단수, 부하하중 별 정렬시간

○ A4

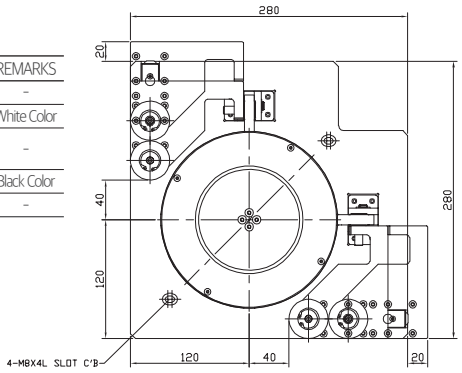


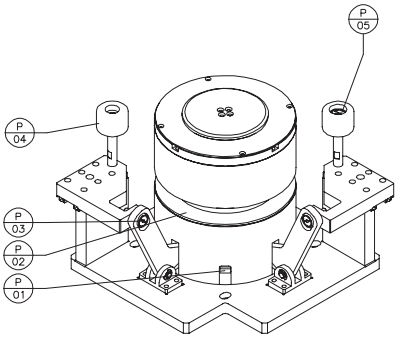
○ A5

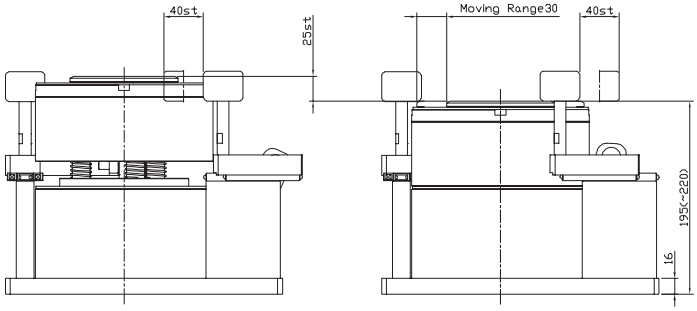


EF2A-30-SUS-S-N

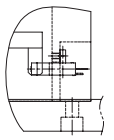
NO	DESCRIPTION	SPECIFICATION	Q'TY	MATRIAL	REMARKS
P01	SENSOR	EE-SX673A	1	-	-
P02	DAMPER	3t X Ø130	1	ACETAL	White Color
P03	CAM FOLLOWER BEARING	CF8	2	Standard	-
P04	ROLLER	Ø40 X 30	2	UHMW-PE	Black Color
P05	BALL BEARING	608ZZ	4	Standard	-







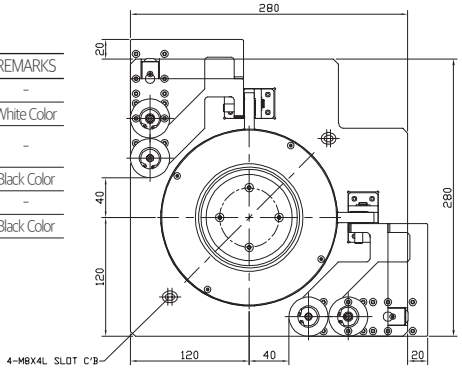
작동전 작동후

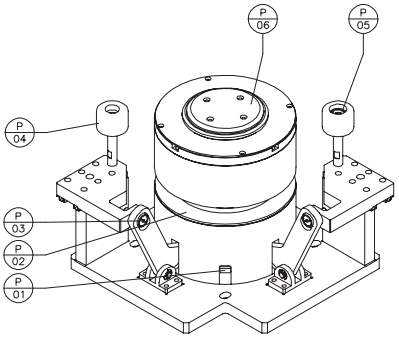


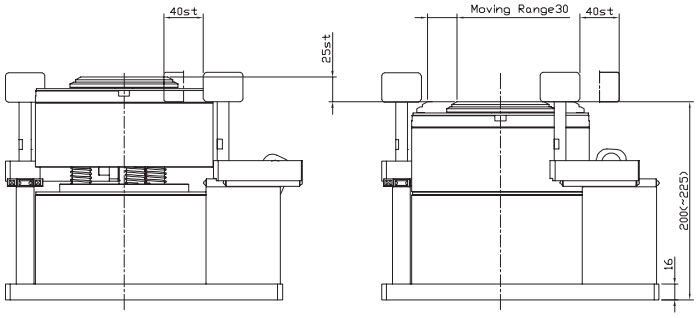
센서 설치부(S=1/2)

EF2A-30-UPE-S-N

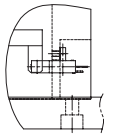
NO	DESCRIPTION	SPECIFICATION	Q'TY	MATRIAL	REMARKS
P01	SENSOR	EE-SX674A	1	-	-
P02	DAMPER	3t X Ø130	1	ACETAL	White Color
P03	CAM FOLLOWER BEARING	CF5	2	Standard	-
P04	ROLLER	Ø40 X 31	2	UHMW-PE	Black Color
P05	BALL BEARING	609ZZ	4	Standard	-
P06	STAGE	Ø98 X 6	1	UHMW-PE	Black Color







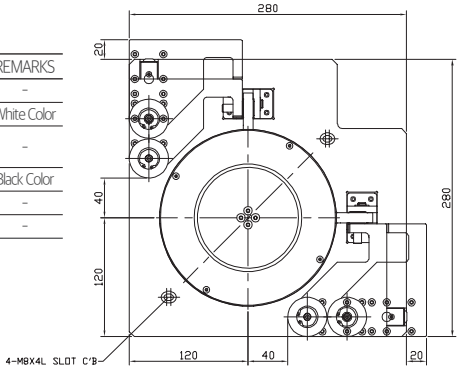
작동전 작동후

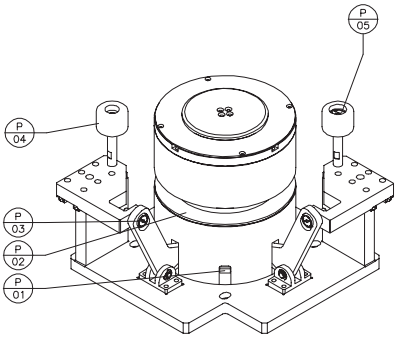


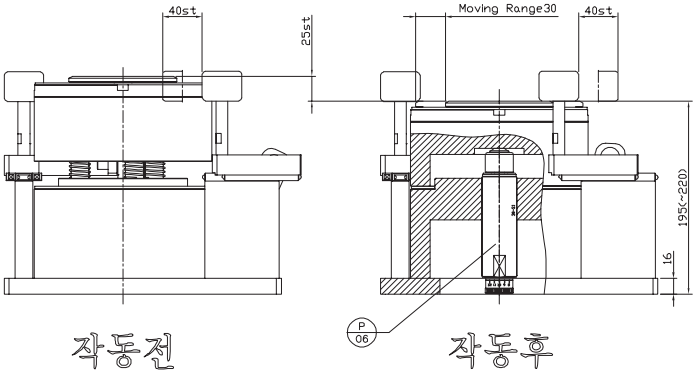
센서 설치부(S=1/2)

EF2A-30-SUS-S-A4

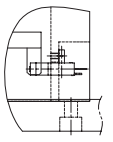
NO	DESCRIPTION	SPECIFICATION	Q'TY	MATRIAL	REMARKS
P01	SENSOR	EE-SX673A	1	-	-
P02	DAMPER	3t X Ø130	1	ACETAL	White Color
P03	CAM FOLLOWER BEARING	CF8	2	Standard	-
P04	ROLLER	Ø40 X 30	2	UHMW-PE	Black Color
P05	BALL BEARING	608ZZ	4	Standard	-
P06	SHOCK ABSORBER	A4	1	-	-







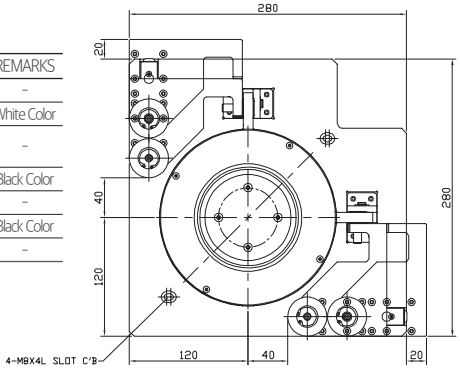
작동전 작동후

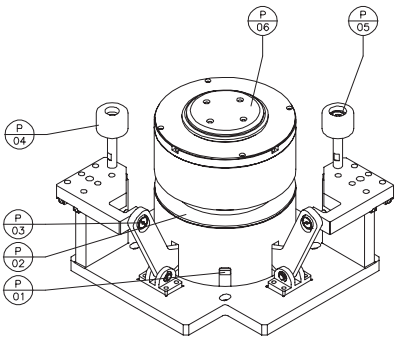


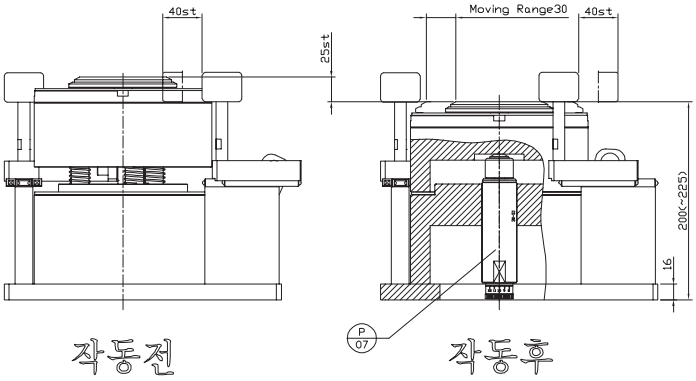
센서 설치부(S=1/2)

EF2A-30-UPE-S-A4

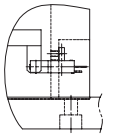
NO	DESCRIPTION	SPECIFICATION	Q'TY	MATRIAL	REMARKS
P01	SENSOR	EE-SX673A	1	-	-
P02	DAMPER	3t X Ø130	1	ACETAL	White Color
P03	CAM FOLLOWER BEARING	CF8	2	Standard	-
P04	ROLLER	Ø40 X 30	2	UHMW-PE	Black Color
P05	BALL BEARING	608ZZ	4	Standard	-
P06	STAGE	Ø98 X 6	1	UHMW-PE	Black Color
P07	SHOCK ABSORBER	A4	1	-	-







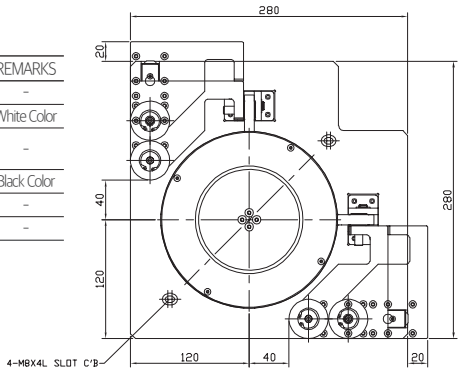
작동전 작동후

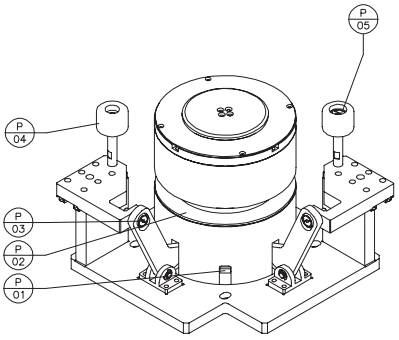


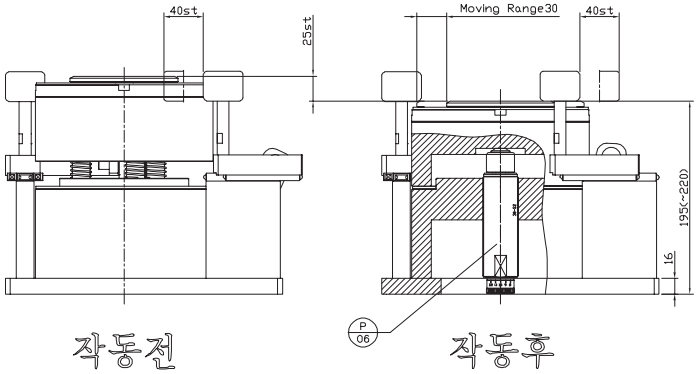
센서 설치부(S=1/2)

EF2A-30-SUS-S-A5

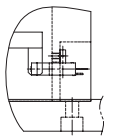
NO	DESCRIPTION	SPECIFICATION	Q'TY	MATRIAL	REMARKS
P01	SENSOR	EE-SX673A	1	-	-
P02	DAMPER	3t X Ø130	1	ACETAL	White Color
P03	CAM FOLLOWER BEARING	CF8	2	Standard	-
P04	ROLLER	Ø40 X 30	2	UHMW-PE	Black Color
P05	BALL BEARING	608ZZ	4	Standard	-
P06	SHOCK ABSORBER	A5	1	-	-







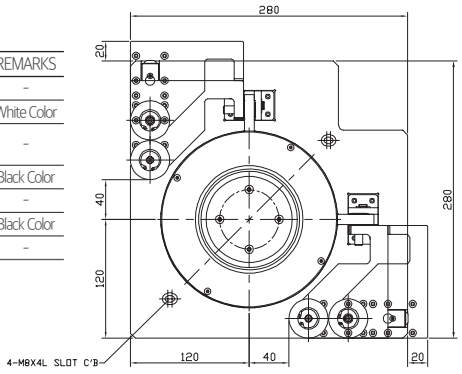
작동전 작동후

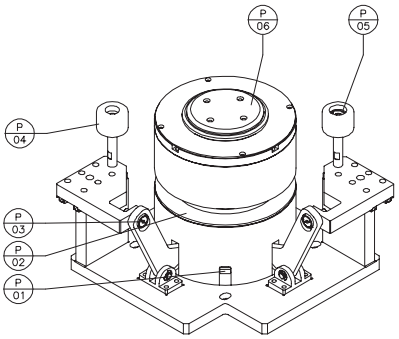


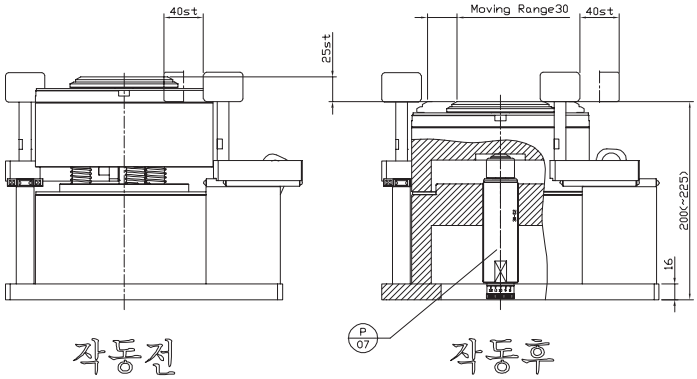
센서 설치부(S=1/2)

EF2A-30-UPE-S-A5

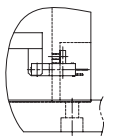
NO	DESCRIPTION	SPECIFICATION	Q'TY	MATRIAL	REMARKS
P01	SENSOR	EE-SX673A	1	-	-
P02	DAMPER	3t X Ø130	1	ACETAL	White Color
P03	CAM FOLLOWER BEARING	CF8	2	Standard	-
P04	ROLLER	Ø40 X 30	2	UHMW-PE	Black Color
P05	BALL BEARING	608ZZ	4	Standard	-
P06	STAGE	Ø98 X 6	1	UHMW-PE	Black Color
P07	SHOCK ABSORBER	A5	1	-	-







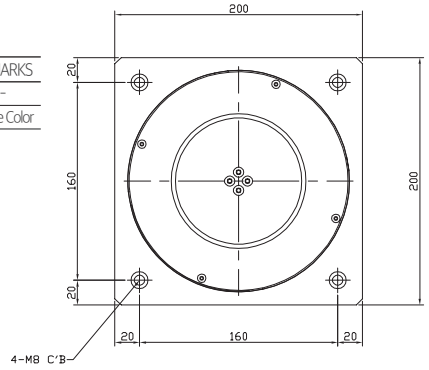
작동전 작동후

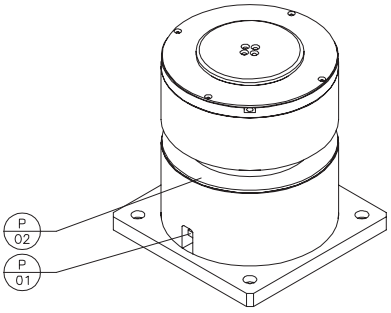


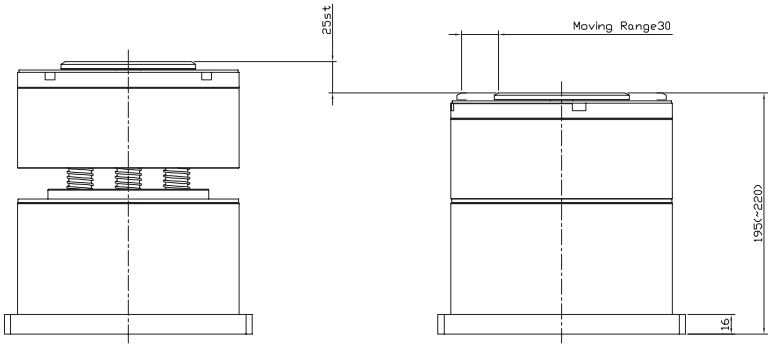
센서 설치부(S=1/2)

EFFS-30-SUS-S-N

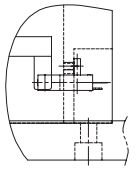
NO	DESCRIPTION	SPECIFICATION	Q'TY	MATRIAL	REMARKS
P01	SENSOR	EE-SX673A	1	-	-
P02	DAMPER	3t X Ø130	1	ACETAL	White Color







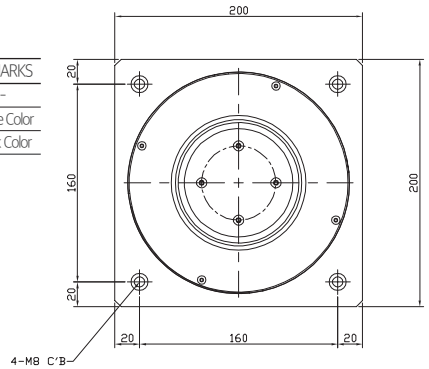
작동전 작동후

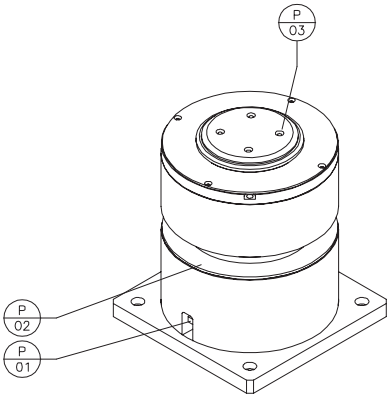


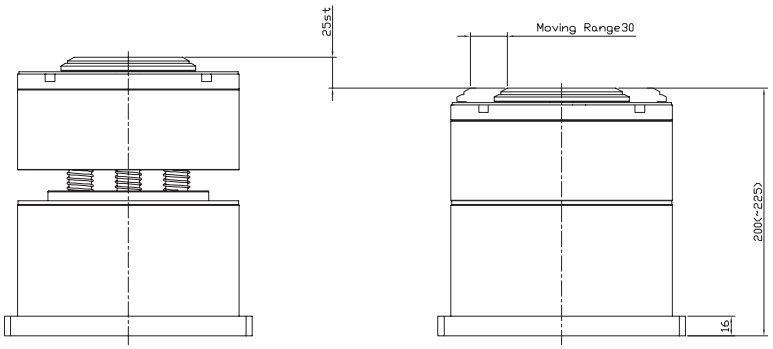
센서 설치부(S=1/2)

EFFS-30-UPE-S-N

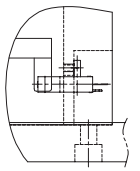
NO	DESCRIPTION	SPECIFICATION	Q'TY	MATRIAL	REMARKS
P01	SENSOR	EE-SX674A	1	-	-
P02	DAMPER	3t X Ø130	1	ACETAL	White Color
P03	STAGE	Ø98 X 6	1	UHMW-PE	Black Color







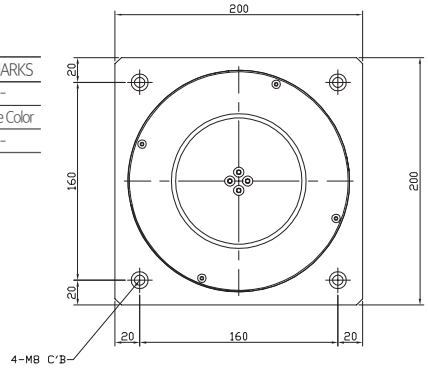
작동전 작동후

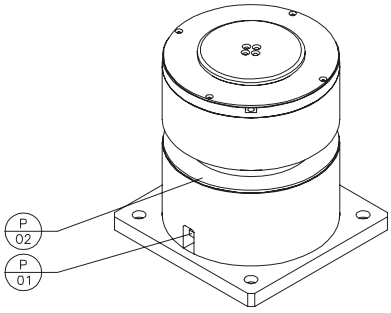


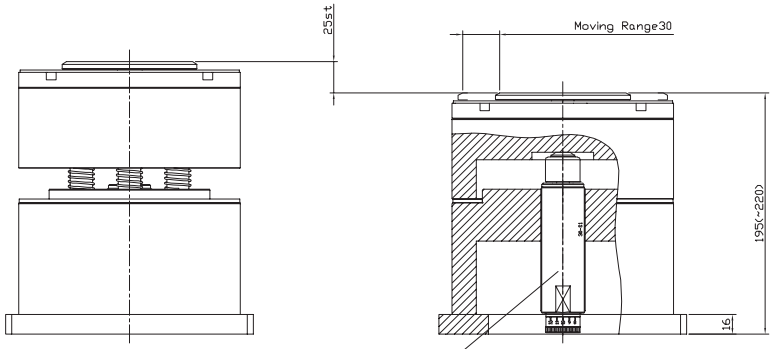
센서 설치부(S=1/2)

EFFS-30-SUS-S-A4

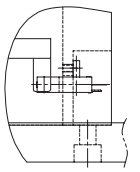
NO	DESCRIPTION	SPECIFICATION	Q'TY	MATRIAL	REMARKS
P01	SENSOR	EE-SX673A	1	-	-
P02	DAMPER	3t X Ø130	1	ACETAL	White Color
P03	SHOCK ABSORBER	A4	1	-	-







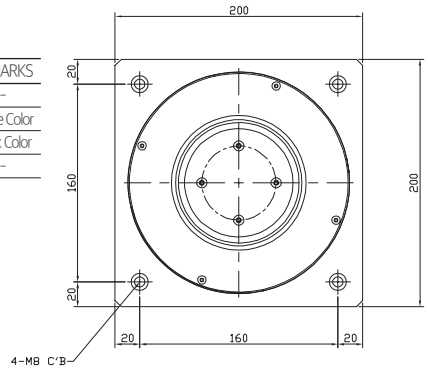
작동전 작동후

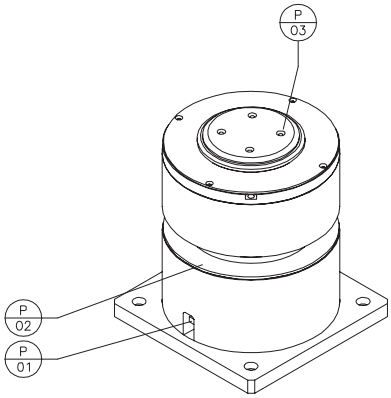


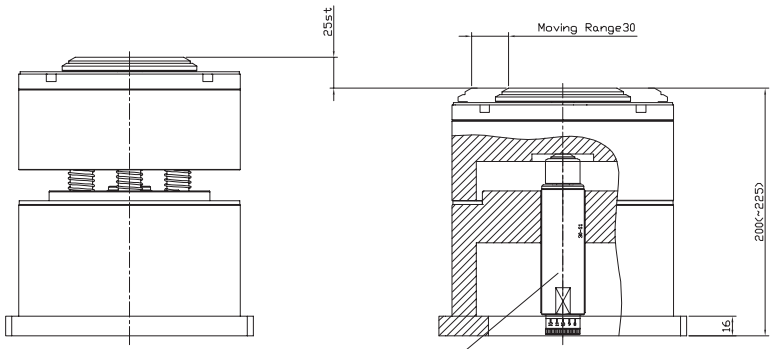
센서 설치부(S=1/2)

EFFS-30-UPE-S-A4

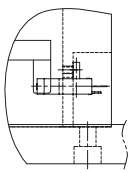
NO	DESCRIPTION	SPECIFICATION	Q'TY	MATRIAL	REMARKS
P01	SENSOR	EE-SX674A	1	-	-
P02	DAMPER	3t X Ø130	1	ACETAL	White Color
P03	STAGE	Ø98 X 6	1	UHMW-PE	Black Color
P04	SHOCK ABSORBER	A4	1	-	-







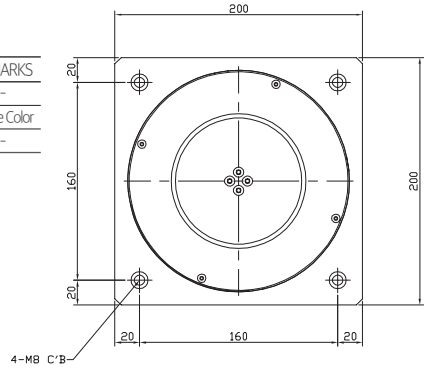
작동전 작동후

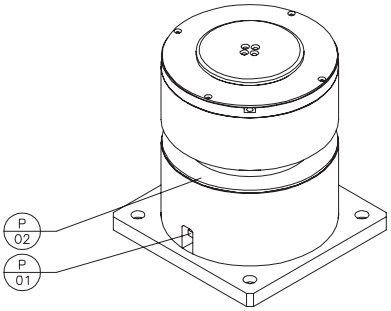


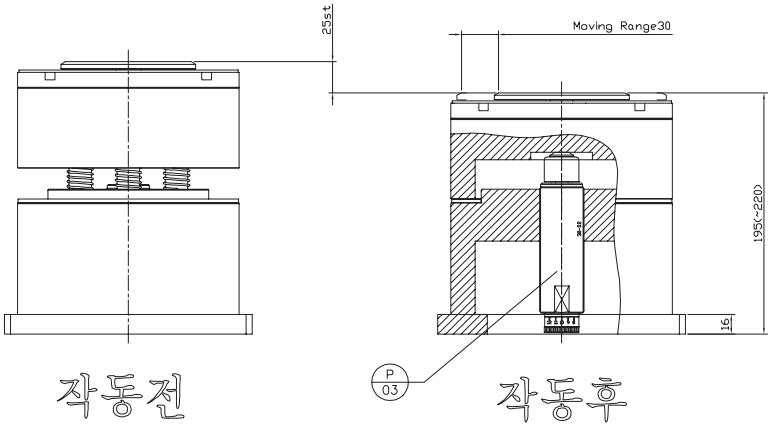
센서 설치부(S=1/2)

EFFS-30-SUS-S-A5

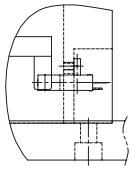
NO	DESCRIPTION	SPECIFICATION	Q'TY	MATRIAL	REMARKS
P01	SENSOR	EE-SX673A	1	-	-
P02	DAMPER	3t X Ø130	1	ACETAL	White Color
P03	SHOCK ABSORBER	A5	1	-	-







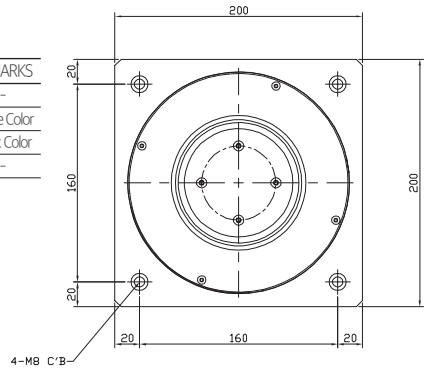
작동전 작동후

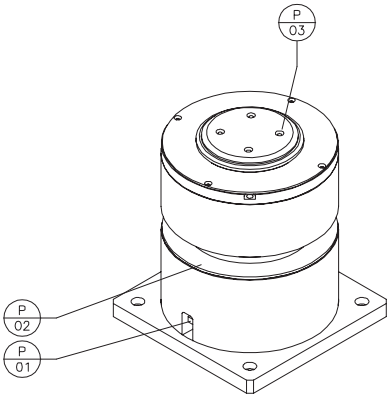


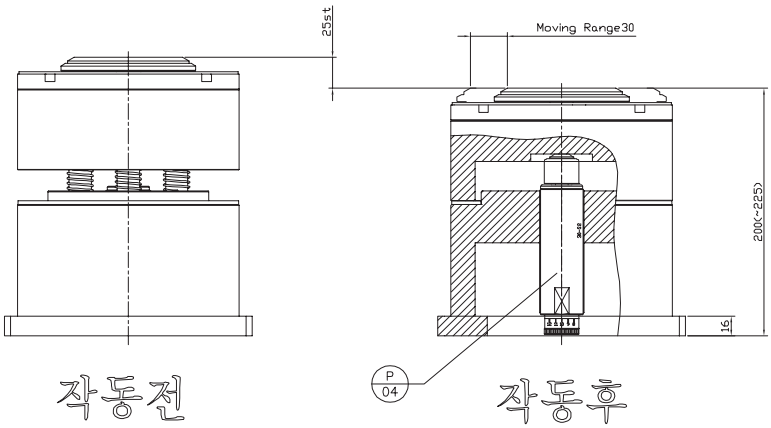
센서 설치부(S=1/2)

EFFS-30-UPE-S-A5

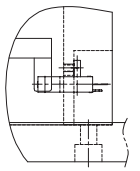
NO	DESCRIPTION	SPECIFICATION	Q'TY	MATRIAL	REMARKS
P01	SENSOR	EE-SX674A	1	-	-
P02	DAMPER	3t X Ø130	1	ACETAL	White Color
P03	STAGE	Ø98 X 6	1	UHMW-PE	Black Color
P04	SHOCK ABSORBER	A5	1	-	-





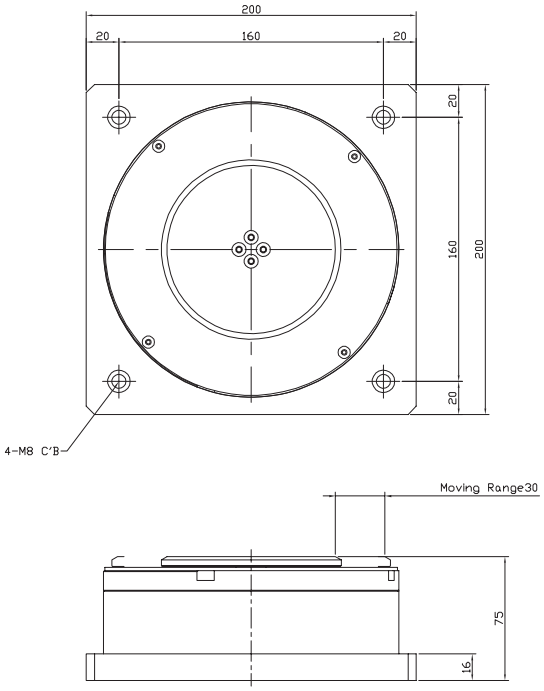


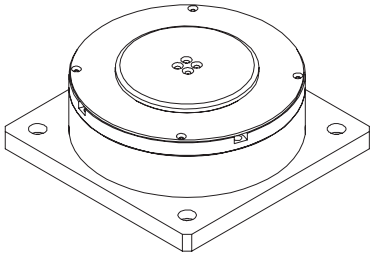
작동전 작동후



센서 설치부(S=1/2)

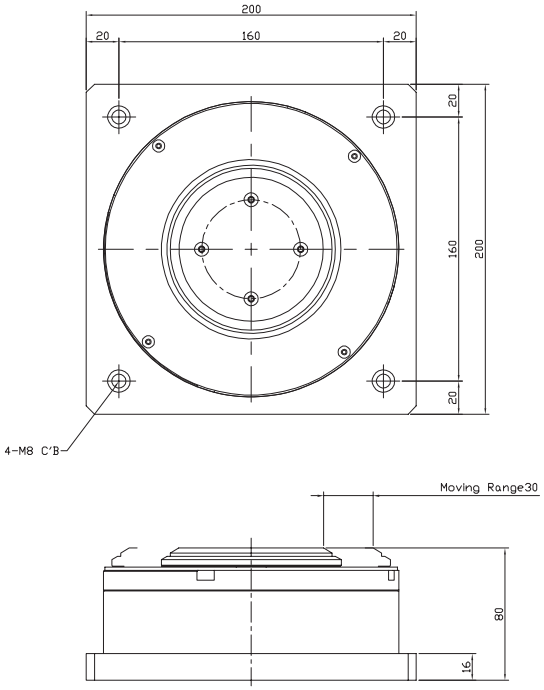
EFFU-30-SUS

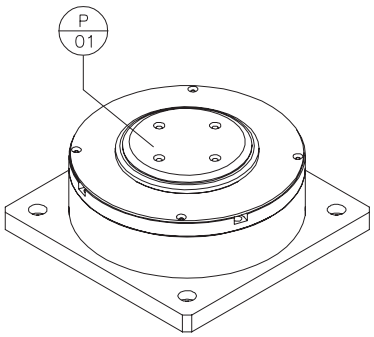




EFFU-30-UPE

NO	DESCRIPTION	SPECIFICATION	Q'TY	MATRIAL	REMARKS
P01	STAGE	Ø98 X 6	1	UHMW-PE	Black Color





EF4A

EF4A-0-00-00
① ② ③ ④

① 제품명
· EF4A _ Energy-Free 4-axis Align Unit

② 안착확인 Sensor
· S _ 설치
· 무기호 _ 미설치

③ 제품 유형
· N _ 일반형
· A4 _ Shock - Absorber

④ Absorber 단계설정
01 ~ 12단계

○EF4A 사양

품 번	Stage 직경 (mm, Ø)	Floating Range (mm)	Clamp Stoke (mm)	가반하중 (Kg)	권장사용하중(Kg)		내충격하중 (Kg)	제품무게 (Kg)
					최소	최대		
EF4A-S-N	109	±30	±30	500	10	100	390	21.1
EF4A-S-A4					15			21.8

○ 제품 선정 가이드

1 정렬 대상물의 최소 및 최대 무게를 정합니다.

2 안착확인센서 설치 여부를 정합니다. (센서 설치 시 대상물 안착완료에 대한 출력신호를 받을 수 있습니다.)

3 Absorber 설치여부를 선정합니다.

4 Absorber 설치제품은 대상물의 최소 및 최대 무게에 맞추어 다음의 그래프를 참고하여
Absorber 종류 및 단수를 정합니다.

○ 주의사항

1 그래프 산출은 자사에서 자체적으로 실험한 Data에 근거하며 설치방법, 사용조건 및 환경 등에 따라 다를 수 있습니다.
※ 테스트 조건 : 대상물 무게중심=중앙, 대상물 하강속도=10mm/sec, 상온 20℃

2 일반형(N)은 Absorber가 없으며 대상물 하강에 따라 즉시 응답합니다.

3 일반형(N)은 제품 내충격하중을 초과하지 않도록 안전한 속도에서 사용합니다.

4 일반형(N)은 정렬 시 대상물과 대상물운반장치의 마찰이 발생할 수 있습니다.

○ 제품의 Absorber 선정 예

사용조건)

하중 30Kg~50Kg의 사용범위의 대상물을 하강속도 10mm/sec 사용조건에서 제품 EF4A 제품을 사용할 경우?

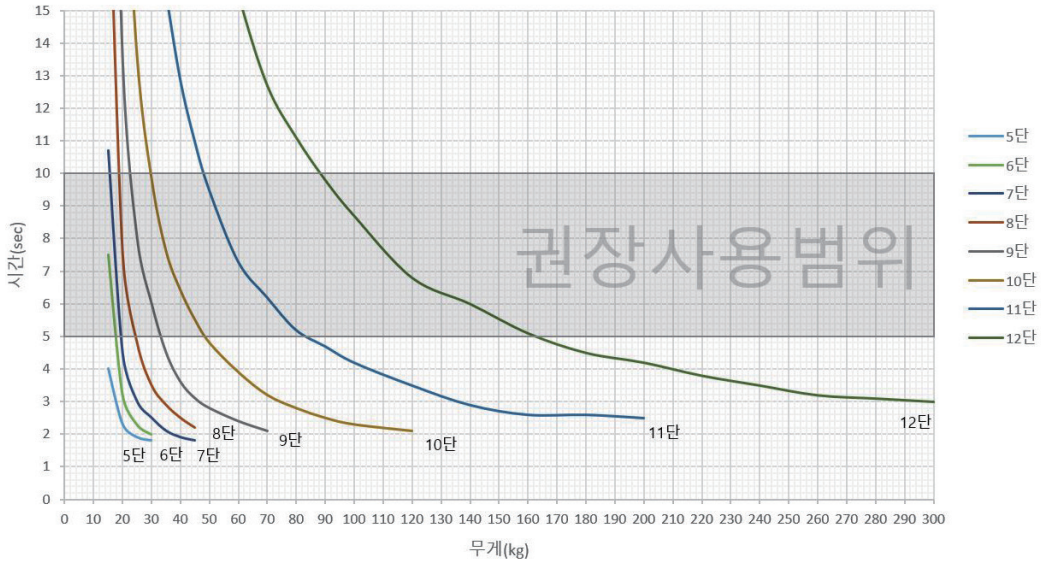
< 선정결과 >

1)) EF4A-0-A4-10 : 약 10sec/최소하중, 약 5sec/최대하중

※ 그 외 제품선정에 있어 의문사항은 자사로 문의 바랍니다.

EF4A Absorber 단수, 부하하중 별 정렬시간

○ A4

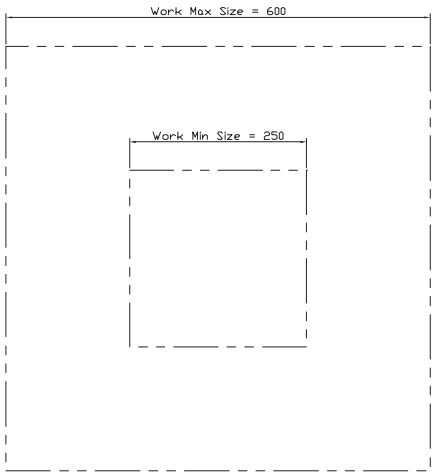


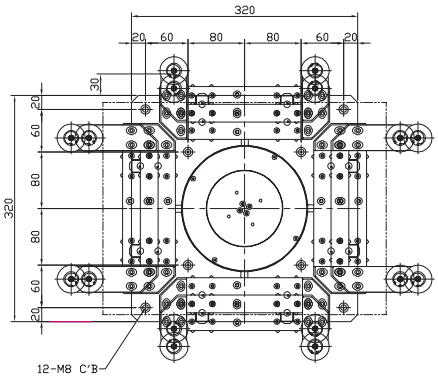
EF4A-S-N

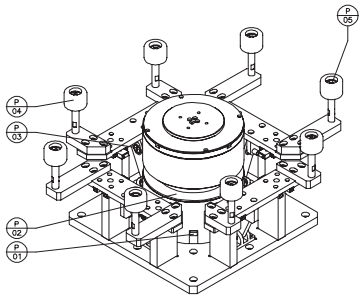
1. Work Size 선정

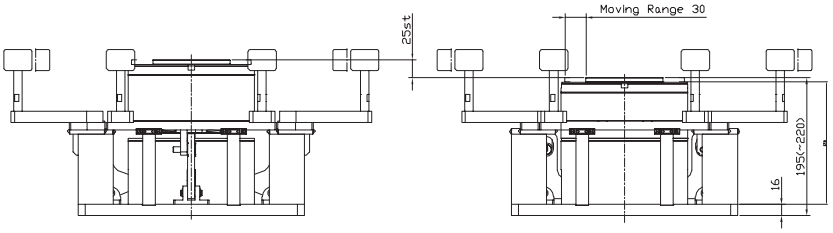
항목	A(가로, B(세로) Size = User 선정
A,B	Min 250 ~ Max 600mm

NO	DESCRIPTION	SPECIFICATION	QTY	MATRIAL	REMARKS
P01	SENSOR	EE-SX673A	1	-	-
P02	DAMPER	3t X Ø130	1	ACETAL	White Color
P03	CAM FOLLOWER BEARING	CF8	4	Standard	-
P04	ROLLER	Ø40 X 30	4	UHMW-PE	Black Color
P05	BALL BEARING	608ZZ	8	Standard	-

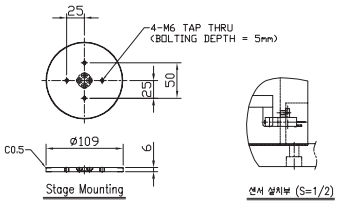








작동전 작동후

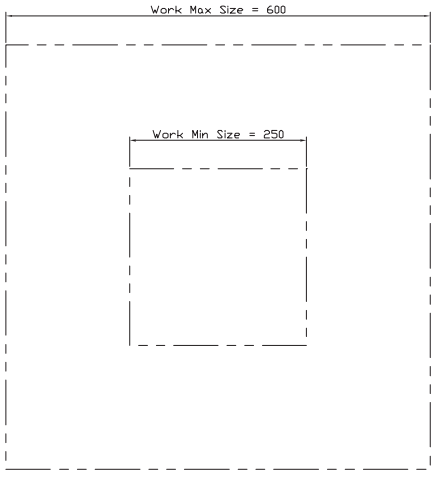


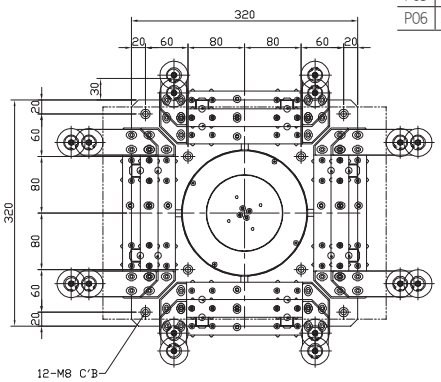
EF4A-S-A4

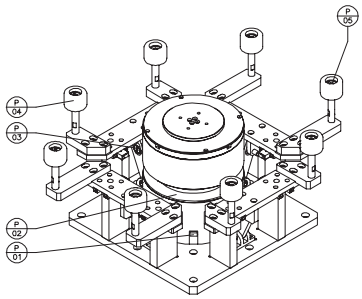
1. Work Size 선정

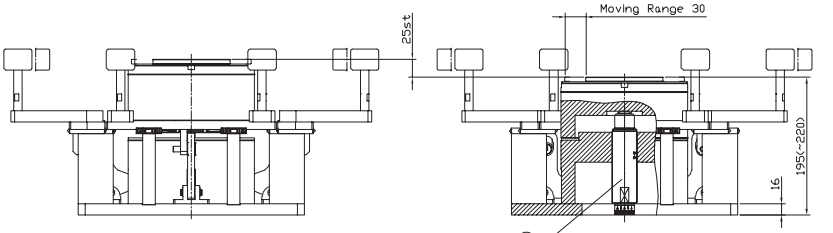
항목	A(가로, B(세로) Size = User 선정
A,B	Min 250 ~ Max 600mm

NO	DESCRIPTION	SPECIFICATION	QTY	MATRIAL	REMARKS
P01	SENSOR	EE-SX673A	1	-	-
P02	DAMPER	3t X Ø130	1	ACETAL	White Color
P03	CAM FOLLOWER BEARING	CF8	4	Standard	-
P04	ROLLER	Ø40 X 30	4	UHMW-PE	Black Color
P05	BALL BEARING	608ZZ	8	Standard	-
P06	SHOCK ABSORBER	A4	1	-	-

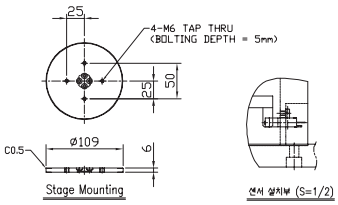








작동전 작동후



IRUM
AUTOMATION

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