



UNIX ENGINEERING

NEO STAGE™

FINO LINEAR™

Tri-B STAGE™

韩国首次
专利产品

2022.6 V2.0



Ultra precision linear stage

UE-M / P Series

Linear motor type

Content

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➤ NEO STAGE



➤ FINO LINEAR



➤ TNI-B STAGE

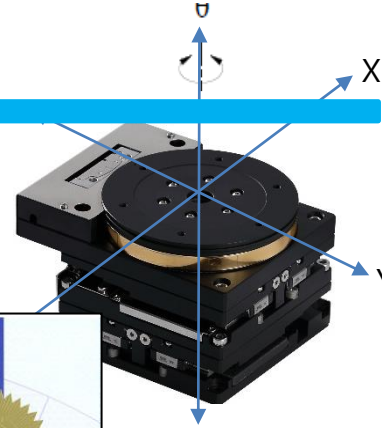


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I. 인증현况

□ 专利现况



특허증
CERTIFICATE OF PATENT

특허 제 10-1970943 호
Patent Number

출원번호 제 10-2018-0118400 호
Application Number

출원일 2018년 10월 04일
Filing Date

등록일 2019년 04월 16일
Registration Date

발명의 명칭 Title of the Invention
박형 리니어 스테이지

특허권자 Patente
주식회사 유닉스엔지니어링(134811-*****)
경기도 화성시 동탄첨단산업1로 20_512,513

발명자 Inventor
구준만
경기도

위의 발명은 「특허법」에 따라 특허등록원부에 등록되었음을 증명합니다.
This is to certify that, in accordance with the Patent Act, a patent for the invention has been registered at the Korean Intellectual Property Office.

2019년 04월 16일

특허청장
COMMISSIONER,
KOREAN INTELLECTUAL PROPERTY OFFICE
박원주

특허청
Korean Intellectual Property Office

특허증
CERTIFICATE OF PATENT

특허 제 10-1967613 호
Patent Number

출원번호 제 10-2018-0118410 호
Application Number

출원일 2018년 10월 04일
Filing Date

등록일 2019년 04월 04일
Registration Date

발명의 명칭 Title of the Invention
회전형 리니어 액츄에이터

특허권자 Patente
주식회사 유닉스엔지니어링(134811-*****)
경기도 화성시 동탄첨단산업1로 20_512,513

발명자 Inventor
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2019년 04월 04일

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COMMISSIONER,
KOREAN INTELLECTUAL PROPERTY OFFICE
박원주

특허청
Korean Intellectual Property Office

특허증
CERTIFICATE OF PATENT

특허 제 10-1991462 호
Patent Number

출원번호 제 10-2018-0118405 호
Application Number

출원일 2018년 10월 04일
Filing Date

등록일 2019년 06월 14일
Registration Date

발명의 명칭 Title of the Invention
직선형 리니어 액츄에이터

특허권자 Patente
주식회사 유닉스엔지니어링(134811-*****)
경기도 화성시 동탄첨단산업1로 20_512,513

발명자 Inventor
구준만
경기도

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2019년 06월 14일

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KOREAN INTELLECTUAL PROPERTY OFFICE
박원주

특허청
Korean Intellectual Property Office

특허증
CERTIFICATE OF PATENT

특허 제 10-2064111 호
Patent Number

출원번호 제 10-2019-0043493 호
Application Number

출원일 2019년 04월 15일
Filing Date

등록일 2020년 01월 02일
Registration Date

발명의 명칭 Title of the Invention
박형 리니어 스테이지의 베이스부 위에 형성되는 기판

특허권자 Patente
주식회사 유닉스엔지니어링(134811-*****)
경기도 화성시 동탄첨단산업1로 20_512,513

발명자 Inventor
구준만(670505-*****)
경기도 성남시 분당구 분당로 212, 204-503

위의 발명은 「특허법」에 따라 특허등록원부에 등록되었음을 증명합니다.
This is to certify that, in accordance with the Patent Act, a patent for the invention has been registered at the Korean Intellectual Property Office.

2020년 01월 02일

특허청장
COMMISSIONER,
KOREAN INTELLECTUAL PROPERTY OFFICE
박원주

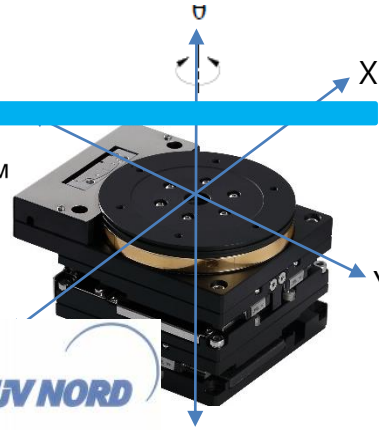
특허청
Korean Intellectual Property Office

I. 认证现况

认证现况



NEO STAGE™



LVD-旋转轴



Certificate of conformity with the following European Directives

Registered No.: **K12444/L20**

Low-Voltage Directive 2014/35/EU

Reference of applicant	Date of application	File reference	Test report No.	Date of issue
-	15.06.2020	KP-20-321	K12039/L20	05.08.2020

This is to certify that the following products comply with the essential requirements (Annex 1) of the above mentioned European Directive and the following standard(s).

Product: NEO STAGE
Type designation: UE-M260T, UE-M075T-6C, UE-M075T-9C, UE-M120T, UE-M160T, UE-M200T
Applicant: UNIXENGINEERING CO., LTD.
 513, 20, Dongtancheomdansaneop 1-ro, Hwaseong-si, Gyeonggi-do 18469, Korea
Manufacturer: Same as above
Standard(s): EN 60204-1:2006 + A1:2009

This Certificate of conformity is based on the evaluation of samples of the product. It does not imply an assessment of the production and it does not permit the use of a mark of conformity or of a safety mark of the TÜV NORD GROUP. The holder of this certificate may use this Certificate together with his EC-Declaration of Conformity.

Young-Choon Kim
 Product Certification Business Unit
 TÜV NORD KOREA LTD.
 TÜV NORD Korea Ltd.
 20 Dogde-ro 3-gil, Gangnam-gu, Seoul 06294, Korea
 Tel: +82-2-198-0070
 Fax: +82-2-556-3069
 E-mail: tm@tuv-nord.com

The CE marking can be affixed on the product if all relevant and effective Directives are complied with.

EMC-旋转轴



Certificate of conformity with the following European Directives

Registered No.: **K12443/E20**

Electromagnetic Compatibility Directive 2014/30/EU

Reference of applicant	Date of application	File reference	Test report No.	Date of issue
-	15.06.2020	KP-20-120	K12038/E20	05.08.2020

This is to certify that the following products comply with the essential requirements (Annex 1) of the above mentioned European Directive and the following standard(s).

Product: NEO STAGE
Type designation: UE-M260T, UE-M075T-6C, UE-M075T-9C, UE-M120T, UE-M160T, UE-M200T
Applicant: UNIXENGINEERING CO., LTD.
 513, 20, Dongtancheomdansaneop 1-ro, Hwaseong-si, Gyeonggi-do 18469, Korea
Manufacturer: Same as above
Standard(s): EN 61000-6-2:2005
 EN 61000-6-4:2007 + A1:2011

This Certificate of conformity is based on the evaluation of samples of the product. It does not imply an assessment of the production and it does not permit the use of a mark of conformity or of a safety mark of the TÜV NORD GROUP. The holder of this certificate may use this Certificate together with his EC-Declaration of Conformity.

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 Fax: +82-2-556-3069
 E-mail: tm@tuv-nord.com

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LVD-直线轴



Certificate of conformity with the following European Directives

Registered No.: **K12442/L20**

Low-Voltage Directive 2014/35/EU

Reference of applicant	Date of application	File reference	Test report No.	Date of issue
-	15.06.2020	KP-20-319	K12037/L20	05.08.2020

This is to certify that the following products comply with the essential requirements (Annex 1) of the above mentioned European Directive and the following standard(s).

Product: NEO STAGE
Type designation: UE-M200X, UE-M075X, UE-M120X-3C, UE-M120X-6C, UE-M120X-9C, UE-M160X
Applicant: UNIXENGINEERING CO., LTD.
 513, 20, Dongtancheomdansaneop 1-ro, Hwaseong-si, Gyeonggi-do 18469, Korea
Manufacturer: Same as above
Standard(s): EN 60204-1:2006 + A1:2009

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 Fax: +82-2-556-3069
 E-mail: tm@tuv-nord.com

The CE marking can be affixed on the product if all relevant and effective Directives are complied with.

EMC-直线轴



Certificate of conformity with the following European Directives

Registered No.: **K12441/E20**

Electromagnetic Compatibility Directive 2014/30/EU

Reference of applicant	Date of application	File reference	Test report No.	Date of issue
-	15.06.2020	KP-20-318	K12036/E20	05.08.2020

This is to certify that the following products comply with the essential requirements (Annex 1) of the above mentioned European Directive and the following standard(s).

Product: NEO STAGE
Type designation: UE-M200X, UE-M075X, UE-M120X-3C, UE-M120X-6C, UE-M120X-9C, UE-M160X
Applicant: UNIXENGINEERING CO., LTD.
 513, 20, Dongtancheomdansaneop 1-ro, Hwaseong-si, Gyeonggi-do 18469, Korea
Manufacturer: Same as above
Standard(s): EN 61000-6-2:2005
 EN 61000-6-4:2007 + A1:2011

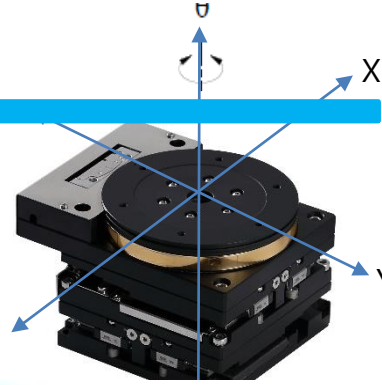
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 E-mail: tm@tuv-nord.com

The CE marking can be affixed on the product if all relevant and effective Directives are complied with.

I. 认证现况

认证现况



Certificate of Registration

This is to certify that :

UNIX ENGINEERING CO., LTD.

Room 513, 20, Dongtancheomdansaneop 1-ro, Hwaseong-si, Gyeonggi-do, Republic of Korea

Has been assessed by International Certification Registrar Ltd., in respect of their Quality Management Systems and found to comply with

ISO 9001:2015

Approval is hereby granted for registration providing the rules and conditions relating to certification are observed at all times.

Certification Scope

Design, Development and Manufacture of Water tap and Accessory

Certificate Issue Date : 24th May 2022

Initial Issued Date : 24th May 2022

Expiration Date : 23rd May 2025

Certificate No. : Q172522

* This certificate is valid by completion of surveillance audit which is conducted within 12 months from the certification date.

The Seal of ICR Limited was hereto affixed in the presence of :

President



- This certificate is Intellectual property of ICR.
- This certificate is only valid by completion of surveillance audit which is conducted at least once a year.
- You can verify the authenticity of this certificate on "Certification Center" at www.icr.com
- If you can not maintain the certification, this certificate shall be returned to ICR.

ICR Co., Ltd. 112, Hwanggumun 3-ro Tbeon-gil, Yangcheon-eup, Gimpo-si, Gyeonggi-do, Korea <http://www.icrqa.com>

ISO 9001



Certificate of Registration

This is to certify that :

UNIX ENGINEERING CO., LTD.

Room 513, 20, Dongtancheomdansaneop 1-ro, Hwaseong-si, Gyeonggi-do, Republic of Korea

Has been assessed by International Certification Registrar Ltd., in respect of their Environmental Management Systems and found to comply with

ISO 14001:2015

Approval is hereby granted for registration providing the rules and conditions relating to certification are observed at all times.

Certification Scope

Design, Development and Manufacture of Water tap and Accessory

Certificate Issue Date : 24th May 2022

Initial Issued Date : 24th May 2022

Expiration Date : 23rd May 2025

Certificate No. : E084922

* This certificate is valid by completion of surveillance audit which is conducted within 12 months from the certification date.

The Seal of ICR Limited was hereto affixed in the presence of :

President



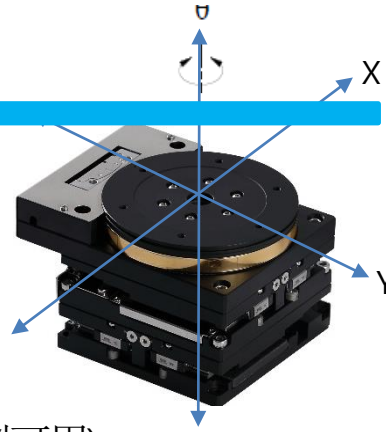
- This certificate is Intellectual property of ICR.
- This certificate is only valid by completion of surveillance audit which is conducted at least once a year.
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ICR Co., Ltd. 112, Hwanggumun 3-ro Tbeon-gil, Yangcheon-eup, Gimpo-si, Gyeonggi-do, Korea <http://www.icrqa.com>

ISO 14001

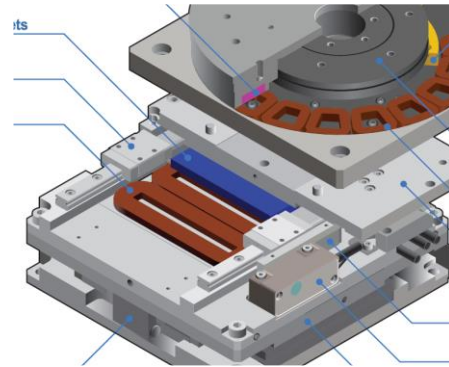
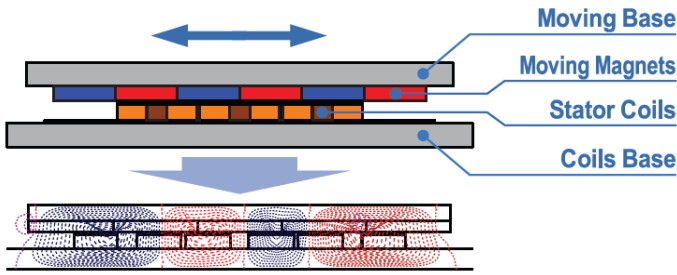
II. 产品介绍(NEO STAGE™)

产品特征

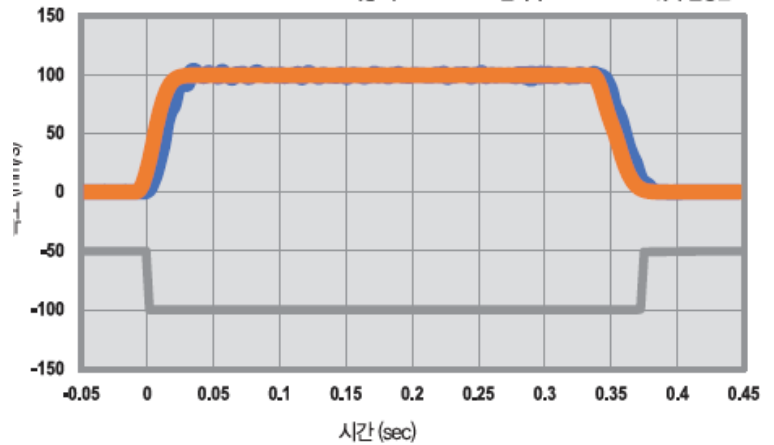


采用线性马达和线性编码器，高精密

适用线性马达，高分辨率直线及旋转型编码器(增量型/绝对型可用)



지령 속도 (Command Speed) 실재속도 (Actual Speed) 위치 결정완료 (Positioning Complete)



* UE-M120-X20 구동조건 : 속도(100mm/s), 가속시간(20ms), Stroke(20mm), Load(1kg)

高精度和快速响应性

采用高频率编码器(0.05um)和采用无槽的线性电机(Slotless Linear Motor)，速度波纹，响应性，清洁度及快速，定位卓越

以简单的组合构成X轴, θ 轴, XY轴, X θ 轴

可用用户想要的方式组合使用

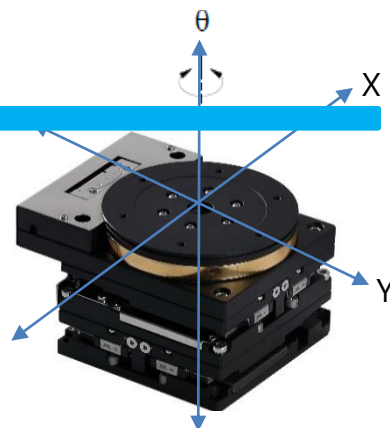


II. 产品介绍(**NEO STAGE™**)

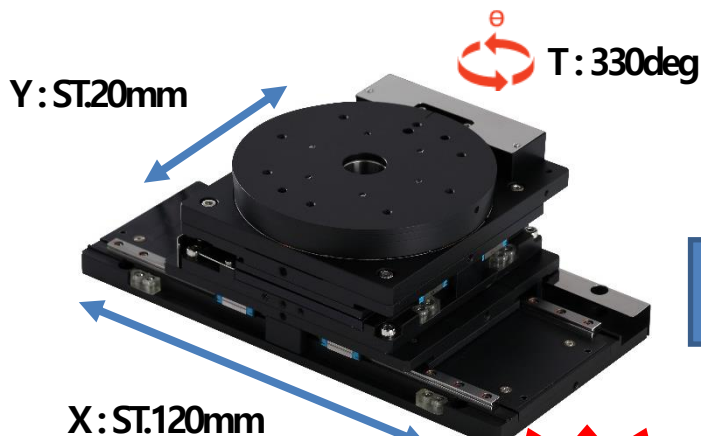
▣ 产品特征

◎ 多种工序作业一次性解决

➔ 直线轴 (ST120), 旋转轴 (330deg)

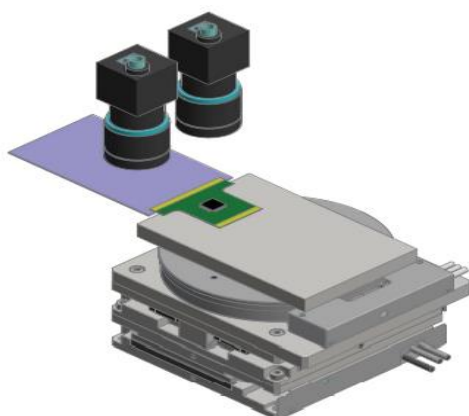


一次性解决

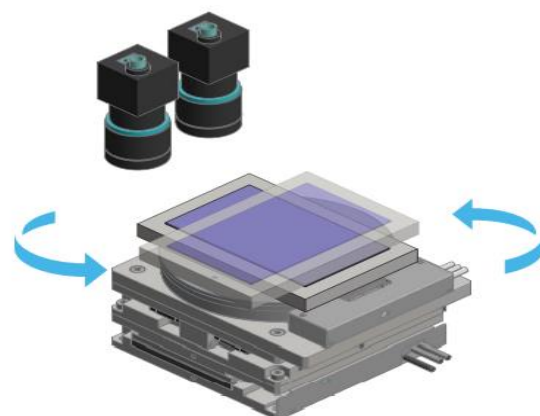


最大特点

1. 上料
2. 对准
3. 工序 (涂布/粘贴/检查)
4. 下料
5. 调换工作
6. 索引



Fine Work Alignment



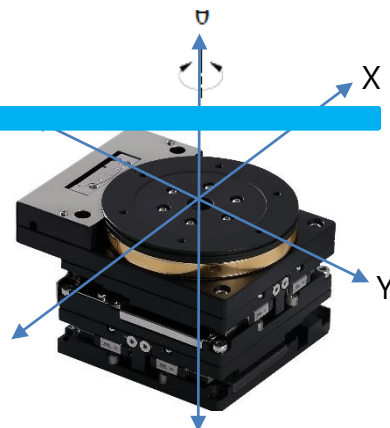
Fast Work Indexing

◎ 3轴平台控制的便利性

个别轴 (X - Y - T) 构成, 无需要复杂计算的结构

II. 产品介绍(NEO STAGE™)

▣ 产品特征



◎ 薄型的XYθ-平台

➔ 3轴组合高度在全型号100mm以内

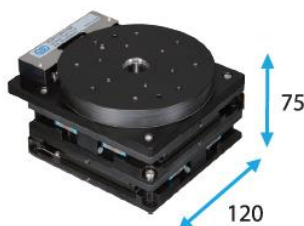
以55角(55MM), 75角(65mm), 120角(75mm), 160角(94mm), 200角(100mm) 的薄型, 装备构成时非常方便, 需要快速响应时非常有利于惯性



UE-M075-3-XYT



90



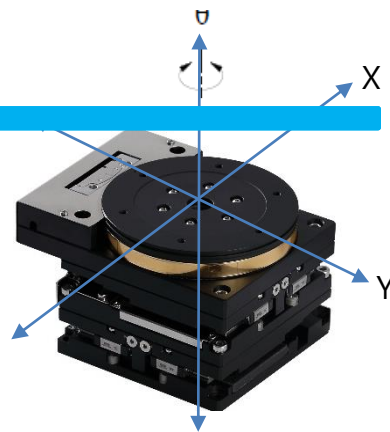
UE-M120-3-XYT



◎ 多样的系列标准化- 共6种型号



II. 产品介绍(NEO STAGE™)



▣ 产品特征

◎ 非标型可对应

可以根据顾客的要求(尺寸, 行程, 扭力)对应非标型

业绩

激光



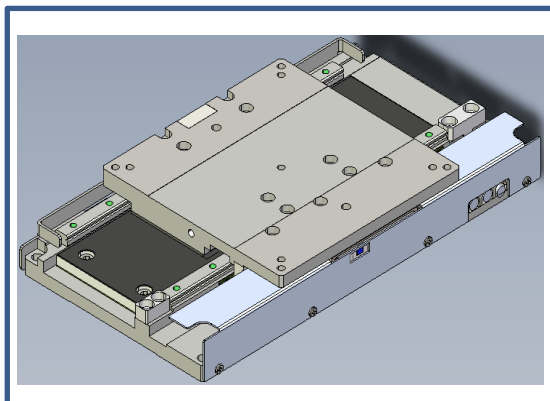
M075-X05-SA2123

- 行程(5mm), 负载(2.5kg)
- 线性马达 :3C (AC) Slotless Type
- 适用驱动器 :



- 限制 :走行方向 65mm (现有型号75mm)

手机



M075-X60

- 行程(60mm), 负载(2.5kg)
- 线性马达 :6C (AC) Slotless Type
- 适用驱动器 :



电池

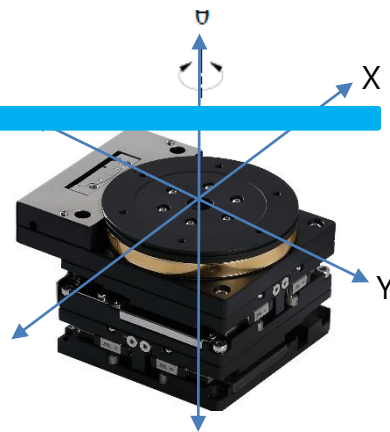


M075-T05

- 行程(5deg), 负载(2kg)
- 线性马达 :9C (AC) Slotless Type
- 适用驱动器 :
- 限制 :直径75回避左右干涩



II. 产品介绍(**NEO STAGE™**)



▣ 产品特征

◎ 非标型可对应

可以根据顾客的要求(尺寸, 行程, 扭力)对应非标型

业绩

激光



VM160-T08

- 行程(8deg), 负载(8kg)
- 线性马达 :VoiceCoilMotor
- 适用驱动器:
- 限制 :激光束贯通孔(Φ 85mm)

激光



VM180-T08

- 行程(8deg), 负载(8kg)
- 线性马达 :VoiceCoilMotor
- 适用驱动器:
- 限制:激光束贯通孔(Φ 85mm)

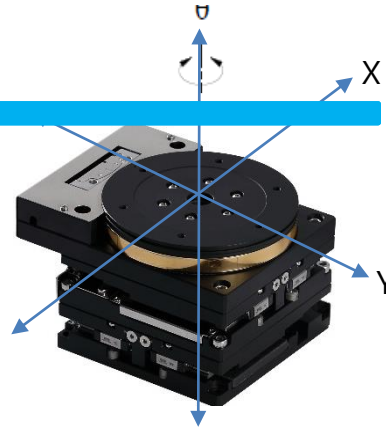
纤维



ARC Motor Stage

- 行程(45deg), 负载(1kg)
- 线性马达 : Slotless Linear Motor
- 适用驱动器:
- 限制 :特定角度移动的电机电机

II. 产品介绍(**NEO STAGE**™)



▣ 产品特征

◎ 可以提供合理的价格，快速交货及技术服务
纯韩国固有技术及制造，库存运营，可快速及提供技术支持

◎ 准备各种测试用套装
可进行核心工艺试验，拥有各型号产品，负载，驱动器，测量仪

◎ 驱动器可对应 **Mitsubishi, Panasonic, Omron, Elmo, Welcon, ACS**
需要输入专用参数



→ 正在扩大能对应驱动器

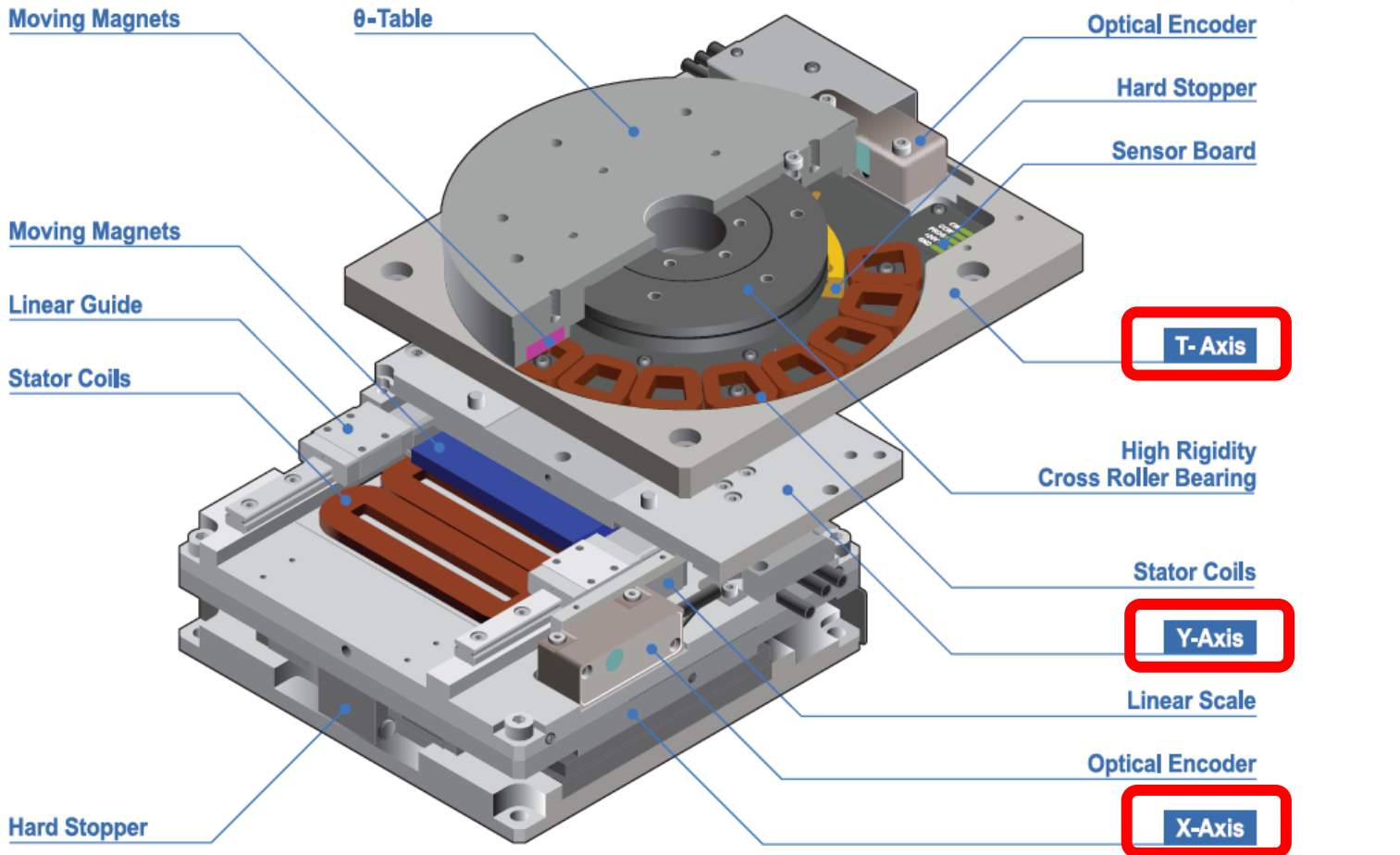
RS Automation Reliable & Smart

Parker

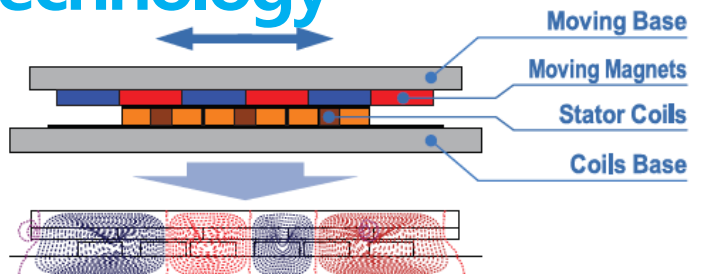
LS ELECTRIC

II. 产品介绍(**NEO STAGE**™)

▣ 产品结构



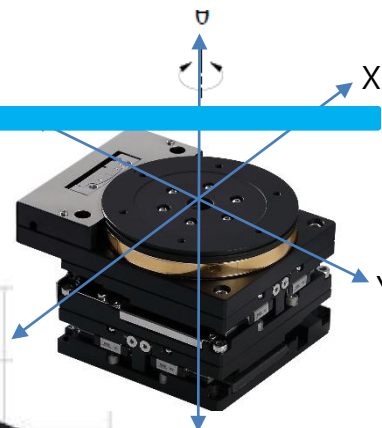
Slotless linear motor technology (Iron Coreless)



UE-M Series的适用线性马达特征

- 驱动时没有Cogging， 可以非常柔软的驱动
- 因Cogging几乎不会发生速度变动，可实现高精度控制
- 结构上非常紧凑，惯性小，可高速驱动及快速响应

II. 产品介绍(NEO STAGE™)



产品阵容

Work size (mm)



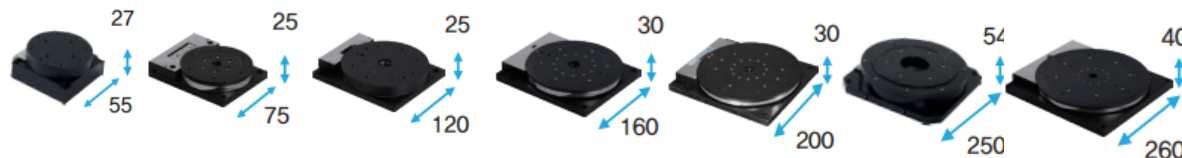
轴组合

조 합	UE-M055	UE-M075	UE-M120	UE-M160	UE-M200	UE-M250	UE-M260	비 고
X	○	○	○	○	○			1축
T	○	○	○	○	○	○	○	1축
XY	○	○	○	○	○			2축
XT	○	○	○	○	○			2축
XYT	○	○	○	○	○			3축

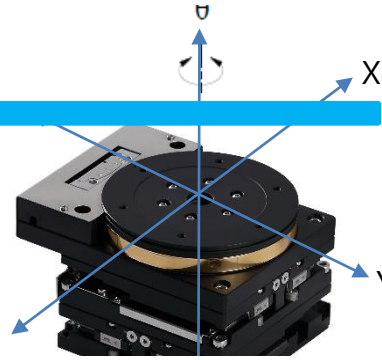
直线轴



旋转轴



II. 产品介绍(NEO STAGE™)



▣ 产品规格

Item	Unit	UE-M055X	UE-M075X			UE-M120X			UE-M160X		UE-M200X	
		2 Coils	3 Coils	6 Coils	3 Coils	6 Coils	9 Coils	3 Coils	6 Coils	3 coils	6 coils	
直线轴												
Max. Force	N	24	27			64			240		350	
Rated Force	N	12	8	8	6	20	16	14	64	44	73	65
Max. payload	kg	2	2.5			6			20		30	
Stroke	mm	8	5	10	60	20	70	120	20	120	30	150
Encoder Resolution (Inc.)	um	0.03125	0.1									
Encoder Resolution (ABS)	um	-	0.05									
Max. speed	mm/sec	100	400						300		200	
Repeatability	um	±0.5										
Moving part mass	kg	0.15	0.3			1.2			2.5		4.2	
Unit mass	kg	0.25	0.6	0.7	0.9	2.0	2.8	3.3	4.6	7.3	8.3	10.5
Unit size	mm	55x55x16(H)	86x65x20(H)	(75/140)x75x20(H)		(120/210/240)x120x25(H)			(160/292)x120x32(H)		(200/385)x200x35(H)	
사용환경 (온/습도)	-	0 ~ 40°C/20~80% RH(결로 없을 것)										

참고: 1) 최대 추력의 유지 시간은 1초 이내 2) 고속 사양이 필요한 경우는 상담 필요 3) 케이블 미포함 무게 (X STAGE는 ST20 기준)

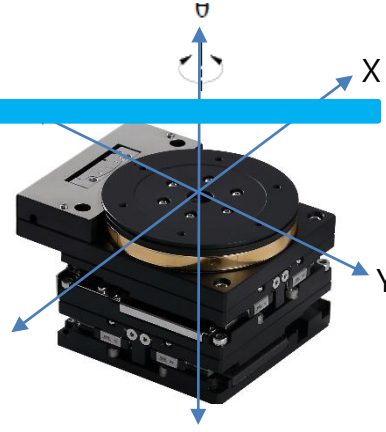
Item	Unit	UE-M055T	UE-M075T	UE-M120T	UE-M160T	UE-M200T	UE-M250T	UE-M260T	
旋转轴									
Max. Force	N.m	0.27	0.9	2.1	8.2	12.5	12.5	33	
Rated Force	N.m	0.135	0.28	0.65	2.3	4.1	4.1	11	
Max payload	kg	2	7	7	20	30	30	60	
Stroke	deg	10	330	18/330	20/330/360	20/330	20	20/330	
Encoder resolution (Inc.)	pulse/deg	7,111	6,406	10,333	13,562	16,965	16,965	21,765	
Encoder resolution (ABS)	pulse/deg	-	12,864	21,913	27,175/24Bit *	35,264	35,264	43,581	
Max. speed	deg/sec	400	720	360	270	180	180	150	
Repeatability	arc-sec	±1.5	±1.2	±0.8	±0.6	±0.5	±0.5	±0.4	
Table mass moment	kg.m ²	0.00055	0.00025	0.0017	0.00457	0.009	0.009	0.03348	
Unit mass	kg	0.5	0.93	2.2	3.7	5.3	5.3	9.2	
Unit size	mm	55x55x27(H)	75x95x25(H)	120x140x25(H)	160x180x30(H)	200x220x30(H)	250x250x54(H)	260x275x40(H)	
사용환경 (온/습도)	-	0 ~ 40°C/20~80% RH(결로 없을 것)							

참고: 1) 최대 추력의 유지 시간은 1초 이내 2) 고속 사양이 필요한 경우는 상담 필요 3) 케이블 미포함 무게

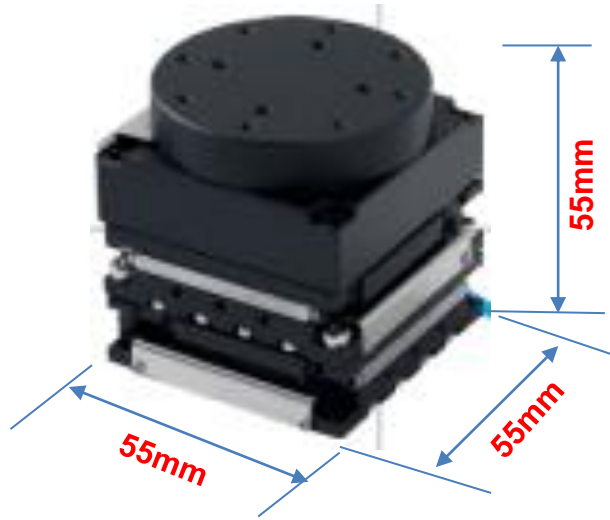
* 360deg(무한회전)의 엔코더 분해능은 24bit임

II. 产品介绍(*NEOSTAGE*™)

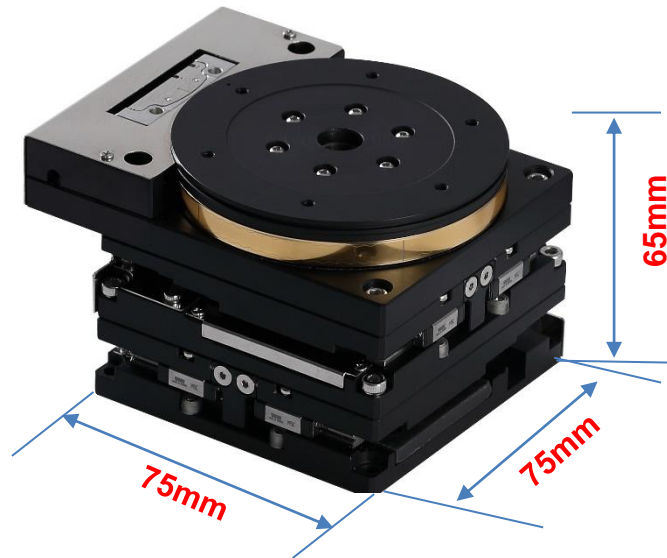
▣ 3轴组合构型



UE-M055-3-X08Y08T10

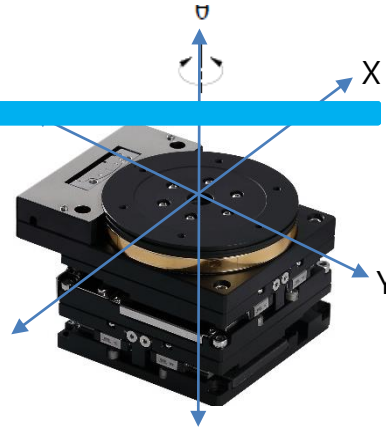


UE-M075-3-X10Y10T20/330

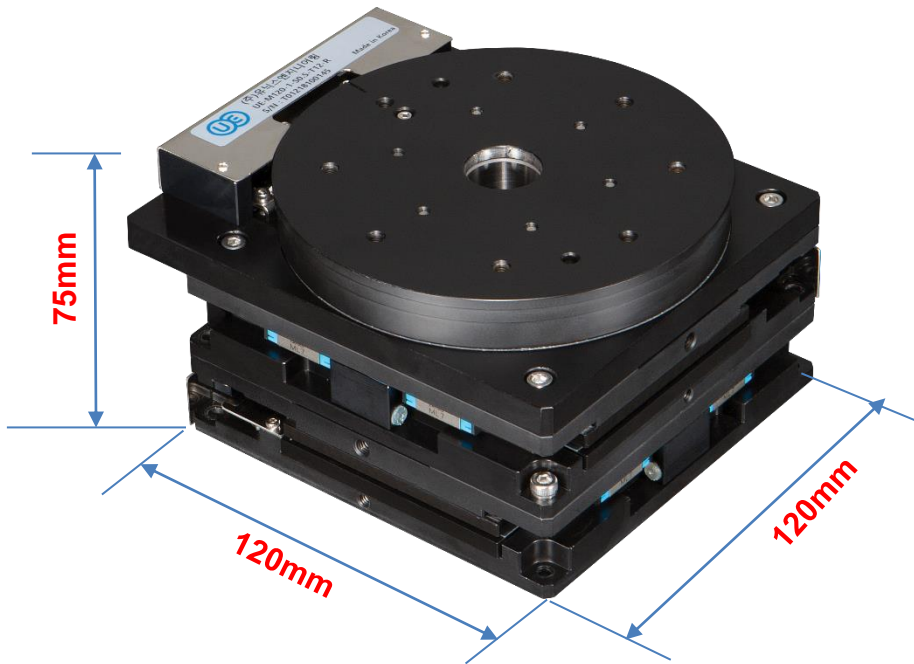


II. 产品介绍(*NEOSTAGE*™)

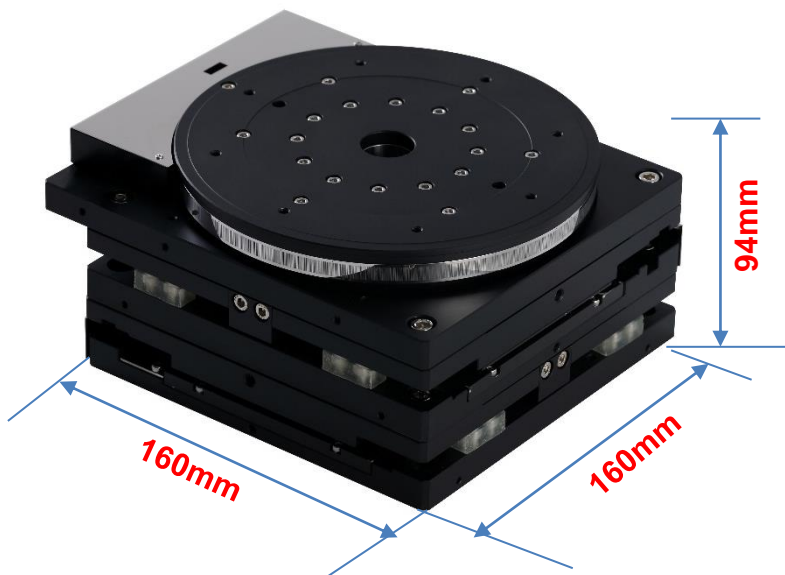
▣ 3轴组合构型



UE-M120-3-X20Y20T12/330

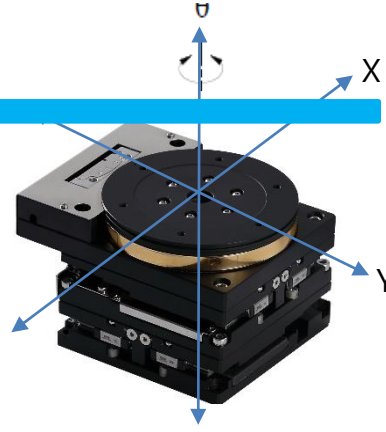


UE-M160-3-X20Y20T20/330/360

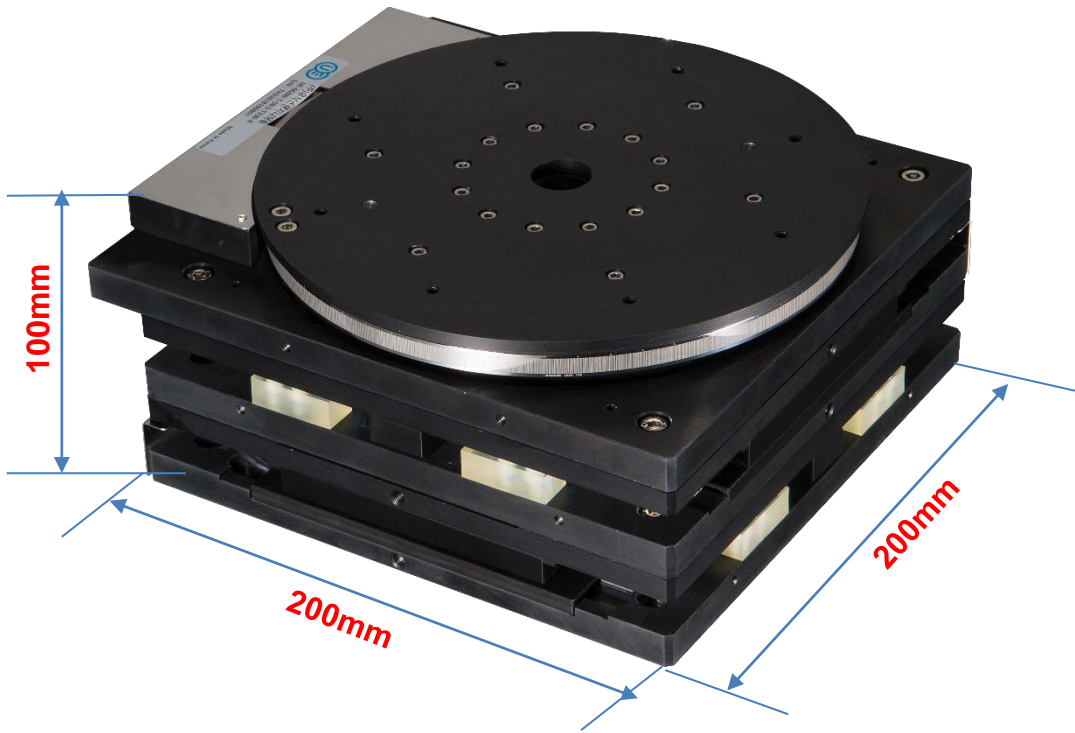


II. 产品介绍(*NEOSTAGE*™)

▣ 3轴组合构型



UE-M200-3-X20Y20T20



II. 产品介绍(*FINO LINEAR™*)

▣ 产品特点



NEO Stage的缺点是短行程，为弥补行程(200mm~ 300mm)的目的开发
 → 定子固定 / 线圈移动形式

NEO Stage是固定线圈/磁铁移动类型，具有行程的极限(最长 120mm)。为了克服这些问题，阵容低高度线性马达。



型号	高度 (mm)	宽度 (mm)
P085	35	85
P120	40	120
P160	45	160

◎ 提供超小型3轴尺寸及高度

小部轴 Fino Linear + 上部和旋转 NEO Stage 组合使用时

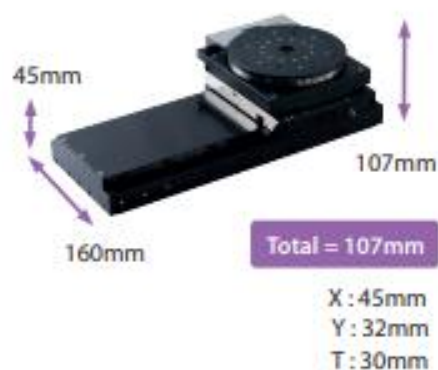
X Axis : UE-PS-X200
 Y-T Axis : UE-M075-2-Y10T330



X Axis : UE-PE-X200
 Y-T Axis : UE-M120-2-Y20T12



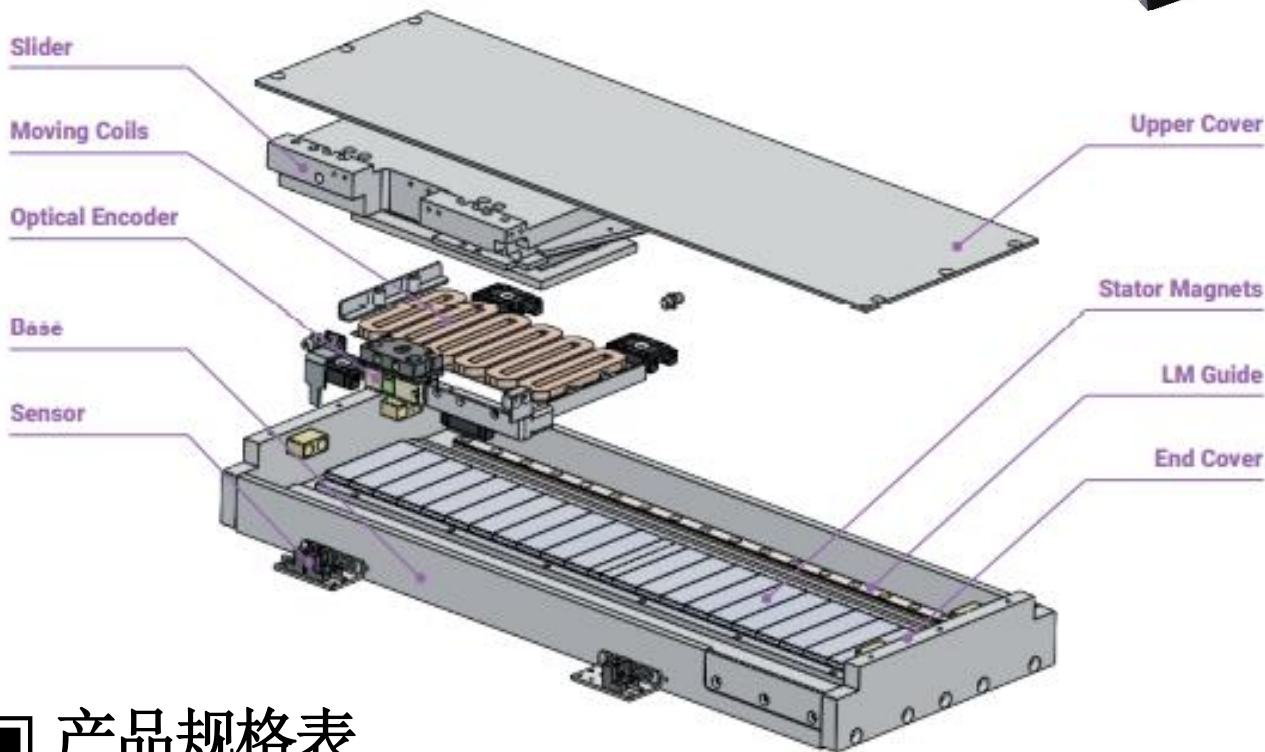
X Axis : UE-PL-X200
 Y-T Axis : UE-M160-2-Y20T20



三轴组合时高度为80mm/90mm/107mm，与普通直线电机1轴的高度相同。
 非常紧凑的尺寸可以提高设备设计时的空间利用率。

II.产品介绍(*FINO LINEAR™*)

▣ 产品结构



▣ 产品规格表

		PS	PE	PL
Item	Unit			
Servo Amp	W	100/200	100/200	200
Max. Force	N	27	64	100
Rated Force	N	8	20	33
Max payload	kg	2.5	6	10
Stroke	mm	200~300		
Encoder resolution (INC)	um	0.1		
Encoder resolution (ABS)	um	0.05		
Max speed	mm/sec	400		
Position repeatability	um	±0.5		
Moving part mass	kg	0.5	0.7	1.6
Unit mass	kg	2.5	3.5	5.5
Unit size	mm	300x85x35(H)/ST200	240x120x40(H)/ST200	412x160x45(H)/ST200
사용환경 (온/습도)	-	0 ~ 40℃/20~80%RH(결로 없을 것)		

참고: Unit Mass 및 Size는 Stroke 200mm 기준

II. 产品介绍(*Tni-B STAGE*™)

Tni-B Stage



▣ 产品特征

采用丝杆形式的3轴叠层机构概念，设计成在任何位置都能对准的紧凑结构。（直线轴行程20~120mm）

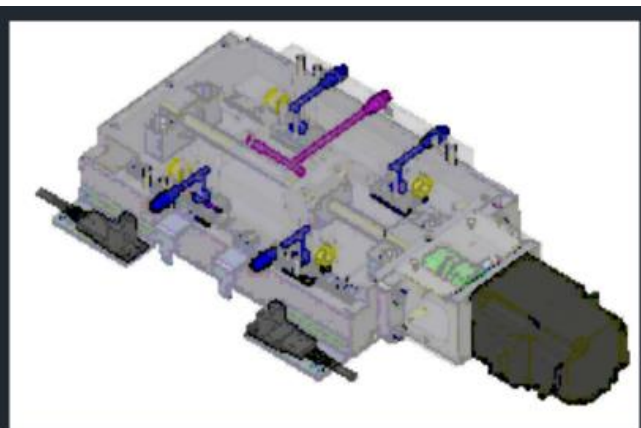
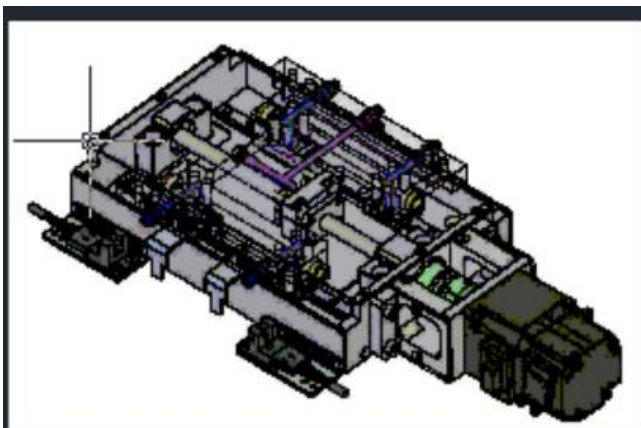


型号	高度 (mm)	法兰 (mm)
TB120	110	120
TB160	123	160
TB250	172	250

参考) 交流伺服电机以外的尺寸

◎ 注入丝杆和滑轨润滑脂

参考管道简略图

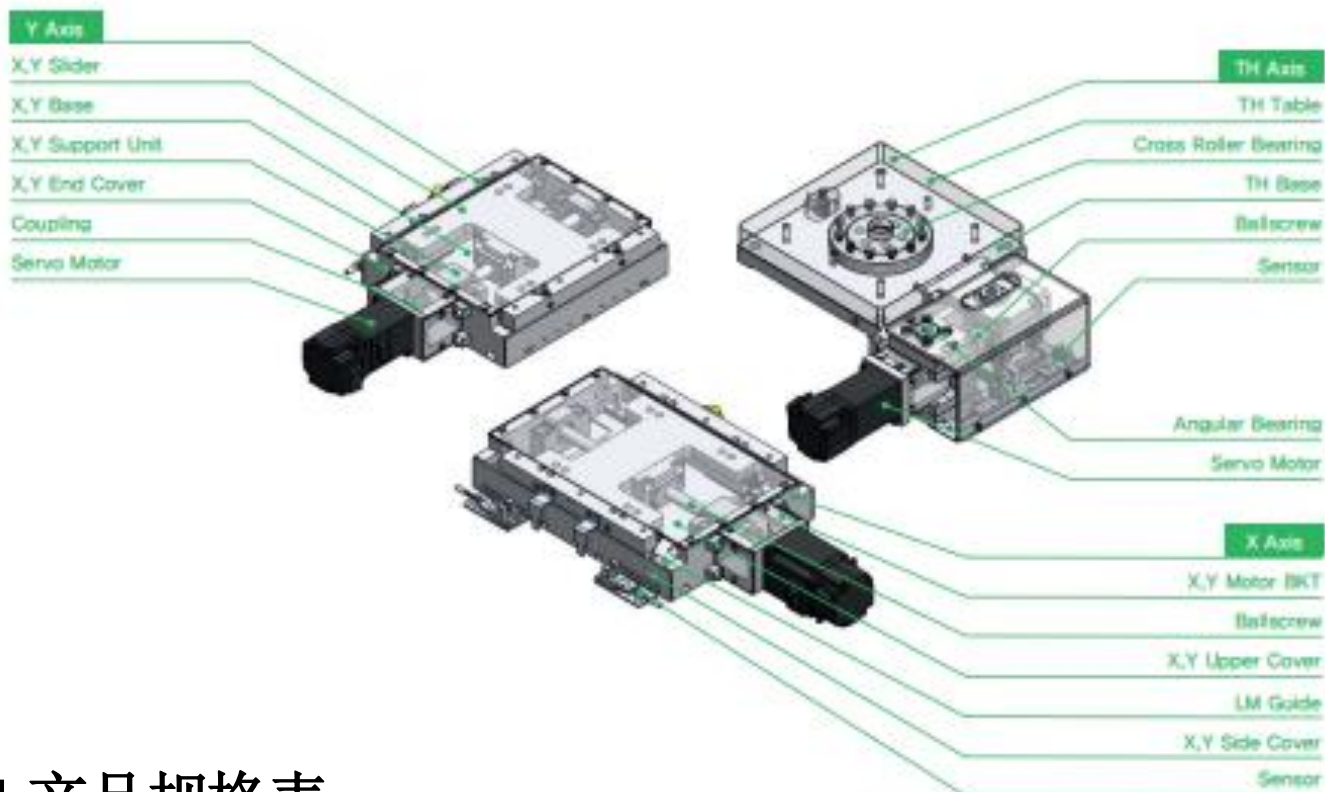


X Axis Grease 관로 간략도 [파랑:LM Block, 분홍:Ball screw]

II. 产品介绍(*Tri-B STAGE*™)



▣ 产品结构

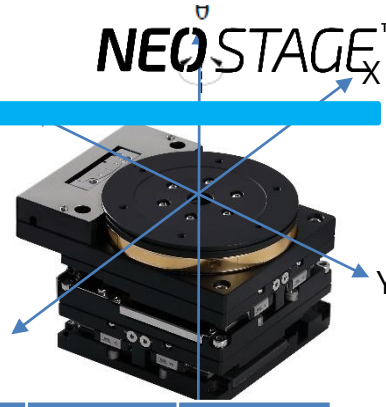


▣ 产品规格表

		TB120	TB160	TB250
Item	Unit			
Table size	mm	120x120	160x160	250/250
Stroke	mm/deg	60(20)x20x10°	60(20)x20x10°	60(20)x20x10°
Ball screw	Φ/mm	0802(C7)	1002(C7)	1202(C7)
Servo Motor	W	50	50/100	200/400
Repeatability	um	±3		
Flatness	um	±20		
Payload	kg	10	30	70
Weight	kg	10	15	40
사용환경 (온/습도)	-	0 ~ 40°C/20~80% RH(결로 없을 것)		

III. 交货业绩

NEOSTAGE™



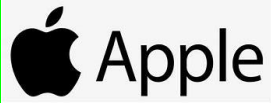
NEOSTAGE™

尺寸	组合	用途	2018	2019	2020	2021	2022
M075	X10	对准			99	150	200
	X10+Y10+T20	对准			37	55	75
	T330	工序			21	55	65
M120	X20+Y20+T20	对准	185	195	205	100	10
	X120+Y20+T20	对准+更换型号+涂抹		55	65	120	30
	X60+T330	上料+涂抹	45	40			
	X120+T330	上料+型号+涂抹+加压		35	48		20
	T330	对准+涂抹			26	50	
M160	X20+Y20+T330	对准+工序			17		50
	X120+Y20+T20	对准/工序/更换型号			5	50	
	X120+Y20	对准+涂抹			20	100	450
	T330	索引/工序/加压			13	75	50
M200	X20+Y20+T20	对准		10			5
	X20+T330	对准+工序		5			
	T330	工序		3	10	30	10
총 축수			645	943	1,292	1,535	1,775

参考) 各国发货比率(越南 80%, 中国 5%, 韩国 15%)

共 6,190轴

IV. 应用案例



UNIX ENGINEERING

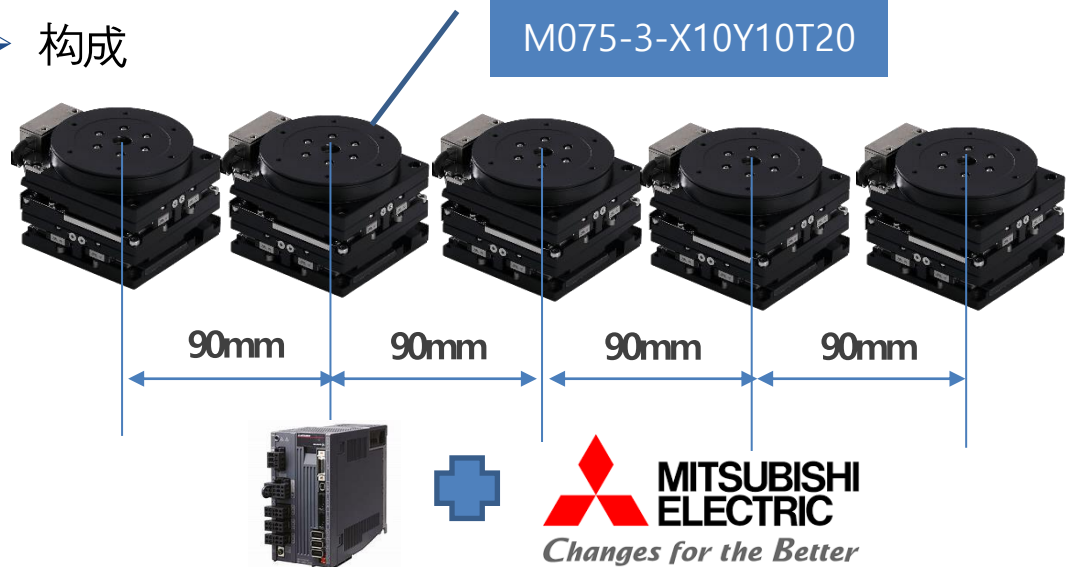
SECRET



NEO STAGE™

Watch Align+ 贴合

➤ 构成



➤ 作业：手表面板高速&精密对准后贴合

➤ 设备重点：

- 构成5套3轴时，间距(90mm)很重要 → M075使用
- 贴合（加压）时不能变形 → 马达推力/轴惯性
- 电缆引出方向应避免干扰
- 3轴三菱驱动器

➤ 适用历史：2020年 ~ 2022年

- 数量：40个产线(3轴*5套*30个产线=750轴)

➤ 使用国家：中国(L公司)



IV. 应用案例

SAMSUNG
SAMSUNG DISPLAY

UNIX ENGINEERING

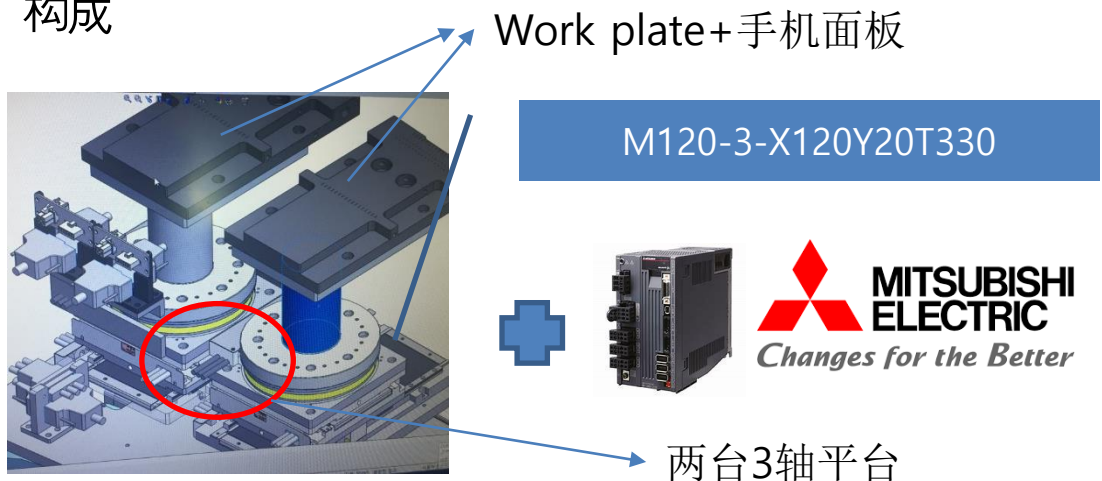
SECRET



NEO STAGE™

OLED Panel 零件 贴合(FOD/扬声器 等)

➤ 构成



➤ 作业：手机OLED 面板上安装配件
(Fod 传感器 / 扬声器 / 相机 / 各种零件)

➤ 设备重点：

- 为贴合零件，需要执行全部工程
面板上料 -> 精密对准 -> 移动涂抹位置 -> 涂布(旋转轴移动90度涂抹3面) -> 移动加压位置 -> 加压 -> 下料

- 轴用途说明

X轴(行程120)：对准及移送用(上料/下料/位置移动)

Y轴(行程20)：对准

T轴(330度)：对准及涂抹

➤ 适用历史：2018年 ~ 2020年

- 数量：50个产线(3轴/2轴*8台*40个产线= 约1000轴)

➤ 使用国家：越南(S公司)



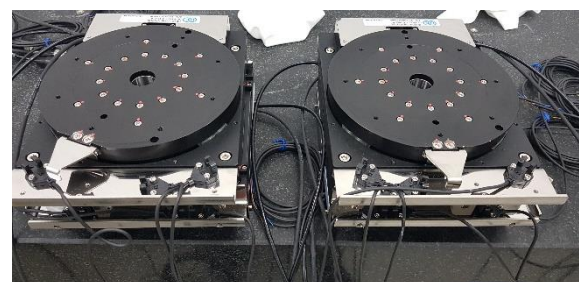
NEO STAGE™

充电电池高速对准 (Stacking工艺)

➤ 构成



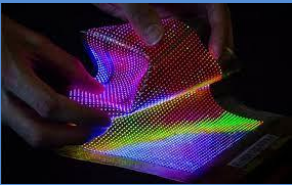
- 作业：充电电池负极/正极高速对准
- 重点：
 - 高速 / 高精度 → 3轴 2mm 移动时 0.1sec 以内
：为了克服高惯性，必须高度小
 - 负极/正极共给时，由于不是正常位置，所以在任何位置都必须做对准
 - 3轴三菱驱动器
- 适用历史：2021年 ~ 2022年 → 安装在开发产线
 - 数量：10个产线(3轴*2台*10个产线=60轴)
- 使用国家：韩国(S公司)



SAMSUNG
SAMSUNG DISPLAY

UNIX ENGINEERING

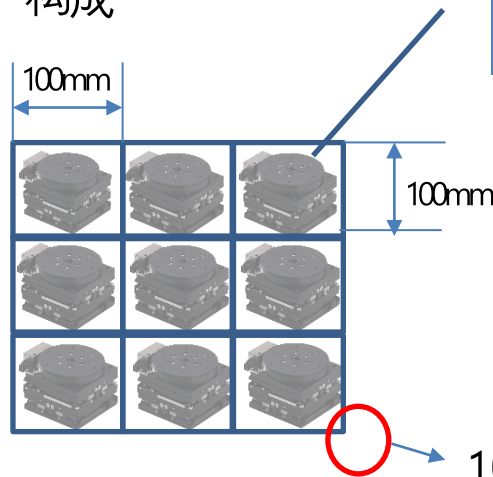
SECRET



NEO STAGE™

Micro LED 面板 高速&高精密切准

➤ 构成



M075-3-X10Y10T20 9台




- 作业：Micro LED 面板(100x100) 9个高精密切准(10um)
- 重点：
 - 能安装在9个面板(100x100)底部的超微型3轴平台(含马达/编码器/传感器电缆处理)
 - 位置精度(10um)以内
 - 必适用绝对型编码器
- 适用历史：2021年 → 开发产线
 - 数量：1个产线(3轴*9台=27轴)
- 使用国家：韩国(S公司)

IV. 应用案例

SAMSUNG
SAMSUNG DISPLAY

UNIX ENGINEERING

SECRET



NEO STAGE™

亮度检测用 ARC 平台

➤ 构成

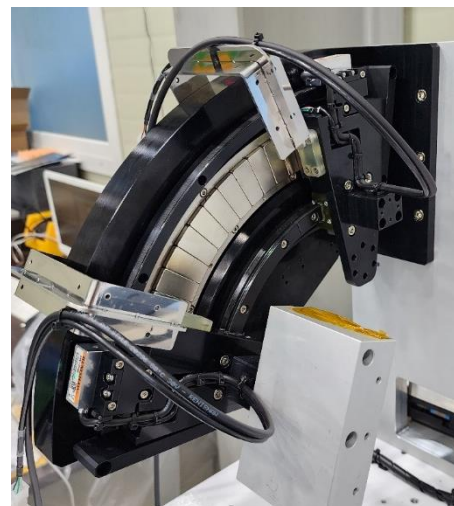


ARC MOTOR-2 HEADS



纤维传感器

- 作业：利用OLED 面板纤维传感器的亮度检测
- 重点：
 - 变换角度也能看到相同点的 ARC 马达
 - 在垂直（重力）方向，也可以驱动负载(1kg)
：需要根据角度位置承受重力力的推力
 - 构成2Heads 以上的ARC平台
 - 绝对型编码器
- 适用历史：2022年 → 开发中
- 使用国家：韩国(S公司)



开发中 →