

LOGIFORM[®]

PIPE / JOINT / ALUMINUM / ROLLER TRACK / CASTER
ACCESSORY / SMART FARM / SMART FACTORY



Company Product Introduction



LOGIFORM ?

LOGIFORM adds momentum to your cost-effective material handling plan.

Turning your thoughts into reality couldn't be easier.

- I. **Easy accessibility** - You can create custom structures with simple assembly.
쉬운 접근성 - 간단한 조립으로 맞춤형 구조물을 만들 수 있습니다.
- II. **Clean and vivid appearance** - Logiform pipe maintain a deformation-free appearance.
선명한 외관 - 로지폼 파이프는 변형이 없는 외관을 오래 유지합니다.
- III. **Modification friendly** - You can easily change and modify it with minimal effort.
개조 편의성 - 최소한의 노력으로 쉽게 변경, 수정할 수 있습니다.
- IV. **Reliability** - It's light-weight and yet robust! Create a variety of moving structures..
견고성 - 가볍고 단단합니다. 다양한 이동형 구조물을 만들어 보세요.
- V. **Low budget** - You can build structures without space constraints.
저비용 고효율 - 공간의 제약을 받지 않고 구조물을 제작할 수 있습니다.
- VI. **Simplicity** - No welding required. Connect pipes and joints together.
간소함 - 용접이 필요 없습니다. 파이프와 조인트를 서로 연결 하세요.
- VII. **Limitless improvement** - You can implement a variety of ideas.
무한한 개선성 - 다양한 아이디어를 구현할 수 있습니다.



All technical data, images specification and etc. shown on this catalogue will probably be modified in order to improve quality of the products and services without prior notice.
Please consult with the person in charge for more detail.

본 카탈로그에 수록된 제품 및 기술자료, 사양 그림 등은 출판 당시의 제품사양을 반영한 것 입니다.
카탈로그에 수록된 내용은 더 좋은 제품의 생산을 위하여 예고 없이 변경될 수 있습니다.
기록 되지 않은 사항은 당사와 협의 하시기 바랍니다.

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- Pintle Hoo - Hose / Board / Sheet	
- Door Stop - Fastener / Tool	

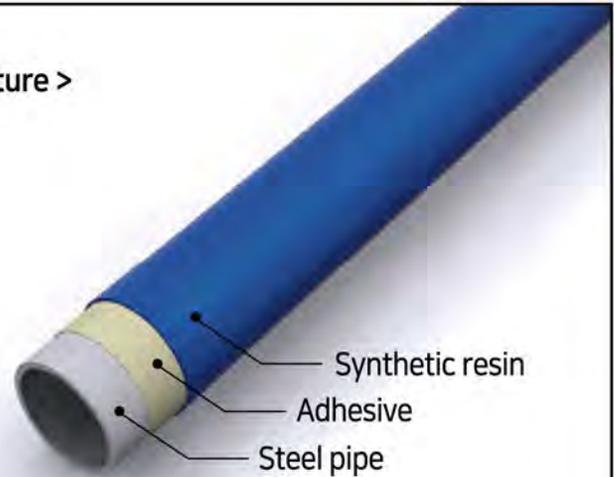
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PIPE JOINT RACK SYSTEM

Pipe / Joint / Joint Set

< Pipe Structure >



PRODUCT CODE



PACKING UNIT

LP - 1100IV

LOGIFORM
PRODUCT
CODE
(파이프분류)

THICKNESS
(파이프두께)

COLORS
(파이프컬러)

- 1 Bar (1본) = 4M
- 1 Bundle (1묶음) = 10 Bars

LOGIFORM Pipe is steel pipe with a synthetic plastic resin coated outer surface.
LOGIFORM Pipe 는 표면에 합성 플라스틱을 피복한 스틸파이프입니다.

우수한 내열성 - Highly resistant heat level (Up to max 100 degrees Celsius)

우수한 내유성 - Highly durable under the oily work environment

화학적 안정성 - Relatively better chemical resistance

실용적 무독성 - Less amount of the poisonous substance emitted from the use of the Synthetic resin

Pipe Comparison Table

Chemicals (약품명)	RESULT (결과)	
	LOGIFORM	ABS
WD-20 (방청유)	△	△
Sodium chloride (짬)	○	×
Break oil	○	×
UV (자외선)	△	△
Cutting oil (절삭유)	○	×
Table ware cleaser (식기용)	○	△
Washable cleaser (세탁용)	○	○
Toilet cleaser (화장실용)	○	○
M.E.K	△	×
Ethylene glycol (부동액)	○	○
Missoin oil (기어유)	○	×
Toluene	○	×

Chemicals (약품명)	RESULT (결과)	
	LOGIFORM	ABS
Malic acid (10%), (사과산)	○	○
Menthol (소독약)	○	△
Mercury (수은)	○	○
Mercury chloride (염화수은)	○	○
Mesityl oxide (불포화케톤)	△	×
Methanol (유기알콜)	○	△
Methylene chloride (M,C)	△	×
Thynner (신너)	○	×
Acetone (리무버)	○	×
Paint	○	×
Animal fat oil (동물성기름)	○	△
Vegetable oil (식물성기름)	○	○

※ ○ = PASS, △ = ACCEPTABLE, × = FAIL

- ○ = Negative - High Chemical Resistance (변화없음 - 내화학성 강함)
- △ = Partially affected but usable - Limiting Chemical Resistance (부분적으로 변화는 있으나 사용가능 - 제한적 내화학성)
- × = ABS resin melted or crack occurred - No chemical resistance (Coating층이 녹거나 Crack발생 - 내화학성 없음)

① Type of test : Spread and submerge (테스트 방법 : 침전반응 방식)

② Test cycle : Min. 30days (테스트 기간 : 30일 이상)

③ Temperature : 20~30 degrees Celsius (사용 온도에 따라 화학성은 상이함, 통상온도 조건 테스트 시행 20~30°C)

Pipe Characteristics



Conductive Pipe 도전성

- Surface Resistance (표면저항)
- $10^8 \Omega \sim 10^9 \Omega$
- Color Option
- Black



ESD Pipe

Antistatic Pipe 대전방지

- Surface Resistance (표면저항)
- $10^8 \Omega \sim 11^{10} \Omega$
- Color Option
- Gray / Ivory



- Easy to clean
- 고풍택, 먼지 미흡착



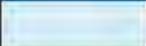
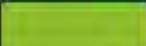
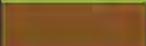
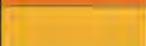
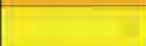
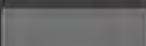
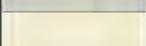
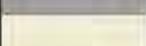
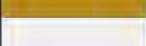
Stainless Pipe

- Highly resistant against oil and chemical substances
- 내약품성 내식성임

※ Stainless pipes of the grades other than 304 may be vulnerable to rust

※ 304 등급 이외의 스테인리스 파이프는 녹에 취약할 수 있음

LOGIFORM Pipe Standard Color

Standard Production Line-Up										
Description	Color			Thickness						
				t0.7	t0.9	t1.0	t1.1	t1.2	t1.4	t2.0
LOGIFORM Pipe	Dark Blue	DB		●	●	●			●	●
	Blue	BL		●	●	●			●	●
	Light Blue	LB		●	●	●			●	●
	Sky Blue	SB		●	●	●			●	●
	Dark Green	DN		●	●	●			●	●
	Green	GN		●	●	●			●	●
	Brown	BR		●	●	●			●	●
	Pink	PK		●	●	●			●	●
	Red	RD		●	●	●			●	●
	Orange	OR		●	●	●			●	●
	Dark Yellow	DY		●	●	●			●	●
	Yellow	YL		●	●	●			●	●
	Black	BK		●	●	●			●	●
	Deep Gray	EG		●	●	●			●	●
	Dark Gray	DG		●	●	●			●	●
	Gray	GR		●	●	●			●	●
	Light Gray	LG		●	●	●			●	●
	Pewter Gray	PG		●	●	●			●	●
	Ivory	IV		●	●	●			●	●
	White	WH		●	●	●			●	●
Conductive Pipe	Black	BK		●	●	●			●	●
Antistatic Pipe	Gray	GR		●	●	●			●	●
	Ivory	IV		●	●	●			●	●
Slide Pipe	Gray	GR		●	●	●			●	●
	Ivory	IV		●	●	●			●	●
	White	WH		●	●	●			●	●
Pearl Pipe	Gold	GD		●	●	●			●	●
	Silver	SV		●	●	●			●	●
Stainless Pipe 200/300/400	Silver	SV		●	●		●	●		
	Silver	SV		●	●		●	●		
	Silver	SV		●	●		●	●		
Aluminum Pipe	Silver	SV		t1.2	t1.5	t2.0	t2.8			

※ Color / Quantity / Lead time / Stock / etc. must be discussed prior to purchase

※ For any other inquiry, please contact us at hbl@hbjoint.com

LOGIFORM Pipe	Code	Thickness	Length	Weight (1M)
	LP-1070	Ø28 × t 0.7	4M	517g
	LP-1090	Ø28 × t 0.9	4M	620g
	LP-1100	Ø28 × t 1.0	4M	676g
	LP-1140	Ø28 × t 1.4	4M	930g
	LP-1200	Ø28 × t 2.0	4M	1,265g
Coated Pipe				

Conductive Pipe	Code	Thickness	Length	Weight (1M)
	CP-1070	Ø28 × t 0.7	4M	517g
	CP-1090	Ø28 × t 0.9	4M	620g
	CP-1100	Ø28 × t 1.0	4M	676g
	CP-1140	Ø28 × t 1.4	4M	930g
	CP-1200	Ø28 × t 2.0	4M	1,265g
⚡ 도전성 Surface Resistance $10^3 \sim 10^6 \Omega$				

Antistatic Pipe	Code	Thickness	Length	Weight (1M)
	AP-1070	Ø28 × t 0.7	4M	517g
	AP-1090	Ø28 × t 0.9	4M	620g
	AP-1100	Ø28 × t 1.0	4M	676g
	AP-1140	Ø28 × t 1.4	4M	930g
	AP-1200	Ø28 × t 2.0	4M	1,265g
⚡ 대전방지 Surface Resistance $10^8 \sim 10^{10} \Omega$				

Slide Pipe	Code	Thickness	Length	Weight (1M)
	SL-1070	Ø28 × t 0.7	4M	608g
	SL-1090	Ø28 × t 0.9	4M	715g
	SL-1100	Ø28 × t 1.0	4M	767g
	SL-1140	Ø28 × t 1.4	4M	1,021g
	SL-1200	Ø28 × t 2.0	4M	1,356g
Coated Pipe				

Stainless Pipe	Code	Thickness	Length	Weight (1M)
	ST-1070	Ø28 × t 0.7	4M	448g
	ST-1090	Ø28 × t 0.9	4M	570g
	ST-1110	Ø28 × t 1.1	4M	635g
	ST-1120	Ø28 × t 1.2	4M	708g
Grade classification 200/300/400				

Metal Joint


 Black (BK) Silver (SV) Nickel (NI)

H-1



Weight : 70g
Quantity : 240pcs

H-1B



Weight : 63g
Quantity : 240pcs

H-2



Weight : 95g
Quantity : 150pcs

H-3



Weight : 126g
Quantity : 70pcs

H-4



Weight : 110g
Quantity : 180pcs

H-5



Weight : 41g
Quantity : 300pcs

H-6



Weight : 54g
Quantity : 300pcs

H-6B



Weight : 52g
Quantity : 300pcs

H-7



Weight : 49g
Quantity : 180pcs

H-7B



Weight : 43g
Quantity : 180pcs

H-8



Weight : 47g
Quantity : 300pcs

H-9



Weight : 135g
Quantity : 100pcs

H-10



Weight : 61g
Quantity : 180pcs

H-11



Weight : 63g
Quantity : 200pcs

H-11B



Weight : 64g
Quantity : 200pcs

H-12



Weight : 60g
Quantity : 200pcs

H-13



Weight : 94g
Quantity : 140pcs

H-14



Weight : 72g
Quantity : 150pcs

H-15A



Weight : 41g
Quantity : 300pcs

H-15C



Weight : 50g
Quantity : 300pcs

NEW

Metal Joint

Black (BK) Silver (SV) Nickel (NI)

LOGIFORM®

H-15B



Weight : 36g
Quantity : 300pcs

H-16



Weight : 45g
Quantity : 300pcs

H-16B



Weight : 48g
Quantity : 300pcs

H-17



Weight : 67g
Quantity : 180pcs

H-18



Weight : 67g
Quantity : 240pcs

H-19



Weight : 62g
Quantity : 250pcs

H-20



Weight : 93g
Quantity : 150pcs

H-21



Weight : 99g
Quantity : 150pcs

H-22



Weight : 77
Quantity : 180pcs

H-23



Weight : 78g
Quantity : 180pcs

H-25A



Weight : 50g
Quantity : 300pcs

H-25B



Weight : 42g
Quantity : 220pcs

H-45A



Weight : 62g
Quantity : 140pcs

H-45B



Weight : 62g
Quantity : 140pcs

H-108



Weight : 100g
Quantity : 140pcs

H-162



Weight : 103g
Quantity : 180pcs

Metal Joint Set



※ Proper torque value for joint engagement : 120

HJ-1	Metal Joint Set
	(Joint) H-1 : 2pcs (Bolt) WB-0625 : 1pc (Nut) NU-0600 : 1pc

HJ-1B	Metal Joint Set
	(Joint) H-1B : 2pcs (Bolt) WB-0625 : 1pc (Nut) NU-0600 : 1pc

HJ-2	Metal Joint Set
	(Joint) H-2 : 1pc (Joint) H-3 : 1pc (Bolt) WB-0625 : 2pcs (Nut) NU-0600 : 2pcs

HJ-3	Metal Joint Set
	(Joint) H-2 : 2pcs (Joint) H-4 : 1pc (Bolt) WB-0625 : 3pcs (Nut) NU-0600 : 3pcs

HJ-4	Metal Joint Set
	(Joint) H-4 : 2pcs (Bolt) WB-0625 : 2pcs (Nut) NU-0600 : 2pcs

HJ-5	Metal Joint Set
	(Joint) H-2 : 4pcs (Bolt) WB-0625 : 4pcs (Nut) NU-0600 : 4pcs

HJ-6	Metal Joint Set
	(Joint) H-7 : 2pcs (Bolt) WB-0625 : 1pc (Nut) NU-0600 : 1pc

HJ-6B	Metal Joint Set
	(Joint) H-7B : 2pcs (Bolt) WB-0625 : 1pc (Nut) NU-0600 : 1pc

HJ-7	Metal Joint Set
	(Joint) H-5 : 2pcs (Joint) H-6 : 2pcs (Bolt) WB-0625 : 2pcs (Nut) NU-0600 : 2pcs

HJ-7B	Metal Joint Set
	(Joint) H-6 : 2pcs (Joint) H-6B : 2pcs (Bolt) WB-0625 : 3pcs (Nut) NU-0600 : 3pcs

Metal Joint Set

Black (BK) Silver (SV) Nickel (NI)

LOGIFORM®

※ Proper torque value for joint engagement : 120

HJ-8 Metal Joint Set

(Joint) H-8 : 2pcs
(Bolt) WB-0625 : 1pc
(Nut) NU-0600 : 1pc

HJ-9 Metal Joint Set

(Joint) H-9 : 2pcs
(Bolt) WB-0625 : 1pc
(Nut) NU-0600 : 1pc

HJ-10 Metal Joint Set

(Joint) H-10 : 2pcs
(Joint) PJ-140A : 1pc
(Bolt) WB-0625 : 1pc
(Nut) NU-0600 : 1pc

HJ-11 Metal Joint Set

(Joint) H-11 : 2pcs
(Joint) PJ-140A : 2pcs
(Bolt) WB-0625 : 1pc
(Nut) NU-0600 : 1pc

HJ-11B Metal Joint Set

(Joint) H-11B : 2pcs
(Joint) PJ-140A : 1pc
(Bolt) WB-0625 : 1pc
(Nut) NU-0600 : 1pc

HJ-12 Metal Joint Set

(Joint) H-12 : 2pcs
(Joint) H-6 : 4pcs
(Bolt) WB-0625 : 4pcs
(Nut) NU-0600 : 4pcs

HJ-13 Metal Joint Set

(Joint) H-13 : 2pcs
(Bolt) WB-0625 : 2pcs
(Nut) NU-0600 : 2pcs

HJ-14 Metal Joint Set

(Joint) H-14 : 2pcs
(Bolt) WB-0625 : 1pc
(Nut) NU-0600 : 1pc

HJ-15 Metal Joint Set

(Joint) H-15A : 1pc
(Joint) H-15B : 1pc
(Bolt) WB-0610 : 1pc

HJ-15C Metal Joint Set

(Joint) H-15B : 1pc
(Joint) H-15C : 1pc
(Bolt) WB-0610 : 1pc

Metal Joint Set



※ Proper torque value for joint engagement : 120

HJ-16	Metal Joint Set
	(Joint) H-16 : 2pcs (Bolt) TS-0408 : 2pcs

HJ-16B	Metal Joint Set
	(Joint) H-16B : 2pcs (Bolt) TS-0408 : 2pcs

HJ-17	Metal Joint Set
	(Joint) H-17 : 2pcs (Bolt) WB-0625 : 1pc (Nut) NU-0600 : 1pc

HJ-18	Metal Joint Set
	(Joint) H-18 : 2pcs (Bolt) WB-0625 : 1pc (Nut) NU-0600 : 1pc

HJ-19	Metal Joint Set
	(Joint) H-19 : 2pcs (Bolt) WB-0625 : 1pc (Nut) NU-0600 : 1pc

HJ-20	Metal Joint Set
	(Joint) H-20 : 2pcs (Joint) PJ-140A : 1pc (Bolt) WB-0625 : 2pcs (Nut) NU-0600 : 2pcs

HJ-21	Metal Joint Set
	(Joint) H-21 : 2pcs (Bolt) WB-0625 : 2pcs (Nut) NU-0600 : 2pcs

HJ-22	Metal Joint Set
	(Joint) H-22 : 2pcs (Bolt) WB-0625 : 1pc (Nut) NU-0600 : 1pc

HJ-23	Metal Joint Set
	(Joint) H-23 : 2pcs (Bolt) WB-0625 : 1pc (Nut) NU-0600 : 1pc

HJ-25	Metal Joint Set
	(Joint) H-25A : 1pc (Joint) H-25B : 1pc (Joint) PJ-140A : 1pc (Bolt) WB-0610 : 1pc

Metal Joint Set

※ Proper torque value for joint engagement : 120



LOGIFORM®

HJ-45	Metal Joint Set
	<p>(Joint) H-45A : 1pc (Joint) H-45B : 1pc (Bolt) WB-0625 : 1pc (Nut) NU-0600 : 1pc</p>

HJ-108	Metal Joint Set
	<p>(Joint) H-108 : 2pcs (Bolt) WB-0625 : 2pcs (Nut) NU-0600 : 2pcs</p>

HJ-162	Metal Joint Set
	<p>(Joint) H-162 : 2pcs (Bolt) WB-0625 : 2pcs (Nut) NU-0600 : 2pcs</p>



Metal Joint Code Numbering

Image	Code	Code Numbering (제품코드 기입 예)
	■ Black (BK)	MJ-2101BK Metal Joint : H-1 (Treatment : electrodeposition coated) - Black (전착)
	■ Silver (SV)	MJ-2101SV Metal Joint : H-1 (Treatment : Trivalent chromium plating) - Silver (아연도금)
	■ Nickel (NI)	MJ-2101NI Metal Joint : H-1 (Treatment : Nickel Plating) Nickel - (니켈도금)

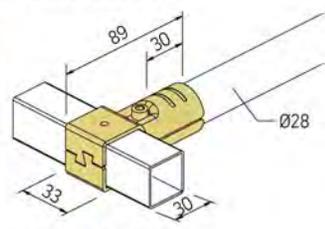
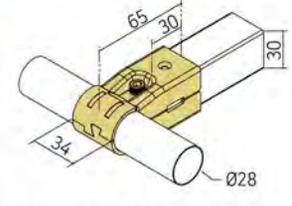
Pipe

Square Pipe	Code	Thickness	Length	Weight (1M)
	ZSP-3010	30 × t 1.0	6M	838g
	ZSP-3014	30 × t 1.4	6M	1,192g
	ZSP-3020	30 × t 2.0	6M	1,676g
				Steel Pipe

Square Joint

S-1A  Weight : 74g Quantity : 150pcs	S-1B NEW  Weight : 90g Quantity : 180pcs	S-1  Weight : 100g Quantity : 150pcs	S-2  Weight : 135g Quantity : 70pcs
S-3  Weight : 172g Quantity : 60pcs	S-4  Weight : 163g Quantity : 100pcs	S-5  Weight : 63g Quantity : 300pcs	S-6  Weight : 76g Quantity : 210pcs
S-7  Weight : 83g Quantity : 140pcs	S-8 NEW  Weight : 68g Quantity : 250pcs	SCS-3090  Weight : 110g Quantity : 150pcs	

Square Joint Set

SJ-1A 	30 Square Joint Set  (Joint) S-1A : 2pcs (Bolt) WB-0628 : 1pc (Nut) NU-0600 : 1pc	SJ-1B NEW 	30 Square Joint Set  (Joint) S-1B : 2pcs (Bolt) WB-0628 : 1pc (Nut) NU-0600 : 1pc
---	---	---	---

Square Joint Set

SJ-1 30 Square Joint Set

(Joint) S-1 : 2pcs
(Bolt) WB-0628 : 1pc
(Nut) NU-0600 : 1pc

SJ-2 30 Square Joint Set

(Joint) S-2 : 1pc
(Joint) S-3 : 1pc
(Bolt) WB-0628 : 2pcs
(Nut) NU-0600 : 2pcs

SJ-3 30 Square Joint Set

(Joint) S-2 : 2pcs
(Joint) S-4 : 1pc
(Bolt) WB-0628 : 3pcs
(Nut) NU-0600 : 3pcs

SJ-4 30 Square Joint Set

(Joint) S-4 : 2pcs
(Bolt) WB-0628 : 2pcs
(Nut) NU-0600 : 2pcs

SJ-5 30 Square Joint Set

(Joint) S-2 : 4pcs
(Bolt) WB-0628 : 4pcs
(Nut) NU-0600 : 4pcs

SJ-6 30 Square Joint Set

(Joint) S-7 : 1pc
(Bolt) FS-0819 : 4pcs

SJ-7 30 Square Joint Set

(Joint) S-5 : 2pcs
(Joint) S-6 : 2pcs
(Bolt) WB-0628 : 2pcs
(Nut) NU-0600 : 2pcs

SJ-8 NEW 30 Square Joint Set

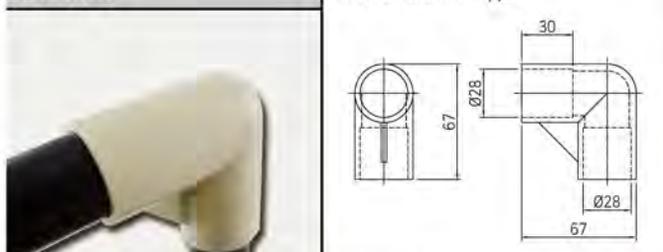
(Joint) S-8 : 2pcs
(Bolt) WB-0625 : 1pc
(Nut) NU-0600 : 1pc

SCS-90 30 Square Joint Set

(Joint) SCS-3090 : 4pcs
(Bolt) WB-0840 : 2pcs
(Nut) NU-0800 : 2pcs

Plastic Joint

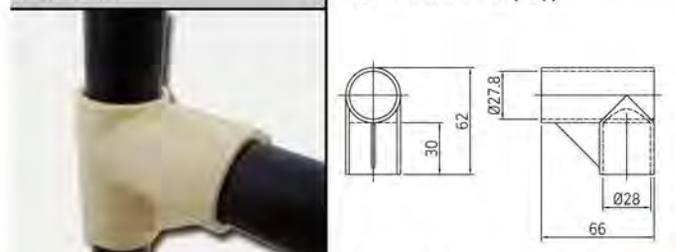
PJ-105 Plastic Joint L Type



Weight : 32.8g
Quantity : 220pcs

● IV

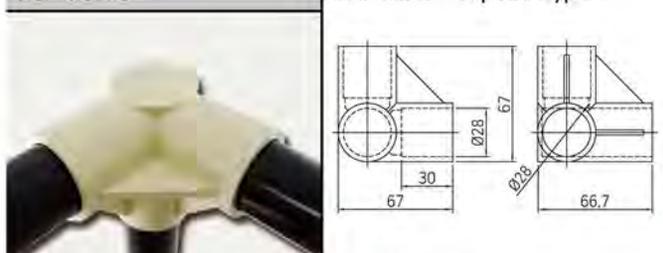
PJ-118 Plastic Joint 2 Way Type



Weight : 28.5g
Quantity : 250pcs

● IV

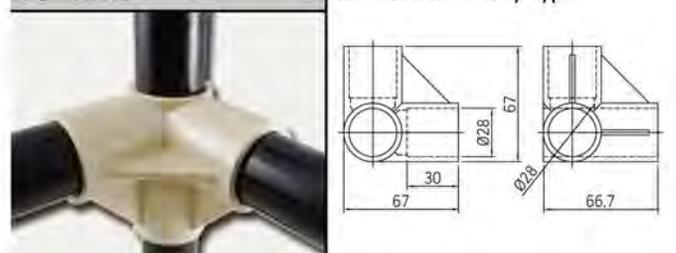
PJ-104C Plastic Joint Top Flat Type



Weight : 47.1g
Quantity : 150pcs

● IV

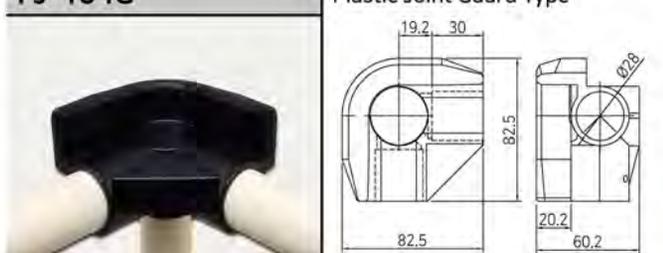
PJ-104D Plastic Joint 3 Way Type



Weight : 45.2g
Quantity : 150pcs

● IV

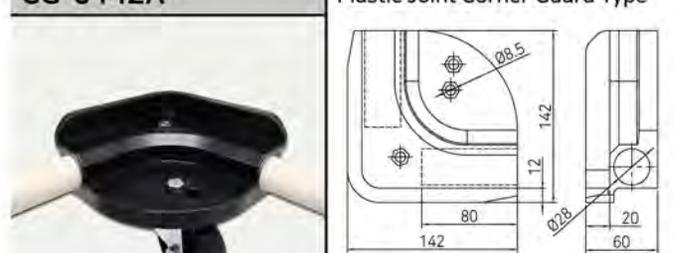
PJ-104G Plastic Joint Guard Type



Weight : 58.1g
Quantity : 100pcs

● BK

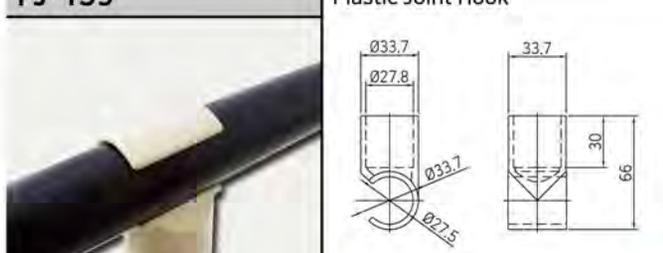
CG-0142A Plastic Joint Corner Guard Type



Weight : 221.8g
Quantity : 40pcs

● BK

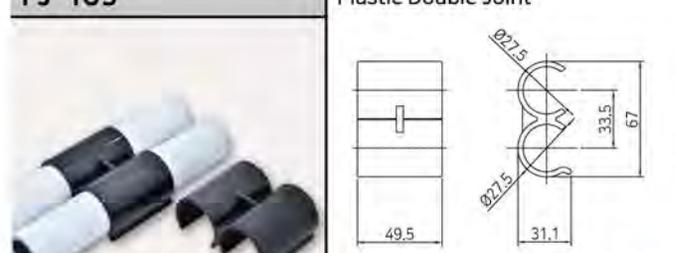
PJ-159 Plastic Joint Hook



Weight : 19.2g
Quantity : 250pcs

● BK ● IV

PJ-109 Plastic Double Joint



Weight : 19.2g
Quantity : 300pcs

● BK ● IV

PJ-121 Plastic Cross Joint - A



Weight : 15.2g
Quantity : 500pcs

● BK

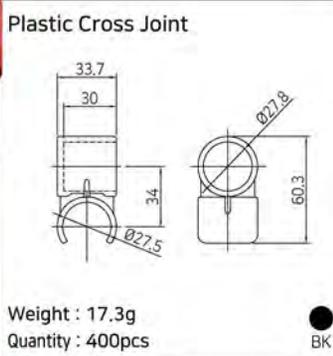
PJ-121H Plastic Cross Joint - B



Weight : 16.5g
Quantity : 300pcs

● BK

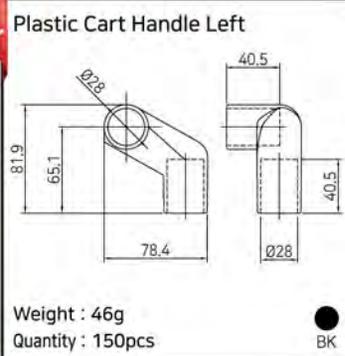
PJ-122 NEW Plastic Cross Joint

Weight : 17.3g
Quantity : 400pcs

● BK

PJ-200L NEW Plastic Cart Handle Left

Weight : 46g
Quantity : 150pcs

● BK

PJ-200R NEW Plastic Cart Handle Right




Weight : 46g
Quantity : 150pcs

● BK

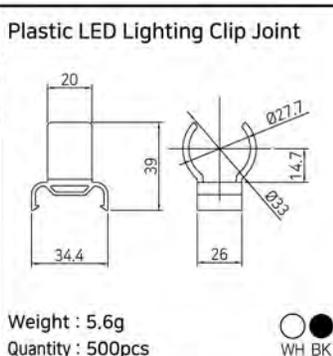
PJ-210 NEW Plastic Cart Shelf




Weight : 19.2g
Quantity : 300pcs

● BK

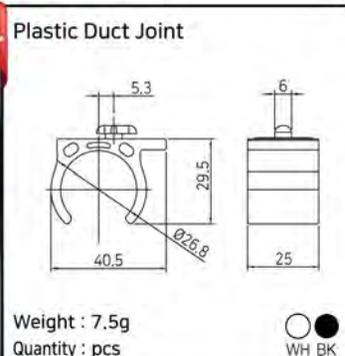
PJ-250 Plastic LED Lighting Clip Joint

Weight : 5.6g
Quantity : 500pcs

○ ●
WH BK

PJ-138D NEW Plastic Duct Joint

Weight : 7.5g
Quantity : pcs

○ ●
WH BK

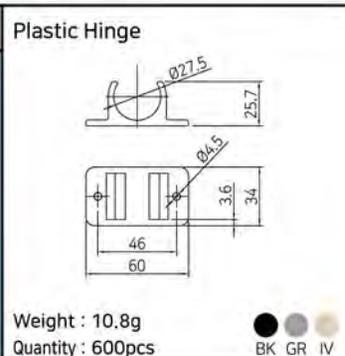
PJ-138S Plastic Horizontal Holder




Weight : 4.2g
Quantity : 2,000pcs

● ● ●
BK GR IV

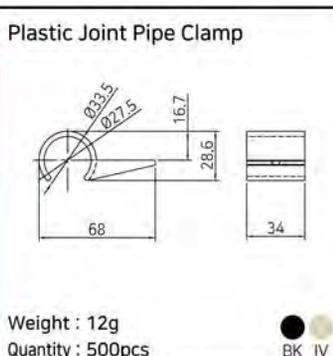
PJ-146 Plastic Hinge

Weight : 10.8g
Quantity : 600pcs

● ● ●
BK GR IV

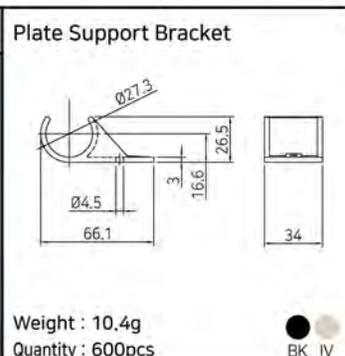
PJ-113 Plastic Joint Pipe Clamp

Weight : 12g
Quantity : 500pcs

● ●
BK IV

PJ-113B Plate Support Bracket

Weight : 10.4g
Quantity : 600pcs

● ●
BK IV

Plastic Joint

PJ-130 Plastic Joint

Weight : 2.5g
Quantity : 400pcs

● BK

PJ-138A Plastic Pipe Holder

Weight : 4.9g
Quantity : 1,000pcs

● BK ● GR ● IV

PJ-138B Plate Name Hanger

Weight : 4.2g
Quantity : 1,500pcs

● BK ● GR ● IV

PJ-138C Plastic Tapered Edge

Weight : 3.2g
Quantity : 2,000pcs

● BK ● GR ● IV

PJ-140A Plastic Joint Sleeve for HJ-10/11/20

Weight : 6.4g
Quantity : 850pcs

○ WH

PJ-140S Plastic Joint Sleeve for HJ-10/11/20

Weight : 11.6g
Quantity : 400pcs

○ WH

PJ-141 Plastic Sleeve for HJ-10/11/20

Weight : 3.6g
Quantity : 2,000pcs

● BK ● GR ● IV

PJ-142 Plastic Mesh Clamp

Weight : 7.7g
Quantity : 800pcs

○ WH

HG-0070 Plastic Handle Guide

Weight : 13.5g
Quantity : 1,000pcs

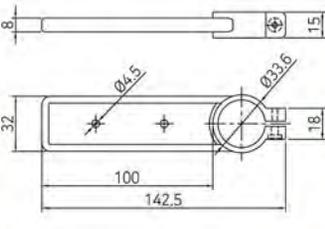
● GR

PJ-199 Plastic Divider

Weight : 7.1g
Quantity : 1,000pcs

● GR ● IV

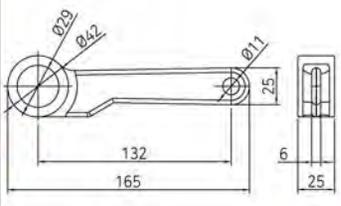
PJ-202 Plastic Divider

Weight : 17.8g
Quantity : 400pcs

● BK ● IV

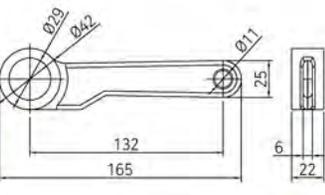
UG-0165 Handle Guide - Urethane

Weight : 44.4g
Quantity : 300pcs

● YL

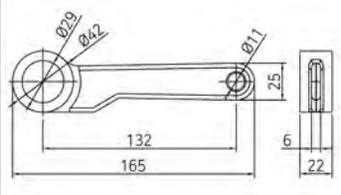
HG-0165A Handle Guide - Elastomer

Weight : 40g
Quantity : 300pcs

● YL

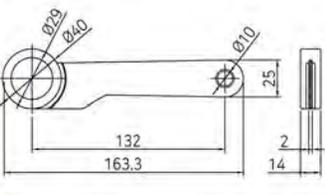
HG-0165B Handle Guide - ABS

Weight : 33.4g
Quantity : 300pcs

● BL

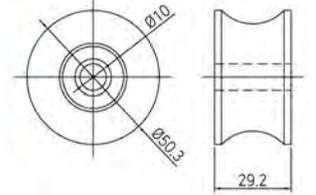
HG-0165E Handle Guide - PP

Weight : 15g
Quantity : 400pcs

● BL

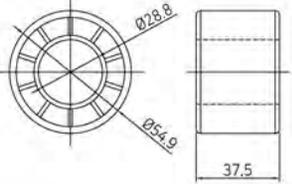
MT-5414 Pulley Roller

Weight : 70g
Quantity : 112pcs

● BK

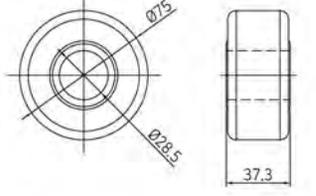
PR-5428 Pipe Roller (Ø55)

Weight : 27.3g
Quantity : 250pcs

○ WH

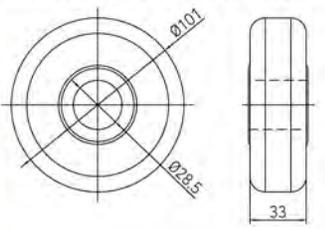
PR-7528 Pipe Roller (Ø75)

Weight : 108.8g
Quantity : 100pcs

○ WH

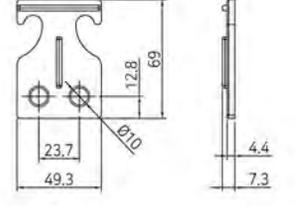
CB-1028 Caster Wheel Bumper (Ø100)

Weight : 167.8g
Quantity : 100pcs

● GR

PJ-180 Band Hook

Weight : 10g
Quantity : 1,000pcs

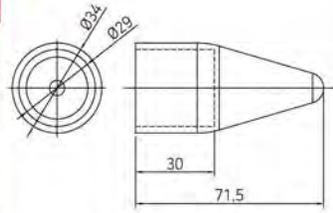
○ WH

Accessory

PJ-110P

NEW

Plastic Joint

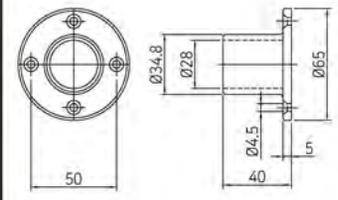


Weight : 17g
Quantity : pcs

● BK

PJ-120

Plastic Joint

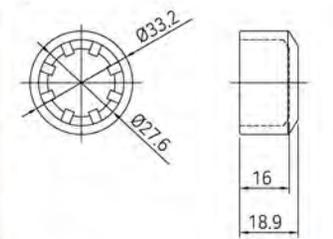


Weight : 20g
Quantity : 1,000pcs

● BK

PJ-149

Pipe Outer Cap

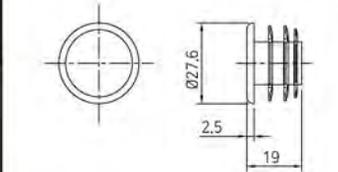


Weight : 5g
Quantity : 1,500pcs

● BK ● GR ● IV

PJ-110C

Pipe Inner Cap for LOGIFORM Pipe



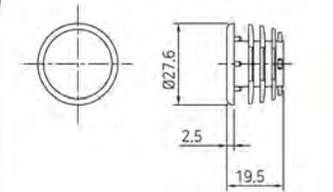
Weight : 2.6g
Quantity : 2,500pcs

● BK ● GR ● IV

PJ-110E

NEW

Pipe Inner Cap for LOGIFORM Pipe

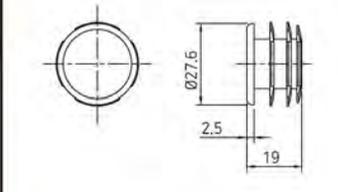


Weight : 3.4g
Quantity : 2,500pcs

● BK ● GR ● IV

PJ-110S

Pipe Inner Cap for Stainless Pipe



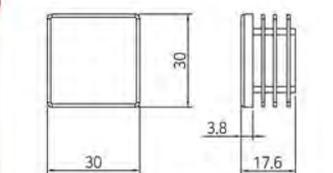
Weight : 3.4g
Quantity : 2,000pcs

● BK ● GR ● IV

SPJ-0030

NEW

Pipe Inner Cap for Square Pipe



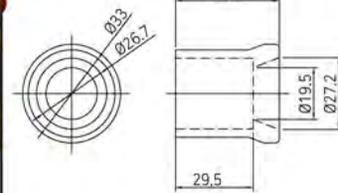
Size : 30x30mm
Weight : 5g
Quantity : 1,000pcs

● BK

PH-5001C

NEW

Tool Holder-C

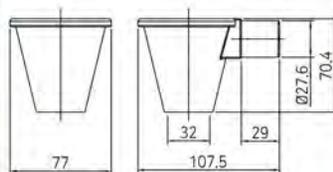


Weight : 17g
Quantity :

● BK

PH-5001A

Tool Holder-A

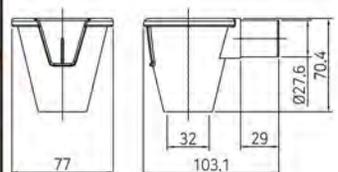


Weight : 40g
Quantity : 160pcs

● BK

PH-5001B

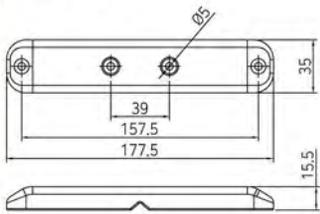
Tool Holder-B



Weight : 38g
Quantity : 160pcs

● BK

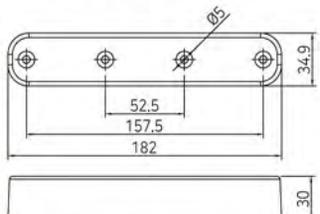
BMR-01A Side Flat Bumper

Weight : 75.6g
Quantity : 300pcs

● BK

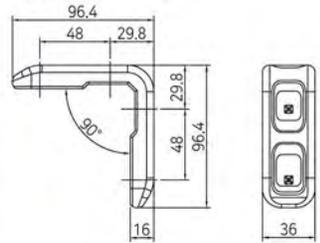
BMR-01B Side Flat Bumper

Weight : 114.6g
Quantity : 170pcs

● BK

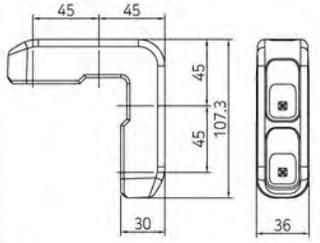
BMR-02A Right Angle Bumper

Weight : 79g
Quantity : 250pcs

● BK

BMR-02B Right Angle Bumper

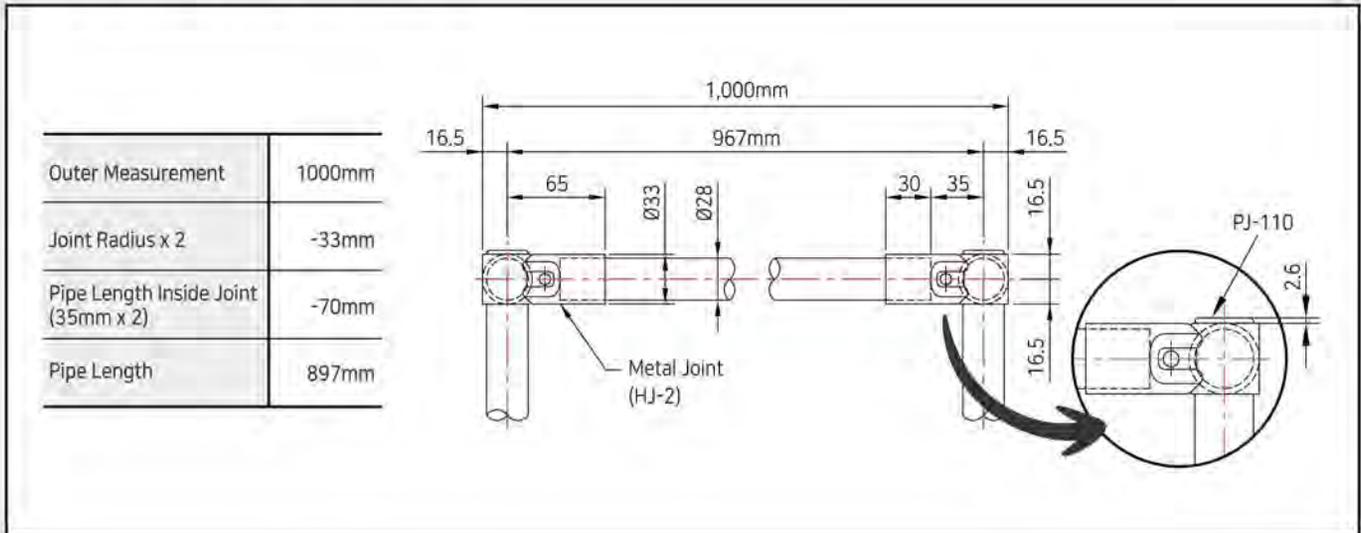
Weight : 149g
Quantity : 140pcs

● BK

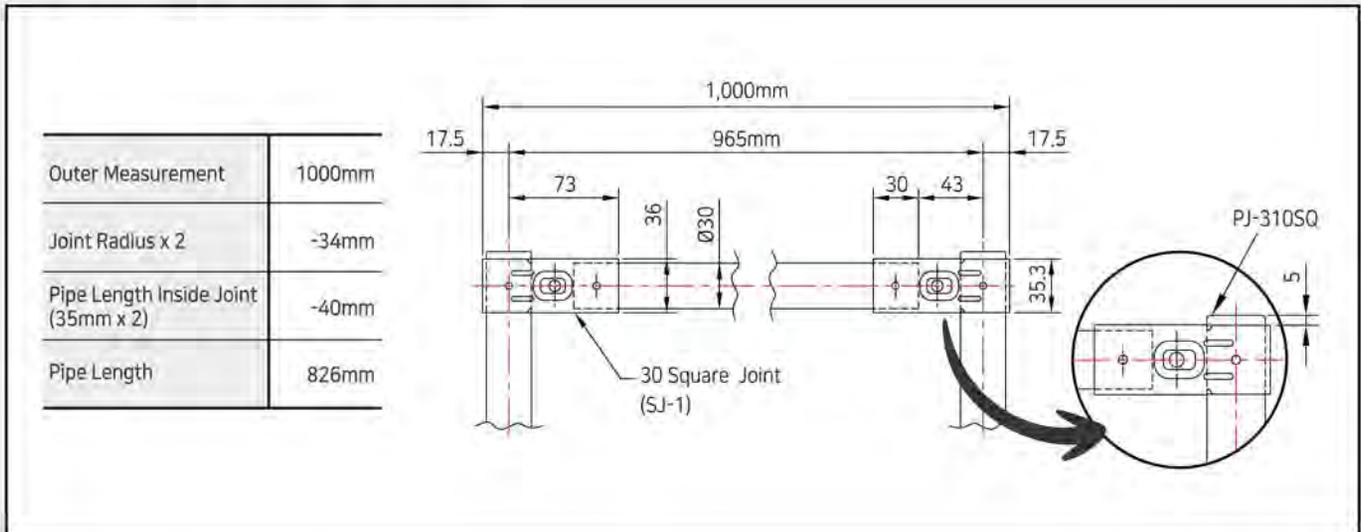


Joint Set Dimension

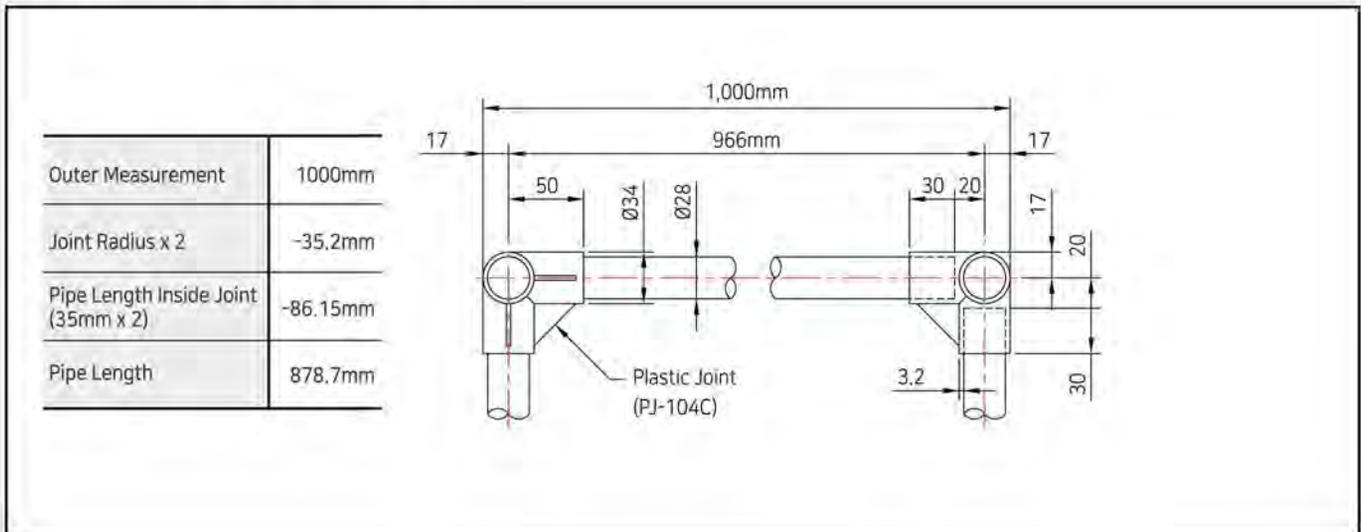
< Metal Joint - Outer Dimension >



< 30 Square Joint - Outer Dimension >



< Plastic Joint - Outer Dimension >



In order to manufacture and deliver transport trolleys, workstations and flow racks as per requirements, it is necessary to follow the sequence of operations listed below.

Pipe & Joint 를 사용하여 대차, 적치대, 슬라이딩랙 등을 제작하는 경우, 그 목적 및 구상대로 제작하려면 다음의 순서와 체크가 필요합니다.

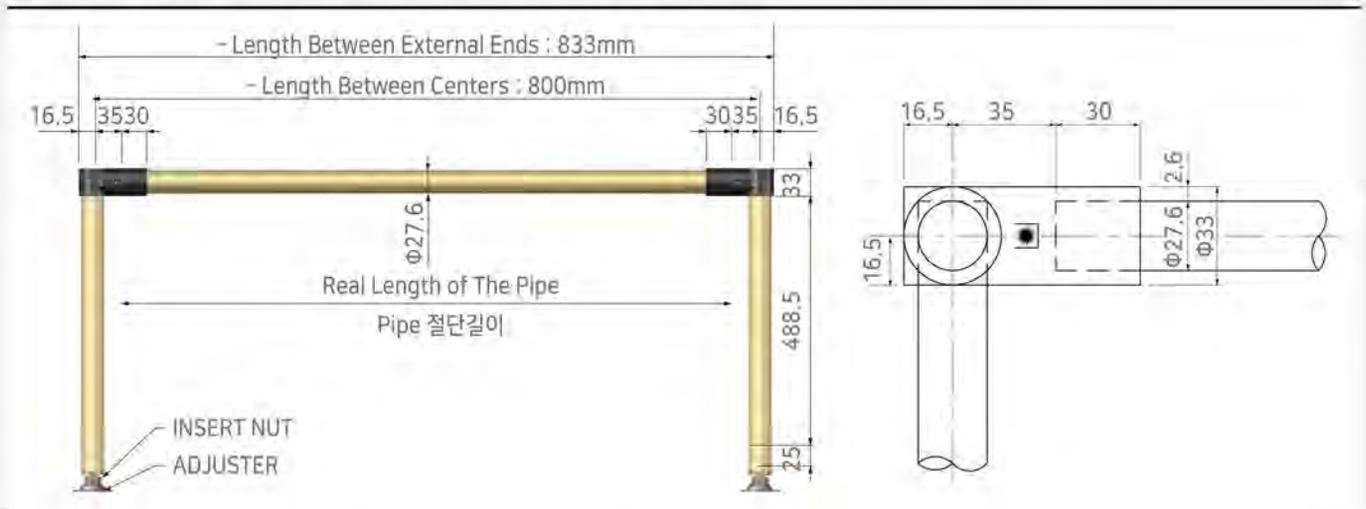
< Workflow >



Calculate Pipe Length

How to calculate the length of a pipe is illustrated below. The following points have to be taken into consideration, the length of pipe to be inserted into the joint and the distance between joint centers. Based on this information the length of the pipe can be calculated.

구조물의 파이프의 길이 계산방법은 조인트와 파이프 삽입공간을 고려하여 아래의 그림과 공식에 따라 계산합니다. 기준은 중심과 중심까지의 길이이고 이 기준으로 파이프의 길이를 계산합니다.



Calculation	800	Length between both centers	중심에서 중심까지의 길이
Method for	-70	Total length between each end	파이프 끝에서 조인트 중심까지의 길이
Horizontal		Pipe and each center of joint(35mm×2)	
Pipes	730	The practical length of the pipe to be cut	파이프 절단 길이

Calculation	530	Length between both centers	바닥에서 상측 중심까지 길이
Method for	-25	Length between the end of pipe and the end of adjuster	아저스터 높이 (부싱포함)
Vertical	16.5	Length between the center and the surface of joint	파이프 중심에서 조인트 상부
Pipes	522	The practical length of the pipe to be cut	파이프 절단 길이

Structural Strength

PIPE & JOINT

Like other material such as steel, aluminium and steel pipe, the strength of a LOGIFORM structure depends on the design and manufacturing techniques used.

When producing structures using LOGIFORM pipes it is critical that the correct design and material selection has been undertaken to ensure the construction of safe equipment that meet all design requirements.

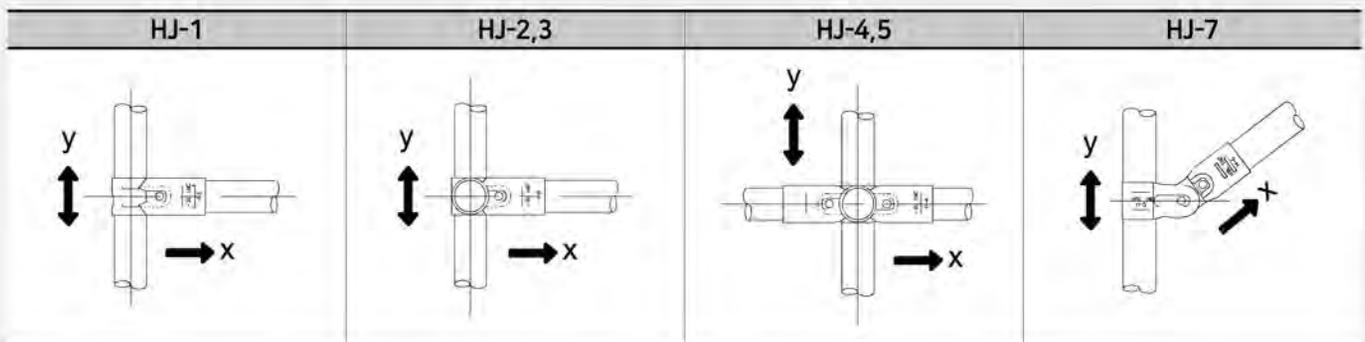
It is necessary to follow the sequence of operations listed below.

파이프 & 조인트는 다른 재료 (스틸, 스테인레스, 알루미늄) 등과 같은 파이프와 조인트의 연결법에 의해서 강도가 달라집니다. 파이프 & 조인트로 구조물을 제작하는 경우 그 구조물의 사용 목적에 맞는 적절한 강도를 얻을 수 있도록 설계하고 안정성을 고려해야 합니다.

Maximum resist strength of Joint

Maximum resist strength of LOGIFORM pipe attached with metal joint.

메탈 조인트를 로지폼 파이프에 연결하여 수직 및 수평에 인장하중을 가한 경우



Direction	Coated Pipe	Stainless Pipe
X	75kg	75kg
Y	85kg	85kg

- Test Condition (시험조건)
- Test Speed (인장속도) : 5mm/min
- Temperature (온도) : 23°C

- Above data was extracted in restrictive environment
- It may be affected by any kind of environment facts.
- 상기 기술된 데이터는 제한적 테스트 환경 내에서 얻은 참조 값이므로 절대 기준을 의미하지 않습니다.

Structural Analysis

01

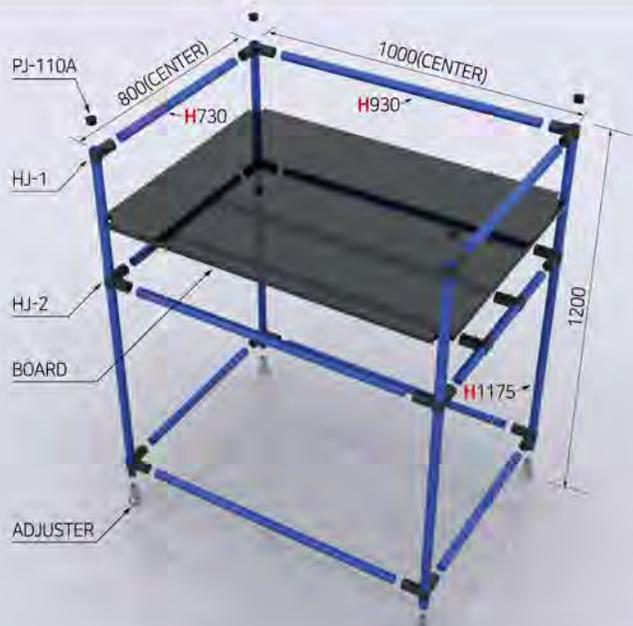
The drawing shown indicates the pipe length and the arrangement of the selected joint

표시된 도면은 파이프 길이를 나타냅니다. 조인트를 선택하여 필요한 곳에 배치합니다.

02

Size of the structure
800(Width)×1000(Length)×1200(Height)
("H" represents the actual length of pipe)

구조물의 크기
800(가로)×1000(세로)×1200(높이)
("H"는 파이프의 실제 길이를 나타냅니다.)



Maximum Load Capacity of Pipe (intensive load test)

Type	Length
	1,000mm Maximum load (Kgf)
LP-1070 (LOGIFORM 0.7T)	122
LP-1100 (LOGIFORM 1.0T)	165
LP-1140 (LOGIFORM 1.4T)	220
LP-1200 (LOGIFORM 2.0T)	207
SL-1100 (SLIDE PIPE 1.0T)	169
ST-1070 (SUS 201 0.7T)	89
ST-1090 (SUS 201 0.9T)	126
ST-1100 (SUS 201 1.0T)	170
ST-1110 (SUS 201 1.1T)	185
ST-1120 (SUS 201 1.2T)	214
ST-1200 (SUS 201 2.0T)	343
ST-1070 (SUS 430 0.7T)	77
ST-1090 (SUS 430 0.9T)	109
ST-1110 (SUS 430 1.1T)	133
ASP-1120 (ALUMINUM 1.2T)	74.4
ASP-1200 (ALUMINUM 2.0T)	119.4
ASP-1280 (ALUMINUM 2.8T)	149.2

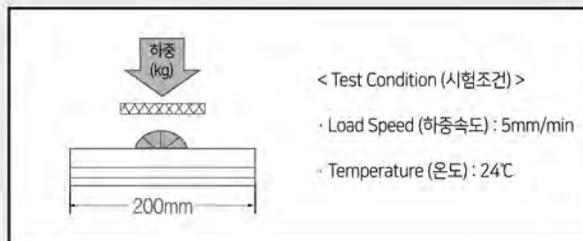


· Bending Test (굽힘시험) : (3 Point)	· Speed (속도) : 20mm/min
· Load Range (하중범위) : 0~2,000kg	· Temperature (온도) : 24°C
· Above data was extracted in restrictive environment · It may be affected by any kind of environment facts. · 상기 기술된 데이터는 제한적 테스트 환경에서 얻은 참조 값이므로 절대 기준을 의미하지 않습니다.	

Roller Yield Strength Test

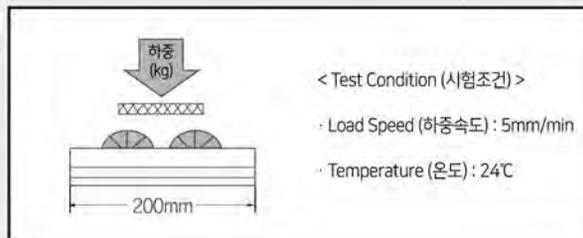
· 1 Roller Test

Type	Φ	Length	Load (단위 Kgt)
35	28	200	60
40	30	200	110
60	30	200	210
73	34	200	205
80	40	200	210



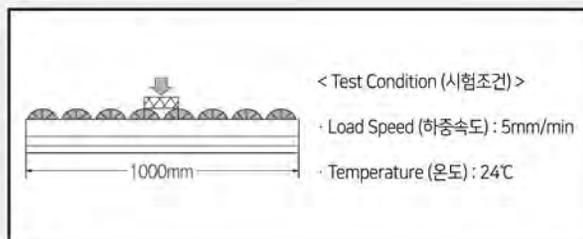
· 2 Roller Test

Type	Φ	Length	Load (단위 Kgt)
35	28	200	115
40	30	200	190
60	30	200	270
73	34	200	285
80	40	200	315



· Bending Strength for Roller Track

Type	Load (단위 Kgt)
35 Series	81.4
40 Series	142
60 Series	77.4
73 Series	168.2
80 Series	227.4



· Recommended Temperature for the use of LOGIFORM Products : -10 ~ 80°C

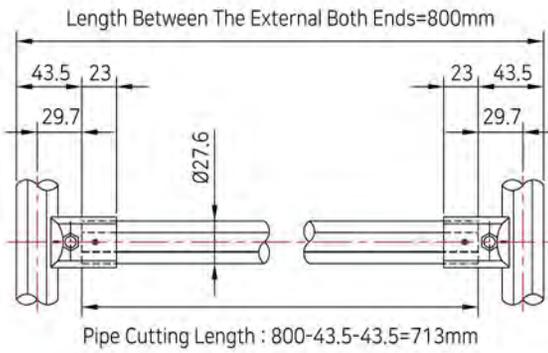
- Above data was extracted in restrictive environment
- It may be affected by any kind of environment facts.
- 상기 기술된 데이터는 제한적 테스트 환경 내에서 얻은 참조 값이므로 절대 기준을 의미하지 않습니다.

2

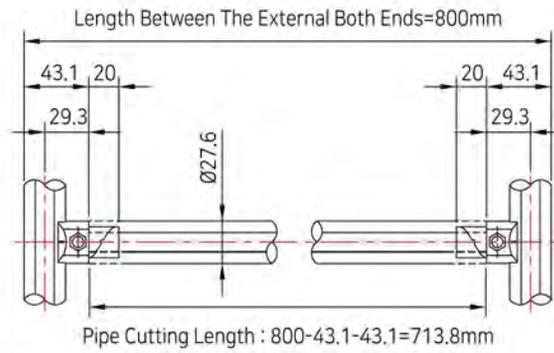
ALUMINUM RACK SYSTEM

Aluminum Pipe / Joint / Joint Set / Accessory

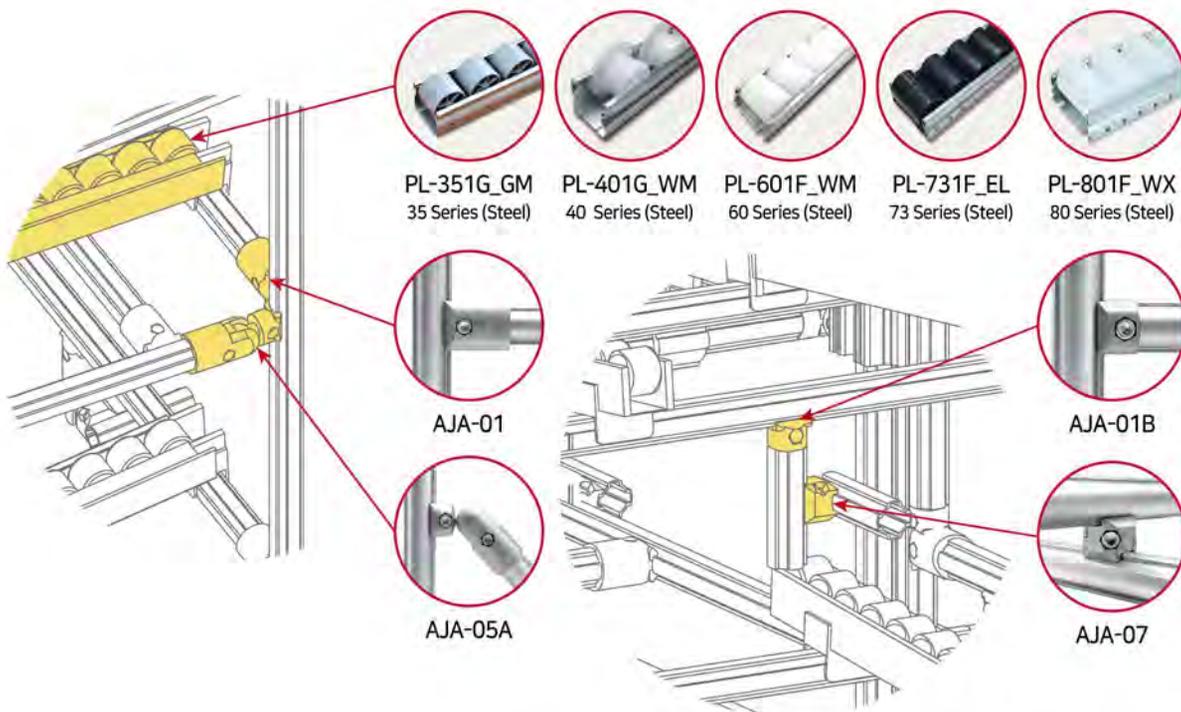
< Aluminum Joint - Outer Dimension >



< Aluminum Joint - Inner Dimension >



< Aluminum Module Part Legend >



Aluminum Pipe

ASP-S1120 (Ø19) Aluminum Standard Pipe : t1.2

Weight : 0.8kg/m
Length : 4m

ASP-1120 Aluminum Standard Pipe : t1.2

Weight : 1.4kg/m
Length : 4m

ASP-1200 Aluminum Standard Pipe : t2.0

Weight : 1.7kg/m
Length : 4m

ASP-1280 Aluminum Standard Pipe : t2.8

Weight : 1.9kg/m
Length : 4m

ADP-1120 Aluminum Double Pipe : t1.2

Weight : 3kg/m
Length : 4m

ADP-1120W Aluminum Double Pipe : t1.2

Weight : 4kg/m
Length : 4m

ADP-1280 Aluminum Double Pipe : t2.8

Weight : 4kg/m
Length : 4m

ATP-1270 Aluminum T Type Pipe : t2.2

Weight : 2.3kg/m
Length : 4m

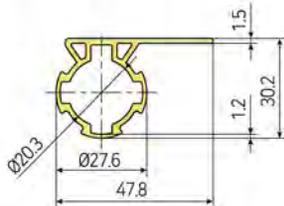
ACP-1120 Aluminum Circle Pipe 12Hole : t1.2

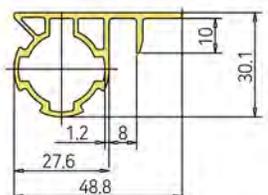
Weight : 1.7kg/m
Length : 4m

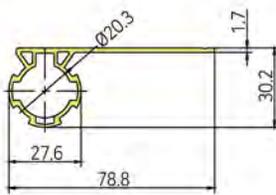
ACP-1120L Aluminum Circle Pipe 8Hole : t1.2

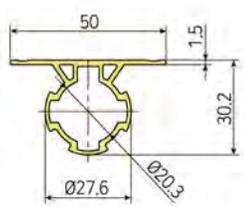
Weight : 1.5kg/m
Length : 4m

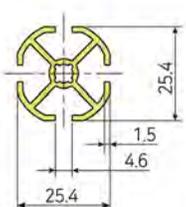
Aluminum Pipe

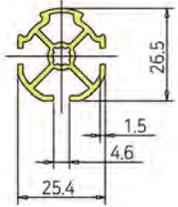
ALP-1120	Aluminum L Type Pipe : t1.2
	 <p>Weight : 2.3kg/m Length : 4m</p>

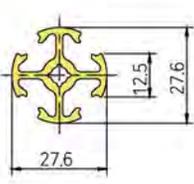
ALP-1120A	Aluminum L Type Pipe : t1.2
	 <p>Weight : 2.7kg/m Length : 4m</p>

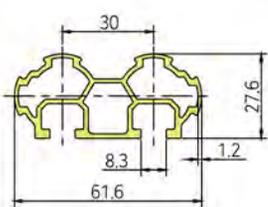
ALP-1120B	Aluminum L Type Pipe : t1.2
	 <p>Weight : 3kg/m Length : 4m</p>

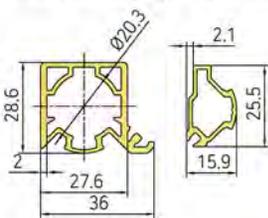
AFP-1120	Aluminum Flat Pipe : t1.2
	 <p>Weight : 2.5kg/m Length : 4m</p>

AJ-3143	Aluminum Profile Pipe : t1.5
	 <p>Weight : 1.9kg/m Length : 4m</p>

AJ-3143A	Aluminum Profile Pipe : t1.5
	 <p>Weight : 2kg/m Length : 4m</p>

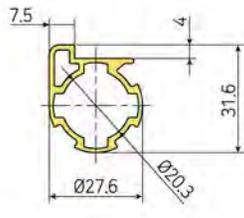
AJ-3143B	Aluminum Profile Pipe : t2
	 <p>Weight : 2.5kg/m Length : 4m</p>

ATDP-1120	Aluminum T Type Double Pipe : t1.2
	 <p>Weight : 4kg/m Length : 4m</p>

ABHP-04A	Aluminum Board Holder Pipe : t2/t1.2
 <p>↑ ABHP-01B ↑ AGF-1</p>	 <p>ABHP-01B AGF-1 Weight : 2.8kg/m Weight : 1.2kg/m Length : 4m Length : 4m</p>

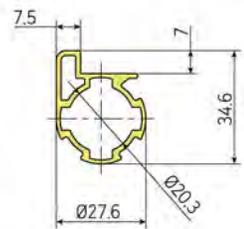
Aluminum Pipe

ABHP-04C Aluminum Board Holder Pipe : t1.2

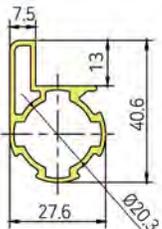
Weight : 1.7kg/m
Length : 4m

ABHP-07C Aluminum Board Holder Pipe : t1.2

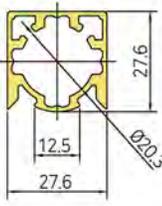
Weight : 2kg/m
Length : 4m

ABHP-13C NEW Aluminum Board Holder Pipe : t1.2

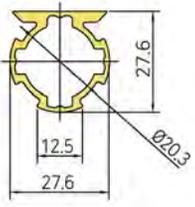
Weight : 2kg/m
Length : 4m

ASQP-1120A NEW Aluminum Square Pipe : t1.2

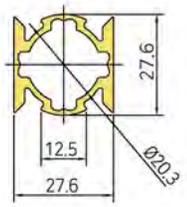
Weight : 2.4kg/m
Length : 4m

ASQP-1120B NEW Aluminum Square Pipe : t1.2

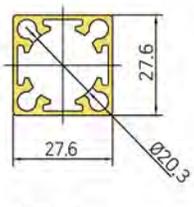
Weight : 2kg/m
Length : 4m

ASQP-1120C NEW Aluminum Square Pipe : t1.2

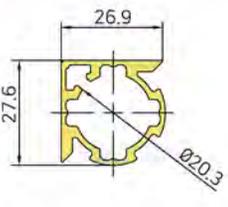
Weight : 2.3kg/m
Length : 4m

ASQP-1120D NEW Aluminum Square Pipe : t1.2

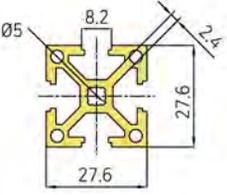
Weight : 2.4kg/m
Length : 4m

ASQP-1120E NEW Aluminum Square Pipe : t1.2

Weight : 2kg/m
Length : 4m

ASQP-1120F NEW Aluminum Square Pipe : t2.4

Weight : 3.8kg/m
Length : 4m

Aluminum Joint

<p>AJ-01 Straight Joint</p>  <p>Weight : 24g Quantity : 280pcs</p>	<p>AJ-01C Straight Joint</p>  <p>Weight : 24g Quantity : 300pcs</p>	<p>AJ-01E Straight Joint</p>  <p>Weight : 38g Quantity : 160pcs</p>	<p>AJ-01F NEW Straight Joint</p>  <p>Weight : 19g Quantity : 360pcs</p>
<p>SAJ-01B NEW Straight Joint</p>  <p>Weight : 22g Quantity : 340pcs</p>	<p>AJ-01B Straight Joint</p>  <p>Weight : 18g Quantity : 400pcs</p>	<p>AJ-01BC Straight Joint</p>  <p>Weight : 18g Quantity : 360pcs</p>	<p>AJ-01D Straight Joint</p>  <p>Weight : 22g Quantity : 270pcs</p>
<p>AJ-S01B Straight Joint (Ø19+Ø19)</p>  <p>Weight : 8g Quantity : 700pcs</p>	<p>AJ-S02B Straight Joint (Ø27.6+Ø19)</p>  <p>Weight : 6g Quantity : 700pcs</p>	<p>AJ-03 Elbow Joint</p>  <p>Weight : 66g Quantity : 80pcs</p>	<p>AJ-04 Cross Shaped Joint</p>  <p>Weight : 60g Quantity : 120pcs</p>
<p>AJ-05 Variable Joint</p>  <p>Weight : 16g Quantity : 420pcs</p>	<p>AJ-05A Variable Joint</p>  <p>Weight : 28g Quantity : 250pcs</p>	<p>AJ-06 Variable Joint</p>  <p>Weight : 32g Quantity : 210pcs</p>	<p>AJ-06A Variable Joint</p>  <p>Weight : 32g Quantity : 210pcs</p>
<p>AJ-06B Variable Joint</p>  <p>Weight : 28g Quantity : 200pcs</p>	<p>AJ-07 Crossed Joint</p>  <p>Weight : 14g Quantity : 720pcs</p>	<p>AJ-08 Double Joint</p>  <p>Weight : 12g Quantity : 1,080pcs</p>	<p>AJ-08A Double Joint</p>  <p>Weight : 26g Quantity : 210pcs</p>

Aluminum Joint

AJ-08W

Double Wide Joint



Weight : 29g
Quantity : 270pcs

AJ-09

Double Joint



Weight : 48g
Quantity : 130pcs

AJ-13

Elbow Joint



Weight : 48g
Quantity : 108pcs

AJ-13B

Elbow Joint



Weight : 36g
Quantity : 160pcs

AJ-45L

Angular Joint



Weight : 24g
Quantity : 250pcs

AJ-45R

Angular Joint



Weight : 24g
Quantity : 250pcs

AJ-45BL

Angular Joint



Weight : 20g
Quantity : 250pcs

AJ-45BR

Angular Joint



Weight : 20g
Quantity : 250pcs

AJ-45W

Corner Joint



Weight : 49g
Quantity : 120pcs

AJ-90

Corner Joint



Weight : 22g
Quantity : 400pcs

ACS-70

Double Joint



Weight : 54g
Quantity : 140pcs

ACS-70A

Double Joint



Weight : 30g
Quantity : 315pcs

Fastener & Tool

WB-0610/0615/0620/0625

Wrench Bolt



M6*10 / 15 / 20 / 25 / 30

NU-0600

T Nut



M6

SR-0819/0825/0832

Screw Round



#8*19 / 25 / 32

SF-0819/0825/0832

Screw Flat



#8*19 / 25 / 32

Aluminum Joint Set

AJA-01 Straight Joint

(Joint) AJ-01 : 2pcs
(Bolt) WB-0625 : 1pc
(Nut) NU-0600 : 1pc

AJA-01C Straight Joint (Circular pipe available)

(Joint) AJ-01C : 2pcs
(Bolt) WB-0625 : 1pc
(Nut) NU-0600 : 1pc

Rotate

(Pipe) ACP-1120

AJA-01E Straight Joint

(Joint) AJ-01E : 2pcs
(Bolt) WB-0625 : 1pc
(Nut) NU-0600 : 1pc

AJA-01F NEW Straight Joint

(Joint) AJ-01F : 2pcs
(Bolt) WB-0620 : 1pc
(Nut) NU-0600 : 1pc

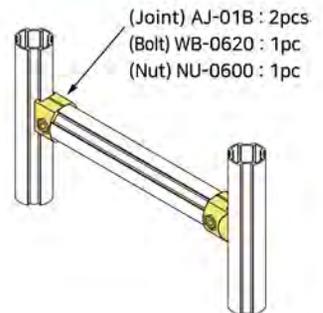
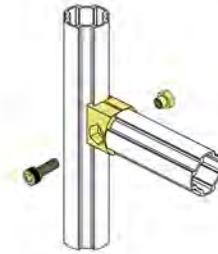
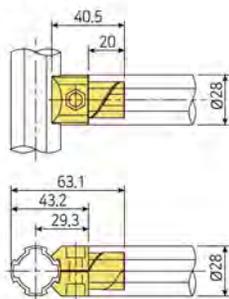
SAJA-01B NEW Square Pipe Joint

(Joint) AJ-01B : 2pcs
(Bolt) WB-0620 : 1pc
(Nut) NU-0600 : 1pc

(Pipe) ASQP-1120D

AJA-01B

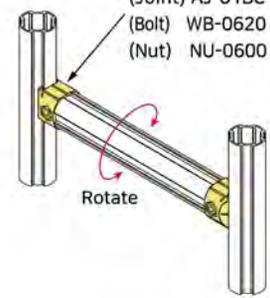
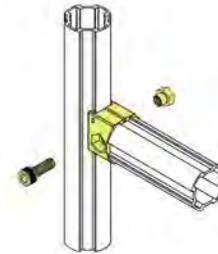
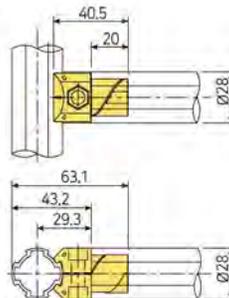
Straight Joint



(Joint) AJ-01B : 2pcs
(Bolt) WB-0620 : 1pc
(Nut) NU-0600 : 1pc

AJA-01BC

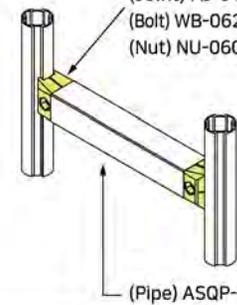
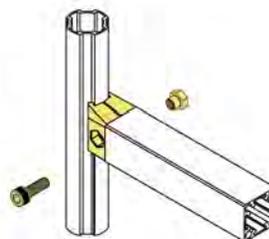
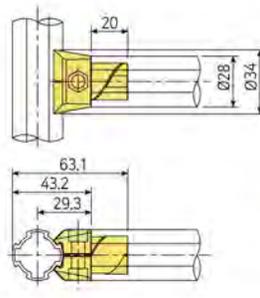
Straight Joint



(Joint) AJ-01BC : 2pcs
(Bolt) WB-0620 : 1pc
(Nut) NU-0600 : 1pc

AJA-01D

Straight Joint

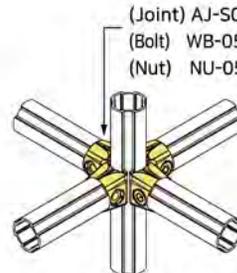
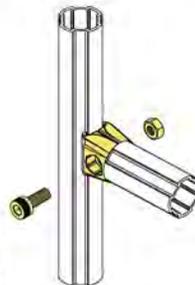
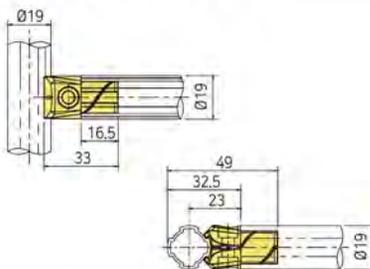


(Joint) AJ-01D : 2pcs
(Bolt) WB-0620 : 1pc
(Nut) NU-0600 : 1pc

(Pipe) ASQP-1120D

AJA-S01B

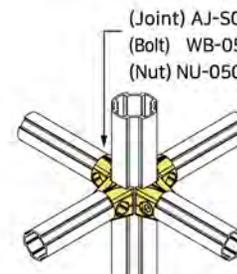
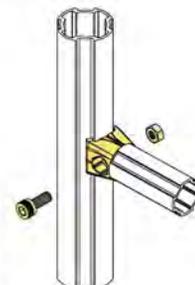
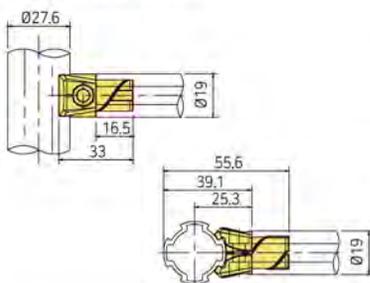
Straight Joint (Ø19+Ø19)



(Joint) AJ-S01B : 2pcs
(Bolt) WB-0512 : 1pc
(Nut) NU-0500 : 1pc

AJA-S02B

Straight Joint (Ø27.6+Ø19)



(Joint) AJ-S02B : 2pcs
(Bolt) WB-0512 : 1pc
(Nut) NU-0500 : 1pc

Aluminum Joint Set

AJA-02 Elbow Joint (Structural Strength Reinforcement)

Dimensions: 29.3, 23, 45.9, 68.9, $\varnothing 28$, $\varnothing 33$

Component List:
 (Joint) AJ-03 : 1pc
 (Bolt) WB-0625 : 2pcs
 (Nut) NU-0600 : 2pcs
 (Joint) AJ-01 : 2pcs

AJA-03 Straight Joint

Dimensions: 29.3, 23, 104.7, 23, 23, $\varnothing 28$, $\varnothing 33$

Component List:
 (Joint) AJ-01 : 4pcs
 (Bolt) WB-0625 : 3pcs
 (Nut) NU-0600 : 3pcs
 (Joint) AJ-04 : 1pc

AJA-04 Cross Shaped Joint (Structural Strength Reinforcement)

Dimensions: 23, 29.3, 29.3, 23, 104.7, $\varnothing 33$, $\varnothing 28$

Component List:
 (Joint) AJ-04 : 2pcs
 (Bolt) WB-0625 : 2pcs
 (Nut) NU-0600 : 2pcs

AJA-05 Variable Joint (Adjust the Angle and Fix it)

Dimensions: 28, 44.5, 58.3, 23, 49.5, $\varnothing 33$, $\varnothing 28$, 107.8

Component List:
 (Joint) AJ-05 : 2pcs
 (Bolt) WB-0620 : 1pc
 (Nut) NU-0600 : 1pc
 (Joint) AJ-06 : 2pcs
 (Bolt) WB-0625 : 1pc
 (Nut) NU-0600 : 1pc

AJA-05A Variable Joint (Fixed after Adjusting the Rotation A ngle)

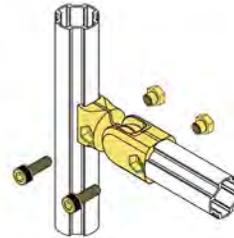
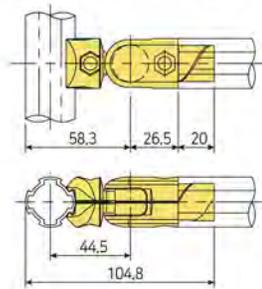
Dimensions: 28, 44.5, 58.3, 23, 49.5, $\varnothing 28$, 107.8

Component List:
 (Joint) AJ-05 : 2pcs
 (Bolt) WB-0620 : 1pc
 (Nut) NU-0600 : 1pc
 (Joint) AJ-06A : 2pcs
 (Bolt) WB-0625 : 1pc
 (Nut) NU-0600 : 1pc

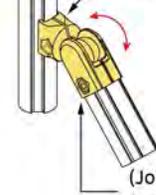
Rotate

AJA-05B

Variable Joint (Adjust the Angle and Fix it)



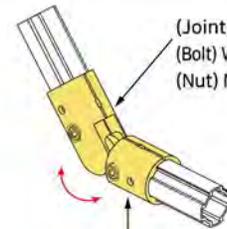
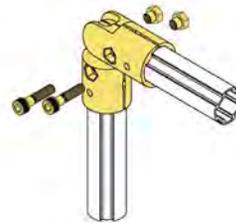
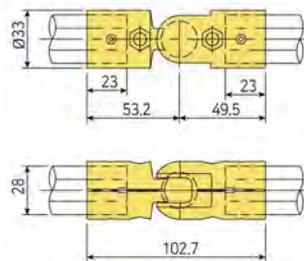
(Joint) AJ-05 : 2pcs
(Bolt) WB-0620 : 1pc
(Nut) NU-0600 : 1pc



(Joint) AJ-06B : 2pcs
(Bolt) WB-0620 : 1pc
(Nut) NU-0600 : 1pc

AJA-06

Variable Joint (Adjust the Angle)

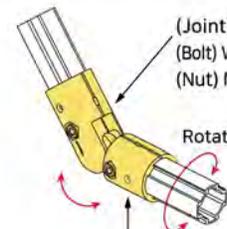
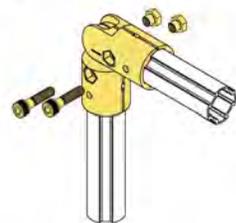
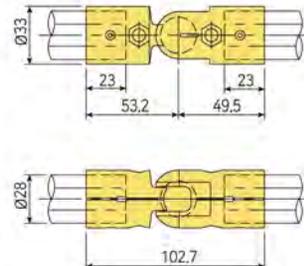


(Joint) AJ-06 : 2pcs
(Bolt) WB-0625 : 1pc
(Nut) NU-0600 : 1pc

(Joint) AJ-05A : 2pcs
(Bolt) WB-0625 : 1pc
(Nut) NU-0600 : 1pc

AJA-06A

Variable Joint (Adjusting the Angle of Rotation)

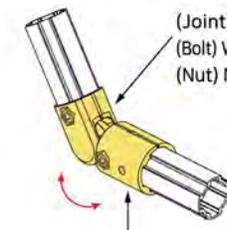
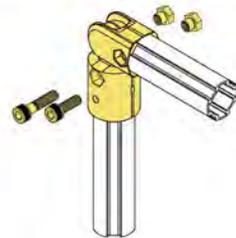
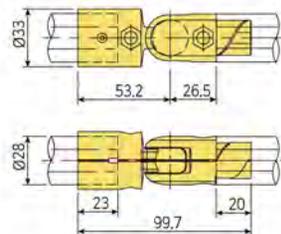


(Joint) AJ-06A : 2pcs
(Bolt) WB-0625 : 1pc
(Nut) NU-0600 : 1pc

(Joint) AJ-05A : 2pcs
(Bolt) WB-0625 : 1pc
(Nut) NU-0600 : 1pc

AJA-06B

Variable Joint (Adjust the Angle)

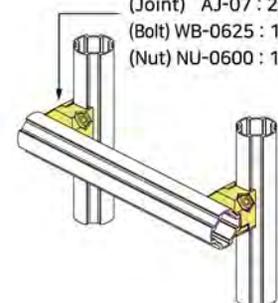
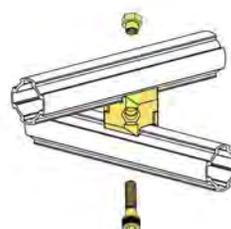
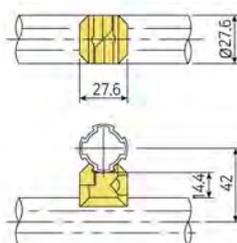


(Joint) AJ-06B : 2pcs
(Bolt) WB-0620 : 1pc
(Nut) NU-0600 : 1pc

(Joint) AJ-05A : 2pcs
(Bolt) WB-0625 : 1pc
(Nut) NU-0600 : 1pc

AJA-07

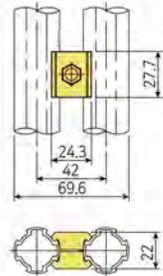
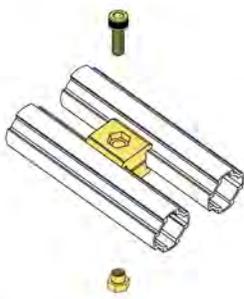
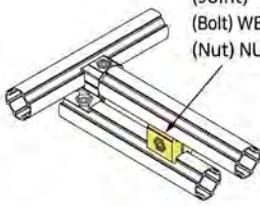
Girdle Joint



(Joint) AJ-07 : 2pcs
(Bolt) WB-0625 : 1pc
(Nut) NU-0600 : 1pc

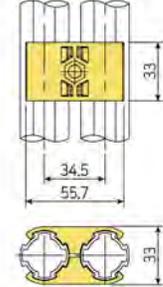
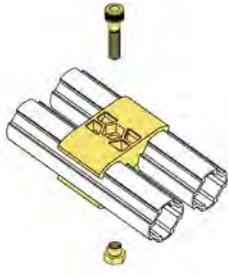
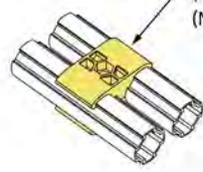
Aluminum Joint Set

AJA-08 Straight Joint

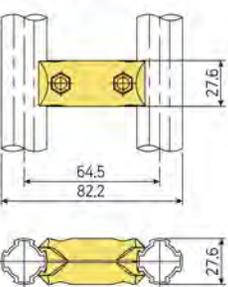
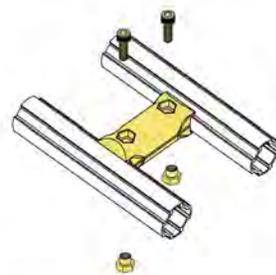
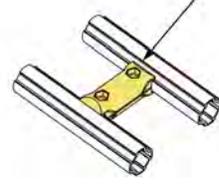
(Joint) AJ-08 : 2pcs
(Bolt) WB-0620 : 1pc
(Nut) NU-0600 : 1pc

AJA-08A Double Joint

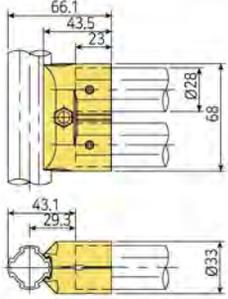
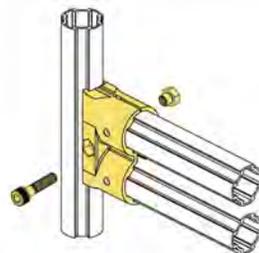
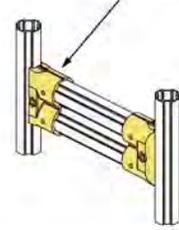
(Joint) AJ-08A : 2pcs
(Bolt) WB-0625 : 1pc
(Nut) NU-0600 : 1pc

AJA-08W Double Wide Joint

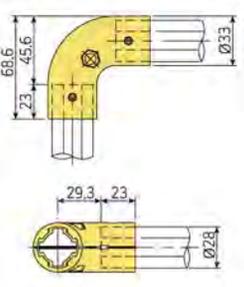
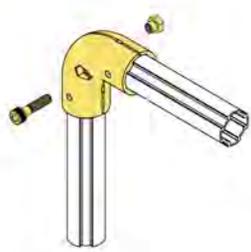
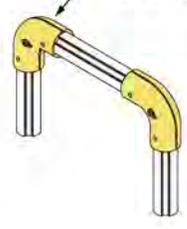
(Joint) AJ-08W : 2pcs
(Bolt) WB-0620 : 2pcs
(Nut) NU-0600 : 2pcs

AJA-09 Double Joint

(Joint) AJ-09 : 2pcs
(Bolt) WB-0625 : 1pc
(Nut) NU-0600 : 1pc

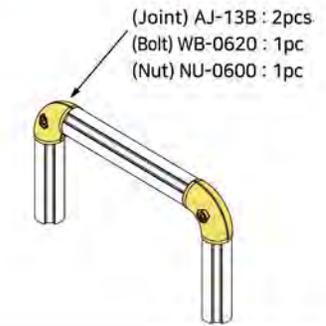
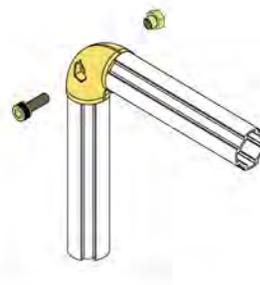
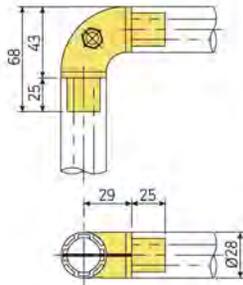
AJA-13 90° Elbow Joint

(Joint) AJ-13 : 2pcs
(Bolt) WB-0625 : 1pc
(Nut) NU-0600 : 1pc

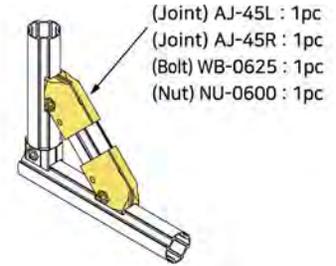
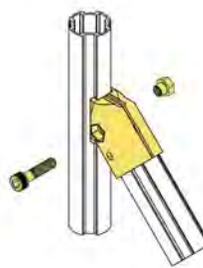
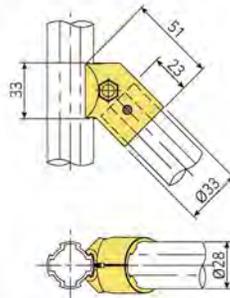
AJA-013B

90° Elbow Joint



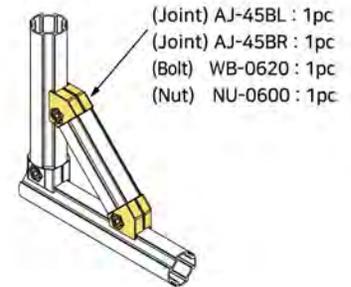
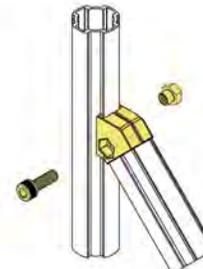
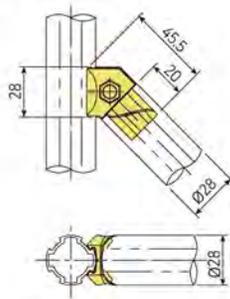
AJA-45

45° Angle Joint



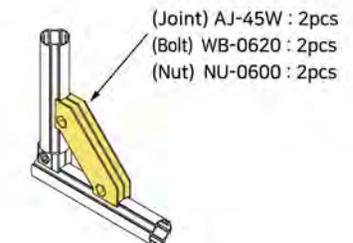
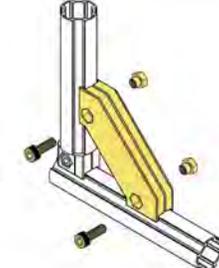
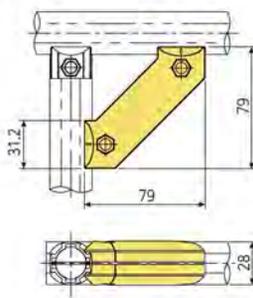
AJA-45B

45° Angle Joint



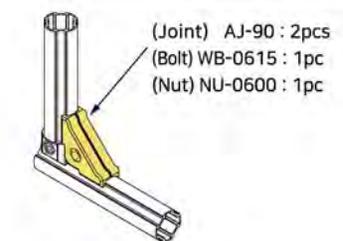
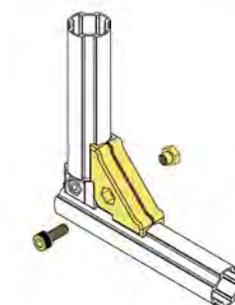
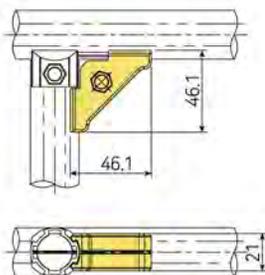
AJA-45W

45° Corner Joint

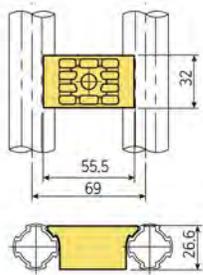
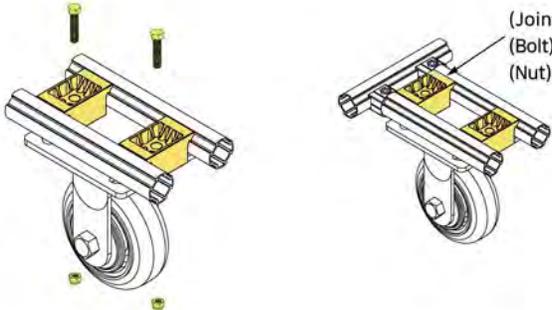


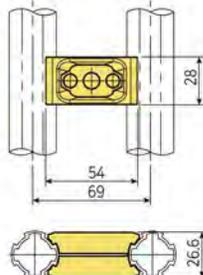
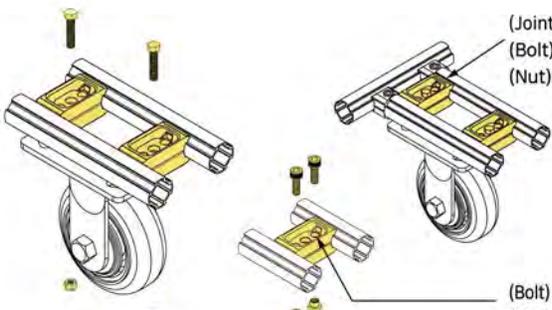
AJA-90

Corner Joint

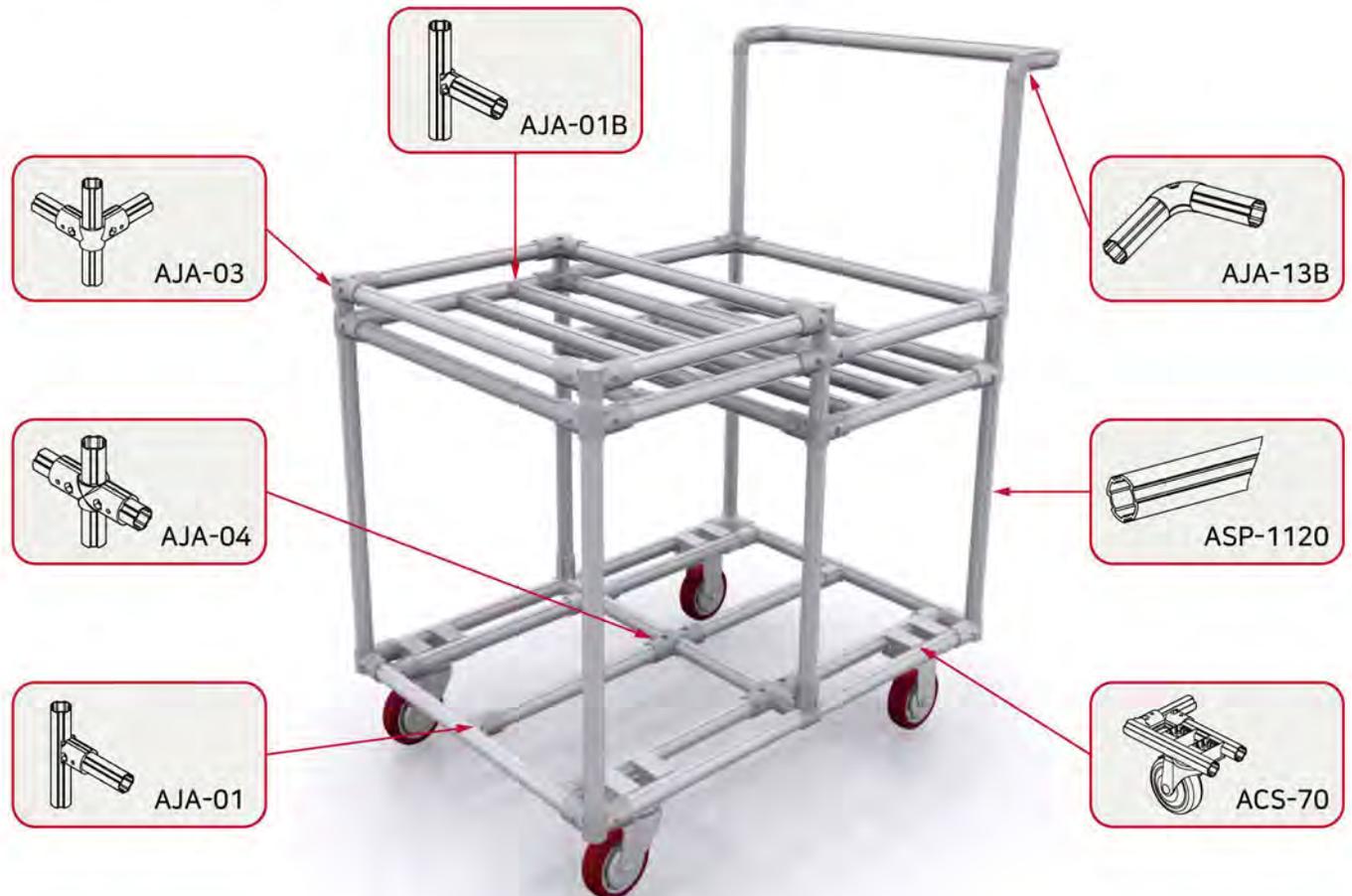


Aluminum Joint Set

<p>AJA-70</p>  	<p>Straight Joint</p> 	 <p>(Joint) ACS-70 : 2pcs (Bolt) BT-0835 : 2pcs (Nut) NN-0800 : 2pcs</p>
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<p>AJA-70A</p>  	<p>Straight Joint</p> 	 <p>(Joint) ACS-70A : 2pcs (Bolt) BT-0835 : 2pcs (Nut) NN-0800 : 2pcs</p> <p>(Bolt) WB-0615 : 2pcs (Nut) NU-0600 : 2pcs</p>
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Aluminum Products Part Legend



Insert Nut Structural Diagram



Insert Nut



Insert Nut + Pipe



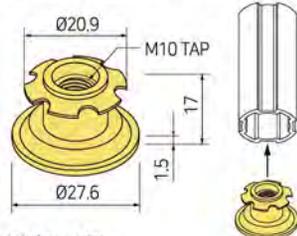
Insert Nut + Pipe



Washer + Adjuster

IN-1000AM

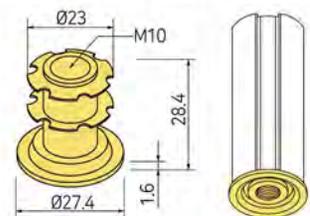
Clip Insert Nut
Full use of Aluminum Pipe



Weight : 16g
Quantity : 300pcs

DIN-1000AM

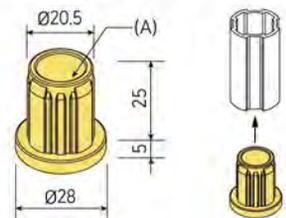
Double Clip Insert Nut
Full use of Aluminum Pipe



Weight : 23g
Quantity : 300pcs

AIN-2812A / 2812B

Aluminum Pipe Insert Nut



Weight : 18g
Quantity : 300pcs

Code (A)
AIN-2812A 1/2" TAP
AIN-2812B M12 TAP

FW-1026 / SW-0010

Flat Washer

Spring Washer



FW-1026
Weight : 6g
Quantity : 4,000pcs

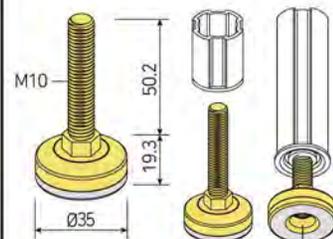
SW-0010
Weight : 3g
Quantity : 8,000pcs

AD-3510MPM/MRM/MRL

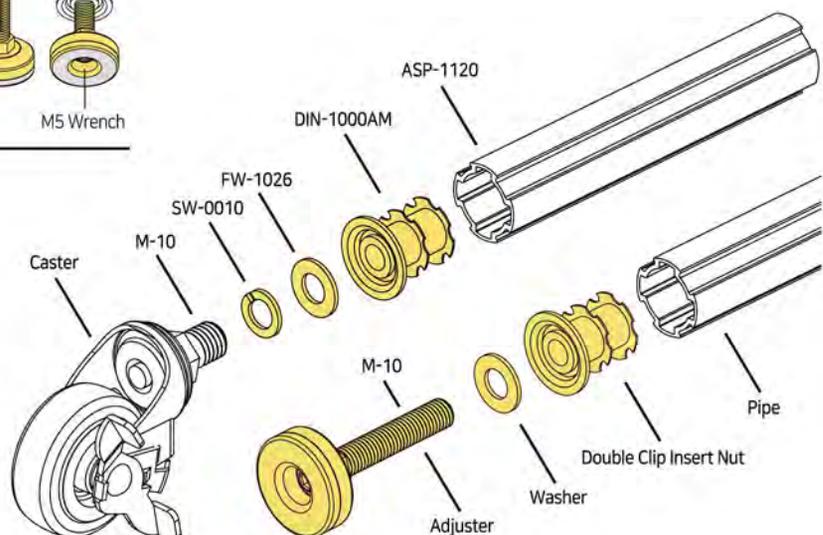
Adjuster



AD-3510MRL Weight : 72g Quantity : 120pcs
AD-3510MPM Weight : 49g Quantity : 150pcs
AD-3510MRM Weight : 49g Quantity : 150pcs



M5 Wrench



Accessory

IN-406

Insert Nut

Weight : 51.7g
Quantity : 180pcs

Code	(A)
IN-403	M3 TAP
IN-404	M4 TAP
IN-405	M5 TAP
IN-406	M6 TAP
IN-408	M8 TAP

SN-406

Spring Nut

Weight : 51.7g
Quantity : 180pcs

Code	(A)
SN-403	M3 TAP
SN-404	M4 TAP
SN-405	M5 TAP
SN-406	M6 TAP
SN-408	M8 TAP

ALR-404

Linear Roller

Weight : 51.7g
Quantity : 180pcs

ARA-0050 (8P)

Pipe Guide Roller

Code	Length	Weight
ARA-0050 (8P)	50mm	212g
ARA-0100 (8P)	100mm	294g
ARA-0150 (12P)	150mm	438g
ARA-0200 (12P)	200mm	522g

ARA-0050C (8P) NEW

Pipe Guide Roller Cover Engagement

(Bolt) TS-0408 : 6pcs

Code	Length	Weight
ARA-0050C (8P)	50mm	251g
ARA-0100C (8P)	100mm	333g
ARA-0150C (12P)	150mm	477g
ARA-0200C (12P)	200mm	561g

ATR-6

Aluminum T Slide Roller

(Pipe) ATP-1270

Spacer : Bearing
External diameter : Ø17
Internal diameter : Ø6
Thickness : 6mm

Weight : 32g
Quantity : 600pcs

ASA-830A / 840A NEW

Aluminum Slot Adapter

(Nut) IN-406
SN-406

(Bolt) M5 / M6

(Pipe) ASQP-1120F

Weight : 0.8kg/m
Length : 4m

PCH-015 NEW

Cable Holder

Weight : 2g
Quantity :

APH-2820

Panel Holder

< Outer Type >

< Inner Type >

Weight : 18g
Quantity : 480pcs

APA-2830 NEW

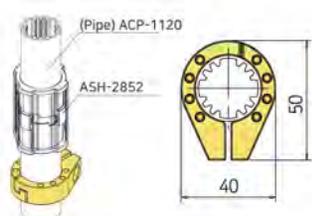
Diecasting Joint

Weight : 14g
Quantity : 492pcs

(Bolt) WB-0615 : 1pc
(Nut) M6 : 1pc

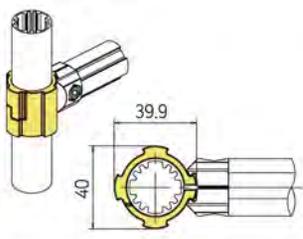
Accessory

HSC-28A Sleeve Hinge Stopper

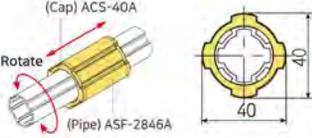
Weight : 14g Set HSC-28A 2pcs
 Quantity : 492pcs Bolt WB-0615 1pc
 Nut NU-0600 1pc

PCC-28A Diecasting Joint

Weight : 20g
 Quantity : 192pcs

ASH-2852 Sleeve Hinge (Straight Line Rotate) (Cap) ACS-40A + (Pipe) ASF-2846A

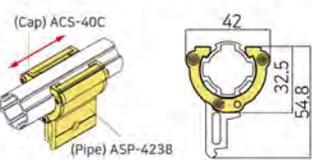
Code Spec Weight Quantity
 ASH-2852 52mm 34g 100pcs

ASH-2850D Sleeve Hinge (Straight Line) (Cap) ACS-50D + (Pipe) ASP-4321



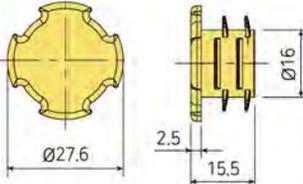

Code Spec Weight Quantity
 ASH-28050D L-50mm 38g 100pcs
 ASH-28100D L-100mm
 ASH-28150D L-150mm
 ASH-28500D L-500mm

ASH-2840C Sleeve Hinge (Straight Line) (Cap) ACS-40C + (Pipe) ASP-4238

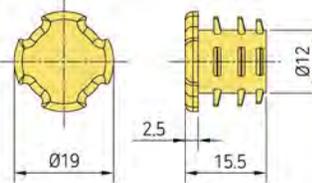
Code Spec Weight Quantity
 ASH-28040C L-40mm 57g 100pcs
 ASH-28100C L-100mm
 ASH-28150C L-150mm
 ASH-28500C L-500mm

APJ-110S Aluminum Pipe Inner Cap Ø28 Standard Type

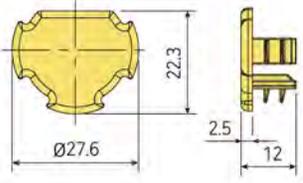
Weight : 2.3g
 Quantity : 2,500pcs GR

APJ-S110S Aluminum Pipe Inner Cap Ø19

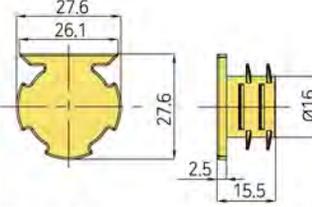
Weight : 1.3g
 Quantity : 5,000pcs GR

APJ-110T Aluminum Pipe Inner Cap Ø28 T Type

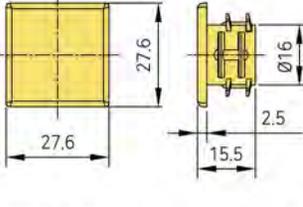
Weight : 1.4g
 Quantity : 5,000pcs GR

APJ-110B Aluminum Pipe Inner Cap Ø28 Square Type

Weight : 1.4g
 Quantity : 5,000pcs GR

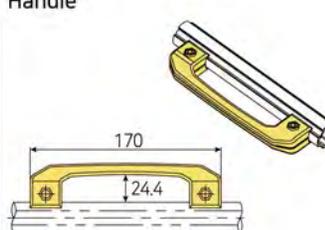
APJ-110SQ Aluminum Pipe Inner Cap Ø28 Square Type

Weight : 2.6g
 Quantity : 1,500pcs GR

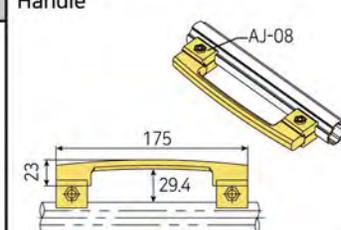
Accessory

AH-0170 Handle

Weight : 52g
Quantity : 180pcs

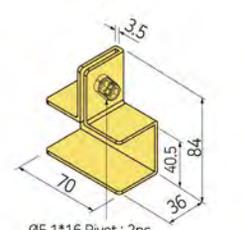
AH-0175 Handle

Weight : 52g
Quantity : 180pcs

(Set) AH-0175 : 1pc
(Join) AJ-08 : 4pcs
(Bolt) WB-0620 : 2pcs
(Nut) NU-0600 : 2pcs

PG-2870A Panel Guide U Type

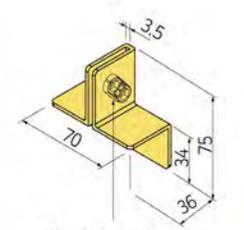



Weight : 23g
Quantity : 180pcs

Ø5.1*16 Rivet : 2pc

YL

PG-2870B Panel Guide L Type

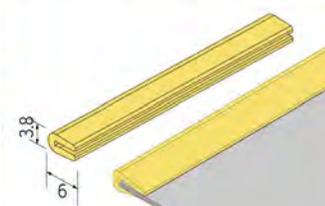



Weight : 18g
Quantity : 300pcs

Ø5.1*16 Rivet : 2pc

YL

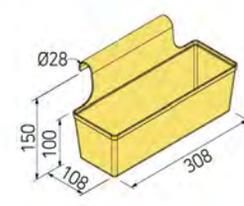
PC-0300 Sharp Edge Cover (PE)

Weight : 20g
Quantity : 300M

Transparen

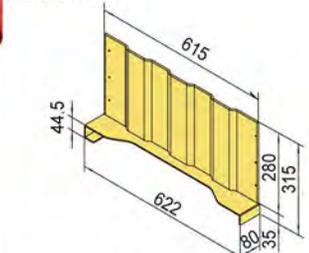
RPC-300A Rectangular Container

Weight : 293g
Quantity : 12pcs

YL

PG-615MC Panel Guide

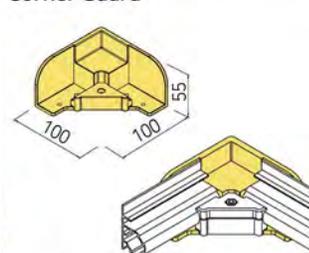



Weight : 638g
Quantity :

Transparen YL

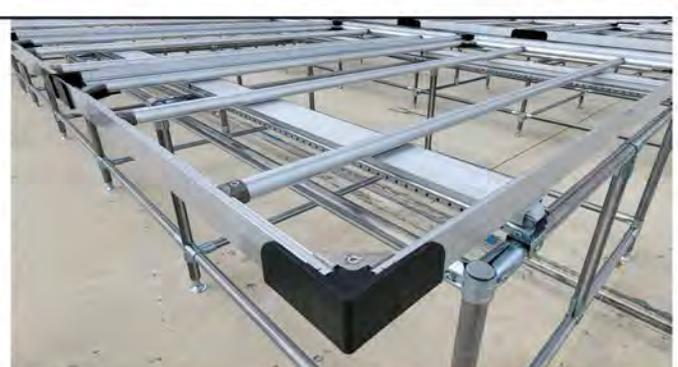


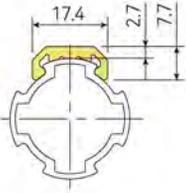
CG-100 Corner Guard

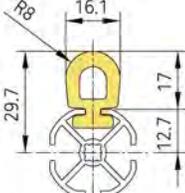



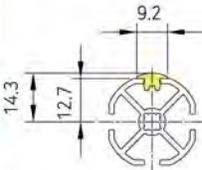
Weight : 85g
Quantity : 80pcs

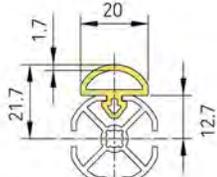
(Pipe) ALP-1120A
(Joint) AJ-90

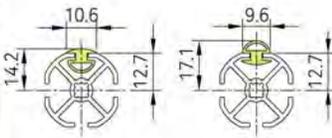


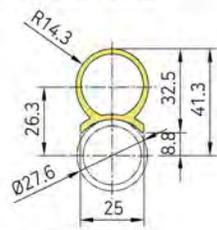
APC-1	Aluminum Pipe Cover
	 <p>Weight : 213g Length : 3m Quantity : 50pcs</p> <p>GR</p>

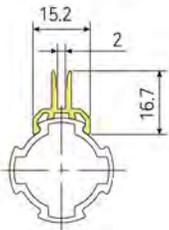
SS-5A	Aluminum Pipe Sponge Cover
	 <p>Weight : 125g Length : 1m Quantity : 50m</p> <p>BR</p>

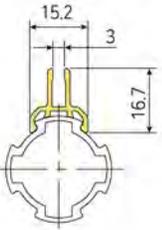
SC-0200	Aluminum Pipe Slot Cover
	 <p>Length : 20m Quantity : 200m</p> <p>GR</p>

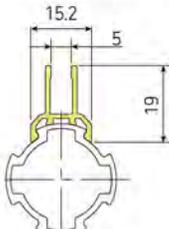
PC-0200	Aluminum Pipe Protection Cover
	 <p>Length : 20m Quantity : 40m</p> <p>BK</p>

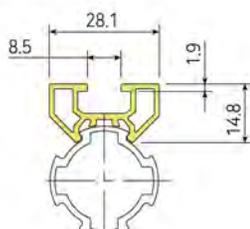
PC-0400	Aluminum Pipe Protection Cover
	 <p>Weight : 59g Length : 1m Quantity : 50m</p> <p>BK</p>

PC-0500	Pipe Protection Cover
	 <p>Weight : 125g Length : 2m Quantity : 40pcs</p> <p>BK</p>

ASG-2A	Aluminum Sheet Guide : t2
	 <p>Weight : 650g Quantity : 20pcs</p>

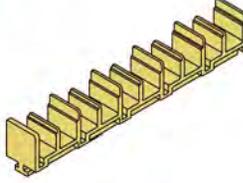
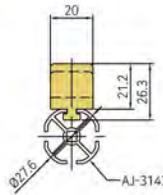
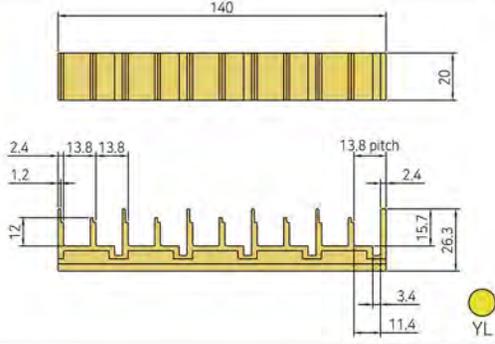
ASG-3A	Aluminum Sheet Guide : t3
	 <p>Weight : 620g Quantity : 20pcs</p>

ASG-5A	Aluminum Sheet Guide : t5
	 <p>Weight : 690g Quantity : 20pcs</p>

ABG-28A	Aluminum Board Guide
	 <p>Weight : 1,320g Quantity : 16pcs</p>

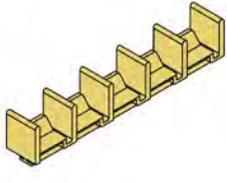
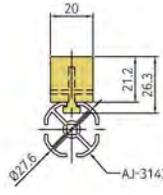
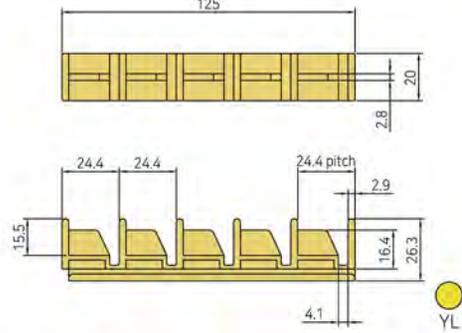
Panel Frame Guide

UG-0140E NEW Panel Frame Guide

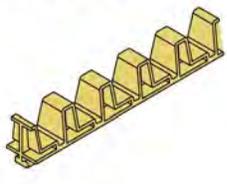
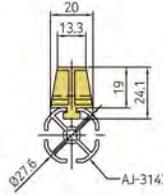
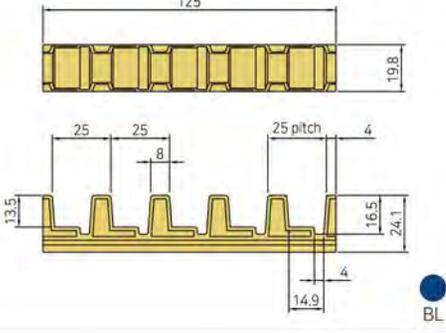
Weight : 20g
Quantity : 600pcs

UG-0125A Panel Frame Guide

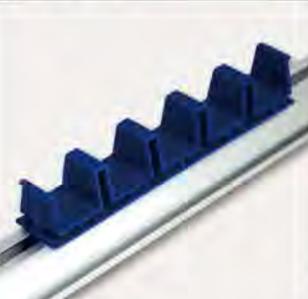
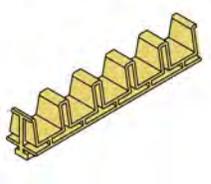
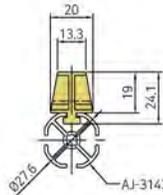
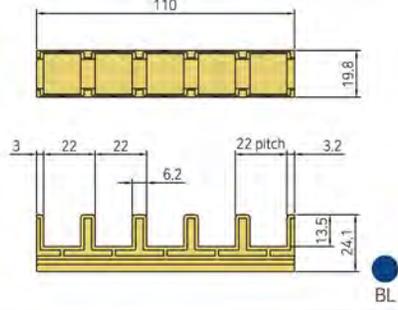
Weight : 23g
Quantity : 600pcs

UG-0125B Panel Frame Guide

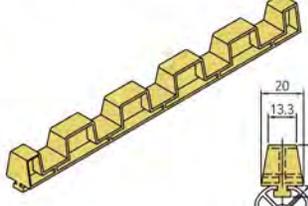
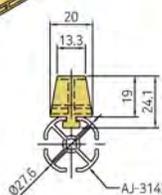
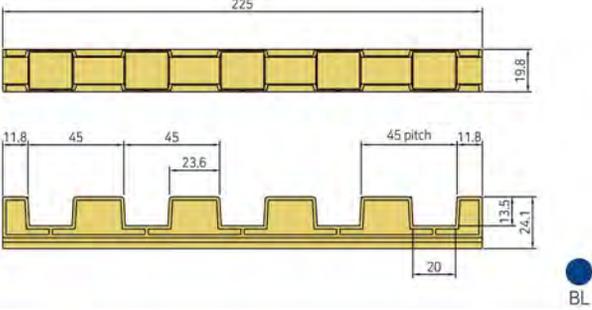
Weight : 20g
Quantity : 700pcs

UG-0125C Panel Frame Guide

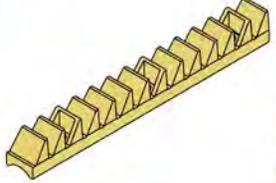
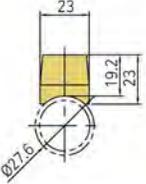
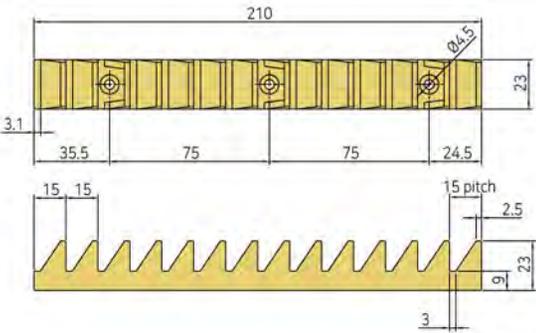
Weight : 14g
Quantity : 800pcs

UG-0225D Panel Frame Guide

Weight : 33g
Quantity : 200pcs

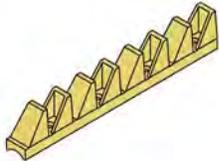
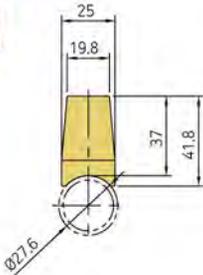
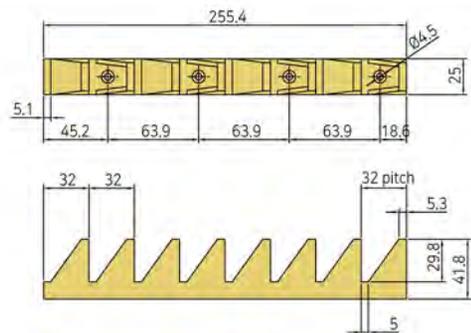
UG-0210A NEW Panel Frame Guide

Weight : 89g
Quantity : 500pcs

● BK

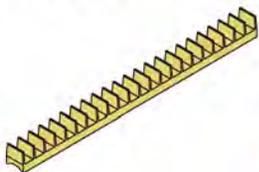
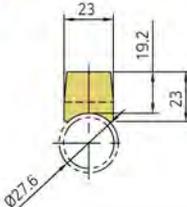
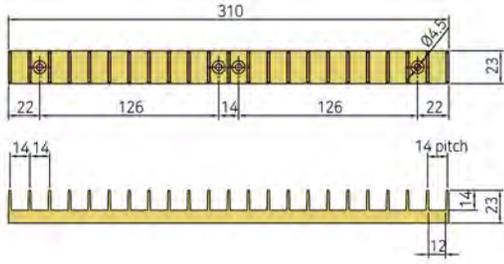
UG-0255A NEW Panel Frame Guide

Weight : 89g
Quantity : 200pcs

● BK

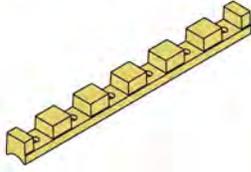
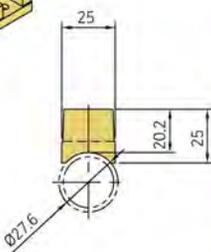
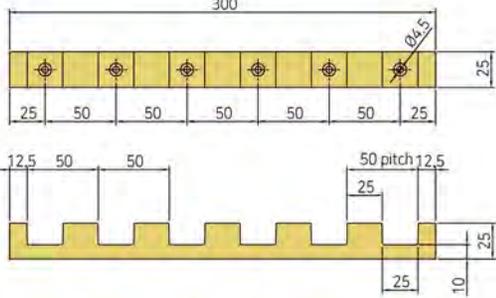
UG-0310A Panel Frame Guide

Weight : 56g
Quantity : 240pcs

● BK

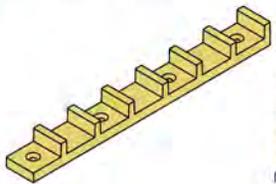
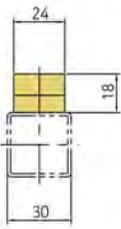
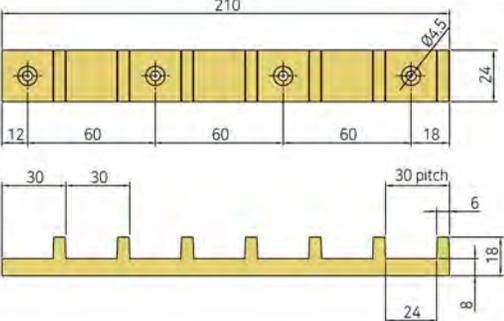
UG-0500B NEW Panel Frame Guide

Weight : 64g
Quantity : 700pcs

● GR

UG-0210B NEW Panel Frame Guide

Weight : 41g
Quantity : 500pcs

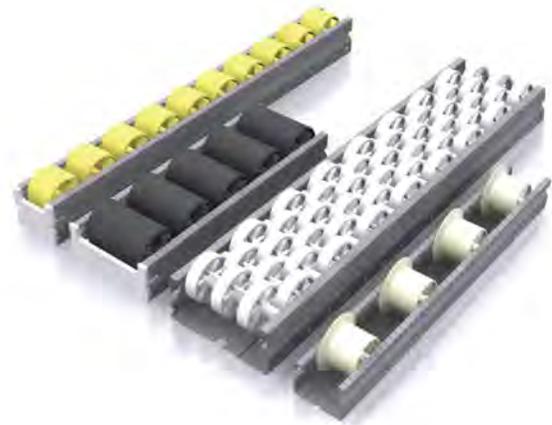
● GR

3 ROLLER TRACK

Roller Track / Cap / Connector

< Classification of Roller >

No	Item	Description	Resistance
①	WH	White	$10^3 \Omega \sim 10^6 \Omega$
②	YL	Yellow	
③	BK	Black	
④	ED	⚡ ESD	
⑤	GR	Guide Roller	
⑥	TP	⚡ TPU(ESD)	$10^8 \Omega \sim 10^{11} \Omega$
⑦	WS	White Small	BLACK
⑧	ES	⚡ ESD Small	$10^3 \Omega \sim 10^6 \Omega$
⑨	TS	⚡ TPU(ESD) Small	$10^8 \Omega \sim 10^{11} \Omega$
⑩	WR	White Round	



※ The specification may be subject to change without any prior notice.



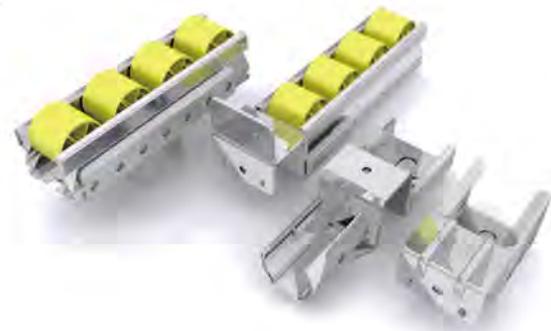
PRODUCT CODE

PL	40	1	F	W	M
PLACON	SERIES (35 ~ 80)	FRAME TYPE	ROLLER TYPE	COLOR	ROLLER SIZE
		1 : STEEL 2 : ALUMINUM 3 : ECONOMIC	R : ROUND G : GUIDE F : FLAT M : MULTI	W : WH Y : YELLOW B : BLACK G : GRAY E : ESD T : TPU U : URETHANE	S : $\phi 16 \sim \phi 18$ M : $\phi 27 \sim \phi 30$ L : $\phi 33 \sim \phi 35$ X : $\phi 40$



PACKING UNIT

- 1 Bar (1본) = 4M
- 1 Bundle (1묶음) = 35 SERIES = 10 Bars
40 SERIES = 10 Bars
60 SERIES = 30Ø: 6 Bars / 16Ø: 8 Bars
73 SERIES = 5 Bars
80 SERIES = 80 (일반) = 4 Bars / 5 Bars
80 (Multi) = 4Bars



Roller Track Specification Table

< Roller Track Standard Length 4M >

Series	Code	Frame Type	Roller Size	Roller Pitch	Pin	Pin Length	Weight
35 Series	PL - 351F_GM	Steel	Ø28	33P	Ø2.9	32.5mm	884g/m
	PL - 351G_GM	Steel	Ø40	66P	Ø2.9	32.5mm	814g/m
	PL - 351M_GM	Steel	Ø27	16.5P	Ø2.9	32.5mm	886g/m
40 Series	PL - 401RF_WL	Steel	Ø34	35.7P	Ø4.0	36.5mm	1,416g/m
	PL - 401R_WL	Steel	Ø34	35.7P	Ø4.0	36.5mm	1,416g/m
	PL - 401R_EL	Steel	Ø34	35.7P	Ø4.0	36.5mm	1,416g/m
	PL - 401R_BL	Steel	Ø34	35.7P	Ø4.0	36.5mm	1,416g/m
	PL - 401F_WM	Steel	Ø30	35.7P	Ø4.0	36.5mm	1,125g/m
	PL - 401F_YM	Steel	Ø30	35.7P	Ø4.0	36.5mm	1,248g/m
	PL - 401F_EM	Steel	Ø30	35.7P	Ø4.0	36.5mm	1,180g/m
	PL - 401F_BM	Steel	Ø30	35.7P	Ø4.0	36.5mm	1,180g/m
	PL - 401G_WM	Steel	Ø46	53.5P	Ø4.0	37.7mm	1,102g/m
	PL - 401G_BM	Steel	Ø46	53.5P	Ø4.0	37.7mm	1,102g/m
	PL - 401M_WM	Steel	Ø27	17.8P	Ø4.0	36.5mm	1,187g/m
	PL - 402F_WM	Aluminum	Ø27.5	33.2P	Ø3.0	33.8mm	656g/m
	PL - 402F_YM	Aluminum	Ø27.5	33.2P	Ø3.0	33.8mm	656g/m
	PL - 402F_EM	Aluminum	Ø27.5	33.2P	Ø3.0	33.8mm	656g/m
	PL - 403RF_WM	Economic	Ø30	35P	Ø3.0	36.5mm	1,416g/m
60 Series	PL - 601F_WM	Steel	Ø30	37P	Ø3.8	58mm	1,250g/m
	PL - 601F_BM	Steel	Ø30	37P	Ø3.8	58mm	1,250g/m
	PL - 601F_EM	Steel	Ø30	37P	Ø3.8	58mm	1,298g/m
	PL - 601F_WS	Steel Small	Ø16	18.5P	Ø3.8	58mm	1,293g/m
	PL - 601F_BS	Steel Small	Ø16	18.5P	Ø3.8	58mm	1,293g/m
	PL - 601F_ES	Steel Small	Ø16	18.5P	Ø3.8	58mm	1,353g/m
73 Series	PL - 731F_WL	Steel	Ø34	40P	Ø5.0	69mm	1,943g/m
	PL - 731F_BL	Steel	Ø34	40P	Ø5.0	69mm	1,943g/m
	PL - 731F_EL	Steel	Ø34	40P	Ø5.0	69mm	1,910g/m
	PL - 731F_TL	Steel	Ø34	40P	Ø5.0	69mm	2,110g/m
	PL - 731F_WS	Steel Small	Ø18	20P	Ø5.0	69mm	1,910g/m
	PL - 731F_TS	Steel Small	Ø18	20P	Ø5.0	69mm	2,150g/m
	PL - 732F_WL	Aluminum	Ø34	41.6P	Ø5.0	67mm	1,445g/m
	PL - 732F_EL	Aluminum	Ø34	41.6P	Ø5.0	67mm	1,445g/m
	PL - 732F_TL	Aluminum	Ø34	41.6P	Ø5.0	67mm	1,647g/m
	PL - 732F_WS	Aluminum Small	Ø18	20.8P	Ø5.0	67mm	1,757g/m
PL - 732F_TS	Aluminum Small	Ø18	20.8P	Ø5.0	67mm	1,757g/m	
80 Series	PL - 801F_WL	Steel	Ø35	37P	Ø5.0	76mm	2,186g/m
	PL - 801F_WX	Steel	Ø40	43P	Ø5.0	76mm	2,316g/m
	PL - 801M_WL	Steel	Ø33	21.5P	Ø5.0	76mm	2,370g/m
100 Series	PL - 1002F_TS	Aluminum Small	Ø18	20P	Ø4.9	96mm	2,370g/m
	PL - 1003F_TS	Aluminum Small	Ø18	20P	Ø4.9	96mm	2,810g/m

※ The specification may be subject to change without any prior notice.

Roller Track 35 Series

PL-351F_GM 35 Series - Steel

Roller Size : Ø28
 Roller Pitch : 33P
 Weight : 884g/m

● BK ● GR

PL-351G_GM 35 Series - Steel (Guide Roller)

Roller Size : Ø40
 Roller Pitch : 66P
 Weight : 814g/m

● BK ● GR

PL-351M_GM 35 Series - Steel (Multi Roller)

Roller Size : Ø27
 Roller Pitch : 16.5P
 Weight : 886g/m

● BK ● GR



Roller Track 40 Series

PL-401RF_WL 40 Series - Steel (Round Flat)

Roller Size : Ø34
Roller Pitch : 35.7P
Weight : 1,416g/m

ESD WH BK GR

PL-401R_WL 40 Series - Steel (Round)

Roller Size : Ø34
Roller Pitch : 35.7P
Weight : 1,416g/m

ESD WH BK GR

PL-401F_WM 40 Series - Steel

Roller Size : Ø30
Roller Pitch : 35.7P
Weight : 1,125g/m

WH BK

PL-403RF_WM 40 Series - Steel (Economic Roller)

Roller Size : Ø30
Roller Pitch : 35P
Weight : 1,416g/m

WH

PL-401F_YM 40 Series - Steel

Roller Size : Ø30
Roller Pitch : 35.7P
Weight : 1,248g/m

YL

PL-401F_EM 40 Series - Steel

Roller Size : Ø30
Roller Pitch : 35.7P
Weight : 1,180g/m

ESD

PL-401G_WM 40 Series - Steel (Guide Roller)

Roller Size : Ø46
Roller Pitch : 53.6P
Weight : 1,102g/m

WH

PL-401M_WM 40 Series - Steel (Multi Roller)

Roller Size : Ø27
Roller Pitch : 17.8P
Weight : 1,187g/m

WH

PL-402F_WM 40 Series - Aluminum

Roller Size : Ø27.5
Roller Pitch : 33.2P
Weight : 656g/m

WH

PL-402F_YM 40 Series - Aluminum

Roller Size : Ø27.5
Roller Pitch : 33.2P
Weight : 656g/m

YL

PL-402F_EM 40 Series - Aluminum (ESD Roller)

Roller Size : Ø27.5
Roller Pitch : 33.2P
Weight : 656g/m

ESD



Roller Track 60 Series

PL-601F_WM 60 Series - Steel

Roller Size : Ø30
Roller Pitch : 37P
Weight : 1,250g/m

WH

PL-601F_EM 60 Series - Steel (ESD Roller)

Roller Size : Ø30
Roller Pitch : 37P
Weight : 1,298g/m

ESD

PL-601F_WS 60 Series - Steel (Small Roller)

Roller Size : Ø16
Roller Pitch : 18.5P
Weight : 1,293g/m

WH

PL-601F_ES 60 Series - Steel (ESD Small Roller)

Roller Size : Ø16
Roller Pitch : 18.5P
Weight : 1,353g/m

ESD



Roller Track 73 Series



PL-731F_WL

73 Series - Steel

Roller Size : $\varnothing 34$
Roller Pitch : 40P
Weight : 1,943g/m

WH

PL-731F_EL

73 Series - Steel (ESD Roller)

Roller Size : $\varnothing 34$
Roller Pitch : 40P
Weight : 1,910g/m

ESD

PL-731F_TL

73 Series - Steel (TPU-ESD Roller)

Roller Size : $\varnothing 34$
Roller Pitch : 40P
Weight : 2,110g/m

TPU-ESD

PL-731F_WS

73 Series - Steel (Small Roller)

Roller Size : $\varnothing 18$
Roller Pitch : 20P
Weight : 1,910g/m

WH

PL-731F_TS

73 Series - Steel (TPU-ESD Small Roller)

Roller Size : $\varnothing 18$
Roller Pitch : 20P
Weight : 2,150g/m

TPU-ESD

PL-732F_WL

73 Series - Steel

Roller Size : $\varnothing 34$
Roller Pitch : 41.6P
Weight : 1,445g/m

WH

PL-732F_EL

73 Series - Steel (ESD Roller)

Roller Size : $\varnothing 34$
Roller Pitch : 41.6P
Weight : 1,445g/m

ESD

PL-732F_TL

73 Series - Steel (TPU-ESD Roller)

Roller Size : $\varnothing 34$
Roller Pitch : 41.6P
Weight : 1,647g/m

TPU-ESD

PL-732F_WS

73 Series - Steel (Small Roller)

Roller Size : $\varnothing 18$
Roller Pitch : 20.8P
Weight : 1,757g/m

WH

PL-732F_TS

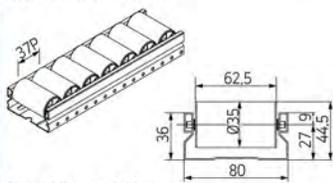
73 Series - Steel (TPU-ESD Small Roller)

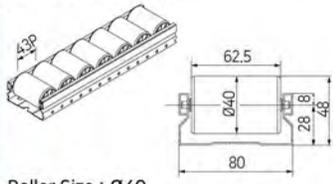
Roller Size : $\varnothing 18$
Roller Pitch : 20.8P
Weight : 1,757g/m

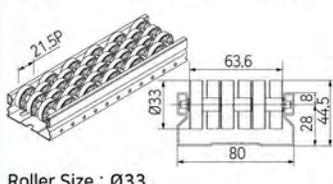
TPU-ESD



Roller Track 80 Series

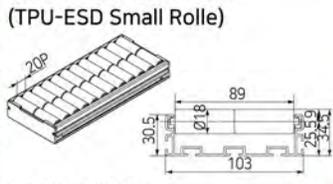
	<p>80 Series - Steel</p>  <p>Roller Size : Ø35 Roller Pitch : 37P Weight : 2,186g/m</p> <p style="text-align: right;">○ WH</p>
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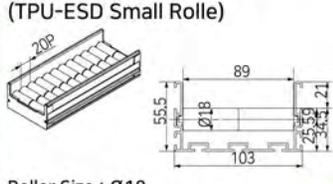
	<p>80 Series - Steel</p>  <p>Roller Size : Ø40 Roller Pitch : 43P Weight : 2,316g/m</p> <p style="text-align: right;">○ WH</p>
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	<p>80 Series - Steel (Multi Roller)</p>  <p>Roller Size : Ø33 Roller Pitch : 21.5P Weight : 2,370g/m</p> <p style="text-align: right;">○ WH</p>
--	--



Roller Track 100 Series

	<p>100 Series - Aluminum (TPU-ESD Small Rolle)</p>  <p>Roller Size : Ø18 Roller Pitch : 20P Weight : 2,810g/m</p> <p style="text-align: right;">TPU-ESD</p>
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	<p>100 Series - Aluminum (TPU-ESD Small Rolle)</p>  <p>Roller Size : Ø18 Roller Pitch : 20P Weight : 2,370g/m</p> <p style="text-align: right;">TPU-ESD</p>
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Roller Track CAP

PJ-140AL 40 Type Plastic Cap for Aluminum Frame

Weight : 5g
Quantity : 2,000pcs

○ WH

PJ-140ST 40 Type Plastic Cap for Steel Frame

Weight : 4g
Quantity : 1,600pcs

● BK

PJ-160ST 60 Type Plastic Cap for Steel Frame

Weight : 4g
Quantity : 2,000pcs

● BK

PJ-173ST 73 Type Plastic Cap for Steel Frame

Weight : 5g
Quantity : 1,200pcs

● BK

PJ-173AL 73 Type Plastic Cap for Aluminum Frame

Weight : 6g
Quantity : 1,300pcs

● BK

PJ-G100AL 100 Type Plastic Cap for Aluminum Frame

Weight : 13g
Quantity : 1,000pcs

● BK

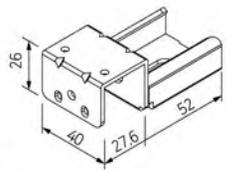
PJ-P100AL 100 Type Plastic Cap for Aluminum Frame

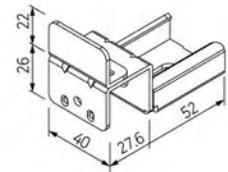
Weight : 10g
Quantity : 1,000pcs

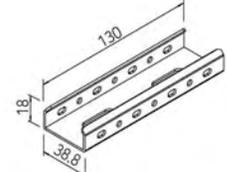
● BK

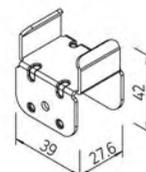


Roller Track Connector 35 Series

PM-3510A	Roller Track Mount 35-A
	 <p>Weight : 115g Quantity : 80pcs</p>

PM-3510B	Roller Track Mount 35-B
	 <p>Weight : 138g Quantity : 60pcs</p>

PM-3510C	Roller Track Mount 35-C
	 <p>Weight : 107g Quantity : 120pcs</p>

PM-3510E	Roller Track Mount 35-E
	 <p>Weight : 45g Quantity : 190pcs</p>



Roller Track Connector 40 Series



PM-4010A	Roller Track Mount 40-A
	Weight : 140g Quantity : 80pcs

PM-4010B	Roller Track Mount 40-B
	Weight : 167g Quantity : 60pcs

PM-4010BR	Roller Track Mount 40-BR
	Weight : 160g Quantity : 40pcs

PM-4010BS	Roller Track Mount 40-BS
	Weight : 243g Quantity : 30pcs

PM-4010BP	Roller Track Mount 40-BP
	Weight : 184g Quantity : 50pcs

PM-4010C	Roller Track Mount 40-C
	Weight : 125g Quantity : 100pcs

PM-4010D	Roller Track Mount 40-D
	Weight : 190g Quantity : 40pcs

PM-4010DA	Roller Track Mount 40-DA
	Weight : 243g Quantity : 30pcs

PM-4010E	Roller Track Mount 40-E
	Weight : 49g Quantity : 180pcs

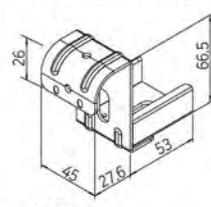
PM-4010X	Roller Track Mount 40-X
	Weight : 150g Quantity : 80pcs

PM-4011A	Roller Track Mount 40-A
	Weight : 130g Quantity : 70pcs

PM-4011B	Roller Track Mount 40-B
	Weight : 160g Quantity : 50pcs

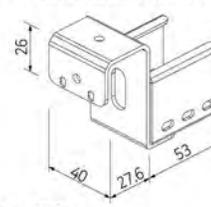
Roller Track Connector 40 Series

PM-4010BH NEW Roller Track Mount 40-BH

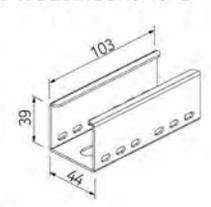
Weight : 160g
Quantity : 40pcs

PM-4011BW Roller Track Mount 40-BW

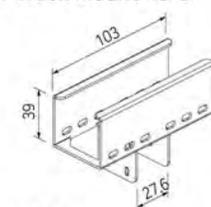
Weight : 170g
Quantity : 60pcs

PM-4011C Roller Track Mount 40-C

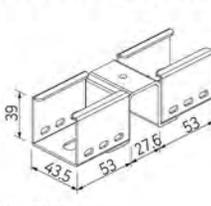
Weight : 154g
Quantity : 70pcs

PM-4011D Roller Track Mount 40-D

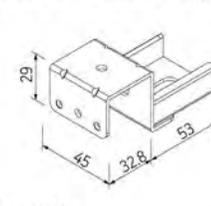
Weight : 163g
Quantity : 40pcs

PM-4011DA Roller Track Mount 40-DA

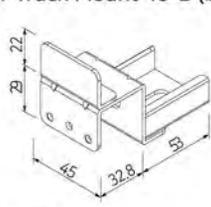
Weight : 267g
Quantity : 30pcs

PM-4012A Roller Track Mount 40-A (Ø32)

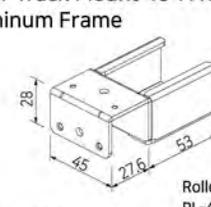
Weight : 163g
Quantity : 60pcs

PM-4012B Roller Track Mount 40-B (Ø32)

Weight : 195g
Quantity : 40pcs

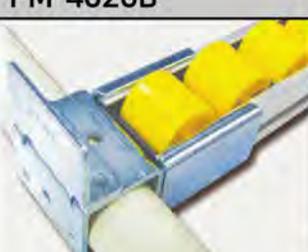
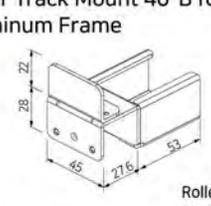
PM-4020A Roller Track Mount 40-A for Aluminum Frame

Weight : 177g
Quantity : 70pcs

Roller Track
PL-402F_WM
PL-402F_YM
PL-402F_EM

PM-4020B Roller Track Mount 40-B for Aluminum Frame

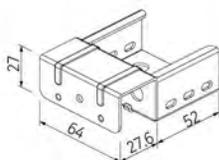
Weight : 182g
Quantity : 60pcs

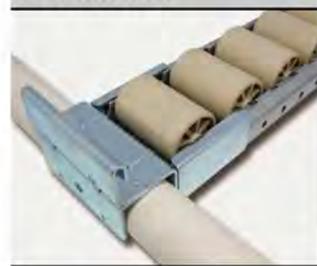
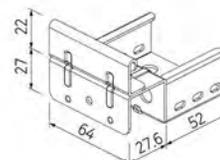
Roller Track
PL-402F_WM
PL-402F_YM
PL-402F_EM

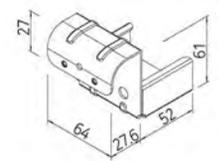


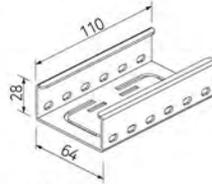
Roller Track Connector 60 Series

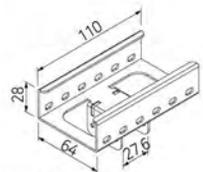


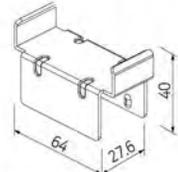
PM-6010A	Roller Track Mount 60-A
	 <p>Weight : 138g Quantity : 60pcs</p>

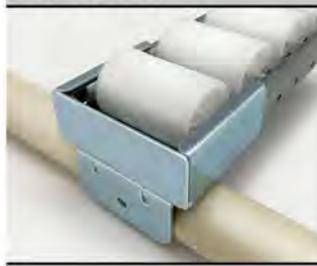
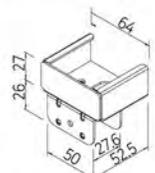
PM-6010B	Roller Track Mount 60-B
	 <p>Weight : 176g Quantity : 50pcs</p>

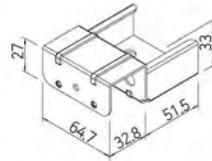
PM-6010BR	Roller Track Mount 60-BR
	 <p>Weight : 155g Quantity : 40pcs</p>

PM-6010C	Roller Track Mount 60-C
	 <p>Weight : 163g Quantity : 60pcs</p>

PM-6010D	Roller Track Mount 60-D
	 <p>Weight : 207g Quantity : 30pcs</p>

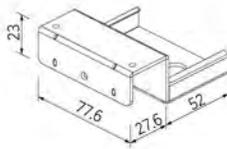
PM-6010E	Roller Track Mount 60-E
	 <p>Weight : 64g Quantity : 120pcs</p>

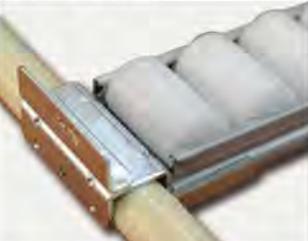
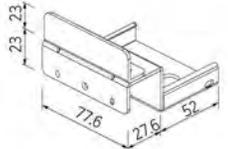
PM-6010X	Roller Track Mount 60-X
	 <p>Weight : 140g Quantity : 60pcs</p>

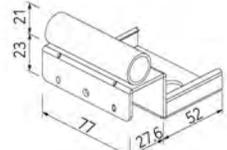
PM-6012A	Roller Track Mount 60-A (Ø32)
	 <p>Weight : 142g Quantity : 50pcs</p>

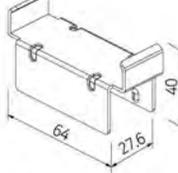


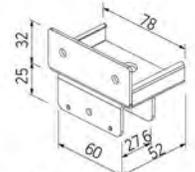
Roller Track Connector 73 Series

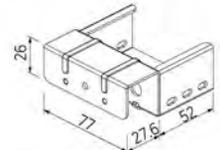
PM-7310A	Roller Track Mount 73-A
	
	Weight : 198g Quantity : 40pcs

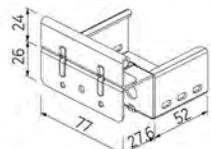
PM-7310B	Roller Track Mount 73-B
	
	Weight : 250g Quantity : 30pcs

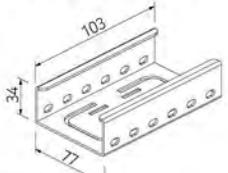
PM-7310BP	Roller Track Mount 73-BP
	
	Weight : 267g Quantity : 30pcs

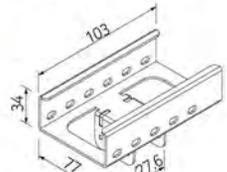
PM-7310E	Roller Track Mount 73-E
	
	Weight : 76g Quantity : 100pcs

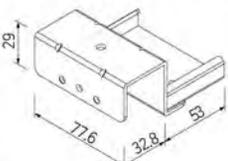
PM-7310X	Roller Track Mount 73-X
	
	Weight : 210g Quantity : 50pcs

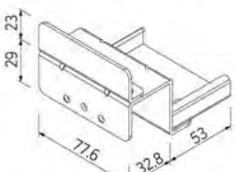
PM-7311A	Roller Track Mount 73-A
	
	Weight : 175g Quantity : 40pcs

PM-7311B	Roller Track Mount 73-B
	
	Weight : 227g Quantity : 30pcs

PM-7311C	Roller Track Mount 73-C
	
	Weight : 188g Quantity : 40pcs

PM-7311D	Roller Track Mount 73-D
	
	Weight : 195g Quantity : 20pcs

PM-7312A	Roller Track Mount 73-A (Ø32)
	
	Weight : 273g Quantity : 40pcs

PM-7312B	Roller Track Mount 73-B (Ø32)
	
	Weight : 350g Quantity : 30pcs



Roller Track Connector 80 Series



PM-8010A	Roller Track Mount 80-A
	Weight : 208g Quantity : 30pcs

PM-8010B	Roller Track Mount 80-B
	Weight : 202g Quantity : 20pcs

PM-8010BR	Roller Track Mount 80-BR
	Weight : 243g Quantity : 25pcs

PM-8010C	Roller Track Mount 80-C
	Weight : 193g Quantity : 50pcs

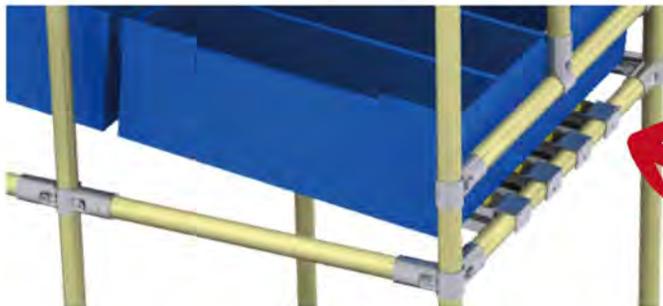
PM-8010D	Roller Track Mount 80-D
	Weight : 192g Quantity : 30pcs

PM-8010E	Roller Track Mount 80-E
	Weight : 101g Quantity : 80pcs

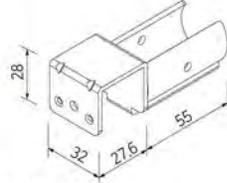
PM-8010L	Roller Track Mount 80-L
	Weight : 176g Quantity : 80pcs

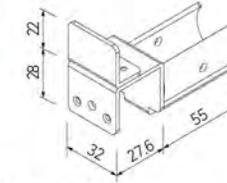
PM-8010R	Roller Track Mount 80-R
	Weight : 176g Quantity : 30pcs

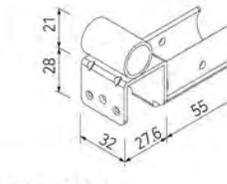
PM-8010X	Roller Track Mount 80-X
	Weight : 220g Quantity : 40pcs

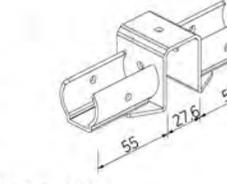


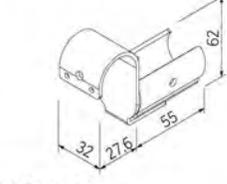
Roller Track Connector for Slide Pipe

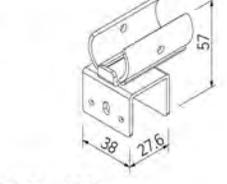
SM-2810A	Slide Mount-A
	 <p>Weight : 122g Quantity : 100pcs</p>

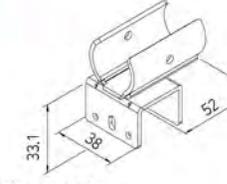
SM-2810B	Slide Mount-B
	 <p>Weight : 145g Quantity : 80pcs</p>

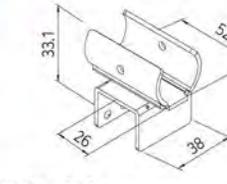
SM-2810BP	Slide Mount-BP
	 <p>Weight : 155g Quantity : 80pcs</p>

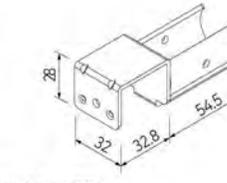
SM-2810C	Slide Mount-C
	 <p>Weight : 240g Quantity : 30pcs</p>

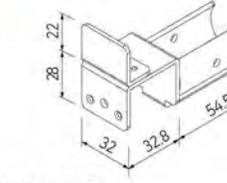
SM-2810D	Slide Mount-D
	 <p>Weight : 138g Quantity : 80pcs</p>

SM-2810G	Slide Mount-G
	 <p>Weight : 132g Quantity : 90pcs</p>

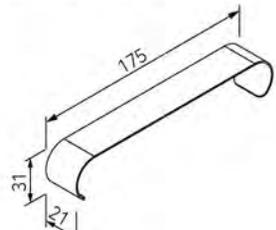
SM-2810L NEW	Slide Mount-L
	 <p>Weight : 118g Quantity :</p>

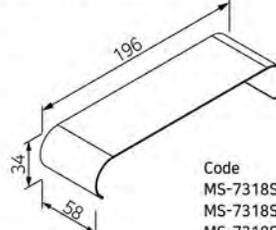
SM-2810J NEW	Slide Mount-J
	 <p>Weight : 118g Quantity :</p>

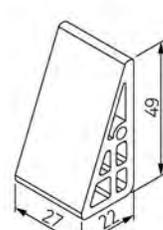
SM-2812A	Slide Mount-A (Ø32)
	 <p>Weight : 120g Quantity : 100pcs</p>

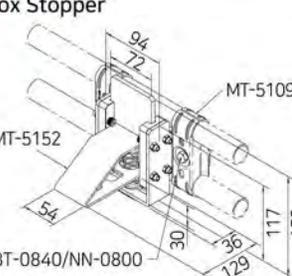
SM-2812B	Slide Mount-B (Ø32)
	 <p>Weight : 148g Quantity : 80pcs</p>

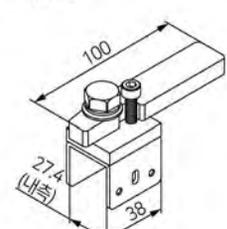
Stopper

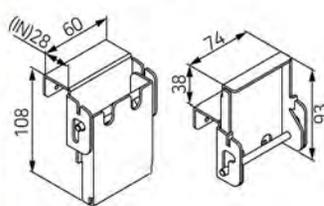
MS-4018SV	40" Middle Stopper
	 <p>Weight : 43g Quantity : 300m</p>

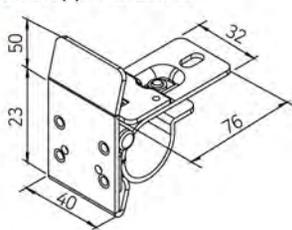
MS-7318SV	73" Middle Stopper
	 <p>Code MS-7318SV MS-7318SV-S MS-7318SV-L MS-6030SV-L MS-6016SV-S MS-8000SV</p> <p>Weight : 85g Quantity : 100pcs</p>

	PJ-1401BK Back Brake  <p>Weight : 10g Quantity : 1,300pcs</p>
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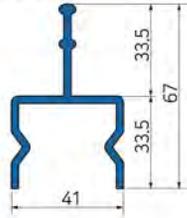
	MT-5152 NEW Box Stopper  <p>Weight : 1.4kg Quantity :</p>
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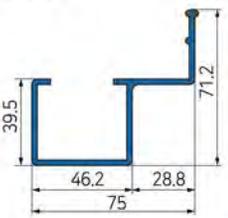
	MT-5320 Box Stopper  <p>Weight : 259g Quantity : 80pcs</p>
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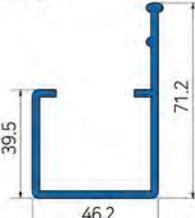
	MT-5321 Box Stopper-Front  <p>Weight : 364g Quantity : 20pcs</p>
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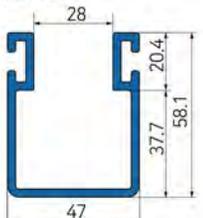
	MT-5322R NEW Back Stopper Bracket  <p>Bolt : WB-0610 Weight : 195g Quantity :</p>
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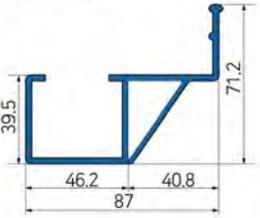
Guide Rail

<p>PA-401A</p> 	<p>Guide Rail-A Standard-3M</p>  <p>Length : 3m Weight : 619g</p> <p>● BK ● GR ● IV</p>
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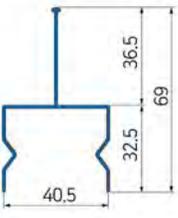
<p>PA-402B</p> 	<p>Guide Rail-B Standard-3M</p>  <p>Length : 3m Weight : 740g</p> <p>● BK ● GR ● IV</p>
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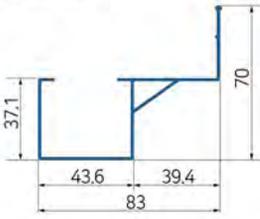
<p>PA-403C</p> 	<p>Guide Rail-C Standard-3M</p>  <p>Length : 3m Weight : 640g</p> <p>● BK ● GR ● IV</p>
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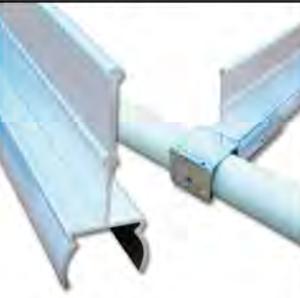
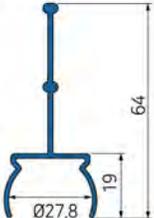
<p>PA-404D</p> 	<p>Guide Rail-D Standard-3M</p>  <p>Length : 3m Weight : 824g</p> <p>● BK ● GR ● IV</p>
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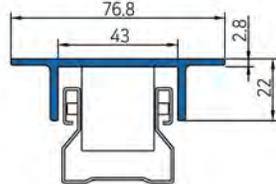
<p>PA-412B</p> 	<p>Guide Rail-G Standard-3M</p>  <p>Length : 3m Weight : 906g</p> <p>● BK ● GR ● IV</p>
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Aluminum Guide Rail

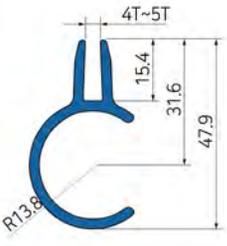
<p>PA-405A</p> 	<p>Aluminum Guide Rail-A Standard-4M</p>  <p>Length : 4m Weight : 520g</p>
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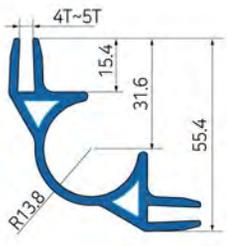
<p>PA-415B</p> 	<p>Aluminum Guide Rail-B Standard-4M</p>  <p>Length : 4m Weight : 793g</p>
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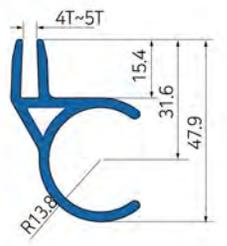
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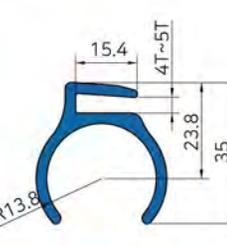
<p>APG-2840A</p> 	<p>Aluminum Guide Rail</p>  <p>Weight : 4kg Length : 4M Quantity : 8pcs</p>
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Sheet Guide

SC-0528A	Sheet Guide-A Standard-3M
	 <p>Length : 3m Weight : 364g</p> <p style="text-align: right;">● GR</p>

SC-0528B	Sheet Guide-B Standard-3M
	 <p>Length : 3m Weight : 683g</p> <p style="text-align: right;">● GR</p>

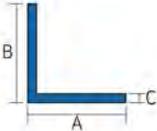
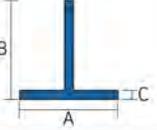
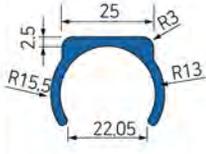
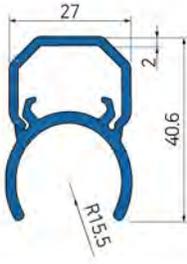
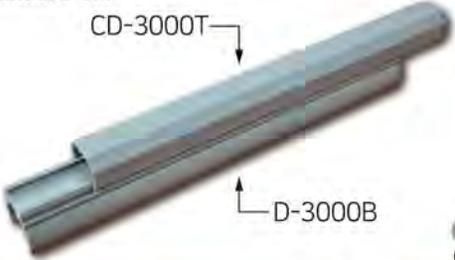
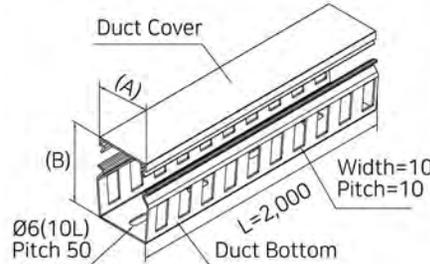
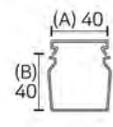
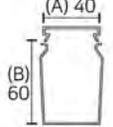
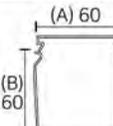
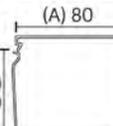
SC-0528C	Sheet Guide-C Standard-3M
	 <p>Length : 3m Weight : 473g</p> <p style="text-align: right;">● GR</p>

SC-0528D	Sheet Guide-D Standard-3M
	 <p>Length : 3m Weight : 382g</p> <p style="text-align: right;">● GR</p>

PP Honeycomb Panel



Plastic Angle / Pipe Cover / Cable Duct

Code	Weight (1M)	A	B	C	Type	Product	
PA-2350T3	340g/M	30	50	t3	L Type 	Plastic Angle Standard-3M  T-TYPE L-TYPE ● GR ● IV	
PA-2890T3	723g/M	80	90				
PA-2550T4	586g/M	50	50				
PA-2575T4	706g/M	50	75				
PA-2510T4	833g/M	50	100	t4	PA-2515T4 1,180g/M 50 150 PA-2520T4 1,430g/M 50 200		
PA-3510T4	793g/M	100	50				T Type 
PA-31550T4	1,121g/M	50	150				
PA-3160T4	1,106g/M	50	100				
PA-4028A	223g/M			t3		Pipe Cover Standard-3M  ● BK ● GR ● IV	
PA-4028B	280g/M			t2.5		Pipe Flat Cover Standard-3M  ● BK ● GR ● IV	
CD-3000T	158g/M					Cable Duct Standard-3M CD-3000T  ● GR	
CD-3000B	282g/M						
40x40mm	40x60mm	PVC Cable Duct Standard-2M 		 ● WH ● GR			
		60x60mm	80x60mm				

4 CASTER

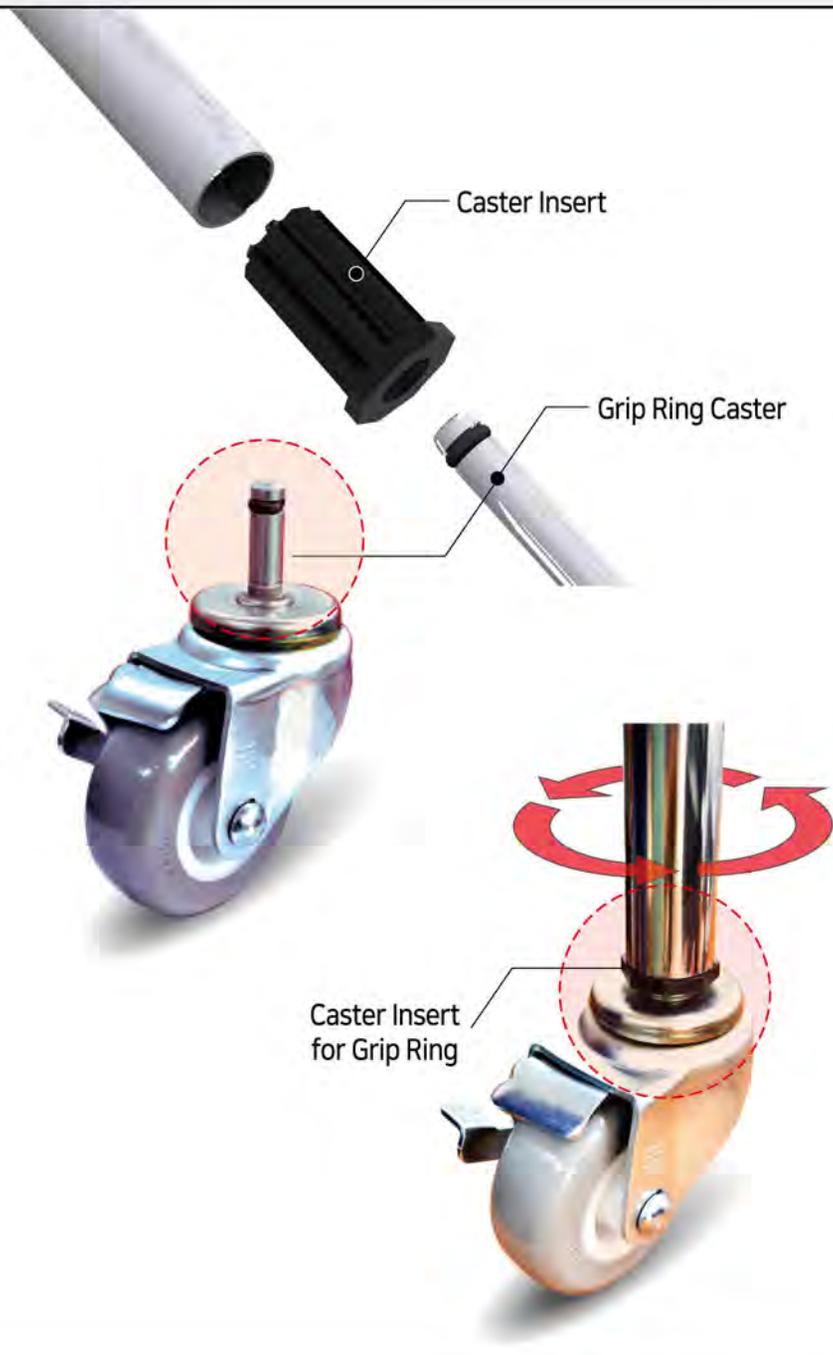
Light / Bolt / Medium / Cushion / Grip Ring / Ball

< Caster Type >

- ◆ Plate Type
 - Rigid
 - Swivel
 - Swive Break Lock
- ◆ Mount Type
- ◆ Bolt Type

< Caster Classify >

- ◆ Light Duty Caster
 - Plate Type
 - Plate ESD Type
 - Bolt Type
- ◆ Medium Duty Caster
 - Plate Low Type Low
 - Plate High Type
- ◆ Cushion Caster
 - Plate Type
- ◆ Grip Ring Caster
- ◆ Ball Caster

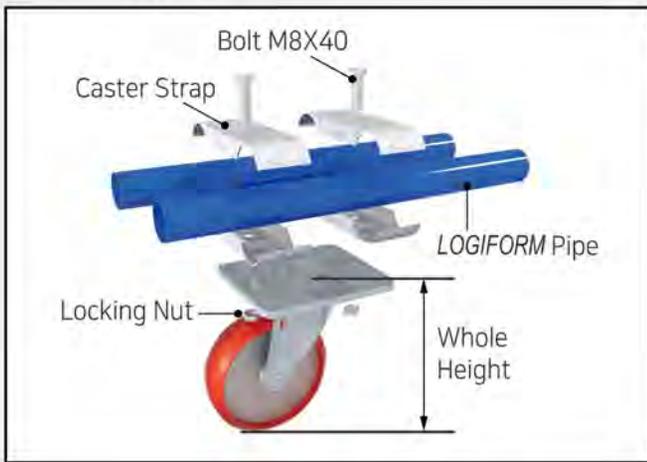


Caster Specification

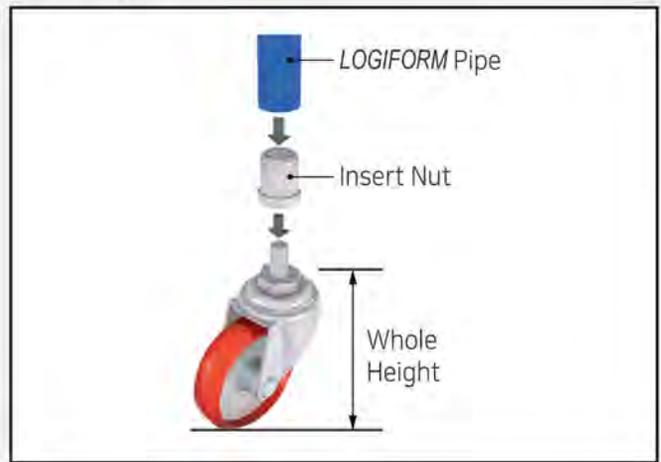
< Plate Type >



< Mount Type >



< Bolt Type >



< Dimension >

A	B	C	D	E
Swivel	Width	Diameter	Height	Offset

< Caster selection according to load >

$S = (W+A)/(n-1)$ (S: Safe load(kgf)
 W : Weight of mobile structure(kg)
 A : Weight of load(kg)
 N : Number of caster(pc)

- This calculation is subject to use on flat floor.
- Be aware that bumpy road can affect load capacity.
- You must follow recommended load capacity.

< 하중에 따른 캐스터 선정 방법 >

$S = (W+A)/(n-1)$ (S: 안전 허용 하중(kgf)
 W : 운송 장비 중량(kg)
 A : 추가 적재 하중(kg)
 N : 부착된 캐스터 수량(pc)

- 본 계산식은 일반적인 평탄한 노면 상태에서 사용하는 것을 전제로 합니다.
- 요철이 많은 비포장도로와 문턱 에서는 허용 하중이 급격하게 감소하므로 사용을 제한해야 합니다.
- 권장 허용 하중에 적합하지 않은 캐스터를 사용하면 제품 결함 및 안전사고의 원인이 될 수 있습니다.

Attention

Wholesalers should keep the content of the Manual in mind. And if necessary, request supplier for proper information about the product so as to give right information to assemblers and customers. It is a duty of assemblers to give particular attention to the Manual and request supplier for proper information in order to pass it to end users.

Operating Conditions Ground Condition

Generally, it is recommended to use HARD TYPE WHEELS on SOFT GROUND SURFACE, while SOFT TYPE WHEELS on HARD SURFACE. / However, it is advisable to use HIGH ELASTIC SOFT WHEELS to minimize noise and vibration, also to protect ground surface. But, HARD TYPE WHEELS should be used when working load is very heavy with much resistance while moving. / To keep controllability of brake, we should compare coefficient of friction of wheel to that of ground surface. In case, ground surface coefficient of friction is smaller than that of wheels, slippery happens on slope ground even with braking.

Comparison of Caster Friction Coefficients Corrosive Environment

Under corrosive environments such as restaurants or outdoor, seashore, castor lifetime is reduced due to corrosion and loss of grease from revolving components. / Our products with steel components are ZINC galvanized and CHROME PLATED etc. / However, for severe and extreme environmental conditions, stainless anti-rust casters with water resistance grease should be used.

Ambient Temperature

Under higher temperature where places with oven or steaming machine, or under lower temperature where equipped with refrigerators, caster strength is drastically reduced while grease on revolving parts is not properly working. / Under aforementioned environment, suitable wheels and grease as well should be selected through discussion between supplier and end users.

Oil and Chemical Materials

Lifetime of wheels and body is very much reduced by oils and chemical materials. / It is recommended to select suitable wheels and body to resist such adverse influences.

Precautions for Disposal

For scrapping caster, disassemble wheel from body to dispose respectively according to relevant laws and regulations. / If disposing them with general wastes without disassembling, it makes soil contamination and pollution consequently.

Check Regular Points

Following checkpoints should be inspected regularly at least at 3 month interval. / CHECK CASTER REVOLVING FUNCTION. / CHECK CASTER BRAKING WORKABILITY. / REMOVE FOREIGN MATERIALS FROM CASTER COMPONENTS. / CHECK WHEEL WORKABILITY. / CHECK GREASE ON REVOLVING PARTS

Wheel Performance

A : Favorable, B : Usable, C : Unusable

Classification	Material	Oil resistance	Acid resistance	tolerant Alkaline	Ozone resistance	Rebound resilience
SR Tread (ESD)	Solid Rubber (ESD)	C	C	B	C	B
P.U Tread	PolyUrethane	A	C	A	A	B

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Light Duty Caster - Plate Type

Image	Code	Option	 inch(mm)	 inch(mm)	 mm	 mm	 kg(max)	 mm	 mm	Wheel	Bearing	Weight (kg)	Q'ty Box
	CT-713RL	Rigid	3"	32	X	104	100	95x64	76 to 73x45	PLY	Ball	0.54	32
	CT-714RL	Rigid	4"	32	X	129	105	95x64	76 to 73x45	PLY	Ball	0.83	24
	CT-715RL	Rigid	5"	32	X	156	115	95x64	76 to 73x45	PLY	Ball	0.74	20
	CT-713SL	Swivel	3"	32	73	104	100	95x64	76 to 73x45	PLY	Ball	0.83	32
	CT-714SL	Swivel	4"	32	89	129	105	95x64	76 to 73x45	PLY	Ball	0.94	24
	CT-715SL	Swivel	5"	32	101	156	115	95x64	76 to 73x45	PLY	Ball	1.03	20
	CT-713BL	Swivel Break Lock	3"	32	73	104	100	95x64	76 to 73x45	PLY	Ball	0.88	32
	CT-714BL	Swivel Break Lock	4"	32	89	129	105	95x64	76 to 73x45	PLY	Ball	1.03	24
	CT-715BL	Swivel Break Lock	5"	32	101	156	115	95x64	76 to 73x45	PLY	Ball	1.12	20

(Wheel = PLY : Polyurethane Tread / Plastic Center Wheels), (Bearing = Ball : Wheel Bearing Type)

Light Duty Caster - Plate ESD ⚡ Type

Image	Code	Option	 inch(mm)	 inch(mm)	 mm	 mm	 kg(max)	 mm	 mm	Wheel	Bearing	Weight (kg)	Q'ty Box
	CT-713RE	Rigid	3"	32	X	104	56	95x64	76 to 73x45	SR (ESD)	Ball	0.58	32
	CT-714RE	Rigid	4"	32	X	129	75	95x64	76 to 73x45	SR (ESD)	Ball	0.88	24
	CT-715RE	Rigid	5"	32	X	156	80	95x64	76 to 73x45	SR (ESD)	Ball	1.17	20
	CT-713SE	Swivel	3"	32	73	104	56	95x64	76 to 73x45	SR (ESD)	Ball	0.87	32
	CT-714SE	Swivel	4"	32	89	129	75	95x64	76 to 73x45	SR (ESD)	Ball	1.05	24
	CT-715SE	Swivel	5"	32	101	156	80	95x64	76 to 73x45	SR (ESD)	Ball	1.24	20
	CT-713BE	Swivel Break Lock	3"	32	73	104	56	95x64	76 to 73x45	SR (ESD)	Ball	0.93	32
	CT-714BE	Swivel Break Lock	4"	32	89	129	75	95x64	76 to 73x45	SR (ESD)	Ball	1.32	24
	CT-715BE	Swivel Break Lock	5"	32	101	156	80	95x64	76 to 73x45	SR (ESD)	Ball	1.72	20

(Wheel = SR : Soft Rubber Wheels), (Bearing = Ball : Wheel Bearing Type)

Light Duty Caster - Bolt Type

Image	Code	Option	Size "A" inch	 inch(mm)	 inch(mm)	 mm	 mm	 kg(max)	Wheel	Bearing	Weight (kg)	Q'ty Box
	CT-702S	Swivel	1/2"	2"	20	44	72	35	PLY	Plain	0.16	160
	CT-702B	Swivel Break Lock	1/2"	2"	20	44	72	35	PLY	Ball	0.16	160
	CT-703S	Swivel	1/2"	3"	32	73	108	100	PLY	Ball	0.69	32
	CT-704S	Swivel	5/8"	4"	32	89	133	105	PLY	Ball	0.79	24
	CT-703B	Swivel Break Lock	1/2"	3"	32	73	108	100	PLY	Ball	0.75	32
	CT-704B	Swivel Break Lock	5/8"	4"	32	89	133	105	PLY	Ball	0.89	24

(Wheel = PLY : Polyurethane Tread / Plastic Center Wheels), (Bearing = Plain / Ball : Wheel Bearing Type)

Medium Duty Caster - Plate Low Type

Image	Code	Option								Wheel	Bearing	Weight (kg)	Q'ty Box
			inch(mm)	inch(mm)	mm	mm	kg(max)	mm	mm				
 RD	CT-714RH	Rigid	4"	38	X	137	200	114x102	92~76 76~66	PU	Ball	1.72	10
	CT-715RH	Rigid	5"	40	X	165	250	120x102	92~76 76~66	PU	Ball	2.15	10
	CT-716RH	Rigid	6"	44	X	190	270	120x102	92~76 76~66	PU	Ball	2.63	8
 RD	CT-714SH	Swivel	4"	38	82	137	200	114x102	92~76 76~66	PU	Ball	1.85	10
	CT-715SH	Swivel	5"	40	90	165	250	120x102	92~76 76~66	PU	Ball	2.58	10
	CT-716SH	Swivel	6"	44	108	190	270	120x102	92~76 76~66	PU	Ball	2.94	8
 RD	CT-714BH	Swivel Break Lock	4"	38	82	137	200	114x102	92~76 76~66	PU	Ball	1.85	10
	CT-715BH	Swivel Break Lock	5"	40	90	165	250	120x102	92~76 76~66	PU	Ball	2.77	10
	CT-716BH	Swivel Break Lock	6"	44	108	190	270	120x102	92~76 76~66	PU	Ball	3.14	8

(Wheel = PU : Polyurethane), (Bearing Roller - #001 : 40 ↓, #003 : 40 ↑)

Medium Duty Caster - Plate High Type

Image	Code	Option								Wheel	Bearing	Weight (kg)	Q'ty Box
			inch(mm)	inch(mm)	mm	mm	kg(max)	mm	mm				
 RD	CT-714RW	Rigid	4"	48	X	141	320	114x102	92~76 76~66	PU	Ball	1.89	10
	CT-715RW	Rigid	5"	48	X	165	340	120x102	92~76 76~66	PU	Ball	2.09	10
	CT-716RW	Rigid	6"	48	X	190	360	120x102	92~76 76~66	PU	Ball	2.58	8
 RD	CT-714SW	Swivel	4"	48	76	137	320	114x102	92~76 76~66	PU	Ball	2.27	10
	CT-715SW	Swivel	5"	48	90	165	340	120x102	92~76 76~66	PU	Ball	2.51	10
	CT-716SW	Swivel	6"	48	108	190	360	120x102	92~76 76~66	PU	Ball	3.1	8
 RD	CT-714BW	Swivel Break Lock	4"	48	76	137	320	114x102	92~76 76~66	PU	Ball	2.42	8
	CT-715BW	Swivel Break Lock	5"	48	90	165	340	120x102	92~76 76~66	PU	Ball	2.66	8
	CT-716BW	Swivel Break Lock	6"	48	108	190	360	120x102	92~76 76~66	PU	Ball	3.21	6

(Wheel = PU : Polyurethane)

Cushion Caster - Plate Type

Image	Code	Option								Wheel	Bearing	Weight (kg)	Q'ty Box
			inch(mm)	inch(mm)	mm	mm	kg(max)	mm	mm				
	SA2060R	Rigid	6"	48	128	203	360	160x115	129x72.5	Poly Urethane	Ball	5.146	4
	SA2060	Swivel	6"	48	128	203	360	160x115	129x72.5	Poly Urethane	Ball	5.876	4
	SA2060B	Swivel Break Lock	6"	48	128	203	360	160x115	129x72.5	Poly Urethane	Ball	5.46	4

※Please contact our sales office with reference to the additional options available

Grip Ring Caster

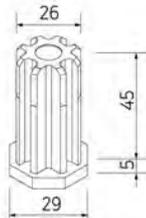
Image	Code	Option	Threads Specification	 inch(mm)	 inch(mm)	 mm	 mm	 kg(max)	Wheel	Bearing	Weight (kg)	Q'ty Box
	CT-703RR	Rigid	Ø11x38mm	3"	48	X	141	320	PU	Ball	1.89	10
	CT-703SR	Swivel	Ø11x38mm	3"	48	76	141	320	PU	Ball	2.27	10
	CT-703BR	Swivel Break Lock	Ø11x38mm	3"	48	76	141	320	PU	Ball	2.42	8

(Wheel = PU : Polyurethane)

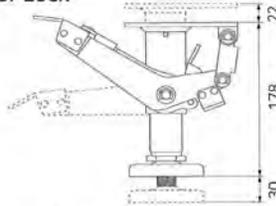
Ball Caster

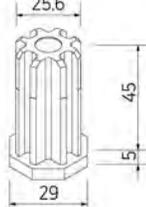
Image	Code	Option	 inch(mm)	 kg(max)	Weight (kg)
	BC-701S	Swivel	1"	20	135.7

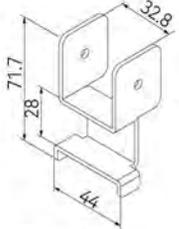
Caster Insert

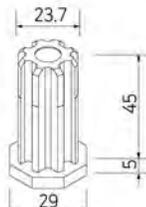
CI-1109SP	Caster Insert SUS Pipe Ø26x0.9
	
	Weight : 23g ● BK

Floor Lock / Fixing Holder

MT-5148	Floor Lock																				
																					
	<table border="1"> <thead> <tr> <th>No</th> <th>Weight</th> <th>Quantity</th> <th>Color</th> </tr> </thead> <tbody> <tr> <td>4"</td> <td>1.14Kg</td> <td>30pcs</td> <td>Silver</td> </tr> <tr> <td>5"</td> <td>1.18Kg</td> <td>20pcs</td> <td>Silver</td> </tr> <tr> <td>6"</td> <td>2.65Kg</td> <td>8pcs</td> <td>Green</td> </tr> <tr> <td>8"</td> <td>2.57Kg</td> <td>8pcs</td> <td>Green</td> </tr> </tbody> </table> ● GN ● SV	No	Weight	Quantity	Color	4"	1.14Kg	30pcs	Silver	5"	1.18Kg	20pcs	Silver	6"	2.65Kg	8pcs	Green	8"	2.57Kg	8pcs	Green
No	Weight	Quantity	Color																		
4"	1.14Kg	30pcs	Silver																		
5"	1.18Kg	20pcs	Silver																		
6"	2.65Kg	8pcs	Green																		
8"	2.57Kg	8pcs	Green																		

CI-1111SP	Caster Insert SUS Pipe Ø25.6x1.1
	
	Weight : 23g ● BK

MT-5311	Caster Fixing Holder
	
	Weight : 72kg Quantity : 120pcs

CI-1110LP	Caster Insert LOGIFORM Pipe Ø23.7x1
	
	Weight : 23g ● BK

Before using caster, please read this manual carefully to use it properly.

And keep it at suitable place for your referring whenever you have questions and it needs repairing.

※ Wholesaler of the product and/or supplier of assembled device should keep this manual in mind to explain its specifications in detail to customers and end users

Warning : Before using caster-assembled device, both assembler and end user should read this manual very carefully to avoid unforeseen accidents and dangers. The safety cautions should be strictly respected and followed.

<Table> Warnings and Precautions

► USERS SHOULD STRICTLY FOLLOW WARNING AND CAUTION SIGNS.

	Assemble caster at right angle vertically		No contamination from chemical materials		Sharp tools should not be used
	No overload allowed.		Be careful to prevent dangers on foot		Keep speed limit (4km/h)
	Use it on proper ground condition only		Parallel assembling to moving direction		Limit longer and continuous moving
	No excessive ambient temperature influence		No physical shock to caster and inadvertent falling		
	No moving while braking		No additional load influence from sides		

Caution

IT SHOULD BE ASSEMBLED ON PRE-DESIGNED POSITION IN PRECISE AND SAFE MANNER.

- ① The suitable base board and base position to be assembled should have enough strength to stand load.
- ② Connecting work to base board should not give bad influence on caster moving.
- ③ Revolving caster should be assembled at right angle of axis vertically.
- ④ Fixed caster should be assembled in parallel with moving direction. In case assembling revolving caster only, it should be assembled in same manner.
- ⑤ For assorted assembling of revolving and fixed caster, please refer to specifications of caster to find right and suitable assortment from supplier catalog.

※ DO NOT CHANGE COMPONENTS FROM CASTER SPECIFICATIONS.

Caster Specifications for Certain Conditions

For use at corrosive, outdoor environments or seashore, specially designed casters should be used.

Caster operating temperature range is FROM 5°C TO 30°C.

Under excessive temperature beyond above range, its allowed load may lower than the specification.

In this case, specially made casters should be used.

Regular Inspection

Casters should be inspected and tested regularly on following points.

Grease axle and revolving parts as well and remove foreign materials from caster.

Fasten loosened connecting parts to base board.

Check caster to find its proper workability in order to replace improper components immediately.

캐스터 취급 설명서

사용 전에 본 취급설명서를 잘 읽으신 후 바르게 사용해 주십시오.

읽으신 후에는 소중히 보관해 주시고 취급상 의문사항이나 결함이 생겼을 경우에 유용하게 활용하여 주십시오.

※ 중간 판매자와 완성품 업자는 본 취급설명서의 전체 내용을 숙지하여 판매 시에 전달교육을 실시해야 합니다.

경고 : 캐스터를 부착하고 사용하기 전에, 부착자와 사용자는 우발적인 사고 및 위험과 재해를 피하기 위하여 본 취급설명서에 기재된 안전 수칙과 제품 정보를 주의 깊게 읽으시기 바라며, 이러한 안전 수칙은 반드시 준수되어야 합니다.

<표> 경고 및 주의 사항

▶ 사용자는 경고 및 주의기호를 준수하여야 합니다.

	캐스터 축에 대한 수칙 부착		화학약품 접촉 금지		예리한 이물질 접촉금지
	초과하중 금지		발 상해 위험		속도제한(4km/h)
	부적당한 바닥 사용제한		이동방향에 대한 직선 부착		연속이동제한(2시간이내)
	특수 온도 금지		충격 낙하 금지		
	브레이크 작동 후 이동금지		측면하중 작용금지		

주의사항

- ① 미리 설계된 위치에 정확하고 안전하게 부착되어야 합니다.
- ② 부착 되어지는 위치는 충분한 강도와 재질을 가져야 합니다.
- ③ 부착 작업 때문에 캐스터와 바퀴가 해로운 영향을 받아서는 안됩니다.
- ④ 회전형 캐스터는 회전축이 수직으로 되도록 부착해야 합니다.
- ⑤ 고정 캐스터는 바퀴축이 이동방향에 대하여 직선이 되도록 부착해야 합니다.
(만일 회전형 캐스터만 부착할 경우에도 같은 방법으로 사용해야 합니다.)
- ⑥ 회전형과 고정형 캐스터를 공동으로 부착한다면 카달록에 수록된 제품규격에 맞도록 사용해야 합니다.
- ⑦ 캐스터 완제품 사양에서 조립품과 구성부품을 변경하거나 개조하지 말아야 합니다.

A. 특수한 사용환경에 따른 캐스터 사양

제품에 부식이 발생할 수 있는 실외 환경이나 비닷가에서 사용할 때에는 특수하게 제작된 캐스터를 사용해야 합니다. 5℃ 이하와 30℃ 이상인 온도에서 사용할 때에는 온도의 하한치의 상한치를 벗어나는 영향으로 허용하중이 감소하기 때문에 특수하게 제작된 캐스터를 사용해야 합니다.

B. 제품점검

캐스터는 사용조건에 따라서 주기적으로 아래 사항들을 점검해야 합니다.
축과 회전부위에 다시 그리스를 공급하고 이물질들을 제거 합니다.
분리가 가능한 연결장치를 다시 조여야 합니다.
캐스터의 기능을 점검하여 기능장애를 일으키는 제품과 부품은 즉시 교체하여야 합니다.

C. 준수사항

중간 판매자는 이 취급설명서에 주의하여야 하며 필요에 따라 공급사로부터 제품 정보를 요구하고 완성품 업자에게 전달하여야 할 의무가 있습니다.
완성품 업자들은 이 취급설명서에 주의하여야 하며 필요에 따라 제품 정보를 요구하고 사용자에게 전달하여야 할 의무가 있습니다.

D. 사용환경

노면 환경 - 일반적으로 연질의 노면인 경우에는 경질의 바퀴를, 경질의 바닥인 경우에는 연질의 바퀴를 사용하는 것이 좋습니다. 그러나 사용 장비에 진동과 소음을 줄이고 바닥을 보호하기 위해서 고탄성의 연질 바퀴를 사용하는 것이 좋습니다.
단, 사용하중이 무겁기 때문에 기동할 때에 저항력이 많이 발생하여 장비를 움직이기 어렵다면 경질의 바퀴를 사용하여야 합니다.
브레이크의 작동력을 유지하기 위해서 노면의 바퀴와 마찰계수를 비교하여야 합니다.
만약 노면의 마찰계수가 바퀴의 마찰계수보다 작을 경우에는 브레이크를 작동하여도 경사지에서 바퀴가 미끄러지는 현상이 발생합니다. (바퀴의 마찰계수 비교)

E. 부식환경

사용 환경이 식염이나 실외, 비닷가 등 수분 또는 염분이 많이 발생하는 환경에서는 몸체의 부식과 회전 부분의 그리스 유실 등으로 수명이 감소합니다.
당사 제품은 철강부품을 아연도금과 크롬도금 등으로 표면처리하여 제조하고 있습니다.
그러나 특히 가혹한 환경에서는 스테인리스강으로 제조된 녹 방지 캐스터와 내수 성능을 가지고 있는 그리스로 제조된 캐스터로 특수 제작을 해야 합니다.

F. 온도환경

모든과 스팀실같이 높은 온도나 냉동실의 낮은 온도인 환경에서 사용한다면, 특수온도의 영향으로 바퀴의 강도가 급격하게 감소되고 회전부분에 도포된 그리스가 기능을 할 수 없게 됩니다.
이와 같은 특수한 온도 환경에서는 당사와 사전에 협의하여 적절한 바퀴와 그리스를 선정해야 합니다.

G. 기름과 화학약품

기름이나 화학약품에 노출되어 사용하는 환경이라면 바퀴와 몸체가 쉽게 노화되어 수명이 감소합니다.
이와 같은 기름과 화학약품에 충분히 견딜 수 있는 바퀴와 몸체를 선정해야 합니다.

H. 폐기시의 주의사항

캐스터를 폐기할 경우에는 본체와 바퀴를 분리한 후 폐기를 관리법에 따라 폐기하십시오.
일반 쓰레기와 같이 버리면 환경오염 등 공해를 유발하게 됩니다.

I. 정기 점검 사항

- ① 캐스터의 정기점검은 아래와 같은 사항들을 최소 3개월 단위로 점검해야 합니다.
- ② 캐스터의 회전 기능을 점검 합니다.
- ③ 캐스터의 브레이크 작동상태를 점검합니다.
- ④ 캐스터에 묻은 이물질들을 제거합니다.
- ⑤ 바퀴의 구름 성능을 점검합니다.
- ⑥ 캐스터의 회전 부분의 그리스 상태를 점검합니다.

J. 바퀴성능

A : 양호, B : 사용가능, C : 사용불가

품 명	재 질	내구성	내산성	내알카리성	내오존	반발탄성
SR Tread (ESD)	Solid Rubber (ESD)	C	C	B	C	B
P.U Tread	PolyUrethane	A	C	A	A	B

·본 취급설명서의 내용을 당사의 허가 없이 무단 전재, 복사, 유포해서는 안됩니다.

5 ACCESSORY

Accessory

- Caster Corner Plate 74
- Caster Mount 76
- Clamp 77
- Connector 78
- Pipe Rest 78
- Hinge 79
- Bracket 79
- Traction Arm 80
- Pintle Hoo 81
- Door Stop 81
- Hanger 82
- Hook 82
- Cap 83
- Insert Nut 85
- Adjuster 87
- Name Plate 88
- Hose / Board / Sheet 90
- Fastener / Tool 91



PRODUCT CODE

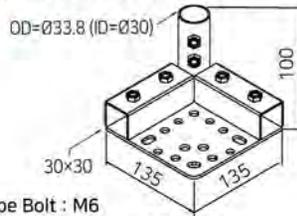
AD	- 30	12	I	S	M
M	R	L	P	R	X
↓	↓	↓	↓	↓	↓
ADJUSTER	CAP SIZE (30 & 50)	THREAD DIAMETER (나사산크기)	THREAD MEASURE (나사산호칭)	BASE TYPE (타입)	THREAD LENGTH (볼트길이)
		1/2" : 12 M10 : 10 M12 : 12	inch : I mm : M	STEEL : S PLASTIC : P RUBBER : R	30mm : S 50mm : M 100mm : L 150mm : X

Caster Corner Plate for Square Pipe

STC-3002N

NEW

Square Tube Corner Plate

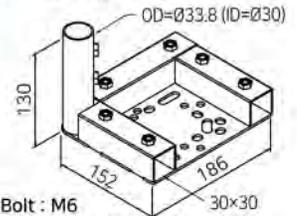


Pipe Bolt : M6
Caster Bolt : M8, M10
Caster Nut : M8, M10
Weight : 902g
Quantity : 12pcs

STC-3001LN

NEW

Square Tube Corner Plate-Left

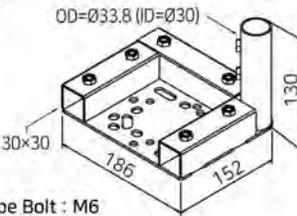


Pipe Bolt : M6
Caster Bolt : M8, M10
Caster Nut : M8, M10
Weight : 1,578g
Quantity : 12pcs

STC-3001RN

NEW

Square Tube Corner Plate-Right

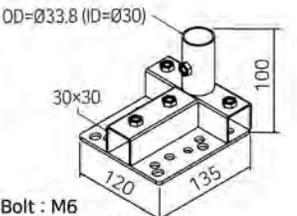


Pipe Bolt : M6
Caster Bolt : M8, M10
Caster Nut : M8, M10
Weight : 1,570g
Quantity : 12pcs

STC-3091N

NEW

Square Tube Corner Plate

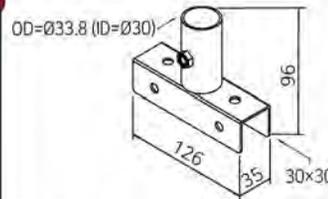


Pipe Bolt : M6
Caster Bolt : M8, M10
Caster Nut : M8, M10
Weight : 842g
Quantity : 15pcs

STC-3092N

NEW

Square Tube Corner Plate

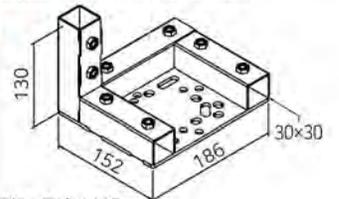


Pipe Bolt : M6
Weight : 280g
Quantity : 60pcs

SCP-3021LN

NEW

Square Corner Plate-Left

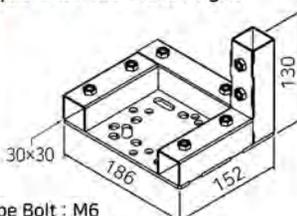


Pipe Bolt : M6
Caster Bolt : M8, M10
Caster Nut : M8, M10
Weight : 1,632g
Quantity : 12pcs

SCP-3021RN

NEW

Square Corner Plate-Right

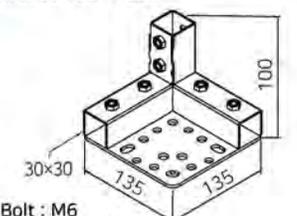


Pipe Bolt : M6
Caster Bolt : M8, M10
Caster Nut : M8, M10
Weight : 1,636g
Quantity : 12pcs

SCP-3022N

NEW

Square Corner Plate

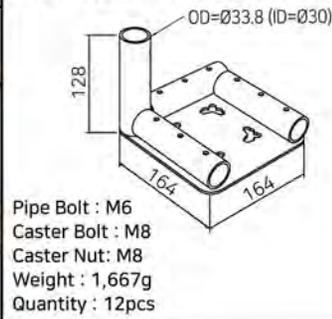


Pipe Bolt : M6
Caster Bolt : M8, M10
Caster Nut : M8, M10
Weight : 946g
Quantity : 12pcs

Caster Corner Plate

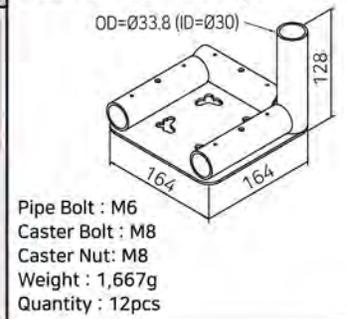
MT-5139L

Caster Corner Plate Left



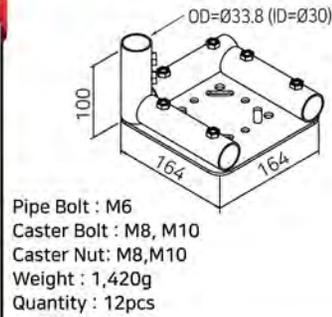
MT-5139R

Caster Corner Plate Right



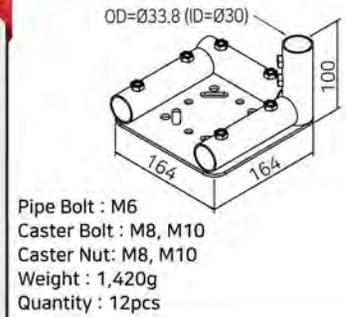
TCP-2801LN

Tube Corner Plate Left



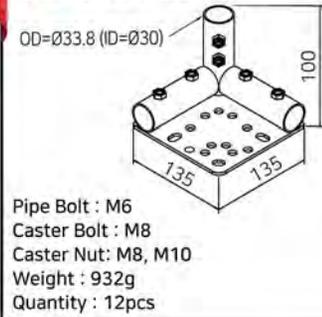
TCP-2801RN

Tube Corner Plate Right



TCP-2802N

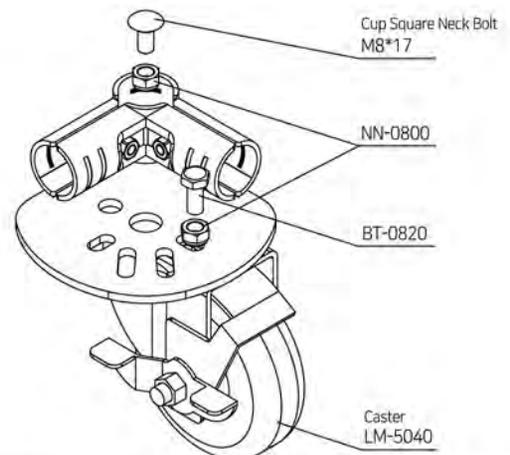
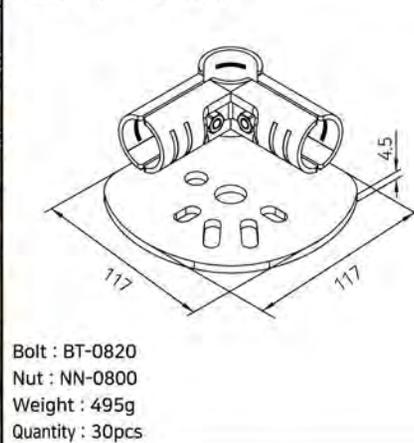
Tube Corner Plate



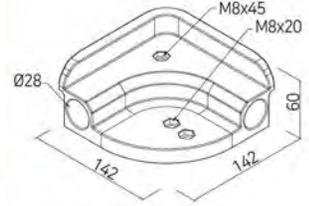
Caster Mount

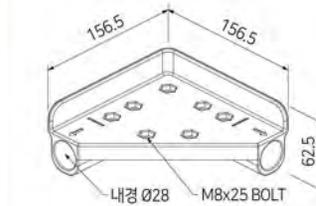
MT-5401

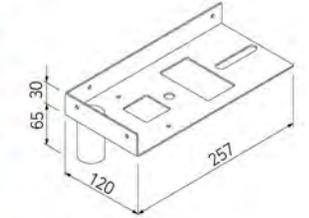
Caster Attached Joint

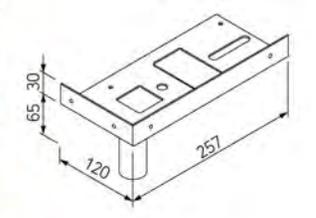


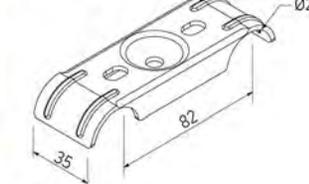
Caster Mount

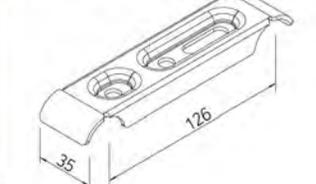
CG-0142A	Corner Guard
	 <p>Weight : 213.3g Quantity : 35pcs</p>

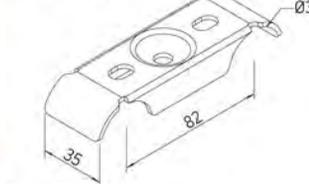
CG-0150BK	Corner Guide
	 <p>Weight : 195g Quantity : 40pcs</p>

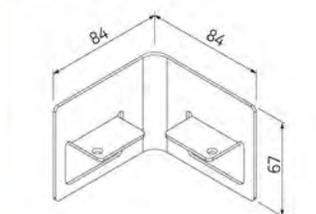
MT-5138L	Corner Plate-Left
	 <p>Weight : 775.5g Quantity : 20pcs</p>

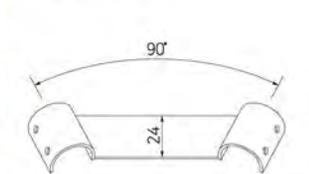
MT-5138R	Corner Plate-Right
	 <p>Weight : 770g Quantity : 20pcs</p>

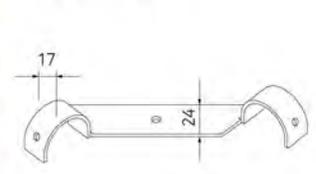
MT-5109	Caster Strap
	 <p>Bolt : BT-0840 Nut : NN-0800 Weight : 100g Quantity : 150pcs</p>

MT-5109L	Caster Strap-Large
	 <p>Bolt : BT-0840 Nut : NN-0800 Weight : 138.3g Quantity : 120pcs</p>

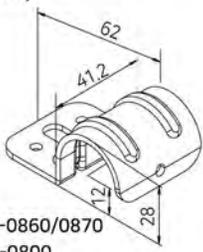
MT-5209	Caster Strap
	 <p>Bolt : BT-0840 Nut : NN-0800 Weight : 102.7g Quantity : 120pcs</p>

MT-5118	Corner Guard
	 <p>Weight : 172.2g Quantity : 30pcs</p>

MT-5116	Board Bracket-A
	 <p>Weight : 108.8g Quantity : 50pcs</p>

MT-5117	Board Bracket-B
	 <p>Weight : 70.8g Quantity : 50pcs</p>

MT-5110A NEW Pipe Clamp

Bolt : BT-0860/0870
Nut : NN-0800
Weight : 63.2g
Quantity : 150pcs

MT-5110 Pipe Clamp-A



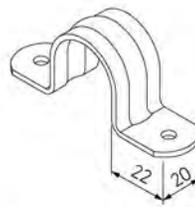

Screw : FS-0819
Weight : 56.6g
Quantity : 300pcs

MT-5111 Pipe Clamp-B



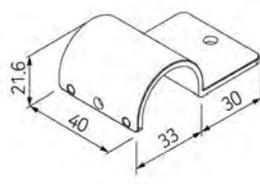

Weight : 14g
Quantity : 400pcs

MT-5112 Pipe Clamp-C

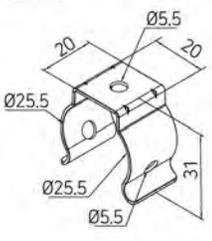
Weight : 23.2g
Quantity : 200pcs

MT-5113 Board Clamp-A

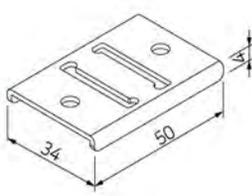
Weight : 61.3g
Quantity : 150pcs

MT-5114 Board Clamp-B

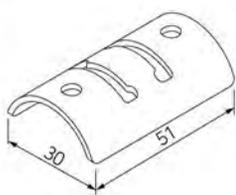
Weight : 6.6g
Quantity : 400pcs

MT-5130A Handle Clamp-A

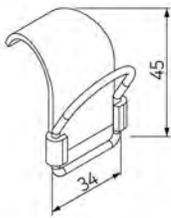
Weight : 20.5g
Quantity : 600pcs

MT-5130B Handle Clamp-B

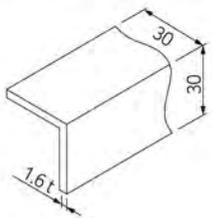
Weight : 21.6g
Quantity : 600pcs

MT-5125 Band Hanger

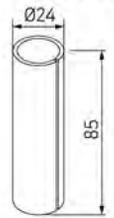
Weight : 47.6g
Quantity : 150pcs

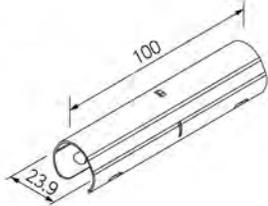
MT-5211 ZN Plating Angle (3M Standard)

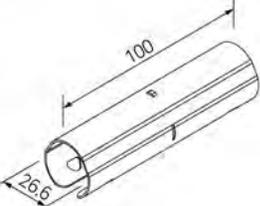



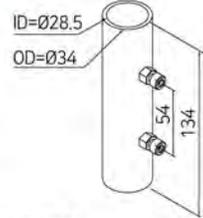
Weight : 2.3g
Quantity :

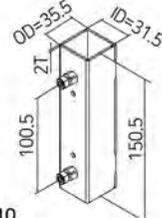
Accessory

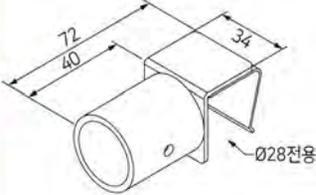
MT-5123	Pipe Connector for LOGIFORM Pipe t1.0
	 <p>Weight : 73.3g Quantity : 150pcs</p>

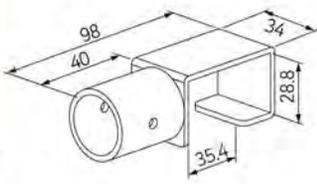
MT-5123C	Pipe Connector for Coating Pipe
	 <p>Weight : 36g Quantity : 150pcs</p>

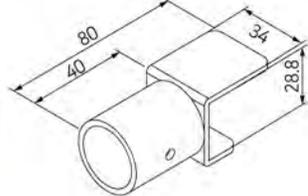
MT-5123S	Pipe Connector for Stainless Pipe
	 <p>Weight : 45g Quantity : 150pcs</p>

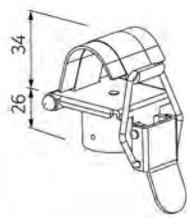
MT-5124A	NEW Pipe Connector
	 <p>Bolt : WB-0610 Weight : 295g Quantity :</p>

MT-5124B	NEW Pipe Connector Square Pipe 30x30
	 <p>Bolt : WB-0610 Weight : 310g Quantity :</p>

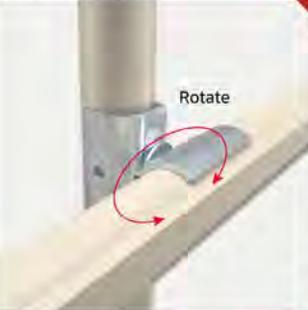
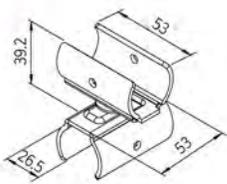
MT-5301	Pipe Snap Rest-A
	 <p>Weight : 73.8 g Quantity : 120pcs</p>

MT-5302	Pipe Rest-A
	 <p>Weight : 118.2g Quantity : 80pcs</p>

MT-5303	Pipe Rest-B
	 <p>Weight : 62.6g Quantity : 100pcs</p>

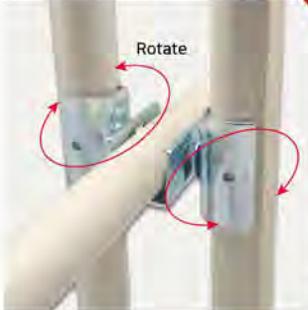
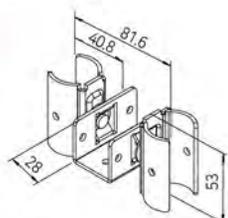
MT-5126	Lock Mount
	 <p>Weight : 125.3 g Quantity : 200pcs</p>

MT-5328S NEW Rotate Cross-S

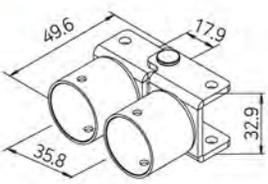
Weight : 120g
Quantity :

MT-5328D NEW Rotate Cross-D

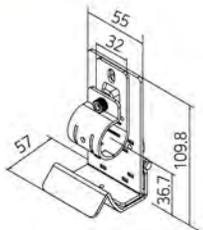
Weight : 160g
Quantity :

MT-5402C NEW Pipe Hinge

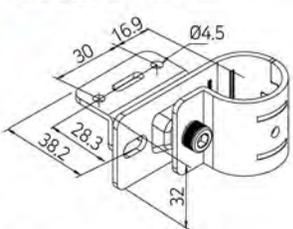
Weight : 167g
Quantity :

MT-5420 NEW Door Latch

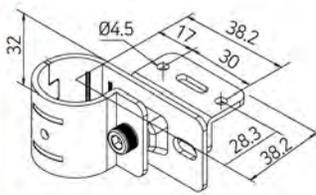
Weight : 347
Quantity : pcs

MT-5146L NEW Board Support Bracket

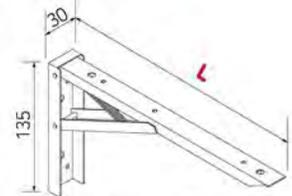
Bolt : WB-0610
Weight : 104g
Quantity :

MT-5146R NEW Board Support Bracket

Bolt : WB-0610
Weight : 104g
Quantity :

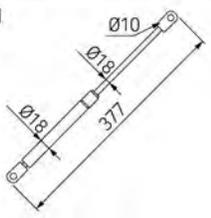
FS-0200/0250/0300/0350 Folding Shelf Bracket

Code	Length (L)	Size (inch)
FS-0200	200	8 (in)
FS-0250	250	10 (in)
FS-0300	300	12 (in)
FS-0350	350	14 (in)

CR

MT-5143 Gas Spring

Road : 143mm
Length : 377mm
Pressure : 10, 15, 20, 30, 50kg
Weight : 244g
Quantity : 100pcs

MT-5147 Slide Rail




Slide Size	Weight (1pc)
350mm	432g
400mm	495g
450mm	601g
500mm	621g
550mm	894g
600mm	980g

Accessory

MT-5140A	Traction Arm-A 500 Zinc Plated
	Weight : 3.4kg Quantity : 5pcs

MT-5141A	Traction Arm-A 600 Zinc Plated
	Weight : 3.7kg Quantity : 5pcs

MT-5142B	Traction Arm-B 450 Zinc Plated
	Weight : 2.2g Quantity : 5pcs

MT-5149A	Traction Arm-A 440 Zinc Plated
	Weight : 2.1kg Quantity : 5pcs

MT-5155A	NEW Traction Arm-A 550 Zinc Plated
	Weight : Quantity :

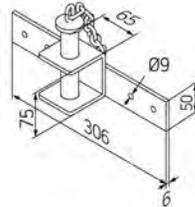
MT-5144A	Traction Arm-A 350 Painted
	Weight : 3.2kg Quantity : 5pcs

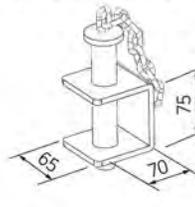
MT-5144B	Traction Arm-B 350 Non-Painted, For Welding (HYUNDAI Type)
	Weight : 2.6kg Quantity : 5pcs

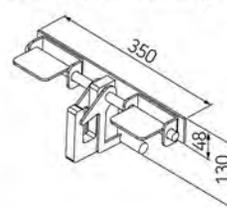
MT-5144C	Traction Arm-C 450 Non-Painted, For Welding (KIA Type)
	Weight : 3.4g Quantity : 5pcs

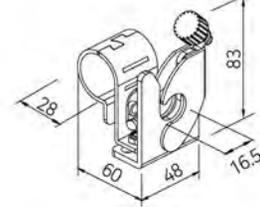
MT-5100	Forklift Hook
	Weight : 714g Quantity : 25pcs

MT-5149B	Pintle Hook
	Weight : 1.1kg Quantity : 5pcs

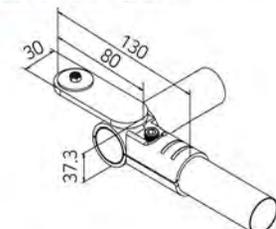
MT-5145A	Pintle Hook-A Painted
	 <p>Weight : 1.8kg Quantity : 10pcs</p>

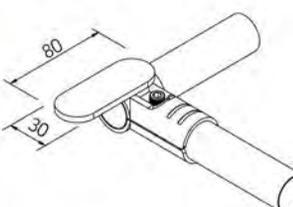
MT-5145B	Pintle Hook-B Non-Painted, For Welding
	 <p>Weight : 1.3kg Quantity : 10pcs</p>

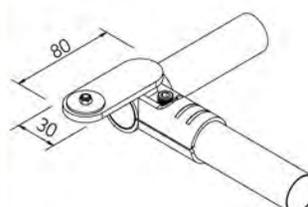
MT-5145C	Pintle Hook-C Non-Painted, For Welding
	 <p>Weight : 4.7kg Quantity : 5pcs</p>

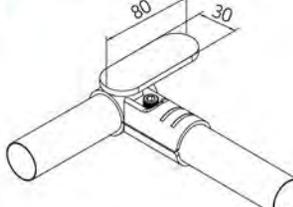
MT-5403	Door Locker
	 <p>Weight : 259g Quantity : 50pcs</p>

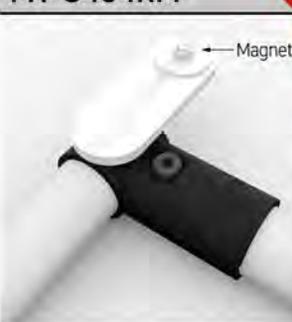
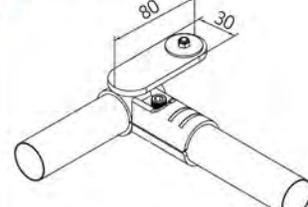
MT-5413	Round Bar Bushing Nut
	 <p>A - STS Pipe : Ø26 A - COAT Pipe : Ø24 Weight : 111.4kg Quantity : 200pcs</p>

MT-5404FM NEW	Door Stop Magnet
	 <p>Weight : 143g Quantity : 50pcs</p>

MT-5404L	Door Stop
	 <p>Weight : 151.4g Quantity : 50pcs</p>

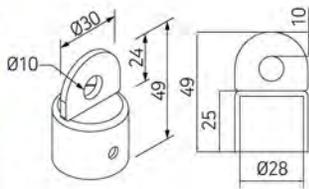
MT-5404LM	Door Stop Magnet
	 <p>Weight : 143g Quantity : 50pcs</p>

MT-5404R NEW	Door Stop
	 <p>Weight : 151.4g Quantity : 50pcs</p>

MT-5404RM NEW	Door Stop Magnet
	 <p>Weight : 143g Quantity : 50pcs</p>

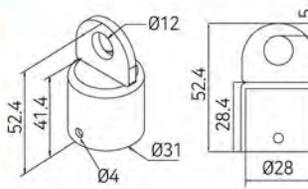
Accessory

MT-5230 Hanger Link Cap

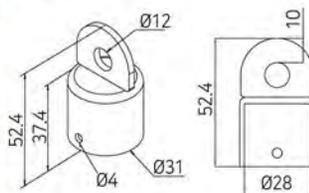
Weight : 37.4g
Quantity : 150pcs

MT-5230A NEW Hanger Link Cap

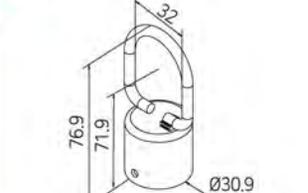
Screw : SW-1020
Weight : 52g
Quantity : 150pcs

MT-5230B NEW Hanger Link Cap

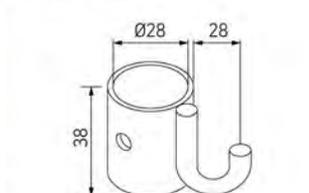
Screw : SW-1020
Weight : 47g
Quantity :

MT-5231A NEW Hanger Link Cap

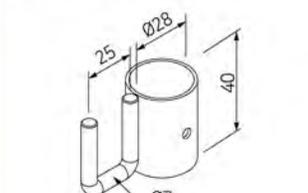
Screw : SW-1020
Weight : 55g
Quantity :

MT-5127 Hanger Hook

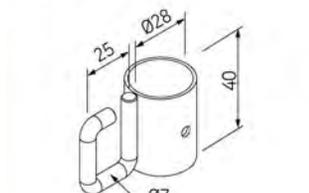
Weight : 64.5g
Quantity : 100pcs

MT-5228 Hanger Hook

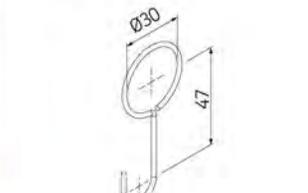
Weight : 94.3g
Quantity : 100pcs

MT-5229 Hanger Hook

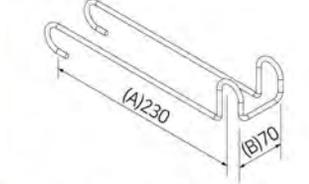
Weight : 962.3g
Quantity : 100pcs

MT-5120 Pipe Hanger

Weight : 6g
Quantity : 1,000pcs

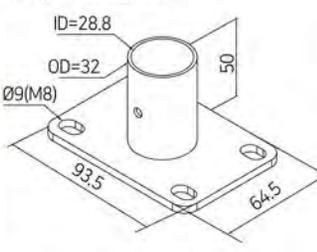
WG-0230/0330/0430 Wire Guide

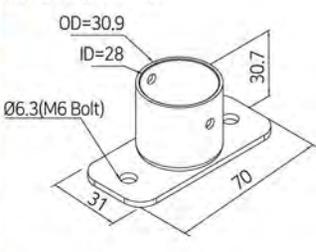



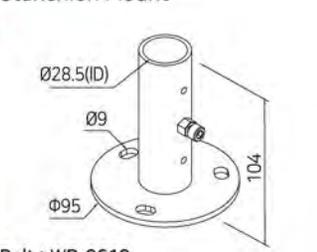
Code	WG-0230	WG-0330	WG-0430
Length (A)	230mm	330mm	430mm
Length (B)	70mm	70mm	70mm
Weight	230g	330g	280g
Quantity	30pcs	100pcs	50pcs

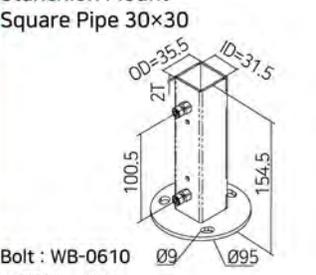


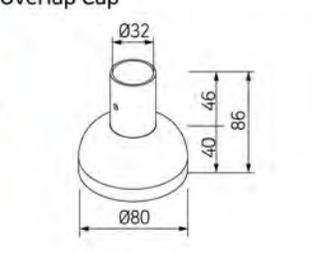
Accessory

<p>MT-5121</p> 	<p>Stanchion Mount</p>  <p>Weight : 176.5g Quantity : 40pcs</p>
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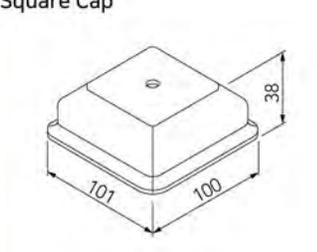
<p>MT-5121A</p> 	<p>Stanchion Mount</p>  <p>Weight : 68.6g Quantity : 150pcs</p>
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<p>MT-5121B</p> 	<p>Stanchion Mount</p>  <p>Bolt : WB-0610 Weight : 424g Quantity :</p>
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<p>MT-5122</p> 	<p>Stanchion Mount Square Pipe 30x30</p>  <p>Bolt : WB-0610 Weight : 424g Quantity :</p>
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<p>MT-5119</p> 	<p>Overlap Cap</p>  <p>Weight : 259.2g Quantity : 20pcs</p>
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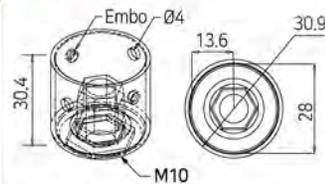
<p>MT-5119S</p> 	<p>Square Cap</p>  <p>Weight : 419.6g Quantity : 50pcs</p>
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<p>MT-5119W</p> 	<p>Square Cap</p>  <p>Weight : 389g Quantity : 35pcs</p>
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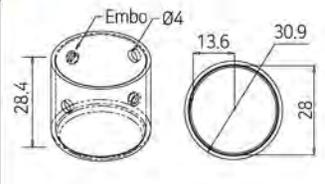
Accessory

SC-3029AP NEW Steel Cap Press Type Pop-Nut M10 Adjuster

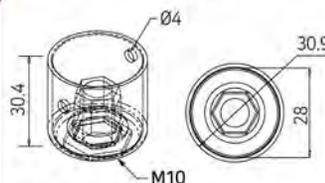
Nut : M10
Weight : 41g
Quantity :

SC-3029B NEW Steel Cap Press Type No Hole

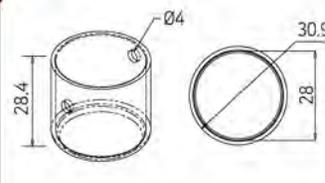
Weight : 35g
Quantity :

SC-3029CP NEW Steel Cap Assembly Type Pop-Nut M10 Adjuster

Nut : M10
Weight : 41g
Quantity :

SC-3029D NEW Steel Cap Assembly Type No Hole

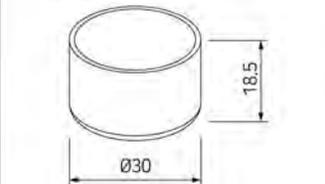
Weight : 34.3g
Quantity :

CN-3010MS Steel Cap



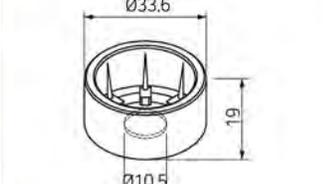

Weight : 24.2g
Quantity : 400pcs

SC-3028SV Steel Cap

Weight : 18.7g
Quantity : 400pcs

CN-3010MP Plastic Cap

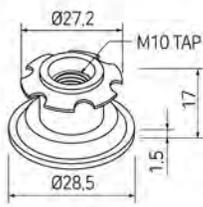
Weight : 12g
Quantity : 300pcs

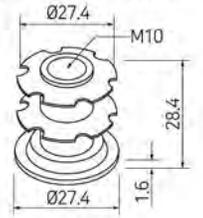
AC-3829RB Rubber Foot Cap

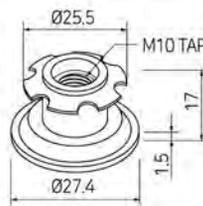



Weight : 24g
Quantity : 500pcs

Clip Insert Nut (Stainless, Coating Pipe)

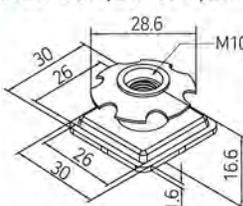
<p>IN-1000SM</p> 	<p>Stainless Pipe Clip Insert Nut (Pipe : ST-1070, ST-1090, ST-1110)</p>  <p>Weight : 16g Quantity : 300pcs</p>
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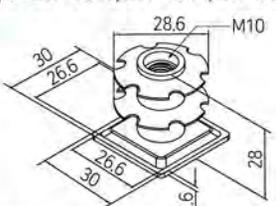
<p>DIN-1000SM</p> 	<p>Stainless Pipe Double Clip Insert Nut (Pipe : ST-1070, ST-1090, ST-1110)</p>  <p>Weight : 24g Quantity : 300pcs</p>
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<p>IN-1000LM</p> 	<p>Coating Pipe Clip Insert Nut (Pipe : LP-1100, LP-1140)</p>  <p>Weight : 16g Quantity : 300pcs</p>
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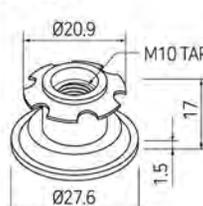
<p>FW-1026 / SW-0010</p> 		<p>Flat Washer</p>  <p>FW-1026 Weight : 6g Quantity : 4,000pcs</p>	<p>Spring Washer</p>  <p>SW-0010 Weight : 3g Quantity : 8,000pcs</p>
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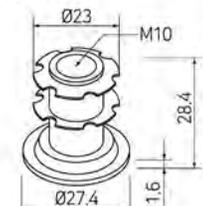
Clip Insert Nut (Square Pipe)

<p>SIN-1030LM</p> 	<p>Square Pipe Clip Insert Nut (Pipe : ZSP-3010, ZSP-3014, ZSP-3020)</p>  <p>Size : 30×30mm Weight : 21g Quantity : 300pcs</p>
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<p>DIN-1030LM</p> 	<p>Square Pipe Double Clip Insert Nut (Pipe : ZSP-3010, ZSP-3014, ZSP-3020)</p>  <p>Size : 30×30mm Weight : 29g Quantity : 300pcs</p>
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Clip Insert Nut (Aluminum Pipe)

<p>IN-1000AM</p> 	<p>Aluminum Pipe Clip Insert Nut (Pipe : LP-1200)</p>  <p>Weight : 16g Quantity : 300pcs</p>
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<p>DIN-1000AM</p> 	<p>Aluminum Pipe Double Clip Insert Nut (Pipe : LP-1200)</p>  <p>Weight : 23g Quantity : 300pcs</p>
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Insert Nut



Insert Nut
For Adjuster / Bolt Caster 1/2", 3", 4"



Code	(X)	Weight	Q'ty/Box	Pipe	Pipe Code	Width
IN-1207LA	Ø24.2	22g	300	LOGIFORM Pipe	LP-1070	t0.7
IN-1210LA	Ø23.6	22g	300	LOGIFORM Pipe	LP-1100	t1.0
IN-1220LA	Ø21.6	18g	300	LOGIFORM Pipe	LP-1200	t2.0
IN-1207SA	Ø26.4	24g	300	Stainless Pipe	ST-1070	t0.7
IN-1209SA	Ø26	24g	300	Stainless Pipe	ST-1090	t0.9
IN-1211SA	Ø25.6	24g	300	Stainless Pipe	ST-1110	t1.1
IN-1215ZA	Ø24.7	22.2g	300	ZN Pipe	ZP-1150	t1.5



Aluminum Insert Nut
For Bolt Caster 5/8"
For Adjuster



Code	(X)	Weight	Q'ty/Box	Pipe	Pipe Code	Width
IN-5810LA	Ø23.6	18g	300	LOGIFORM Pipe	LP-1100	t1.0
IN-5820LA	Ø21.6	16g	300	LOGIFORM Pipe	LP-1200	t2.0
IN-5807SA	Ø26.4	22g	300	Stainless Pipe	ST-1070	t0.7
IN-5809SA	Ø26	22g	300	Stainless Pipe	ST-1090	t0.9
IN-5811SA	Ø25.6	22g	300	Stainless Pipe	ST-1110	t1.1



Steel Insert Nut (1/2")
For Adjuster / Bolt Caster 2", 3", 4"



Code	(X)	Weight	Q'ty/Box	Pipe	Pipe Code	Width
IN-1209L	Ø23.7	74g	300	LOGIFORM Pipe	LP-1090	t0.9
IN-1210L	Ø23.6	74g	300	LOGIFORM Pipe	LP-1100	t1.0
IN-1220L	Ø21.6	64g	300	LOGIFORM Pipe	LP-1200	t2.0
IN-1207S	Ø26.4	96g	300	Stainless Pipe	ST-1070	t0.7
IN-1209S	Ø26	90g	300	Stainless Pipe	ST-1090	t0.9
IN-1211S	Ø25.6	90g	300	Stainless Pipe	ST-1110	t1.1



Steel Insert Nut (5/8")
For Adjuster / Bolt Caster 3", 4"



Code	(X)	Weight	Q'ty/Box	Pipe	Pipe Code	Width
IN-5809L	Ø23.7	60g	300	LOGIFORM Pipe	LP-1090	t0.9
IN-5810L	Ø23.6	60g	300	LOGIFORM Pipe	LP-1100	t1.0
IN-5820L	Ø21.6	46g	300	LOGIFORM Pipe	LP-1200	t2.0
IN-5807S	Ø26.4	76g	300	Stainless Pipe	ST-1070	t0.7
IN-5809S	Ø26	74g	300	Stainless Pipe	ST-1090	t0.9
IN-5811S	Ø25.6	72g	300	Stainless Pipe	ST-1110	t1.1



Steel Insert Nut (10mm)
For Adjuster



Code	(X)	Weight	Q'ty/Box	Pipe	Pipe Code	Width
IN-1010LM	Ø23.6	84g	300	LOGIFORM Pipe	LP-1100	t1.0
IN-1020LM	Ø21.6	72g	300	LOGIFORM Pipe	LP-1200	t2.0
IN-1007SM	Ø26.4	98g	300	Stainless Pipe	ST-1070	t0.7
IN-1011SM	Ø25.6	94g	300	Stainless Pipe	ST-1110	t1.1

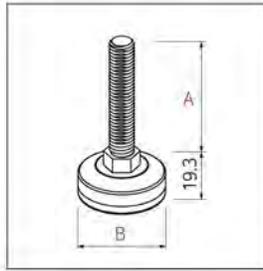


Steel Insert Nut (12mm)
For Adjuster

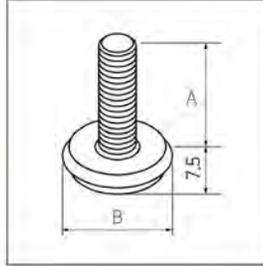


Code	(X)	Weight	Q'ty/Box	Pipe	Pipe Code	Width
IN-1210LM	Ø23.6	76g	300	LOGIFORM Pipe	LP-1100	t1.0
IN-1220LM	Ø21.6	62g	300	LOGIFORM Pipe	LP-1200	t2.0
IN-1207SM	Ø26.4	98g	300	Stainless Pipe	ST-1070	t0.7
IN-1211SM	Ø25.6	90g	300	Stainless Pipe	ST-1110	t1.1

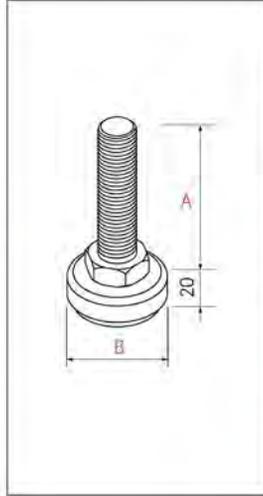
Adjuster



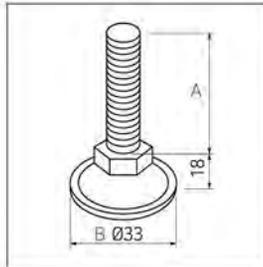
Code	Weight	Q'ty/Box	Size	A Length	B Diameter
AD-3510 MPM	48.1g	150	M10	50	Ø35
AD-3510 MRM	47.3g	150	M10	50	Ø35
AD-3510 MRL	70.9g	120	M10	100	Ø35



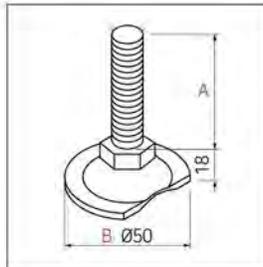
Code	Weight	Q'ty/Box	Size	A Length	B Diameter
AD-3010 MPS	25.7g	400	M10	30	Ø30
AD-3010 MPM	35.3g	400	M10	50	Ø30



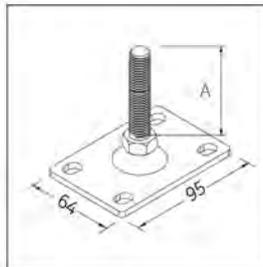
Code	Weight	Q'ty/Box	Size	A Length	B Diameter
AD-3012 IRM	83.3g	150	1/2"	50	Ø32
AD-5012 IRM	108.3g	120	1/2"	50	Ø50
AD-3012 IRX	169g	50	1/2"	150	Ø32
AD-5012 IRX	193g	50	1/2"	150	Ø50
AD-3012 IRME	83.5g	150	1/2"	50	Ø32
AD-5012 IRME	108.4g	120	1/2"	50	Ø50
AD-3010 MRM	70.6g	150	M10	50	Ø32
AD-5010 MRM	94.1g	120	M10	50	Ø50
AD-3012 MRME	80.2g	150	M12	50	Ø32
AD-3012 MRLE	142.1g	100	M12	100	Ø32
AD-5012 MRME	104.3g	120	M12	50	Ø50
AD-5012 MRLE	142.1g	80	M12	100	Ø50



Code	Weight	Q'ty/Box	Size	A Length	B Diameter
AD-3012 ISM	76.5g	150	1/2"	50	Ø33
AD-3012 ISL	114.6g	100	1/2"	100	Ø33
AD-3012 ISX	151.1g	50	1/2"	150	Ø33
AD-3010 MSM	62.8g	150	M10	50	Ø33
AD-3012 MSM	73.9g	150	M12	50	Ø33
AD-3012 MSL	109.9g	100	M12	100	Ø33

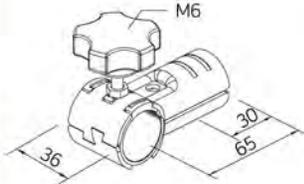


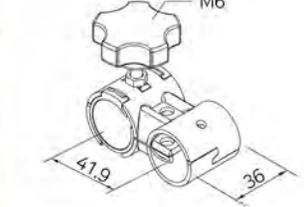
Code	Weight	Q'ty/Box	Size	A Length	B Diameter
AD-5012 ISM	91.6g	150	1/2"	50	Ø50
AD-5012 ISL	131.6g	80	1/2"	100	Ø50
AD-5012 ISX	168.6g	50	1/2"	150	Ø50
AD-5010 MSM	78.4g	150	M10	50	Ø50
AD-5012 MSM	90.3g	150	M12	50	Ø50
AD-5012 MSL	125.9g	80	M12	100	Ø50

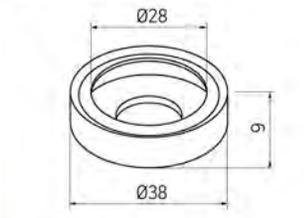


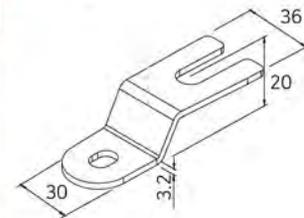
Code	Weight	Q'ty/Box	Size	A Length	Diameter
AD-9510 MSM	181.1g	40	M10	50	64x95
AD-9512 MSM	186.1g	40	M10	50	64x95
AD-9512 ISM	188.1g	40	1/2"	50	64x95

Adjuster

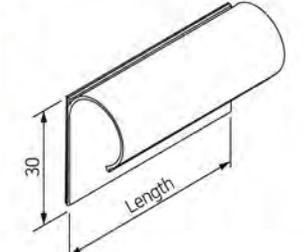
MT-5410	Position Adjuster
	
	Weight : 102g Quantity : 50pcs

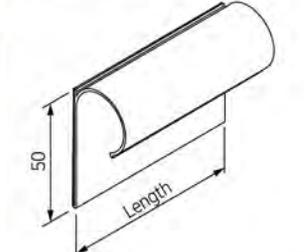
MT-5411	Position Adjuster
	
	Weight : 100g Quantity : 50pcs

AC-3828RB	Adjuster Rubber Cap
	
	Weight : 7.2g Quantity : 400pcs

MAB-5012	NEW Metal Adjuster Bracket
	
	Weight : 17g Quantity :

Name Plate

LH-3010CS	Acrylic Name Plate
	

LH-5010CL	Acrylic Name Plate
	

Code :	LH-3010CS	LH-3010CS	LH-3010CS	LH-3010CS
Size :	30×100mm	30×150mm	30×200mm	30×300mm
Weight :	13.4g	20.4g	27.2g	41.4g
Quantity :	500pcs	350pcs	300pcs	150pcs

Code :	LH-5010CL	LH-5015CL	LH-5020CL	LH-5030CL
Size :	50×100mm	50×150mm	50×200mm	50×300mm
Weight :	18.4g	29.4g	39.8g	63.2g
Quantity :	400pcs	250pcs	200pcs	100pcs

Name Plate

NP-0120	Name Plate
	Size : 120×40mm Weight : 5.2g Quantity : pcs

NP-0152	Name Plate
	Size : 152×62mm Weight : 10g Quantity : 2,500pcs

NP-0180	Name Plate
	Size : 180×84mm Weight : 16.2g Quantity : 1,500pcs

NP-0215	Name Plate
	Size : 215×160mm (A5) Weight : 37.6g Quantity : 700pcs

NP-0220	Name Plate
	Size : 220×100mm Weight : 23.8g Quantity : 300pcs

NP-0300	Name Plate
	Size : 300×120mm Weight : 38.6g Quantity : 600pcs

NP-0307	Name Plate
	Size : 307×225mm (A4) Weight : 74.2g Quantity : 300pcs

NP-0430	Name Plate
	Size : 430×310mm (A3) Weight : 177.4g Quantity : 100pcs

PN-3515	Plastic Name Plate
	Size : 35×150mm Weight : 46.2g Quantity : 300pcs

PN-5415	Plastic Name Plate
	Size : 54×150mm Weight : 56g Quantity : 250pcs

Protective Hose / Board / Sheet

Product	Yarned Thread Hose (PVC)	Transparent Hose (PVC)	Atilon Hose	Rubber Foam Hose
Image	 편사	 투명	 아티론	 고무발포
Code	TH-0001	TH-0002	TH-0003	TH-0005
specification	45m/roll	45m/roll	4m/pc	2m/pc (9T/19T)

P.P	Bakelite	Fomax	MDF	ACP Panel	PB Board	PLY Wood
						
PP Honeycomb Panel	Antistatic Mat	Regular Mat	Non Woven Fabric	Suede	Foam (sponge)	
						

Product		Code	Size	Thickness	Color	Characteristic	
Board (판지)	Plastic	PP BOARD (PP)	PP-051224 PP-071224 PP-081224	1220 × 2440	t5, t7, t8	White	Chemical Resistance Oil Resistance (내유성)
		Poly Vinyl Acetate (PVC)	PV-051224 PV-071224	1220 × 2440	t5, t7	Ivory Gray	Smooth Skin (매끄러운) Flame-retardant (난연성) Insulation (절연성)
		Plastic Corrugated Sheet (DANPLA)	DP-051520 DP-091520	1500 × 2000	t5, t9	Ivory, Green, Black, Blue	Light weight (경량) Various colors (다양한 색상)
		Fomax (포맥스)	FM-051224 FM-081224	1220 × 2440	t5, t8	Gray, Blue, White	Light weight (경량) Easy to produce (가공용이)
		Bakelite (백크라이트)	BK-051010 BK-081010	1000 × 2000 1220 × 2440	t5, t8	Brown, Black	High strength (고강도) Fine Insulation (미세한 절연치)
		Poly carbonate (PC)	PC-031224 PC-051224	1220 × 2440	t3, t5	Transparent, Blue	Easy to produce (가공용이) High strength (고강도)
		Acryl (아크릴)	AC-051020 AC-081020	1000 × 2000 1220 × 2440	t3, t5, t8	Yellow	
	Wood	Medium Density Fiberboard (MDF)	MD-091224 MD-121224	1220 × 2440	t9, t12, t15		
		Particle Board (PB)	PB-151224 PB-301224	1220 × 2440	t15, t30		Coated wood (가구용 코팅 목재)
		Ply Wood (합판)	PW-091224 PW-121224	1220 × 2440	t9, t12, t15		Easy to produce (가공용이) High strength (고강도)
Aluminum	Acp Panel (복합판넬)	ACP-041224	1220 × 2440	t4	Aluminum		
Mat (매트)	Mat	Antistatic Mat (정전매트)	EM-060010	W600 × 10M	t2	Green	Adhesive / Plain (판재상부 부착용)
			EM-090010	W900 × 10M	t2	Green	
			EM-100010	W1000 × 10M	t2	Green	
			EM-120010	W1200 × 10M	t2	Green, Gray	
	General Mat (일반매트)	GM-120030	W1200 × 30M	t2	Gray		
Product Protection (제품보호)	Fabric	Non Woven Fabric (부직포)	NW-150100	W1500 × 100M		Gray	Anti-scratch (스크래치 방지)
		Suede (스웨이드)	SD-W0055	W55 × 20M W100,120,150,200,250		Gray	
			SD-W1200	W1200 × 2 0M		Gray	
			SD-W1400	W1400 × 10M		Gray	

Product	Bolt	T Nut	Bolt	Nut
Image	 BK SV	 BK SV		
Code	WB-0610 / 0620 / 0625 / 0628	NU-0600	BT-1/2*50	NU-1200
specification	M6 * 10 / 15 / 20 / 25 / 28	M6	1 / 2 * 50	1/2

Product	M8 Bolt	M8 Bolt	M10 Bolt	M12 Bolt	NYLON Nut
Image					
Code	BT-0820/0825/0830/0835/0840	BT-0845/0850/0860/0870	BT-1020 / 1025	BT-1220 / 1225 / 1250	NN-0800 / 1000 / 1200
specification	M8 * 20 / 25 / 30 / 35 / 40	M8 * 45 / 50 / 60 / 70	M10 * 20 / 25	M12 * 20 / 25 / 50	M8 / M10 / M12

Product	Round Screw	Flat Screw	Flat Screw	Wide Screw	Tapping Screw	Tapping Round Screw
Image						
Code	SR-0819/0825/0832	SF- 0819/0825/0832	FS- 0819/0825/0832	SW-1020 / 1025	TS-3516	TS-0408
specification	#8*19 / 25 / 32	#8*19 / 25 / 32	#8*19 / 25 / 32	#10* 20 / 25	M3.5* 16L	M4*8L

Product	Driver Bit	Wrench Bit	L-Wrench Bit	Spanner
Image				
Code	TL-4004 / 4005	TL-4001 / TL-4002	TL-4003	TL-4000
specification	65mm / 110mm	5X70mm / 5X100mm	5X165mm	19mm / 22mm

Product	Rubber Hammer	Deurring Cutter	Metric Tape Measure	Electricity Impact
Image				
Code	TL-4006	TL-4007	TL-4008	TL-4011
specification	-	-	5m	Tool Set

6 SMART FARM

Seedling Tray / Aquaponics / Vertical Farming





HBL inc. Smart Farm Solution offers betterment of working environment for agricultural, marine, and live stock industry which have seen stagnancy in evolution of working environment. Fast expanding agricultural industry experiencing shortage of labor requires "Easy & Convenient Transportation Method" which has been one of the most critical concerns for the industry. HBL's deep footprint in the Lean Industry with countless solutions we provided, our know-hows and experiences are used to created SEEDING TRAY which will surely save labors and increase efficiency.

한보일렉트(주) 스마트팜 재배받침대는 다양한기능 / 높은품질 / 환경개선 / 비용절감 / 쉽고빠른설치 등 오랜 연구와 전국 하우스재배 설치를 통한 노하우를 기반으로 완성도 높은 기술력을 구사해 고객 맞춤형 현장 설계가 가능합니다. 환경을 보다 나은 현장으로 개선 하기위해 최적의 솔루션을 제안 하고 문제 해결 및 환경에 적합한 구조설계, 납품 후 설치 까지 서포트하며 현장을 둘러싼 환경의 변화와 다양화를 내다보면서 연구·개발·생산 하여 **최고의 작업환경을 구현해 드립니다.**



Seedling Tray Product Feature

< Product Characteristic > _ 제품 특성



HBL inc. Assembly Specification
한보일렉트(주) 조립사양

The parts are assembled in a bolt nut fixing manner, which has the great advantage of being easy to assemble and easy to modify and supplement. The weight of the product is light and easy to move.

기존 용접 사양과 달리 당사 재배받침대는 모든 부품이 볼트 너트 체결 방식으로 조립이 진행되어 **조립이 간편하고 수정 보안을 쉽게** 할 수 있다는 큰 장점이 있습니다. 또한 제품의 무게가 가벼워 **쉽게 이동**이 가능합니다.



Other Companies. Assembly Specification
타사 조립사양

All connections are welded, which requires partial corrective work to be modified with welding in case of damage. Very inconvenient. Difficult to move products.

기존 용접 사양의 재배 받침대의 경우 파이프의 연결 부위가 모두 용접으로 되어 있어 파손 시 부분 수정 작업을 용접으로 진행 되어야 하는 불편함과 재배 받침대의 이동이 불가피할 경우 제품의 **이동에 상당한 어려움** 이 있습니다.

< Product Damage > _ 제품 파손 시



HBL inc. Welding Specification
한보일렉트(주) 조립사양

If the part is damaged, only the pipe can be easily replaced and reused. It is very effective in reducing costs.

기존 용접 사양과 달리 당사 재배 받침대는 일부 부품이 파손되어도 파손된 부품 또는 파이프만 **간단히 교체가 가능**하여 재사용이 가능하고 일부 부품 교체 후 제품의 사용 수명이 길어져 **비용 절감에 큰 효과**가 있습니다.



Other Companies. Welding Specifications
타사 용접사양

In case of damage, it is difficult to modify it, so the whole thing must be discarded.

기존 용접 사양의 재배 받침대의 파손 시 전체 파손이 아닌 일부분의 파손이라 할지라도 제품 전체가 용접 사양으로 되어 있기 때문에 일부 수정이 어려워 **전체를 폐기**해야 합니다.

< Roller Track Rail > _ 롤러트랙 레일 / ㄷ형 가이드 / 교체형 코너 가이드 부착 (경량 무게 적합)



< L-Type Angle Rail, V-Type Caster > _ L형 앵글 레일, V형 캐스터 (중량 무게 적합)



< Left and Right Movable Handle Gear > _ 좌·우 이동식 핸들 기어 부착 (중량 무게 적합)



Smart Farm Installation Case

Seedling Tray
재배받침대



Aquaponics
아쿠아포닉스



Vertical Farming
수직재배



Work Table
작업대



Cart
운반대차





< Aluminum Seedling Tray >

< Metal Joint Seedling Tray >



파이프



조인트



재배 트레이



설계 및 디자인



묘목 트레이



이동식 카드



이동식 대차





수경재배 인도어팜



카페형 인도어팜



원예형 스마트팜



카페형 스마트팜



공장형 스마트팜



온실형 스마트팜



하우스형 스마트팜



7

SMART FACTORY

Rack System / Logistics Automation

랙 시스템

- ◆ 파레트랙 / 메자닌
- ◆ 중량랙 / 경량랙
- ◆ 곤도라 / 롤테이너
- ◆ 매트 컨베어

Rack System

- ◆ Parettrak / Mezzanine
- ◆ Weight Rack / Light Rack
- ◆ Gondora / Roll Tainer
- ◆ Matt Conveyor

물류자동화

- ◆ 자동공급 SET OHT
- ◆ 포장라인 자동화
- ◆ 자동 시뮬레이션
- ◆ 박스이송 CV, 수직 반송기
- ◆ 자동 수직 리프터
- ◆ 자동 피킹
- ◆ 셀 라인 플랫폼
- ◆ 자동창고 시스템
- ◆ 삼방향 지게차
- ◆ 플라스틱 파레트
- ◆ 플라스틱 접이식 박스
- ◆ 무인운반시스템 (AGV)

Logistics Automation

- ◆ Auto Supply Set OHT
- ◆ Packaging Line Automation
- ◆ Automatic Simulation
- ◆ Box Transfer CV, Vertical Carrier
- ◆ Automatic Vertical Lifter
- ◆ Automatic Picking
- ◆ Cell Line Platform
- ◆ Automatic Warehouse
- ◆ Three Way Forklift
- ◆ Plastic Pallet
- ◆ Plastic Folding Box
- ◆ Autonomous Mobile Robot





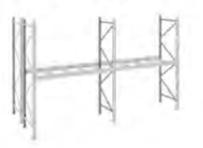
Mezzanine

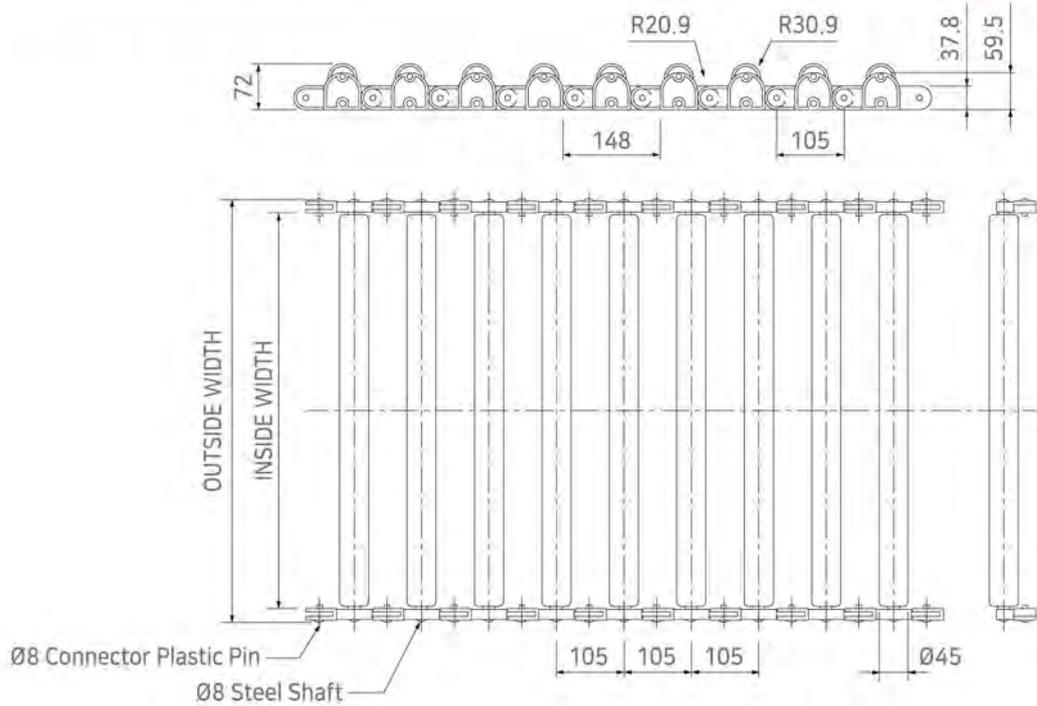
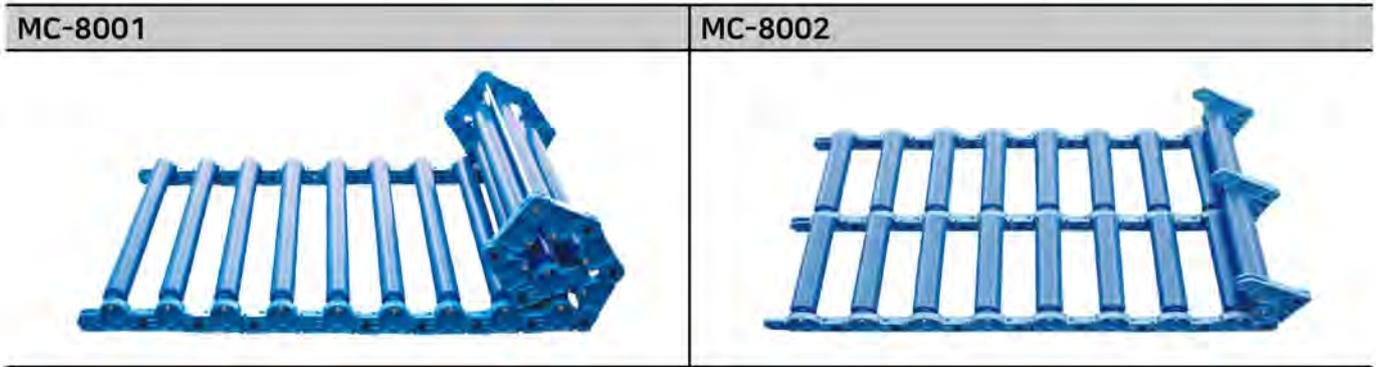


Rack System

Shelve Type Pallet Rack 선반타입 파레트랙	Tie Beam Type Pallet Rack 타이빔타입 파레트랙	Sliding Pallet Rack 슬라이딩 파레트랙	Sliding Rack 슬라이딩랙
			
Push Back Rack 푸시백랙	High Rack 하이랙	Arm Rack 암랙	Automated Storage 자동화창고
			

Weight Rack / Light Rack / Gondola / Roll Tainer / Accessory

선반 타입 랙	타이빔 타입 랙	어드밴스 랙	BL 경량 랙	BL 중량 랙	중량 보관소
					
이동식 경량 랙	WG 곤도라	SG 곤도라	ET 곤도라	EL 곤도라	FM 곤도라
					
FM 곤도라 서랍형	FE 곤도라	하이퍼 곤도라	파레트 곤도라	서적집기 수납형	서적집기 일반형
					
서적평대	CD집기	인테리어	롤테이너	가이드 레일	보호대
					



CODE	LOAD (kg/m)	WIDTH (mm)		HEIGHT	PITCH (mm)	WEIGHT (kg/m)
		INSIDE	OUTSIDE (mm)			
MC-8001 (single)	200	455	497	75	105	5.4
MC-8002 (double)	400	455	497	75	105	6.8

- The Roller Matt Conveyor is made of sturdy ABS engineering resin.
- The Roller Matt Conveyor is much lighter than the steel conveyor.
- It is ideal for urgent or temporary transportation, even if you don't have separate equipment.
- The Roller Matt Conveyor is portable and can be easily connected and removed from any place.
- The Roller Matt Conveyor can be made however you want, and the width and length can be adjusted as you please.

-
- 롤러 매트 컨베이어는 견고한 ABS 엔지니어링 수지로 만들어졌습니다.
 - 롤러 매트 컨베이어는 강철 컨베이어보다 훨씬 가볍습니다.
 - 별도의 장비가 없더라도 긴급하거나 임시로 운송하는 데 이상적입니다.
 - 롤러 매트 컨베이어는 휴대가 간편하며 어디서든 쉽게 연결하고 분리할 수 있습니다.
 - 롤러 매트 컨베이어는 원하는 대로 만들 수 있으며 폭과 길이와 길이를 조정할 수 있습니다.

한보일렉트(주) 스마트팩토리 물류자동화시스템은 설계 및 개발, 제조 및 유통 등 생산과정에 **공장개선 물류자동화 솔루션**이 결합된 **제조라인**을 적용하여 입·출고를 자동화하여 생산성, 품질 등 고객만족도를 향상시키며 공간 효율을 극대화 시킨 **물류자동화시스템**입니다.

< Logistics Automation System Maximizes Space Efficiency > 공간 효율을 극대화 시킨 물류자동화 시스템



< Logistics Automation > 물류자동화

< Simplified Automation > 간이자동화

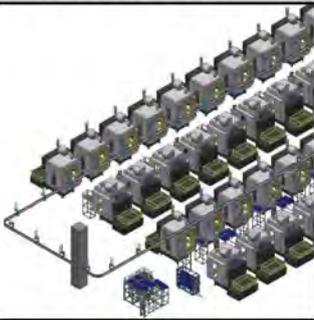


< Line & Cell Line Platform > 라인 & 셀라인 플랫폼

< Process Logistics Facilities > 공정물류설비



Auto Supply Set OHT



◎ 자동공급 SET OHT 구축

작업 현장의 통로 또는 작업장을 효율적으로 활용하고 물류 운반을 천정부위에 OVER HEAD TROLLEY를 적용하여 공간 활용 및 통로 간섭없이 신속한 물류흐름 실현



Packaging Line Automation



◎ 포장라인 자동화

포장 라인에 각종 로봇과 자동화 시스템 다단계재기, 자동 라벨 분리 및 부착기, 자동 분류(SORT) 시스템, 각종 디버터 및 컨베이어 시스템을 적용하여 생산성 향상 및 자동 실시간 모니터링을 통한 공장 무인 자동화 구현

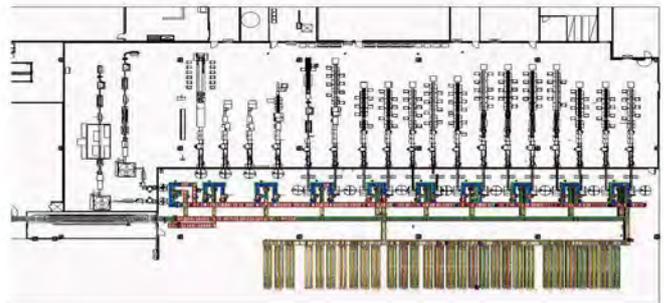


Automatic Simulation

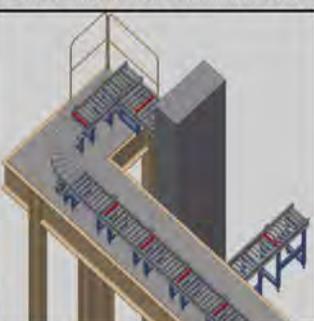


◎ 자동 시뮬레이션

각종 생산 자동화 라인 설치공사 및 투자전 사전에 시뮬레이션 검증을 통해 최적의 공장 구현



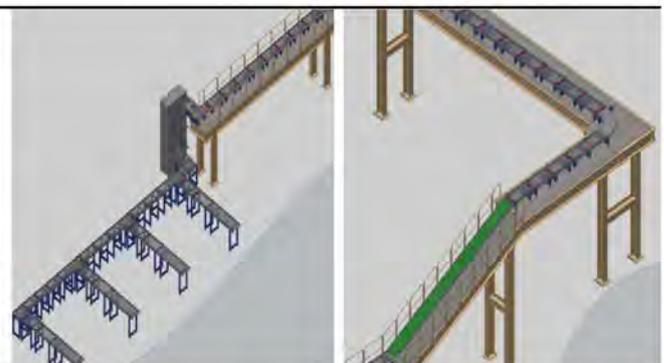
Box Transfer CV, Vertical Carrier



◎ 박스이송 CV, 수직 반송기

각종 카톤 박스를 동과 동간 이송, 적재, 운반, 분류, 보관등 각종 중량물의 방향전환 및 층간 이송을 위한 효율적인 시스템

제품을 자동으로 이동켜 공장 건물의 증축, 최소화 투자로 물류의 흐름 최적화 가능



Automatic Vertical Lifter



◎ 자동 수직 리프터

층간 물류 병목현상을 해소하기 위해 60kg 이하 제품을 박스 형태로 담아 신속한 층간 물류 개선



Logistics Automation Installation Case (2)

Automatic Picking



◎ 자동 피킹

- 빠르고 뛰어나 최고의 생산성과 최적의 물류 흐름 보장
- 시간이 많이 소모되는 피크 시간대 탁월한 생산성 유지
- 최대 물량생산 가능 및 뛰어난 품질과 효율성 달성



Cell Line Platform



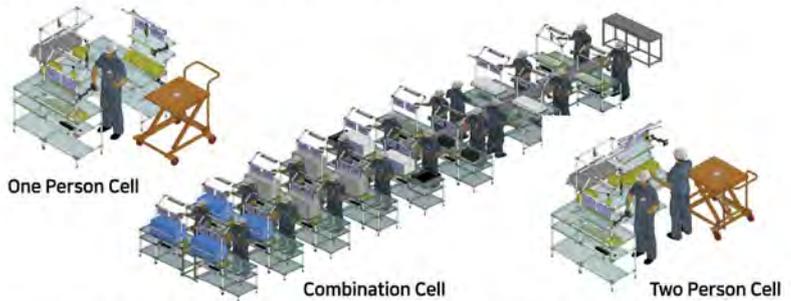
Line Platform



Cell Line Platform

◎ 라인 플랫폼

라인 생산이란 제조 작업을 여러 개의 단순한 작업으로 분해하여 컨베이어 주변에 배치된 작업자가 흘러오는 제품에 대해서 자신의 할당 작업을 차례로 실시 (낮은 인건비로 운영이 가능, 저가의 소품종 대량생산에 적합)



◎ 셀 라인 플랫폼

선반형식의 부스와 같은 작업장소에 한 명 또는 여러 명의 숙련자를 배치해 작업 전체 공정을 그 자리에서 실시 및 각 제품의 고유부품관리는 제조번호를 사용하고, 공통 부품은 대량구매가 가능해 다품종 소량생산에 큰 장점

구분	작업자기술	필요기능	작업장소	작업속도	도구재고비용	치공구	로트
라인 방식	한개 작업 담당	낮다	벨트 컨베이어	낮은 협업 속도	크다	기계 지향	소품종 생산
셀 라인 방식	많은 작업 담당	높다	선반형 부스	높은 협업 속도	낮음	작업자 지향	다품종 생산

Automatic Warehouse



◎ 자동창고 시스템

물류 효율 극대화를 목적으로 고층형 시스템을 설치한 신속, 정확한 고효율 자동화 창고관리 물류 시스템

- 공간효율 : 고층화로 공간 효율 극대화
- 물류관리 : 입고 상태, 여유 공간 계산 등이 모두 자동화로 산출되므로 실시간 정확한 현황 파악과 재고관리 (재고관리, 배송현황, 입출고현황 등이 실시간 산출됨)
- 선입선출 : 재고관리 물품의 입고 시간별 파악이 가능하며, 컨트롤러에 의해 자동 선입 선출이 가능
- 비용절감 : 자동화에 따라 인원 및 불필요한 기계장치의 대기 및 사용이 없으므로 경제성이 뛰어나
- 클린스페이스 : 자동화 특성에 따라 공간 내 환경이 항상 쾌적하고 깔끔한 상태로 유지관리됨
- 유지관리 : 모듈화 설계에 의해 간단하고 신속한 정비 가능

◎ 자동창고 유형

- 1. RACK BUILDING TYPE**
 - 건축 시 랙을 이용한 구조물을 빌딩화 (공사기간이 짧고, 연장 가능)
 - 별도의 건축물을 만들지 않으므로 건축비 절감이 가능
- 2. UNIT RACK TYPE**
 - 기존 건축물 또는 창고에 설치
 - 소량 다품종 품목 또는 단위 품목의 적재에 적합
- 3. SLIDING RACK TYPE**
 - 통로를 입고 측과 출고 측에만 설치하여 창고 바닥 면적을 최대한 활용하여 선입·선출 방식으로 설계

◎ 주요설비

- Rack : 보관용 철 구조물
- Slacker Crane : 화물 입·출고 이송설비
- AGV : 무궤도 무인 반송장비
- RGV : 설치된 레일을 따라서 지정된 장소까지 자동으로 주행

Three Way Forklift



◎ **삼방향 지게차 (용하인리히)**

- 독일제 용하인리히 3방향 지게차로 입출고, 보관, 적재 기능을 높여 창고 재고관리 및 적재 효율화
- 삼방향지게차는 전체 팔레트의 경제적인 스택킹 및 회수 또는 하이랙 창고의 개별 품목 피킹을 위한 전문 장비
- 최대 18미터의 리프팅 높이까지 EKX를 사용하면 창고 물류를 새로운 차원으로 끌어올릴 수 있음
- 지능형 경량 구조와 유지 보수가 필요 없는 동기식 릴렉턴스 모터는 최고 수준의 성능과 뛰어난 효율성을 보장
- 특히 받은 진동 감소, RFID 지상 제어 및 스마트 지원 시스템은 최적의 핸들링과 최대의 안전을 보장
- 앉거나 서서 작업가능 : 조절 가능한 제어판, 넓은 보관 공간 및 다양한 장비 옵션이 있는 넉넉한 크기의 운전석
- 맨업방식 : 운전자의 플랫폼과 포크가 항상 같은 높이에 있는 맨업 방식에 따라 작동
- 제조국 : 독일
- 종류 : 맨업 삼방향지게차
- 적재중량 : 1.0 ~ 1.6 t
- 리프트 : 4.7 ~ 18 M
- 삼방향지게차 EKX 4/5 시리즈
- TLSKOREA 공식대리점 인증
- 한보일렉트(주) TLS 코리아 한국 공식 대리점 판매



Plastic Pallet



◎ **플라스틱 팔레트**

- 자동창고 적재시 표준건조하여서 3Ton 적재가 가능하며 굴곡강도가 우수
- 규격 : 1100(W) X 1100(D) X 150(H)
- 색상 : 블랙
- 원료 : PP
- 중량 : 18.7kg 내외
- 하중 : 3Ton
- Type : 핸드카겸용 / 일체형 / 4방차입
- 비고 : 핸드카겸용 / 편면팔레트 / 4방차입형 / 일체형 / 택배배송 불가능 (용차배송만 가능)

Plastic Folding Box



◎ **플라스틱 접이식 박스**

- 보관이 편리하며 공간 활용도 뛰어난 접이식 수납함
- 규격 : 550(W) X 366(D) X 180(H)
- 색상 : 그린/블루/옐로우
- 원료 : PP
- 중량 : 1.9kg 내외
- 하중 : 6kg
- Type : 접이식 폴딩
- 비고 : 각종 플라스틱 팔레트 및 각 기업의 용도에 맞는 접이식 박스 개발 제작, 판매

Autonomous Mobile Robot



◎ **무인운반 시스템 (AGV)**

- 사람이 직접 조작하지 않고
센서값을 기준으로 자율성을 갖고
자동으로 짐을 운반하는 이동 로봇
- LMR
 - FMR
 - CTU



LMR



Latent Mobile Robot

LMR is a leading mobile robot product characterized by its lifting mechanism. LMR has an optimized motion performance and enhanced safety protection.

FMR



Forklift Mobile Robot

FMR focuses on the automatic transfer of standard bins/pallets. It adopts high precision laser SLAM navigation, vision navigation, etc.

CTU



Carton Transfer Unit

CTU can transport or store single/multiple bins. Precise inbound and outbound with high-density storage, providing efficient picking.



Autonomous Mobile Robot

With efforts in robotic technologies, Hikrobot provides global customers with leading mobile robot products and solutions.

The company has developed the intelligent warehouse robot system since 2015. Focused on mobile robots, it has launched a series of products, Latent Mobile Robot (LMR), Conveyor/Heavy-duty Mobile Robot (CMR/HMR), Forklift Mobile Robot (FMR), etc. These products are widely applied in consumer electronics, automobile, manufacturing, e-commerce logistics, 3PL, food and pharmaceuticals. Hikrobot's intelligent robot solutions help you simplify intralogistics flow, reduce the costs and reform the logistics process.



Autonomous Mobile Robot Application



Autonomous Mobile Robot

WIP Automatic Palletization

Bin Transferring

Raw Material Inbound

Raw Material Storage

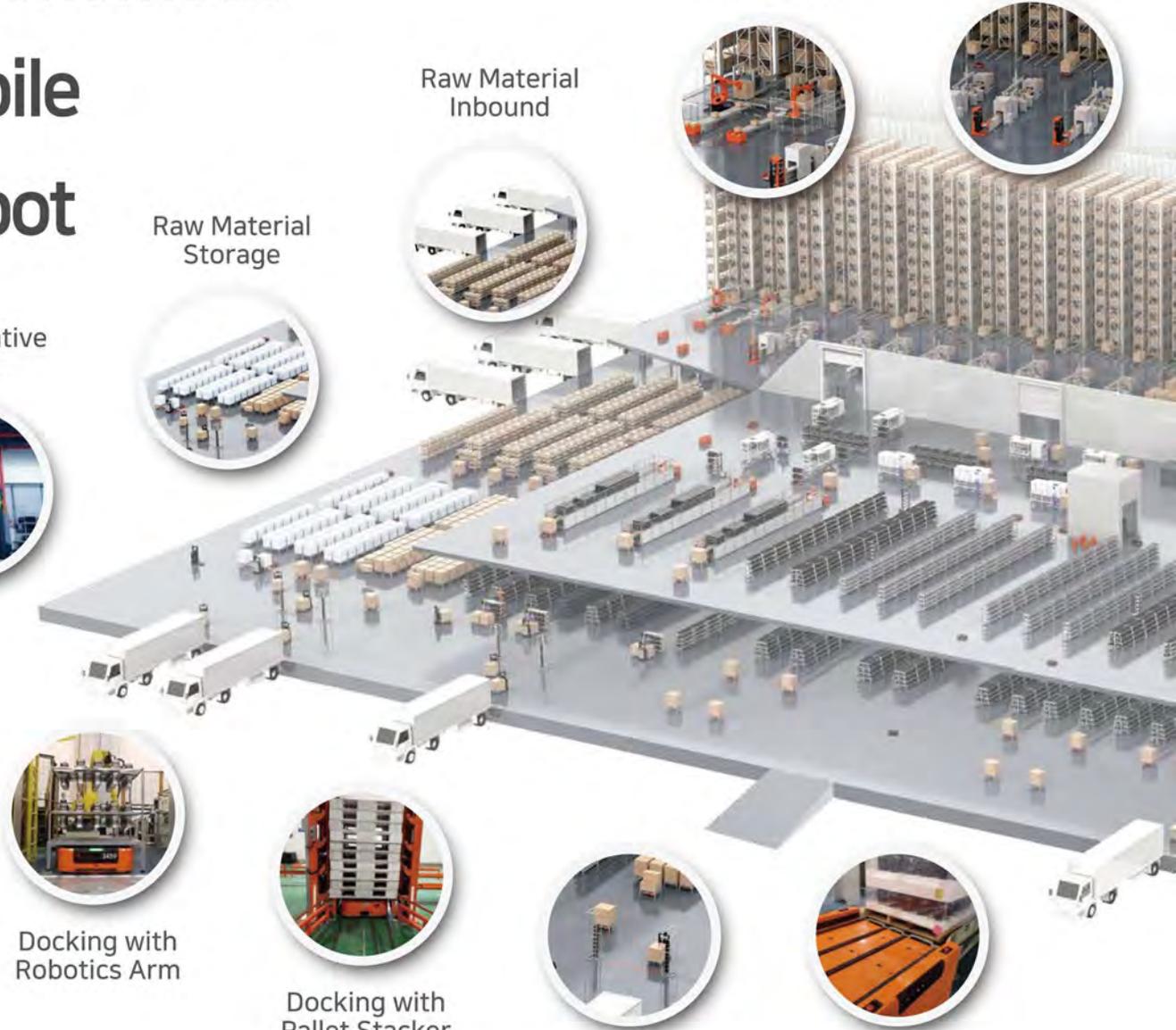
Collaborative Work

Docking with Robotics Arm

Docking with Pallet Stacker

Quality Check

Docking with Conveyor



The flexible robot system integrates batch optimization algorithms to cover various warehousing and logistics scenarios.

Intelligent Intralogistics Solution

With the transformation of manufacturing production mode, mobile robots as an intelligent logistics equipment are being applied in various industries. Mobile robots can not only meet the logistics transfer needs of the entire logistics process, but also support flexible integration of different functional modules. Integrated with the WMS/MES, AGV solution can realize intelligent warehouse management. As a leading provider of mobile robotics products and services, HBL inc. AGV provides intelligent and practical solutions to various industries, leading the intralogistics reform with AI.



Finished Product Storage



Automatic Storage



High-bay Storage



Finished Product Outbound



Goods Transport



Forklift Inbound to High-bay Rack



Docking with AS/RS



Docking with Automatic Door



8 INSTALLATION CASE

Rack System / Work Table / Shelf / Cart / DIY

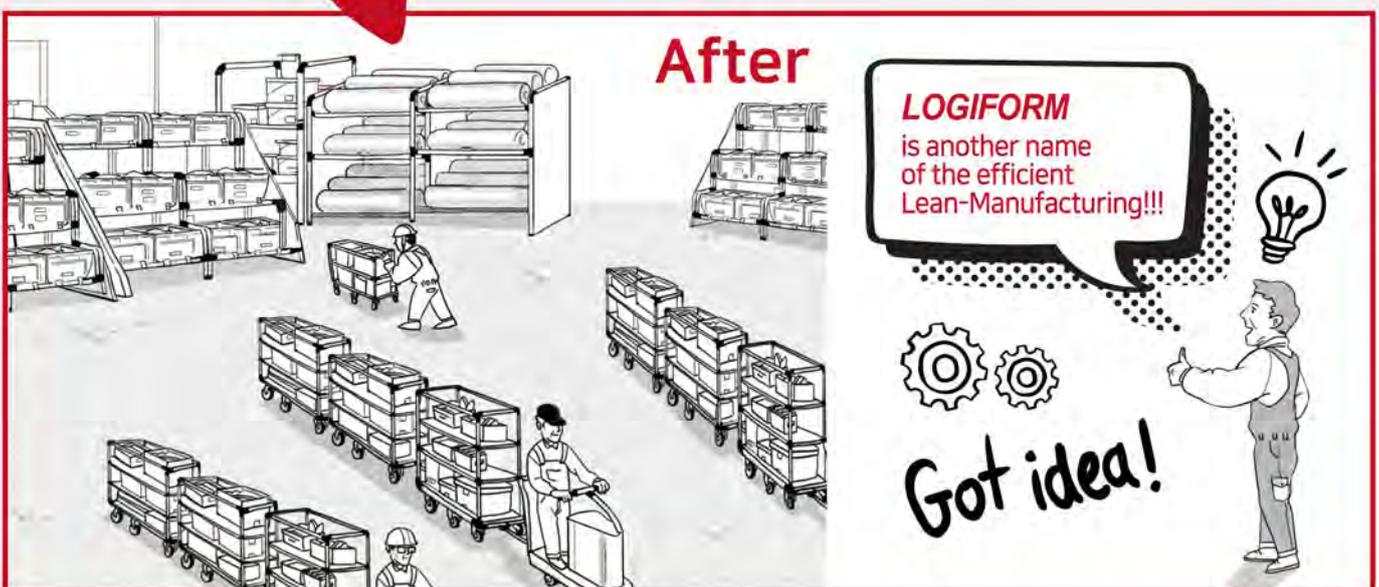




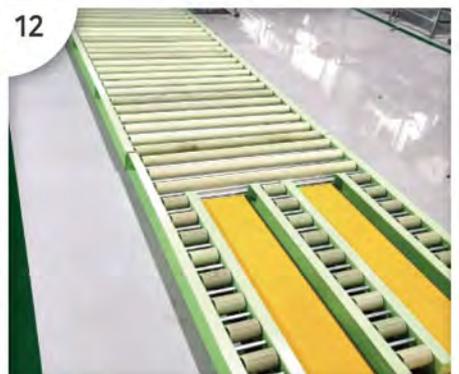
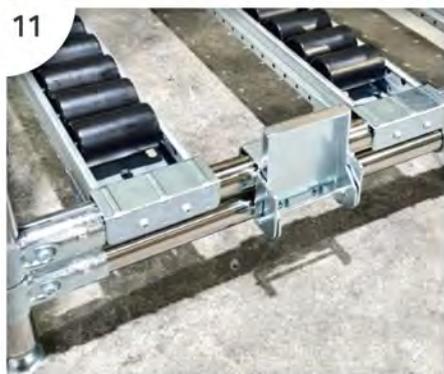
**Automotive industry, Electronics industry,
Logistics Industry, Rack System, Other Industries**

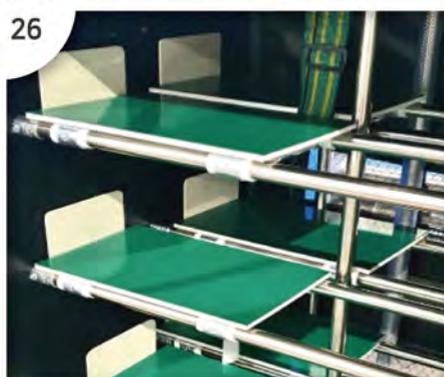
- 01 Applicable to any form of organization at an affordable cost.
- 02 Easy to assemble and easy to modify if required.
- 03 Eliminates waste in working behavior and prevents safety issues due design.
- 04 Applicable to FIFO (first in first out) allowing for the full control of inventory.
- 05 Control of inventory improved thanks to visual management of material.
- 06 Work efficiency is improved thanks to the production of a purpose built working environment.
- 07 Reduced storage space required thanks to improved material management and storage space optimization.

< How to minimize production waste??? >



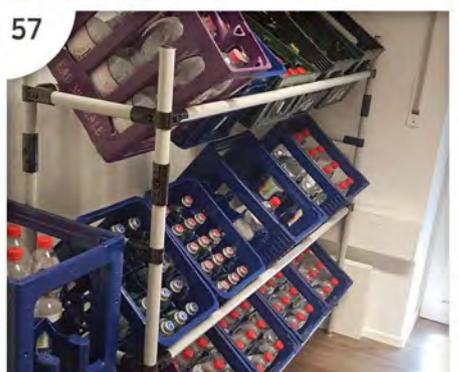
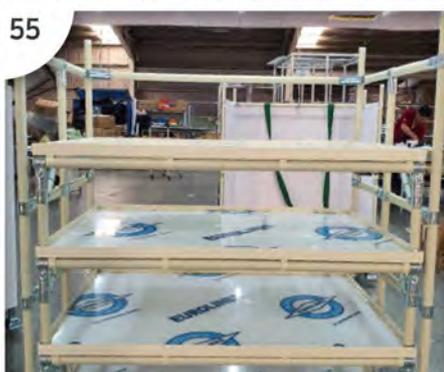
Installation Case (1)



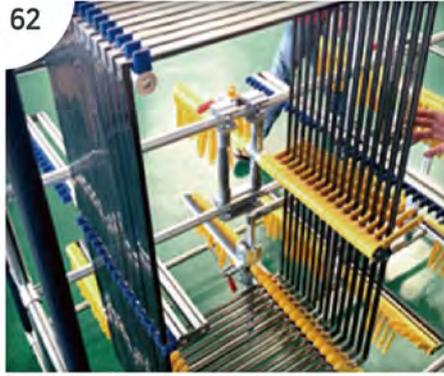


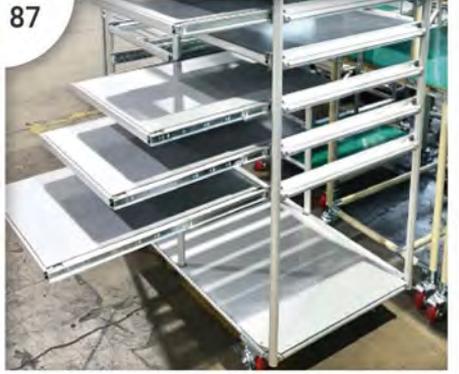
Installation Case (3)





Installation Case (5)





Installation Case (7)





Installation Case (9)

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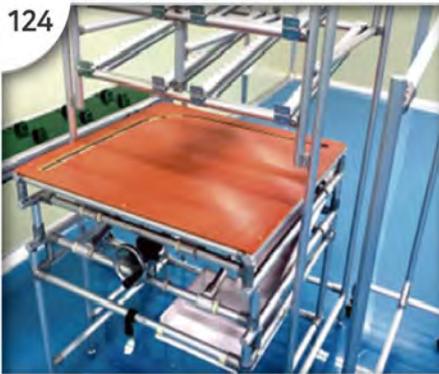
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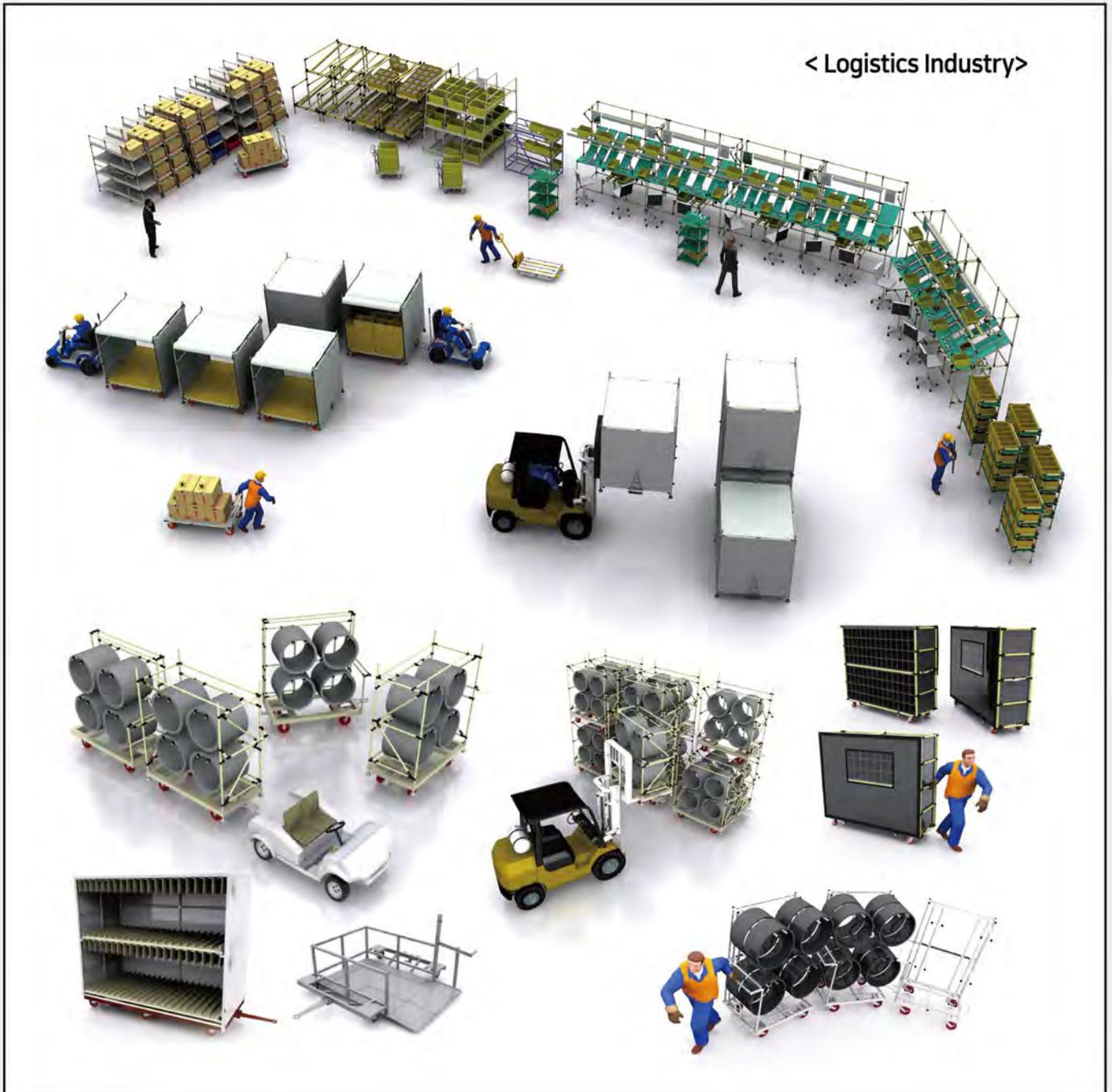


9

PRODUCT 3D MODELING

Rack System / Work Table / Shelf / Cart / DIY

< Logistics Industry >



< Other Industries >



< Automobile Industry & Electronics industry >



Product 3D Modeling (1)

1



2



3



4



5



6



7



8



9



10



11



12



13



14



15



16



17



18



19



20



21



22



23



24-1



24-2



Product 3D Modeling (3)

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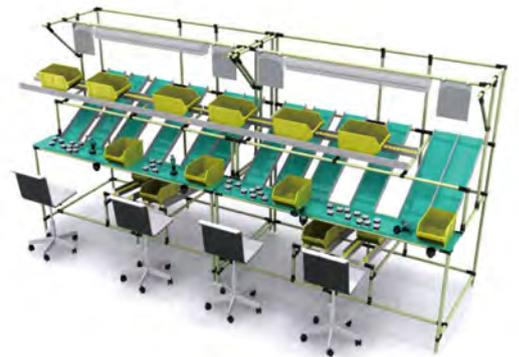
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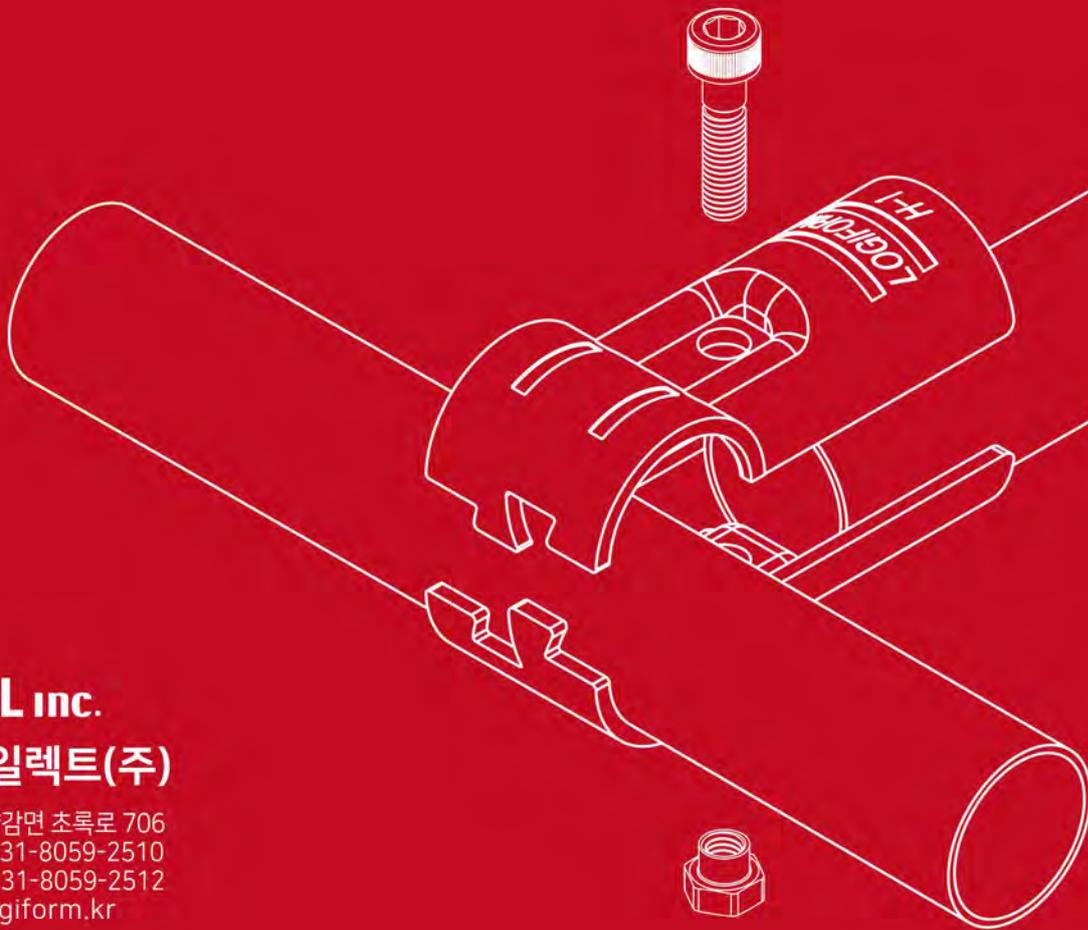
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