ISO 9001:2008 / ISO 14001:2004

LOGIFORM®

Ver.02

Wide range of Lean-Manufacturing products & services provider

Logiform pipes

Metal / Plastic joints

Placons

Accessories

www.hbjoint.com
www.leanlab.kr
www.rksgroup.eu

RKS Group

LOGIFORM

Easy implementation of your custom designed Lean Manufacturing concepts,
allowing for the build of an ergonomic working environment with the lowest possible budget.

COMPANY HISTORY

DECEMBER, 2012	Winning an "Export Tower Prize" for breaking the export records of 10 million US Dollars. (KITA)
NOVEMBER, 2011	The launch of a corporation named 'LOGIFORM Co. Ltd.' in Vietnam
MAY, 2011	Acquisition of [ISO 9001:2008] and [ISO 14001:2004].
SEPTEMBER, 2010	Expansion of production line.
JANUARY, 2009	Migration of main office and production line to the present domicile.
DECEMBER, 2007	Named as one of "Innovative Business Corporates" by Gyeonggi Municipal Government.
DECEMBER, 2006	Acquisition of "INNO-BIZ" certificate.
NOVEMBER, 2006	Establishment of the R&D Center.
JULY, 2006	The official launch of HBL's signature brand "LOGIFORM".
JUNE, 2004	Acquisition of [ISO 9001:2000].
MAY, 2004	Change of the company name from "Han-Bo Erector Co. Ltd." to "HBL Inc.".
MAY, 2004	The launch of a European sales & assembly division named "HBLOGIS s.r.o." in Slovakia.
SEPTEMBER, 1997	Establishment of "Han-Bo Erector Co. Ltd.".

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What is LOGIFORM

Turning your thoughts into reality couldn't be easier. LOGIFORM adds momentum to your cost-effective material handling plan.

- Easy accessibility : In a few steps you can start to build a customised structure
- Clean and vivid appearance : Logiform pipe enables its exterior surface to retain its appearance.
- Modification friendly : Quick implementation of changes is achievable with the minimum of effort.
- Reliability : Build an easy-to-handle mobile structure. It's light-weight and yet robust!
- Low budget : You do not need a dedicated facility for the assembly work.
- Simplicity : Turn off your welder. Now you just need to connect one piece of pipe to another.
- Perpetual stream of Kazen events : Implement your Kaizen ideas in real time with purpose built structures.

로지폼은 아이디어에서 제작까지의 창조 활동을 실현합니다. 표면을 프라스틱으로 피복한 로지폼 파이프와 풍부한 종류의 조인트에 의하여 다양한 구조체를 손쉽게 제작할 수 있는 특성과 시스템을 갖춘 제품입니다.

- 조립이 간단하여 특별한 기술이 없어도 제작이 가능합니다.
- 표면이 수지로 코팅 처리되어 청결함이 오래 유지됩니다.
- 제작에 실패하여도 수정이 간단합니다.
- 경량 자재이므로 제작 및 제작물의 운반이 용이 합니다.
- 제작을 위한 설비가 필요 없습니다.
- 용접할 필요가 없어 안전하며, 현장 맞춤이 간단합니다.
- 계속적인 개선 활동을 추진할 수 있습니다.

Before

After

PIPES

1. STANDARD PIPE
2. ESD PIPE
3. STAINLESS PIPE

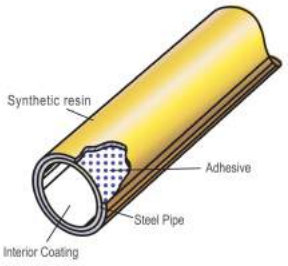
LOGIFORM Q-PIPE

LOGIFORM Q-PIPE is steel pipe with a synthetic plastic resin coated outer surface.

LOGIFORM Q-PIPE 는 표면에 합성프라스틱을 입힌 스틸파이프 입니다.

- 내열성이 우수하다. (100℃ 까지 사용 가능-제한적)
- HINGE특성 (복원력이 우수)
- 화학적 안정성을 갖는다.
- 무독성이다.

- Heat resistance up to approx. 100 degree Celsius
- High oli resistance
- High chemical resistance
- Minium toxin of plastic resin



※방청 색상은 예고 없이 변경 될 수 있음
The color of interior coating subjected to change

■ Packing Unit
1 Bar (1본) = 4M
1 Bundle (1묶음) = 10 Bars

LP - 1100 IV

LP: LOGIFORM PRODUCT CODE (파이프분류)
1100: THICKNESS (파이프두께)
IV: COLORS (파이프색상)

LOGIFORM PIPE STANDARD COLORS

■ STANDARD PRODUCTION LINE-UP

DESCRIPTION	COLOR		THINKENESS			
			0.7T	1.0T	1.1T	2.0T
LOGIFORM Q-PIPE	IVORY	(IV)		●		●
	WHITE	(WH)		●		●
	GRAY	(GR)		●		●
	BLUE	(BL)		●		●
	BLACK	(BK)		●		
CONDUCTIVE PIPE	BLACK	(BK)		●		
SLIDE PIPE	IVORY	(IV)		●		●
STAINLESS PIPE	201		●		●	
	304				●	
	439		●		●	

■ OPITIONS

DESCRIPTION	COLOR		THINKENESS				
			0.7T	1.0T	1.1T	1.5T	2.0T
LOGIFORM Q-PIPE	DEEP GRAY	(EG)		●			●
	DARK GRAY	(DG)		●			●
	SKY BLUE	(SB)		●			●
	DARK BLUE	(DB)		●			●
	GREEN	(GN)		●			●
	RED	(RD)		●			●
	BLACK	(BK)					●
CONDUCTIVE PIPE	BLACK	(BK)					●
SLIDE PIPE	GRAY	(GR)		●			
ALUMINUM PIPE	SILVER					●	
ANTISTATIC PIPE	IVORY	(IV)		●			
	GRAY	(GR)		●			
POWDER COATED PIPE	GRAY	(GR)	●	●			
	GRAY-ESD	(GR)	●	●			

※ 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

LOGIFORM Q-PIPE

PRODUCT CODE	THICKNESS (Steel)	WEIGHT
LP-1100	1t	676g/m
LP-1200	2t	1,265g/m

EX)LP-1100IV

CONDUCTIVE PIPE

도전성

PRODUCT CODE	THICKNESS (Steel)	WEIGHT
CP-1100BK	1t	676g/m
CP-1200BK	2t	1,265g/m

EX)CP-1100BK

ANTISTATIC COLORED PIPE

대전방지

Surface Resistance
$10^{5}\Omega \sim 10^{11}\Omega$

PRODUCT CODE	THICKNESS (Steel)	WEIGHT
AP-1100IV	1t	676g/m
AP-1100GR	1t	676g/m

EX)AP-1100GR

SLIDE PIPE

PRODUCT CODE	THICKNESS (Steel)	WEIGHT
SL-1100	1t	767g/m

EX)SL-1100IV

STAINLESS PIPE

PRODUCT CODE	THICKNESS (Stainless)	WEIGHT
ST-1070 (201/439)	0.7t	473g/m
ST-1110 (201/304/439)	1.1t	734g/m

EX)ST-1070

ALUMINIUM PIPE

PRODUCT CODE	THICKNESS (Aluminium)	WEIGHT
AL-1150	1.5t	380g/m

POWDER COATED PIPE

분체대전방지 (ANTISTATIC)

PRODUCT CODE	THICKNESS (Steel)	WEIGHT
PE-1070	0.7t	460g/m
PE-1100	1.0t	655g/m

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

PIPES

ESD PIPE

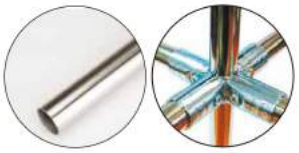
ANTISTATIC COLORED PIPE

Surface Resistance (표면저항) : $10^{8}\,\Omega \sim 10^{10}\,\Omega$
Colors : Gray / Ivory

CONDUCTIVE PIPE

Surface Resistance (표면저항) : $\sim 10^{6}\,\Omega$
Color : Black

STAINLESS PIPE



- Easy to clean
- Conductive
- High resistant to oil and chemicals

- 고광택이며 먼지가 잘 타지 않음
- 파이프에 정전기가 발생하지 않음
- 내약품성 내식성임

COMPARISON TABLE OF ABS RESIN AND LOGIFORM Q-PIPE

MEDICINE (약 품 명)	RESULT (결과)		MEDICINE (약 품 명)	RESULT (결과)	
	Q-PIPE	ABS		Q-PIPE	ABS
WD-20(방청유)	△	△	Malic acid(10%)(사과산)	○	○
Sodium chloride(땀)	○	X	Menthol(소독약)	○	△
Break oil	○	X	Mercury(수은)	○	○
UV(자외선)	△	△	Mercury chloride(염화수은)	○	○
Cutting oil(절삭유)	○	X	Mesityl oxide(불포화케톤)	△	X
Table ware cleaser(식기용)	○	△	Methanol(유기알콜)	○	△
Washable cleaser(세탁용)	○	○	Methylene chloride(M.C)	△	X
Toilet cleaser(화장실용)	○	○	Thynner(신너)	○	X
M.E.K	△	X	Acetone(리무버)	○	X
Ethylene glycol(부동액)	○	○	Paint	○	X
Missoin oil(기어유)	○	X	Animal fat oil(동물성기름)	○	△
Toluene	○	X	Vegetable oil(식물성기름)	○	○

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

① 테스트 방법 : 침전반응 방식 (Methods : Spread, Submerge materials)
② 테스트 기간 : 30일 이상 (Duration : Over 30days)
③ and youser의 사용 온도에 따라 화학성은 상이함(통상온도 조건 테스트 시행 20~30℃) (Temperature : 20~30 degrees Celsius)

METAL JOINTS

SURFACE TREATMENT (표면처리)

ITEM	COLOR	TREATMENT
BK	BLACK ■	ELECTRODEPOSITION COATED
SV	SILVER ■	TRIVALENT CHROMIUM PLATED
NI	NICKEL ■	NICKEL PLATED

CODE NUMBERING (제품코드 기입예)

Product Code Examples	MJ-2101NI METAL JOINT H-1	NICKEL	(니켈도금)
	MJ-2101SV METAL JOINT H-1	SILVER	(3가아연도금)
	MJ-2101BK METAL JOINT H-1	BLACK	(전착)

METAL JOINTS BLACK (BK) / SILVER (SV) / NICKEL-CONDUCTIVE (NI)

H-1(MJ-2101BK)

■240ea/box ■72g/ea

H-1B(MJ-2201BK)

■240ea/box ■62g/ea

H-2(MJ-2102BK)

■150ea/box ■96g/ea

H-3(MJ-2103BK)

■70ea/box ■122g/ea

H-4(MJ-2104BK)

■180ea/box ■112g/ea

H-5(MJ-2105BK)

■300ea/box ■44g/ea

H-6(MJ-2106BK)

■300ea/box ■54g/ea

H-6B(MJ-2206BK)

■300ea/box ■52g/ea

H-7(MJ-2107BK)

■180ea/box ■50g/ea

H-7B(MJ-2207BK)

■180ea/box ■40g/ea

H-8(MJ-2108BK)

■300ea/box ■48g/ea

H-9(MJ-2109BK)

■100ea/box ■140g/ea

H-10(MJ-2110BK)

■180ea/box ■60g/ea

H-11(MJ-2111BK)

■200ea/box ■64g/ea

H-11B(MJ-2211BK)

■200ea/box ■54g/ea

METAL JOINTS BLACK (BK) / SILVER (SV) / NICKEL-CONDUCTIVE (NI)

H-12(MJ-2112BK)

■200ea/box ■60g/ea

H-13(MJ-2113BK)

■140ea/box ■92g/ea

H-14(MJ-2114BK)

■150ea/box ■78g/ea

H-15A(MJ-2115BK)

■300ea/box ■44g/ea

H-15B(MJ-2215BK)

■300ea/box ■38g/ea

H-16(MJ-2116BK)

■300ea/box ■50g/ea

H-16B(MJ-2216BK)

■300ea/box ■50g/ea

H-17(MJ-2117BK)

■180ea/box ■66g/ea

H-18(MJ-2118BK)

■240ea/box ■66g/ea

H-19(MJ-2119BK)

■300ea/box ■62g/ea

H-20(MJ-2120BK)

■150ea/box ■94g/ea

H-21(MJ-2121BK)

■150ea/box ■100g/ea

H-45A(MJ-2145BK)

■140ea/box ■60g/ea

H-45B(MJ-2245BK)

■140ea/box ■60g/ea

H-108(MJ-21108BK)

■140ea/box ■100g/ea

METAL JOINTS BLACK (BK) / SILVER (SV) / NICKEL-CONDUCTIVE (NI)

H-162(MJ-21162BK)

■180ea/box ■100g/ea

METAL JOINTS BLACK (BK) / SILVER (SV) / NICKEL-CONDUCTIVE (NI)

H-1(MJ-2101SV)

■240ea/box ■72g/ea

H-1B(MJ-2201SV)

■240ea/box ■62g/ea

H-2(MJ-2102SV)

■150ea/box ■96g/ea

H-3(MJ-2103SV)

■70ea/box ■122g/ea

H-4(MJ-2104SV)

■180ea/box ■112g/ea

H-5(MJ-2105SV)

■300ea/box ■44g/ea

H-6(MJ-2106SV)

■300ea/box ■54g/ea

H-6B(MJ-2206SV)

■300ea/box ■52g/ea

H-7(MJ-2107SV)

■180ea/box ■50g/ea

H-7B(MJ-2207SV)

■180ea/box ■40g/ea

H-8(MJ-2108SV)

■300ea/box ■48g/ea

H-9(MJ-2109SV)

■100ea/box ■140g/ea

H-10(MJ-2110SV)

■180ea/box ■60g/ea

H-11(MJ-2111SV)

■200ea/box ■64g/ea

H-11B(MJ-2211SV)

■200ea/box ■54g/ea

METAL JOINTS

BLACK (BK) / SILVER (SV) / NICKEL-CONDUCTIVE (NI)

H-12(MJ-2112SV)

■200ea/box ■60g/ea

H-13(MJ-2113SV)

■140ea/box ■92g/ea

H-14(MJ-2114SV)

■150ea/box ■78g/ea

H-15A(MJ-2115SV)

■300ea/box ■44g/ea

H-15B(MJ-2215SV)

■300ea/box ■38g/ea

H-16(MJ-2116SV)

■300ea/box ■50g/ea

H-16B(MJ-2216SV)

■300ea/box ■50g/ea

H-17(MJ-2117SV)

■180ea/box ■66g/ea

H-18(MJ-2118SV)

■240ea/box ■66g/ea

H-19(MJ-2119SV)

■300ea/box ■62g/ea

H-20(MJ-2120SV)

■150ea/box ■94g/ea

H-21(MJ-2121SV)

■150ea/box ■100g/ea

H-45A(MJ-2145SV)

■140ea/box ■60g/ea

H-45B(MJ-2245SV)

■140ea/box ■60g/ea

H-108(MJ-21108SV)

■140ea/box ■100g/ea

METAL JOINTS

BLACK (BK) / SILVER (SV) / NICKEL-CONDUCTIVE (NI)

H-162(MJ-21162SV)

■180ea/box ■100g/ea

METAL JOINT SETS BLACK (BK) / SILVER (SV) / NICKEL-CONDUCTIVE (NI)

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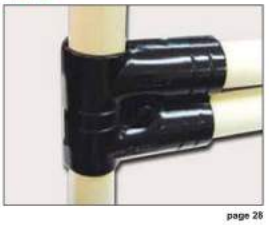

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METAL JOINT SETS BLACK (BK) / SILVER (SV) / NICKEL-CONDUCTIVE (NI)

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METAL JOINT SETS BLACK (BK) / SILVER (SV) / NICKEL-CONDUCTIVE (NI)

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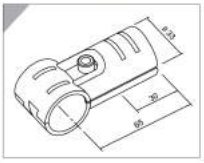
METAL JOINT SETS BLACK (BK) / SILVER (SV) / NICKEL-CONDUCTIVE (NI)

HJ-1

H-1 : 2ea

Bolt(WB-0625) : 1ea

Nut(NU-0600) : 1ea



H-1 (MJ-2101BK)

■240ea/box ■72g/ea

H-1 (MJ-2101SV)

■240ea/box ■72g/ea

H-1 (MJ-2101NI)

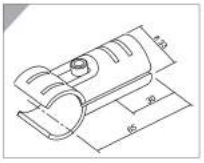
■240ea/box ■72g/ea

HJ-1B

H-1B : 2ea

Bolt(WB-0625) : 1ea

Nut(NU-0600) : 1ea



H-1B (MJ-2201BK)

■240ea/box ■62g/ea

H-1B (MJ-2201SV)

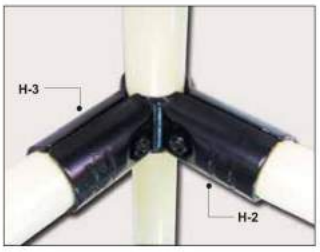
■240ea/box ■62g/ea

H-1B (MJ-2201NI)

■240ea/box ■68g/ea

METAL JOINT SETS BLACK (BK) / SILVER (SV) / NICKEL-CONDUCTIVE (NI)

HJ-2

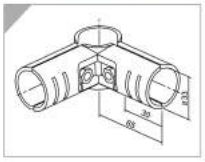


H-2 : 1ea

H-3 : 1ea

Bolts(WB-0625) : 2ea

Nuts(NU-0600) : 2ea



H-2 (MJ-2102BK)

■150ea/box ■96g/ea

H-2 (MJ-2102SV)

■150ea/box ■96g/ea

H-2 (MJ-2102NI)

■150ea/box ■96g/ea

H-3 (MJ-2103BK)

■70ea/box ■122g/ea

H-3 (MJ-2103SV)

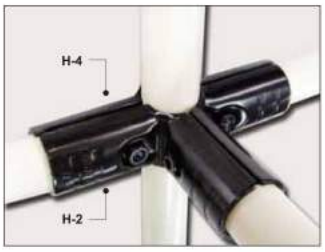
■70ea/box ■122g/ea

H-3 (MJ-2103NI)

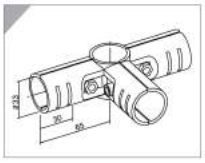
■70ea/box ■122g/ea

METAL JOINT SETS BLACK (BK) / SILVER (SV) / NICKEL-CONDUCTIVE (NI)

HJ-3



H-2 : 2ea
H-4 : 1ea
Bolts(WB-0625) : 3ea
Nuts(NU-0600) : 3ea



H-2 (MJ-2102BK)

■150ea/box ■96g/ea

H-2 (MJ-2102SV)

■150ea/box ■96g/ea

H-2 (MJ-2102NI)

■150ea/box ■96g/ea

H-4 (MJ-2104BK)

■180ea/box ■112g/ea

H-4 (MJ-2104SV)

■180ea/box ■112g/ea

H-4 (MJ-2104NI)

■180ea/box ■112g/ea

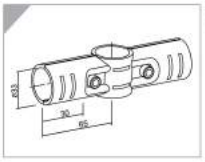
METAL JOINT SETS BLACK (BK) / SILVER (SV) / NICKEL-CONDUCTIVE (NI)

HJ-4

H-4 : 2ea

Bolts(WB-0625) : 2ea

Nuts(NU-0600) : 2ea



H-4 (MJ-2104BK)

■180ea/box ■112g/ea

H-4 (MJ-2104SV)

■180ea/box ■112g/ea

H-4 (MJ-2104NI)

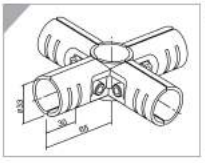
■180ea/box ■112g/ea

HJ-5

H-2 : 4ea

Bolts(WB-0625) : 4ea

Nuts(NU-0600) : 4ea



H-2 (MJ-2102BK)

■150ea/box ■96g/ea

H-2 (MJ-2102SV)

■150ea/box ■96g/ea

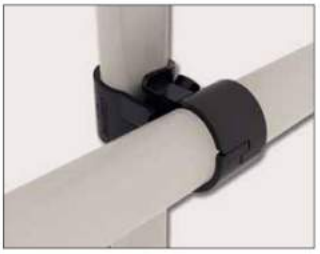
H-2 (MJ-2102NI)

■150ea/box ■96g/ea

METAL JOINT SETS

BLACK (BK) / SILVER (SV) / NICKEL-CONDUCTIVE (NI)

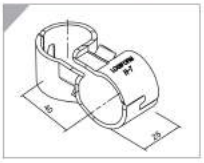
HJ-6



H-7 : 2ea

Bolt(WB-0625) : 1ea

Nut(NU-0600) : 1ea



H-7 (MJ-2107BK)

■180ea/box ■50g/ea

H-7 (MJ-2107SV)

■180ea/box ■50g/ea

H-7 (MJ-2107NI)

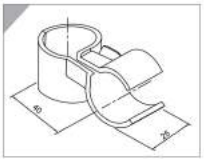
■180ea/box ■50g/ea

HJ-6B

H-7B : 2ea

Bolt(WB-0625) : 1ea

Nut(NU-0600) : 1ea



H-7B (MJ-2207BK)

■180ea/box ■40g/ea

H-7B (MJ-2207SV)

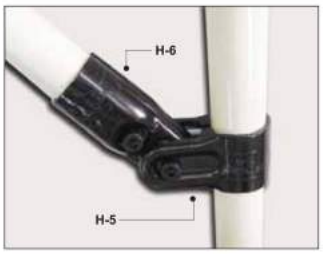
■180ea/box ■40g/ea

H-7B (MJ-2207NI)

■180ea/box ■40g/ea

METAL JOINT SETS BLACK (BK) / SILVER (SV) / NICKEL-CONDUCTIVE (NI)

HJ-7

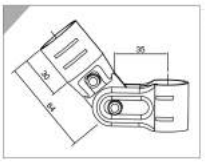


H-5 : 2ea

H-6 : 2ea

Bolts(WB-0625) : 2ea

Nuts(NU-0600) : 2ea



H-5 (MJ-2105BK)

■300ea/box ■44g/ea

H-5 (MJ-2105SV)

■300ea/box ■40g/ea

H-5 (MJ-2105NI)

■300ea/box ■44g/ea

H-6 (MJ-2106BK)

■300ea/box ■54g/ea

H-6 (MJ- 2106SV)

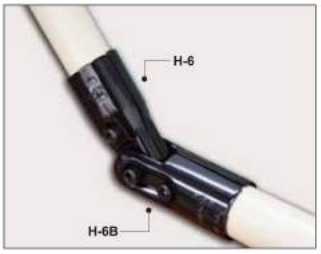
■300ea/box ■54g/ea

H-6 (MJ-2106NI)

■300ea/box ■54g/ea

METAL JOINT SETS BLACK (BK) / SILVER (SV) / NICKEL-CONDUCTIVE (NI)

HJ-7B

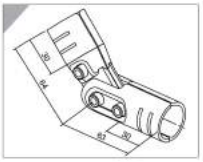


H-6 : 2ea

H-6B : 2ea

Bolts(WB-0625) : 3ea

Nuts(NU-0600) : 3ea



H-6 (MJ-2106BK)

■300ea/box ■54g/ea

H-6 (MJ- 2106SV)

■300ea/box ■54g/ea

H-6 (MJ-2106NI)

■300ea/box ■54g/ea

H-6B (MJ-2206BK)

■300ea/box ■52g/ea

H-6B (MJ- 2206SV)

■300ea/box ■52g/ea

H-6B (MJ-2206NI)

■300ea/box ■52g/ea

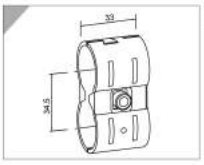
METAL JOINT SETS BLACK (BK) / SILVER (SV) / NICKEL-CONDUCTIVE (NI)

HJ-8

H-8 : 2ea

Bolt(WB-0625) :1ea

Nut(NU-0600) : 1ea



H-8 (MJ-2108BK)

■300ea/box ■48g/ea

H-8 (MJ-2108SV)

■300ea/box ■48g/ea

H-8 (MJ-2108NI)

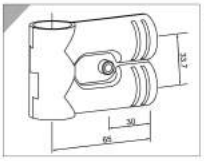
■300ea/box ■48g/ea

HJ-9

H-9 : 2ea

Bolt(WB-0625) : 1ea

Nut(NU-0600) : 1ea



H-9 (MJ-2109BK)

■100ea/box ■140g/ea

H-9 (MJ-2109SV)

■100ea/box ■140g/ea

H-9 (MJ-2109NI)

■100ea/box ■140g/ea

METAL JOINT SETS

BLACK (BK) / SILVER (SV) / NICKEL-CONDUCTIVE (NI)

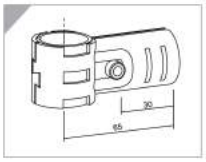
HJ-10

H-10 : 2ea

PJ-140A : 1ea

Bolt(WB-0625) : 1ea

Nut(NU-0600) : 1ea



H-10 (MJ-2110BK)

■180ea/box ■60g/ea

H-10 (MJ-2110SV)

■180ea/box ■60g/ea

H-10 (MJ-2110NI)

■180ea/box ■60g/ea

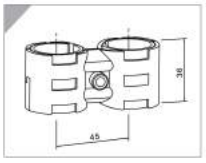
HJ-11

H-11 : 2ea

PJ-140A : 2ea

Bolt(WB-0625) : 1ea

Nut(NU-0600) : 1ea



H-11 (MJ-2111BK)

■200ea/box ■54g/ea

H-11 (MJ-2111SV)

■200ea/box ■54g/ea

H-11 (MJ-2111NI)

■200ea/box ■54g/ea

METAL JOINT SETS BLACK (BK) / SILVER (SV) / NICKEL-CONDUCTIVE (NI)

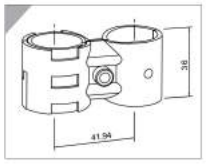
HJ-11B

H-11B : 2ea

PJ-140A :1ea

Bolt(WB-0625) : 1ea

Nut(NU-0600) : 1ea



H-11B (MJ-2211BK)

■200ea/box ■54g/ea

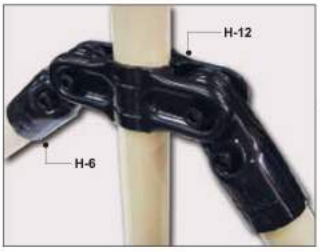
H-11B (MJ-2211SV)

■200ea/box ■54g/ea

NICKEL UNAVAILABLE

METAL JOINT SETS BLACK (BK) / SILVER (SV) / NICKEL-CONDUCTIVE (NI)

HJ-12

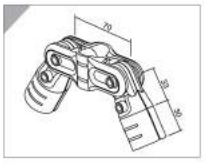


H-6 : 4ea

H-12 : 2ea

Bolts(WB-0625) : 4ea

Nuts(NU-0600) : 4ea



H-12 (MJ-2112BK)

■200ea/box ■60g/ea

H-12 (MJ-2112SV)

■200ea/box ■60g/ea

H-12 (MJ-2112NI)

■200ea/box ■60g/ea

H-6 (MJ-2106BK)

■300ea/box ■54g/ea

H-6 (MJ-2106SV)

■300ea/box ■54g/ea

H-6 (MJ-2106NI)

■300ea/box ■54g/ea

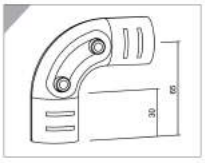
METAL JOINT SETS BLACK (BK) / SILVER (SV) / NICKEL-CONDUCTIVE (NI)

HJ-13

H-13 : 2ea

Bolts(WB-0625) : 2ea

Nuts(NU-0600) : 2ea



H-13 (MJ-2113BK)

■140ea/box ■92g/ea

H-13 (MJ-2113SV)

■140ea/box ■92g/ea

H-13 (MJ-2113NI)

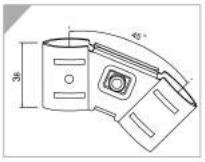
■140ea/box ■92g/ea

HJ-14

H-14 : 2ea

Bolt(WB-0625) : 1ea

Nut(NU-0600) : 1ea



H-14 (MJ-2114BK)

■150ea/box ■78g/ea

H-14 (MJ-2114SV)

■150ea/box ■78g/ea

H-14 (MJ-2114NI)

■150ea/box ■78g/ea

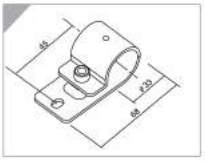
METAL JOINT SETS BLACK (BK) / SILVER (SV) / NICKEL-CONDUCTIVE (NI)

HJ-15

H-15A : 1ea

H-15B : 1ea

Bolt(WB-0610) : 1ea



H-15A (MJ-2115 BK)

■300ea/box ■44g/ea

H-15A (MJ-2115SV)

■300ea/box ■44g/ea

H-15A (MJ-2115NI)

■300ea/box ■44g/ea

H-15B (MJ-2215BK)

■300ea/box ■38g/ea

H-15B (MJ-2215SV)

■300ea/box ■38g/ea

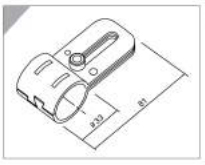
H-15B (MJ-2215NI)

■300ea/box ■38g/ea

METAL JOINT SETS BLACK (BK) / SILVER (SV) / NICKEL-CONDUCTIVE (NI)

HJ-16

H-16 : 2ea



H-16 (MJ-2116BK)

■300ea/box ■50g/ea

H-16 (MJ-2116SV)

■300ea/box ■50g/ea

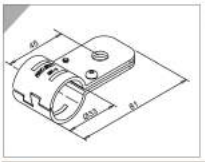
H-16 (MJ-2116NI)

■300ea/box ■50g/ea

HJ-16B

H-16B : 2ea

Bolt(TS-0408) : 2EA



H-16B (MJ-2216BK)

■300ea/box ■50g/ea

H-16B (MJ-2216SV)

■300ea/box ■50g/ea

H-16B (MJ-2216NI)

■300ea/box ■50g/ea

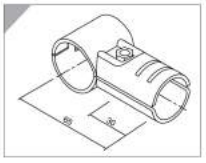
METAL JOINT SETS BLACK (BK) / SILVER (SV) / NICKEL-CONDUCTIVE (NI)

HJ-17

H-17 : 2ea

Bolt(WB-0625) : 1ea

Nut(NU-0600) : 1ea



H-17 (MJ-2117BK)

■180ea/box ■66g/ea

H-17 (MJ-2117SV)

■180ea/box ■66g/ea

H-17 (MJ-2117NI)

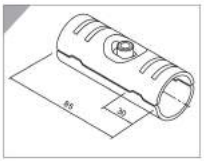
■180ea/box ■66g/ea

HJ-18

H-18 : 2ea

Bolt(WB-0625) : 1ea

Nut(NU-0600) : 1ea



H-18 (MJ-2118BK)

■240ea/box ■66g/ea

H-18 (MJ-2118SV)

■240ea/box ■66g/ea

H-18 (MJ-2118NI)

■240ea/box ■66g/ea

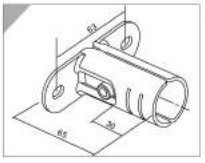
METAL JOINT SETS BLACK (BK) / SILVER (SV) / NICKEL-CONDUCTIVE (NI)

HJ-19

H-19 : 2ea

Bolt(WB-0625) : 1ea

Nut(NU-0600) : 1ea



H-19 (MJ-2119BK)

■300ea/box ■ 62g/ea

H-19 (MJ-2119SV)

■300ea/box ■ 62g/ea

H-19 (MJ-2119NI)

■300ea/box ■ 62g/ea

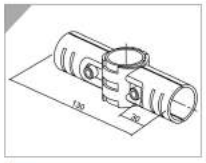
HJ-20

H-20 : 2ea

PJ-140A : 1ea

Bolt(WB-0625) : 2ea

Nut(NU-0600) : 2ea



H-20 (MJ-2120BK)

■150ea/box ■94g/ea

H-20 (MJ-2120SV)

■150ea/box ■94g/ea

H-20 (MJ-2120NI)

■150ea/box ■94g/ea

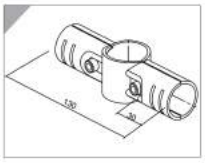
METAL JOINT SETS BLACK (BK) / SILVER (SV) / NICKEL-CONDUCTIVE (NI)

HJ-21

H-21 : 2ea

Bolt(WB-0625) : 2ea

Nut(NU-0600) : 2ea



H-21 (MJ-2121BK)

■150ea/box ■100g/ea

H-21 (MJ-2121SV)

■150ea/box ■100g/ea

H-21 (MJ-2121NI)

■150ea/box ■100g/ea

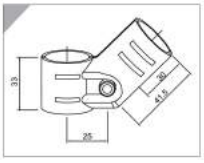
HJ-45

H-45A : 1ea

H-45B : 1ea

Bolt(WB-0625) : 1ea

Nut(NU-0600) : 1ea



H-45A (MJ-2145BK)

■140ea/box ■60g/ea

H-45A (MJ-2145SV)

■140ea/box ■60g/ea

H-45A (MJ-2145NI)

■140ea/box ■60g/ea

METAL JOINT SETS BLACK (BK) / SILVER (SV) / NICKEL-CONDUCTIVE (NI)

HJ-108

H-108 : 2ea

Bolts(WB-0625) : 2ea

Nuts(NU-0600) : 2ea

H-108 (MJ-21108BK)

■140ea/box ■92g/ea

H-108 (MJ-21108SV)

■140ea/box ■92g/ea

H-108 (MJ-21108NI)

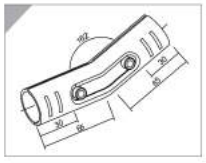
■140ea/box ■92g/ea

HJ-162

H-162 : 2ea

Bolts(WB-0625) : 2ea

Nuts(NU-0600) : 2ea



H-162 (MJ-21162BK)

■180ea/box ■92g/ea

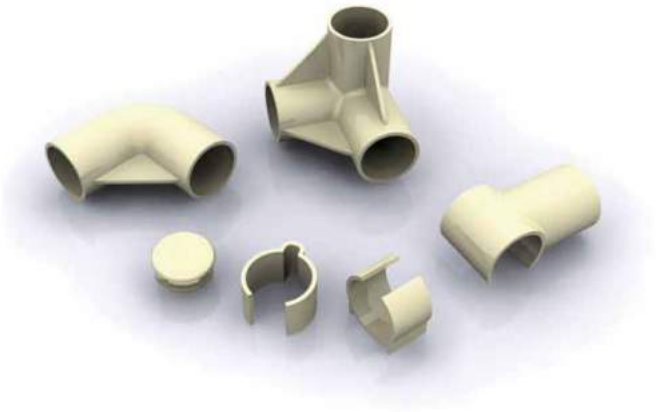
H-162 (MJ-21162SV)

■180ea/box ■92g/ea

H-162 (MJ-21162NI)

■180ea/box ■92g/ea

PLASTIC JOINTS

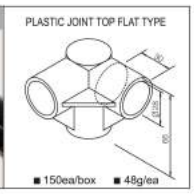


PLASTIC JOINTS

PLASTIC JOINTS

PJ-104C (IV)

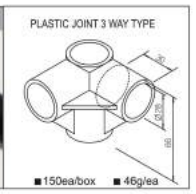
PLASTIC JOINT TOP FLAT TYPE



■ 150ea/box ■ 48g/ea

PJ-104D (IV)

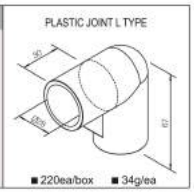
PLASTIC JOINT 3 WAY TYPE



■ 150ea/box ■ 46g/ea

PJ-105 (IV)

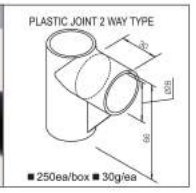
PLASTIC JOINT L TYPE



■ 220ea/box ■ 34g/ea

PJ-118 (IV)

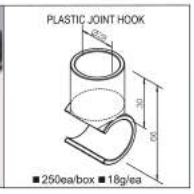
PLASTIC JOINT 2 WAY TYPE



■ 250ea/box ■ 30g/ea

PJ-159 (IV)

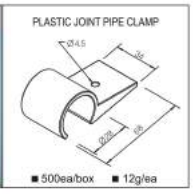
PLASTIC JOINT HOOK



■ 250ea/box ■ 18g/ea

PJ-113 (IV)

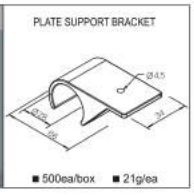
PLASTIC JOINT PIPE CLAMP



■ 500ea/box ■ 12g/ea

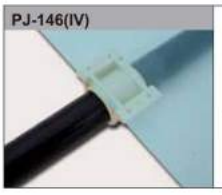
PJ-113B (IV)

PLATE SUPPORT BRACKET

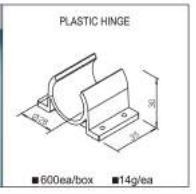


■ 500ea/box ■ 21g/ea

PJ-146(IV)

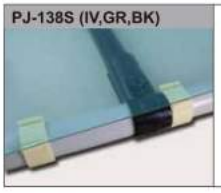


PLASTIC HINGE



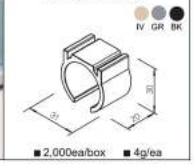
■ 600ea/box ■ 14g/ea

PJ-138S (IV,GR,BK)



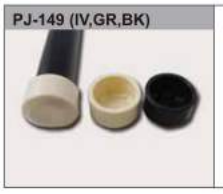
HORIZONTAL HOLDER

IV GR BK



■ 2,000ea/box ■ 4g/ea

PJ-149 (IV,GR,BK)



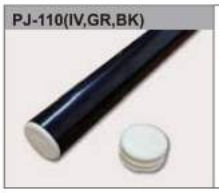
PIPE OUTER CAP

IV GR BK

■ 1,500pcs/box ■ 7.4g/ea

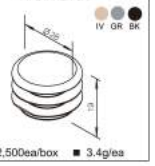
PLASTIC JOINTS

PJ-110(IV,GR,BK)



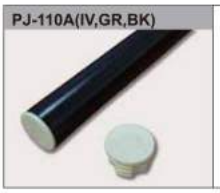
PIPE INNER CAP

IV GR BK



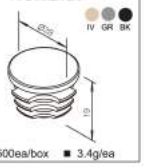
■2,500ea/box ■ 3.4g/ea

PJ-110A(IV,GR,BK)



PIPE INNER CAP

IV GR BK

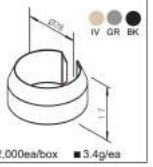


■2,500ea/box ■ 3.4g/ea

PJ-138C (IV,GR,BK)

TAPERED EDGE

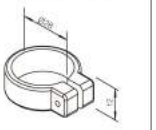
IV GR BK



■2,000ea/box ■3.4g/ea

PJ-141 (IV)

PLASTIC PIPE CLAMP

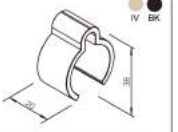


■2,000ea/box ■ 6.5g/ea

PJ-138B(IV,BK)

NAME PLATE HANGER

IV BK



■1,500ea/box ■ 5.4g/ea

PJ-140A (WH)

PLASTIC SLEEVE for HJ-10/11

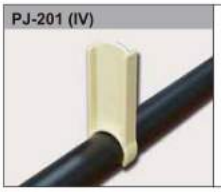
■1,000ea/box ■ 6g/ea

PJ-199 (IV)

PLASTIC DIVIDE JOINT

■1,200ea/box ■ 8g/ea

PJ-201 (IV)



PLASTIC DIVIDE JOINT

■600ea/box ■ 16g/ea

PJ-180(WH)

BAND-HOOK

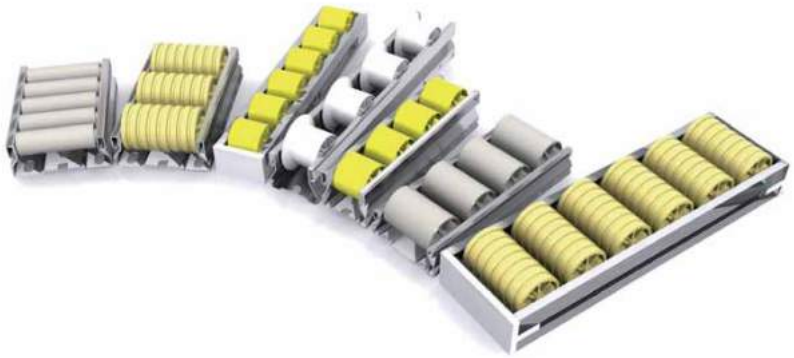
■200ea/box ■ 14g/ea

PJ-5131

PLASTIC OVERLAB CAP

■ 180ea/box ■ 30g/ea

PLACONS / ROLLER TRACKS



1. 40 SERIES
2. 60 SERIES
3. 73 SERIES
4. 100 SERIES

PLACON SPECIFICATIONS

PLACON STANDARD LENGTH / 4M								
SERIES	PRODUCT CODE	BODY	ROLLER SIZE	ROLLER PITCH	PIN	PIN LENGTH	CAPACITY	PRODUCT WEIGHT
40 SERIES	PL - 4014WH	STEEL	Ø30	35.72	Ø4	36.5mm	220kg/m	1,248g/m
	PL - 4014YL							1,248g/m
	PL - 4014BK							1,248g/m
	PL - 4014ED							1,248g/m
	PL - 4014GR		Ø46	53.58				1,102g/m
	PL - 4014LN		Ø30	35.72		35.6mm		1,248g/m
	PL - 4014WR		Ø30	35.72		36.5mm		1,416g/m
	PL - 4024WH	ALUMINIUM	Ø27.5	35.72	Ø3	33.8mm	170kg/m	656g/m
	PL - 4024YL							656g/m
	PL - 4024ED							656g/m
60 SERIES	PL - 6014WH	STEEL	Ø30	37.0	Ø3.8	58mm	300kg/m	1,294g/m
	PL - 6014ED							1,294g/m
	PL - 6014TP							1,591g/m
	PL - 6014EL							1,483g/m
	PL - 6014WS	STEEL-SMALL	Ø16	18.5			300kg/m	1,753g/m
	PL - 6014ES							1,753g/m
73 SERIES	PL - 7314WH	STEEL	Ø34	40.0	Ø4.95	69mm	350kg/m	1,910g/m
	PL - 7314ED							1,910g/m
	PL - 7314TP							2,110g/m
	PL - 7314EL							2,070g/m
	PL - 7314EG							1,950g/m
	PL - 7314WS	STEEL-SMALL	Ø18	20.0			350kg/m	1,910g/m
	PL - 7314TS							2,150g/m
	PL - 7314RS							2,070g/m
	PL - 7324WH	ALUMINIUM	Ø34	40.0		67mm	300kg/m	1,445g/m
	PL - 7324ED							1,445g/m
	PL - 7324TP							1,647g/m
	PL - 7324EL							1,607g/m
	PL - 7324EG							1,485g/m
	PL - 7324WS	ALUMINIUM SMALL	Ø18	20.0			300kg/m	1,493g/m
	PL - 7324TS							1,757g/m
	PL - 7324RS							1,669g/m
100 SERIES	PL - G100TS	ALUMINIUM SMALL	Ø18	20.0	Ø4	96mm	300kg/m	2,810g/m
	PL - G100WS							2,810g/m
	PL - P100TS							2,370g/m
	PL - P100WS							2,370g/m

CLASSIFICATION OF ROLLER

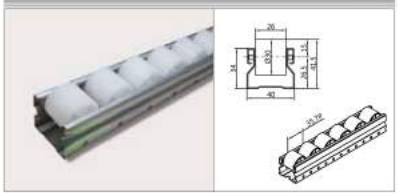
No	ITEM	DESCRIPTION	RESISTANCE
①	WH	WHITE	
②	YL	YELLOW	
③	BK	BLACK	
④	ED	ESD	$10^3\Omega$~$10^6\Omega$
⑤	GR	GUIDE ROLLER	
⑥	EL	ELASTOMER	
⑦	EG	ELASTOMER GROOVE	

No	ITEM	DESCRIPTION	RESISTANCE
⑧	TP	TPU(ESD)	$10^6\Omega$~$10^{11}\Omega$
⑨	LN	LESS NOISE	
⑩	WS	WHITE SMALL	
⑪	ES	ESD SMALL	$10^3\Omega$~$10^6\Omega$
⑫	RS	ELASTOMER SMALL	
⑬	TS	TPU(ESD) SMALL	$10^6\Omega$~$10^{11}\Omega$
⑭	WR	WHITE ROUND	

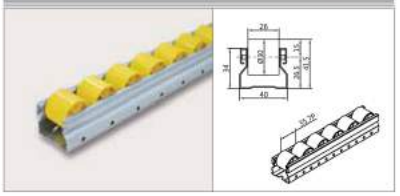
※ The specification may be subject to change without any prior notice.

40 SERIES (STEEL)

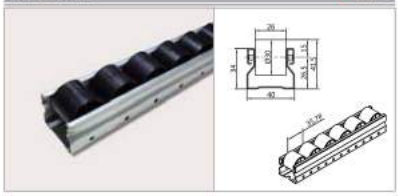
PL-4014WH WHITE



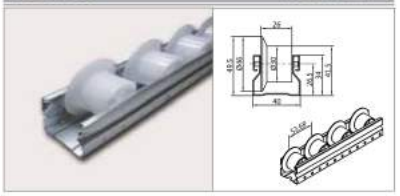
PL-4014YL YELLOW



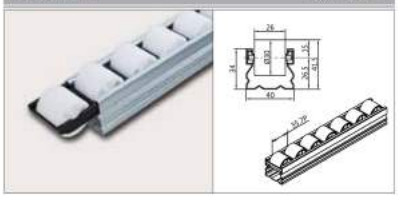
PL-4014ED ESD



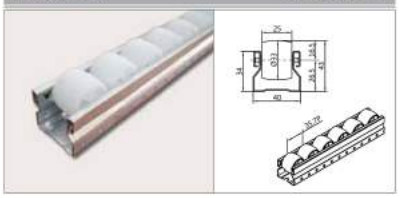
PL-4014GR GUIDE ROLLER



PL-4014LN LESS NOISE



PL-4014WR ROUND ROLLER



PL - 4014WH

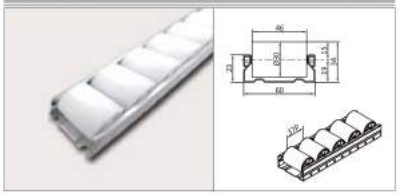
- PL: PLACON PRODUCT CODE
- 40: SERIES
- 1: BODY TYPE
  - 1 : STEEL
  - 2 : ALUMINIUM
- 4: LENGTH
  - LENGTH 3M
  - LENGTH 4M
- WH: ROLLER TYPE

Packing Unit

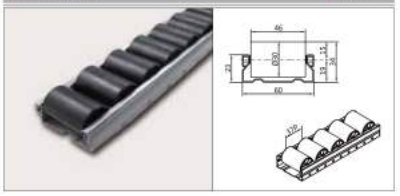
- 1 Bar (1본) = 4M
- 1 Bundle (1묶음) = 40 SERIES = 10 Bars
  - 60 SERIES = 30Φ: 6 Bars
  - 16Φ: 8 Bars
  - 73 SERIES = 5 Bars

60 SERIES (STEEL)

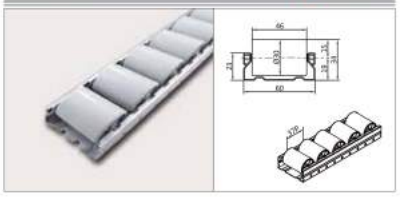
PL-6014WH WHITE



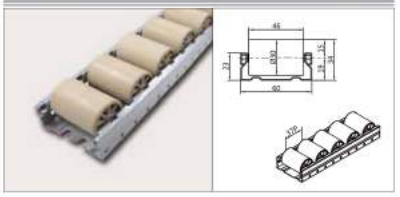
PL-6014ED ESD



PL-6014TP TPU(ESD)

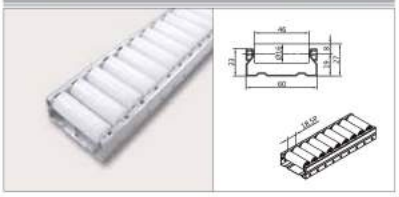


PL-6014EL ELASTOMER

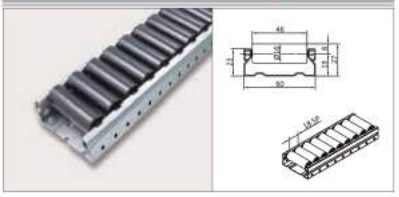


60 SERIES (STEEL) - SMALL ROLLER

PL-6014WS WHITE-SMALL

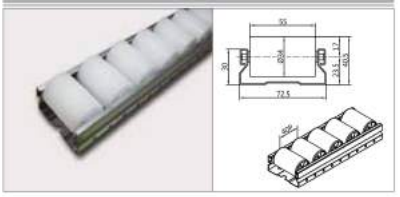


PL-6014ES ESD-SMALL

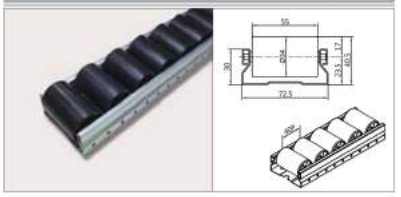


73 SERIES (STEEL)

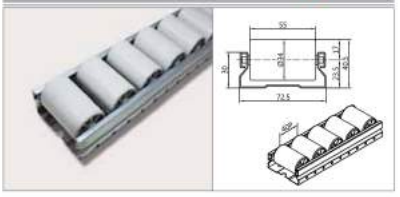
PL-7314WH WHITE



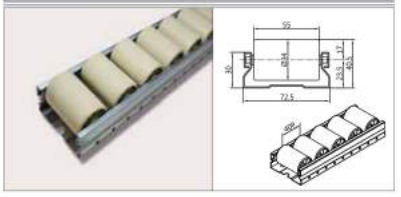
PL-7314ED ESD



PL-7314TP TPU-ESD

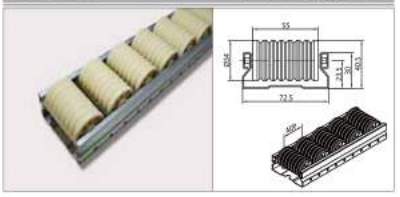


PL-7314EL ELASTOMER

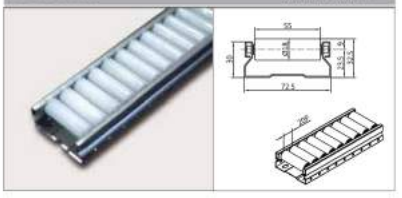


73 SERIES (STEEL) - SMALL ROLLER

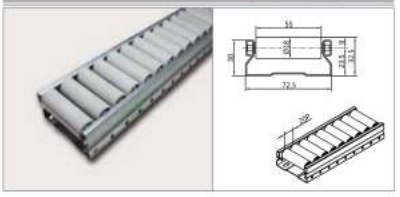
PL-7314EG ELASTOMER GROOVE



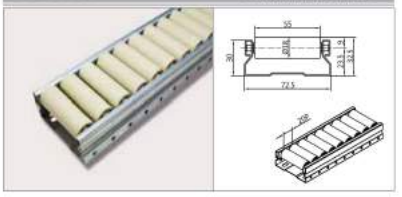
PL-7314WS WHITE-SMALL



PL-7314TS TPU-ESD-SMALL

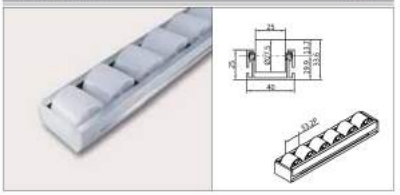


PL-7314RS ELASTOMER-SMALL

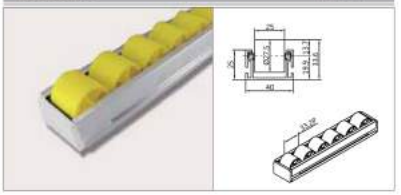


40 SERIES (ALUMINIUM BODY)

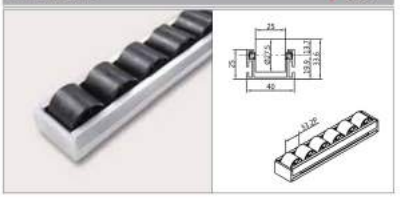
PL-4024WH WHITE



PL-4024YL YELLOW

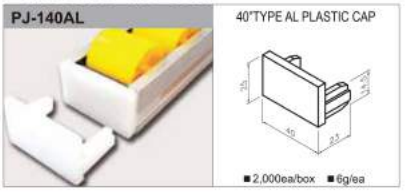


PL-4024ED ESD



PLACON END CAP

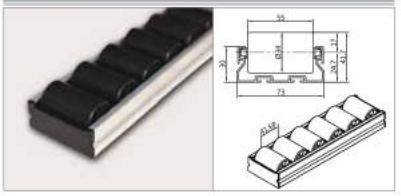
PJ-140AL 40"TYPE AL PLASTIC CAP



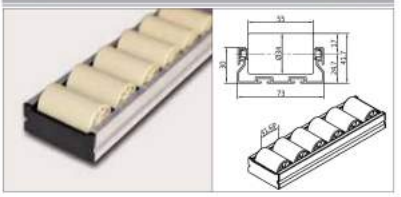
■2,000ea/box ■6g/ea

73 SERIES (ALUMINIUM BODY-NEW MODEL)

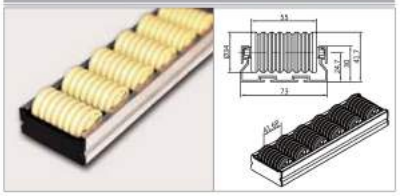
PL-7324ED ESD



PL-7324EL ELASTOMER



PL-7324EG ELASTOMER-GROOVE



PLACON END CAP

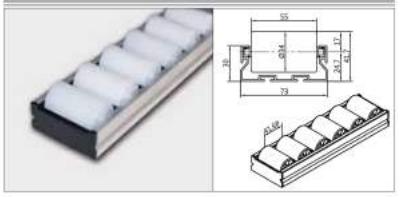
PJ-173AL 73"TYPE AL PLASTIC CAP

■1,300ea/box ■6g/ea

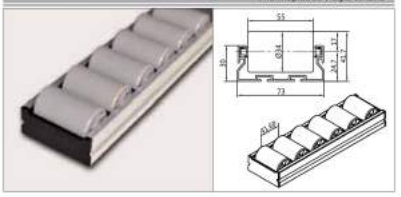
※Please contact our sales office with reference to the additional options available.

73 SERIES (ALUMINIUM BODY-NEW MODEL)

PL-7324WH WHITE

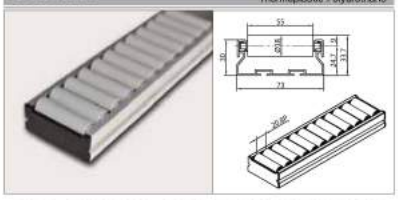


PL-7324TP TPU (ESD) Thermoplastic Polyurethane

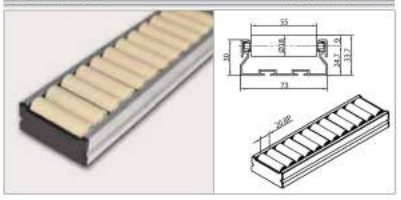


73 SERIES (ALUMINIUM BODY-NEW MODEL) - SMALL ROLLER

PL-7324TS TPU (ESD)-SMALL Thermoplastic Polyurethane

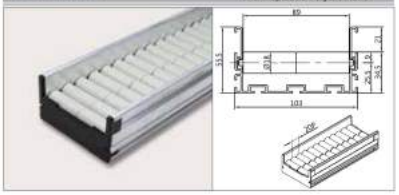


PL-7324RS ELASTOMER-SMALL
PL-7324WS WHITE-SMALL

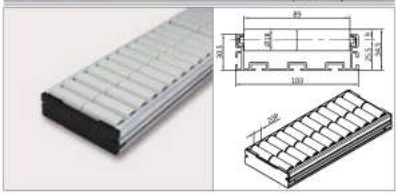


100 SERIES (ALUMINIUM BODY)

PL-G100TS TPU (ESD)-SMALL(GUIDE) Thermoplastic Polyurethane

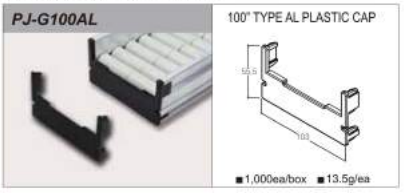


PL-P100TS TPU (ESD)-SMALL Thermoplastic Polyurethane



PLACON END CAP

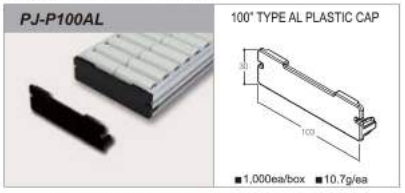
PJ-G100AL 100° TYPE AL PLASTIC CAP



■1,000ea/box ■13.5g/ea

PLACON END CAP

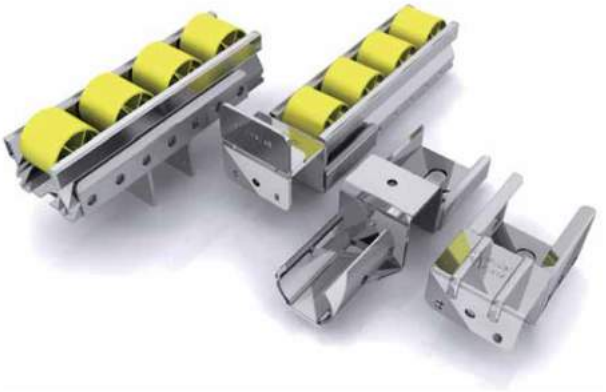
PJ-P100AL 100° TYPE AL PLASTIC CAP



■1,000ea/box ■10.7g/ea

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

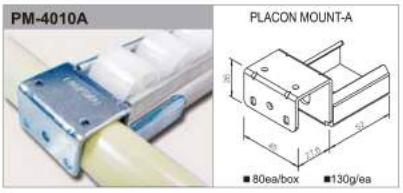
PLACON MOUNTS



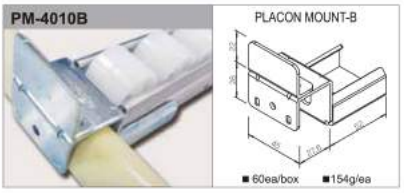
1. *40 SERIES MOUNTS*
2. *60 SERIES MOUNTS*
3. *73 SERIES MOUNTS*

MOUNTS FOR 40 SERIES (STEEL) TYPE

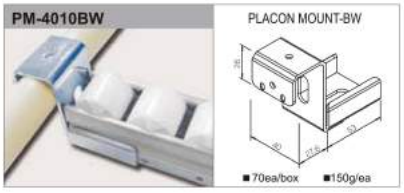
PM-4010A



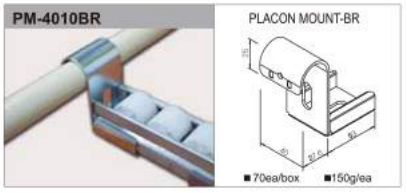
PM-4010B



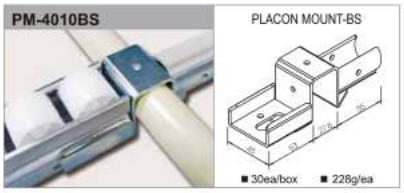
PM-4010BW



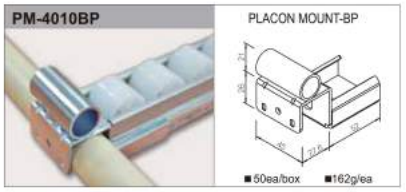
PM-4010BR



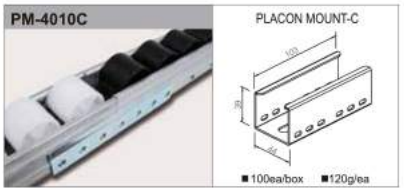
PM-4010BS



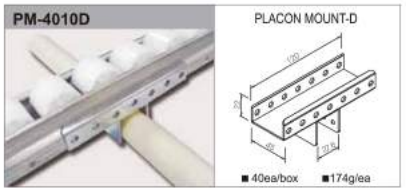
PM-4010BP



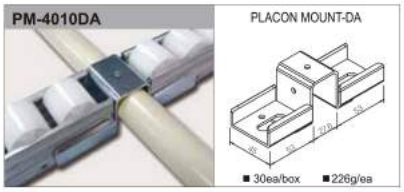
PM-4010C



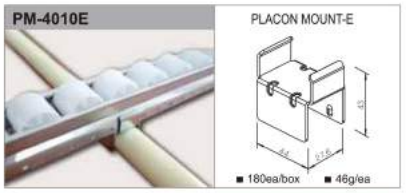
PM-4010D



PM-4010DA



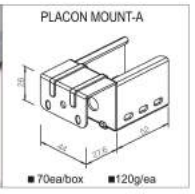
PM-4010E



MOUNTS FOR 40 SERIES (STEEL) TYPE

PM-4011A

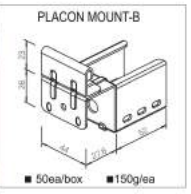
PLACON MOUNT-A



■ 70ea/box ■ 120g/ea

PM-4011B

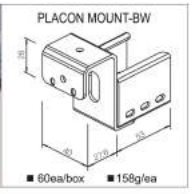
PLACON MOUNT-B



■ 50ea/box ■ 150g/ea

PM-4011BW

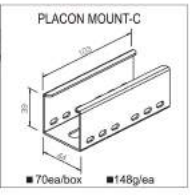
PLACON MOUNT-BW



■ 60ea/box ■ 158g/ea

PM-4011C

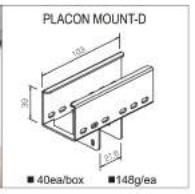
PLACON MOUNT-C



■ 70ea/box ■ 148g/ea

PM-4011D

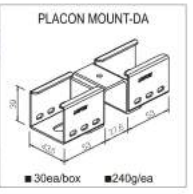
PLACON MOUNT-D



■ 40ea/box ■ 148g/ea

PM-4011DA

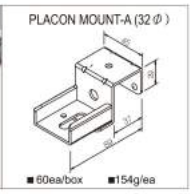
PLACON MOUNT-DA



■ 30ea/box ■ 240g/ea

PM-4012A

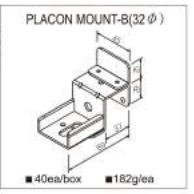
PLACON MOUNT-A (32 Φ)



■ 60ea/box ■ 154g/ea

PM-4012B

PLACON MOUNT-B(32 Φ)

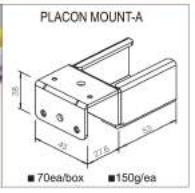


■ 40ea/box ■ 182g/ea

MOUNTS FOR 40 SERIES(ALUMINIUM)TYPE

PM-4020A

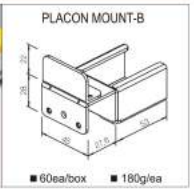
PLACON MOUNT-A



■ 70ea/box ■ 150g/ea

PM-4020B

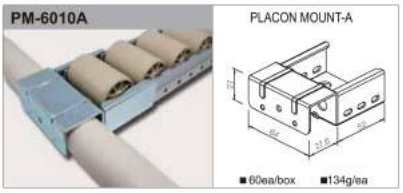
PLACON MOUNT-B



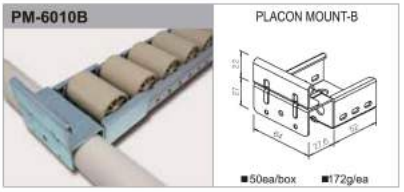
■ 60ea/box ■ 180g/ea

MOUNTS FOR 60 SERIES (STEEL) TYPE

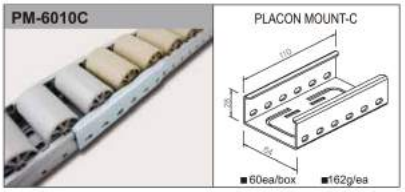
PM-6010A



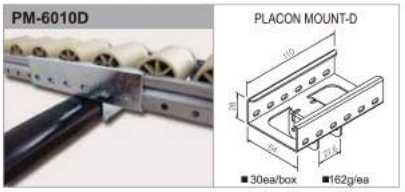
PM-6010B



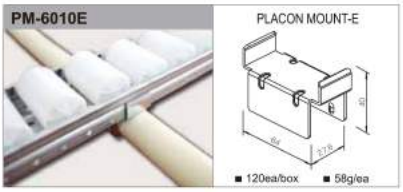
PM-6010C



PM-6010D

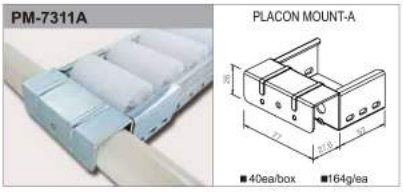


PM-6010E

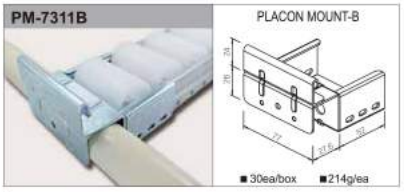


MOUNTS FOR 73 SERIES (ALUMINIUM / STEEL) TYPE

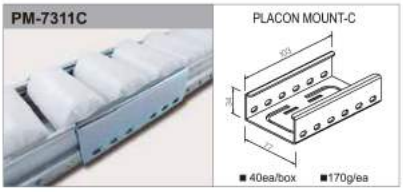
PM-7311A



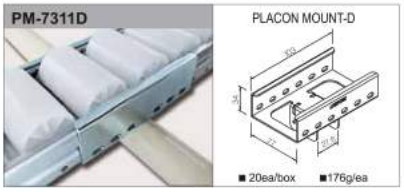
PM-7311B



PM-7311C



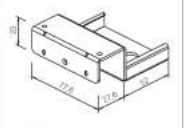
PM-7311D



MOUNTS FOR 73 SERIES (STEEL) TYPE

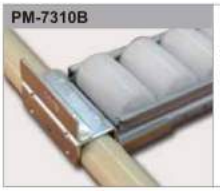
PM-7310A

PLACON MOUNT-A

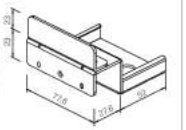


■ 40ea/box ■ 204g/ea

PM-7310B

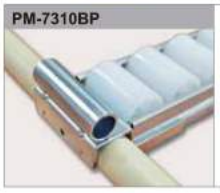


PLACON MOUNT-B

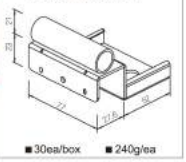


■ 30ea/box ■ 240g/ea

PM-7310BP



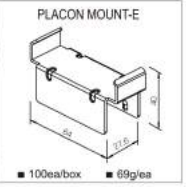
PLACON MOUNT-BP



■ 30ea/box ■ 240g/ea

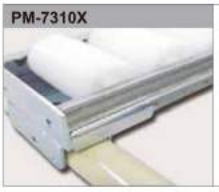
PM-7310E

PLACON MOUNT-E

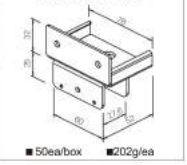


■ 100ea/box ■ 69g/ea

PM-7310X



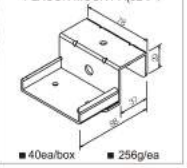
PLACON MOUNT-X



■ 50ea/box ■ 202g/ea

PM-7312A

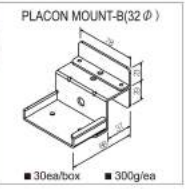
PLACON MOUNT-A(32Φ)



■ 40ea/box ■ 256g/ea

PM-7312B

PLACON MOUNT-B(32Φ)

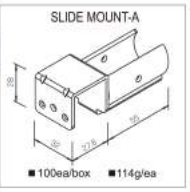


■ 30ea/box ■ 300g/ea

MOUNTS FOR SLIDE PIPE

SM-2810A

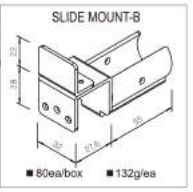
SLIDE MOUNT-A



■100ea/box ■114g/ea

SM-2810B

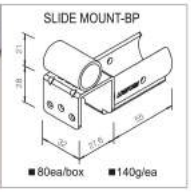
SLIDE MOUNT-B



■80ea/box ■132g/ea

SM-2810BP

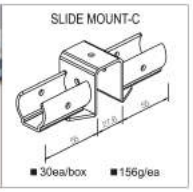
SLIDE MOUNT-BP



■80ea/box ■140g/ea

SM-2810C

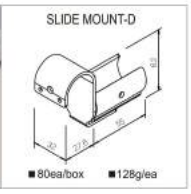
SLIDE MOUNT-C



■30ea/box ■156g/ea

SM-2810D

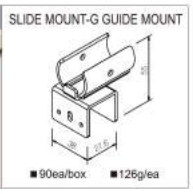
SLIDE MOUNT-D



■80ea/box ■128g/ea

SM-2810G

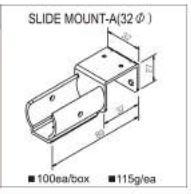
SLIDE MOUNT-G GUIDE MOUNT



■90ea/box ■126g/ea

SM-2812A

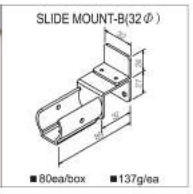
SLIDE MOUNT-A(32Φ)



■100ea/box ■115g/ea

SM-2812B

SLIDE MOUNT-B(32Φ)



■80ea/box ■137g/ea

ACCESSORIES

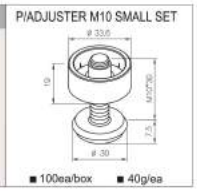
1. ACCESSORIES
2. FASTENERS & TOOLS
3. NAME PLATES
4. PLASTIC ANGLES & COVERS
5. BOARDS & SHEETS

ADJUSTERS

AS-3030MP

CN3010MP + AM3030PS

P/ADJUSTER M10 SMALL SET



■ 100ea/box ■ 40g/ea

AS-3050MP

CN3010MP + AM3050PL

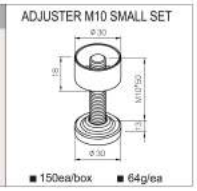
P/ADJUSTER M10 LARGE SET

■ 100ea/box ■ 50g/ea

AS-3050MS

CN3010MS + AM3050SS

ADJUSTER M10 SMALL SET

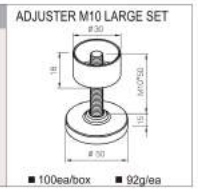


■ 150ea/box ■ 64g/ea

AS-5050MS

CN3010MS + AM5050SL

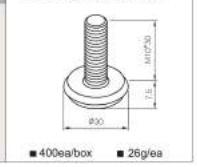
ADJUSTER M10 LARGE SET



■ 100ea/box ■ 92g/ea

AM-3030PS

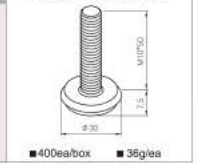
P/ADJUSTER M10 SMALL



■ 400ea/box ■ 26g/ea

AM-3050PL

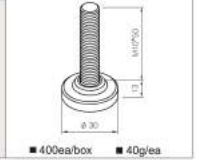
P/ADJUSTER M10 LARGE



■ 400ea/box ■ 36g/ea

AM-3050SS

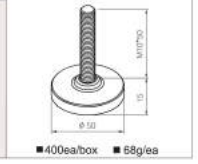
ADJUSTER M10 SMALL



■ 400ea/box ■ 40g/ea

AM-5050SL

ADJUSTER M10 LARGE



■ 400ea/box ■ 68g/ea

CN-3010MS

STEEL CAP NUT M10

■ 400ea/box ■ 24g/ea

CN-3010MP

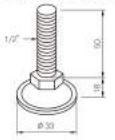
PLASTIC CAP NUT M10

■ 300ea/box ■ 14g/ea

ADJUSTERS

AD-3012SS
(OLD:AD-3012S)

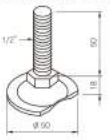
ADJUSTER(1/2") 30*50L



■150ea/box ■76g/ea

AD-5012LS
(OLD:AD-5012L)

ADJUSTER(1/2") 50*50L



■150ea/box ■94g/ea

AD-3012SL

ADJUSTER(1/2") 30*100L

■100ea/box ■115g/ea

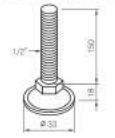
AD-5012LL

ADJUSTER(1/2") 50*100L

■100ea/box ■132g/ea

AD-3012SX
(OLD:AD-3012XL)

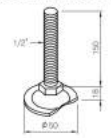
ADJUSTER(1/2") 30*150L



■50ea/box ■152g/ea

AD-5012LX
(OLD:AD-5012XL)

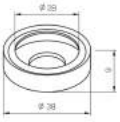
ADJUSTER(1/2") 50*150L



■50ea/box ■172g/ea

AC-3828RB

ADJUSTER RUBBER CAP



■400ea/box ■8g/ea

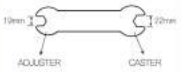
AC-3829RB

RUBBER FOOT CAP

■500ea/box ■26g/ea

TL-4000

SPANNER



■50ea/box ■130g/ea

INSERT NUTS - PLASTIC

AS-3040MP — PLASTIC ADJUSTER M10 SET

■ 150ea/box ■ 51g/ea

IN-1010LP — PLASTIC INSERT NUT For LP-1100 (M10)

■ 200ea/box ■ 25g/ea

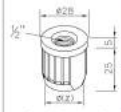
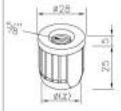
IN-1210LP — PLASTIC INSERT NUT For LP-1100 (1/2")

■ 200ea/box ■ 15g/ea

IN-1207SP ⚡도전성 — PLASTIC INSERT NUT For ST-1070(1/2")

■ 200ea/box ■ 15g/ea

INSERT NUTS - ALUMINIUM

IMAGE	DIMENSION	PRODUCT CODE	Q'ty / BOX	UNIT WEIGHT	ø(χ)	THICKNESS (PIPE두께)	PIPES	MODEL
	 For Adjuster / Bolt Caster 2"	IN-1210LA	300	22g	23.6	t1.0	FOR LOGIFORM PIPE	LP-1100
		IN-1220LA		18g	21.6	t2.0		LP-1200
		IN-1207SA		24g	26.4	t0.7	FOR STAINLESS PIPE	ST-1070
		IN-1211SA		22g	25.6	t1.1		ST-1110
	 For Bolt Caster 3", 4"	IN-5810LA	300	20g	23.6	t1.0	FOR LOGIFORM PIPE	LP-1100
		IN-5820LA		16g	21.6	t2.0		LP-1200
		IN-5807SA		20g	26.4	t0.7	FOR STAINLESS PIPE	ST-1070
		IN-5811SA		20g	25.6	t1.1		ST-1110

※ Please contact HBL's sales representative for an up-to-date product information.

INSERT NUTS - STEEL

INSERT NUT (1/2")

For Adjuster / Bolt Caster 2"

PRODUCT CODE	Q'ty / BOX	UNIT WEIGHT	ØX	THICKNESS (PIPE두께)	PIPES	MODEL
IN-1210L	300	88g	23.6	t1.0	FOR LOGIFORM PIPE	LP-1100
IN-1220L		60g	21.6	t2.0		LP-1200
IN-1207S		95g	26.4	t0.7	FOR STAINLESS PIPE	ST-1070
IN-1211S		85g	25.6	t1.1		ST-1110

INSERT NUT (5/8")

For Bolt Caster 3", 4"

PRODUCT CODE	Q'ty / BOX	UNIT WEIGHT	ØX	THICKNESS (PIPE두께)	PIPES	MODEL
IN-5810L	300	69g	23.6	t1.0	FOR LOGIFORM PIPE	LP-1100
IN-5820L		62g	21.6	t2.0		LP-1200
IN-5807S		77g	26.4	t0.7	FOR STAINLESS PIPE	ST-1070
IN-5811S		72g	25.6	t1.1		ST-1110

INSERT NUT (10mm)

For Adjuster

PRODUCT CODE	Q'ty / BOX	UNIT WEIGHT	ØX	THICKNESS (PIPE두께)	PIPES	MODEL
IN-1010LM	300	82g	23.6	t1.0	FOR LOGIFORM PIPE	LP-1100
IN-1020LM		70g	21.6	t2.0		LP-1200
IN-1007SM		100g	26.4	t0.7	FOR STAINLESS PIPE	ST-1070
IN-1011SM		94g	25.6	t1.1		ST-1110

INSERT NUT(12mm)

For Adjuster

PRODUCT CODE	Q'ty / BOX	UNIT WEIGHT	ØX	THICKNESS (PIPE두께)	PIPES	MODEL
IN-1210LM	300	72g	23.6	t1.0	FOR LOGIFORM PIPE	LP-1100
IN-1220LM		62g	21.6	t2.0		LP-1200
IN-1207SM		86g	26.4	t0.7	FOR STAINLESS PIPE	ST-1070
IN-1211SM		76g	25.6	t1.1		ST-1110

※ Please contact HBL's sales representative for an up-to-date product information.

ACCESSORIES

MT-5110

PIPE CLAMP-A 안장금구-A

■ 300ea/box ■ 66g/ea

MT-5111

PIPE CLAMP-B 안장금구-B

■ 400ea/box ■ 20g/ea

MT-5112

PIPE CLAMP-C 안장금구-C

■ 200ea/box ■ 26g/ea

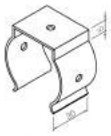
MT-5113

BOARD FIXING-A 판지고정금구-A

■ 150ea/box ■ 62g/ea

MT-5114

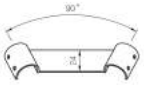
BOARD FIXING-B 판지고정금구-B



■ 400ea/box ■ 14g/ea

MT-5116

BOARD BRACKET-A
판지고정코너금구-A



■ 50ea/box ■ 110g/ea

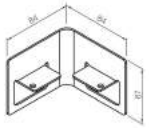
MT-5117

BOARD BRACKET-B
판지고정코너금구-B

■ 50ea/box ■ 72g/ea

MT-5118

CORNER GUARD 코너금구



■ 30ea/box ■ 176g/ea

MT-5120

PIPE HANGER 파이프걸이

■ 1,000ea/box ■ 8g/ea

MT-5123

PIPE CONNECTOR 파이프연결금구

■ 150ea/box ■ 74g/ea

ACCESSORIES

MT-5125

BAND HANGER 밴드걸이

■ 150pcs/ea ■ 48g/ea

MT-5126

LOCK MOUNT 로크금구

■ 200ea/box ■ 126g/ea

MT-5127

HANGER U-TYPE U행거

■ 100ea/box ■ 70g/ea

MT-5128

SHELF HINGE-A 개폐고리금구-A

■ 100ea/box ■ 94g/ea

MT-5130A

HANDLE FIXING-A
손잡이고정금구-A

■ 600ea/box ■ 22g/ea

MT-5130B

HANDLE FIXING-B
손잡이고정금구-B

※끈은 별도 판매

■ 600ea/box ■ 22g/ea

MT-5109

CASTER STRAP 캐스터지지금구

■ 150ea/box ■ 102g/ea

MT-5109W

CASTER STRAP-W
캐스터지지금구-W

■ 120ea/box ■ 120g/ea

MT-5138L

CORNER PLATE-L
손잡이보강금구-좌

■ 20ea/box ■ 988g/ea

MT-5138R

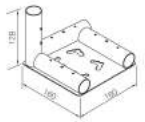
CORNER PLATE-R
손잡이보강금구-우

■ 20ea/box ■ 988g/ea

ACCESSORIES

MT-5139L

CASTER PLATE-L
캐스터 코너 금구-좌



■ 12ea/box ■ 1,268g/ea

MT-5139R

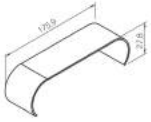
CASTER PLATER-R
캐스터 코너 금구-우

■ 12ea/box ■ 1,268g/ea

MIDDLE STOPPER

MS-4O18SV

40" MIDDLE STOPPER



■ 300ea/box ■ 60g/ea

MS-7318SV

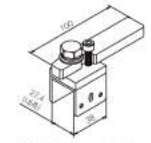
73" MIDDLE STOPPER

■ 100ea/box ■ 126g/ea

BOX STOPPER

MT-5320

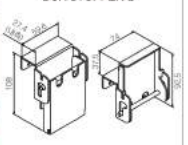
BOX STOPPER-A



■ 80ea/box ■ 264g/ea

MT-5321

BOX STOPPER-B



■ 20ea/box ■ 355g/ea

PJ-1401BK

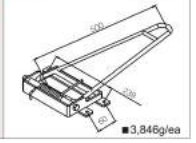
PLACON REVERSE BRAKE

■ 1,000ea/box ■ 12g/ea

ACCESSORIES

MT-5140A

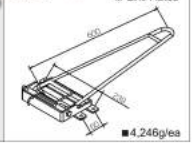
TRACTION ARM-A 500
견인고리-A 500
※ Zinc Plated



■3,846g/ea

MT-5141A

TRACTION ARM-A 600
견인고리-A 600
※ Zinc Plated



■4,246g/ea

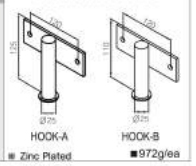
MT-5142B

TRACTION ARM-B
견인고리-B
※ Zinc Plated

■2,008g/ea

MT-5143A / MT-5143B

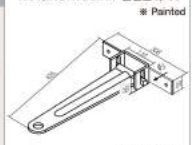
TRACTION HOOK-A / B



※ Zinc Plated
■972g/ea

MT-5144A

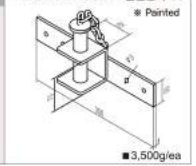
TRACTION ARM-A 견인고리-A
※ Painted



■4,500g/ea

MT-5145A

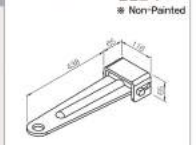
TRACTION HOOK-A 견인고리-A
※ Painted



■3,500g/ea

MT-5144B

TRACTION ARM-B 견인고리-B
※ Non-Painted



■3,500g/ea

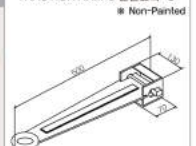
MT-5145B

TRACTION HOOK-B 견인고리-B
※ Non-Painted

■1,200g/ea

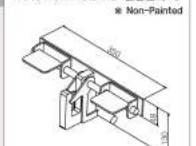
MT-5144C

TRACTION ARM-C 견인고리-C
※ Non-Painted



MT-5145C

TRACTION HOOK-C 견인고리-C
※ Non-Painted

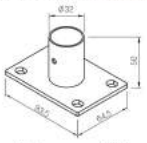


ACCESSORIES

SC-3028SV — STEEL CAP

■400ea/box ■22g/ea

MT-5121 — STANCHION MOUNT 바닥고정금구

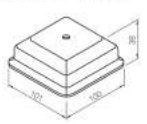


■40ea/box ■178g/ea

MT-5119 — OVERLAP CAP 중복캡

■20ea/box ■226g/ea

MT-5119W — SQUARE CAP 사각중발이

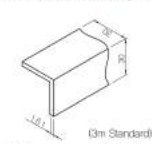


■35ea/box ■330g/ea

MT-5143 — GAS SPRING 개스스프링

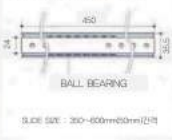
■100ea/box ■222g/ea

MT-5211 — ZN PLATING ANGLE 아연앵글



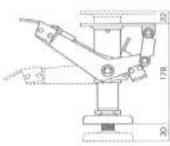
■3m/bar ■2,250g/bar

MT-5147 — SLIDE RAIL 슬라이드레일

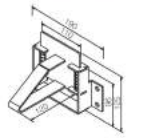


■654g/ea

MT-5148 (4" /5" /6") — FLOOR LOCK

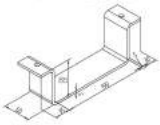


MT-5151 — SLIDE MODULATOR



■10ea/box ■1,268g/ea

MT-5100 — FORKLIFT HOOK 지게차포크 이탈방지 금구



■25ea/box ■908g/ea

ACCESSORIES

PH-5001A

TOOL HOLDER 공구걸이캡

■ 160ea/box ■ 40g/ea

PH-5001B

TOOL HOLDER 공구걸이캡

■ 160ea/box ■ 38g/ea

FS-0200/ 0250/ 0300/ 0350

FOLDING SHELF BRACKET
접이식 선반대

8(in) L:200 / 10(in) L:250
12(in) L:300 / 14(in) L:350

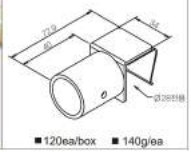
MT-5311

CASTER FIXING HOLDER

■ 120ea/box ■ 70g/ea

MT-5301

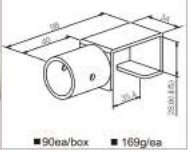
PIPE SNAP REST



■ 120ea/box ■ 140g/ea

MT-5302

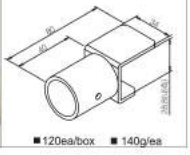
PIPE REST



■ 90ea/box ■ 169g/ea

MT-5303

PIPE REST



■ 120ea/box ■ 140g/ea

■ PH-5001B

FASTENERS & TOOLS

BOLTS				
ITEM	WRENCH BOLT	BOLT	BOLT	BOLT
SPECIFICATION	M6 * 10 / 25	M8 * 35 / 40 / 45	M8 * 50 / 60 / 70	M10 * 20 / 25
PRODUCT CODE	WB-0610 / 0625	BT-0835 / 0840 / 0845	BT-0850 / 0860 / 0870	BT-1020 / 1025

BOLTS NUTS				
ITEM	BOLT	BOLT	T NUT	NYLON NUT
SPECIFICATION	M12 * 20 / 25	1/2 * 50	M6	M8 / M10 / M12
PRODUCT CODE	BT-1220 / 1225	BT-1250	NU-0600	NN-0800 / 1000 / 1200

SCREWS						
ITEM	ROUND SCREW	FLAT SCREW	TAPPING SCREW	TAPPING SCREW	WIDE SCREW	NUT
SPECIFICATION	#8 * 19 / 25 / 32	#8 * 19 / 25 / 32	M4 *8L	M3.5 *16L	#10 * 20	1/2
PRODUCT CODE	SR-0819 / 0825 / 0832	SF-0819 / 0825 / 0832	TS- 0408	TS- 3516	SW-1020	NU-1200

WRENCH BITS				
ITEM	WRENCH BIT	L-WRENCH BIT	DRIVER BIT	ADJUSTER WRENCH
SPECIFICATION	5 × 70mm	150mm	65mm / 110mm	-
PRODUCT CODE	TL-4001	TL-4003	TL-4004 / 4005	TL-4012

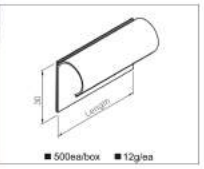
TOOLS				
ITEM	RUBBER HAMMER	DEBURRING CUTTER	METRIC TAPE MEASURE	ELECTRICITY IMPACT
SPECIFICATION	-	-	3.5m	TOOL SET
PRODUCT CODE	TL-4006	TL-4007	TL-4008	TL-4011

NAME PLATES

PRODUCT CODE	HEIGHT	LENGTH	WEIGHT	Q'TY
LH-3010CS	30mm	100	12g	500
LH-3015CS		150	18g	350
LH-3020CS		200	24g	300
LH-3030CS		300	36g	150

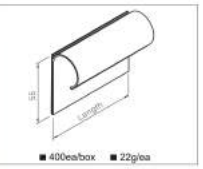
PRODUCT CODE	HEIGHT	LENGTH	WEIGHT	Q'TY
LH-5010CL	55mm	100	22g	400
LH-5015CL		150	33g	200
LH-5020CL		200	44g	200
LH-5030CL		300	66g	100

LH-3010CS



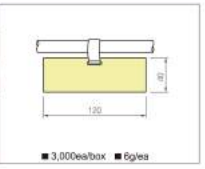
■ 500ea/box ■ 12g/ea

LH-5010CL



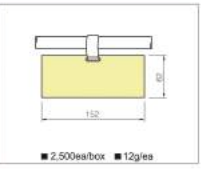
■ 400ea/box ■ 22g/ea

NP-0120



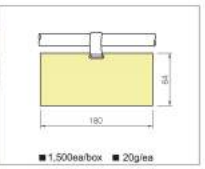
■ 3,000ea/box ■ 6g/ea

NP-0152



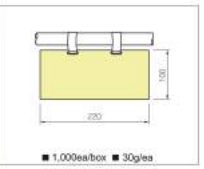
■ 2,500ea/box ■ 12g/ea

NP-0180



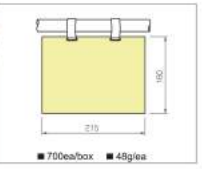
■ 1,500ea/box ■ 20g/ea

NP-0220



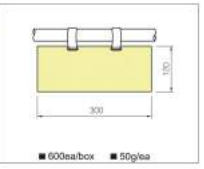
■ 1,000ea/box ■ 30g/ea

NP-0215



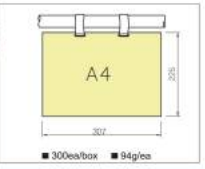
■ 700ea/box ■ 48g/ea

NP-0300



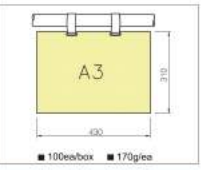
■ 600ea/box ■ 50g/ea

NP-0307



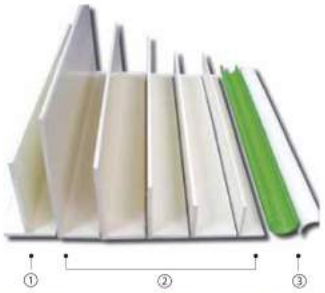
■ 300ea/box ■ 94g/ea

NP-0430



■ 100ea/box ■ 170g/ea

PLASTIC ANGLES & COVERS

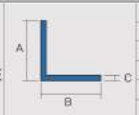
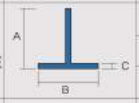
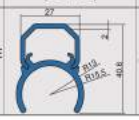


PIPE COVER

(IV, GR, BK)
3M Standrad

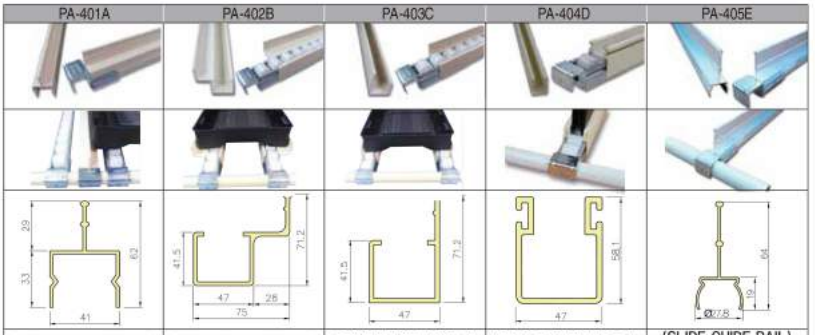
CABLE DUCT

3M Standrad

TYPE	SIZE	PRODUCT CODE	A	B	C	WEIGHT
L TYPE		PA-2350T3	30	50	T3	340g/m
		PA-2890T3	80	90		723g/m
		PA-2550T4	50	50	T4	586g/m
		PA-2575T4	50	75		706g/m
		PA-2510T4	50	100		833g/m
		PA-2515T4	50	150		1,180g/m
		PA-2520T4	50	200		1,430g/m
T TYPE		PA-3510T3	50	100	T3	793g/m
		PA-31550T4	150	50	T4	1,121g/m
		PA-3160T5	100	60	T5	1,106g/m
PIPE COVER		PA-4028A (OLD:PA-4028T3) (IV, GR, GN)	–	–	T3	213g/m
		PA-4028B (IV, GR, BK)	–	–	T2.5	280g/m
CABLE DUCT		① CD-3000T	–	–	–	158g/m
		② CD-3000B	–	–	–	282g/m

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

GUIDE RAILS

PA-401A	PA-402B	PA-403C	PA-404D	PA-405E
				
(GUIDE RAIL TYPE-A)	(GUIDE RAIL TYPE-B)	(GUIDE RAIL TYPE-C)	(GUIDE RAIL TYPE-D)	(SLIDE GUIDE RAIL) ALUMINUM
550g/M	850g/M	750g/M	900g/M	1,688g/M
3 M (Standard)				4 M (Standard)

BOARDS, SHEETS

PROTECTION HOSES

CLASSIFICATION				
ITEM	Yarned Thread Hose	Transparent Hose	ATILON Hose	Foam Hose (9T/19T)
NAME	편사호스	투명호스	아티론 호스	발포고무 호스
REMARK	PVC	PVC	ATILON	RUBBER(soft)
PRODUCT CODE	TH-0001	TH-0002	TH-0003	TH-0005
STANDARD SPEC	45M/roll	45M/roll	4M/ea	2M/ea

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

BOARDS & SHEETS SPECIFICATION

ITEM(구분)			SIZE	THICKNESS	COLOR	CHARACTERISTICS(특성)	PRODUCT CODE
BOARDS (판지)	PLASTIC	PP BOARD (PP)	1200*2400	t5, t7	WHITE	Chemical Resistance (내화학성) Oil Resistant (내유성)	PP-051224 PP-071224
		Poly Vinyle Acetate (PVC)	1200*2400	t5, t7	IVORY GREEN	Smooth Skin (매끈한 외피) Incombustibility (난연성) Insulation (절연성)	PV-051224 PV-071224
		Plastic Corrugated Sheet (DANPLA)	1500*2000	t5, t9	IVORY, GREEN, BLACK, BLUE	Light weight (경량) Various colors (다양한색상)	DP-051520 DP-091520
		Fomax (포맥스)	1200*2400	t5, t8	BLUE WHITE	Light weight (경량) Easy to produce (가공용이)	FM-051224 FM-081224
		Bakelite (백크라이트)	1000*1000 1000*2000	t5, t8, t12	BROWN, BLACK	High strength (고강도) Fine Insulation (미세한 절연치)	BK-051010 BK-081010
		Poly carbonate (PC)	1200*2400	t3~ t5	TRANSPARENT (투명)	Easy to produce (가공용이) High strength (고강도)	PC-031224 PC-051224
		Acryl (아크릴)	1000*2000	t3, t5, t8	TRANSPARENT (투명)		AC-051020 AC-081020
	WOOD	Medium Density Fiberboard (MDF)	1200*2400	t9, t12, t15			MD-091224 MD-121224
		Paticle Board (PB)	1200*2400	t15, t30		Coated wood (가구용 코팅 목재)	PB-151224 PB-301224
		Ply Wood (합판)	1200*2400	t9, t12, t15		Easy to produce (가공용이) High strength (고강도)	PW-091224 PW-121224
MATS (매트)	MAT	ESD Mat (정전MAT)	W600*10M	t2	GREEN GRAY	Adhesive / incohesive (판재상부 부착용)	EM-060010
			W900*10M				EM-090010
			W1000*10M				EM-100010
			W1200*10M				EM-120010
		General Mat (일반MAT)	W1200*30M		GREEN		GM-120030
PROTECTION OF GOODS (제품보호제)	FABRIC	Non Woven Fabric (부직포)	W1500*100M		GRAY	Anti-scratch (스크래치 방지)	NW-150100
		Suede (스웨이드)	W25*20M				SD-W02520
			W55*20M				SD-W05520
			W1400*10M				SD-W14010
FOAMS (폼)	SPONGE	Ethylene Vinyl Acetate (EVA)				Anti-scratch (스크래치 방지) Shock absorption (충격흡수)	
		Poly Urethane (PU)					
		Ethylene Cropylene Diene Monomer (EPDM)					
		Board (1500, 2000) (영보드)					
		Poly Ethylene (PE)					
		Chloroprene Rubber (CR)					

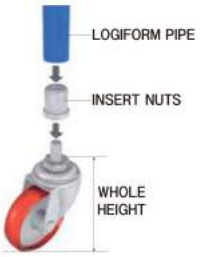
※Please contact our sales office with reference to the additional options available.

CASTERS

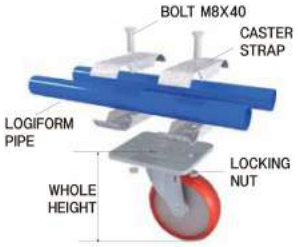
1. LIGHT DUTY CASTERS
2. MEDIUM DUTY CASTERS
3. CUSHION CASTERS

SPECIFICATIONS

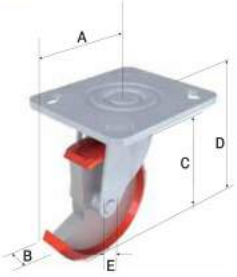
■ BOLT TYPE



■ PLATE TYPE

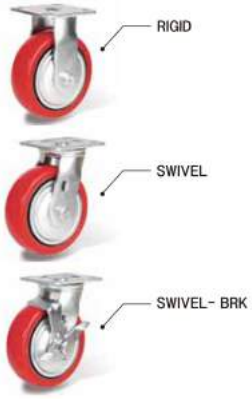


■ DIMENSION



A	B	C	D	E
SWIVEL	WIDTH	DIAMETER	HEIGHT	Offset

■ DIVISION



● 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(pcs))

- 본 계산식은 일반적인 평탄한 노면상태에서 사용하는것을 전제로 합니다.
- 캐스터에 충격을 줄 수 있는 요철과 문턱등 사용조건에서는 허용하중이 급격하게 감소하므로 사용을 제한해야 합니다.
- 안전 허용 하중에 적합하지 않은 캐스터를 사용하면 제품 결함 및 신체상 상해의 원인이 될 수 있습니다.

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

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

LIGHT DUTY CASTERS (**BOLT TYPE**)

IMAGE	PRODUCT CODE	OPTION	inch(mm)	SIZE "A" inch	inch(mm)	mm	mm	kg(max)	WHEEL	BEARING	PRODUCT WEIGHT kg	Q'TY/BOX
SIZE "A"	CT-702S	SWIVEL	2"	1/2	20	44	72	35	PLY	Plain	0.24	160
	CT-703S		3"	5/8	32	73	108	100	PLY	Ball	0.66	32
	CT-704S		4"	5/8	32	89	133	105	PLY	Ball	0.87	24
SIZE "A"	CT-702B	SWIVEL-BRK	2"	1/2	20	44	72	35	PLY	Plain	0.27	160
	CT-703B		3"	5/8	32	73	108	100	PLY	Ball	0.72	32
	CT-704B		4"	5/8	32	89	133	105	PLY	Ball	0.96	24
	BC-701S	SWIVEL	1"					20				

■ WHEEL = PLY : Polyurethane Tread / Plastic Center Wheels
■ BEARING = PLAIN / BALL : Wheel bearing type

LIGHT DUTY CASTERS (**PLATE TYPE**)

IMAGE	PRODUCT CODE	OPTION	inch(mm)	inch(mm)	mm	mm	kg(max)	mm	mm	WHEEL	BEARING	PRODUCT WEIGHT kg	Q'TY/BOX
	CT-713RL	RIGID	3"	32	X	104	100	95×64	76 to 73×45	PLY	Ball	0.54	32
	CT-714RL		4"	32		129	105					0.63	24
	CT-715RL		5"	32		156	115					0.74	20
	CT-713SL	SWIVEL	3"	32	73	104	100	95×64	76 to 73×45	PLY	Ball	0.83	32
	CT-714SL		4"	32	89	129	105					0.94	24
	CT-715SL		5"	32	101	156	115					1.03	20
	CT-713BL	SWIVEL-BRK	3"	32	73	104	100	95×64	76 to 73×45	PLY	Ball	0.88	32
	CT-714BL		4"	32	89	129	105					1.03	24
	CT-715BL		5"	32	101	156	115					1.12	20

■ WHEEL = PLY : Polyurethane Tread / Plastic Center Wheels
■ BEARING = BALL : Wheel bearing type
※Please contact our sales office with reference to the additional options available.

LIGHT DUTY CASTERS (ESD TYPE)

IMAGE	PRODUCT CODE	OPTION	inch(mm)	inch(mm)	mm	mm	kg(max)	mm	mm	WHEEL	BEARING	PRODUCT WEIGHT kg	Q'TY/BOX
	CT-713RE	RIGID	3"	32	X	104	56	95×64	76 to 73×45	SR(ESD)	Ball	0.58	32
	CT-714RE		4"	32		129	75					0.88	24
	CT-715RE		5"	32		156	80					1.17	20
	CT-713SE	SWIVEL	3"	32	73	104	56	95×64	76 to 73×45	SR(ESD)	Ball	0.87	32
	CT-714SE		4"	32	89	129	75					1.05	24
	CT-715SE		5"	32	101	156	80					1.24	20
	CT-713BE	SWIVEL-BRK	3"	32	73	104	56	95×64	76 to 73×45	SR(ESD)	Ball	0.93	32
	CT-714BE		4"	32	89	129	75					1.32	24
	CT-715BE		5"	32	101	156	80					1.72	20

■ WHEEL = SR : Soft Rubber Wheels
■ BEARING = BALL : Wheel bearing type

MEDIUM DUTY CASTERS-LOW (PLATE TYPE)

IMAGE	PRODUCT CODE	OPTION	inch(mm)	inch(mm)	mm	mm	kg(max)	mm	mm	WHEEL	BEARING	PRODUCT WEIGHT kg	Q'TY/BOX
	CT-714RH	RIGID	4"	38	X	137	200	114×102	92~ 76×76 ~66	PU	ROLLER #001	1.5	10
	CT-715RH		5"	40		165	250			PU	ROLLER #003	2.15	10
	CT-716RH		6"	44		190	270			PU	ROLLER #003	2.63	8
	CT-714SH	SWIVEL	4"	38	82	137	200	114×102	92~ 76×76 ~66	PU	ROLLER #001	1.72	10
	CT-715SH		5"	40	90	165	250			PU	ROLLER #003	2.58	10
	CT-716SH		6"	44	108	190	270			PU	ROLLER #003	2.94	8
	CT-714BH	SWIVEL-BRK	4"	38	82	137	200	114×102	92~ 76×76 ~66	PU	ROLLER #001	1.85	10
	CT-715BH		5"	40	90	165	250			PU	ROLLER #003	2.77	10
	CT-716BH		6"	44	108	190	270			PU	ROLLER #003	3.14	8

■ WHEEL = PU : Polyurethane

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

MEDIUM DUTY CASTERS-HIGH (**PLATE TYPE**)

IMAGE	PRODUCT CODE	OPTION	inch(mm)	inch(mm)	mm	mm	kg (max.)	mm	mm	WHEEL	BEARING	PRODUCT WEIGHT kg	Q'TY/BOX
	CT-714RW	RIGID	4"	48	X	141	320	114×102	92~76×76~66	PU	Ball	1.89	10
	CT-715RW		5"	48		165	340			PU	Ball	2.09	10
	CT-716RW		6"	48		190	360			PU	Ball	2.58	8
	CT-714SW	SWIVEL	4"	48	76	141	320	114×102	92~76×76~66	PU	Ball	2.27	10
	CT-715SW		5"	48	90	165	340			PU	Ball	2.51	10
	CT-716SW		6"	48	108	190	360			PU	Ball	3.1	8
	CT-714BW	SWIVEL-BRK	4"	48	76	141	320	114×102	92~76×76~66	PU	Ball	2.42	8
	CT-715BW		5"	48	90	165	340			PU	Ball	2.66	8
	CT-716BW		6"	48	108	190	360			PU	Ball	3.21	6

■ WHEEL : PU : Polyurethane

CUSHION CASTERS (**PLATE TYPE**)

IMAGE	PRODUCT CODE	OPTION	inch(mm)	inch(mm)	mm	mm	kg (max.)	mm	mm	WHEEL	BEARING	PRODUCT WEIGHT kg	Q'TY/BOX
	CT-726RC (PC)	RIGID	6"	48	128	203	360kg	160*115	129*72.5	Poly Urethane	Ball	5.145	4ea/box
	CT-726SC (PC)	SWIVEL										5.878	
	CT-726BC (PC)	SWIVEL-BRK										6.178	

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

HIGH POLYURETHANE CASTERS (**PLATE TYPE**)

IMAGE	PRODUCT CODE	OPTION	inch(mm)	inch(mm)	mm	mm	kg(max)	mm	mm	WHEEL	BEARING	PRODUCT WEIGHT kg	Q'TY/BOX
	CT-713RP	RIGID	3"	32	X	104	56	95×64	76 to 73×45	HPU H.P.U / Plastic	Ball	0.45	32
	CT-714RP		4"	32		129	75				Ball	0.55	24
	CT-715RP		5"	32		156	80				Ball	0.66	20
	CT-713SP	SWIVEL	3"	32	78	104	56	95×64	76 to 73×45	HPU H.P.U / Plastic	Ball	0.74	32
	CT-714SP		4"	32	89	129	75				Ball	0.84	24
	CT-715SP		5"	32	101	156	80				Ball	0.97	20
	CT-713BP	SWIVEL-BRK	3"	32	78	104	56	95×64	76 to 73×45	HPU H.P.U / Plastic	Ball	0.80	32
	CT-714BP		4"	32	89	129	75				Ball	0.93	24
	CT-715BP		5"	32	101	156	80				Ball	1.06	20

■WHEEL = HPU : High Polyurethane

NEW HIGH POLYURETHANE CASTERS (**BOLT TYPE**)

IMAGE	PRODUCT CODE	OPTION	inch(mm)	SIZE "A" inch	inch(mm)	mm	mm	kg(max)	WHEEL	BEARING	PRODUCT WEIGHT kg	Q'TY/BOX
SIZE "A"	CT-703SP	SWIVEL	3"	5/8	32	78	104	56	HPU H.P.U / Plastic	Ball	0.62	32
	CT-704SP		4"	5/8	32	89	129	75		Ball	0.75	24
	CT-705SP		5"	5/8	32	101	156	80		Ball	0.88	20
SIZE "A"	CT-703BP	SWIVEL-BRK	3"	5/8	32	78	104	56	HPU H.P.U / Plastic	Ball	0.68	32
	CT-704BP		4"	5/8	32	89	129	75		Ball	0.84	24
	CT-705BP		5"	5/8	32	101	156	80		Ball	0.96	20

■WHEEL = HPU : High Polyurethane

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

MANUAL FOR CASTER

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 완성품업자는 본 취급설명서의 전체 내용을 숙지하여 판매 시에 전달교육을 실시 해야 합니다.

경 고 - 캐스터를 부착하고 사용하기 전에, 부착자와 사용자는 우발적인 사고 및 위험과 재해를 피하기 위하여 본 취급설명서에 기재된 안전수칙과 제품정보를 주의깊게 읽으시기 바라며, 이러한 안전수칙은 반드시 준수되어야 합니다

〈표〉 경고 및 주의 사항

	캐스터 축에 대한 수직 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		

▶ 사용자는 경고 및 주의기호를 준수하여야 합니다.

주의 사항

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. 만일에 회전형 캐스터만 부착할 경우에도 같은 방법으로 사용해야 합니다.
⑥ 회전형 캐스터와 고정형 캐스터를 공동으로 부착한다면 제조자가 카다로그에 수록된 제품규격에 맞도록 사용해야 합니다.
⑦ 캐스터 완제품 사양에서 조립품과 구성부품을 변경하거나 개조하지 말아야 합니다.

특수한 사용환경에 따른 캐스터 사양 : 제품에 부식이 발생할 수 있는 실외환경이나 바닷가에서 사용할 때에는 특수하게 제작된 캐스터를 사용해야 합니다.
5℃이하와 30℃이상인 온도에서 사용할 때에는 온도의 허한지와 상한지를 벗어나는 영향으로 하중하중이 감소하기 때문에 특수하게 제작된 캐스터를 사용해야 합니다.

제품 점검 : 캐스터는 사용조건에 따라서 규칙적으로 아래 사항들을 점검해야 합니다.
▶ 축과 회전부위에 다시 그리스를 공급하고 이물질을 제거 합니다. ▶ 분리가 가능한 연결장치들을 다시 조여야 합니다.
▶ 캐스터의 기능을 점검하여 기능장애를 일으키는 제품과 부품은 즉시 교체하여야 합니다.

준수 사항 : 중간판매자는 이 취급설명서에 주의하여야 하며 필요에 따라 공급자로부터 제품정보를 요구하고 완성품업자에게 전달하여야 할 의무가 있습니다.
▶완성품업자들은 이 취급설명서에 주의하여야 하며 필요에 따라 제품정보를 요구하고 사용자에게 전달하여야 할 의무가 있습니다.

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

※본 취급설명서의 내용을 당사의 허가 없이 무단 전재, 복사, 유포에서는 안되며, 본 취급설명서의 소유권은 HBL INC.에 있습니다.

캐스터 취급 설명서

부식 환경 : 사용환경이 식당이나 실외, 바닷가 등 수분 또는 염분이 많이 발생하는 환경에서는 몸체의 부식과 회전부분의 그리스 유실 등으로 수명이 감소합니다. 당사 제품은 철강부품을 아연도금과 크롬도금 등으로 표면처리 하여 제조하고 있습니다. / 그러나 특이 가혹한 환경에서는 스테인레스 강으로 제조된 녹방지 캐스터와 내수성능을 가지고 있는 그리스로 제조된 캐스터로 특수 제작을 해야 합니다.

온도 환경 : 오븐과 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.

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

폐기시의 주의사항 : 캐스터를 폐기할 경우에는 본체와 바퀴를 분리한 후 폐기물 관리법에 따라 폐기하십시오. 일반쓰레기와 같이 버리면 환경오염 등 공해를 유발하게 됩니다.

정기 점검 사항 : ① 캐스터의 정기점검은 아래와 같은 사항들을 최소 3개월 단위로 점검해야 합니다. ② 캐스터의 회전기능을 점검 합니다. ③ 캐스터의 브레이크 작동상태를 점검합니다. ④ 캐스터에 묻은 이물질을 제거합니다. ⑤ 바퀴의 구름성능을 점검합니다. ⑥캐스터의 회전부분의 그리스 상태를 점검합니다.

바퀴성능

※A:양호 B:사용가능 C:사용불가능

품 명	재 질	내유성	내산성	내알카리성	내오존성	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, 유포에서는 안되며, 본 취급설명서의 소유권은 HBL INC.에 있습니다.

MANUAL FOR CASTER

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 CAUTIONS

	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		

▶ USERS SHOULD STRICTLY FOLLOW WARNING AND CAUTION SIGNS.

CAUTIONS

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 PARTICULAR CONDITIONS : For use at corrosive, outdoor environments or seashore, specially designed casters should be used. / Caster operating temperature range is FROM 5℃ TO 30℃. 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..

- **▶ Feed grease on axis 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.**

MANUAL FOR CASTER

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 SURFACE 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 COEFFICENT OF FRICTION)

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.

OILS 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.

CAUTIONS WHILE SCRAPPING : 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

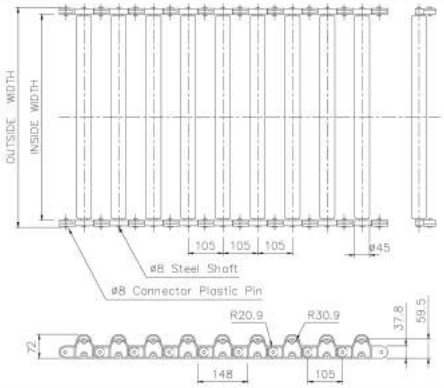
Classification	Material	Oil resistance	Acid resistance	tolerant Alkaline	Ozone resistance	Rebound resilence
SR Tread (ESD)	Solid Rubber (ESD)	C	C	B	C	B
P.U Tread	PolyUretnane	A	C	A	A	B

※ Unauthorized copying and publication of this Manual, all or a part of it, without our consent is strictly prohibited. And we, HBL INC., reserve the copyright of this Manual.

MAT CONVEYORS

■ MC-8001

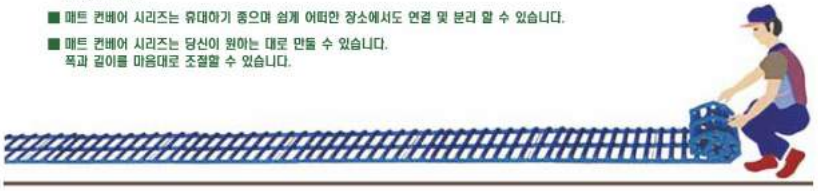
■ MC-8002



PRODUCT 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

- ■ MAT COMAT CONVEYOR SERIES are made with durable industrial ABS resin rollers.
- ■ MAT CONVEYOR SERIES are lighter than steel roller conveyors. They are ideally suited for rapid deployment and for temporary handling requirement.
- ■ MAT CONVEYOR SERIES are extremely portable due to the light weight and easily folded and unfolded anywhere they are needed.
- ■ MAT CONVEYOR SERIES can be produced as per your requirements by specifying the length and width.

- ■ 매트 컨베어 시리즈는 견고한 ABS엔지니어링 수지로 만들어 졌습니다.
- ■ 매트 컨베어 시리즈는 철재 컨베어보다 아주 가벼우며, 별도의 장비가 없더라도 긴급한 운반이나 임시 운반에 아주 이상적입니다.
- ■ 매트 컨베어 시리즈는 휴대하기 좋으며 쉽게 어떠한 장소에서도 연결 및 분리 할 수 있습니다.
- ■ 매트 컨베어 시리즈는 당신이 원하는 대로 만들 수 있습니다.
  폭과 길이를 마음대로 조절할 수 있습니다.



TECHNICAL SPECIFICATIONS

1. *WORK FLOW*
2. *STRUCTURE BREAKDOWN*
3. *PROPORTIONAL MARGIN LOAD OF PIPES*

WORK FLOW

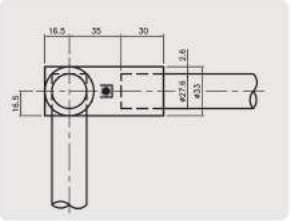
In order to manufacture and deliver transport trolleys, workstations and flow racks as per requirements, it is necessary to follow the sequence of operations listed below.

PIPE와 JOINT를 사용하여 대차, 적치대, 슬라이딩랙 등을 제작하는 경우, 그 목적 및 구상대로 제작하려면 다음의 순서와 체크가 필요합니다.

CALCULATION METHOD OF 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.

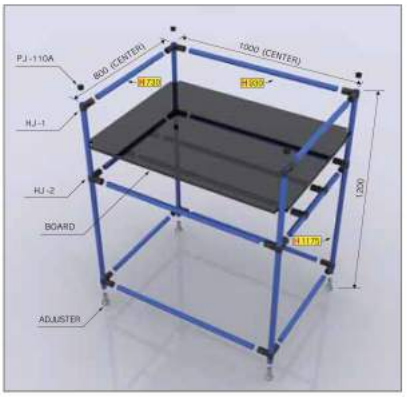
구조물의 파이프의 길이 계산방법은 조인트와 파이프 삽입공간을 고려하여 아래의 그림과 공식에 따라 계산합니다.
기준은 중심과 중심까지의 길이이고 이 기준으로 파이프의 길이를 계산합니다.



Horizontal	800	- Length between the both centers	- 중심에서 중심까지의 길이
Calculating	-70	- Total length between each end of the	- 파이프 끝에서 조인트 중심까지의 길이
The Lengths	——	- Pipe and each center of joint(35mm×2)	
(수평길이계산)	730	- The practical length of the pipe to be cutter	- 파이프 절단 길이

Vertical	530	- Length between the both centers	- 바닥에서 상측 중심까지 길이
Calculating	-25	- Length between the end of pipe and the end of adjust	- 아제스타 높이 (부상포함)
The Lengths	16.5	- Length between the center and the surface of joint	- 파이프 중심에서 조인트 상부
(수직길이계산)	522	- The practical length of the pipe to be cutted	- 파이프 절단길이

STRUCTURE BREAKDOWN



01 The drawing shown indicates the pipe length and the arrangement of the selected joints.

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

STRENGTH

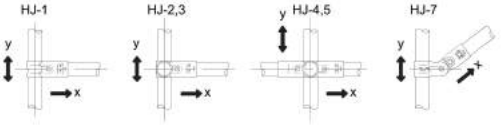
■ PIPES & JOINTS

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 meets all designed requirements.

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 고려 하여야 합니다.

■ Maximum resist strength of Joints

Maximum resist strength of LOGIFORM pipe attached with metal joints.
메탈 조인트를 로지폼 파이프에 연결하여 수직 및 수평에 인장하중을 가한 경우

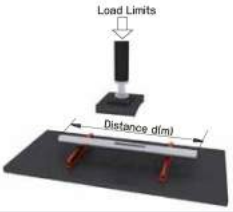


■ Test Condition (시험조건)
Test Speed (인장속도) : 5mm/min
Temperature (온도) : 23℃

Direction	COATED PIPES	STAINLESS PIPES
X	75kg	75kg
Y	85kg	85kg

Max. Loading capacities of pipes by thickness of steel

■ Test Condition (시험조건)
Tensile Speed (인장속도) : 5mm/min
Temperature (온도) : 23℃



Test Result							
Proportional Limit (unit : Kg)							
	LOGIFORM Q-PIPE		ESD PIPE	STAINLESS PIPE		SLIDE PIPE	ALUMINUM PIPE
LENGTH	LP-1100	LP-1200	CP-1100	ST-1070	ST-1110	SL-1100	AL-1150
450mm	180	334	180	118	252	173	122
1000mm	74	271	74	53	113	78	55
1500mm	50	225	50	35	75	52	37
1800mm	41	150	41	30	63	43	31

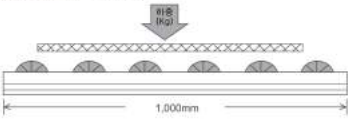
※ 상기 기술된 데이터는 제한적 테스트 환경 내에서 얻은 참조 값이므로 절대 기준을 의미하지 않습니다.
※ Above data was extracted in restrictive environment. It may be affected by any kind of environment facts.

MAXIMUM LOADING OF PLACONS

Test of Placon range Loading(플라콘 분포 하중 테스트)

TYPE	Φ	LENGTH	LOAD
40TYPE	30Φ	1,000mm	100 kgf
60TYPE	30Φ		115 kgf
60TYPE	16Φ		105 kgf
73TYPE	34Φ		215 kgf
73TYPE	18Φ		225 kgf

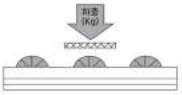
■ Test Condition (시험조건)
Tensile Speed (인장속도) : 5mm/min
Temperature (온도) : 23℃



Test of Roller Compression Loading(롤러 압축 하중 테스트)

TYPE	Φ	LOAD
40TYPE	30Φ	170 kgf
60TYPE	30Φ	240 kgf
60TYPE	16Φ	145 kgf
73TYPE	34Φ	520 kgf
73TYPE	18Φ	165 kgf

■ Test Condition (시험조건)
Temperature (온도) : 23℃



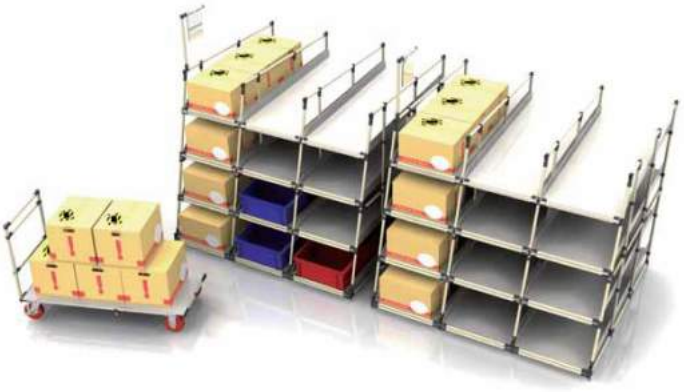
※ Limits of temperature for actual use(실사용의 온도 범위)

The temperature for actual use of ABS Resin utilized at PIPE & JOINT is limited within

-The working temperature for the ABS coated tube in between -10 and +80 degree C. Direct heat or freezing conditions should be avoided.

Pipe & Joint에 사용하고 있는 ABS수지의 실사용 온도는 -10~80℃로 되어 있어 그 범위를 넘는 곳이나 화기 열에서의 사용은 피해 주십시요.

APPLICATIONS



1. *DPS (Digital Picking System)*
2. *Automotive industry*
3. *Electronic industry*
4. *Other industries*

LOGISTICS SOLUTION

1. DPS
(Digital Picking System)

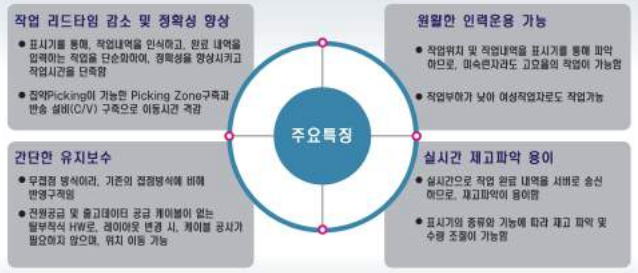
DPS(Digital Picking System)

DPS의 개요

HW&SW를 이용하여 피킹 및 분배의 작업시간 단축, 정확성 향상, 작업자 편의성 향상 등 물류센터 내 작업 고효율화를 위한 Digital System으로 인력에 의한 피킹/분배 시 작업편의성 및 고효율을 확보하기 위한 시스템으로 재고형/통과형 물류센터 내, 취급품목 및 물량 특성에 따라, 물류 H/W와 S/W를 구축하여 고효율의 출하작업을 위한 구축 시스템입니다.

Digital Picking System 정의

Digital Picking System 특징



AW Series 특징 (물류 자동화)

특징 전용 케이블로 간단하게 설치된 플레이트에 간편하게 탈,부착이 가능합니다.
레이아웃 변경을 자주 실행하는 공장에서 이용이 적합합니다.
둥근 파이프랙 또는 평평한 선반랙에 직접 설치 가능합니다.

AW2038F

■ 소형 화물에 적합한 컴팩트 타입의 라이트 모듈

SW1031R + SWD1001

- 전용 닥트를 사용해서 라이트 모듈에 간단하게 탈착 가능
- 기존의 선반랙과 파이프랙에 전용 닥트를 접착하는 것만으로 장착 가능
- 컴팩트 설계이기 때문에 소형 부품등의 피킹 시스템에 이용가능

AW Series 구조 (물류 자동화)

로케이션이동을 간단하게 이동할 수 있습니다.
시공비용이 기존의 2분의1 입니다.
기존의 TW.SW시리즈와의 변경이 가능합니다.

DPS(Digital Picking System)

벌집랙DPS

슬라이딩랙DPS

파렛트랙DPS

후면 보충용 DPS

의류DAS 랙

DAS천정랙

Sorter DAS

CV하단 부착형 DPS

의류DAS 랙

자동창고랙DPS

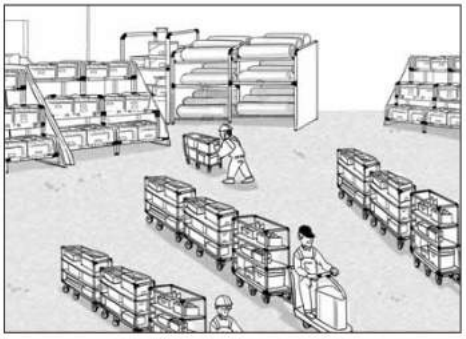
핑치랙DPS,DAS

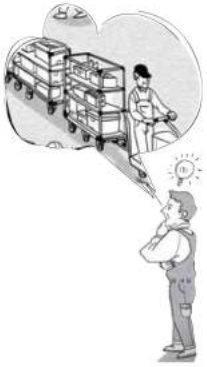
APPLICATION

POINT

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

How can minimize production waste???





LOGIFORM

efficient Lean-Manufacturing!!!

APPLICATIONS

AUTOMOTIVE INDUSTRY

01. STORE RACK

02. DOOR RACK

03. IN PANNEL CART

04. GLOVE BOX CART

05. IN PANEL CART

06. MOVING CART FOR GLOVE BOX

07. MOVING CART FOR HEAD LINING

08. RACK FOR PAINTED FENDER

09. RACK FOR BRAKE PARTS

10. MOVING CART FOR DUCT

11. MOVING CART FOR EVA

12. RACK FOR LINE

13. LINE RACK

14. MOVING CART FOR DOOR TRIM PICKING

15. MOVING CART FOR DOOR LOCK

AUTOMOTIVE INDUSTRY

16. RACK FOR PAINTED PARTS

17. MOVING CART FOR DOOR LOCK

18. MOVING CART FOR AIRBAG

19. RACK FOR PAINTED TRUNK

20. MOVING CART(INSERT BOX) DOOR MODULE

21. MOVING CART FOR HEATER CASE

22. RACK FOR PAINTED BACK DOOR

23. MOVING CART FOR DOOR GLASS

24. MOVING CART FOR DOOR TRIM

25. MOVING CART FOR REAR LAMP

26. EVA O.S TROLLEY

27. ONE SIDE MOVING CART

28. MOVING CART FOR REAR LAMP

29. MOVING CART FOR BOARDS

30. MOVING CART FOR TV FRONT

ELECTRONIC INDUSTRY

01. MAGAJIN RACK

02. MOVING RACK

03. COMBINED CART

04. MOVING CART FOR LCD PANEL

05. WORK TABLE

06. ASSEMBLING WORK TABLE FOR M.P

07. RACK FOR RAW MATERIAL

08. WORK TABLE

09. MOVING CART(L RESIN)

10. CELLLINE RACK

11. MOVING CART FOR DECK

12. MOVING CART (L RESIN)

13. TOP COVER CART

14. MOVING CART FOR LCD PANEL

15. MOVING CART FOR LCD

ELECTRONIC INDUSTRY

16. MOVING CART FOR LCD

17. MOVING CART FOR LCD

18. OPEN CART

19. DRAWER-STYLE MOVING CART

20. VERTICAL OPEN-SHUT MOVING CART

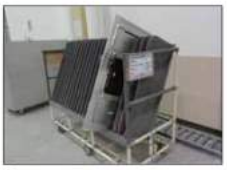
21. OPEN-SHUT CART

22. MOVING CART FOR AGING

23. ASSEMBLING LINE

24. MOVING CART FOR PREVENTING DIRT

25. MOVING CART FOR AGING


26. MOVING CART(FOR BOTTOM SASH)

27. MOVING CART FOR PCB

28. MOVING CART FOR PCB(INSERT BOX)

29. MOVING CART FOR PCB(INSERT BOX)

30. MOVING CART FOR LCD PANEL

OTHER INDUSTRIES

01. DRAWER-STYLE MOVING CART

02. MOVING RACK

03. OPEN CART

04. MOVING CART FOR LCD PANEL

05. WORK TABLE

06. ASSEMBLING WORK TABLE FOR M.P

07. RACK FOR RAW MATERIAL

08. WORK TABLE

09. MOVING CART FOR PCB(INSERT BOX)

10. CELLLINE RACK

11. MOVING CART(FOR BOTTOM SASH)

12. MOVING CART (L RESIN)

13. TOP COVER CART

14. MOVING CART FOR LCD PANEL

15. Z MOVING CART FOR LCD

COMPANY RELATED PHOTOS

사용상의 주의 사항

1. 제품의 운반 및 보관 이외의 용도로 사용하지 마십시오.
2. 제품에 변형을 가하지 마십시오
   제품의 물성 및 사고의 원인이 될 수 있습니다.
3. 과도한 충격을 가하지 마십시오.
4. 허용하중을 초과시 제품파손의 원인이 될 수 있습니다.
5. 제품의 규격을 표시 치수와 다소 차이가 있을 수 있습니다.
6. 제품에 이상이 있을 경우에는 즉시 사용을 중지 하십시오.
7. 타사의 제품과의 혼용을 권장하지 않습니다.
8. 적재 불량의 경우 제품 및 사고의 원인이 될 수 있습니다.
9. 급 출발, 급 정지, 급 핸들링등은 제품 파손 및 사고의 원인이 될 수 있습니다.
10. 직사광선을 피해 주십시오. 제품 변형의 원인이 될 수 있습니다.
11. 사용환경에 따라 제품수명에 차이가 발생 할 수 있습니다.

1. Use of product for any other purposes than transporting and storing goods is strictly not allowed. This may cause an unexpected accident
2. Modifying the original form of product other than cutting pipe or placon is not allowed
3. Engaging the product with an excessive level of shock may result in an inappropriate operation
4. Avoid the product or the structure to serve an overloaded duty.
5. The actual dimension of a product may not be exactly identical to the corresponding information indicated in this catalogue.
6. Stop operating the structure or product immediately if it is deemed improperly working.
7. Some or all of LOGIFORM parts and components may be compatible with products manufactured by third party. However, it is not recommended to mix our products with others when assembling a structure for safety reason.
8. An improper way of load may result in product damage and/or any engaging operators with any likely accident
9. Avoid engaging the structure with any emergency start, brake or drift for safety reason.
10. Exposure to a direct sunlight may create deformation or damage to the product.
11. A lifespan of product is subject to change depending on the condition of use

- 본 카다로그에 수록된 제품 및 기술자료, 사양 그림 등은 출판 당시의 제품사양을 반영한 것 입니다.
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  기록 되지 않은 사항은 당사와 협의 하시기 바랍니다.

- All the technical data, images, specification and etc. on this catalogue will probably be modified in order to improve quality of the products and service without notice. Please consult with the person in charge.

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