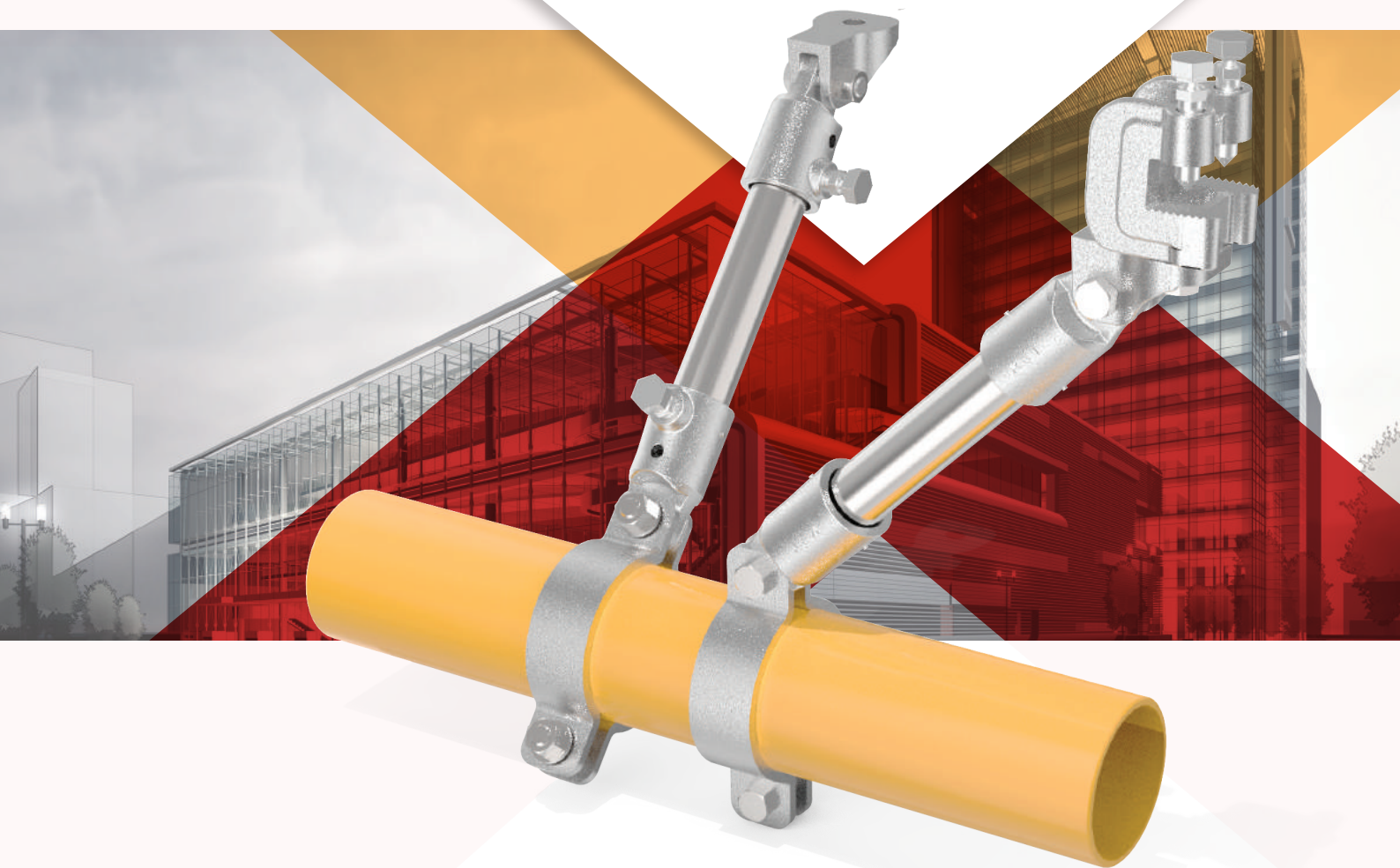




# KOREA SAFETY TECHNOLOGY

KST SEISMIC TOTAL SOLUTION

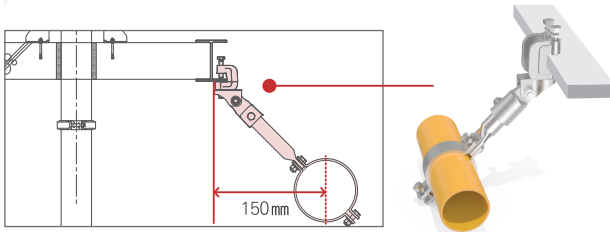


First Performance  
Certification  
the manufacturer

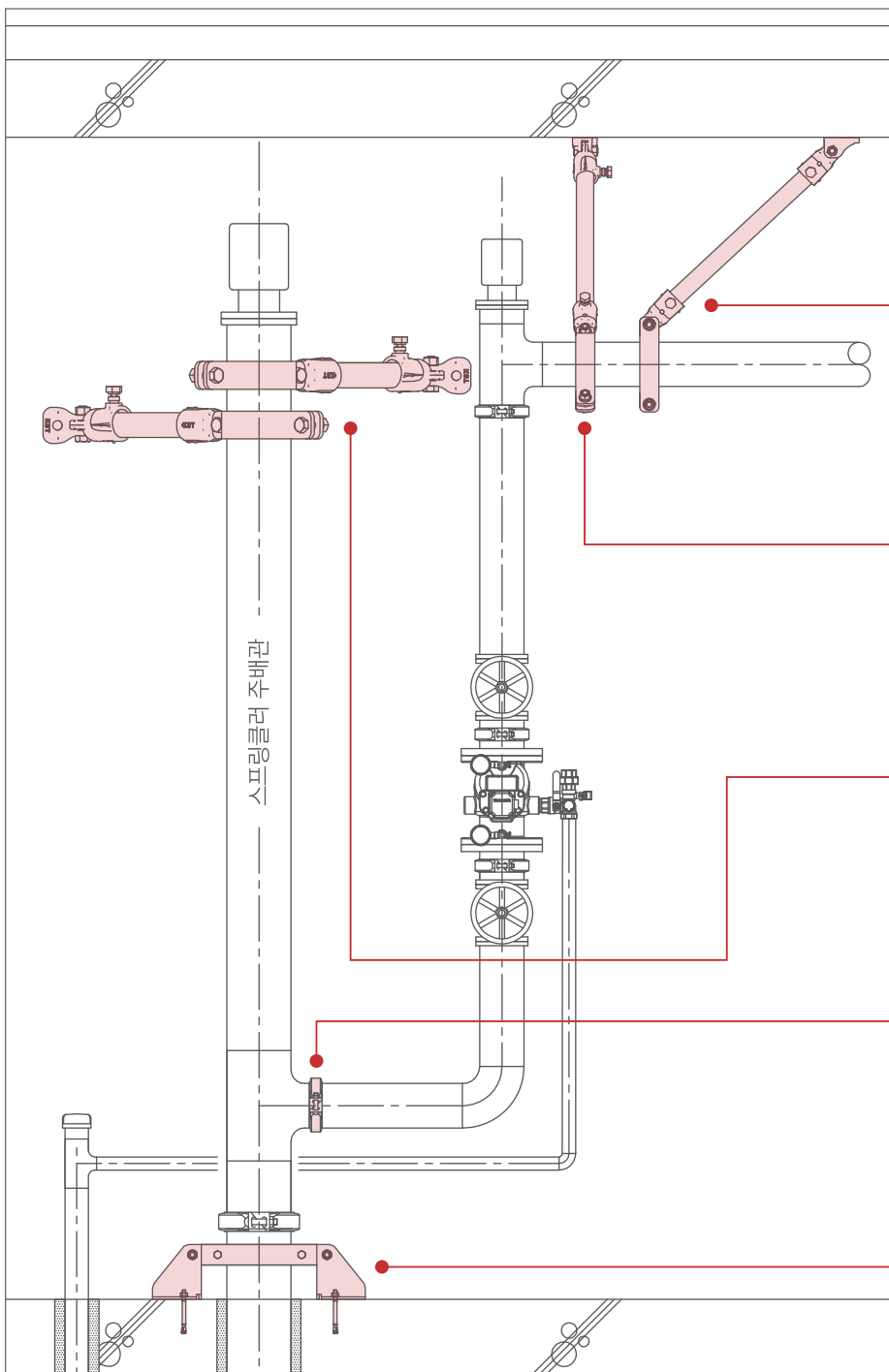
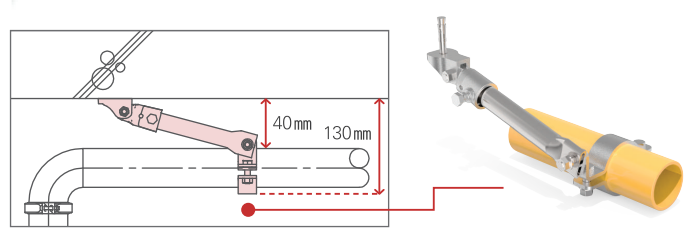


Public  
Procurement  
Service

Contact Lateral



Contact Longitudinal



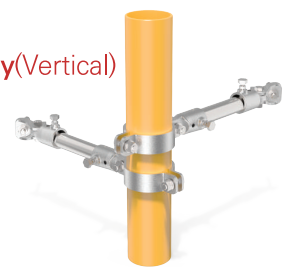
Longitudinal



Lateral



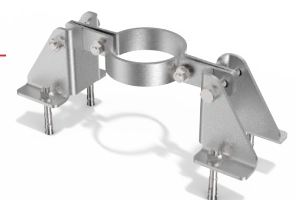
4Way(Vertical)



Flexible joint



4Way Sway  
(Bottom type)





## Korea Fire Institute first performance Certification

Korea's First Recognition of Whole product installation angle 30° to 90°

### A building attachment adapter

- ▶ steel structure attachment type
- ▶ Shear-off head helps ensure correct torque and simplifies inspection
- ▶ Usable either I type or H type of framework (without division)
- ▶ Double Shear Bolt Makes it easy to reinstall
- ▶ Maximum Load rating (9,100N)
- ▶ Available up to 36 mm steel thickness

KFI Performance certification the manufacturer

### A building attachment

- ▶ Concrete-shaped attachment type
- ▶ Installation of seismic anchor bolts over 70mm deep
- ▶ Maximum Load rating (9,100N)

### A piping connection

- ▶ Application of the closing angle 50A to 200A
- ▶ It is composed of one piece for convenient assembly and installation.
- ▶ Refer to the rated maximum load sheet

### Connection adaptor

- ▶ Combination of a building attachment /Piping connection
- ▶ Shear-off head helps ensure correct torque and simplifies inspection
- ▶ Double Shear Bolt Makes it easy to reinstall

## Product specification

standards (mm)	(mm)	30°~44°(N)	45°~59°(N)	60°~74°(N)	75°~90°(N)
50A	3,000	4,550	6,431	7,875	9,100
65A					
80A					
100A					
125A					
150A					
200A					

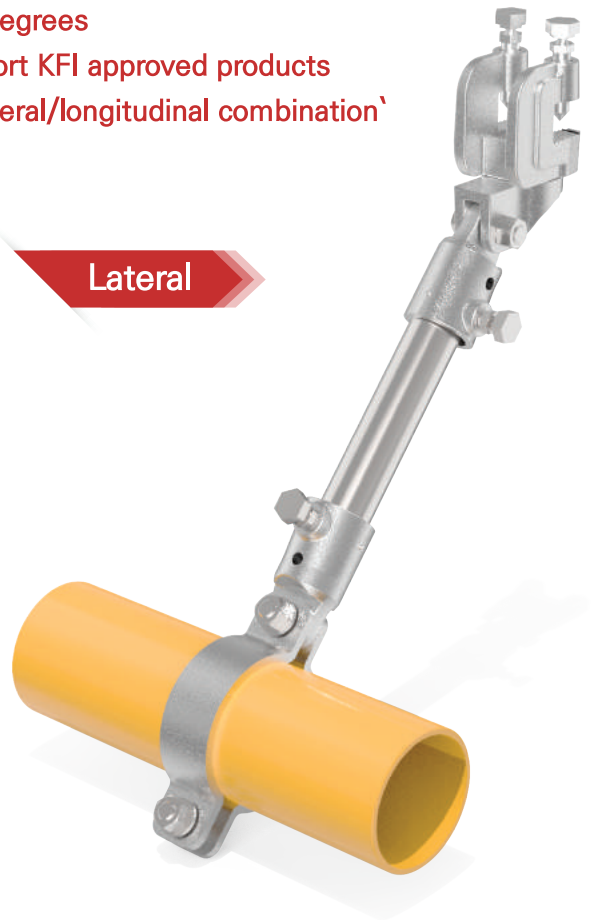
9.8N=1kgf

# Lateral-Longitudinal Sway Bracing

- Installation certification angle 30 degrees to 90 degrees
- Reduction in construction cost by adopting support KFI approved products
- For inventory management and installation by lateral/longitudinal combination`



- Installation on all main pipes and cross-pipe
- Installing at least 30 degrees above the vertical angle
- Longitudinal brace spacing 24 metres or less



- Installation on all main pipes and cross-pipe
- Installing at least 30 degrees above the vertical angle
- Lateral brace spacing 12 metres or less  
Installation within 1.5m of end of pipe

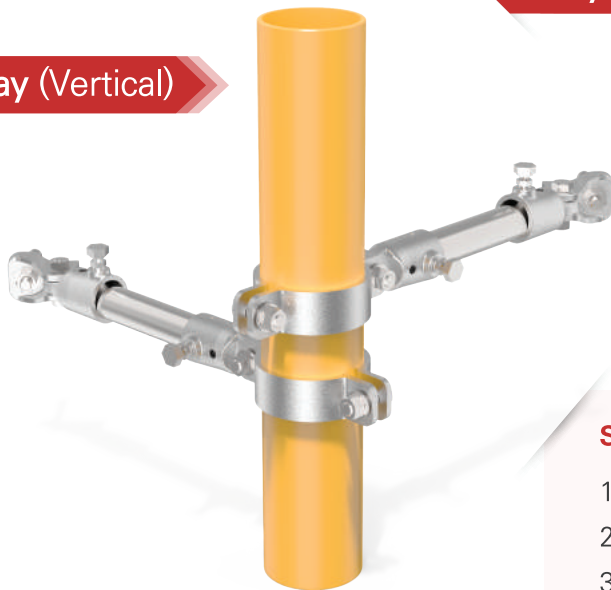




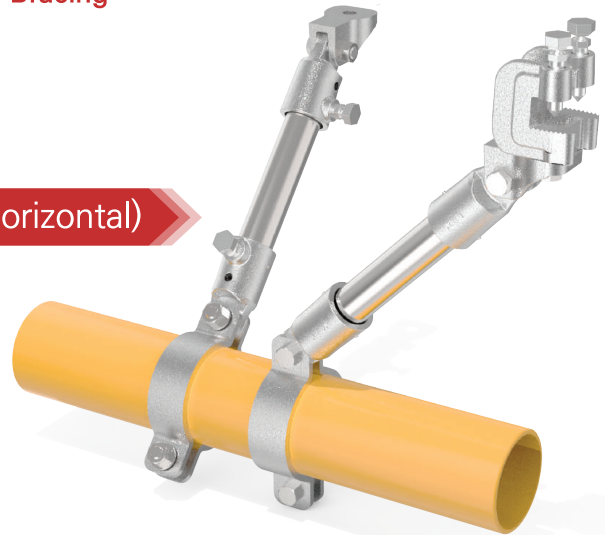
# 4Way Sway Bracing

- ▶ Same component as Lateral-Longitudinal Sway Bracing
- ▶ In horizontal pipe of the highest level pipe  
Install lateral/longitudinal configuration

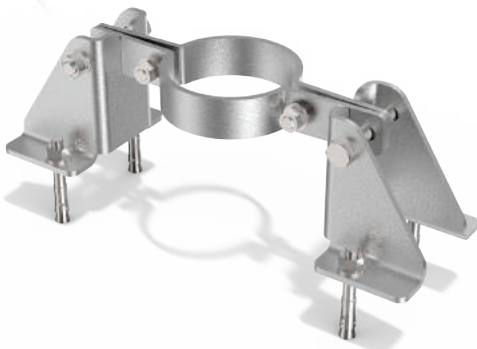
4Way (Vertical)



4Way (horizontal)



4Way Sway  
(Bottom type)



## standard of establishment

1. Installed at the top of all entrances in excess of 1 m
2. Within 8 metre support interval
3. Installation within 0.6 m of the pipe centerline  
when applied to the horizontal pipe

## KTRI (Korea Testing and Research Institute) Performance Check Products

- ▶ Material : STEEL (zinc plating)
- ▶ Size : 50A ~ 200A
- ▶ Minimize the Space of installation with lower fixed type
- ▶ Available For small space installation



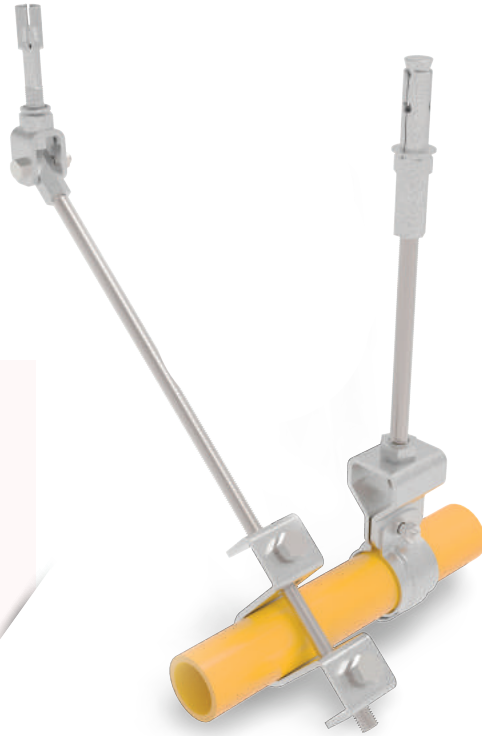
# Side Arms Sway Bracing

## Side Arms Sway Bracing

- ▶ Material : STEEL (zinc plating)
- ▶ Size : 25A (32A ~ 50A extra models)
- ▶ Computing bolt 3/8 (On-site purchase)

### standard of establishment

1. Installation within 0.6 m before and after hanger
2. Installing at least 30 ° from vertical angle
3. Excluding installation if the height of the pipe top and structure fixing points is within 0.15m



# Seismic Stopper



(For hold a pump steady)

## Seismic Stopper

- ▶ Material : STEEL (zinc plating)
- ▶ Size : H 150 ~ 200
  - ST-150 : 120mm ~ 150mm
  - ST-200 : 190mm ~ 240mm
- ▶ Slide approach enables installation height control
- ▶ Installation of seismic anchor bolts over 100 mm deep



Side Arms Sway Bracing  
Joint 3/8"



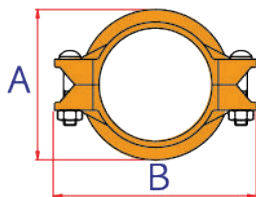
Bands 25A~50A



Bands 32A ~ 50A

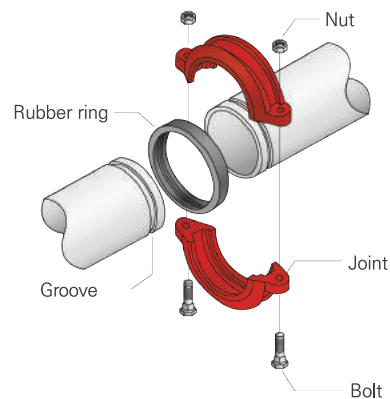
# Flexible Joint

The flexible joint is a product designed to maintain the liquidness and bending angles of the pipe end to comply with the seismic design standards of the firefighting facility, resulting in flexible and expansion of the pipe line and vibration



► Size : 25A ~ 200A

## the components of a flexible joint



## Product specification

규격 Size(A)	파이프 외경 Pipe O.D (mm)	최대압력 사용 Max.Working Pressure(kgf/cm <sup>2</sup> )	관단최대 축력 Max.End Load(kN)	관단허용 유격 Allow Pipe End Sep(mm)	조인트접속부 허용각도 Degrees- per joint	파이프편심량 Pipe Deflection (mm/6m)	조인트치수 Dimensions(mm)			볼트크기 Bolt size (φxL)	사용렌치규격 Wrench Size (mm)	중량 Weight (kg)
							A	B	C			
50A	60.5	24	6.9	0~1.6	1.51°	158.2	84	128	45	M10X60	17	0.70
65A	76.3	24	11.0	0~1.6	1.20°	125.7	97	139	45	M10X60	17	0.78
80A	89.1	24	15.0	0~1.6	1.03°	107.9	113	158	45	M10X60	17	0.92
100A	114.3	24	24.6	0~3.2	1.60°	167.6	142	192	50	M12X70	19	1.42
125A	139.7	21	32.2	0~3.2	1.31°	137.2	167	223	50	M12X75	19	1.84
150A	165.2	21	45.0	0~3.2	1.11°	116.3	195	252	50	M12X75	19	2.22
200A	216.3	21	77.2	0~3.2	1.83°	191.7	250	322	60	M16X90	24	4.02



## KST SEISMIC TOTAL SOLUTION

Korea Safty Technology is the first company approved of KFI performance certification in Korea, it provides total solutions for earthquake resistance, such as seismic design, structural calculation, production, manufacture, and distribution of earthquake-resistant materials. Since its inception, it has developed safety products that meet the requirements of UL, FM, NFPA, and KFI standards to protect the property and life of the people by minimizing damage caused by earthquakes.

## Korea Safety Technology Inc.

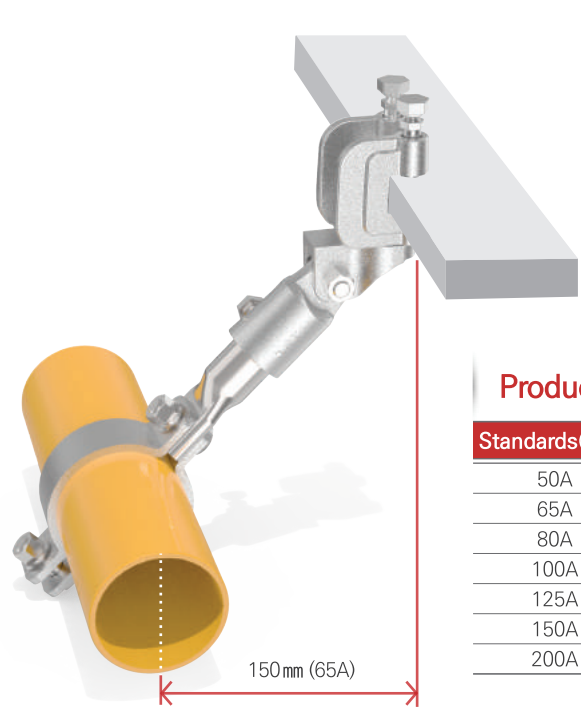
**Head office** 145-33, Sandong-ro, Eumbong-myeon, Asan-si, Chungcheongnam-do  
**Institute** C dong, 145-33, Sandong-ro, Eumbong-myeon, Asan-si, Chungcheongnam-do  
**TEL** 041) 547-3119 | **FAX** 041) 534-3123

**Seoul office** 3F, 11, Seocho-daero 27-gil, Seocho-gu, Seoul  
**TEL** 02) 3481-3119 | **FAX** 02) 3482-3123

**Busan office** 182, Nakdong-daero, Saha-gu, Busan 103-1504  
**TEL** 051) 208-3119 | **FAX** 051) 204-3123

# Contact Lateral·Longitudinal Sway Bracing

- ▶ Special technologies enable the installation of the lowest layer
- ▶ Best fit for small space installations, which are difficult to install
- ▶ Reduction in the construction cost by convenient construction and minimizing the construction phase



## Lateral

- ▶ Gain ultra-light weight compare to other products
- ▶ Also Available to install in narrow spaces  
(Minimum length of support and minimum height can be installed)
- ▶ convenient construction and minimizing the construction phase

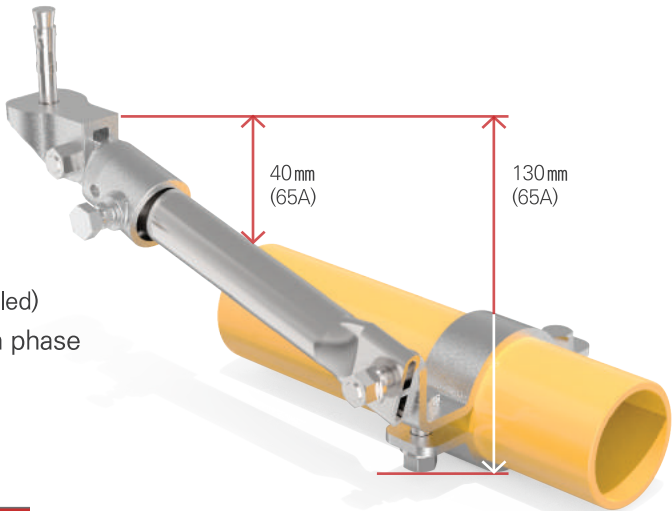
Product specification (Lateral)

Standards(mm)	(mm)	30°~44°(N)	45°~59°(N)	60°~74°(N)	75°~90°(N)
50A	250	4,550	6,431	7,875	9,100
65A					
80A					
100A					
125A					
150A					
200A					

9.8N=1kgf

## Longitudinal

- ▶ Gain ultra-light weight compare to other products
- ▶ Also Available to install in narrow spaces  
(Minimum length of support and minimum height can be installed)
- ▶ convenient construction and minimizing the construction phase
- ▶ Lowest constructable height 130 mm



Product specification (Longitudinal)

Standrads(mm)	(mm)	45°~59°(N)	60°~74°(N)	75°~90°(N)
40A	250	3,180	3,894	4,500
50A				
65A				
80A				
100A				

9.8N=1kg