

2014 GENERAL CATALOGUE

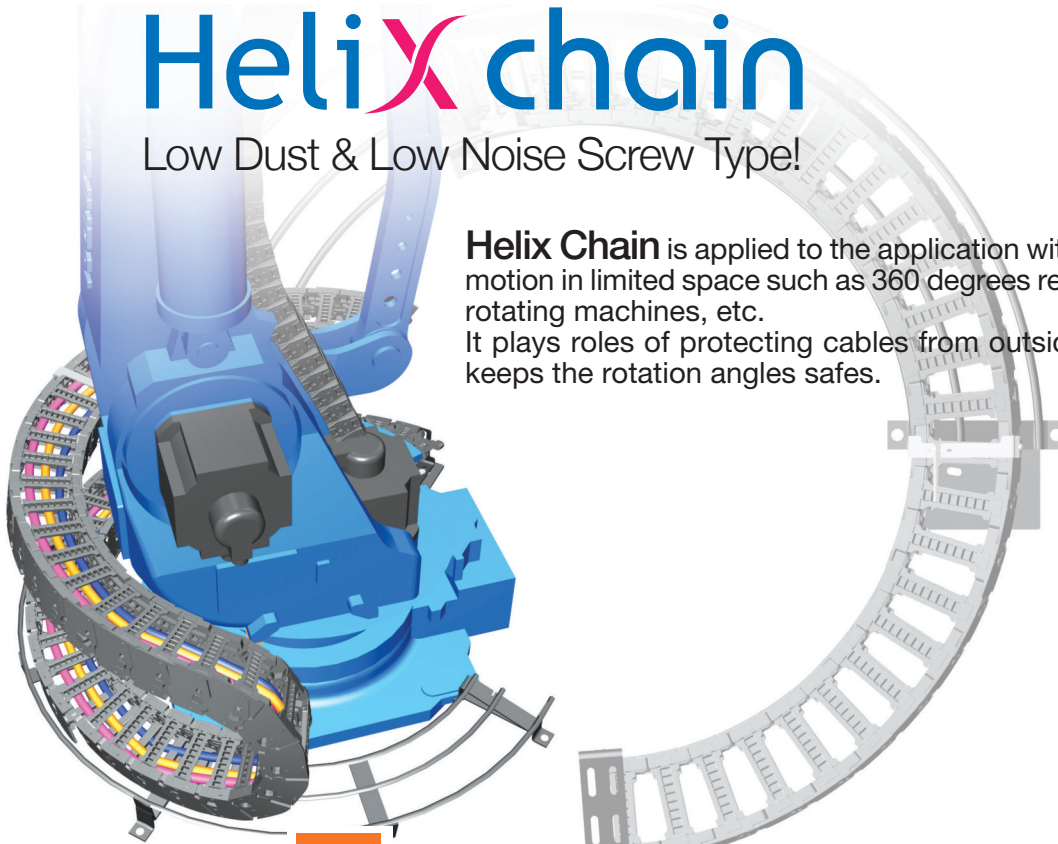
# HELIX CHAIN



# HeliX chain

## Low Dust & Low Noise Screw Type!

**Helix Chain** is applied to the application with a spiral rotary motion in limited space such as 360 degrees revolution robots, rotating machines, etc. It plays roles of protecting cables from outside dangers and keeps the rotation angles safes.



## HOW TO ASSEMBLE HELIX CHAIN

- The angle of rotation can be determined by the additional two angles if the machine can move both to the left and to the right via a circular track.
- At least 20% of the inner height and width should be considered when calculating the cable clearance.

### A

#### Supporting Guide.

- For most effective use, the chain should be installed in a specific position.
- For this reason, the CPS supporting carrier guide is needed and can be produced as a custom sized.
- In case of rotation over 200 degrees, suitable accessories like supporting hook and roller for self-supporting are necessary.

### B

#### Bracket - Steel End Bracket.

- One set of steel end bracket consists of two steel brackets and are inserted into each end of the chain.

### C

#### Need to USE Helix Chain.

- Intend to use the cables & hoses on both sides.
- When the rotation speed up to 4m/sec.

### D

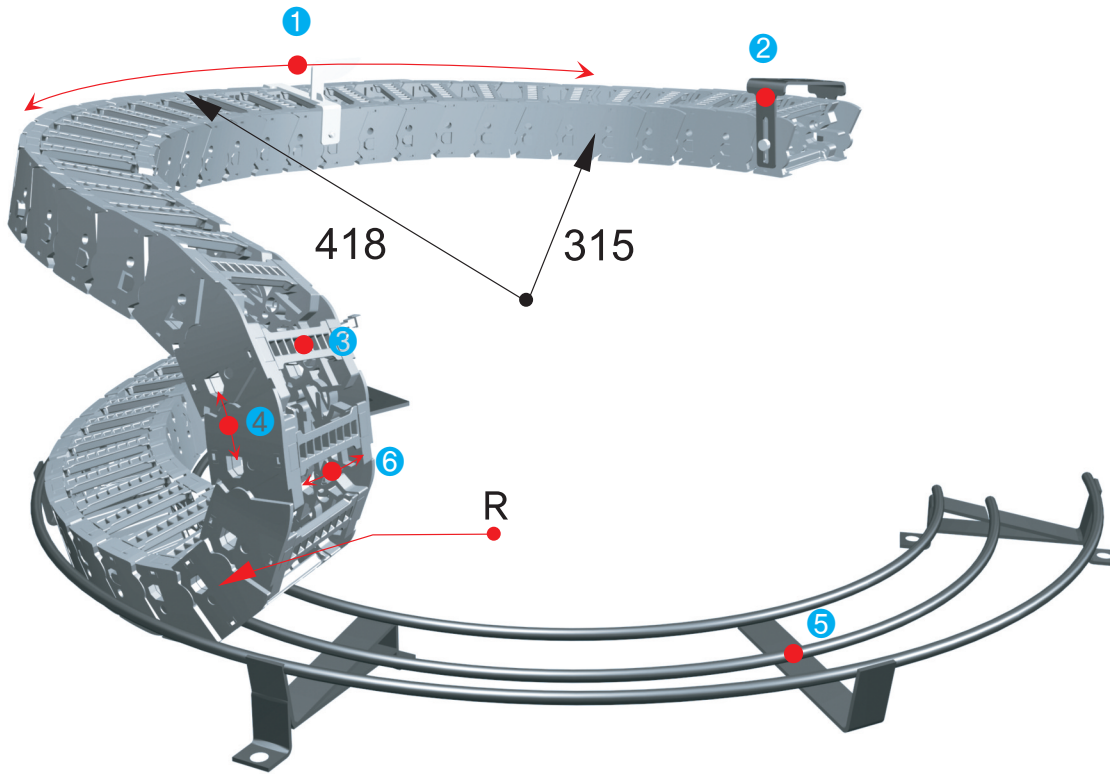
#### Don't need to use Helix chain.

- With application using rotation angle over 360.

\*For more detailed information, please contact CPS.



# HX 3553

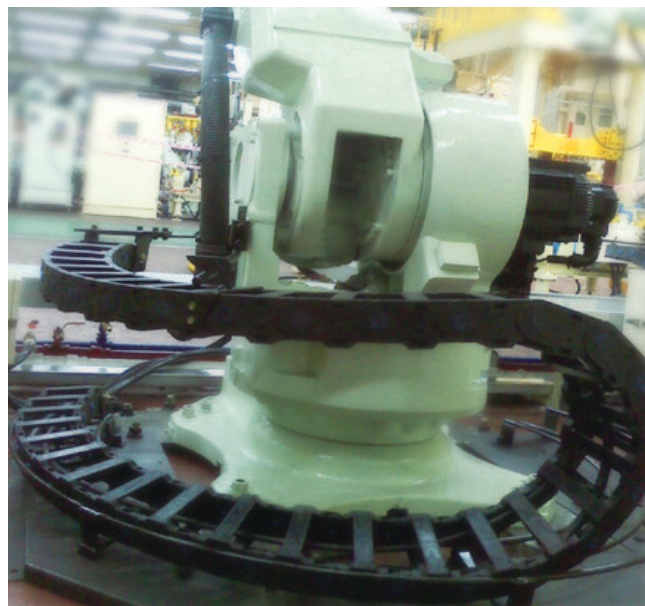


## MATERIAL

- ① For spiral motion up to 360°
- ② Steel End Bracket
- ③ Upside & Downside open frame
- ④ Pitch : 53mm
- ⑤ Guide channel
- ⑥ Chain inside width : 75mm
- Applications : Robot, Rotation Machine.
- Bending Radius (R)

(Dimensions in mm)

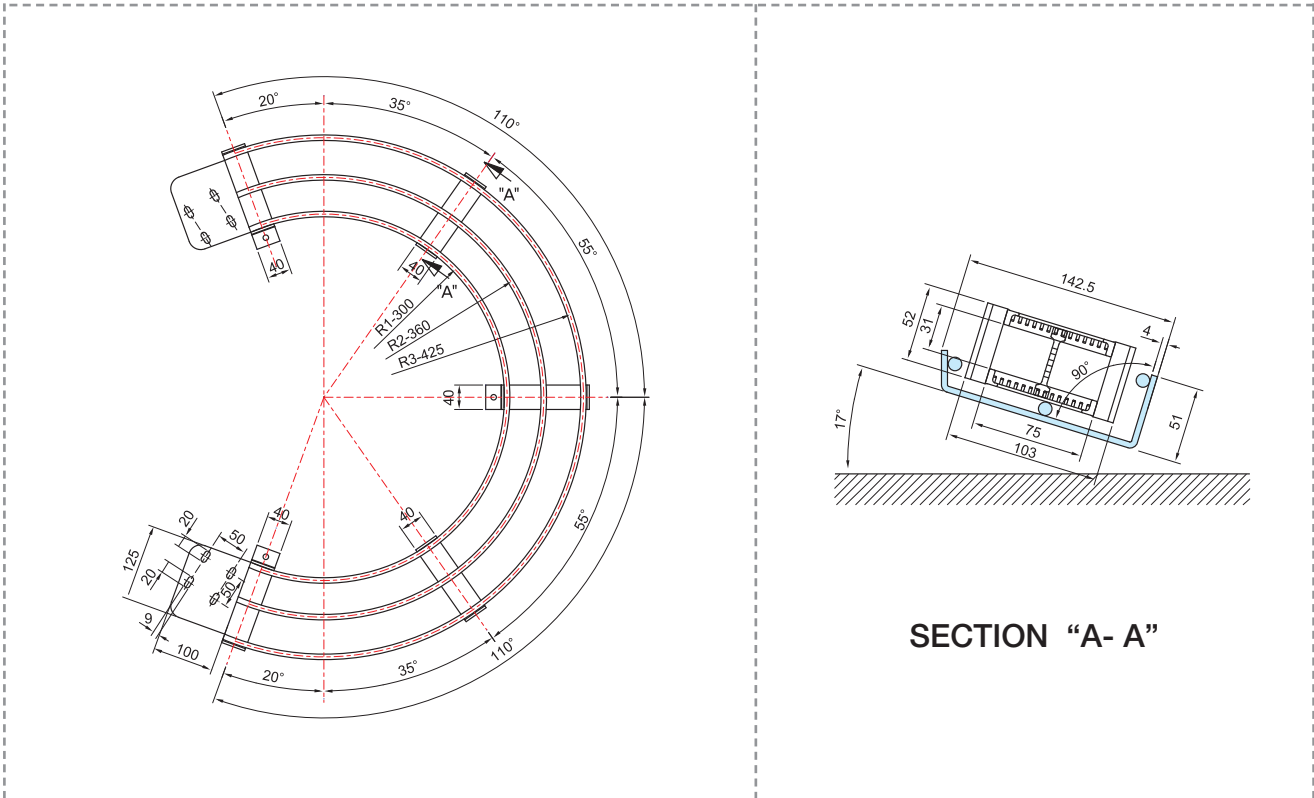
Bending Radius (R)	
90	140





## HX 3553

### GUIDE CHANNEL



SECTION "A-A"

### ■ Calculate the required Number of Links

**N:** Number of Links

**Or:** Outer Radius

**B:** Rotation angle

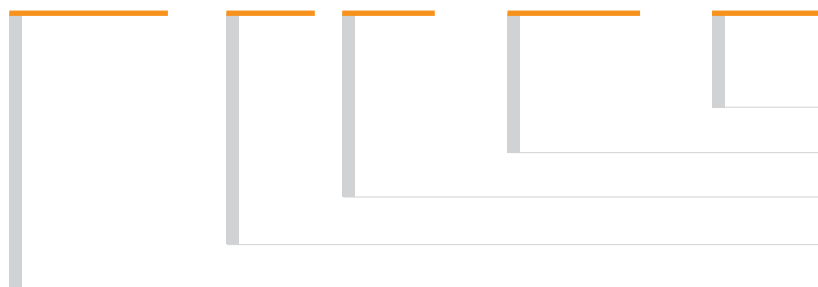
**P:** Chain pitch

**Lp:**  $\pi R+6p$

$$N = \left( \frac{\pi \times Or \times B}{360^\circ \times P} \right) + \frac{Lp}{P}$$

### ORDERING

## HX3553 . 075 R90 - 1000L : 10ST



Q'ty(set)

Length(mm)

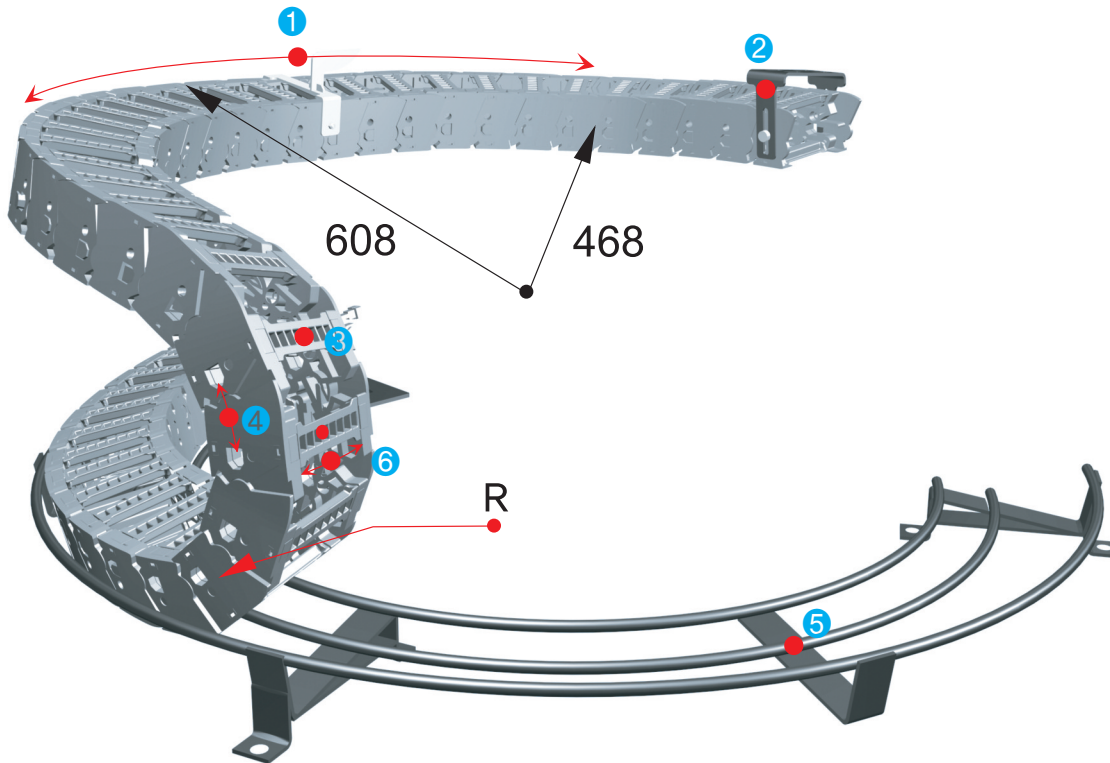
Bending Radius (R)

Inside Width

### Helix Chain



# HX 6075

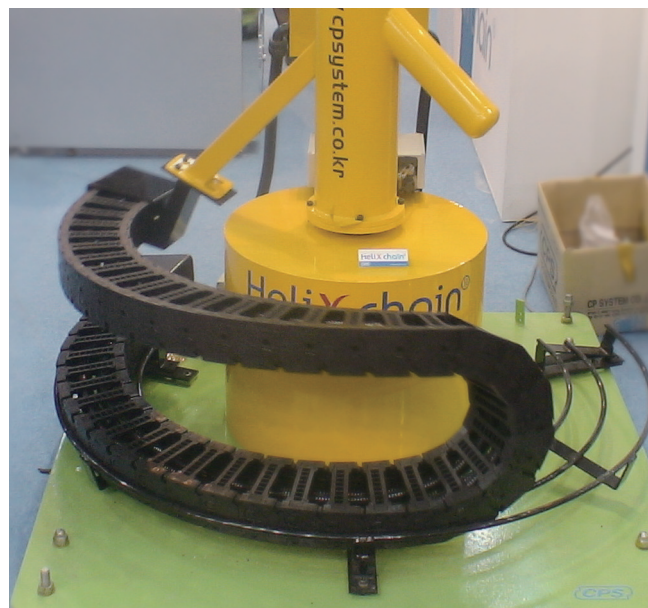


## MATERIAL

- ① For spiral motion up to 360°
- ② Steel End Bracket
- ③ Upside & Downside open frame
- ④ Pitch : 75mm
- ⑤ Guide channel
- ⑥ Chain inside width : 100mm
- Applications : Robot, Rotation Machine.
- Bending Radius (R)

(Dimensions in mm)

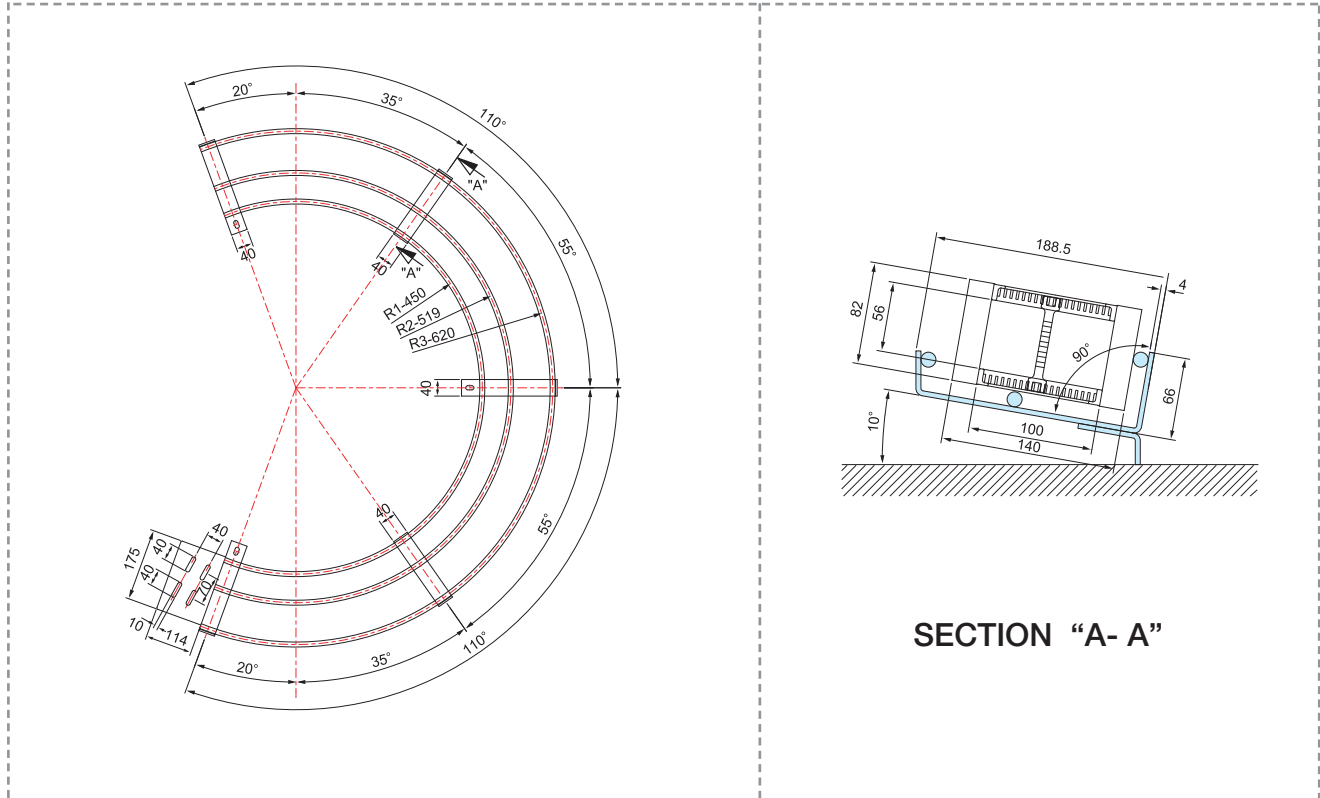
Bending Radius (R)			
110	135	185	235





## HX 6075

### GUIDE CHANNEL



SECTION "A-A"

### ■ Calculate the required Number of Links

**N:** Number of Links

**Or:** Outer Radius

**B:** Rotation angle

**P:** Chain pitch

**Lp:**  $\pi R + 6p$

$$N = \left( \frac{\pi \times Or \times B}{360^\circ \times P} \right) + \frac{Lp}{P}$$

### ORDERING

## HX6075 . 100 R110 -1000L : 10ST

--	--	--	--	--

Q'ty(set)

Length(mm)

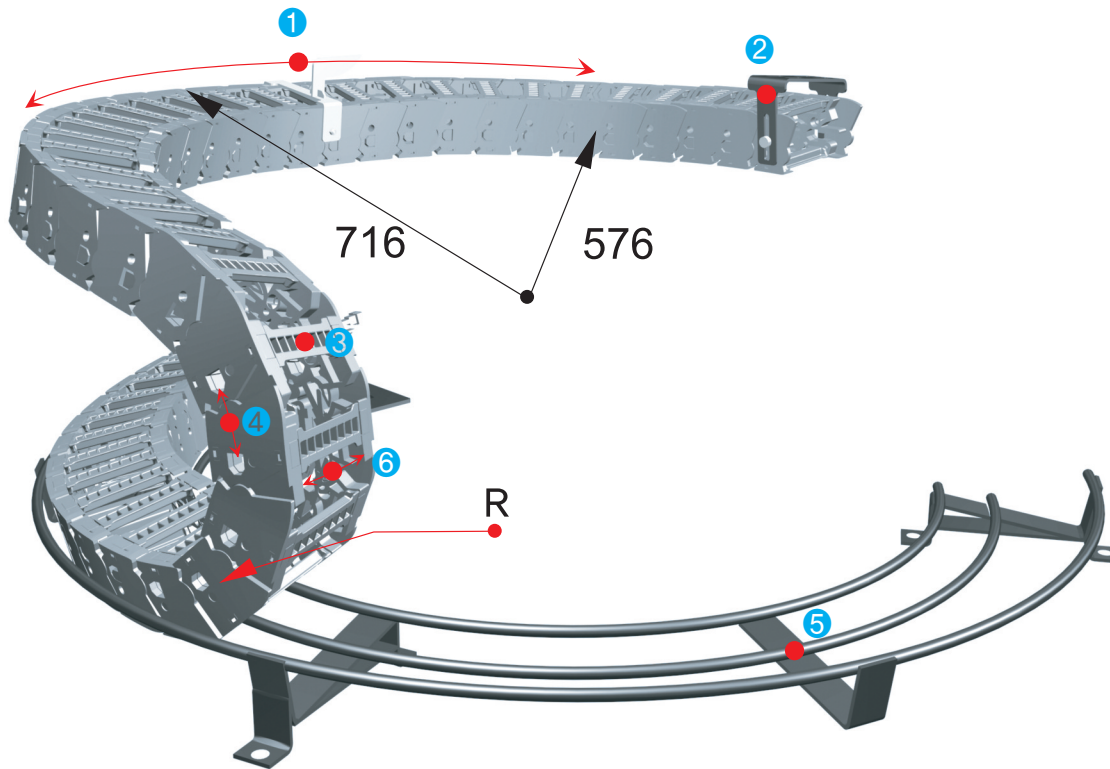
Bending Radius ( R )

Inside Width

**Helix Chain**



# HX 6087



**MATERIAL**

- ① For spiral motion up to 360°
- ② Steel End Bracket
- ③ Upside & Downside open frame
- ④ Pitch : 87mm
- ⑤ Guide channel
- ⑥ Chain inside width : 100mm
- **Applications :** Robot, Rotation Machine.
- **Bending Radius (R)**  
(Dimensions in mm)

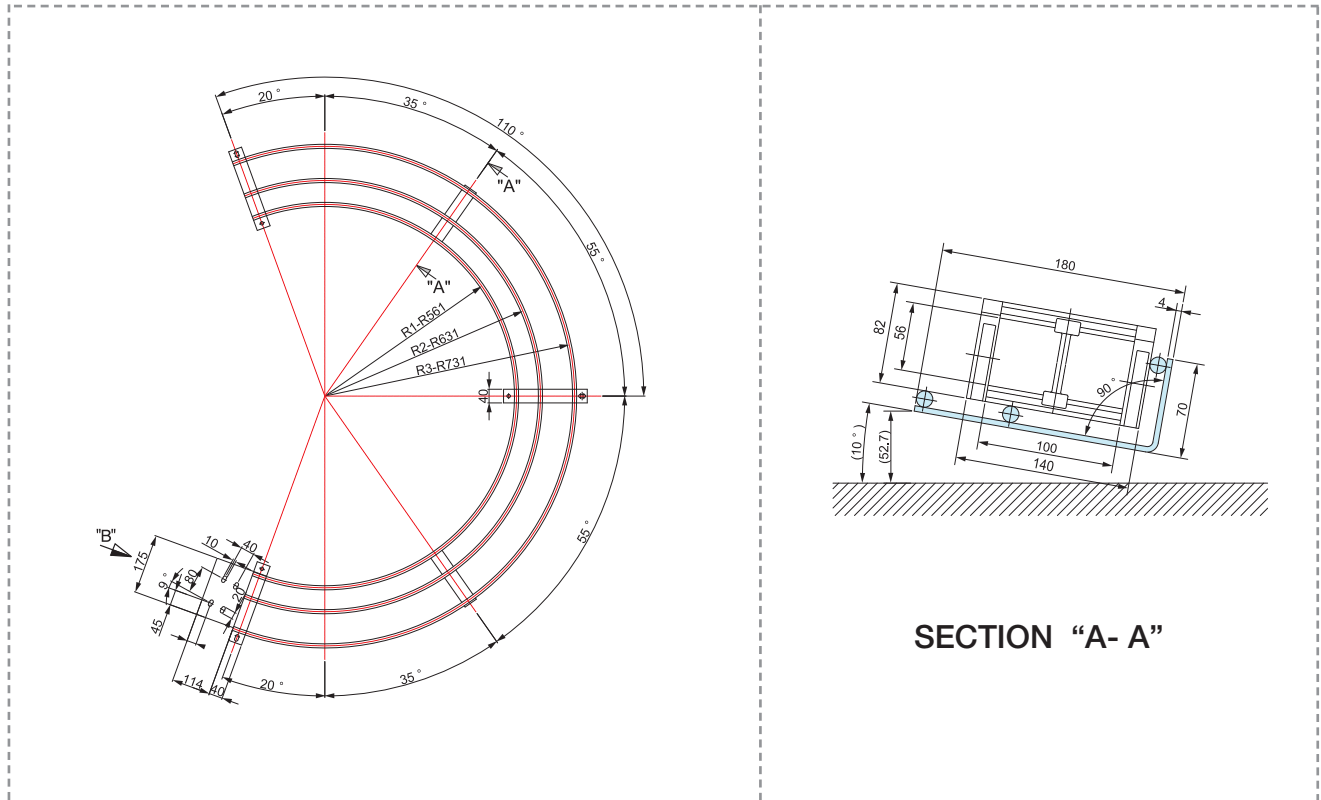
Bending Radius (R)			
110	135	185	235





## HX 6087

### GUIDE CHANNEL



### ■ Calculate the required Number of Links

**N:** Number of Links

**Or:** Outer Radius

**B:** Rotation angle

**P:** Chain pitch

**Lp:**  $\pi R + 6p$

$$N = \left( \frac{\pi \times Or \times B}{360^\circ \times P} \right) + \frac{Lp}{P}$$

CPS plans to  
develop HX 6087

### ORDERING

## HX6087 . 100 R110 -1000L : 10ST

--	--	--	--	--	--

Q'ty(set)

Length(mm)

Bending Radius ( R )

Inside Width

**Helix Chain**