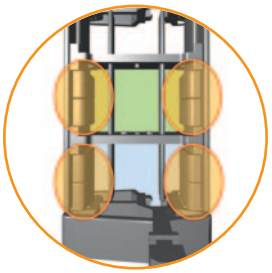
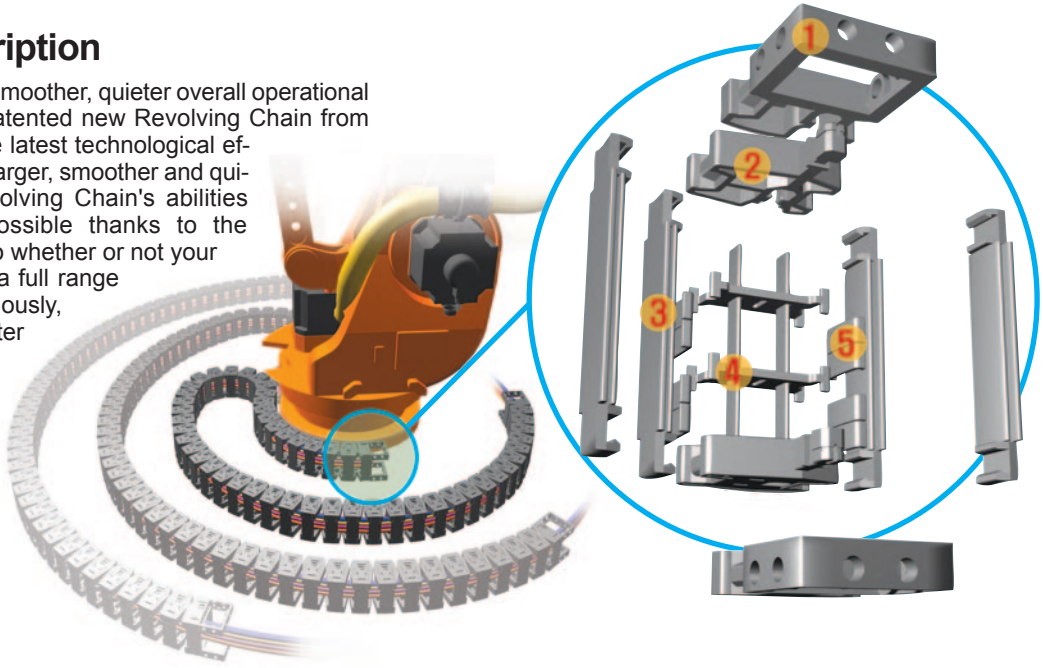
Revolving Chain®

Automatically control the bending radius and reverse bending radius
Maximize the mobility of bending radius
Apply to the rotating Machine or Robot
Low dust and low noise realization
Boost the productivity with more secured cable protection system



Part name and description

Safer equipment management. Smoother, quieter overall operational movement. Easy installation. Patented new Revolving Chain from CPS. Revolving Chain adopt the latest technological efforts with customer requests for larger, smoother and quieter ranges of movement. Revolving Chain's abilities stretch even further, made possible thanks to the patented free-bending radius. So whether or not your operating equipment is moving a full range of more than 360degrees continuously, or if it is moving in different shorter movements, Revolving Chain protects your cables while allowing the equipment to move freely throughout the full range of motion.



❶ Free and Bracket

The end of the cable chain, used to mount the application to the operating machinery or moving apparatus. CPS has improved the end bracket by making it possible to mount the cable chain from the front, side, bottom or top.

❷ Side Band (SB)

Developed and patented by CPS. As a result of the sideband connection method, virtually no noise is produced during operation. Which is possible by eliminating all points of friction.

❸ Frame (FR)

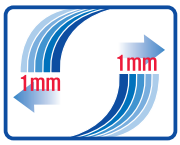
It is a unit that connects to side band and inner surface is smoothly machined to protect cables from fiction.

❹ Dividers(DV) & Separators(SP)

Used to separate the cables inside of the cable chain and protect them from twisting and breaking.

❺ Stopper

It is a unit to adjust the divider's posistion by considering number of cables in cable chain.

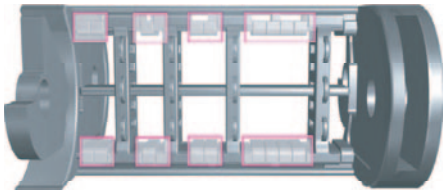


Adjustable Bending Radius per 1mm

Revolving Chain adjusts to the machine or application movement by creating various bending radius automatically. It can be adjusted by a unit of 1mm.

Stopper System

Stoper decides the location of divider which is settled in side of cable chain and control the position of divider according to the inserted cable's size and quantity.
The items are classified as ST-M1, ST-M2, ST-S1, ST-S2 and please refer following drawings.



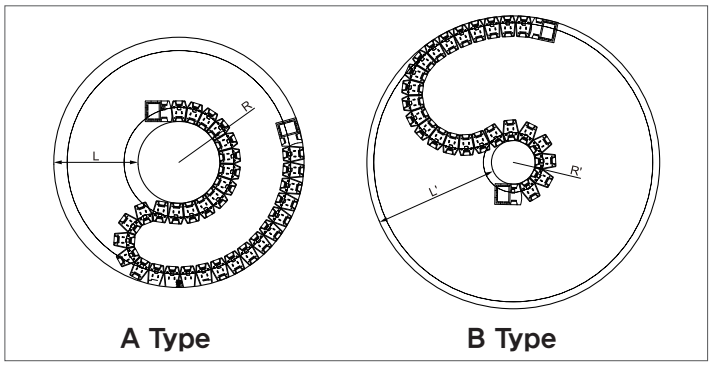
Ordering

RV 048CR.200. A/ F – 1000L : (DV:2)

- Revolving Chain
- Chain Type (RV020, RV028, RV040, RV048, RV060CR)
- Inner Height of Chain
- Type (A/B)
- Free End Bracket
- Length (mm)
- Q'ty of Divider (Link)

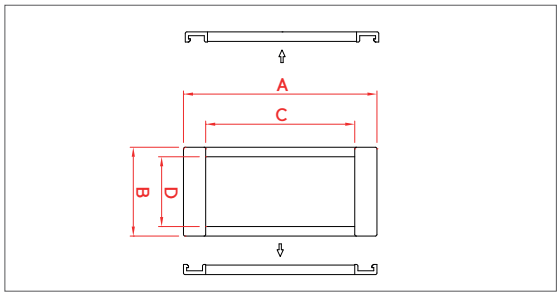
RV020CR

Chain Cross Section



A Type	Minimum distance (L)	130
	Minimum reverse bending (R)	40
B Type	Minimum distance (L)	150
	Minimum reverse bending (R)	30

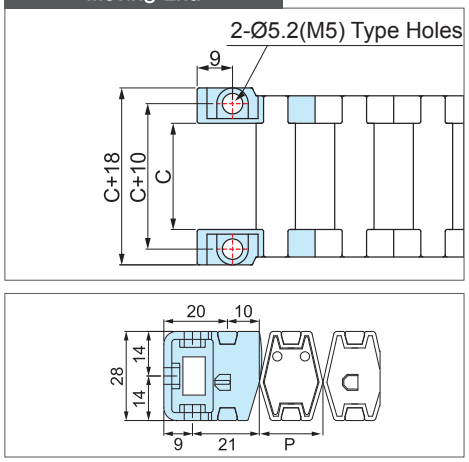
There are two installation choices, A or B corresponding with the bending radius of the side band. Choose A or B installation when there is insufficient distance between R, R' (Inner Bending Radius) and L, L' (Reverse)



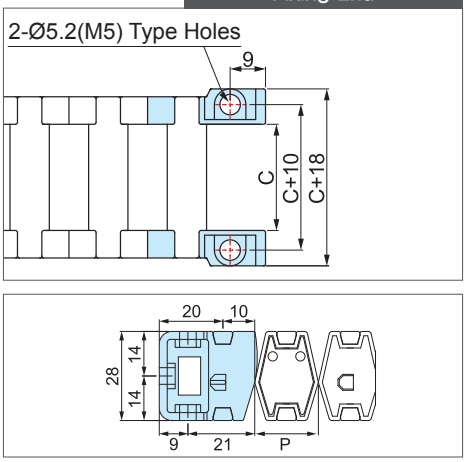
Chain Type	A	B	C	D
RV020CR	30 41 51 61 81 91	28	16 27 37 47 67 77	22

Bracket Type

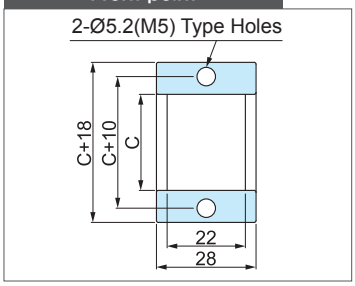
Moving End



Fixing End



Front point



Chain Type	Pitch	C
RV020CR	20	16 27 37 47 67 77

※ Ball Caster, Divider and Stopper are not applied to RV020CR

Ordering

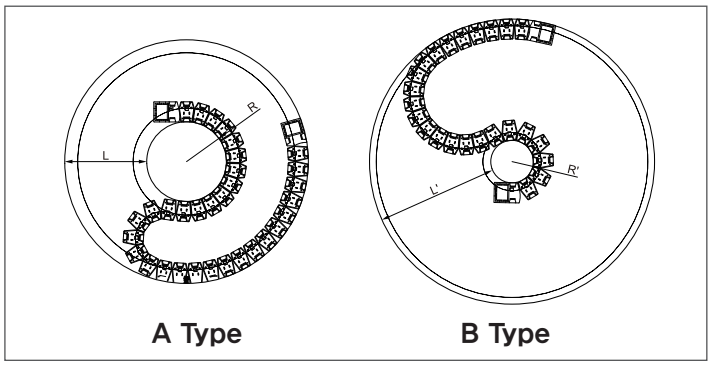
RV 020CR.16. A/ F – 800L : (DV:2)

- RV: Revolving Chain
- 020CR: Chain Type (RV020, RV028, RV040, RV048, RV060CR)
- 16: Inner Height of Chain
- A/B: Type (A/B)
- F: Free End Bracket
- 800L: Length (mm)
- (DV:2): Q'ty of Divider (Link)

(Dimensions in mm) CP SYSTEM CO.,LTD. www.cpsystem.co.kr

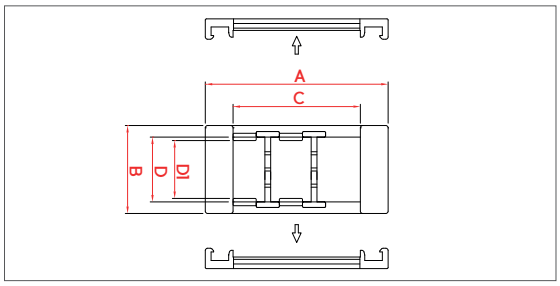
RV028CR

Chain Cross Section



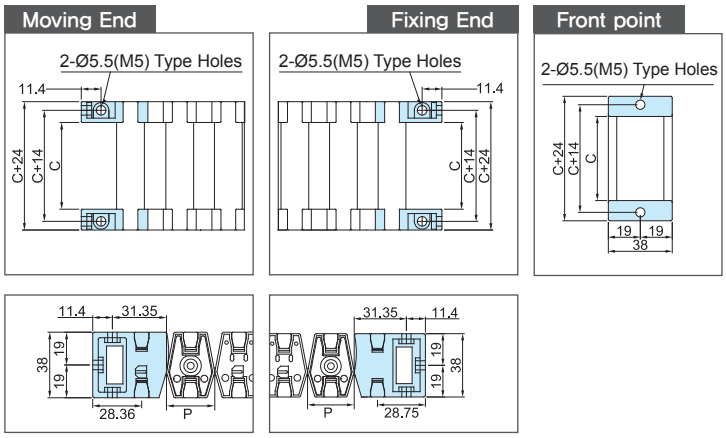
There are two installation choices, A or B corresponding with the bending radius of the side band. Choose A or B installation when there is insufficient distance between R, R' (Inner Bending Radius) and L, L' (Reverse)

A Type	Minimum distance (L)	170
	Minimum reverse bending (R)	70
B Type	Minimum distance (L)	200
	Minimum reverse bending (R)	50



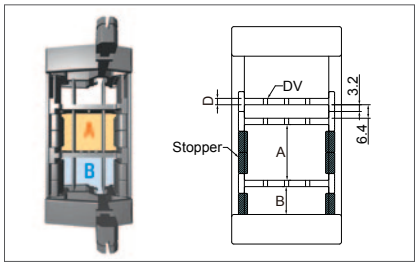
Chain Type	A	B	C	D (D1)
RV028CR	59	38	35	28(25)
	79		55	
	99		75	
	124		100	
	149		125	

Bracket Type



Chain Type	Pitch	C
RV028CR	28	35 55 75 100 125

Application Method of Stopper

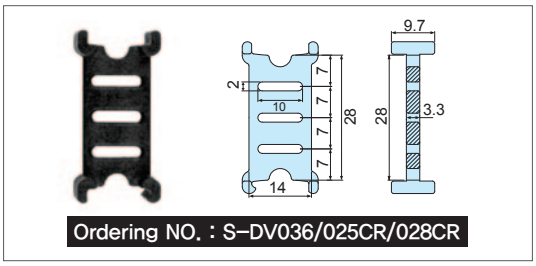


A = 6.4+10XStopper Q'ty
B = 3.2+10XStopper Q'ty

D = RV028CR : 3.3mm
RV040CR : 3.2mm
RV048CR : 3.5mm

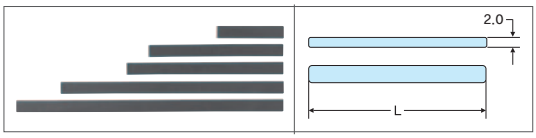
Dividers(DV)

Divider is used when there are more than 2 cables are inserted, which protects twisting and beaking problem.



Ordering NO. : S-DV036/025CR/028CR

Separators(SP)



The inserted separators into dividers have the function to separate cables, and lessen the interference of cables, so as it is also used for efficient use of inner chamber space.

Ordering NO.	Length (L)
S-SP/M.35	35
S-SP/M.55	55
S-SP/M.75	75
S-SP/M.100	100
S-SP/M.125	125

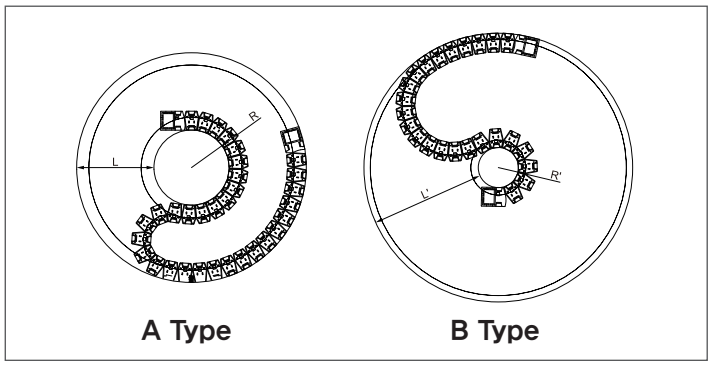
Ordering

RV 028CR.35. A/ F - 1120L : (DV:2)

- RV: Revolving Chain
- 028CR: Chain Type (RV020, RV028, RV040, RV048, RV060CR)
- .35: Inner Height of Chain
- A/B: Type
- F: Free End Bracket
- 1120L: Length (mm)
- (DV:2): Q'ty of Divider (Link)

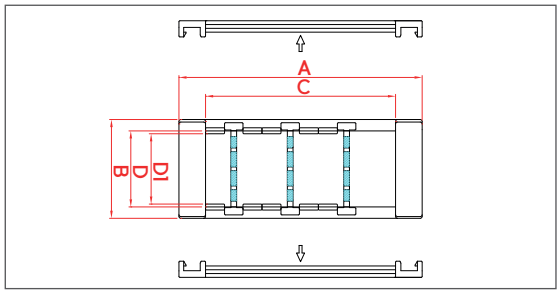
RV040CR

Chain Cross Section



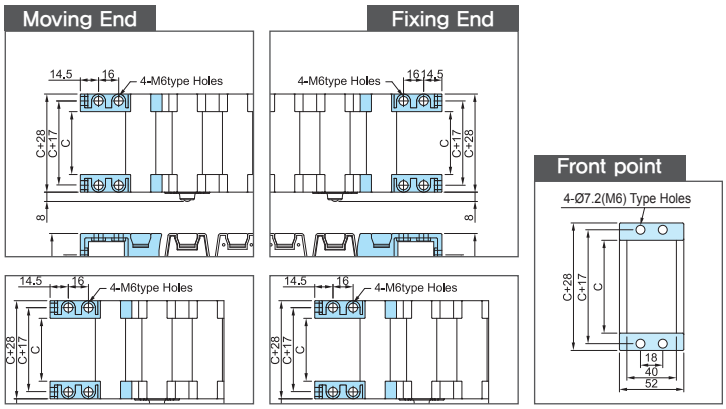
There are two installation choices, A or B corresponding with the bending radius of the side band. Choose A or B installation when there is insufficient distance between R, R' (Inner Bending Radius) and L, L' (Reverse)

A Type	Minimum distance (L)	230
	Minimum reverse bending (R)	120
B Type	Minimum distance (L')	340
	Minimum reverse bending (R)	70



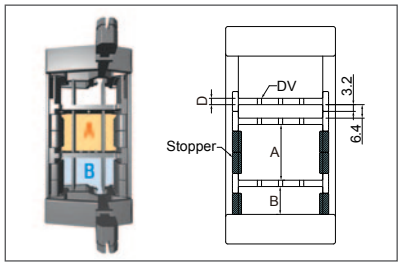
Chain Type	A	B	C	D (D1)
RV040CR	78 103 128 138 153 178 203 228	52	50 75 100 110 125 150 175 200	40(37)

Bracket Type



Chain Type	Pitch	C
RV040CR	40	50 75 100 110 125 150 175 200

Application Method of Stopper

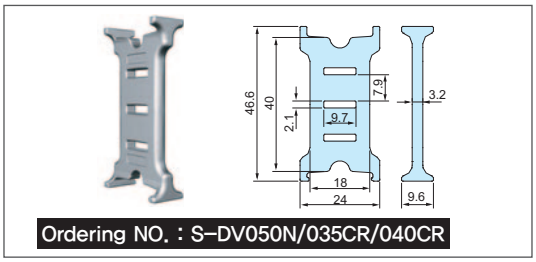


A = 6.4+10XStopper Q'ty
B = 3.2+10XStopper Q'ty

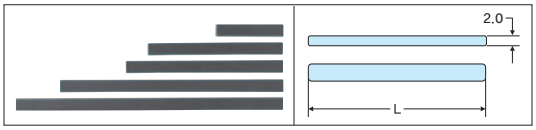
D = RV028CR : 3.3mm
RV040CR : 3.2mm
RV048CR : 3.5mm

Dividers(DV)

Divider is used when there are more than 2 cables are inserted, which protects twisting and beaking problem.



Separators(SP)



The inserted separators into dividers have the function to separate cables, and lessen the interference of cables, so as it is also used for efficient use of inner chamber space.

Ordering NO.	Length (L)
S-SP/M.50	50
S-SP/M.75	75
S-SP/M.100	100
S-SP/M.110	110
S-SP/M.125	125
S-SP/M.150	150
S-SP/M.175	175
S-SP/M.200	200

Ordering

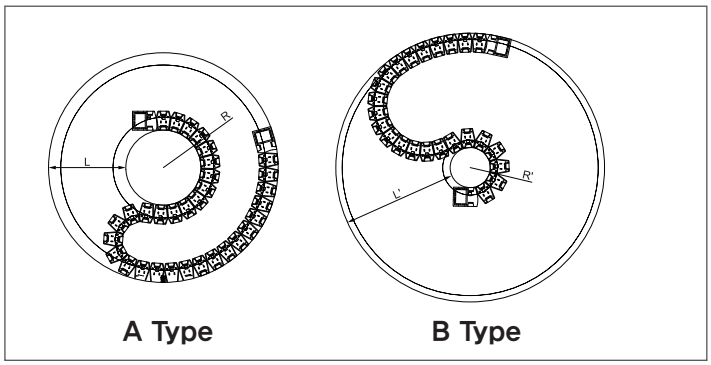
RV 040CR.50. A/ F - 1600L : (DV:2)

- RV: Revolving Chain
- 040CR: Chain Type (RV020, RV028, RV040, RV048, RV060CR)
- 50: Inner Height of Chain
- A/B: Type
- F: Free End Bracket
- 1600L: Length (mm)
- (DV:2): Q'ty of Divider (Link)

(Dimensions in mm) CP SYSTEM CO.,LTD. www.cpsystem.co.kr

RV048CR

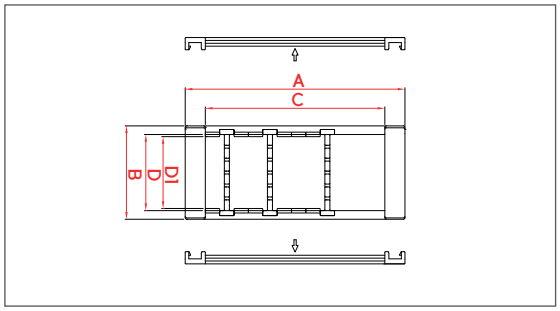
Chain Cross Section



A Type　　B Type

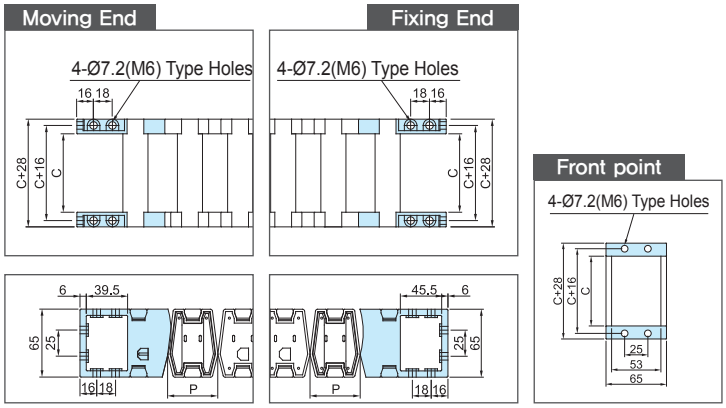
There are two installation choices, A or B corresponding with the bending radius of the side band. Choose A or B installation when there is insufficient distance between R, R' (Inner Bending Radius) and L, L' (Reverse)

A Type	Minimum distance (L)	300
	Minimum reverse bending (R))	160
B Type	Minimum distance (L')	450
	Minimum reverse bending (R)	90



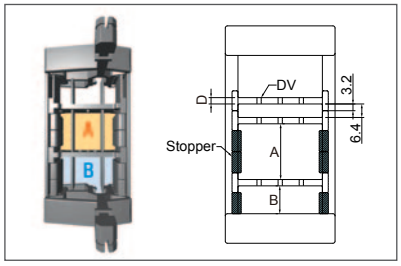
Chain Type	A	B	C	D (D1)
RV048CR	78	65	50	53(50)
	103		75	
	128		100	
	153		125	
	178		150	
	203		175	
	228		200	

Bracket Type



Chain Type	Pitch	C
RV048CR	48	50 75 100 125 150 175 200

Application Method of Stopper

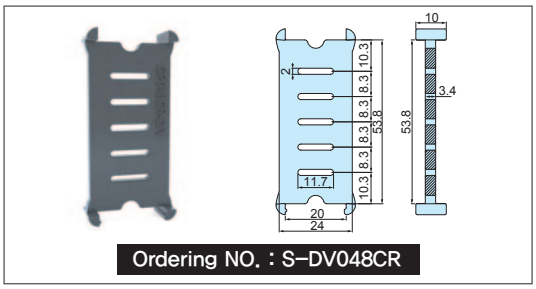


A = 6.4+10XStopper Q'ty
B = 3.2+10XStopper Q'ty

D = RV028CR : 3.3mm
RV040CR : 3.2mm
RV048CR : 3.5mm

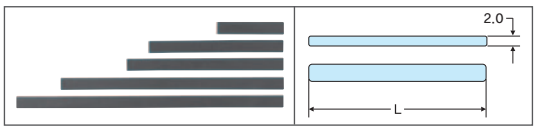
Dividers(DV)

Divider is used when there are more than 2 cables are inserted, which protects twisting and beaking problem.



Ordering NO. : S-DV048CR

Separators(SP)



The inserted separators into dividers have the function to separate cables, and lessen the interference of cables, so as it is also used for efficient use of inner chamber space.

Ordering NO.	Length (L)
S-SP/M.50	50
S-SP/M.75	75
S-SP/M.100	100
S-SP/M.125	125
S-SP/M.150	150
S-SP/M.175	175
S-SP/M.200	200

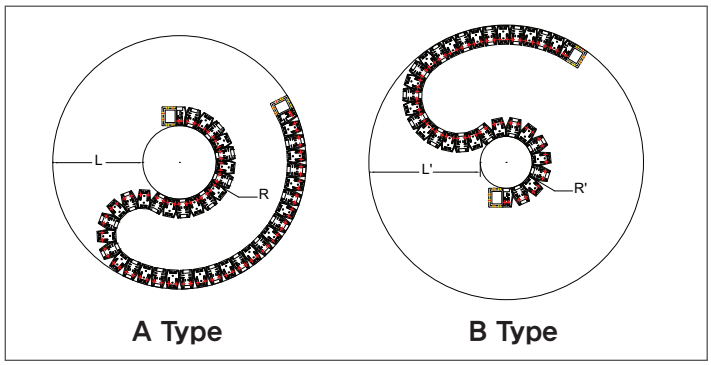
Ordering

RV 048CR.50. A/ F - 1920L : (DV:2)

- RV 048CR.50. : Chain Type (RV020, RV028, RV040, RV048, RV060CR) — Revolving Chain
- A/ : Type (A/B) — Inner Height of Chain
- F : Free End Bracket
- 1920L : Length (mm)
- (DV:2) : Q'ty of Divider (Link)

RV060CR

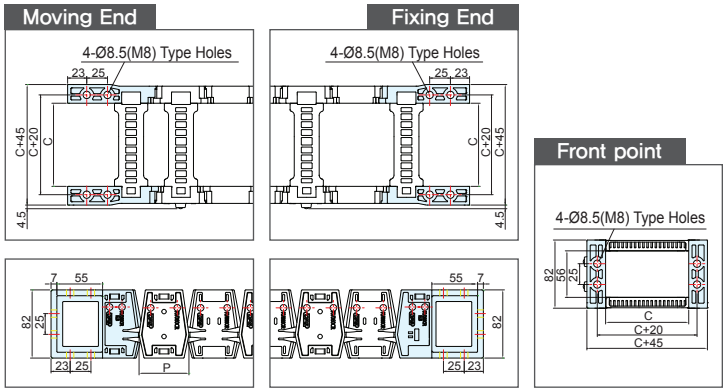
Chain Cross Section



There are two installation choices, A or B corresponding with the bending radius of the side band. Choose A or B installation when there is insufficient distance between R, R' (Inner Bending Radius) and L, L' (Reverse)

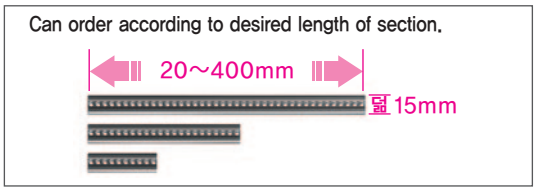
A Type	Minimum distance (L)	400
	Minimum reverse bending (R)	165
B Type	Minimum distance (L')	485
	Minimum reverse bending (R)	120

Bracket Type



Chain Type	Pitch	C
RV060CR	60	75 100 125 150 175 190 200 240 250 300 350 400

Separators(SP)



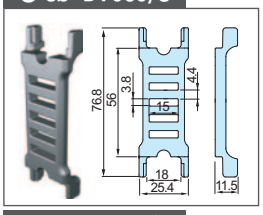
The inserted separators into dividers have the function to separate cables, and lessen the inter ference of cables, so as to prevent them tangle and disconnection, as well as make the efficient use of inner chamber space.

Ordering NO.	Length (L)
S-SP/400.75	75
S-SP/400.100	100
S-SP/400.125	125
S-SP/400.150	150
S-SP/400.175	175
S-SP/400.200	200
S-SP/400.250	250
S-SP/400.300	300
S-SP/400.350	350
S-SP/400.400	400

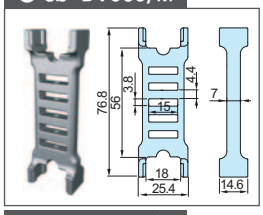
Dividers(DV)

Installed vertically, these dividers separate the carrier's inner chamber and prevent cables from twisting or tangling during operation.

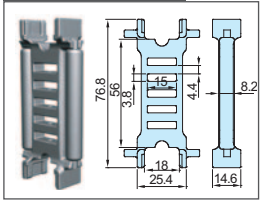
❶ sb-DV060/S



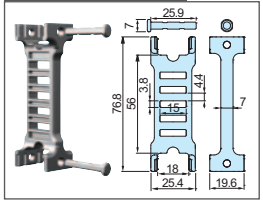
❷ sb-DV060/M



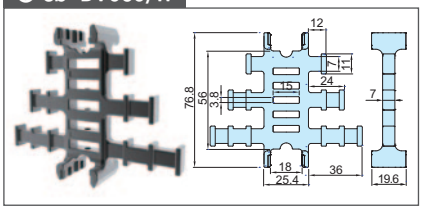
❸ sb-DV060/R



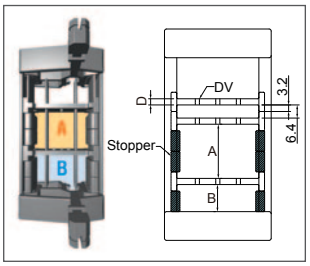
❹ sb-DV060/T



❺ sb-DV060/W



Application Method of Stopper



A = 6.4+10XStopper Q'ty
B = 3.2+10XStopper Q'ty

D = RV028CR : 3.3mm
RV040CR : 3.2mm
RV048CR : 3.5mm

Stoppers control divider position and lock the dividers into place during operation.
They are fixed directly to the frames between the dividers at recommended width.

Ordering

RV 060CR.75. A/ F - 2400L : (DV:2)

- RV 060CR — Chain Type (RV020, RV028, RV040, RV048, RV060CR)
- .75 — Revolving Chain
- A/B — Type (A/B); A = Inner Height of Chain
- F — Free End Bracket
- 2400L — Length (mm)
- (DV:2) — Q'ty of Divider (Link)

(Dimensions in mm) CP SYSTEM CO.,LTD. www.cpsystem.co.kr

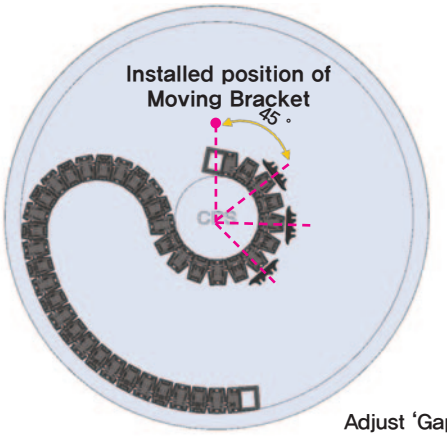
New RV(Revolving) Chain Guide Unit

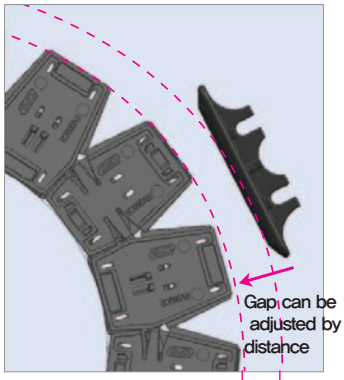
Prevention of Slip Phenomenon to secure Stable Operation Guide Unit

Prevention of cable chain damage & Improvement of Durability that are caused by unstable operation

Image of RV Guide Unit

Regulation for Installation of Guide Unit





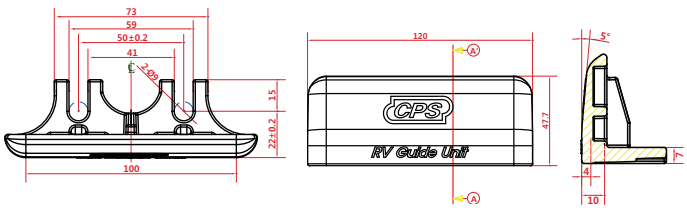
Adjust 'Gap' according to Rotating Value during operation after initial installation of 10mm gap

Regulation for Installation of Guide Unit

Rotating Value of Equipment	Guide Unit using Q'ty	Installation Position from moving bracket
0~90°	1	45°
90~180°	2	45°, 90°
180~270°	3	45°, 90°, 135°

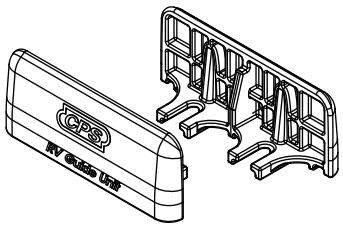
Guide Unit' necessary quantity can be changed according to operating speed of equipment or installed condition

Detailed Dimension of RV Guide Unit



M6 Screw

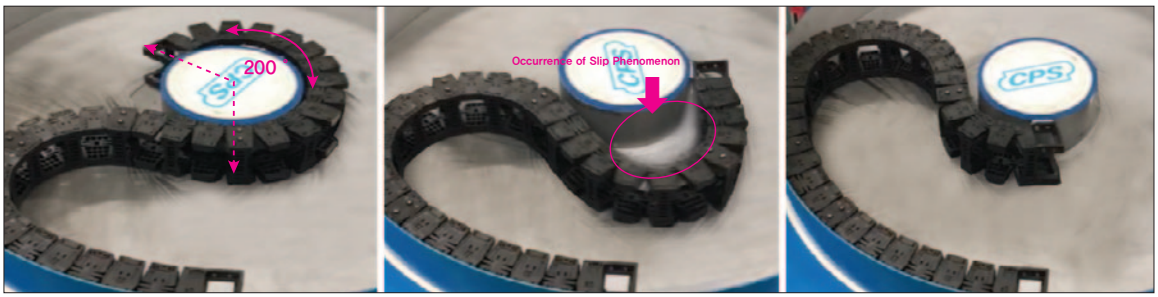
Washer are applied



(Dimensions in mm) CP SYSTEM CO.,LTD. www.cpsystem.co.kr

Revolving Chain

Occurrence of Unstable Operation



Occurrence of Slip Phenomenon that caused by Rotating Value & loaded cables inside of Cable chain

Apply 'Guide Unit'

Prevention of cable chain damage & Improvement of Durability that are caused by unstable operation

Ordering

※ Separated Ordering
Ex. RV-GU:1EA (necessary quantity)

RV 048CR. 200. A / F – 1000L : (DV:2, GU:1)

- Revolving Chain
- Chain Type (RV020, RV028, RV040, RV048, RV060CR)
- Inner Height of Chain
- Type (A/B)
- Free End Bracket
- Chain Length (mm)
- Q'ty of Divider (Link)
- Guide Unit : Q'ty