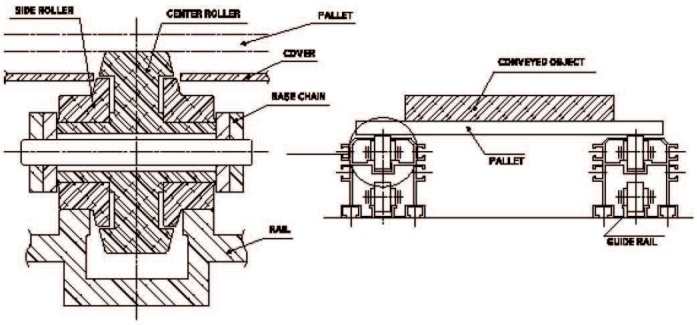
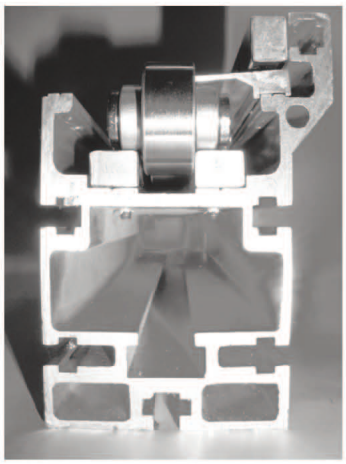
Double Plus Chains
배속 체인

Double Plus Chain (also called Triple Speed chains) are used typically on accumulating assembly line conveyors. This chain's two rollers rotate identically according to the frictional force between the large and small rollers. Items are conveyed about 2.5 times faster than the speed of the chain (the chain speed according to the ratio of the roller's outer diameter) In addition, when braking forces are applied, slip occurs between the large and small rollers, making the chain to be conveyed freely. Double Plus Chain are available with 'snap covers' to keep particles out, in resin rollers and with protective coatings (nickel, chromium plating).

배속체인은 큰 로울러와 작은 로울러간의 마찰력에 따라 두 로울러가 동일하게 회전되며, 로울러 외경의 비율에 따라 반송물은 체인 속도의 2.5배로 이송됩니다. 또한 반송물에 제동력이 작용되면 큰 로울러와 작은 로울러 사이에 미끄럼이 발생되면서 체인은 자유롭게 이동합니다.

Construction of Double Plus Chain 배속체인구조





Advantages of Double Plus Chain 사용상의 장점

- High speed conveying
- Quite
- Improved stability
- Quick start up : through standardized guide rails and sprockets

- 고속반송, 저소음
- 향상된 안정성
- 설계 및 제작이 용이: 전용 알루미늄 레일 및 스프라켓 등이 표준화 되어 컨베이어 설계 및 제작이 용이 합니다.

Variations 세부사양

- Standard Type	– 표준형
- Low Noise Type (LN Type)	– 저소음형 (LN 타입)
- Double Plus Chain with Snap Cover	– 스냅 커버 부착형
- Double Plus Chain with Center Cover	– 센터 커버 부착형
- Lube-Free Type (Nos-Type)	– 무급유형 타입

Designation of Double Plus Chain 호칭 번호 부여의 예시

DBC 2040 VRP - SS - R - LN - CPC

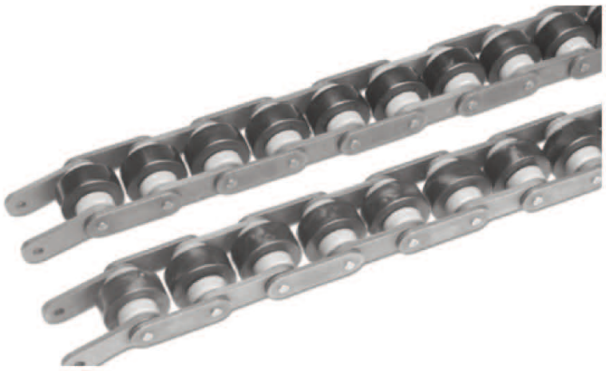
- DBC: Dong Bo chain
  동보체인 제품을 의미
- 2040: Basic chain no.
  기본체인번호
- VRP: Double Plus Chain
  (VRP:plastic roller Type, VR:steel roller type)
  배속체인 (VRP:플라스틱 로울러형, VR:스틸 로울러형)
- SS: Base chain specification
  (No code:steel, SS:stainless steel 300, MS:stainless steel 400)
  메인 체인의 재질 (무기호:스틸, SS:SUS300, MS:SUS400)
- R: Roller type (No code: Flange Type, R: Ring Type)
  로울러의 형식
  (무기호: Flange Type, R: Ring Type)
- LN: Series of Chain (No code: standard, LN: low noise type)
  체인의 구조 (무기호:일반형, LN:저소음형)
- CPC: Double Plus Chain with covers
  (CPC: with center cover, SC: with snap cover)
  커버 부착형
  (CPC: 센터커버 부착형, SC: 스냅커버 부착형)

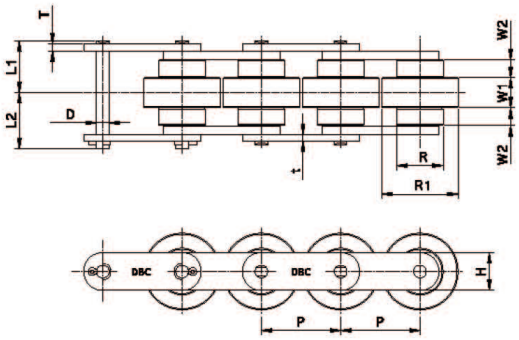
Double plus Chains
배속 체인

* For<Lube-Free Type>, please Consult directly Dongbo chain.
* 무급유형 배속체인은 사용자 요청에 의한 별도주문 제작사양 입니다.

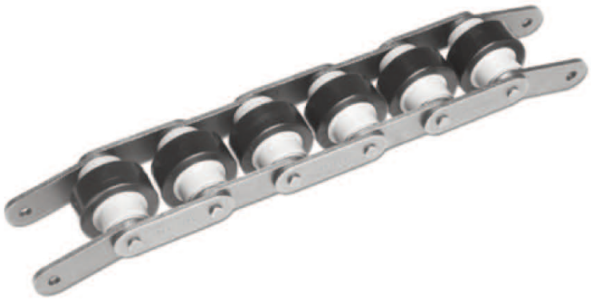
Standard Double plus Chain 표준형 배속체인

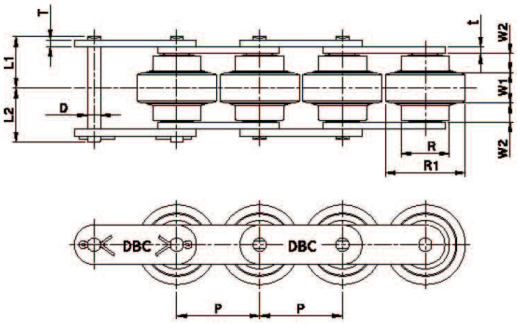
Ring Type





Flange Type





unit : mm

DONG BO Chain No.		Pitch	Roller		Width		Plate			Pin			Approx.Weight (kg/m)		Link / unit
		P	R	R1	W1	W2	t	T	H	D	L1	L2	VRP	VR	SSR*
DBC 2030VRP	-	19.05	11.91	18.3	7.8	4.1	1.27	1.27	9	3.3	11.4	13	0.6	-	160
DBC 2040VRP*	**2040VR***	25.4	15.88	24.6	10.3	5.7	2.0	1.5	12.0	3.97	15.65	17.85	1.0	2.5	150
DBC 2050VRP	**2050VR**	31.75	19.05	30.6	13.0	7.1	2.4	2.0	15.0	5.08	19.5	21.0	1.4	3.7	120
DBC 2060VRP	**2060VR**	38.1	22.23	36.6	14.5	8.5	4.0	3.2	18.1	5.96	24.9	26.9	2.3	5.9	100
DBC 2080VRP	**2080VR**	50.8	28.58	48.0	20.0	15.0	4.0	4.0	24.1	7.93	35.8	36.9	4.2	10.5	74

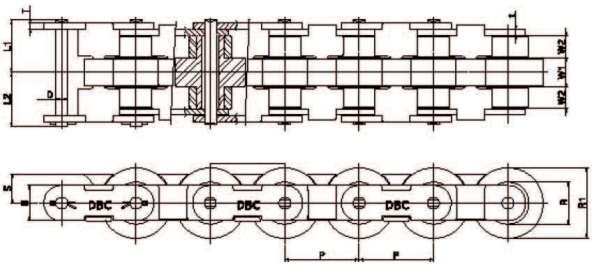
* VRP = Double plus chain with plastic roller VR= Double plus chain with steel roller
주) 2040, 2050 배속체인은 Ring Type으로 2060이상은 Flange Type으로 제작 됩니다.
Note) Ring Type roller will be provided for 2040 & 2050 VRP/VR and Flange Type for 2060 and larger.

* Nos VRor VRP = Lube-Free Type double plus chain
Lube-Free Type 체인은 Nos 2040 VRP 또는 VR로 표기 됩니다.

Double plus Chain with Snap Cover 스냅 커버 부착형 배속체인

This chain is specially designed for preventing jamming caused by parts (like nuts and bolts etc.) falling into the conveyor lines.

체인사이 연결부위에 커버를 부착하여 이물질 유입 (너트, 볼트 등 작은 부품)을 사전에 방지하여 컨베이어라인 손상을 미연에 방지



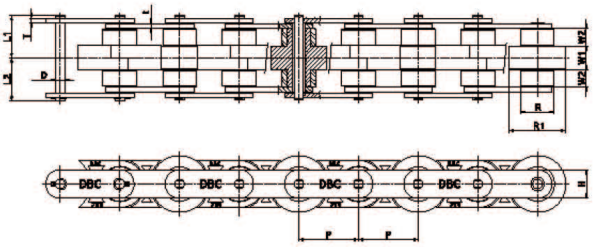
* 스냅 커버 부착형 배속체인 스프라켓 적용 시 당사 기술팀과 협의
* Considering application of sprocket for snap cover type of double plus chain, it's required to discus our engineers.

unit : mm

DONG BO Chain No.	Pitch P	Roller		Width		Plate			Pin			Approx.Weight (kg/m)		Link / unit
		R	R1	W1	W2	t	T	H	D	L1	L2	VRP	VR	
DBC 2060 VRP-SC* DBC 2060 VR-SC*	38.1	22.23	36.6	14.5	8.5	4.0	3.2	18.1	5.96	24.9	26.9	2.3	5.9	100
DBC 2080 VRP-SC DBC 2080 VR-SC	50.8	28.58	48.0	20.0	15.0	4.0	4.0	24.1	7.93	35.8	36.9	4.2	10.5	74

*VRP = Double plus chain with plastic roller, VR = Double plus chain with steel roller

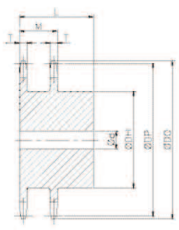
Double plus Chain with Center Cover 센터 커버 부착형 배속체인



unit : mm

DONG BO Chain No.	Pitch P	Roller		Width		Plate			Pin			Approx.Weight (kg/m)	Link / unit
		R	R1	W1	W2	t	T	H	D	L1	L2		
DBC 2060 VR-CPC	38.1	22.23	36.6	15.5	8.5	3.2	3.2	18.1	5.96	24.9	26.9	5.0	100
DBC 2080 VR-CPC	50.8	28.58	48.0	20.0	15.0	4.0	4.0	24.1	7.93	35.8	36.9	9.2	74

스냅카바 배속체인 스프라켓 선정 치수표



스파라켓 형식 번호	산출 지수	피치원지름 (Dp)	외경 (Do)	잇폭 (T)	전치수폭 (M)	홈 지름(d)		최대보수 지름(DH)	최대보수 길수(L)	개략중량 (Kg)
						탭드릴구멍	최대			
2030 VRP-10T-SC	10	61.65	63	3.0	15.3	12.7	20.0	37.0	25.0	0.2
2040 VRP-10T-SC	10	82.20	85	4.0	20.4	15.9	32.0	52.0	40.0	0.8
2050 VRP-10T-SC	10	102.75	107	5.0	25.5	15.9	45.0	66.0	45.0	1.5
2060 VRP-10T-SC	10	123.30	128	6.0	30.5	19.0	55.0	81.0	50.5	2.5
2080 VRP-10T-SC	10	164.39	172	12.0	47.5	23.0	72.0	110.0	67.0	7.0