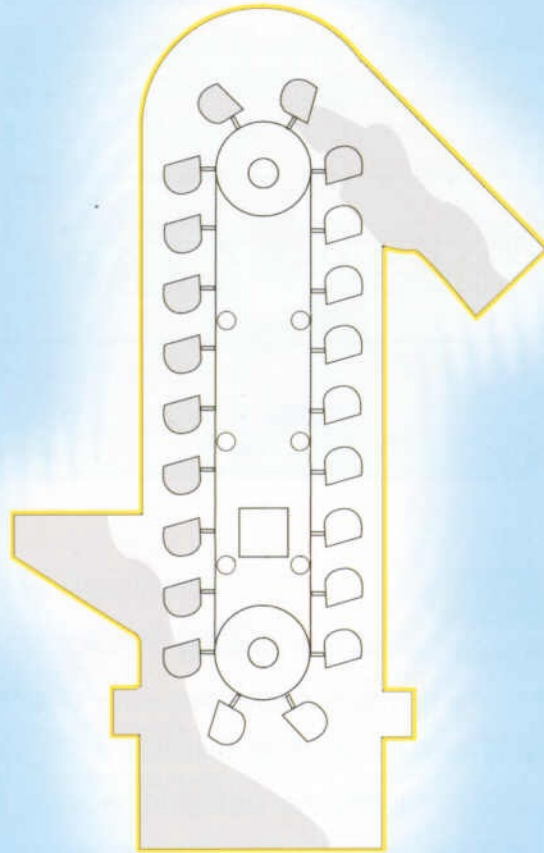


鋼索提運帶

STEEL CORD ELEVATOR BELT



三五  SWR

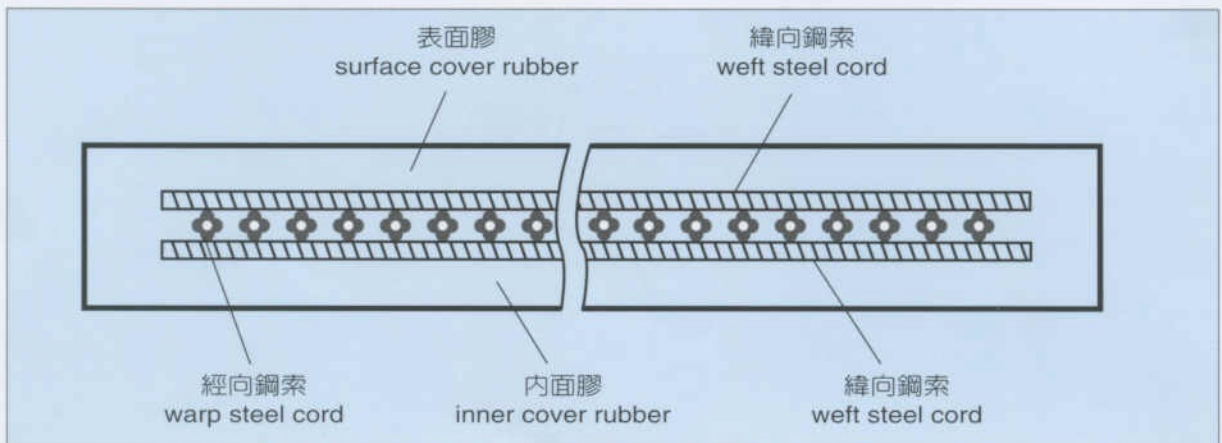
高強力的垂直搬運能力

High strength capability of vertical loads

「三五鋼索提運帶」是本公司針對高強力大量搬運的需要，以獨特的鋼索心體強化結構，研發成功的垂直搬運用輸送帶，擁有卓越的強度、耐久性及可信賴性。與傳統化纖織品強化提運帶比較，即使在嚴苛的操作情況下，能更有效處理重型的裝載搬運。

(San Wu Steel Cord Elevator Belt) is specially designed for the needs of heavy-duty loads with a unique steel cord fabric for conveyor belt reinforcement. Success to our solely research in vertical loads, our belts are much more trustworthy, durable and strengthening. Compared to the conventional reinforcing fabrics of elevator belt, our belts are to be more effectively carrying our the heavy-duty loads under the fiercely operation condition.

一、構造 Structure



二、特點 Characteristics

- 高強力、大量搬運 high strength, excessive capacity
- 伸長率低、張力調整次數少 low elongation, low frequency of tension adjustment
- 屈曲性能佳、可使用較小輪徑 high longitudinal flexibility, small pulleys allowed
- 運行安靜、斗子部位不易損傷 run quietly, not easily damaged at bucket member
- 低磨耗、抗撕裂、使用壽命長 low abrasion, tear strength, long life of usage

三、鋼索心體 Steel Cord Carcass

提運帶在運轉時緯向承受很大的應力，為確保提運帶橫向的剛性、斗子的安定性及長期使用性，本公司設計採用國際知名的比利時BEKAERT公司的SW型系列鋼索心體。由較小直徑的經向鋼索和上下排列的緯向鋼索構成的心體，具有高抗拉強度、高延伸性與耐屈曲性，對輸送架的順服性良好，在大量垂直搬運時，能準確地直線行走，而且可使用較小輪徑。同時配合三五特殊層膠與

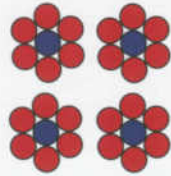
各種面膠，心體與橡膠緊密結合，使用壽命長。

The weft steel cord of elevator belt can stand huge stress while operating, to ensure that the stiffness of elevator's traverse and stability of the bucket and long-term uses. Our carcass is especially adopted in accordance with internationally renowned Belgium "BEKAERT" Co.'s SW type steel cord. With structure of small diameters of warp steel cord and up-down alignment assembled of weft steel cord carcass, belt shall be performed at high tensile strength, high elongation, and excellent in longitudinal flexibility as well as good adaptability to conveyor support while operating at large quantities of vertical loads. Belts will be running smoothly on the straight and small diameter pulleys are also acceptable. Meanwhile, together with the San Wu's Specific cushion rubber and varieties of cover rubber, carcass can be stucked with rubber closely to enhance the life of service.

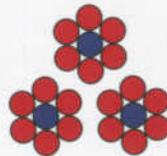
■鋼索結構 Cord Structure

鋼索直徑至外側股線的比率設計能讓橡膠充分穿入鋼索細縫，可增加鋼索的彈性與屈曲性能。

The ratio of diameters of steel cord to the outward strand can lead rubber penetrating into the interstices to improve the elasticity and flexibility of the cord.



經向鋼索結構
structure of warp steel cord

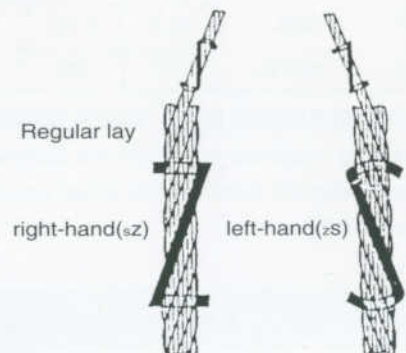


緯向鋼索結構
structure of weft steel cord

■鋼索捻法 Method of Lay for Steel Cord

S捻和Z捻鋼索對應編織，可以減少殘餘扭力累積確保直線行走。

S and Z lay should be symmetrically woven to eliminate the accumulation of residual torsion assure the belt running straight.



四、面膠性能 Performance of Cover Rubber

各種性能卓越的耐熱、耐磨、耐酸鹼、耐油、耐燃等面膠，提供顧客的需要。面膠選用參考如下：
Please refer to the cover rubbers as the following for reference; The various excellent functions of cover rubber are to meet your needs against heat, wear, oil and fire etc.

標準 standard	等級 code	抗拉強度(min) tensile strength		斷點伸長率 elongation %	磨耗 abrasion max mm ³	溫度 temperature max °C
		N/mm ²	kg/mm ²			
CNS	A	13.7	140	400	150	80
CNS	S	17.6	180	450	200	80
ISO	L	15.0	153	350	200	80
DIN	Y	20.0	204	400	150	80
AS	N	17.0	173	400	200	80
JIS	A	13.7	140	400	150	80
JIS	S	17.6	180	450	200	80
SANWU	HR-300	17.0	173	300	150	120

* 需要耐酸鹼、耐油、耐燃或其他特性的面膠，請與本公司聯絡。

If you need any other features of cover rubber such as oil resistance, fire resistance and acid resistance etc., please contact us for more details.

五、型別與規格 Pattern and Specification

項目 Items		型別 Type									
		SW 350	SW 500	SW 630	SW 800	SW 1000	SW 1250	SW 1400	SW 1600	SW 1800	SW 2000
經向抗拉強度 N/mm		350	500	630	800	1000	1250	1400	1600	1800	2000
鋼索心體厚度 mm		4.7	4.7	4.7	5.4	5.4	7.1	7.1	7.1	7.1	7.1
表面膠厚度 mm		5	5	5	5	5	5	5	5	5	5
內面膠厚度 mm		5	5	5	5	5	6	6	6	6	6
經向鋼索	抗拉強度 N/pc	3075	3075	3075	5600	5600	9600	9600	9600	9600	9600
	直徑 mm	2.0	2.0	2.0	2.85	2.85	3.7	3.7	3.7	3.7	3.7
	間距 mm	8.33	5.81	4.63	6.67	5.38	7.04	6.25	5.50	5.00	4.65
	密度 pcs/m	120	172	216	150	186	142	160	182	200	215
緯向鋼索	抗拉強度 N/pc	1720	1720	1720	1720	1720	2900	2900	2900	2900	2900
	直徑 mm	1.52	1.52	1.52	1.52	1.52	2.02	2.02	2.02	2.02	2.02
	間距 mm	12.5	12.5	12.5	12.5	12.5	15	15	15	12.5	12.5
	密度 pcs/m	80	80	80	80	80	67	67	67	80	80

* 由於斗子之螺絲與輪面接觸，通常表面膠與內面膠同厚，或者可考慮增加內面膠的厚度。

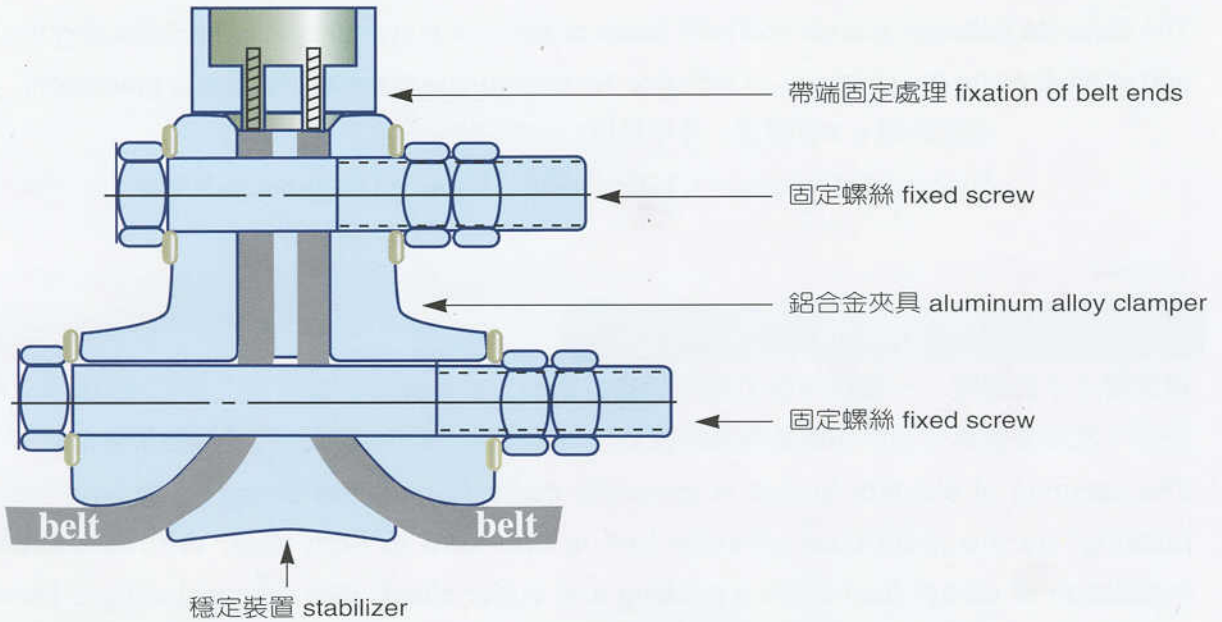
Due to being touched between the screws of bucket and the surface of roller, the thickness of surface rubber normally as thick as the inner cover rubber, or you may consider and increase of the thickness of inner cover rubber.

六、接合方式 Method of Splicing

為避免提運帶在運行中發生跳動現象使本帶及斗子的部位受損傷，採用傳統的(1)熱硫化接合方式，以及由本公司根據現場作業空間限制所研發的(2)鋁合金夾具接合方式。鋁合金夾具經過講究的設計與作業處理，效果與熱硫化接合方式同級。

To prevent elevator belt from jumping that damages the belts and bucket. We utilize the conventional hot vulcanized splice together with recent development of aluminum alloy clamping splices designed based on the restricted area on the Scene of operation. The spectacular designs and operating process for aluminum alloy clamping shall be weighted as the same effect as hot vulcanized splice.

■ 接頭構造 Splicing Structure



七、適用最小輪徑 Acceptable to smallest pulley diameters

小直徑的鋼索由高延伸的細鋼線捻成，屈曲性能佳，可使用較小輪徑。如採用更大的輪徑可確保長期使用。

Small diameters of cord are twisted by the filamentary steel cables of high elongation with excellent longitudinal flexibility, smaller pulleys are also available. The larger the pulley is, the longer the belt can be lasted.

■ 型別與適用最小輪徑 Type and min pulley diameters

Type SW	350	500	630	800	1000	1250	1400	1600	1800	2000
Pulley Φ mm	500	500	500	600	600	760	760	760	780	820

八、速度限制 Speed Limit

運轉速度太快所造成的過大離心力會使斗子的固定部位提早損壞。

Belts running at high speed will cause a premature failure for the constant member of the bucket, resulting from excessive centrifugal.

載物種類	Materials	Max speed
穀物類 輕質載物	Grains	250m/min
礦石 砂石 重質載物	Stones、Sands	120m/min

**九、斗子長度與提運帶寬度** The length of bucket and the width of elevator

斗子與提運帶兩邊的距離，對帶邊的強度及斗子的穩定有影響。取適當距離是必要的。

The distance between bucket and both sides of elevator plays a key role in Stabilizing the bucket and strengthening the sidewalls of elevator. An appropriate distance, hence, is mandatory.

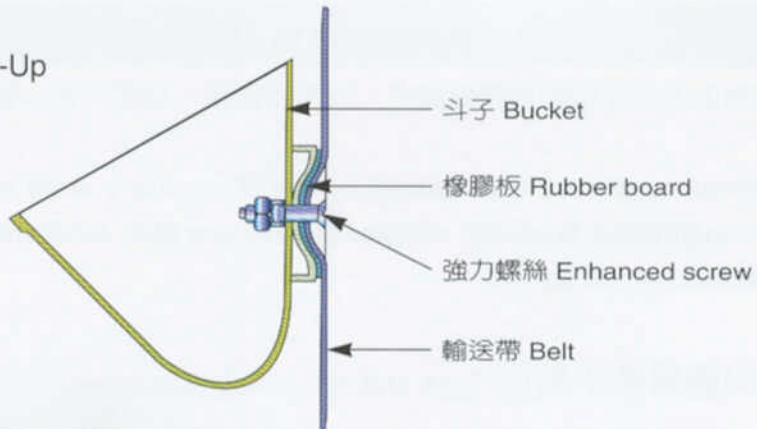
$$\text{適當距離} = 1/2(\text{帶寬} - \text{斗子長度}) = 20 \sim 50\text{mm}$$

$$\text{Appropriate Distance} = 1/2 (\text{Belt Width} - \text{Bucket's Length}) = 20-50\text{mm}$$

十、斗子的固定 Bucket Tight-Up

提運帶斗子的固定，一般採用強力型平面螺絲逼緊方式。使用在重負載大量搬運的鋼索心體提運帶時，建議安置具有迫緊與緩衝效果的橡膠板，這種方式對固定部位的保護效果非常好。

The securing of elevator bucket is generally come up with the strong force type "flat screw packing" as the steel cord elevator belt is operated at high load. We recommend that installation of rubber board has a packing and buffer effect, also demonstrating a sensational protection function to the constant member.

■ 固定方式 Way of Tighting-Up**十一、建議** Recommendation

為確保你的輸送設備請參考我們的建議

Please refer to the following suggestions to assure your conveyor equipment on the right track.

- 搬運中粉塵飛揚有塵爆之虞時，請採用塑膠材質的斗子。

Please use the plastic material for the bucket, even if there is a possibility of dust happened throwing into suspension at the hazard of dust explosives while operating.

- 驅動輪、尾輪的輪徑越大越好。

The diameters of drive and tail pulleys used shall be as large as possible.

- 欲增加搬運量應採用縮短斗子間距的方式，盡量避免使用大型斗子或高速運轉。

Shortenting the pitch of bucket can improve the capacity of the belt, trying not to use the large size of bucket or running at high speed.

- 採承接取料方式搬運效率最佳，而且可避免斗子與載物衝擊摩擦消耗動力及破壞載物的形狀。

More efficiency in movement load is reached if using acceptance and pick-up to load the materials, avoiding impacting lead to friction or energetic consuming and running the dimension of carrying materials.

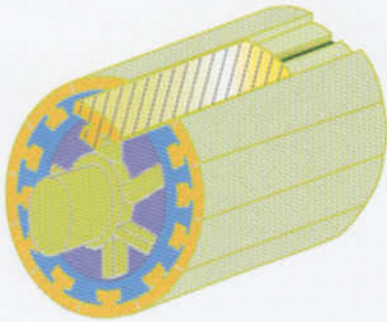
- 使用包膠滾輪，驅動效率更佳。

The performance of drive works even better if using the rubber pulleys lagging.

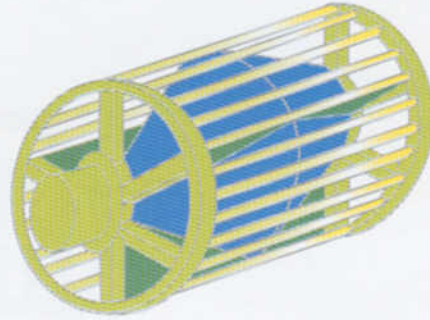
- 排出型尾輪設計可避免載物捲入輪面傷及提運帶，積料亦可隨著運轉被排出。

Discharging design for tail pulleys can stop carrying materials from rolling onto the surface of pulleys and injuring the elevator belt, accumulation of materials is discharged accompanying operating.

■ 驅動輪 Drive Pulley



■ 尾輪 Tail Pulley



十二、服務 Service

本公司秉持「質優價實，顧客滿意」的理念，熱誠幫助顧客解決各種輸送與傳動上的難題，並提供配套的服務，為顧客的經濟效益改善做了貢獻。您有需要時，請就近與本公司的服務處聯絡。

Having had firmly obedient to the concept of "Superior quality, reasonable price and customer satisfaction", we work as hard as we possibly can to help customers solve their problems in transmitting and conveying with enthusiasm. We also provide you a full range of services you need and make significant contribution to improve customer's efficiency economically. Please contact with our representative near you, if necessary.

■ 我們的服務包括 Our services include

- 輸送帶接合、換帶施工、滾輪包膠

Conveyor belt's splice, changing and removal of the belt, pulley lagging

- 提運帶專用斗子、螺絲、固定零件

Specialized bucket for elevator belt, screw, constant accessories

- 清潔器、滾輪、緩衝襯墊、耐磨陶瓷等周邊設備

Cleaner, pulley, buffer rubber, rubberized ceramic liner and other equipment related

- 其他與橡膠製品有關的各種服務

Other services related to rubber products



三五橡膠廠股份有限公司
SAN WU RUBBER MFG. CO., LTC

總公司及工廠／彰化縣和美鎮彰美路二段106號	電話：(04)7355142-6	傳真：(04)7353802
台北辦事處／台北市太原路107號3F	電話：(02)25559820	傳真：(02)25567847
台北門市部／台北市太原路107號	電話：(02)25552325-6	傳真：(02)25567847
桃園加工廠／桃園市鹽庫街10號	電話：(03)3262070-2	傳真：(03)3258432
台南營業所／台南市公園路327-1號	電話：(06)2279955-6	傳真：(06)2209610
高雄加工廠／鳳山市輻汽路9號	電話：(07)7132908	傳真：(07)7719959
花蓮加工廠／花蓮市美工七街4號	電話：(03)8234061-3	傳真：(03)8232386

HEAD OFFICE/106 SEC. 2 CHANG MEI RD., HOMEI, CHANG HWA, TAIWAN, R.O.C.

P.O. BOX NO. 23/118 CHANG HWA, TAIWAN

TEL:886-4-7355142 FAX:886-4-7353802

FOREIGN DIV.: TEL:886-4-7361445 FAX:886-4-7353802