SATI
RUBBER AND PVC PRODUCTS

SATIVERTICAL

SISTEMA DI TRASPORTO BORDI E TAZZE

SIDEWALL CONVEYING SYSTEM



www.satigroup.it

PRODUCTION DRIVEN BY PASSION

From more then 50 years we are a leading company in the production and distribution of rubber conveyor belts, industrial rubber and pvc hoses, rubber sheets and mats.

We have always pursued the aim of efficiently addressing our customers' requests and the continuous search for innovative products as the underlying factor for constant growth to our corporate values.

Driven by passion, knowledge and intuition, forming close ties with our customers and production partners, has enabled us to take a new challenge, introducing on the market a **high quality product made in the heart of Italy**.

All our conveyor belts for vertical or highly tilted transport follow a production process that focuses on complying with the quality standards required by the market: sidewalls and cleats are designed and produced at the warehouse of our Bologna headquarters and assembled to the belt by hot vulcanization.

Our technical staff are highly skilled and exclusively assigned to the project and are ready to support our clients in choosing the most suitable solution for their needs, assuring a high quality, customised product.









THE BELT UNIVERTICAL

SATI GROUP has been supported by specialists to develop the UNIVERTICAL belt.

Produced at the Sati Group headquarters of Castel Maggiore, the UNIVERTICAL belt stands out for its hot vulcanization process.

In case of specific request by the customer, the cold application may also be supplied.

The conveyor system sidewalls and cleats

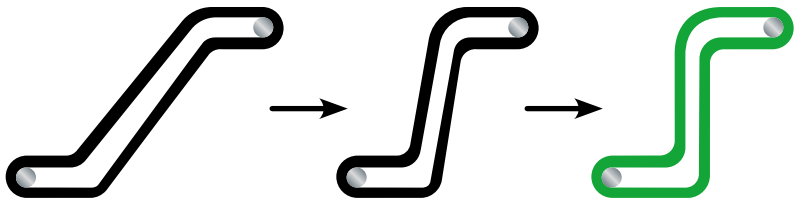
The conveyor system called Univertical is tested and effective. It is used to increase the capacity of the conveyor belt even up to four times more then a standard belt, overcome height differences inclination up to 90°, optimise vertical space, bend even by 180°, minimise material dispersal and decrease the number of conveyors used. Thanks to gravity, in its ideal work position at 90°, the energy required to move the belt is minimal, thus allowing it to be managed easily. As a matter of fact, a 90° set-up optimises the use of the conveyor system and decreases belt and mechanical components wear.

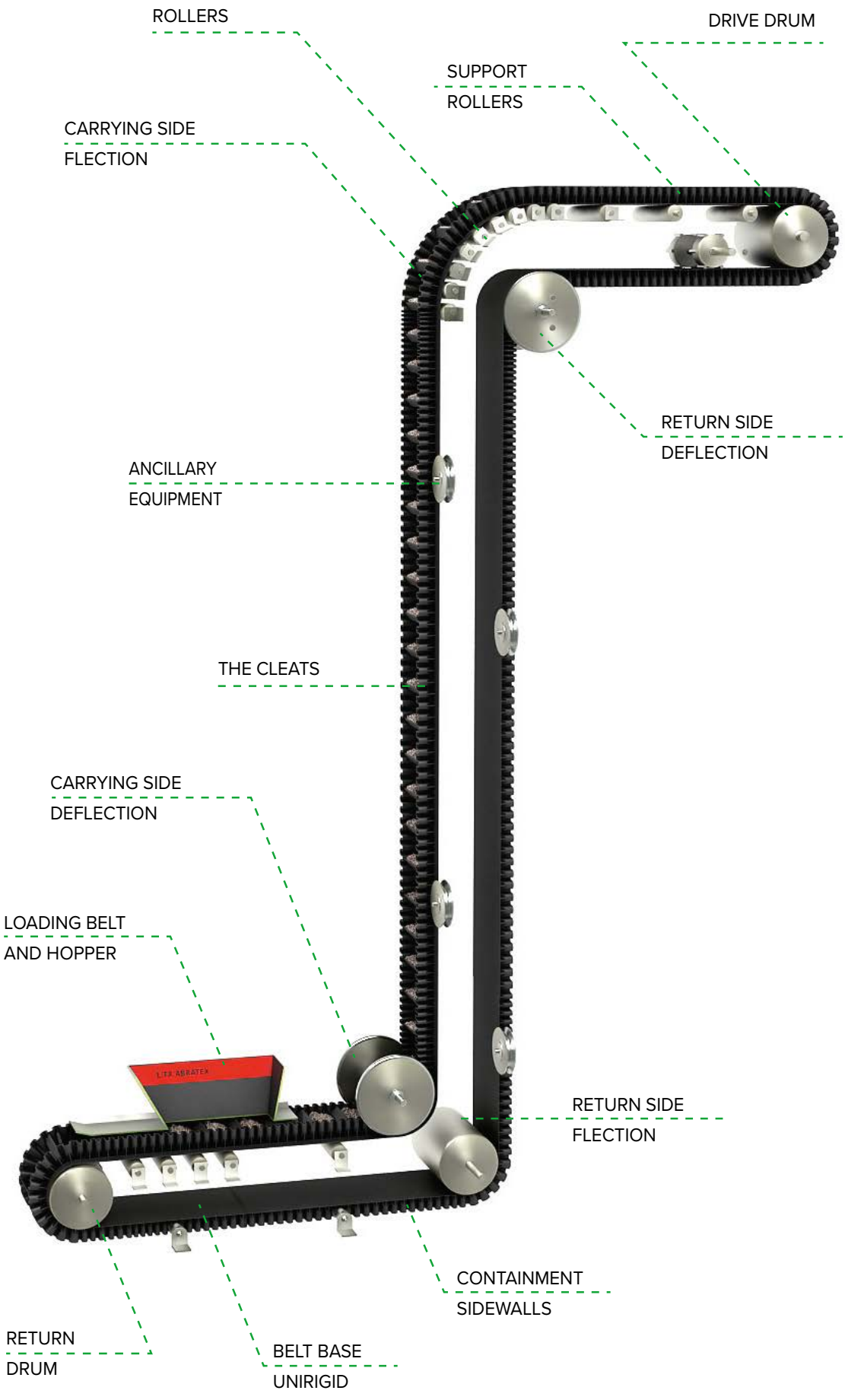
If proper maintenance is performed, this conveyor system is very effective and has very low costs.

APPLICATIONS

- POWER PLANTS
- FOUNDRIES
- MINES
- SHIP LOADING AND UNLOADING
- STEEL WORKS
- RECYCLING PLANTS
- MINE EXTRACTION SHAFTS
- STORAGE PLANTS

A 90° set-up optimises the use of the conveyor system and decreases wear of the belt and mechanical components.




ROLLERS
DRIVE DRUM
SUPPORT
ROLLERS
CARRYING SIDE
FLECTION
RETURN SIDE
DEFLECTION
ANCILLARY
EQUIPMENT
THE CLEATS
CARRYING SIDE
DEFLECTION
LOADING BELT
AND HOPPER
RETURN SIDE
FLECTION
CONTAINMENT
SIDEWALLS
RETURN
DRUM
BELT BASE
UNIRIGID

THE UNIRIGID BASE BELT



UNIRIGID is a special belt with a specifically designed carcass, which makes it stiff crosswise and flexible lengthwise.

This feature makes it ideal for application of sidewalls and cleats, assures stability in changes of tilt, eliminates possible damage to the belt in the return stage and does not waste motor force, thus assuring longer service life for your conveyor.

The stiffness of the belt is given by the combination of standard plies, special plies of various materials and correct layout of rubber inter-layers. The choice of base belt must be performed according to the needs of your conveyor:

EM The belt carcass consists of crosswise stiff plies only. It is ideal for low-medium intensity work.

XE The belt carcass consists of a combination of EP plies and 2 crosswise stiff nylon plies placed above and below the original EP core (the required rigidity, in fact, is only obtained with two plies since using one ply only is not enough). This gives high stiffness and good work load to the belt. Suitable for medium heavy-duty work.

XESC The belt carcass consists of a combination of EP plies and 2 crosswise stiff metal plies placed above and below the original EP core. This gives very high cross stiffness and good work load to the belt. Suitable for heavy-duty work with significant height.

XEST The belt carcass consists of a combination of metal frame and 2 crosswise stiff metal plies placed above and below the original metal core. This gives very high cross stiffness and high work load to the belt, and very low elongation. Suitable for heavy-duty work with very significant height.



NORMAL BELT



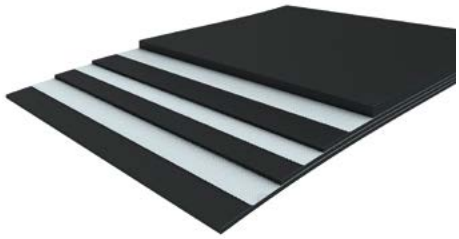
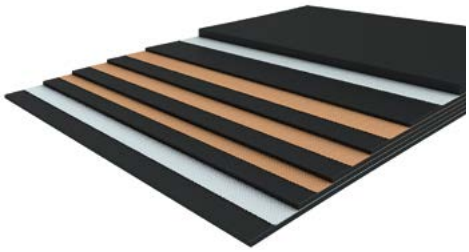
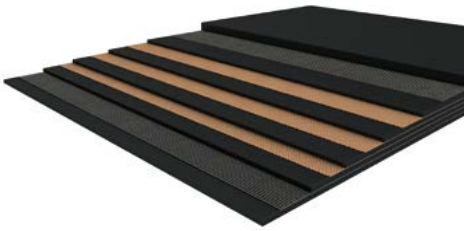
UNIRIGID BELT

After choosing the type of construction of the base belt, its type of compound of the covers must be selected. This decision must be taken based on the features of the material to be conveyed:

Y	HR	OIL	X	K	White
ABRASION RESISTANT	HIGH TEMPERATURE RESISTANT	RESISTANT TO OIL	RESISTANT TO ABRASION AND CUTTING	SELF-EXTINGUISHING	WHITE, SUITABLE FOR CONTACT WITH FOODSTUFF

*other types also available on request

TECHNICAL SPECIFICATIONS **UNIRIGID:**

CODE	CROSS SECTION:	BELT TYPE	COVERS	THEORETICAL WEIGHT kg/m²	Ø MIN.DRUMS mm
EM		EM 400/3	4+2	13, 20	315
		EM 500/3	4+2	13,8	400
XE		XE 400/3+2	4+2	13,2	315
		XE 500/4+2	4+2	13,8	400
		XE 630/4+2	4+2	14,5	500
		XE 800/5+2	4+2	18	630
		XE 1000/5+2	4+2	19	800
XESC		XESC 500/3+2	4+2	15,5	400
		XESC 630/4+2	4+2	16,2	500
		XESC 800/4+2	4+2	17,8	630
		XESC 1000/4+2	4+2	19	800
XEST		XEST 1600+2	4+2	On request	1250
		XEST 2000+2	4+2	On request	1250
		XEST 2500+2	4+2	On request	1400
		XEST 3150+2	4+2	On request	1400

CONTAINMENT SIDEWALLS



The choice of the sidewall depends on cleats choice.
The sidewall must always be higher than the cleat and, based on this parameter, the sidewall may have an inner EP textile reinforcement or not.
Our sidewalls are moulded using a high quality compound, resistant to ozone and weathering, with excellent elastic modulus, high breaking strength and high resistance to abrasion.

These technical and specifications combined with hot application to the base belt give great vertical stability to the whole as well as excellent lengthwise flexibility, also thanks to the sinusoidal geometry specifically designed in the higher part. This feature allows the sidewall to work excellently on the return part i.e. where the sidewall is strained by continuous friction on the return rollers, thus preventing breakdowns and bending. The sinusoidal geometry is such as to prevent the rollers from entering it.
The solid base makes the sidewall anchoring even safer and contributes to its longer service life. Furthermore, the base design allows the sidewall to be pressed down on both sides during application.



SIDEWALL WITHOUT PLIES

The sidewalls can also be sold loose.

Available types:
- Standard anti-abrasive
- Moderate anti-oil
- HR1 heat resistant
- HR2 heat resistant
- Self-extinguishing



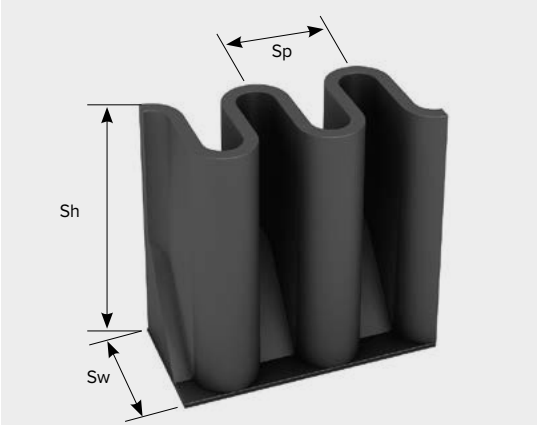
SIDEWALL WITH PLIES

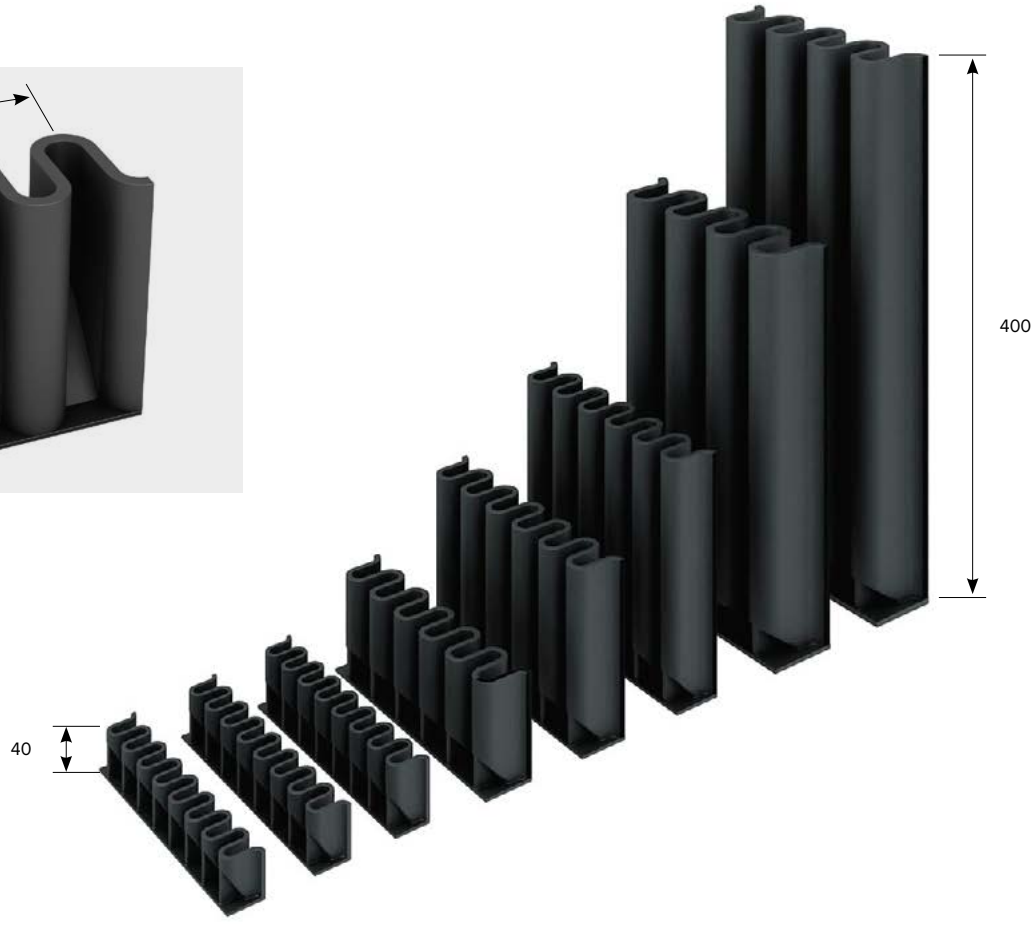


TECHNICAL SPECIFICATIONS AND TYPES:

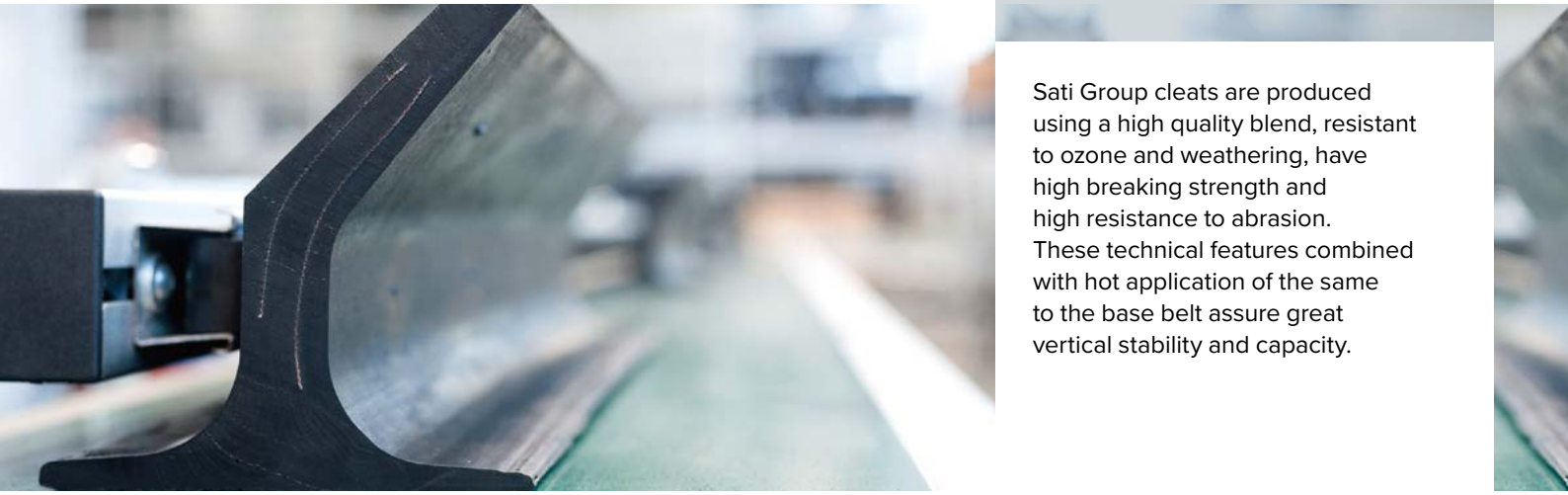
TYPE	HEIGHT mm	BASE mm	PITCH mm	WEIGHT kg/m²	Ø MIN. DRUMS mm
	Sh	Sw	Sp		
F40	40	50	51,5	0,60	120
F50	50	50	51,5	1,10	150
F60	60	50	51,5	1,30	180
F80	80	50	51,5	1,80	240
F100	100	50	51,5	2,00	300
FT100	100	50	51,5	2,00	300
F120	120	50	51,5	2,25	360
FT120	120	50	51,5	2,25	360
FT160	160	75	60,0	4,80	500
FT200	200	75	60,0	6,50	600
FT240	240	75	60,0	7,35	720
FT300	300	75	63,5	9,30	900
FT350	350	75	63,5	10,85	1000
FT400	400	75	63,5	12,40	1200

SIDEWALL SIZES





CARRYING CLEATS



Sati Group cleats are produced using a high quality blend, resistant to ozone and weathering, have high breaking strength and high resistance to abrasion. These technical features combined with hot application of the same to the base belt assure great vertical stability and capacity.

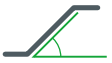
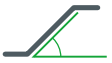
The choice of carrying cleats and their pitch must be made based on lump size, dimensions and features of the conveyed material.
Respect three basic rules:

1. The minimum pitch must be double the largest lump size;
2. The cleat width must be at least two and a half times the largest lump size;
3. You must know the conveyor's tilt angle and maximum dimensions of the lump size.

In case of very small sized material, capacity may be optimised by making the cleat pitch very narrow.
After finding out about that, the most suitable cleats may be chosen.

The cleats can also be sold loose.

Available types:
- Rubber
- Rubber with textile reinforcement
- Base in rubber and rubber bulkhead secured with screws
- Base in rubber and polyurethane bulkhead secured with screws

CLEAT SECTION	TYPE	HEIGHT mm	BASE mm	REINFORCEMENT PLY	WEIGHT kg/m²	ANGLE
	**T20**	20	40		0,52	 max 45°
	T35	35	50		0,90	
	T55	50	100	•	1,20	
	T75	75	90		1,50	
	T90	90	110		2,00	
	T110	110	100		2,50	
	**TK55**	55	100		1,40	 max 75°
	TK75	75	100		1,70	
	TK90	90	110		2,10	
	TK110	110	110		2,60	
	**TKS75**	75	100		1,55	 max 90°
	TKS90	90	100		2,20	
	TKS110	110	100	•	2,75	
	TKS140	140	150	•	6,50	
	TKS180	180	180	•	8,30	
	TKS220	220	160	•	9,75	
	TKS230	230	160		10,50	
	TKS280	280	170	•	13,90	
	**TG280**	280	230		17,50	 max 45°
	TG330	330	230		18,80	
	TG380	380	230		20,50	
	**TP280**	280	230	•	19,50	 max 45°
	TP330	330	230	•	21,00	
	TP380	380	230	•	23,50	
	**TKSI280**	280	230		17,50	 max 90°
	TKSI330	330	230	•	19,00	
	TKSI380	380	230		20,20	
	**TKSP280**	280	230	•	22,50	 max 90°
	TKSP330	330	230	•	24,00	
	TKSP380	380	230	•	27,20	

TG = Straight cleat / **TP** = Straight polyurethane cleat / **TKSI** = Polyurethane tilted cleat / **TKSP** = Tilted cleat

* OTHER FORMAT AVAILABLE ON REQUEST

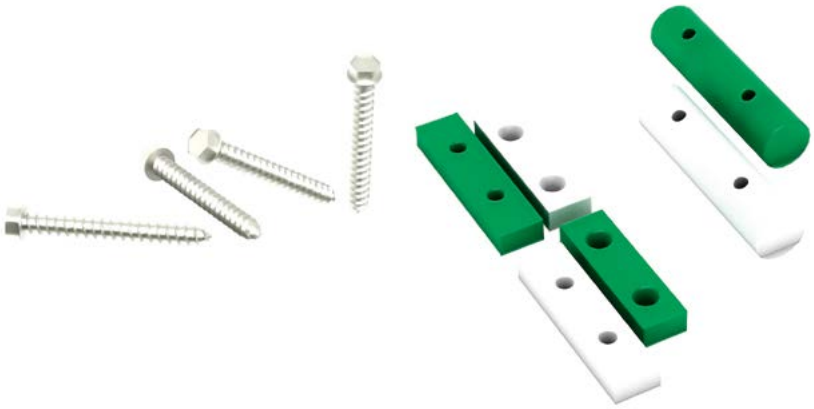
ACCESSORIES



SCREWS AND PLATES

If higher than 110mm or upon the customer's express request, the cleat may be fixed to the sidewall by a set of two nylon plates and four zinc-coated screws.

PLATES DIMENSIONS	20x10x70mm



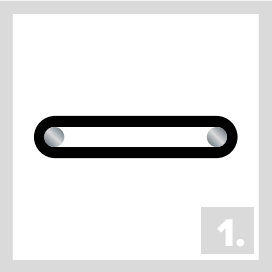


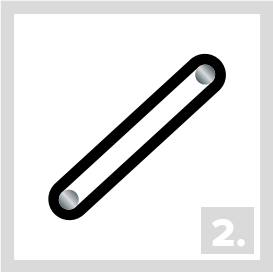
LATERAL PARTITIONS CONTAINING MATERIAL

Side partitions may be fitted in case of conveying small-sized and/or dusty material. These prevent the material from getting into the gaps between the sidewall and the cleats.

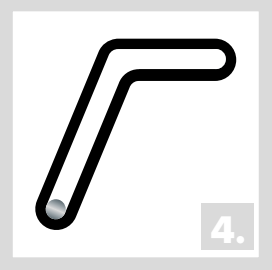
Questionnaire for sidewalls and cleats conveyor system

INDICATE CONVEYOR SET-UP

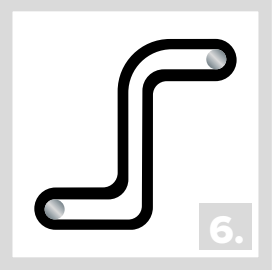


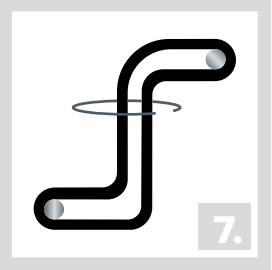












CONVEYOR DETAILS / COMPLETE AS MANY FIELDS AS POSSIBLE:					
	Drawing No.				
Supply length	m		Supply angle		°
Height	m		Tilt angle		°
Tilt length	m		Unloading angle		°
Unloading length	m		Comments		
Notes:					

MATERIAL DATA					
Description material				Lump size:	mm
Capacity:	t/h	Volume:	m^3/h	Temperature:	°
Density:	t/m^3	Rest angle*:	°	Presence of oil	Yes / No
Comments:					

* The angle formed by the material placed on a flat surface.

Questionnaire for sidewalls and cleats conveyor system

Date:

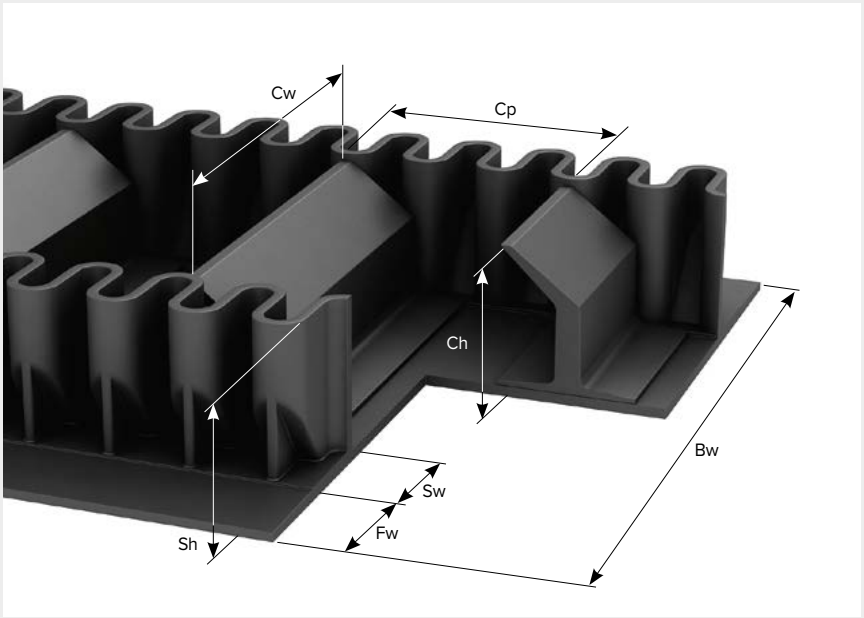
Company:

Contact:

Tel. Fax

Email:

BELT DIMENSIONS	
Belt length:	mm
Bw:	mm
Fw:	mm
Sw:	mm
Cw:	mm
Cp	mm
Sh:	mm
Ch:	mm
*Base belt	
*Quality:	
Open / Endless	



*Please read notes shown below

*CLEAT TYPE:



○ T ○ TK ○ TKS ○ TG ○ TP ○ TKSI ○ TKSP

*Base belt. The belt must be selected based on conveying needs, we recommend using UNIRIGID belts. In some cases it is permissible to use standard belts.

COVER QUALITY BASED ON USE:	TYPE
Abrasion resistant	**Y**
Oil resistant	**OIL**
Heat resistant	**HR**
Self extinguishing	**K**

Note: In case of doubts or questions do not hesitate to contact our technical personnel.

SATI GROUP S.p.A - Via Bonazzi 24 - 40013 Castel Maggiore (BO) Tel.051700321 - Fax.051701350 - www.satigroup.it

SATI
RUBBER AND PVC PRODUCTS

CONTINUOUS INNOVATION

BELTS DIVISION
RUBBER CONVEYOR BELTS

- SATIBELT
- SATIVERTICAL

SHEETS DIVISION
RUBBER SHEETS AND FOAM

- SATISHEET
- SATIFOAM

HOSES DIVISION
RUBBER AND PVC HOSES

- SATIHOSE
- SATIHOSE MARINE
- SATIBLOCK





- **INTERA GAMMA PRODOTTI**
  FULL PRODUCT RANGE
- **SCHEDE TECNICHE**
  TECHNICAL DATA SHEETS
- **SOLUZIONI PER SETTORE**
  SECTORS SOLUTIONS
- **NOVITÀ**
  NEWS

VISIT OUR WEBSITE

www.satigroup.it!



SATI
RUBBER AND PVC PRODUCTS

SATI GROUP S.P.A.

Via Bonazzi, 24
40013 Castel Maggiore
Bologna - Italy
T +39 051 700321
www.satigroup.it

Ufficio vendite italia
commercialenastri@satigroup.it
Ufficio vendite estero
export@satigroup.it

P. IVA 00672251204