# PRODUCTS & SERVICES

While the DSI Sandwich belt high angle conveyor is the flagship product of Dos Santos International, we also offer extensive expertise throughout the materials handling field.

HIGH ANGLE CONVEYORS

In 1979, Joe Dos Santos undertook a major study to develop a means of moving and elevating large quantities of bulk materials, including coarse products such as rocks, aggregate, coal, etc. at the steepest possible inclines. It was also his intent to use only existing and commercially available hardware in order to achieve the most economically feasible and easily maintained high angle conveyor design.

A sandwich belt conveyor uses two conveyor belts, face-to-face, to gently but firmly contain the product being carried, hence making steep incline and even vertical-lift runs easily achievable. Sandwich belt high angle conveyors are available in widely ranging profiles of C and S-shape. Hundreds of these successful systems continue to be installed all over the world.
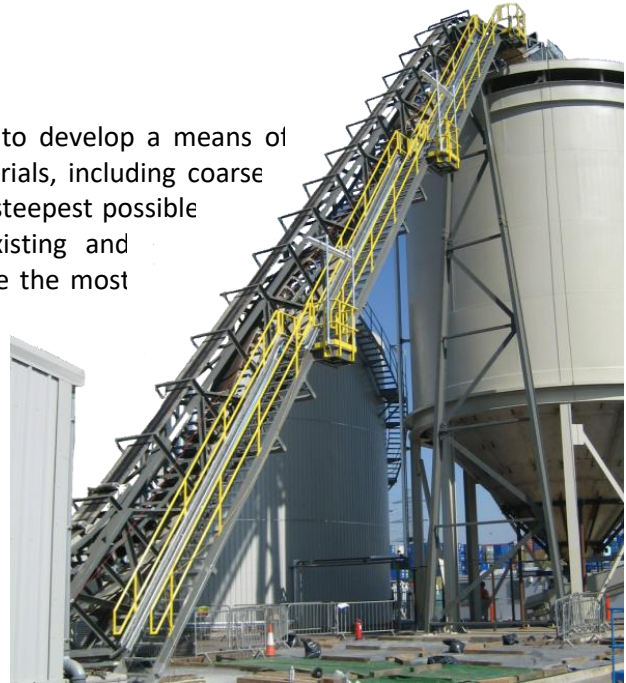
CONSULTING & ENGINEERING

Consulting and engineering services are offered throughout and beyond a wide range of materials handling systems and equipment. Dos Santos International offers discipline oriented engineering services in mechanical and structural engineering. These services may be used for technical and economic studies and evaluations, new systems, upgrades of existing systems, plant modifications and field assistance.

OVERLAND, CONVENTIONAL CONVEYOR SYSTEMS

Dos Santos International offers conventional conveyor systems of simple or complex profile to high capacities and high lifts. We are qualified to engineer and supply the most complicated high powered, high-tech conveyor systems.

Our work has included engineering, supply, commissioning and field testing and monitoring of new and existing complex slope belts, overland and downhill conveyor systems throughout the world.
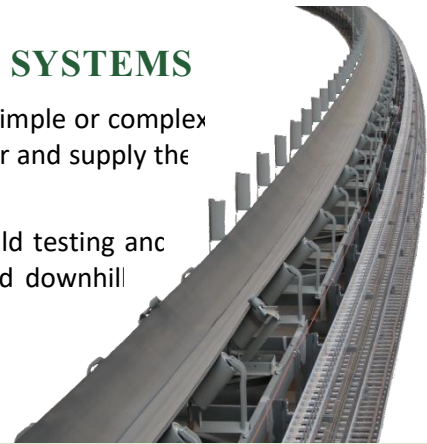
THESE CONVEYORS HAVE FEATURED

Decisively regenerative drives with backup braking systems.

Flywheels with braking.

Booster drives, of the tripper type as well as the belt-on-belt type, with and without belt tension feedback and control

Two-way conveying (carrying material on both the upper and return belt strands)

Multiple horizontal and vertical curves

DSI *ExConTec*

At Dos Santos International, we have developed the "Expanded Conveyor Technology", a comprehensive conveyor analysis approach, extending the conventional conveyor technology beyond its currently perceived limits. This has proven successful and especially advantageous in analysis of complex curving conveyors and high angle conveyors.

Our in-house analytical techniques and computer software facilitate our complete belt tension and power analysis of the most complicated conveyor systems under steady state running, starting, stopping and other transient conditions.

More than an analysis tool, the DSI Expanded Conveyor Technology reflects a philosophy.

Material	coal		Belt Width	36	inches
- Density	55	pcf	Belt Speed	600	fpm
Conveying Rate	850	stph	Tension Rating	1000	PIW
CEMA Sct.-20°Sur.	0.980	Sq. ft.	Amb. Temperature	0	Deg. F
% CEMA Load	87.5	%	Temperature Factor	1.35	

	Tensions Summary				
	Running (lbs)	Empty (lbs)	Accel (lbs)	Brake (lbs)	Drift (lbs)
T1	31096.9	20014.1	41951.0	4369.4	11466.4
T2	8208.3	7877.4	6482.0	22362.9	8512.2
Tmax	31096.9	20014.1	41951.0	23009.4	11466.4
PIW	863.8	555.9	1165.3	639.2	318.5
Accel/Decel Time (secs)	N/A	N/A	19.5	6.9	10.6
Shaft HP	421.6	224.9	682.5	-327.3	0.0
7.0 % Losses	29.5	15.7	47.8	22.9	0.0
Motor(+)/Brake(-) HP	451.1	240.7	730.3	-304.4	0.0
Selected Motor HP	525	525	525	525	525
NODE 1, T-U Tens. (lbs)	8500	8500	8500	8500	8500
Conveyor Stretch (ft)	30.3	27.5	39.4	23.2	14.9
Take-Up Stretch (ft)	15.1	13.8	19.7	11.6	7.4

Discretion by Responsible Engineer:				
	Ky Adjust:	0.83	Input	0.83 Default
	Kx Adjust:	1.5	Input	1.5 Default
RUN	Term. Adj.:		Input	1 Default
	T-U Tension	8400	lbs	AT NODE 1

CALL THE EXPERTS TODAY!