Technical Data for the Layout of Belt Conveyor Systems

PHOENIX
PHOENIX CONVEYOR BELT SYSTEMS GMBH

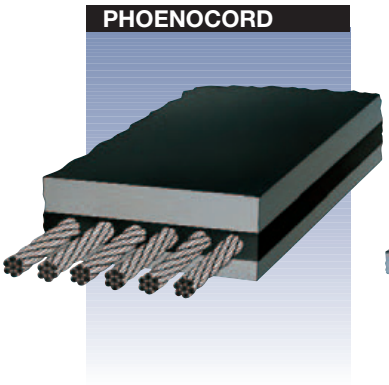
Company .....

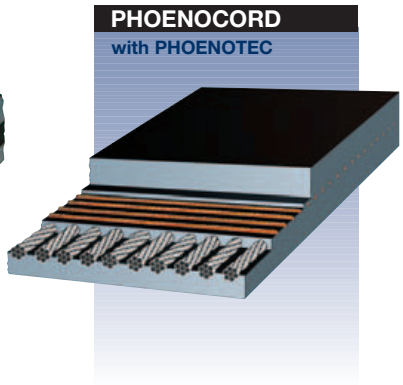
Project Name .....

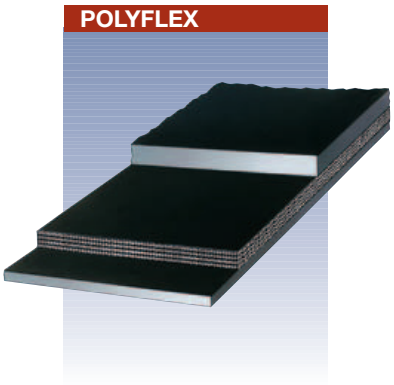
Project No. .....

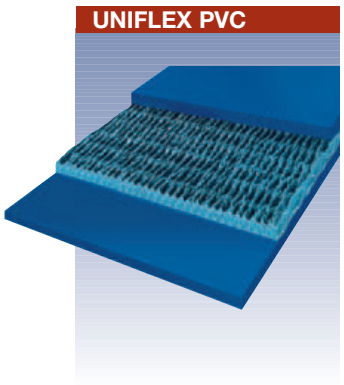
Country .....

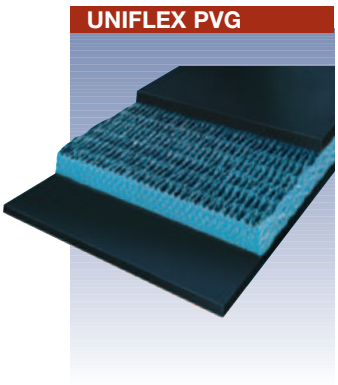
Person in charge
Phone
Email

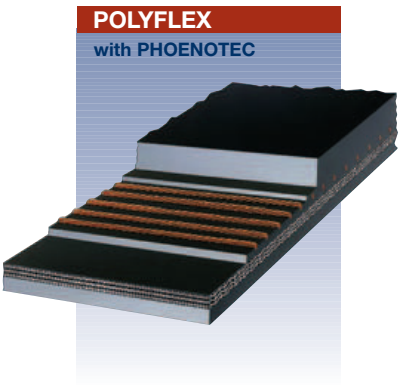








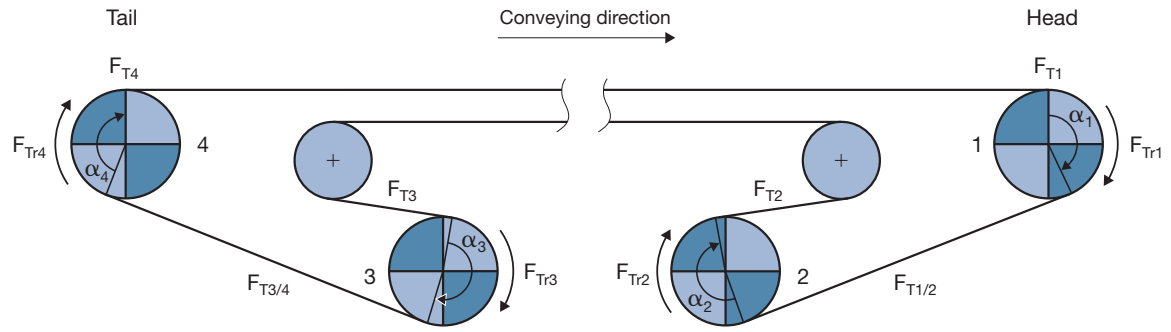




Location of use	Outdoors – open ☐ – covered ☐ Underground ☐ Indoor ☐ Details of climatic conditions .....
Conveying flight (provide a diagram on page 4 of the questionnaire if necessary)	Centre distance ..... m Conveying length L ..... m Conveying height H ..... m Gradient of the system δ ..... ° uphill ☐ downhill ☐ Section with maximum (descending) gradient δ_{max} ..... ° Curve – convex: Radius R_e ..... m – concave: Radius R_a ..... m Sections with differing gradients ..... ☐

Technical Data

Material flow	Conveying speed v ..... m/s Mass flow I_m ..... t/h Volume flow I_V ..... m^3/h Degree of uniformity of mass or volume flow ..... Load coefficient .....
Properties of the material handled	Designation of the material handled ..... Bulk density ρ ..... t/m^3 Angle of repose β ..... ° Temperature ..... permanent ..... °C min. ..... °C max. ..... °C
	Max. lump size ..... mm Chemically corrosive ..... ☐ Sharp-edged ..... ☐ Wet ..... ☐
Material feed	Feeding direction – in longitudinal direction ..... ☐ – in tranverse direction ..... ☐ Height of fall ..... m
	Garland idlers ..... ☐ Troughing angle ..... ° Impact idlers ..... ☐ Feeding device (impact plates or similar) ..... Chute constriction ..... ☐ Length of constriction ..... m
Material discharge	Via head pulley ..... ☐ Tripper car ..... ☐ Scraper ..... ☐
Conveyor belt	Width B ..... mm Endless belt length ..... m Support on top run: on carrying idlers ..... ☐ sliding ..... ☐ Support on return run: on carrying idlers ..... ☐ sliding ..... ☐ with support rings ..... ☐
Idlers **– Top run**	Carrying idler arrangement ..... -part Troughing angle λ_o ..... ° Spacing l_o ..... m Mass (rotating components of an idler set) m_{Ro} ..... kg Diameter d_{Ro} ..... mm Tilted position ..... Flat-to-trough transition length $l_Ü$ ..... mm Pulley lift h_{Tr} ..... mm Trough-to-flat transition length $l_Ü$ ..... mm Pulley lift h_{Tr} ..... mm
– Return run	Return idler arrangement ..... -part Troughing angle λ_u ..... ° Spacing l_u ..... m Mass (rotating components of an idler set) m_{Ru} ..... kg Diameter d_{Ru} ..... mm Tilted position .....



Pulleys driven/braked	Diameter D_{Tr} : 1 ..... , 2 ..... , 3 ..... , 4 ..... mm Angle of wrap : α_1 ..... , α_2 ..... , α_3 ..... , α_4 ..... ° Pulley surface : bare ☐ rubberized ☐ Ceramic ☐ Condition : dry ☐ wet ☐
Drives	Number of drives at Pulley 1: ..... Pulley 2: ..... Pulley 3: ..... Pulley 4: ..... Power - installed $P_{M\ inst}$ ..... kW (total) - estimated $P_{M\ inst}$ ..... kW Slip ring motor ☐ Squirrel cage motor ☐ Starting aid ☐ Starting factor p_A (related to the motor torque in the steady operating state at rated mass flow): ..... p_{A0} (related to the rated motor torque): ..... Start-up-time t_A ..... s
Braking	Number of brakes on Pulley 1: ..... Pulley 2: ..... Pulley 3: ..... Pulley 4: ..... Total braking torque (related to the motor shaft) ..... Nm Braking factor p_B (related to the motor torque in the steady operating state at rated mass flow): ..... p_{B0} (related to the rated motor torque): ..... Braking distance s_B ..... m
Takeup device	Takeup pulley – flying ☐ – fixed ☐ Takeup device at System head ☐ System tail ☐ Existing takeup length ..... m
Conveyor belt cleaning	Scraper ☐ Other devices ☐ Belt turnover ☐ Further details .....
Conveyor belt type	New system ☐ Projected design ..... Extension ☐ Required design ..... Replacement ☐ Previous design ..... Suitability satisfactory ..... yes ☐ ..... no ☐ Observations .....
Conveyor belt splicing	In-situ curing ☐ Mechanical fastener ☐ Delivery ..... open ☐ endless ☐

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