

PROJECT SHEET

# NOVA Cimangola Pneumatic Transport System

DemcoTECH Engineering supplied, in conjunction with Claudius Peters, a 150 tph pneumatic transport system to convey cement from the kiln to multiple storage silos at Nova Cimangola’s new milling plant at its cement plant in Luanda, Angola.

The system has a conveying distance of 300 m and, as a brownfields project, had to be designed to follow a tortuous route to fit into the existing plant and include a number of discharge points into the multiple silos. Also, as an operating plant, the downtime needed to be minimised during tie-in so as not to negatively impact on production.

DemcoTECH was subcontracted by IMS, the main contractor for the upgrade to the plant,

The pneumatic transport system features:

- 350 NB conveying pipeline with long radius reinforced bends.
- Compressor plant with two compressors.
- Screw pumps.
- Discharge points feeding seven individual receiving silos.

Also under sub-contract to IMS, DemcoTECH provided four travelling maintenance trolleys, fully equipped with maintenance tools and maintenance power sockets, to NOVA Cimangola for the pipe conveyor at its Luanda plant. The maintenance trolleys have to negotiate an incline of up to 15°, which presented a number of design challenges.

A DemcoTECH design, the trolleys were manufactured and pretested in South Africa at a 15° inclination, before being containerised for transport to site.

The trolleys are self-propelled by an on-board generator and include hydraulically driven travel mechanisms for a high level of control. The trolleys feature a number of safety features:

- Fully enclosed.
- Emergency brake facilities.
- Heavy duty traction control.

Nova Cimangola is a publically and privately owned company, which produces 1.8 million tons of cement per year.

DemcoTECH Engineering is a specialist bulk materials handling and niche process plant company, offering services from concept design through to project completion to the power generation, cement, mining, metallurgical, manufacturing and port handling industries. Services include conceptual design, feasibility studies, design, engineering, procurement, expediting, construction and commissioning. Plant supplied by DemcoTECH includes troughed conveyors, air-supported conveyors, pipe conveyors, rail-mounted slewing boom stackers, pivot boom conveyors and mobile conveyors.



<b>Client</b>	NOVA Cimangola SARL
<b>Commodity</b>	Cement
<b>Contract Type</b>	Design, supply to site, erection supervision, commissioning and checking, of 150 tph pneumatic transport systems
	Design, manufacture and supply to site of four maintenance trolleys
<b>Duration</b>	2006
<b>Location</b>	Luanda, Angola