





TURNKEY PROJECTS OVERLAND & CURVED BELT CONVEYORS INNOVATIVE SOLUTIONS







HISTORY

In 1983, René Brunone, aged 21, returned from military service. He founds the TECHMI company with his father and colleagues, all engineers specialized in Bulk material handling by belt conveyors. René and his father manage all the worksites, the equipment assembly and commissioning.

TECHMI was then a small company specialized in crushing and screening installations. René Brunone has used these years at TECHMI to his advantage, learning from experienced engineers, forging his knowledge and **mastering curved belt conveyors tuning.**

In 2000, René and his wife Carole bought all the shares in TECHMI. That same year, the patent for **the tubular overland conveyor chassis** was filed and the company reoriented its focus toward long-distance bulk material hand-ling using overland belt conveyors, which will mark a turning point in TECHMI's evolution.

TECHMI's main asset is its ability to adapt to multiple constraints with simple, innovative and economical solutions. At TECHMI we always aim to provide the best solutions for our customers. To achieve this, we promote **creativity in a positive environment where ideas are shared** by all collaborators. This is the essence of TECHMI's DNA.

Since 2000, the shared ideas have materialized in the realization of several **innovative patents** related to bulk material handling such as:

- Side shifting conveyor;
- Concrete idler frames for side-by-side two-way belt conveyors;
- Ultra low profile enclosed overland belt conveyor;
- Floating belt;
- Half-pipe belt;
- Power distribution by motorized rollers;
- Vertical returning drum;
- Optimized mining process.

For each project, TECHMI develops an adapted solution to specific problems. This industrial philosophy has enabled us to meet challenges such as:

- Floating belt (conveyor on water on 700 m);
- Bidirectional Y-shaped belt conveyor with vertical tail pulley;

- **The longest belt conveyor in Europe** (6.25 km or 3.9 miles) with several horizontal curves;

- 4.8 km (3 miles) long overland belt conveyor system with horizontal curves, road crossings stations and significant elevation variations.

Its innovations, **expertise** in handling, and ability to find the optimal solution for each problem allow TECHMI to carry out all your handling projects.

TECHMI HIGHLIGHTS

MORE THAN MORE THAN MORE THAN 200
150
100
100
Bulk km of belt conveyors installed
Customers on 4 continents

6.25 KM (3.9 MILES) OVERLAND BELT CONVEYOR WITH (CEMENT PLANT IN FRANCE)



THE CHALLENGE

- To follow the old railway from pit to cement plant
- To allow safe crossing for citizen, wildlife, and vehicles

Conveyor

- To minimize vizual and environmental impact
- To handle 1000 mtph of limestone 0 100 mm



TECHMI SOLUTION

THE LONGEST BELT CONVEYOR IN EUROPE

- One single 6250 m overland belt conveyor with 4 horizontal curves, partially underground
- Total power installed: 3x250 kW
- Belt width: 1000 mm
- Belt speed: 3 m/s
- Belt type: ST1000
- 650 mm overall height
- Concrete idler frames:
 - o Manufactured on site o Installed on the ground o No civil works



After





TECHMI SOLUTIONS

AGGREGATE QUARRY IN FRANCE

- 1243 m long belt conveyor
- 2 horizontal curves with radius of 800 m
- Total power installed: 2x200 kW
- Belt width: 1200 mm
- Belt speed: 2,8 m/s
- Belt type: EP1000/3 8+4
- 1000 mtph volcanic eruptive rock 0/300 mm

AGGREGATE QUARRY IN NORWAY

- 2 reclaimers belt conveyors into tunnels
- Linear stacker: 420 m long
- Twin booms: 35 m long / 22 m high
- Total power installed: 470 kW
- Belt width: 1200 1600 mm
- Belt speed: 2 m/s
- 2000 mtph of granite 0 32 mm
- Storage capacity: 2x240.000 m³







6300 m OVERLAND & CURVED BELT _____ CONVEYOR (NORTH MACEDONIAN MINE)



THE CHALLENGE

- To convey the material through 6300 m long
- To overcome denivelation up to 160 m (from pit mine to cement plant)
- To minimize transfer points, mainly in areas far from the operation
- To reduce maintenance in remote areas and risk zones
- To minimize the footprint
- To reduce civil and electric works
- To handle 1100 mtph of copper and gold ore 0 350 mm
- To operate at temperature: -25 to +40°C



TECHMI SOLUTION

- Three overland & horizontally curved belt conveyors
- Modular, light, and ultra resistant patented tubular frames designed for a fast and flexible installation without civil engineering
- Total power installed: 1950 kW
- Belt width: 1200 mm
- Belt speed: 4,2 m/s
- Belt type: ST1800 6+5









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