



SUCCESS STORY

SUCCESSFUL PLANT TURNAROUND PROJECT AFTER SUDDEN CHANGE OF EXECUTION DATE

Repsol Polímeros in Sines, Portugal, scheduled an overhaul for two Process Gas Compressors (primary) and two F6 Hyper Compressors (secondary). After two years of methodical preparation together with Burckhardt Compression, the planned turnaround date was suddenly moved forward by more than a month due to an unrelated equipment breakdown at the plant. Burckhardt Compression rapidly responded to the changing circumstances and carried out the overhaul in a very tight fixed window to the customer's full satisfaction.

CUSTOMER CHALLENGES

- Complex logistics and communication issues typically associated with LDPE plant turnaround projects
- Very tight, fixed window of time
- Complete overhaul of 40-year-old compressor systems (two Process Gas Compressors and two F6 Hyper Compressors), incl. reconditioning of high pressure components and main motor replacement
- Oil cross-contamination issues
- Unexpected plant equipment breakdown before planned execution date resulting in production stop and losses

APPLICATION DESCRIPTION

| Overhaul of 2 F6 Hyper Compressors and 2 BC Process Gas Compressors | | | |
|---|--|--|--|
| Type | ¹⁾ Hyper Compressor: F6 ²⁾ Process Gas Compressor: BC | Gas | Ethylene |
| Power | ¹⁾ 6'500 kW / 8'700 hp ²⁾ 1'544 kW / 2'070 hp | Suction pressure Discharge pressure | ¹⁾ 230 bara / 3'340 psia 2'150 bara / 31'200 psia ²⁾ 12 bara / 174 psia 281 bara / 4'075 psia |
| Speed | ¹⁾ 200 rpm ²⁾ 327 rpm | | |

BURCKHARDT COMPRESSION SOLUTION

- Pre-defined maintenance schedule with scope and objectives
- Immediate set-up of manpower and local project management
- Supervision and coordination of main motor replacement, incl. alignment
- New oil wiper rings with improved design
- Lubrication pump repair and testing at Service Center in Switzerland
- Replacement of all wear parts and several capital parts

CUSTOMER BENEFITS

- Zero safety incidents
- Immediate response to sudden scheduling change thanks to thorough preparations during the prior two years and team flexibility
- 24h shift supervisors ensured competent and timely project execution
- Optimal mix of on-site Burckhardt Compression Field Service Engineers and Swiss-based Service Center support determined by local project coordinator
- All services performed as scheduled
- All new parts were manufactured by Burckhardt Compression as an OEM, full warranty provided



Hyper Compressor F6



Supervision and coordination of main motor replacement, including alignment



"The work carried out by Burckhardt Compression was very good – the planning, technical support, follow-up, last-minute spare parts orders and unscheduled repairs, as well as administrative issues. They never had any difficulties adapting to Repsol's requirements and last-minute requests, even though the turnaround timetable created some additional difficulties for both parties."

André Afonso, Reliability Engineer,
Repsol Polímeros, Portugal

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