

CAEMS CFC FLOW CONTROLLER SOLVED PROBLEM WITH CONNECTING TWO 13 BAR AND 7 BAR SYSTEMS



With have two compressed air systems "Sezignilnica-13 bar" and "Energetika-7 bar" that were not operating efficient and there was no spare air available. In 13 bar system VSD compressor unloaded and turned off 30 times per hour in the other 7 bar system compressor was running most of the time fully loaded. With help off CAEMS permanent monitoring system we have done calculation for CAEMS CFC flow controller to connect both systems and prevent unreliable on-off operation and add some extra capacity (no need for back up compressor to jump in).

- Darko Marton, Sandoz

Case Study in Pharmaceutical Company on compressed air system

- Compressed Air System in Pharmaceutical company Sandoz Slovenia
- Production of antibiotics
- CAEMS permanent monitoring is installed there for almost two years
- Solution with CAEMS CFC-50 flow controller

Executive Summary

- Customer has problems with 13 bar compressor, because of specific demand (high/low) – following with 2 min on/off cycling of the compressor & unstable pressure. In 7 bar system they increased the air demand so no spare air available there and no room to install new unit.
- Permanent compressed air monitoring with CAEMS management system showed the problem and created simulation report with connecting both systems via CFC
After CFC installation
- 13 bar system: Unloading – on/off fluctuation of compressor is no longer present (from 30x / h to 6x / h), compressor is running in optimized 80% load and pressure is stable
- 7 bar system: compressor is 20% less loaded, no stops and no starts of back-up machine

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Challenges

- We are compressed air service provider for the customer and we designed and installed permanent monitoring of compressed air CAEMS to provide them online support, best in class efficiency and monthly energy reports. Based on the problems they had in 13 bar compressor station and increased consumption in 7 bar system we perform simulation and build CAEMS CFC flow-controller to connect both systems
- To solve specific on/off consumption in 13-bar system customer replaced on/off compressor with new variable speed screw compressor, but the results were not better

CAEMS CFC SOLUTION

- With permanent compressed air management system, we are able to monitor online efficiency, compare to the best in class and in no time set different setting of the system and CFC based on changes in demand.
- More info about CAEMS CFC solution on www.calms.com/CAEMS-CFC-Flow-controller-with-wireless-web-monitoring

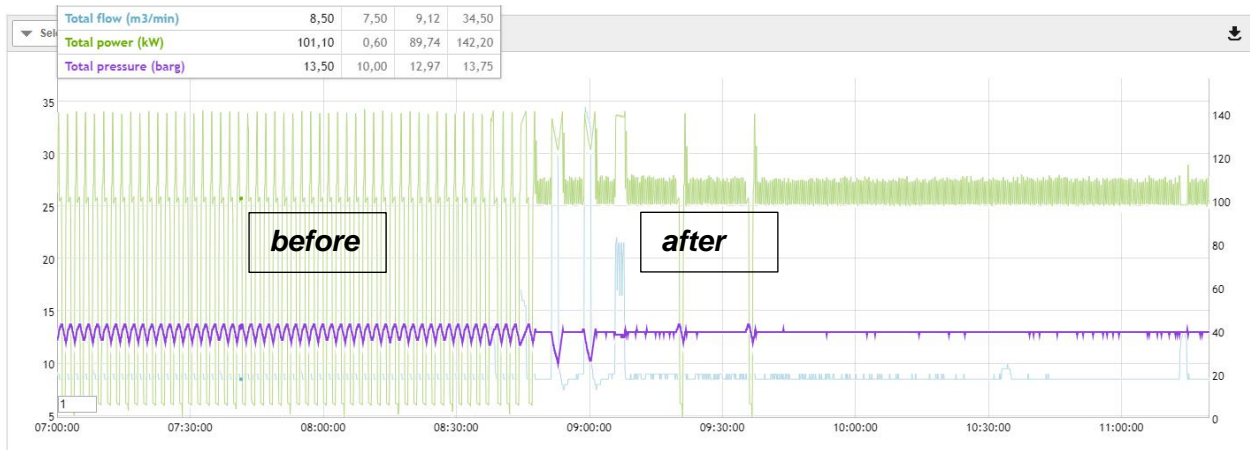


Results

- 13 bar compressed air system is operating in average 80% loaded, improved performance and no unloading/stopping of the compressor – increased reliability and less failures. Pressure 13 bar is stable +- 1%
- 7 bar compressed air system is operating also at 80% loaded, pressure is stable +-1%, without unloading
- No need to buy new compressor
- Continuous monitoring and improving of the system

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Compressed Air System 13 bar (before – after)



Compressed Air System 7 bar (before – after)

