



- E2CAS Talks 2019 -

Venerdì 31 Maggio, 2019

9:00-11:00 Aula Magenta piano D

"Innovative solutions for energy efficiency in the compressed air sector"

Ing. Luca Bicchierini (Energy efficiency consultant)

The talk will be divided in the following sessions:

Part A) Different kind of compressors and their typical SER (Specific Energy Requirements)

Part B) Energy Audit for a compressor room

Part C) Interesting Case histories and articles

Compressed air is a fundamental element in production processes, but it also has a significant impact on the energy balance of a company. The electricity used in the compressed air system accounts for 75% of the cost of the product throughout its life cycle (LCC). The data are not negligible, if we consider that over 30% of this energy is lost due to inefficiencies (proven by field measurements). The talk will illustrate the operations, some results and a sampling of potential energy audits. These audits are not intrusive and do not require the shutdown of the compressed air system, just the installation of electronic equipment recording data for 24 hours a day, 7 days a week. The measures go into detail on all the fundamental parameters of the system. The collected data are transferred to a dedicated software that allows a graphic-descriptive view of the progress over time of all the measured parameters. A series of possible alternatives are also simulated (on the adjustment parameters and on the type of the used equipment), aimed at researching those solutions that optimize the power plant and the compressed air network from an energy point of view. The activity ends with the elaboration of a detailed final report that analyzes and highlights the saving contribution generated by a whole series of possible improvements.

Short Biography

Luca BICCHIERINI

Engineer, marketing, sales and training experience in multinational companies (Mobil Oil Italiana, 3M Italia, Zerowatt, Candy Elettrodomestici and Atlas Copco Italia). Since 2019 is working as a consultant in the field of energy efficiency, marketing and innovation.

Il Seminario, in italiano, è indirizzato agli studenti di Industrial Electrical Drives (E2CAS, 3 CFU, prof. Norma ANGLANI), ma è aperto a tutti gli interessati