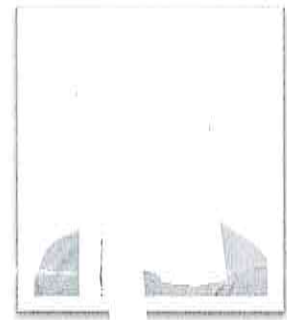


Marco Negozio



KEY COMPETENCIES:

- Excellent Communication Skills
- Team Working
- Excellent Analytical Skills and Problem Solving
- Numerical Analysis – FEM
- Manufacturing Processes - Automotive Industry
- Digital twin of manufacturing processes
- Process-Oriented Approach
- Excellent use of Forming Simulation Software
- Excellent use of Design Software
- Excellent use of Microsoft Office
- Excellent Written and Spoken English
- Aluminum Alloys Microstructure Analysis

EDUCATION:

University of Bologna | Master Degree in Mechanical Engineering - 101/110 | 09/2015 - 03/2018

Dissertation in collaboration with *UMBRA GROUP S.p.A.* on: "Case study Umbra Group SpA: Lean Production and Management of Facilities and Maintenance Department" (with 6 month Internship)

University of Perugia | Bachelor Degree in Mechanical Engineering - 92/110 | 10/2009 - 02/2015

Scientific Lyceum "Luigi Salvatorelli" Marsciano | High School Diploma | 09/2004 - 07/2009

WORK EXPERIENCES:

UNIBO: DIN | PhD student | 11/2019 →

Work Description: PhD student at DIN (University of Bologna).

PhD student at Department of Industrial Engineering:

- FEM analysis
- Digital twin of manufacturing processes
- Experimental analysis of microstructure, mechanical and crash properties of extruded aluminum alloys profiles
- Developing a new aluminum alloy 6XXX with optimized crash properties
- Liquid nitrogen cooling experimental and FEM analysis
- Optimization of the extrusion process and die design
- SEM analysis
- Assistant in the "Processi e Metodi di Fabbricazione per lo Sviluppo del Prodotto M" class

UNIBO: CIRI MAM | Industrial Researcher | 06/2019 – 10/2019

Work Description: Industrial Researcher at CIRI MAM (University of Bologna).

Aim of this research project is to develop experimental and numerical methods for analysis and optimization of the extrusion processes of aluminium alloys. Moreover, the research project deal with the microstructure analysis of 6XXX aluminum alloy extruded profiles and on its influence on the crash and mechanical performances.

Umbra Packaging S.r.l. | Operations Engineering and Technical Department | 05/2018 – 05/2019

Company Profile: Umbra Packaging S.r.l. is a leading producer of Automatic Packaging Lines. The product portfolio includes Bagging Machines, Palletizers and Shrink Wrapping Machines. Umbra Packaging is globally recognized for its customization capacity: it offers his customers the possibility to optimize and specifically adapt to his requirements any individual plant, allowing the client to use devices with the complete range of formats, bags material and related closure systems.

Responsibilities:

- Production Standards' Optimization
- Operations Management
- Lean Production
- Mechanical Designer
- Global Customers and Suppliers Management
- Problem Solving
- Process Improvement
- Technical Procedures Development

Achievements:

- Creation of an automatic maintenance management program installed on all the produced devices
- Creation of a travel management program for centralized information sharing
- Optimization of the performances of the bagging machine (+15% of productivity)

UMBRA GROUP S.p.A. | Internship | 09/2017 – 02/2018

Company Profile: UMBRA GROUP is a cutting-edge manufacturing company in the aeronautics and industrial sectors. It is the world leader in the production of recirculating ballscrews in the aeronautics sector. UMBRA GROUP, moreover, has recently strengthened its position in the supply of products aimed at the energy market.

Responsibilities:

- Application of Lean Manufacturing Techniques
- Maintenance Process Improvement
- KPI analysis
- Energy Manager Assistant

Achievements:

- Digitalization Management
- Increase of Quality KPI through the adoption of a new set of Maintenance Procedures

Languages:

Italian (mother tongue), English (B2 level)

Software: competences:

QForm
DEFORM
HyperXtrude
Matlab
Inspire Extrude Metal
Solid Edge
COMSOL
AutoCAD
Microsoft Office

Dissemination:

Publications:

- Pelaccia, R., Reggiani, B., Negozio, M. et al. **Liquid nitrogen in the industrial practice of hot aluminium extrusion: experimental and numerical investigation**. Int J Adv Manuf Technol (2022). <https://doi.org/10.1007/s00170-021-08422-3>
- Pelaccia, R., Negozio, M., Reggiani, B., Donati, L., & Tomesani, L. **Extrusion of Light and Ultralight Alloys with Liquid Nitrogen Conformal Cooled Dies: Process Analysis and Simulation**. J. of Materi Eng and Perform (2021). <https://doi.org/10.1007/s11665-021-06320-z>
- Pelaccia, R., Negozio, M., Reggiani, B., Donati, L., & Tomesani, L. (2021). **Analysis and optimization of cooling channels performances for industrial extrusion dies**. Paper presented at ESAFORM 2021. 24th International Conference on Material Forming, Liège, Belgique. doi: 10.25518/esaform21.3686
- Negozio, M., Pelaccia, R., Donati, L. et al. **Finite Element Model Prediction of Charge Weld Behaviour in AA6082 and AA6063 Extruded Profiles**. J. of Materi Eng and Perform 30, 4691–4699 (2021). <https://doi.org/10.1007/s11665-021-05752-x>
- Negozio Marco, Pelaccia Riccardo, Donati Lorenzo, Reggiani Barbara, Tomesani Luca (2020), **FEM Validation of Front End and Back End Defects Evolution in AA6063 and AA6082 Aluminum Alloys Profiles**, Procedia Manufacturing (Open Access), Volume 47, 2020, Pages 202-208;
- Pelaccia Riccardo, Negozio Marco, Donati Lorenzo, Reggiani Barbara, Tomesani Luca (2020), **Efficiency of Conformal Cooling Channels Inserts for Extrusion Dies**, Procedia Manufacturing (Open Access) Volume 47, 2020, Pages 209-216.

Others:

- 1st position in "The International Students Olympiad in Hot Bulk Forging and Extrusion Technologies Section (Extrusion section)", competition organized by QForm (link: <https://www.qform3d.com/news/2020/06/25>)

Courses and seminars:

- **QUALITY CONTROL OF EXTRUDED PROFILES: POSSIBLE DEFECTS AND METHODS OF THEIR PREDICTION AND ELIMINATION** September 9th, 2020 – 20:30 to 22:00, Qform;
- **ESAFORM 2020, 23RD INTERNATIONAL CONFERENCE ON MATERIAL FORMING**, Cottbus Germany via virtual conference, May from 4th to 8th, 2020 (as presenter);
- **ICAA, 17TH INTERNATIONAL CONFERENCE ON ALUMINIUM ALLOYS**, Grenoble France via virtual conference, October from 26th to 29th, 2020 (as attendees).

Other Interests:

Subjects: Communication

Sports: Tennis

I authorize the use of my personal data in compliance with Legislative Decree 196/03.