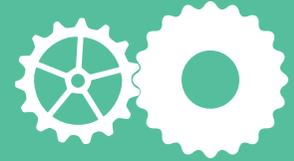


THERMOPLASTIC MOLDED GEARS



THE COMPANY



Stagnoli was founded in Desenzano del Garda in 1981 as a company dedicated to the plastic material moulding for third party. Taking into account the mechanical training of the owner, the company has specialized in the production of transmission components in plastic materials for the industrial sector.

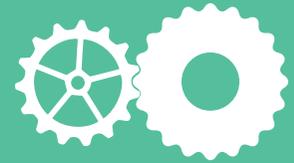
Nowadays, Stagnoli is able to provide, thanks to its structure, services as:

- Feasibility
- Designing the finished product
- Equipment design
- Production

In addition to transmission parts made to customer specifications, STAGNOLI offers, with rapid delivery times, its own range of thermoplastic gear compatible with ISO and DIN standards. The breadth of the range and compliance with international standards are a strong differentiator compared to other manufacturers, and for this reason many distributors and builders, not only Italian, choose STAGNOLI.



THE COMPANY HISTORY



1981

BIRTH OF THE COMPANY

Stagnoli was founded by the present owner; at the beginning it was established in a shed of 250sqm in the countryside of northern Italy, with 2 employees and 3 presses for the injection moulding.



1983

BIRTH OF GEARS

Stagnoli begins to design and to product Special gears, but also realizes a catalogue of standard gears. It begins collaborations with research institutions and professors of the Politecnico di Milano University.



1990

STAGNOLI GROWTH

Stagnoli filed a patent for nylon rack with core steel, buys other 2 machines and creates the department of realization and mould maintenance.



2000

STAGNOLI EXPANSION

Stagnoli moves in the new structure of 2'000smq, buys other 4 presses increasing its machine park from 5 to 9.



2013

STAGNOLI GROWTH

Stagnoli remains one of the bests, and better qualified gear manufacturers. Thanks to the experience acquired in 30 years on the market, and thanks to the skills of its STAFF, Stagnoli is able to follow and guide customers in all the phases of the project.



2010

STAGNOLI GROWTH

Stagnoli invests in the Research and Development and creates training courses for its STAFF regarding production, design and quality control.



2006

STAGNOLI EXPANSION

Stagnoli moves in a new structure of 7'000smq where 4'500smq are dedicated to the production. In addition it creates a new company that carries out all the machining.



2003

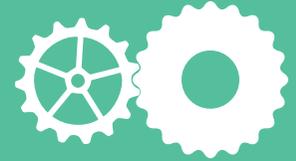
INNOVATION

Stagnoli made its first website, with the possibility to check each product in stock.



NOWADAYS...

ADVANTAGES AND OPPORTUNITIES



COST REDUCTION



LUBRICATION NOT NECESSARY



WEIGHT REDUCTION



NOISE REDUCTION



WATER RESISTANCE



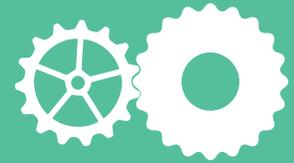
REDUCTION OF THE FRICTION COEFFICIENT



RESISTANCE OF CHEMICAL AGENTS

MATERIALES ESTÁNDAR

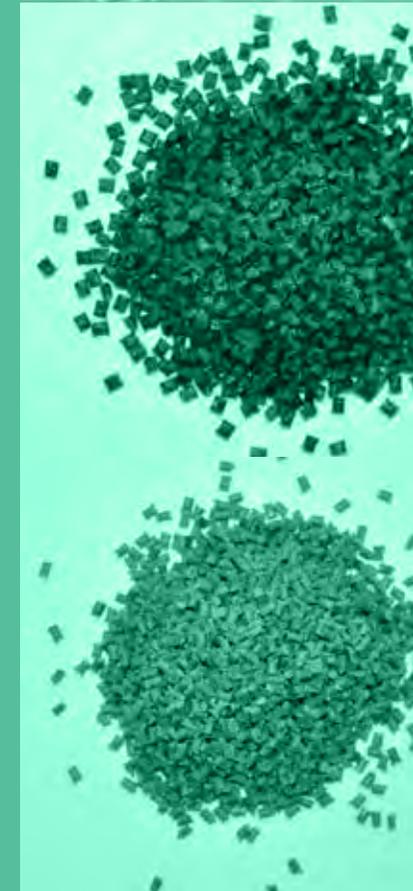
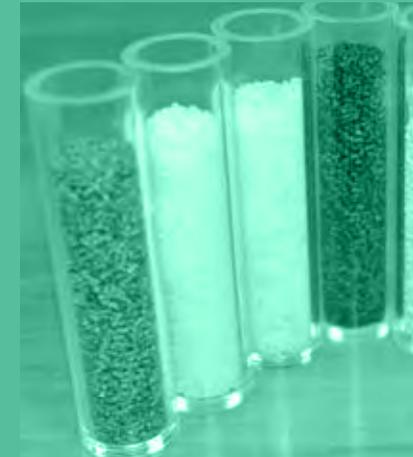
POLIAMIDA 6 Y 30% FIBRA DE VIDRIO



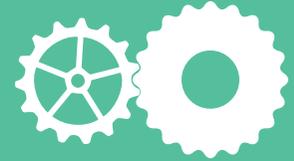
For the standard production, Stagnoli chose the PA6 nylon with 30% fibre glass which technical and mechanical characteristics are:

- tenacity and high resistance to torsion;
- resistance to chemicals;
- high dimensional stability;
- High wear resistance;

For the production we use only top quality materials only from primary producers, which guarantee high quality standards in terms of material performance and uniformity of the lots.



	PA6+FV	PA6+FC	PARA	PA9T	PPA+FC+PTFE	PPS+FV+PTFE	POM
BREAKING LOAD [MPα]	160	170	260	190	200	170	70
ELASTIC MODULUS [GPα]	9	12	20	10	9.5	12	2
IMPACT RESISTANCE [KJ/M²]	5	5.5	-	8	12	5	6
MAXIMUM TEMPERATURE OF USE [C°]	120	130	170	190	200	230	80
WATER ABSORPTION [%]	1.2	1	0.16	0.19	0.3	0.01	0.3



According to customer needs, our technical department develops solutions that can fully meet expectations and functionalities required.

It is not always necessary to design and build a new mould thanks to the vast range of Stagnoli moulds.

You can also perform special processing of standard gears, pulleys and sprockets to achieve the consistent product with the customer's specific needs. In the case of special applications, the feasibility study and the design phase consider the possibility of using special materials which solve all the problems and which have high mechanical performance.

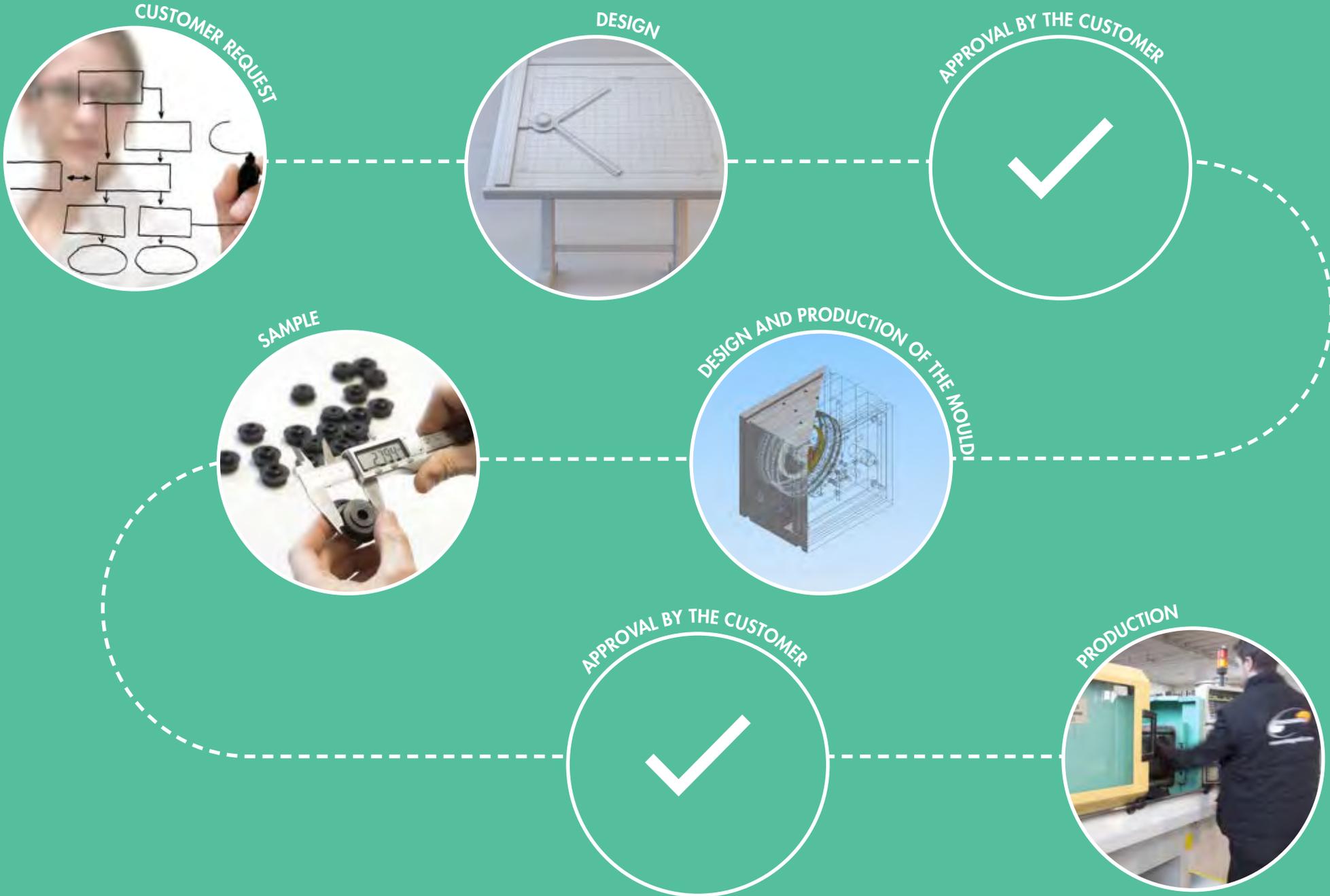
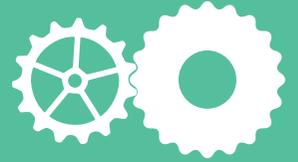
Our research and development department is always updated on materials suitable for various applications, from hyperpolymers to the new resins bound with carbon fibre.

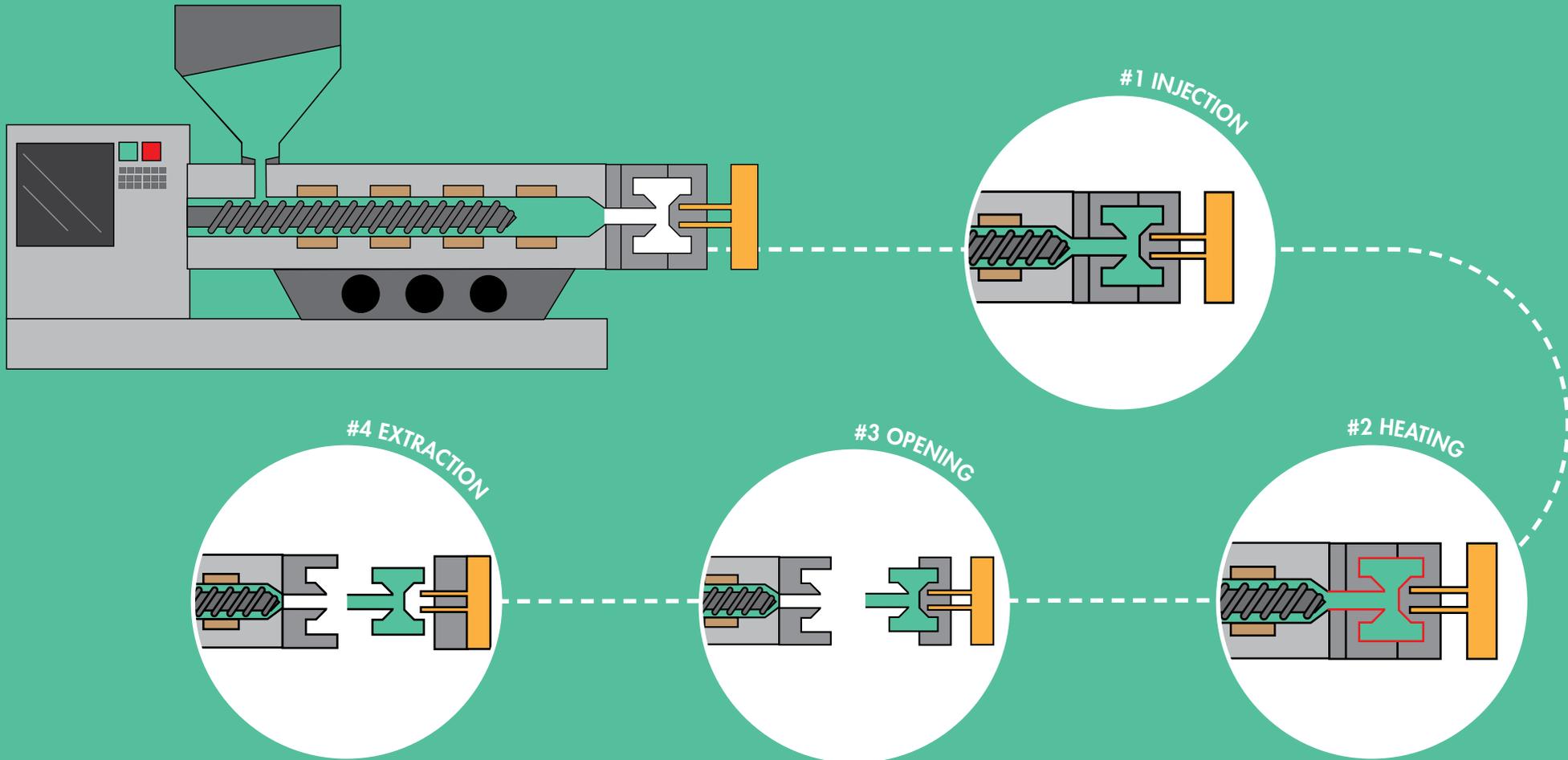
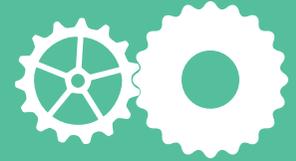
STRONG POINTS OF OUR TECHNICAL STAFF SERVICE:

- 1 expertise in the feasibility of the solutions and materials to be used, including experimental materials
- 2 project of the finished product
- 3 availability of a wide range of equipments and moulds suitable for fulfilling endless types of specific customer's applications.

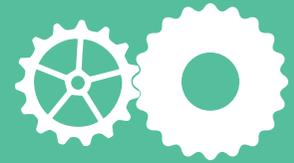


DESIGN PROCESS





PRODUCTION CAPACITY

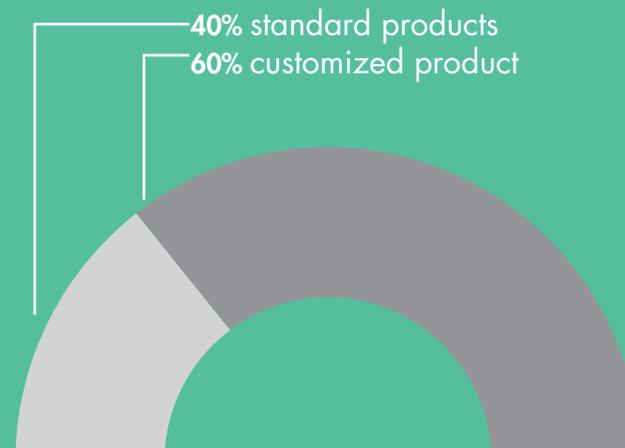


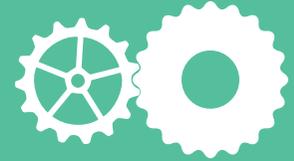
All products are manufactured at our facility in Lonato del Garda. Stagnoli has a wide range of machines for moulding made up of 12 injection moulding machines, 3 of them with a fully automated system thanks to the use of 3 robots.

It is possible to manufacture products with weights ranging from 1g to 1500 gr.

By partnering with an associated company, we can realize machining by CNC, even for small quantities, of any type and of excellent quality, such as holes, tapped holes, grooves, keyways, locations for bearings and snap rings.

The stock of the standard finished product is done in automated centralized warehouses that allow us to store large quantities in a reduced space.



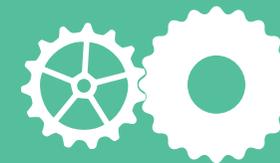


AGRICULTURE



CHEMICAL INDUSTRY



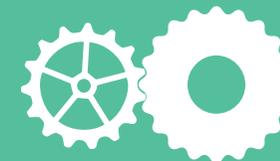


INDUSTRIAL CLEANING



MACHINES FOR PAINTS

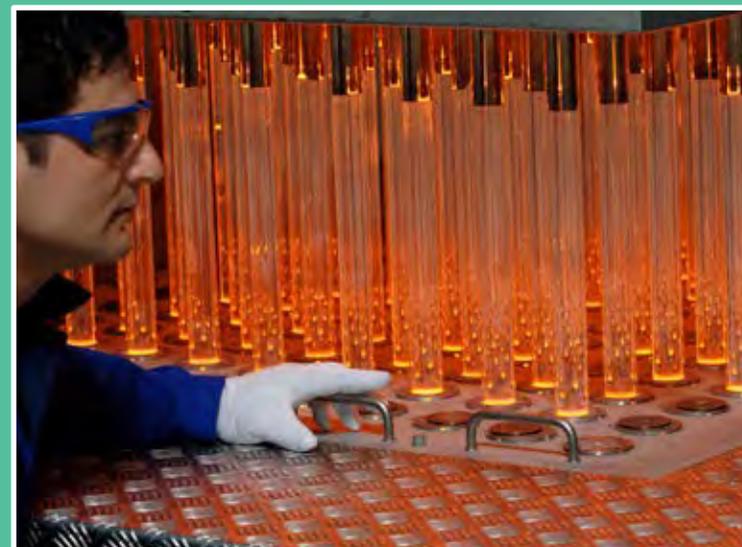


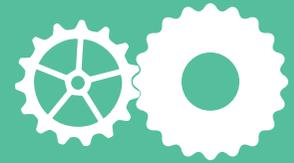


FOOD INDUSTRY



GLASS AND CERAMIC WORKING MACHINES





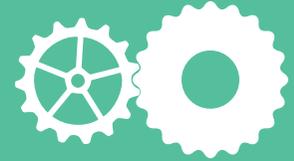
WOOD INDUSTRY



PACKAGING



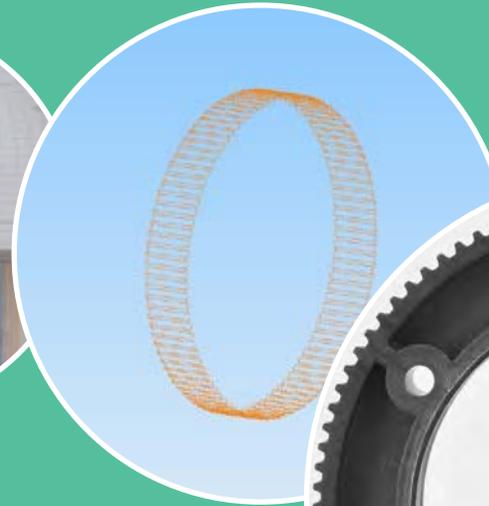
EXAMPLE OF PROJECT #1



CUSTOMER REQUEST



DESIGN



FINISHED PRODUCT



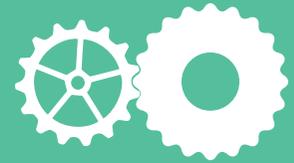
PRODUCT:

- Pulley profile RPP 96 teeth
- Initially produced in aluminium
- Used in the handling of lights for shows

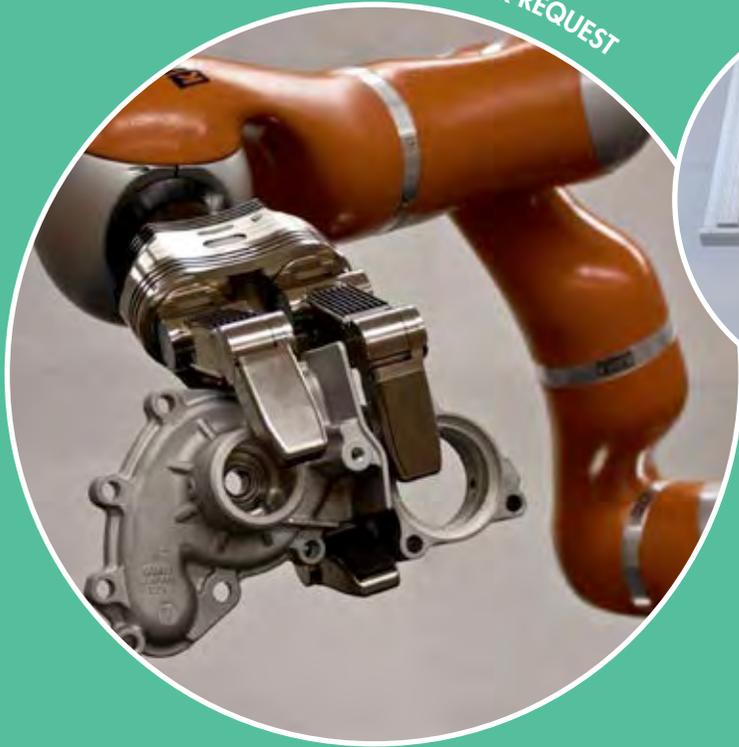
ADVANTAGES WITH THE TRANSITION TO PLASTIC:

- Reduction of the cost by more than 50%
- No problem of oxidation
- Weight reduction

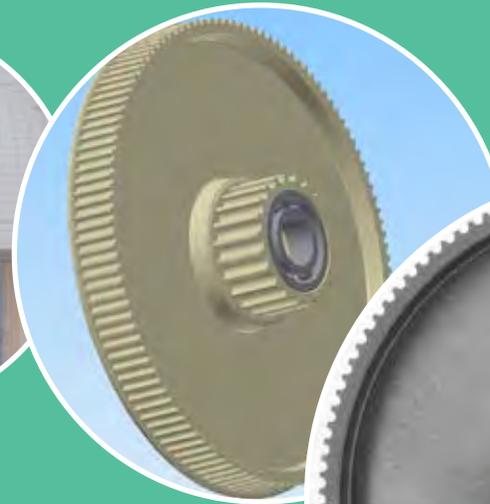
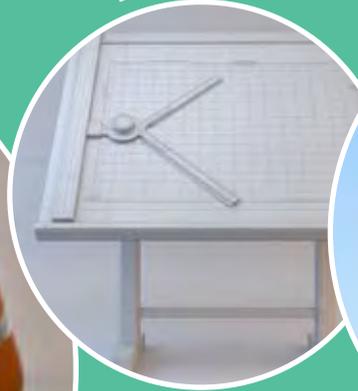




CUSTOMER REQUEST



DESIGN



FINISHED PRODUCT



PRODUCT:

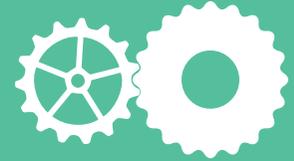
- Double HTD pulley
- Re-Designed
- Used in industrial anthropomorphic robots

ADVANTAGES WITH THE TRANSITION TO PLASTIC:

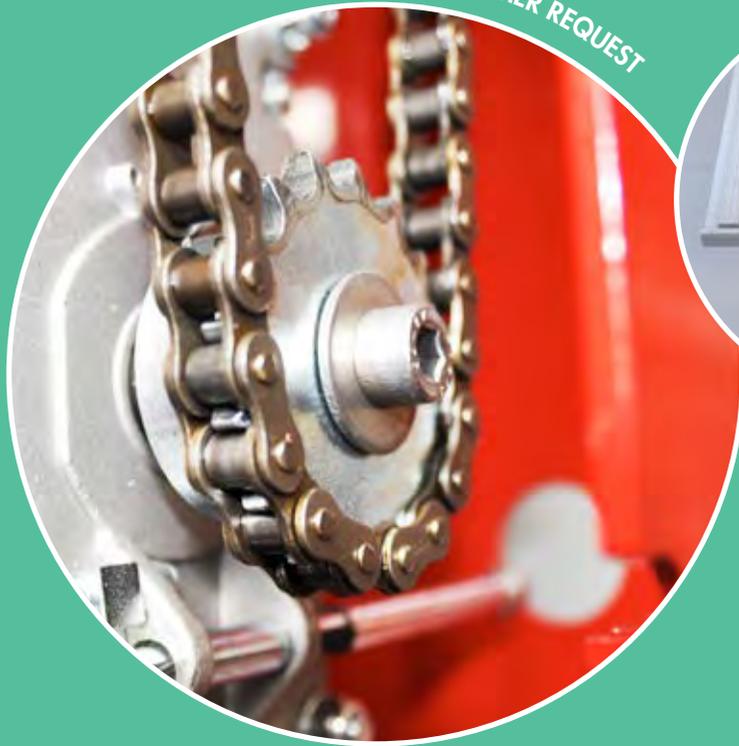
- Reduction of the cost of more than 60%
- Reduction of the inertia in the movement
- Lightness of the assembly pulley / bearings



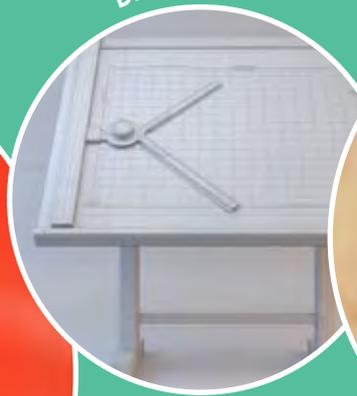
EXAMPLE OF PROJECT #3



CUSTOMER REQUEST



DESIGN



FINISHED PRODUCT



PRODUCT:

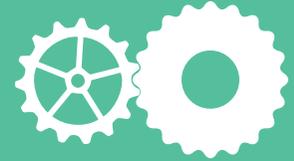
- Sprocket for splined shaft
- Application: road barrier handling
- Previous material: steel

ADVANTAGES WITH THE TRANSITION TO PLASTIC:

- Reduction of the cost by more than 40%, derived from standard Stagnoli
- No rust problem
- Weight reduction
- Reduction of operating noise



EXAMPLE OF PROJECT#4



CUSTOMER REQUEST



DESIGN



FINISHED PRODUCT



PRODUCT:

- Bevel gear Gleason
- Coupled with steel gear
- Used in the wood industry
- Material used: PA6 + fibre glass and 5% PTFE

ADVANTAGES WITH THE TRANSITION TO PLASTIC:

- Reduction of the cost of more than 60%
- Lubrication unnecessary



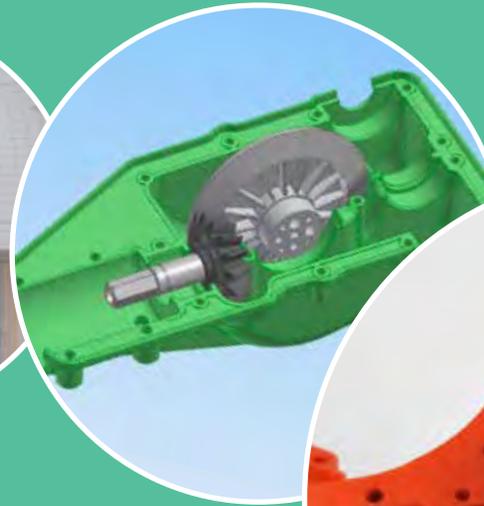
EXAMPLE OF PROJECT #5



CUSTOMER REQUEST



DESIGN



FINISHED PRODUCT



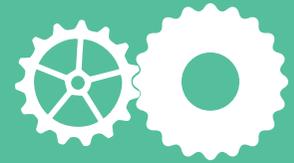
PRODUCT:

- Set of bevel gears
- Application: machines for the olive harvest
- Previous material: steel

ADVANTAGES WITH THE TRANSITION TO PLASTIC:

- Reduction of the cost by more than 40%
- Reducing weight
- No oxidation

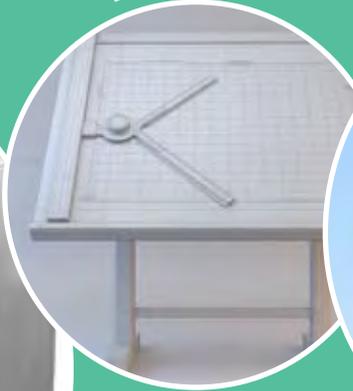




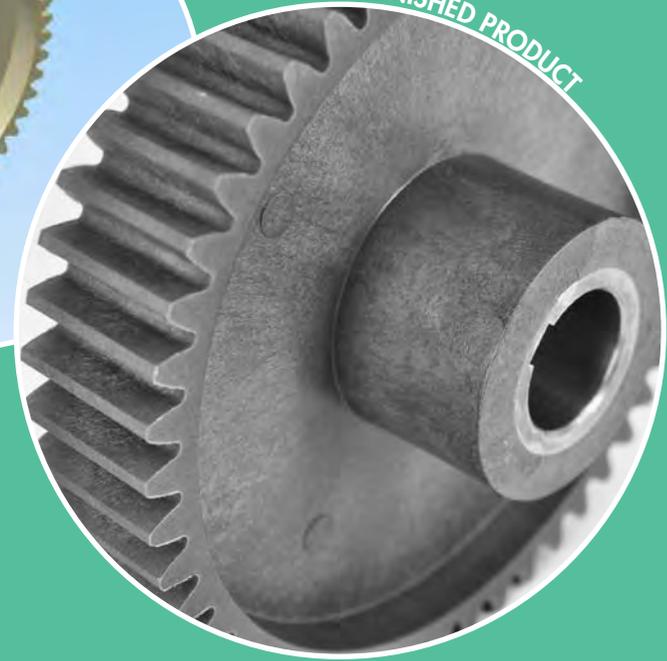
CUSTOMER REQUEST



DESIGN



FINISHED PRODUCT



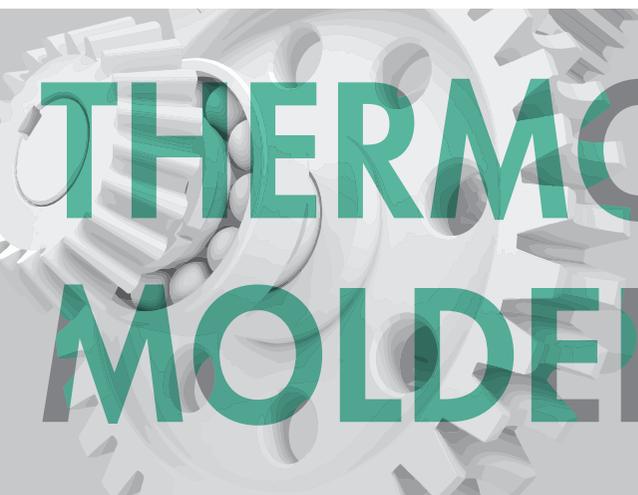
PRODUCT:

- Spur gear module 4 with steel insert
- Replaces cast iron gear
- Used in kneading machines

ADVANTAGES WITH THE TRANSITION TO PLASTIC:

- Reduction of the cost of more than 60%
- Weight reduction
- No lubrication, no oil protection and no seals





THERMOPLASTIC MOLDED GEARS

