Presentation

KEYTECH S.r.L.

Business Unit

Keytech s.r.l. - via Martiri della Resistenza, 63 - 60125 Ancona - Italy
s.corinaldesi@gmail.com REA 183526 P. I.V.A. C.F. 02387630425

KEYTECH S.r.l.

The Company KEYTECH s.r.l - Business Unit:

- *Engineering Components (Plastics, Steel and Rubber)*
- *Engineering Tooling (Plastics, Stell and Rubber)*
- *Engineering Process (Injection, Pessing and Vulcanization)*

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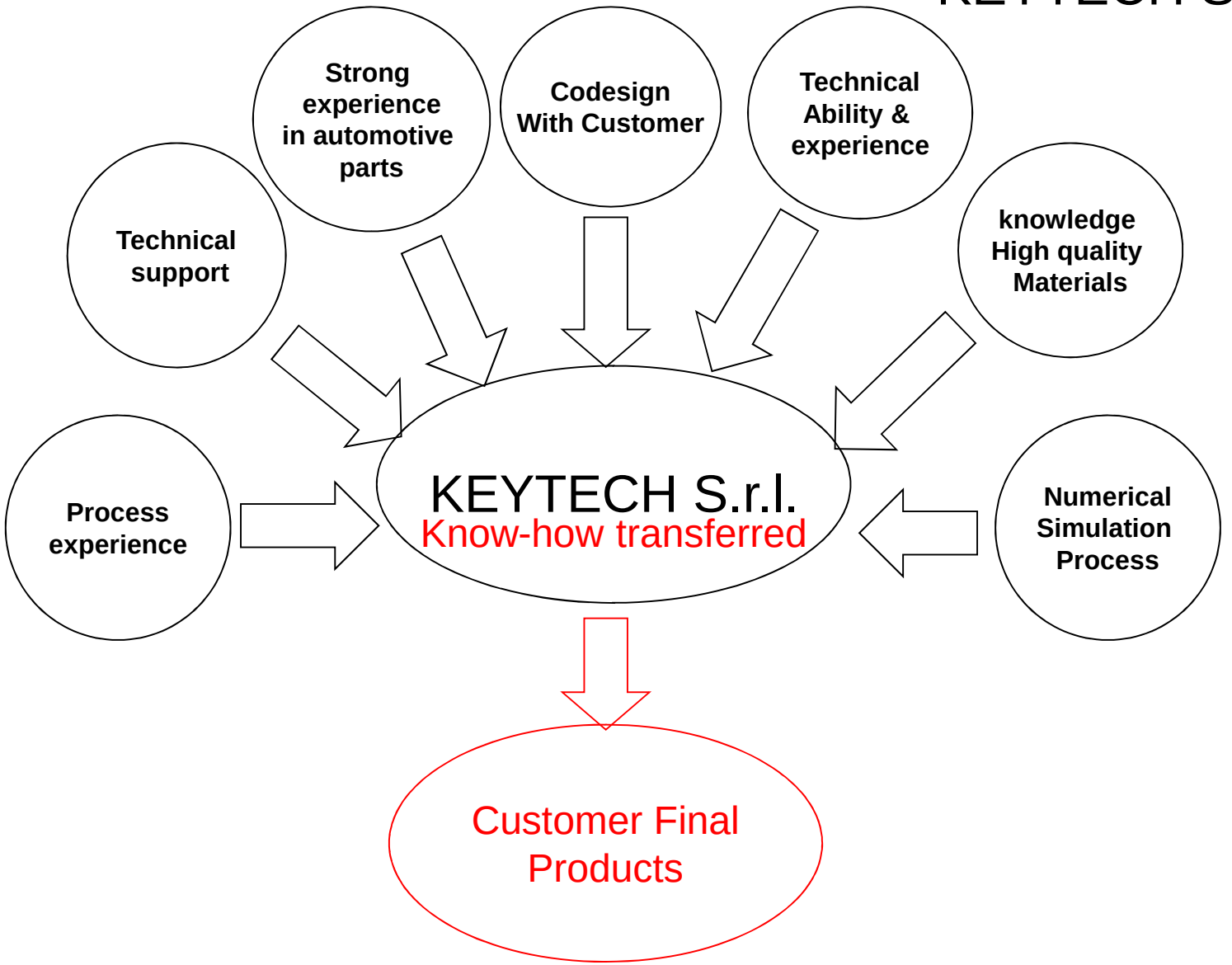

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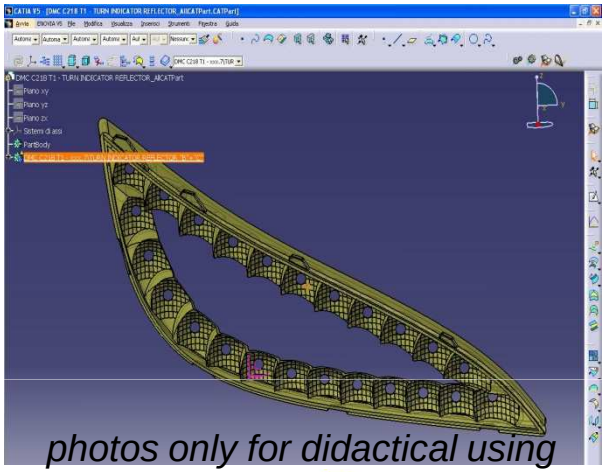
Engineering Components (Development)



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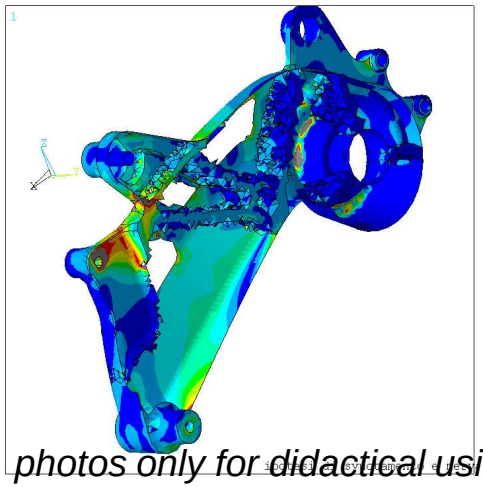

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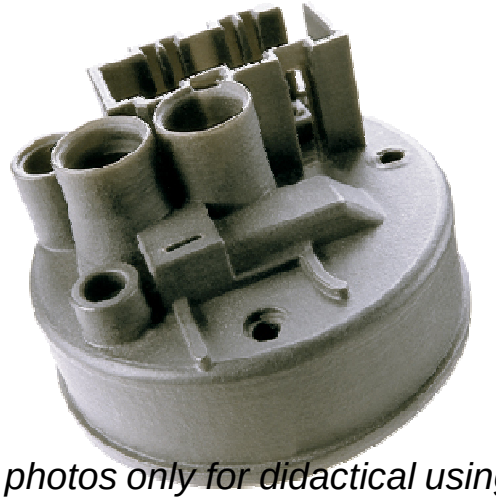

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Metal Replacements

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Engineering Components (Rubber Parts)

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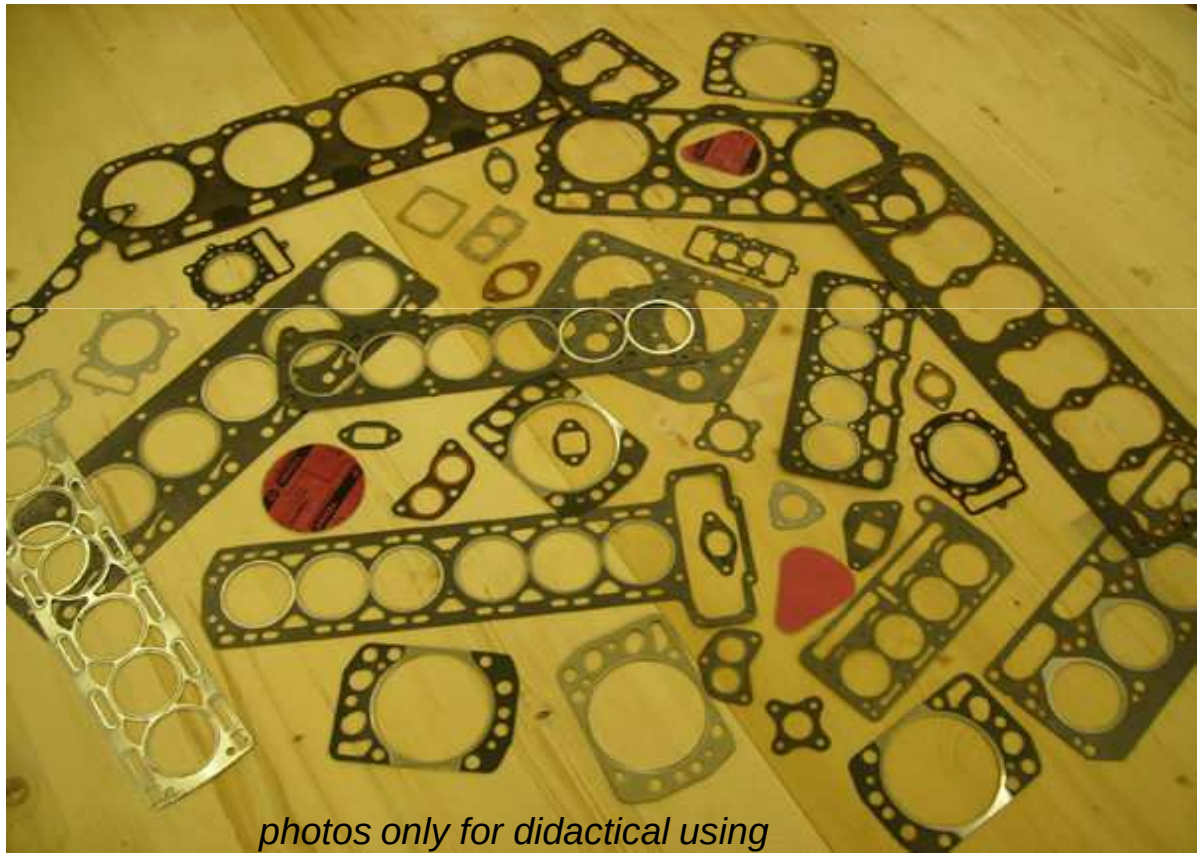
Engineering Components
(Double Material Solution)

Engine Gasket



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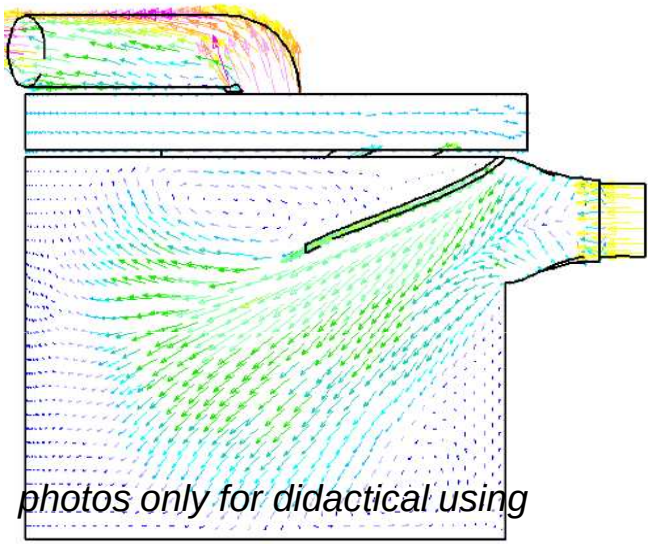
Engineering Components
(Software Simulation)

STAR CD
FLOW 3D
LS-DYNA



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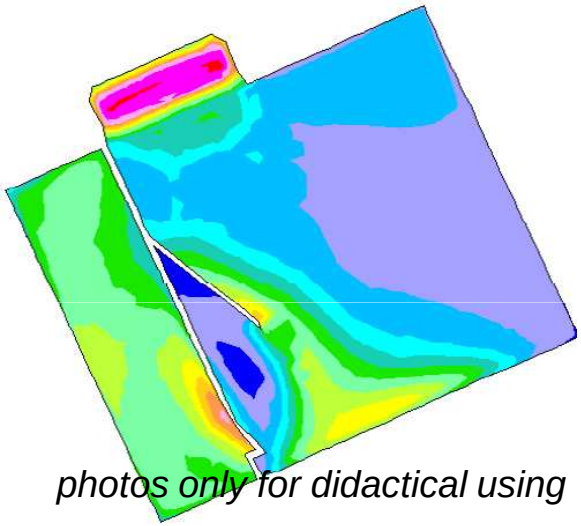
Model Suction Appliance
Speed components and
Particles Separation



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Model Suction Appliance
Speed components

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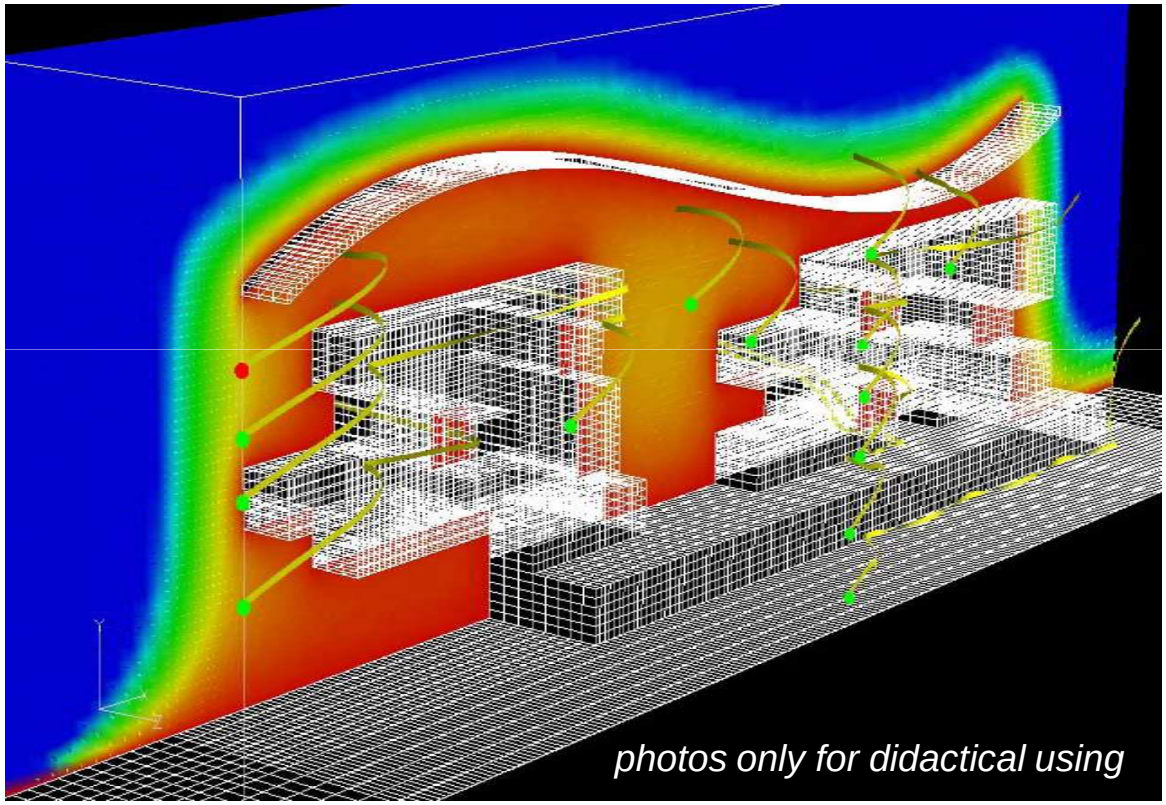
Engineering Components
(Software Simulation)

STAR CD
FLOW 3D
LS-DYNA



Heat Exchanger Appliance
Thermal and Trajectories forced air

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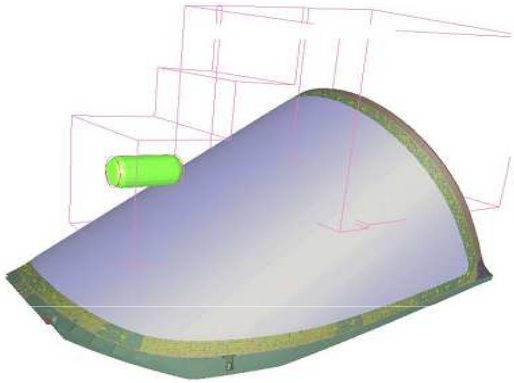
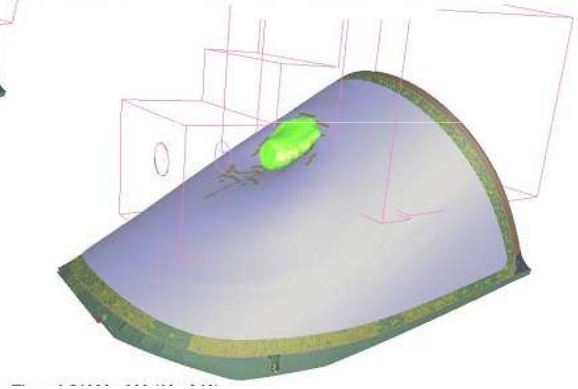
Engineering Components
(Software Simulation)

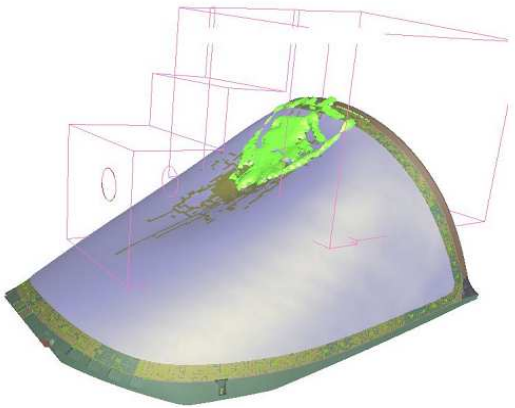
BIRD IMPACT



Step 1



Step 2



Step 3

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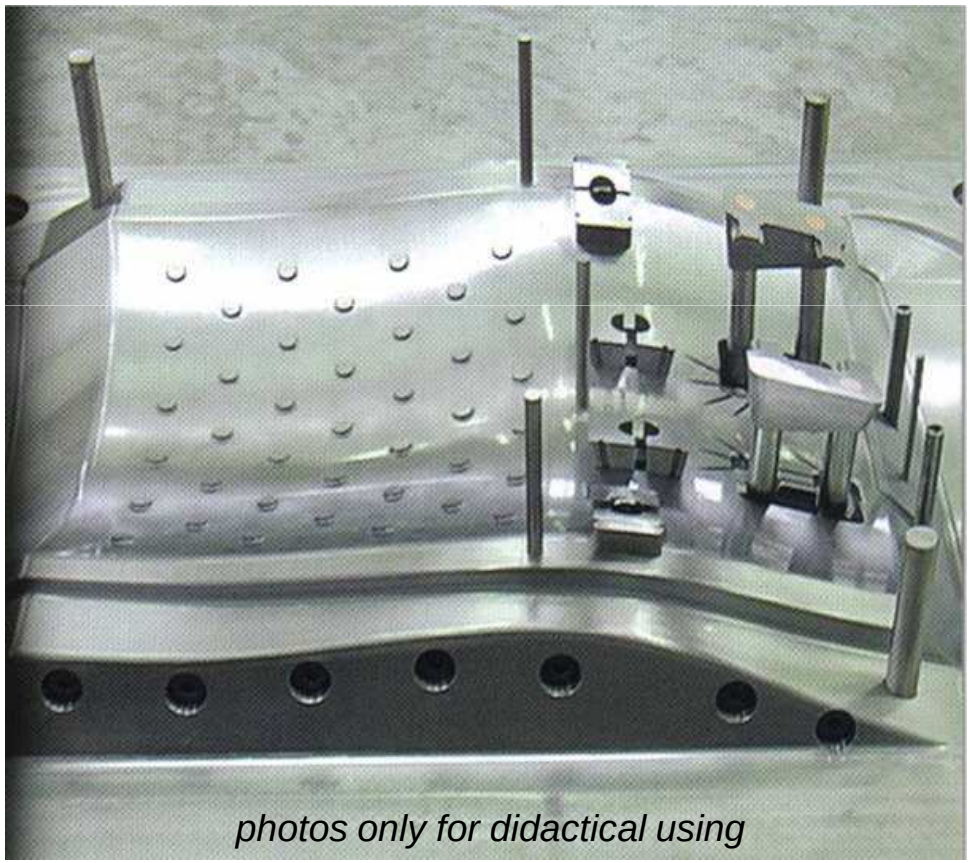
Engineering Tooling



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The Company Group – Business Unit
(Test Equipments)

- **Density**
- **Melt-flow**
- **Impact strength**
- **Notched impact strength**
- **Tensile strength**
- **Flexural strength**
- **Shore A and B Hardness**
- **Ashes residue**
- **Inflammability**
- **Melting point**
- **A and B vicat**
- **HDT**
- **Viscosity**
- **DSC**

- **tridimentional machines with videocamera (CMM)**
- **Centesimal gauges**
- **Micrometers**
- **Comparators**
- **SPC (Cp, Cpk)**
- **Templates and gauges build under clients' specifications**

Application
(Engine Plastics Systems Parts)

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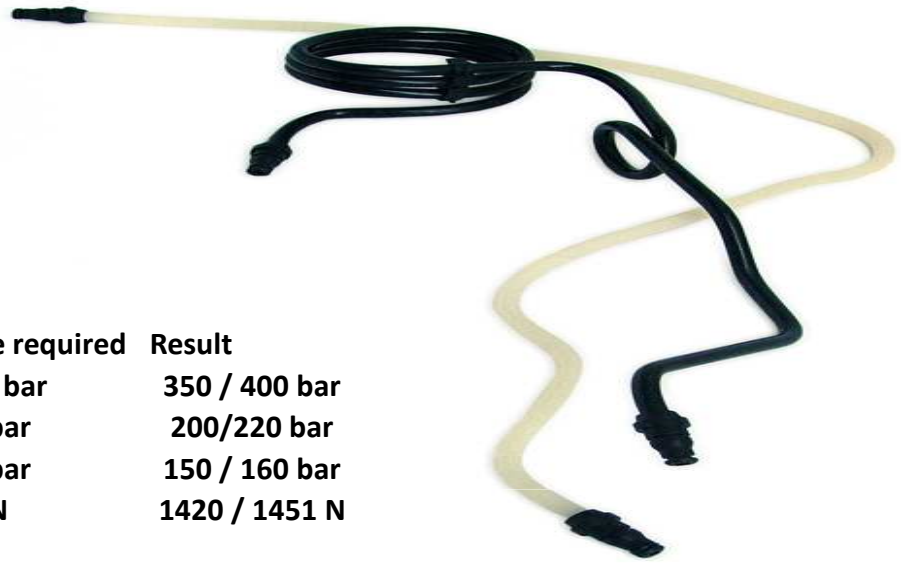
Application
(Innovation Plastics Pipe)
Metal replacements in Break System



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Test	Test Conditions	Value required	Result
Explosion	Pressure Increase = 20 bar/min	>150 bar	350 / 400 bar
Explosion at 90°C	Pressure Increase = 20 bar/min	>80 bar	200/220 bar
Explosion at 120°C	Pressure Increase = 20 bar/min	>60 bar	150 / 160 bar
Extractor Terminals	Traction Speed = 50 mm/min	800 N	1420 / 1451 N
Chemical Agression DOT 4	100 h at 70°C 70 h at 120°C		231/322 bar 285 / 270 bar
Leakage Test	Maintain to 100 bar for 5 min.	No leakage	OK
Hot Button Test	143°C; 110 bar for 1 min; 0 bar for 1 min; 150 cycles minimum	No defect Explosion > 350 bar min	OK 240 / 270 bar
Resistance to cold	-30 °C for 4 h. Wrap on spindle of diameter. 10 times greater than the diameter Pipe	No broken	OK
Leakage Control	Maintain the Pipe to 100 bar for 5 min.	No broken	OK

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CASE STUDY
AND
ENGINEERING DEVELOPMENT

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CASE STUDY 1

EXAMPLE BOTTLE COMPLETELY RECYCLED

WATER BOTTLE

Water Bottle with PET (different colours), caps and label

MILLED FROM WATER BOTTLE

Water Bottle PET with caps, label and additives

Super Market Products Device made with 15 Completely Water Bottles (PET Flakes, Caps and Label)

Development by: Corinaldesi S.

Direct from Amorphous Status (No Crystallization)

20.10.2010

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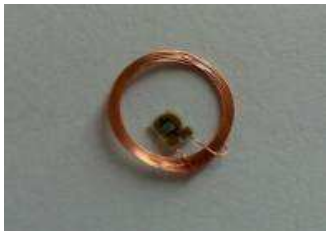
CASE STUDY 2

TAG Antenna for High Temperature in Plastics Injection Process

TAGS FAMILY

EXAMPLE OF TAG



ISOLATION OF TAG

230°C for 2 hours
in continues
(Tag rfid working)

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CASE STUDY 3

R-PET COMPOUND

PET WATER BOTTLE

ONLY PET FROM WATER BOTTLE

PET COMPOUND
(with 30% GF and Impact resistant)
ROHS Compliance

PLASTIC COMPONENT
(alternative of PA66 30% GF Glycol Resistent)
- 20 % discount

Development by: Corinaldesi S.

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CASE STUDY 4

NAPPIES WASTE RECYCLED

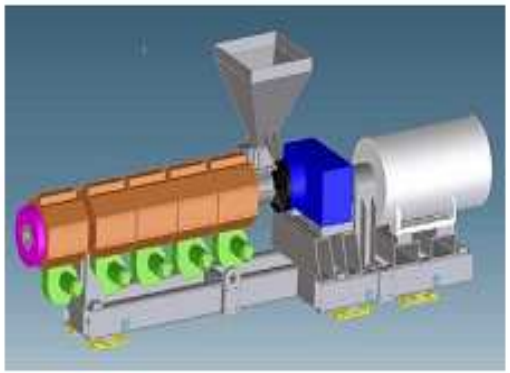
Disposable Nappy

Nappy Waste Collection

Nappies washing

Nappies Milling

Nappies Milled Extrusion



Nappies Granulate Injection

100% Plastics Parts from Nappies

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CASE STUDY 5

LOW DENSITY 2

Original Material: 50% LDPE + 50% PET from Bottles (lebels, Caps, PET)

Weight: 205 gr

Density: 1,15 gr/cm³

Material: 50% LDPE + 50% PET from Bottles (lebels, Caps, PET)

Weight: 145 gr

Density: 0,8 gr/cm³ (30% reduction)

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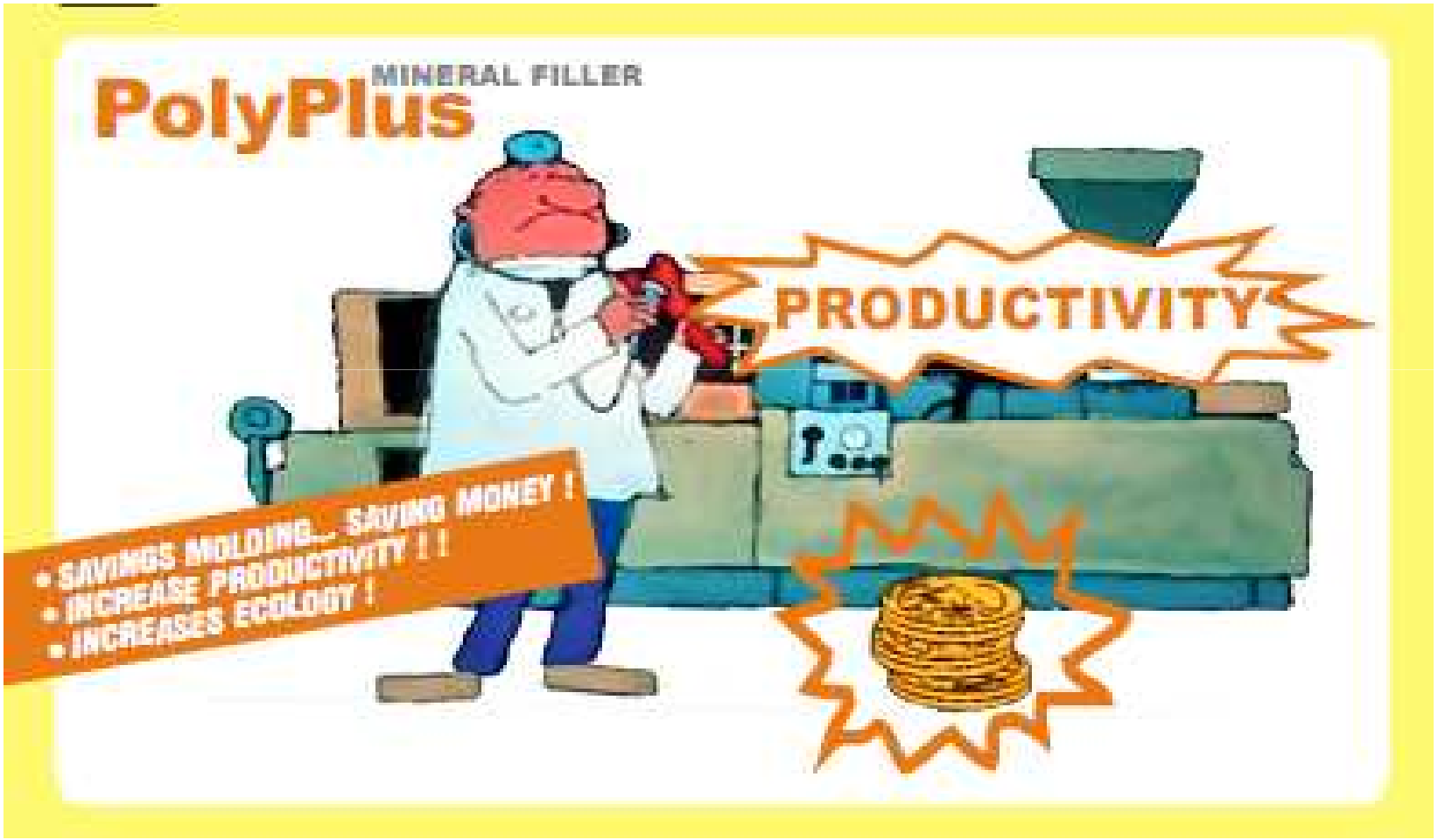
ENGINEERING DEV. 1

CICLE TIME REDUCTION



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PROVA CON E.COLI

Inoculo iniziale (UFC/ml)	Conta dopo inoculo - provini non trattati (UFC/cm^2)	Conta dopo 24h - provini non trattati (UFC/cm^2)	Conta dopo 24h - provini trattati (UFC/cm^2)
$4{,}8 \times 10^5$	$6{,}4 \times 10^3$ $\log = U_0 = 3{,}81$	$9{,}7 \times 10^4$ $\log = U_t = 4{,}99$	8×10^0 $\log = A_t = 0{,}90$

$R = (U_t - U_0) - (A_t - U_0) = 4{,}09$ (Pari ad una riduzione della carica microbica del 99,9%)

PROVA CON S. AUREUS

Inoculo iniziale (UFC/ml)	Conta dopo inoculo - provini non trattati (UFC/cm^2)	Conta dopo 24h - provini non trattati (UFC/cm^2)	Conta dopo 24h - provini trattati (UFC/cm^2)
$5{,}1 \times 10^5$	$1{,}5 \times 10^4$ $\log = U_0 = 4{,}18$	$11{,}8 \times 10^5$ $\log = U_t = 6{,}07$	2×10^0 $\log = A_t = 0{,}30$

$R = (U_t - U_0) - (A_t - U_0) = 5{,}77$ (Pari ad una riduzione della carica microbica del 99,9%)

Salvo differenti accordi o obblighi legali, se ciò è possibile, dopo l'analisi i campioni vengono conservati per almeno 20 giorni dall'emissione del certificato, quindi eliminati o restituiti al Cliente.
L'ARGO GROUP S.c. a r.l. ha messo a disposizione del Cliente la procedura di campionamento PT 11 rev 04 del 15/02/2010.
L'incertezza ove richiesta, viene calcolata con livello di fiducia 95% e fattore di copertura K=2. Le eventuali osservazioni presenti nel rapporto di prova non sono soggette ad accreditamento

KEYTECH S.r.l.

ENGINEERING DEV. 3

TRUNK INJECTION CAPSULE

ARBORBIOKAPS IS COMPOSED OF A WATER-SOLUBLE MATERIAL THAT MELTS INSIDE THE HOLE THROUGH LYMPHATIC ABSORPTION AND RAIN WATER EROSION.
IT IS ALSO ADDED WITH AN ANTI-BACTERIAL AND ANTI FUNGUS.

TILIA , ARBORBIOKAPS
ON THE TRUNK

TILIA , ARBPRBIOKAPS
AFTER THIRTY DAYS

ADVANTAGES :
Do not block the development of plant
Is absorbed within the lymphatic vessels of the trunk
I's possible to do periodic curative treatments in function of pathologies
The hole is closed up to its complete cicatrization ARBORBIOKAPS with the presence of it , containing an additive antibacterial and antifungal, ensures perfect protection against external pathogens.
100% LESS INVASIVE SOLUTION POSSIBLE
100% SAFE SOLUTION TO WORKERS AND CITIZENS
100% FAST SOLUTION
100% NO AESTHETIC IMPACT
100% COMPLIANCE WITH THE NEW EUROPEAN PESTICIDE DIRECTIVE

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ENGINEERING DEV. 4

3D PRINTING

stick filament®

EASY COLOURED SMART

NEW FOOD FOR YOUR 3D PRINTER

Stick Filament is the new filament system easy, colored and smart. Choose the material, choose the colors, simply join the sticks and then print your object. Why buy a single color in large quantity when you can have more colours with less?

Try our special offer for the Stick Filament's launch promotion!

THANK YOU FOR YOUR ATTENTION

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