



Ink Quality Control Systems

Sante Conselvan

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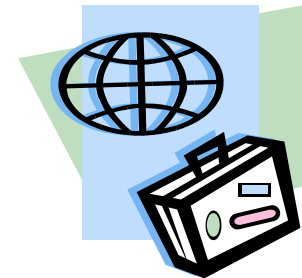
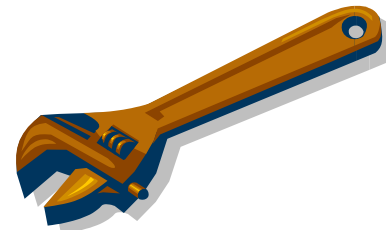
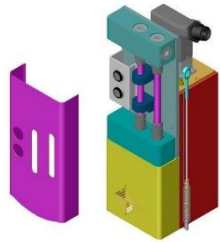
Gama Group

- **Private Company**
- **Founded 1992**
- **GAMA srl** - Factory in Robbiate (LC)
- **GAMA International srl** - Sales&Marketing office in Milan
- **Up 7.000 installation WW**
- **Wide Solution Range of Viscosity & -
Temperature Control System**

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Gama Products

We project, develop and produce all our solutions





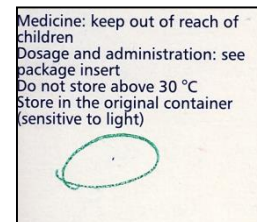
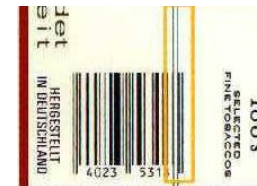
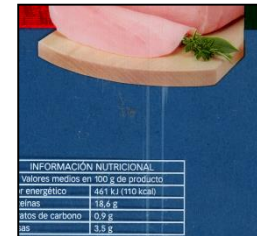
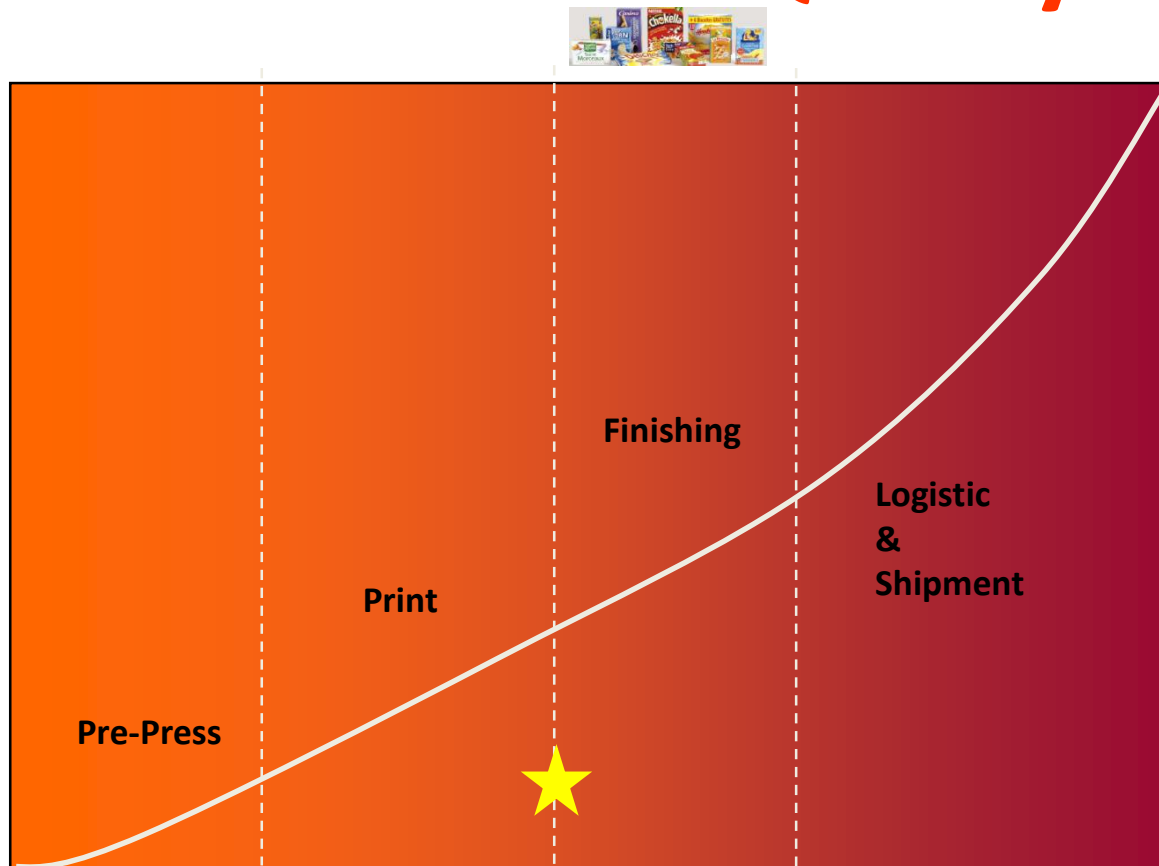
Ink Quality Control System

• Products

- G27
- G30 Cold/Adhesive Viscosity Control
- G20 Solvent Ink Viscosity Control System
- G26 Solvent Ink Viscosity Control System
- G29 Water Ink Viscosity Control System
- G28 Ink Viscosity Control System for Publishing
- G70 Magnetic Filter
- G80 pH Control System
- G90 Temperature Control System

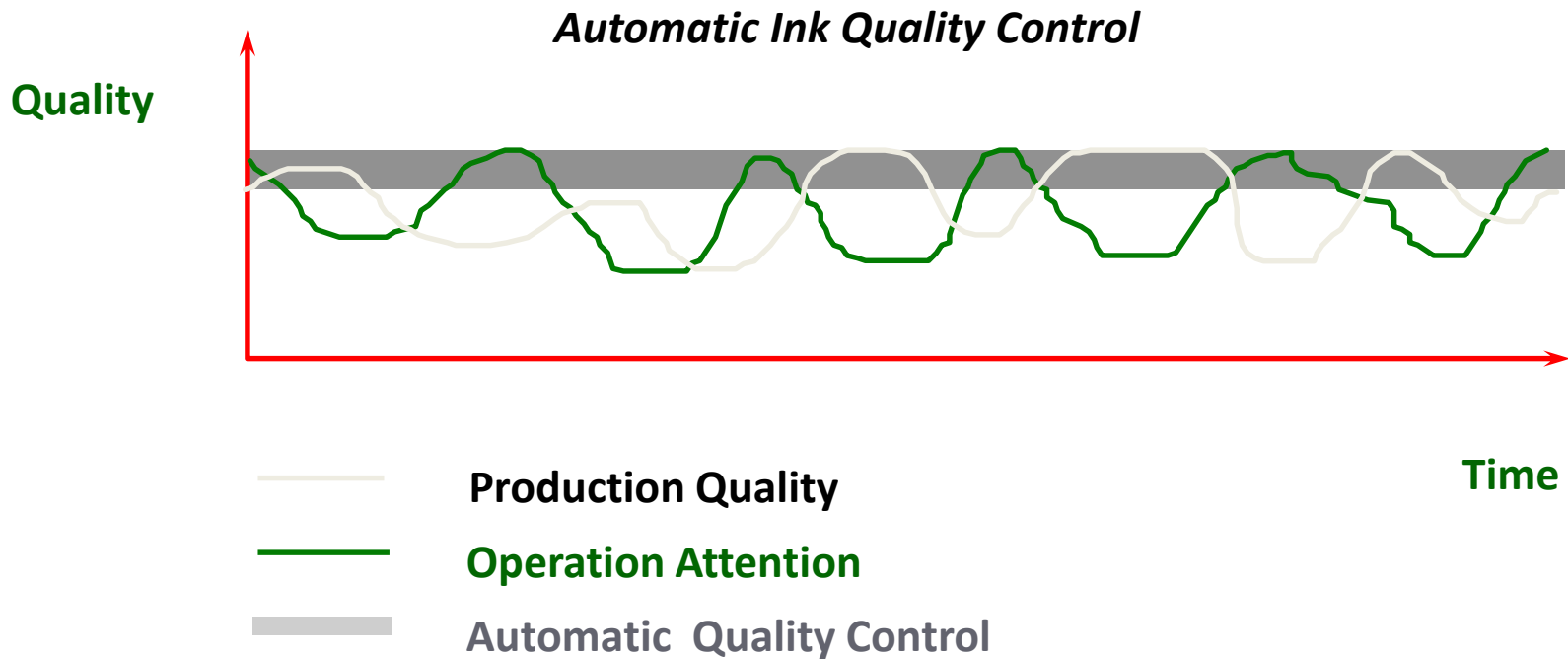
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Cost of Quality



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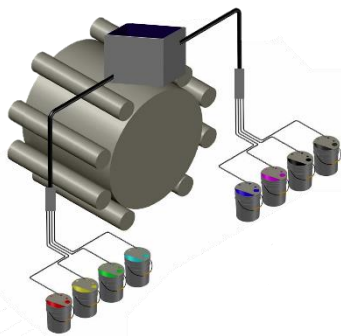
Ink Quality Control Systems



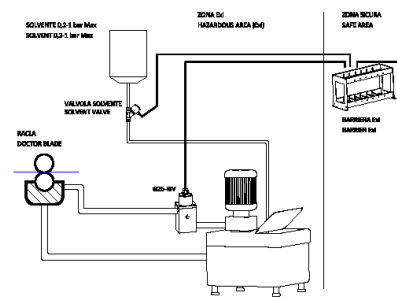
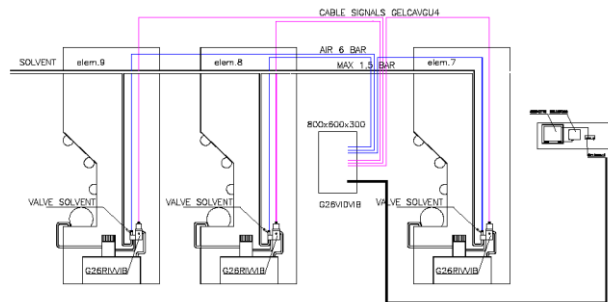
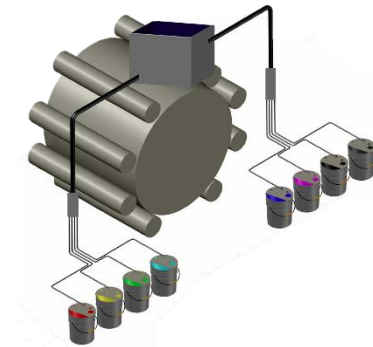
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*It's a long way to... film
Goodbye... container*

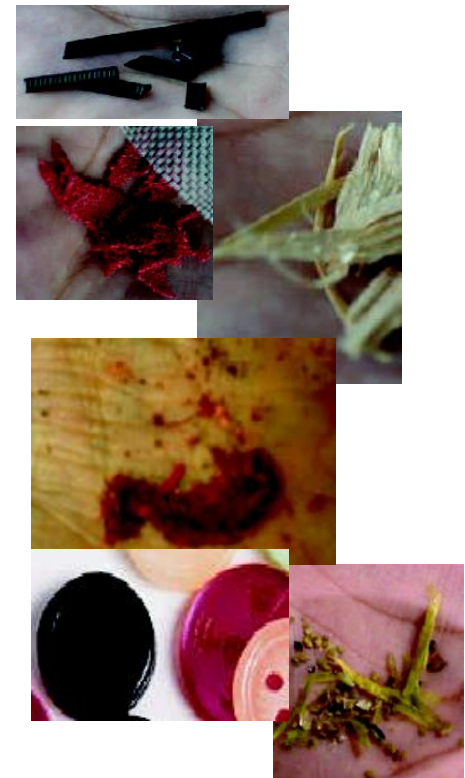
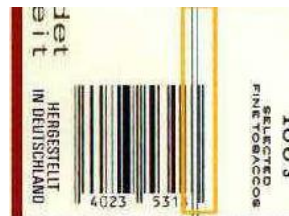
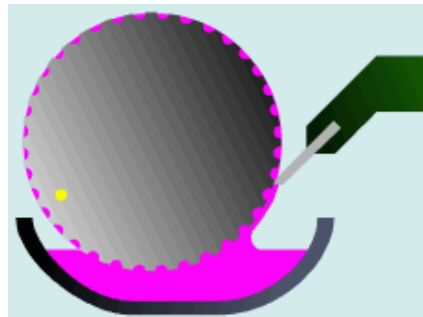
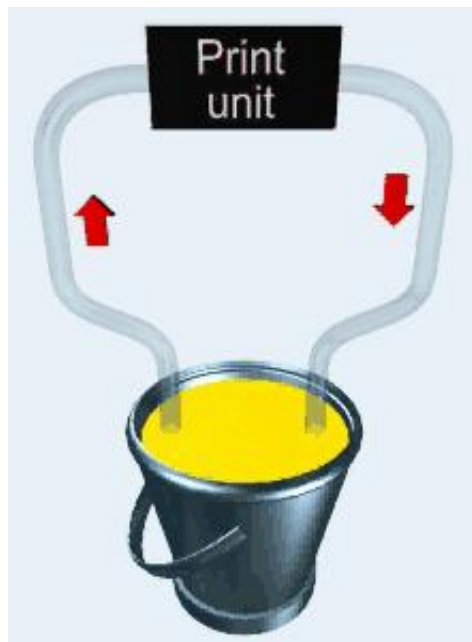


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Ink Pollutions



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G70 Magnetic Filter

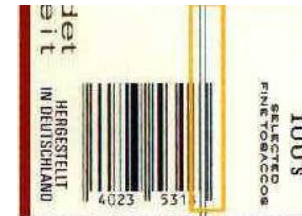


Mesh 20-40-80

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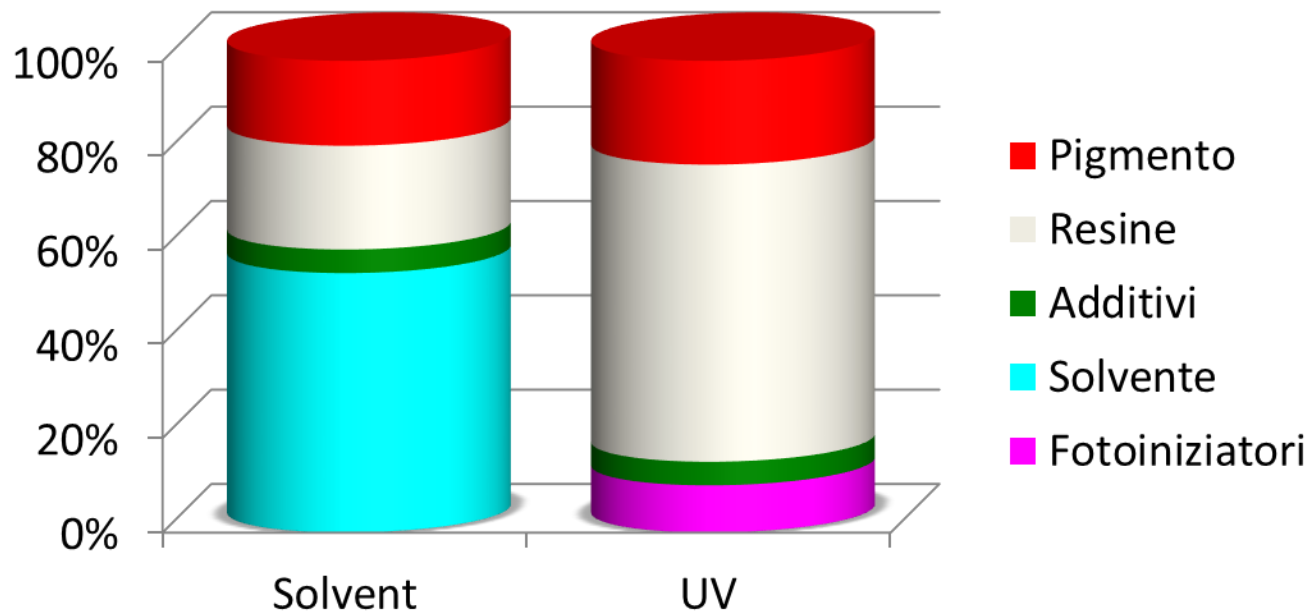
G70 Magnetic Filter

Before - After



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INK



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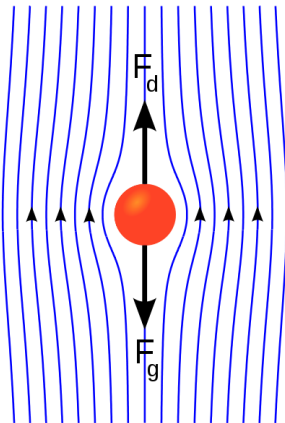


Ink Control Benefits

- **Increase the Quality of Printing Process**
- **Consistent Ink Formulas**
- **Continue Amount Inks-Solvent-Adhesive**
- **Save Solvent-Ink (- 20/30%)**
- **Control the Deviation of the Viscosity**
- **Control ink Temperature**
- **Formula Data Base**

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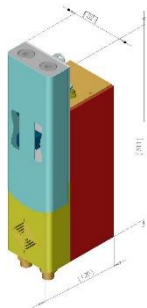
Viscosity Control System



What is Viscosity?

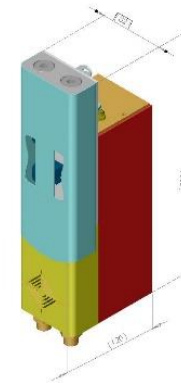
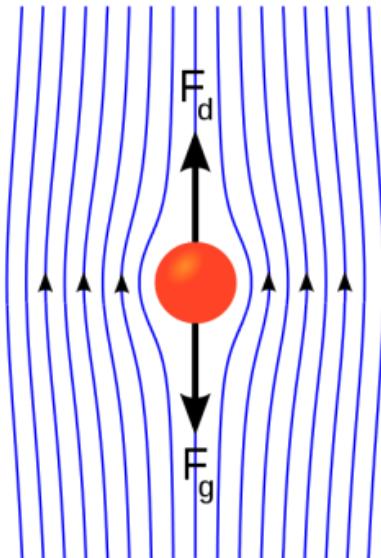
• Viscosity is a property of fluids that indicates the resistance to flow. Depends on the fluid temperature and is usually denoted by the Greek letter μ or more rarely with the letter η to recall the connection with the friction of mechanical

- Drop Ball Measurement Technology
- Ink, Adhesive, Cold Seal and Varnish
- Solvent and Water base
- Gravure & Flexo Packaging

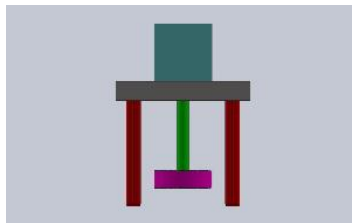
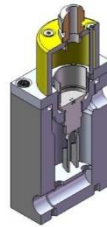


Ink Viscosity Control System

Drop Ball Technology or Old Technology

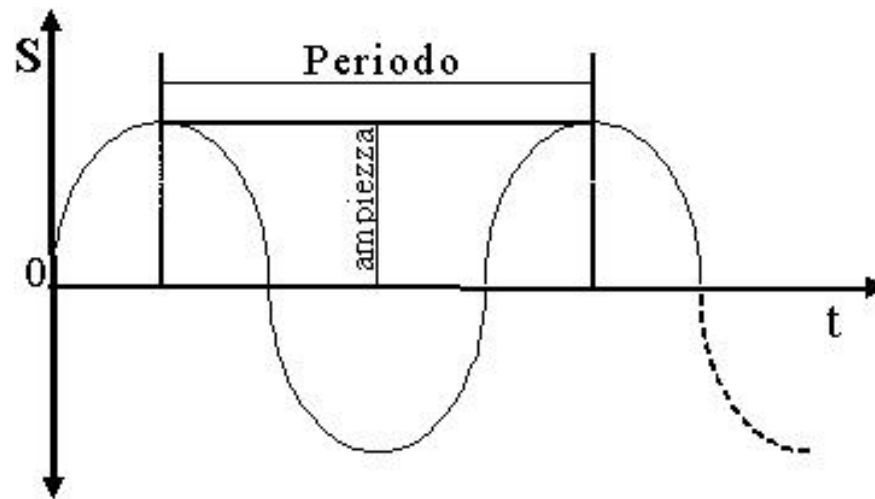


New Technology Vibration System



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Vibration Measurement Technology



$$\rho = \frac{m}{V}$$



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GAMA
INK CONTROL SYSTEM

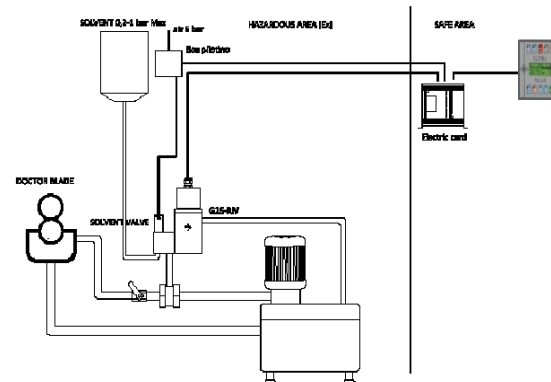
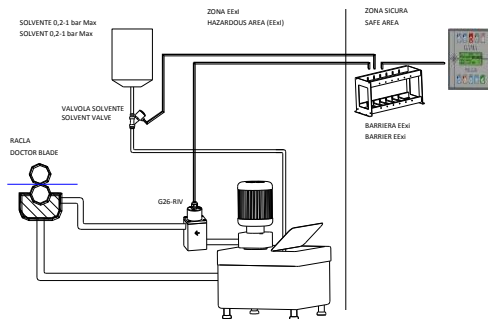
Benefits



- **Sustainability Impact**
- **Reduce Energy Power**
- **Compact Unit**
- **No Mechanical Parts**
- **No Consumable Parts**
- **Fast Installation**
- **Reduce Maintenance**
- **Water Base Ink Control**
- **Solvent Base Ink Control**
- **Increase Quality Printing Process**
- **Constant Ink Formulas**
- **Save Ink/Solvent**
- **Control Deviation Viscosity**
- **Control Ink Temperature**
- **Easy to Use**
- **Reliability**
- **PH Control**
- **Data Base**

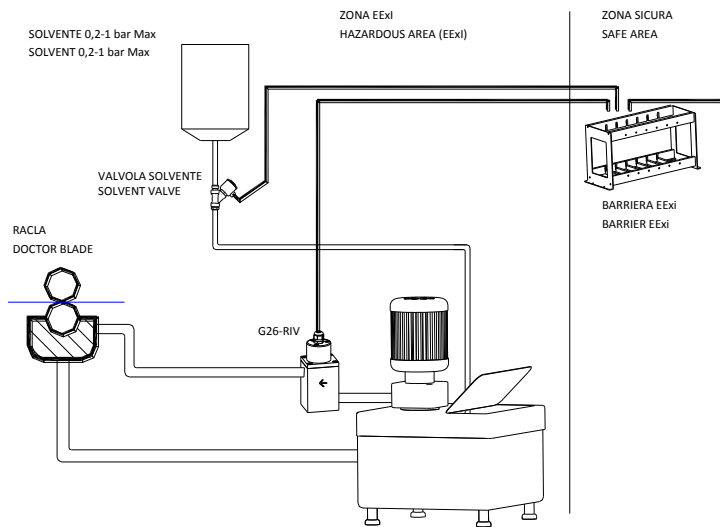
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G20 Viscosity Control System



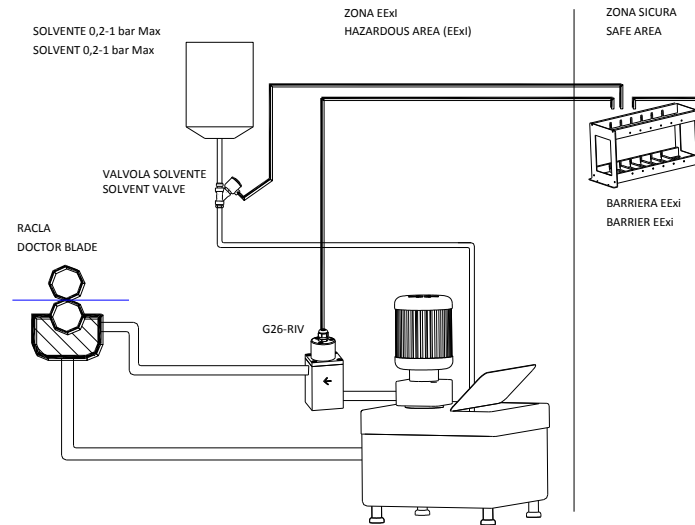
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G20 Viscosity Control System



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G26 Viscosity Control System



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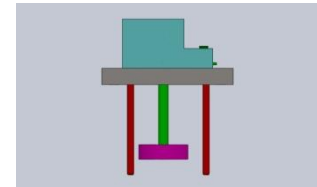
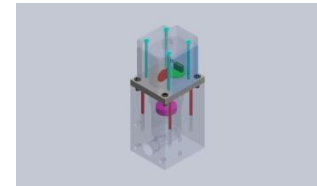
NEW Solutions

VIS-G29 Water Base Ink



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G29 Water Base Ink Torsion-Vibration Technology



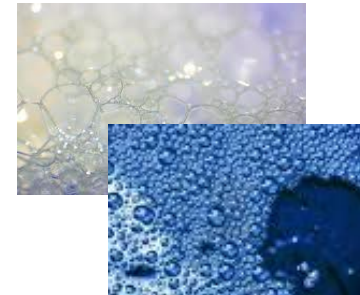
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G29 Water Base Ink

- pH e viscosity are linked
- when viscosity increase, il pH decrise
- pH is lowered and the resin are separated from the solution before the ink is printed
- anilox cells occlusion
- increase the tendency to accumulation of ink on the edge of graphic element, hight light and shutting)
- ink hard to dry

Water Base Ink pH -Temperature Control System

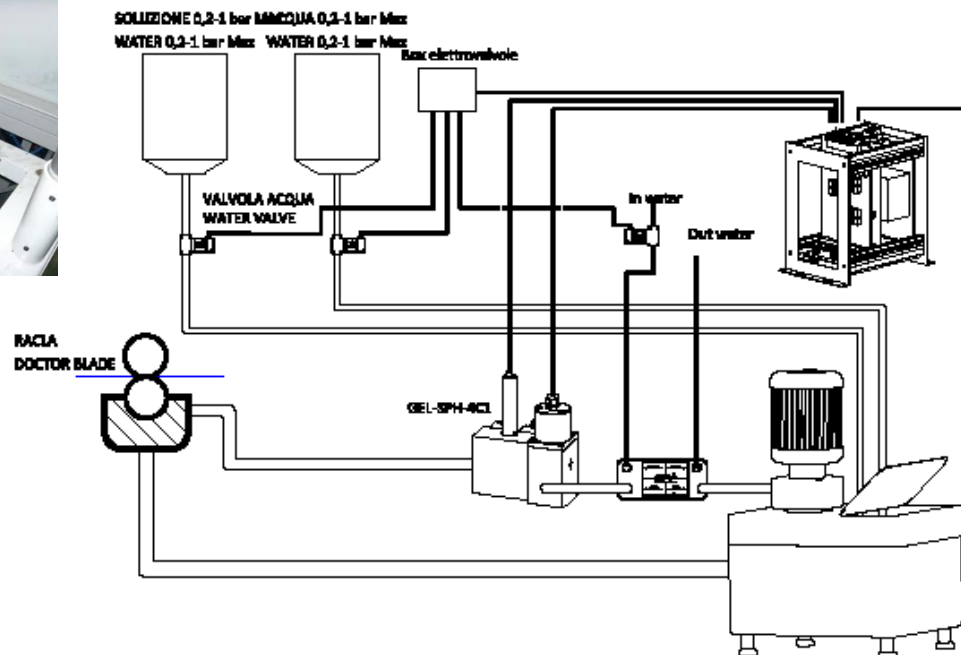
- pH Control
- Temperature
- Viscosity
- **Reduce Foam**
- Increase Quality of Printing Process
- Improve Press Speed
- Ideal pH 8-9
- Ideal Viscosity 16-22"
- Ideal Ink Temperature 22°/25°
- Water 12-°18°



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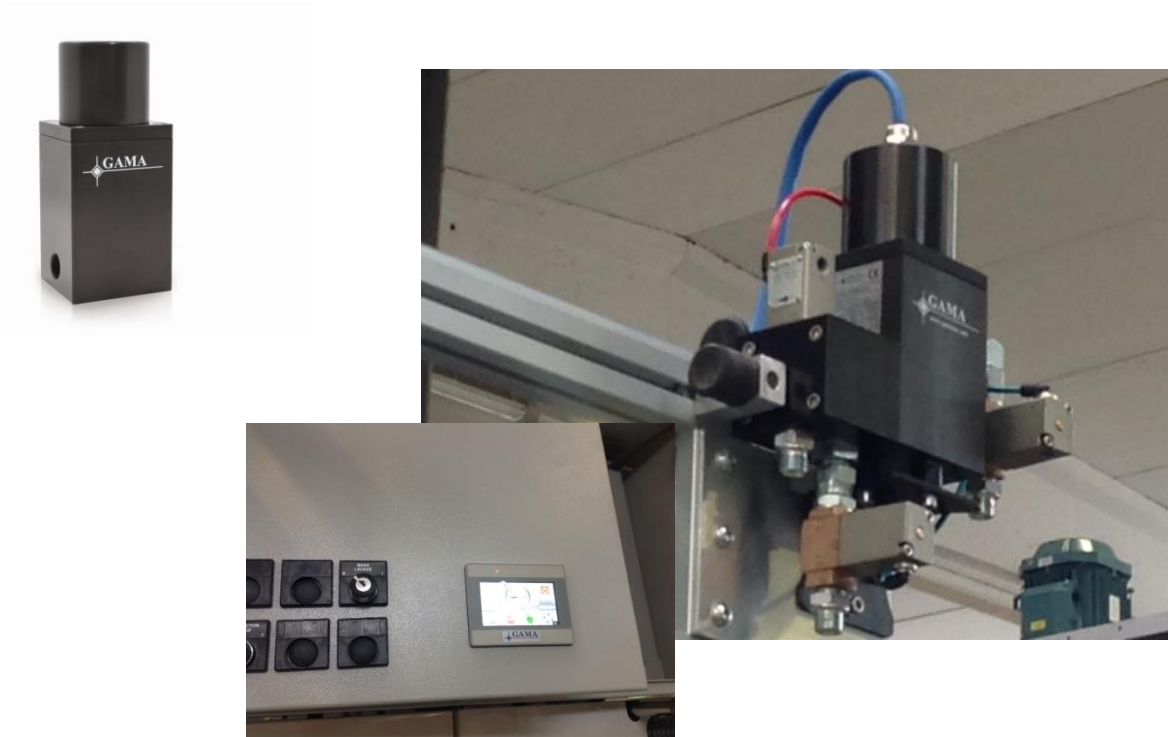
VIS-G29

pH and Temperature Control System



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VIS-G30 Adhesive - Varnish



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Viscosity & Density Line Control



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Post Sales



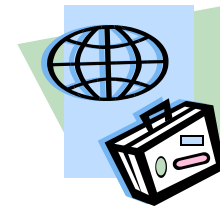
Service Support



Hot Line for Info - Modem



Spare Parts Fast Delivery



Specialist to Dealer/ Client

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Thanks for the Attention

Q&A

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