



# SysCAD

Design | Operate | Optimise

## SysCAD is the Global Leader in Alumina Refinery Simulation

- A reliable modelling package is essential to get the best out of a process plant.
- SysCAD with Alumina add-on is the ideal platform for building a comprehensive and flexible refinery model for process design or optimising an operating plant.
- Providing the tools you need for project justification, performance evaluation, planning, training, energy and water studies, dynamic simulation, and more...

## Bayer Liquor Properties

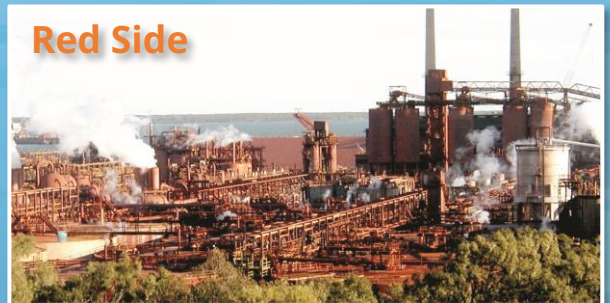
- Extensive library of adjustable Bayer liquor property calculations using industry-standard species definitions.
  - Alumina & oxalate solubility
  - Specific heat capacity
  - Boiling point elevation
  - Density & viscosity

## Precipitation Unit Model

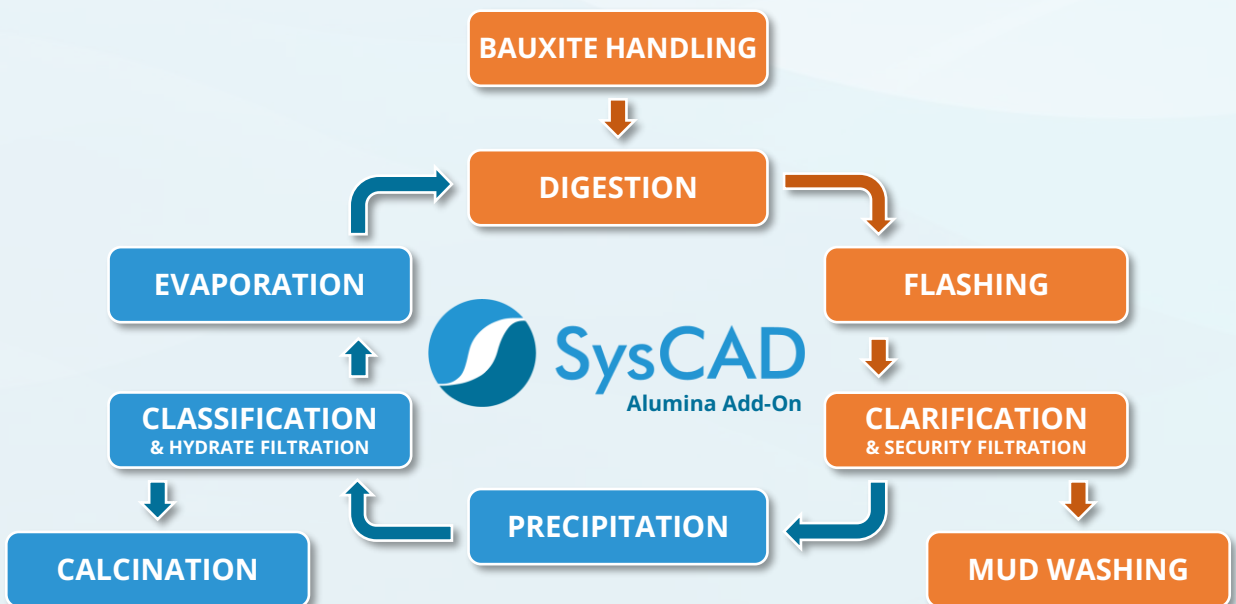
- Comprehensive precipitation unit model
- SSA yield and full PSD solution modes
- Bound soda and oxalate co-precipitation
- Steady-state and dynamic operation



White Side



Red Side



## Alumina Industry Expertise

The alumina industry is core to our business. Our team includes process engineers with significant experience in alumina refinery design and operation who are available to assist with training, model development and project support work.



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### Refineries

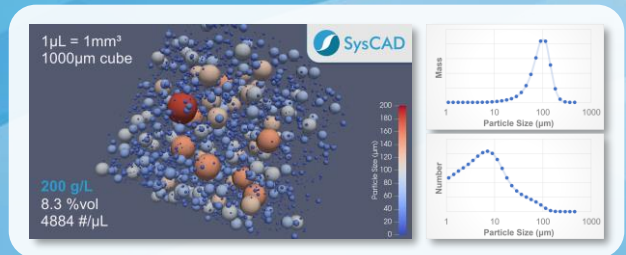
Aluminium of Greece, Greece  
AOS, Germany  
Aughinish, Ireland  
EGA, UAE  
EurAllumina, Italy  
Friguia, Guinea  
Gramercy, USA  
Hindalco, India  
Hydro Alunorte, Brazil  
Ma'aden, Saudi Arabia  
Nalco, India  
QAL, Australia  
RTA Vaudreuil, Canada  
RTA Yarwun, Australia  
Mykolaiv Alumina Refinery, Ukraine  
Utkal, India  
Votorantim CBA, Brazil  
Windalco, Jamaica  
Worsley Alumina, Australia

### Consultants

Aditya Birla Technology  
Bechtel  
Carnac  
GAMI China  
Hatch Associates  
Outotec  
Rinalco  
RTA Technology  
SAMI China  
Solvay  
Worley

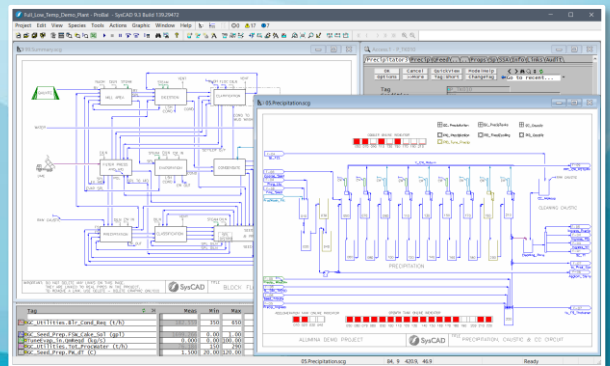
### Particle Size Distribution

- Correct operation in precipitation is vital to productivity and high-quality product, free from costly impurities and fines.
- Enhance precipitation, classification and material handling modelling by using PSD alongside the Alumina add-on.



### SysCAD Model Benefits

- A well-maintained plant model forms an invaluable Knowledge Base for your site.
- Implement your own custom liquor properties and process unit models.
- Plant-wide use and visibility with structured data entry & reporting tools.
- Significant commercial value for plant improvements and daily operation.



**SysCAD is the proven and trusted modelling tool of choice for the global alumina industry.**

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