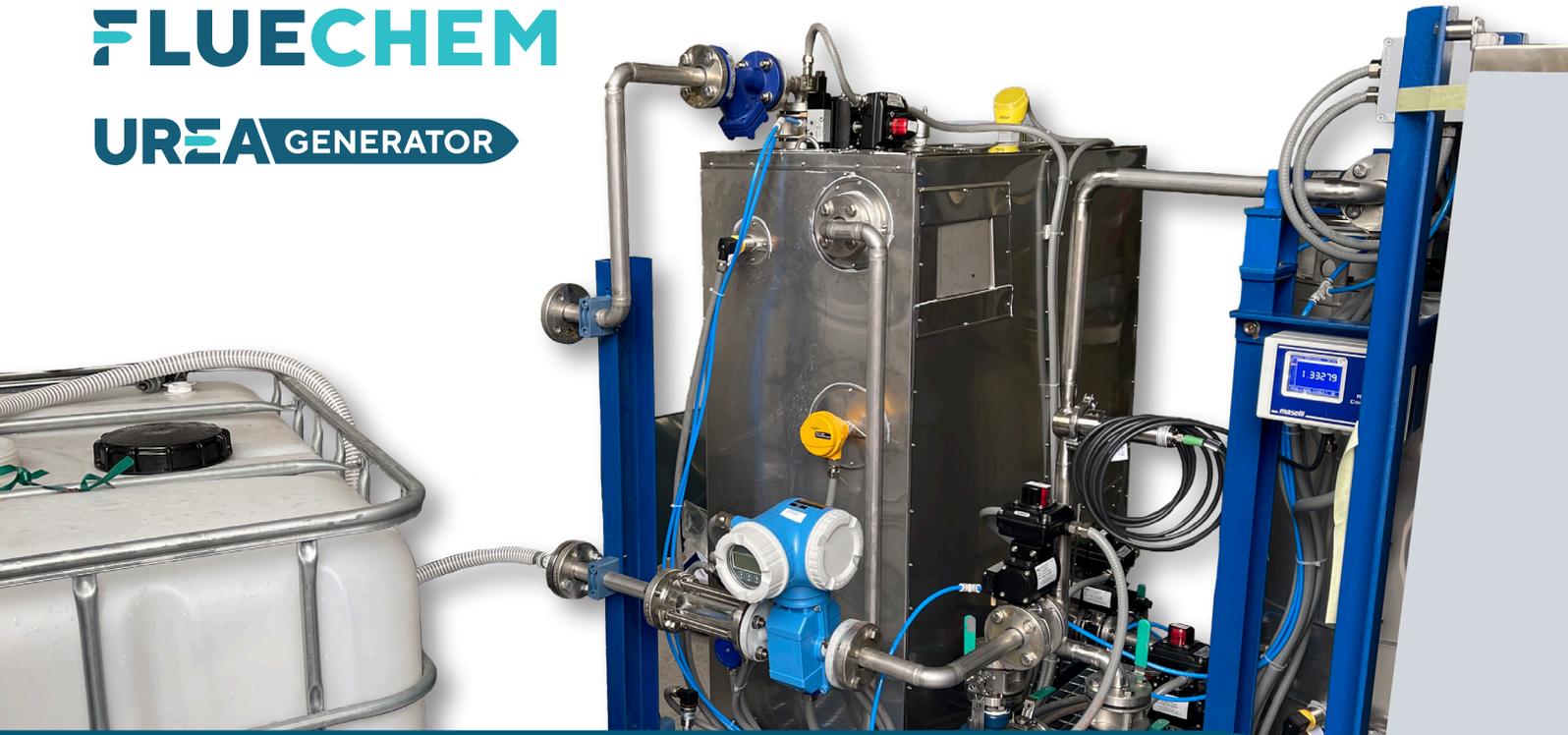


# FLUECHEM

## UREA GENERATOR



# UREA GENERATOR - THE NEXT STEP IN MARINE EMISSION CONTROL

**SAVE MONEY.  
REDUCE EMISSIONS.  
STAY COMPLIANT.**

The innovative **UreaGenerator** by Fluechem is a cost-effective, market leading solution already installed and in use on vessels. It allows ship owners to blend their own urea solutions (AUS40 & DEF) onboard, providing security of supply with material cost savings while reducing environmental emissions even further.

[fluechem.com](http://fluechem.com)

# SAVE MONEY

Generating AUS40 & DEF onboard  
reduces costs when compared to a  
conventional supply chain model

# REDUCE EMISSIONS

Reduced logistics creates a more  
environmentally friendly solution  
lowering CO2 emissions

# STAY COMPLIANT

Having ISO standard AUS40 onboard  
when you need it, allows compliance  
whatever the logistical challenges





## HOW IT WORKS

The UreaGenerator system blends AUS40 & DEF to the ISO standard whilst reducing costs and adhering to IMO Tier 3 requirements. The proven and patented technology for the marine sector enables users to blend dry urea prills and eliminates the need to dedicate large amounts of space to AUS40 & DEF solution storage tanks. By blending AUS40 & DEF on board as and when you need it, means ship owners can increase revenue whilst reducing NOx emissions to stay compliant and protect the environment and their profits.

## RECENT BUSINESS CASE - HAVE WE REALISED THE 'OPPORTUNITY'

Element	Measure	Result
Reduce the weight of the product being transported to the vessel by	AUS40 liquid 10 lorries and launches reduced to 4 urea prills deliveries (saving -12mt CO2 pa*)	✓
Reduce the weight of the product onboard	Storage volume reduced by 50m3 = 55mt	✓
Allow greater control over availability	Urea prills generally available – AUS40 blended as required	✓
Allow better quality control & shelf life issues	AUS40 only blended when required. Quality measured onboard	✓
Not adversely impact day to day shipboard operations and resources	Big bag loading system needs refilling every 3 ½ days. <2hrs planned maintenance pm. Loading operations reduced	✓
Reduce costs	Business case assessments carried out for all proposals – annual savings - \$131k/pa	✓

## DESIGN FEATURES

- Single design with flexible capacity 500L AUS 40 & DEF /day to 5,000L AUS 40 & DEF /day to optimise CAPEX
- Stand-alone unit with single control panel interface
- Compact modular design to allow vessel retrofits
- Ability to use vessel pot water or option for RO unit
- Manual 25 kg bag feeding unit or semi-automatic 1 000 kg big bag feeding unit

## PRODUCTION PROCESS

- Detailed design with functional specification agreed with the customer
- Agreed vessel specific interfaces: base plate and service connections
- Control interface and protocols specified
- Schedule milestones agreed including FAT requirements

## INSTALLATION

- Single control point interface with three utility connections
- Units can be supplied EXW delivery or installed under a full turnkey solution
- Our team of engineers can work with you to install the UreaGenerator quickly and efficiently whilst the vessel remains in service without any downtime at any global port or shipyard
- The UreaGenerator system is designed to be fully integrated into your current control system and is internet enabled

## QUALITY ASSURANCE

- Own facility fabrication and assembly allows effective QA/QC control and project management
- 24hr hour system FAT to AUS 40 & DEF ISO Standards prior delivery
- Designed and built to EU and Class Society standards

## BENEFITS

60%

### COST SAVINGS

Procuring urea prills as opposed to the supply of the urea liquid solution reduces expenditure and can save up to 60% on the delivered cost of AUS40 & DEF.

50%

### SPACE AND WEIGHT SAVING

An operational UreaGenerator onboard reduces the requirement for having a large AUS40 & DEF stock onboard meaning a reduction of up to 50% of required space and weight.

110%

### GREENER

Lower CO2 and other emissions through the procurement of dry urea prills and reduced supply chain emissions.

Our UreaGenerators can be fitted with semi-automated or manual urea prills loading systems to optimise costs and operational requirements

100% – Greater Quality Control: ISO standard AUS40 & DEF only blended when you need it with quality measured onboard rather than onshore.

## FIND OUT MORE

If you would like more information or receive a vessel(s) specific proposal for the Fluechem UreaGenerator, speak to our team on **+44 (0) 20 800 35 982 / +1 713 535 3930** or email **info@fluechem.com**. We can design and install an UreaGenerator that will cover your ships IMO Tier III requirements; keeping you compliant whilst saving you money and reducing emissions even further.

[fluechem.com](http://fluechem.com)