

NanoSolv™, your laboratory solvents just got better, cleaner, and more efficient.

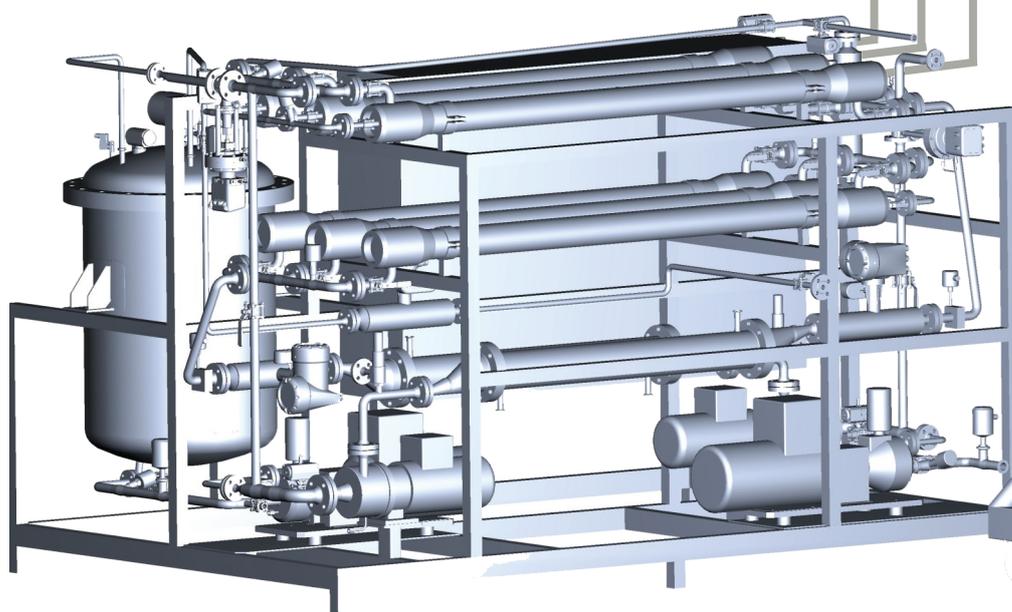


**Simultaneous
Multi-grade output**

LCMS

GC Head Space

Electrochemical



NanoSolv™ 1



Factory of the future.

NanoSolv™

This newly designed solvent process unit (NanoSolv 1) is a revolutionary step forward into the future of organic solvent purification.

Eliminating thermal chemical reactions (distillation/catalysis) through the use of new Organic Solvent nano-filtration (OSN) technologies enables the end user to produce a superior quality product at a fraction of the cost.

NanoSolv 1 has been designed to achieve purity levels down to ppt in a continuous production cycle, with substantial improvements in energy consumption, waste and efficiency levels. This new process will deliver several grades simultaneously, from LCMS to GC Head-space to Electrochemical.

With a new range of unique process designs under the NanoSolv™ name, GKA Technologies can develop solutions for your space, quality, waste and capacity requirements with multi product processing capabilities as well as a flexible retrofit integration into current facilities.

Manufacturing footprint

Each unique design will generate its own footprint, with a dramatic reduction in space requirement versus distillation. NanoSolv 1 has a footprint of 12m³ versus 42m³ for a 500L distillation setup. OSN will create a paradigm shift in the fine chemical purification industry.

GKA Technologies

GKA Technologies has spent the last 25 years both developing and manufacturing high purity solvents for chemical/Pharmaceutical laboratories.

NanoSolv™ technology developed by GKAT over the last 4 years delivers a new disruptive technology in solvent processing by eliminating/reducing major cost centres such as energy, labour, waste, space etc.

This technology is designed to consistently deliver the next generation of hyphenated solvents at a fraction of the cost with a continuous process cycle capable of processing and delivering different grades simultaneously.

*Process Performance Comparison

| Parameters | Distillation | Organic Solvent Nanofiltration | |
|--------------------|------------------|--------------------------------|---|
| Purity Levels | PPB | PPT | ✓ |
| Energy Consumption | 4.15 million KWH | 48k KWH | ✓ |
| Process | Batch | Continuous | ✓ |
| Efficiency | 400 Days | 200 Days | ✓ |
| Capacity | Limited | Unlimited | ✓ |
| Waste | 100,000L (10%) | 10,000L (1%) | ✓ |
| Footprint | 42m ³ | 12m³ | ✓ |

**Based on production of 1 Million Litres of high purity solvent. 500L distillation unit versus NanoSolv™ 1*



Find out more @ www.gkat.ie

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