



**CONSTANT
SYSTEMS**
CELL DISRUPTION MADE EASY



Frozen Pellets, Plant and
Tissue Samples, Viscous Samples

OS Cell Disruptor



Yeast



E.coli



Mammalian/Insect Cells



Plant Cells



Did you know...

the OneShot is the only cell disruption system to enable processing of frozen pellets without thawing? Including plant and tissue material.

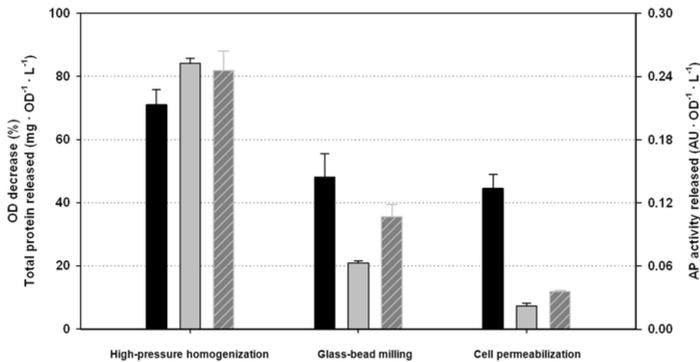
OS - OneShot

The OS Cell Disrupter is the entry level offering in the Constant Systems Cell Disruption range of products. At approximately 500mm² the OS sits very comfortable on the benchtop and is best suited for processing **small volumes, tissues, frozen pellets and highly viscous samples.**

The OS can process volumes from 500µL to 8mL per process with a dead loss volume of <100µL per process, ideal for those users who wish to upgrade from small bench-top techniques such as bead beating, sonication and expensive chemical lysis, which can introduce inconsistent sample integrity and lacks scalability.

Unique to the Constant Systems platform is the use of a fixed orifice cell disruption flow path which, together with predetermined optimal operating pressure, provides unmatched reproducibility for the entire research group – in most cases with a one touch single pass.

Lysis Efficiency of a Constant Systems OS Cell Disruption Equipment Utilising a single pass



To compare the performance of the One-shot with some common alternative disruption procedures, bead milling and cell permeabilization, Xavier Garcia-Ortega et al in Spain carried out a study using samples of *P. pastoris*. Data showing functional integrity of released proteins:

Black - optical density decrease (ODD)

Gray - total protein released (TPR)

Stripes - AP activity released (APAR)

- Digital display and control of performance parameters with strict control between 10–40Ksi
- Accommodating cold workflows using Stainless-Steel processing cups, retaining sample temperatures during processing.
- Fully closed processing to protect the sample (clean processing or for O₂ sensitive organisms/enzymes)
- Simple, inline cleaning with industry standard reagents (EtOH, NaOH, Virkon).
Component parts can also be autoclaved.



T: +44 (0) 1327 314146
E: sales@constantsystems.com

