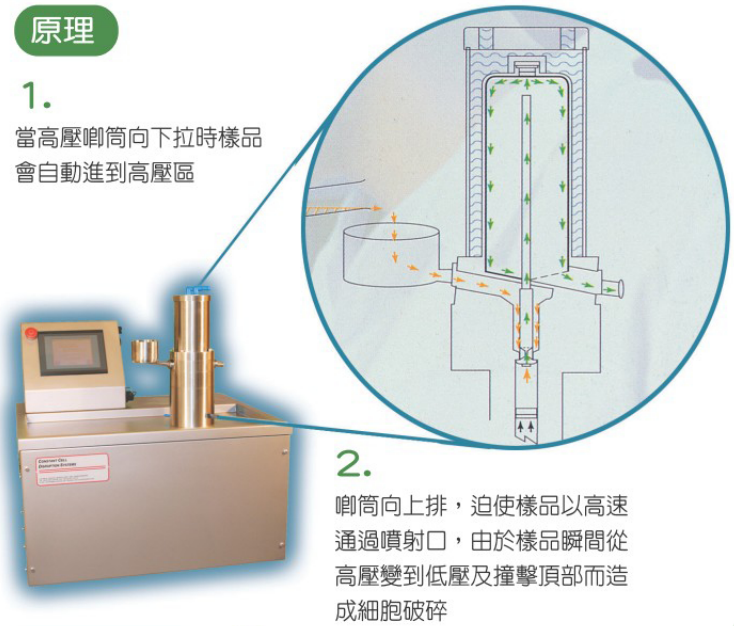
儀器

高壓破碎細胞的原理及效果
Disruption Principle & Performance

原理

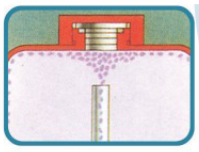
1.

當高壓喇筒向下拉時樣品會自動進到高壓區



2.

喇筒向上排，迫使樣品以高速通過噴射口，由於樣品瞬間從高壓變到低壓及撞擊頂部而造成細胞破碎



3.

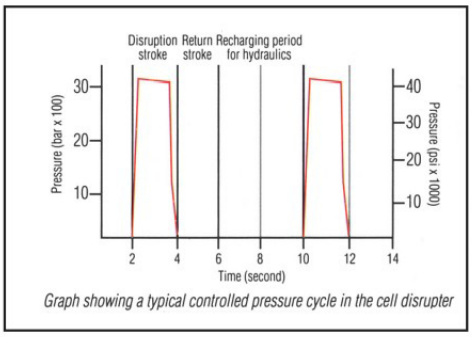
破碎的細胞在撞上冷的表面後流到收集區，此時壓力會再被增加重新另一循環

細胞種類

Individual organisms and samples processed by Constant Cell Disrupter Systems are too numerous to mention them all, however the following lists examples:

Algae	Disruption of anabaena variables
Animal Cells	Selective breakage of chicken sperm
Bacteria	Good enzyme activity from recombinant *e. coli* High protein recovery from mycobacterium smegmatis
Environmental Samples	Extraction of DNA from soil bacteria
Fungi (inc. yeasts)	High specific activity of enzyme from aspergillus nidulans 90% protein release from *saccharomyces cerevisiae* lsolation of viable single cells from calf spleen and lymph node
Mammalian Cells and tissue	Disruption of cellular and intracellular plasma membranes from horse liver
Parasites	Breakage of cytomegalovirus in nucleus of human cells Recombinant protein from *pichia pastoralis*
Plant Cells & Tissue	Pectin extraction from banana fruit Strawberry leaf DNA extraction
Viruses	Isolation of membrane antigens from toxoplasma gondii Separation of nucleus and membrane in amniotic cells

效果



Graph showing a typical controlled pressure cycle in the cell disrupter

What our Customers Say...

Pfizer - UK

"We have been using the B-Series machine for 5 years now and find it extremely efficient at disrupting a wide range of micro organisms, from insect cells to the yeast *Pichia Pastoris*. I would definitely recommend it to the scientific community"

National Institute of Health (NIH) - USA

"We are very happy with the One Shot cell disrupter and find it to be very efficient, easy to use and gives reproducible reasults"

University of Cambridge, Department of Pharmcology - UK

"The Basic Z gives us the high - quality bacterial cell extracts that we need for our research"

Tokyo University - Japan

"Our One Shot model is highly effective and easily disrupts *Fungi* such as *Aspergillus*"

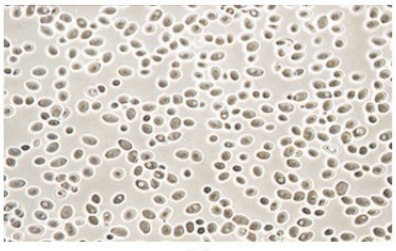
California Institute of Technology - USA

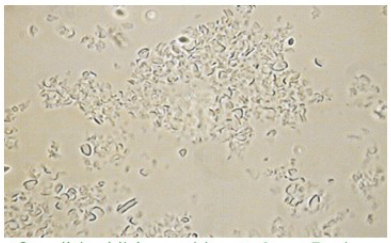
"I am getting consistently good lysates that are very concentrated and perform nicely."

Smithkline Beecham - Belgium

"cooling system is efficient.....quick and easy to use" "the quality of extracted proteins is superior"

Candida Albicans Yeast form Unbroken





Candida Albicans Yeast form Broken with Constant Systems Cell Disrupter