

NEWS



FOR IMMEDIATE RELEASE

From: Jim Robbins
jim.robbins@brown-machine.com

For: Brown Machine LLC
330 N. Ross Street
Beaverton, MI 48612

877.702.4142 Toll Free
989.435.2190 Fax

Contact: Jim Robbins
989.435.2190 Ext.1216
989.859.7426 Cell

Patent Awarded for Bayonet Quick-Change Plug Assist to Brown Machine

Beaverton, MI – June, 2004 - Thermoforming machinery and tooling manufacturer Brown Machine LLC has been granted a U.S. patent for a quick-change tooling concept that allows rapid installation and removal of plug assists without the need for hand tools. The bayonet-style feature allows plug assists to be individually installed or removed with a simple hand twist. When twisted to the locked position, the plug assist is firmly held so that it cannot accidentally rotate to an unlocked position.

The patented bayonet concept can be incorporated into newly designed 3rd platen and conventional thermoforming tools as well as retrofitted to many existing tools. The feature is currently running successfully in a number of multi-cavity production tools that thermoform a range of small and large, round and rectangular single-service containers and has significantly reduced changeover time.

The following example demonstrates the reduction in plug assist changeover time. Assume a 50"x 50" (1270mm) 72 cavity tool designed to produce both 30 oz and 32 oz drink cups. The standard changeover method of plug assist involves the use of a plug wrench to install

NEWS



FOR IMMEDIATE RELEASE

From: Jim Robbins
jim.robbins@brown-machine.com

For: Brown Machine LLC
330 N. Ross Street
Beaverton, MI 48612

877.702.4142 Toll Free
989.435.2190 Fax

Contact: Jim Robbins
989.435.2190 Ext.1216
989.859.7426 Cell

each plug assist onto a threaded stud. Typically the stud is a 3/8-16 and has approximately .625 of thread to screw into the plug assist base. A plug installation with the specifications above requires 10 full revolutions of thread engagement. The new Brown Machine quick change plug assist design does not require hand tools and is locked into position by a simple ¼ turn hand twist. Based on the sample tool above the new patented quick change design will decrease your changeover time by 92%.

As a global leader of thermoforming solutions, BROWN Machine designs and manufactures a complete line of thermoforming equipment, including tooling. BROWN Machine fully supports its capital equipment business with a full complement of 24-hour on-call service and parts capabilities.

#

For more information on Brown Machine's quick change tooling contact Brown Machine LLC, 300 North Ross Street, Beaverton, MI 48612-0434, USA. Phone (989) 435-7741; Fax (989) 435-2821; email Bob Gordert at bob.gordert@brown-machine.com; www.brown-machine.com or Mike Witer @ mike.witer@brown-machine.com; www.brown-machine.com