



Branson MCX Mold Cleaning System



Branson GCX Ultrasonic Generator

MCX Series Mold Cleaners

OVERVIEW

Emerson's Branson MCX Series Ultrasonic Mold Cleaners feature side-mounted immersible transducers and powerful immersion heaters that provide a more effective, fast and efficient cleaning process for Injection Molds.

In contrast to traditional manual cleaning, which requires high concentrations of often-toxic cleaning solutions, brushes and other tools, Branson ultrasonic cleaning systems use ultrasonic technology to produce fluid cavitation, a non-contact cleaning process. Mold halves are placed between the transducers mounted on opposite sides of the tank, which is filled with cleaning solution. The system emits ultrasonic waves into the solution, creating minute bubbles (or cavities) that eventually implode, releasing tremendous amounts of energy. The resulting turbulence dislodges contaminants from the mold surfaces and even blind holes and tiny crevices, where brushes cannot reach. The cavitation turbulence enhances the effectiveness of the cleaning chemicals and results in better release, improved productivity, less maintenance, longer mold life and reduced chemical waste.

The thermal, chemical, and mechanical energies produced by ultrasonics combine to effectively remove residual burnt polymers and mold releases from mold components, extending their useful life well beyond molds cleaned with traditional methods. In addition, ultrasonic cleaning is capable of removing buildup from internal cooling ports and channels, thereby improving polymer flow. No other process cleans faster, more safely, or more thoroughly than Branson ultrasonic cleaning technology.

In addition, the higher levels of cleanliness achieved by ultrasonic cleaning result in:

- **Improved productivity**
- **Better releases**
- **Fewer maintenance hours**
- **Longer runs**
- **Reduced scrap and wastage**
- **More shots between required maintenance**

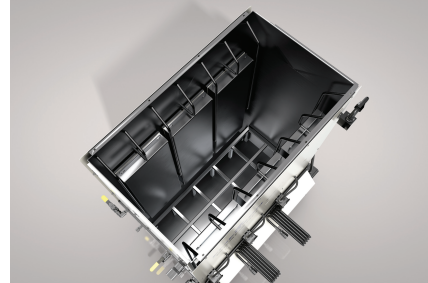
TOP DIFFERENTIATORS

- Fully configured ultrasonic cleaning system with adequate ultrasonic immersible transducers situated on either one or two vertical walls of cleaning tank, along with powerful immersion heaters to help remove the most stubborn and inaccessible dirt and grime from mold surface.
- Choice of 25 KHz and 40 KHz ultrasonic frequency provides users flexibility relative to aggressively removing stubborn contaminants, reaching inside intricate mold details and preventing any damage to critical mold design features.
- User-friendly advanced Touchscreen HMI on Branson GCX Ultrasonic Generators, provide easy access to system data and setup.
- Digital control of Sweep Frequency and Ultrasonic Power offers more precise control and consistency of the cleaning process.

- Remote Ultrasonic Generator Racking System allows separation between critical process controls and mold cleaning work area to reduce risk of unintentional damage and accidents.

KEY FEATURES

- All tanks are made from 316L Stainless Steel, come equipped with exterior insulation and an offset immersion heater.
- Digital temperature control to set tank temperature up to 180°F and digital timer to set ultrasonic cleaning time
- Sensors to monitor water level within ultrasonic wash tank with automatic shutoff to reduce risk of damage to ultrasonic transducers.
- Mold cleaning tank comes equipped with crash bars to protect immersible transducers and work rest at the bottom of the tank to prevent damage to tank surface



AVAILABLE OPTIONS

- Additional 316 Stainless Steel tanks configured to match size of ultrasonic mold cleaning tanks for purpose of rinsing the molds to remove aqueous chemistries, loose debris and/or adding a rust inhibiting coating to mold surface.
- Pump and filter for mold cleaning tank to facilitate removal of waste water and introducing clean water back into the tank.

SPECIFICATIONS

Attribute	MCX-W1-25/40	MCX-W3-25/40	MCX-W5-25/40
Working Dimensions	28”L x 39”D x 12”W	42”L x 52”D x 16”W	56”L x 69”D x 19”W
Overall Dimensions	42.5”L x 51.3”D x 27”W	56.5”L x 64.2”D x 31”W	70.5”L x 75.2”D x 34”W
Max Mold/Part Size	24”L x 24”D x 10”W	38”L x 38”D x 14”W	52”L x 48”D x 17”W
Ultrasonic Frequency	25 KHz / 40 KHz	25 KHz / 40 KHz	25 KHz / 40 KHz
Nominal Ultrasonic Power			
Single Side	3,600 Watts	5,400 Watts	9,000 Watts
Dual Side	7,200 Watts	10,800 Watts	18,000 Watts
GCX Generator			
Single Side	GCX-XX-36 OEM I/O (2)	GCX-XX-36 OEM I/O (3)	GCX-XX-36 OEM I/O (5)
Dual Side	GCX-XX-36 OEM I/O (4)	GCX-XX-36 OEM I/O (6)	GCX-XX-36 OEM I/O (10)
Heater Rating	18 KW	30 KW	45 KW
Electrical Connection	208 / 240 / 480V, 3Ph	208 / 240 / 480V, 3Ph	208 / 240 / 480V, 3Ph
Tank Fill Connection	½” NPT	½” NPT	½” NPT
Tank Drain Connection	1” FNPT	1” FNPT	1” FNPT
Optional Pump	½” NPT, 1” NPT	½” NPT, 1” NPT	½” NPT, 1” NPT

Americas

Branson Ultrasonics Corp.
120 Park Ridge Road
Brookfield, CT 06804
T: 203-796-0400
F: 203-796-9838
www.Emerson.com/Branson

Europe

Branson Ultraschall
Niederlassung der Emerson
Technologies GmbH & Co. OHG
Waldstrasse 53-55
63128 Dietzenbach, Germany
T: +49-6074-497-0
F: +49-6074-497-199
www.Emerson.com/Branson

Asia

Branson Ultrasonics (Shanghai) Co., Ltd.
758 Rong Le Dong Road
Song Jiang, Shanghai, PRC, 201613
T: 86-21-3781-0588
F: 86-21-5774-5100
www.Emerson.com/Branson