

**METALPRESS**

Division of Axiom Machinery Inc.

# DIE/MOLD WATER CHANNEL CLEANING UNIT

Restore Cooling Flow. Reduce Downtime.  
Improve Mold & Die Performance.

MDM Series



[metalpressmachinery.com](http://metalpressmachinery.com)



A NEW STANDARD FOR

# MOLD & DIE COOLING MAINTENANCE



## Water Channel Cleaning Units Built for Cleaner More Efficient Molds, Dies, and other Equipment

The MetalPress MDM Series is engineered to clean internal water channels in injection molds, die-casting molds, and tooling systems. By removing scale, rust, sludge, mineral buildup, and other internal restrictions, the MDM Series helps restore cooling flow, stabilize mold temperature, and improve production consistency.

Built for industrial mold maintenance departments, mold shops, die-casting operations, and injection molding facilities, the MDM Series helps reduce manual cleaning, prevent cooling-related defects, and keep molds running at peak performance.

Easy To Operate  
Screen HMI



Dual Water  
Tanks



Pressure  
Monitoring  
Gauges



Heavy Duty  
Electrical Mobile  
Cabinet



Multiple Channel  
Connection  
Ports  
(model dependant)



Stainless Steel  
Internal Plumbing  
System



# MDM SERIES KEY FEATURES & OPTIONS



## AUTOMATIC CHANNEL CLEANING

01

The MetalPress MDM Series automates the cleaning of internal mold water channels to help remove scale, rust, sludge, and mineral buildup. Automated cleaning helps reduce manual maintenance work, restore coolant flow, and improve mold temperature stability.



## MULTI-CHANNEL CONNECTION

02

The MDM Series is equipped with multiple inlet and outlet connection ports (number of ports depends on model) for cleaning up to several mold cooling circuits. This allows maintenance teams to connect directly to mold water lines and clean multiple channels more efficiently.



## ADVANCED HMI CONTROL

03

The easy-to-operate HMI screen gives operators clear control over cleaning cycles, timing, pulse blasting, rinse drainage, and machine functions. Centralized controls help make the cleaning process more repeatable and easier to manage.



## STAINLESS STEEL PLUMBING

04

The MDM Series features a robust stainless-steel pumping and fluid-circuit system, including tanks and filtration components. The open service-side design on both sides allows easier inspection, servicing, and maintenance access.

THE RANGE

# FIVE MODELS. FROM 4 TO 7 CHANNELS.



## MDM SERIES SPECIFICATIONS – US STANDARD

MODEL	MDM-11	MDM-15	MDM-22	MDM-30	MDM-55
<b>Number of Channels</b> (each channel has 1 input and 1 output)	4	4 + 1	6 + 1	6 + 1	6 + 1
<b>Connection Size</b>	3/8" x 8	3/8" x 8 + 1" x 2	3/8" x 12 + 1" x 2	3/8" x 12 + 1" x 2	1/2" x 12 + 1.5" x 2
<b>Applicable Mold/Die Size</b>	Small Mold/Die	Small to Medium Mold/Die	Medium Mold/Die	Medium to Large Mold/Die	Large Mold/Die
<b>Water Tank Volume</b>	10.6 gal	26.4 gal / 13.2 gal + 13.2 gal	26.4 gal / 13.2 gal + 13.2 gal	31.7 gal / 15.8 gal + 15.8 gal	31.7 gal / 15.8 gal + 15.8 gal
<b>Water Flow</b>	8 gal/min (max)	13 gal/min (max)	22 gal/min (max)	44 gal/min (max)	66 gal/min (max)
<b>Number Of Water Tanks</b>	One	One or two	One or two	One or two	One or two
<b>Power of Water Pump</b>	1.5 hp	2 hp	3 hp	4 hp	7.5 hp
<b>Overall Dimension (L x W x H)</b>	39.4 x 19.7 x 31.5 in	55.1 x 19.7 x 47.2 in	55.1 x 19.7 x 47.2 in	63 x 23.6 x 47.2 in	63 x 23.6 x 47.2 in
<b>Weight</b>	397 lbs	794 lbs	860 lbs	1,014 lbs	1,014 lbs

## MDM SERIES SPECIFICATIONS – METRIC STANDARD






MODEL	MDM-11	MDM-15	MDM-22	MDM-30	MDM-55
<b>Number of Channels</b> (each channel has 1 input and 1 output)	4	4 + 1	6 + 1	6 + 1	6 + 1
<b>Connection Size</b>	3/8" x 8	3/8" x 8 + 1" x 2	3/8" x 12 + 1" x 2	3/8" x 12 + 1" x 2	1/2" x 12 + 1.5" x 2
<b>Applicable Mold/Die Size</b>	Small Mold/Die	Small to Medium Mold/Die	Medium Mold/Die	Medium to Large Mold/Die	Large Mold/Die
<b>Water Tank Volume</b>	40 L	100 L / 50 L + 50 L	100 L / 50 L + 50 L	120 L / 60 L + 60 L	120 L / 60 L + 60 L
<b>Water Flow</b>	30 L/min (max)	50 L/min (max)	83 L/min (max)	166 L/min (max)	250 L/min (max)
<b>Number Of Water Tanks</b>	One	One or two	One or two	One or two	One or two
<b>Power of Water Pump</b>	1.1 kW	1.5 kW	2.2 kW	3 kW	5.5 kW
<b>Overall Dimension (L x W x H)</b>	1000 x 500 x 800 mm	1400 x 500 x 1200 mm	1400 x 500 x 1200 mm	1600 x 600 x 1200 mm	1600 x 600 x 1200 mm
<b>Weight</b>	180 kg	360 kg	390 kg	460 kg	460 kg








THE RANGE

# FIVE MODELS. SMALL MOLDS TO LARGE

## MOLD / DIE SIZE CLASSIFICATION TABLE – US STANDARD

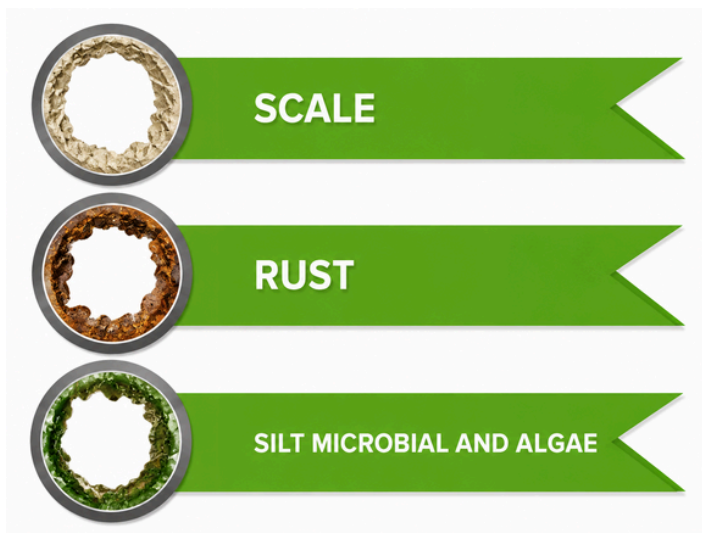
Model	MDM-11	MDM-15	MDM-22	MDM-30	MDM-55
 Mold/Die Size	Small	Small to Medium	Medium	Medium to Large	Large
 Footprint (inches)	Up to 18" x 18"	18" – 36"	36" – 60"	60" – 96"	96" – 144"+
 Height (inches)	6 – 18	12 – 24	24 – 48	36 – 60	48 – 72+
 Weight (lbs)	50 – 500	500 – 3,000	3,000 – 15,000	15,000 – 40,000	40,000 – 150,000+
 Typical Applications	Small plastic injection molds, prototype injection molds, small rubber compression molds	Plastic injection molds, structural foam molds, blow molds, thermoset molds	Large plastic injection molds, multi-cavity molds, aluminum die casting molds, compression molds	Automotive injection molds, large die casting molds, structural foam molds, SMC/BMC compression molds	Large automotive injection molds, bumper/fascia molds, high-pressure die casting molds, large compression molds

## MOLD / DIE SIZE CLASSIFICATION TABLE – METRIC STANDARD

Model	MDM-11	MDM-15	MDM-22	MDM-30	MDM-55
 Mold/Die Size	Small	Small to Medium	Medium	Medium to Large	Large
 Footprint (mm)	Up to 450 x 450	450 – 900	900 – 1500	1500 – 2400	2400 – 3600+
 Height (mm)	150 – 450	300 – 600	500 – 1200	900 – 1500	1200 – 1800+
 Weight (kg)	25 – 225	225 – 1,360	1,500 – 7,000	7,000 – 18,000	20,000 – 70,000+
 Typical Applications	Small plastic injection molds, prototype injection molds, small rubber compression molds	Plastic injection molds, structural foam molds, blow molds, thermoset molds	Large plastic injection molds, multi-cavity molds, aluminum die casting molds, compression molds	Automotive injection molds, large die casting molds, structural foam molds, SMC/BMC compression molds	Large automotive injection molds, bumper/fascia molds, high-pressure die casting molds, large compression molds

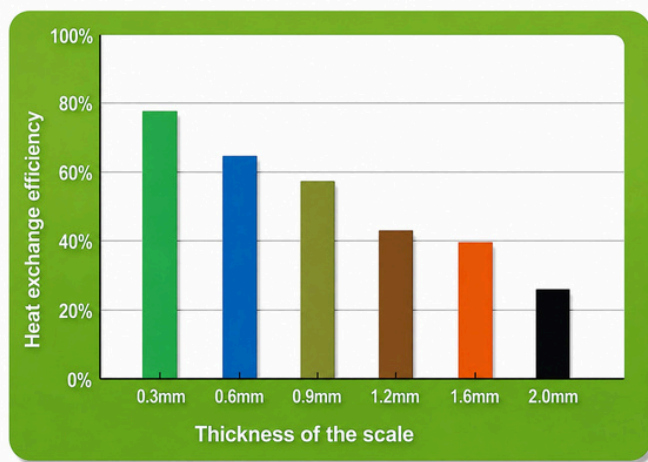
# WHY CLEANING MOLD WATER CHANNELS BOOSTS PERFORMANCE

When mold water channels become restricted, the entire molding process loses stability. Scale, rust, sludge, and mineral buildup reduce water flow through the cooling circuits, making it harder for the mold to transfer heat evenly.



Poor cooling can lead to longer cycle times, inconsistent part quality, hot spots, warping, sink marks, dimensional variation, and more frequent production interruptions.

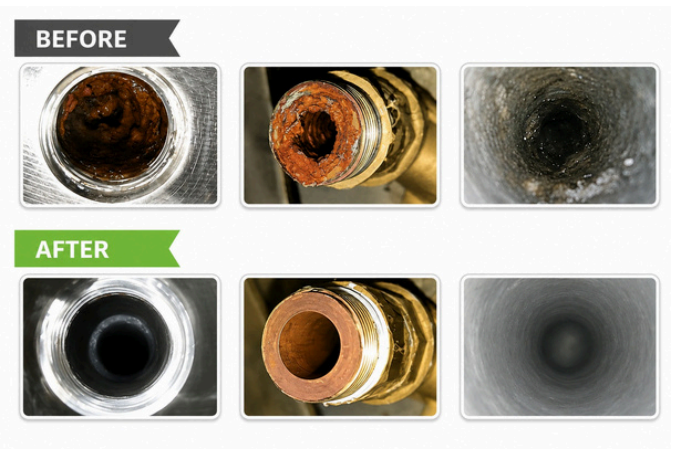
The drop in cooling efficiency is substantial.



The challenge is that the problem is usually hidden inside the mold. Operators may see the symptoms on the production floor, but the real restriction is often buried inside the internal cooling passages.

Without regular cleaning, the mold runs hotter, cooling becomes less predictable, and maintenance teams are forced to react after quality issues or downtime have already occurred.

The MetalPress MDM Series helps restore performance by cleaning internal water channels without full mold disassembly.



By improving water flow through the mold cooling circuits, the MDM Series helps stabilize mold temperature, reduce downtime, protect mold life, and support more consistent production.

For injection molding, die casting, and mold maintenance teams, cleaner water channels mean better cooling, fewer defects, and stronger long-term productivity.

# CAN THIS MACHINE CLEAN MORE THAN JUST MOLDS?

Yes. The MDM Series is built for more than mold and die cooling channel cleaning. With two port sizes, it can handle both precision tooling circuits and larger industrial cooling systems.

Smaller ports are used for mold and die channels, helping remove scale, rust, algae, and mineral buildup to restore flow and improve heat transfer.

Larger ports expand the machine's use to heat exchangers, temperature control units, water chillers, dehumidifiers, dryers, and other equipment with internal cooling lines.

By keeping water circuits clean, the MDM Series helps reduce downtime, extend equipment life, and improve cooling performance across the facility.

The MetalPress MDM Series uses advanced cavitation pulse cleaning technology to remove scale, rust, carbon buildup, biological contamination, and debris from internal mold cooling channels.

The system combines high-pressure air and high-pressure water and releases the mixture in controlled pulses that generate microscopic cavitation bubbles inside the pipeline.



As these bubbles rapidly compress and collapse, they create powerful micro-shockwaves that break apart scale and contamination attached to internal channel walls. The pulsed cleaning flow operates in both forward and reverse directions, ensuring complete removal of buildup throughout complex mold cooling passages.

This physical cleaning method restores cooling flow performance while eliminating the need for aggressive chemical treatments or manual cleaning.



**READY TO CLEAN  
YOUR MOLDS OR DIES?**

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**Improve Cooling Efficiency.  
Save Energy Costs.  
Increase ROI.**



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