

EX-W PRICE : 11.895 EURO



9001:2015



CE

MoldFlush

GENERAL FEATURES

- 110lt liquid capacity (x2)
- 7bar pump pressure
- 56lpm pump flow
- Pressure manometers
- Quick Lock coupling connection
- Cleaning and rising chamber separated
- Pump flow and pressure adjustment regulators
- Chemical pre-heater
- Digital Ph control
- Digital flowmeter
- Digital pressure control
- 400mic pre-filter
- Tank drain valves
- 100% cleaning guarantee.



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INTRODUCTION

A successful molding operation requires the efficient use of its equipment. Quality, cycle time and up-time measured by O.E.E (Overall Equipment Effectiveness) indicates the percentage of manufacturing time that is truly productive. The cooling portion of the molding cycle is typically 50% of the molding cycle making it one of the most important areas to be managed.

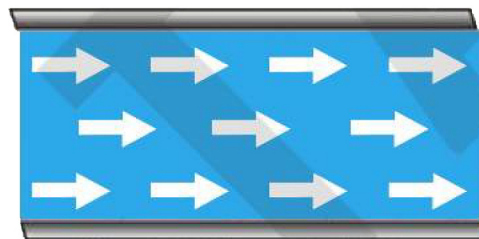
To reduce cooling cycle times the mold designer incorporates cooling channels which are often complimented with 3D additive conformal cooling inserts. The result is often a significant reduction in overall molding cycle time with the corresponding savings in costs versus conventional cooling. Today's challenge is maintaining this performance over the lifetime of the tool.

Overtime the cooling channels become restricted with scale and corrosion build up and can even become completely clogged. The result negatively impacts O.E.E. as cycle times become longer and scrap rates increase. Even with operator adjustments the cooling loss cannot be overcome.

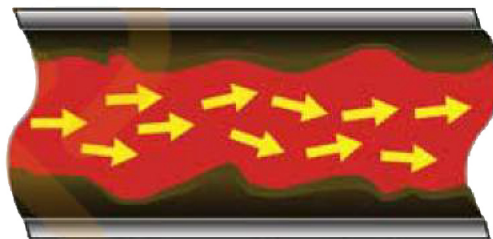
Smartclean Series advanced channel cleaning equipment makes the cooling channels of your mold as clean as the first day. The unit, which works by adding chemical solution, completely cleans the unwanted lime and rust from the cooling line. The control panel automates the entire process supporting autonomous cleaning without the need of supervision. A simple text message notifies the operators on touchscreen when the process is complete.



IDENTIFY THE PROBLEM



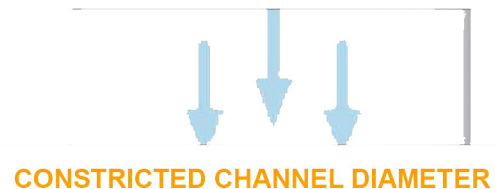
Smooth normal flow



Partially clogged



Completely clogged



CONSTRICTED CHANNEL DIAMETER

FLOW RATE
DETERIORATION

LOWER HEAT
REMOVAL CAPACITY

COOLING EFFICIENCY DROP

INCREASE
CYCLE TIME

HIGHER MOLD
MAINTENANCE /
REPAIR COST

PROFIT LOSS

CONSTRICTED COOLING CHANNELS

Comprehensive Maintenance of Cooling Channels

The capacity to absorb heat is directly proportional to heat conductivity of surfaces taking away the heat.

MATERIAL	Calcium Carbonate Scale	Calcium Sulphate Scale	Calcium Silicate Scale	1,2343 Steel
Heat Conductivity W/mk	06 - 6	2,3	0,3	24

Due to their low heat conductivity, scale and corrosion will greatly affect mold cooling efficiency and cause:

- Decrease in production (increased cycle times)
- Fragment size discrepancies between spaces.
- Injection parameters at each production start adjustment and correction.

Influence of lime deposits on cooling time

Scale formation depends primarily on water hardness and is substantially in temperatures above 60°C. Areas with little or zero flow rates are more prone to scale deposits and corrosion issues.

Thermovision picture of a mold with a clogged cooling channel:

- Temperature rise in the second cavity
- Unstable injection molding conditions

Different Scale Types and Occlusions

We offer media to address various scale types.



Calcium carbonate
Calcium silicate / Iron



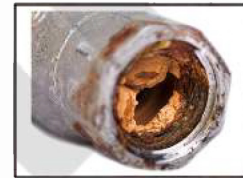
Corrosion products
Rust / Calcium carbonate



Calcium sulphate /
Iron oxides



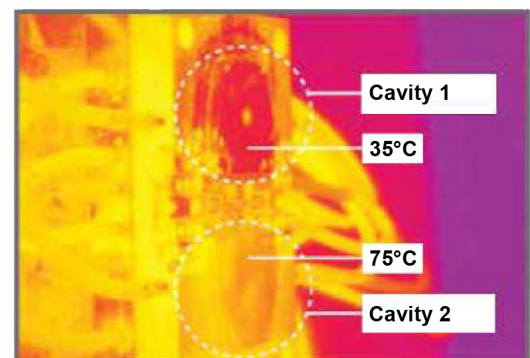
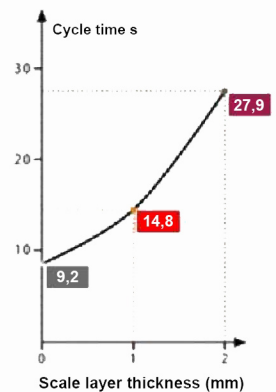
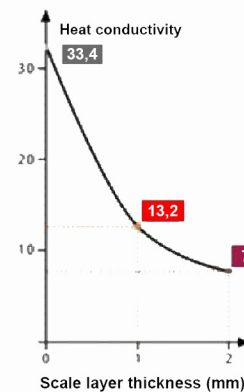
Scale with a high
amount of iron oxides



Calcium sulphate
Calcium carbonate



Calcium carbonate



Application

- The machine used in injection molds, heat exchangers and chiller cooling water channels scale lime and rust cleaning. It consists of 2pcs separated chamber 110lt. In one part of the tank, working with chemical solution and rinse water in the other chamber. The machine works two separated air diaphragms pumps on the system. The lime and other unknown materials are cleaned in the channel by the pump outlet connection of the collector.

Usage Area

- Injection moulds
- Heat exchangers
- Chillers
- Water pipes and channels

Pump Design

- There is 2pcs of plastic body, air diaphragm pump on the machine. And the pumps can work separately each other.
- Chemical and durability resistant body structure.

Pump Suction Line

- The pump is self-priming.
- Pumps have separate suction connections.
- Pumps are attached to the suction line with chemical resistant fittings. It can be dismantled from the unions when its necessary.

Pump Test

- Pump pressure, flow and leakage tests are made with digital measuring instruments. The tests were carried out in water at ambient temperature.

Pump Line Connection

- In all pump suction and discharge line connections chemical resistant, adhesive socket union is used.

User Interface

- In the system, each pump works separately. A manual control panel is used for operation.

Technical Specifications

- PP (Polypropylene) body material.
- 110 x 2pcs liquid capacity. The chambers are separated.
- Quick Lock coupling connection.
- Pump flow and pressure regulators.
- Digital pressure control
- Digital flowmeter for measure liter passing through channel
- Digital pH control
- Chemical pre-heater for cold condition areas
- Industrial casters wheels provides the comfortable opportunity to work wherever you want..
- In-tank access hatches.
- Tank drain valves.

Connections

- Outlet : Quick Lock Coupling Connection 4pcs
- Return : Quick Lock Coupling Connection 4pcs

Pump

- 56 lpm with air diaphragm.
- Diaphragm material TEFLON PTFE.
- Air consumption 3,6 - 34 m³/h max.
- Max. solid part permeability 3mm.
- 7 Bar max working pressure.
- PP Polypropylene body material.
- Pump connection bolts are all stainless.

Working Temperature

- Polypropylene: 0°C +90°C

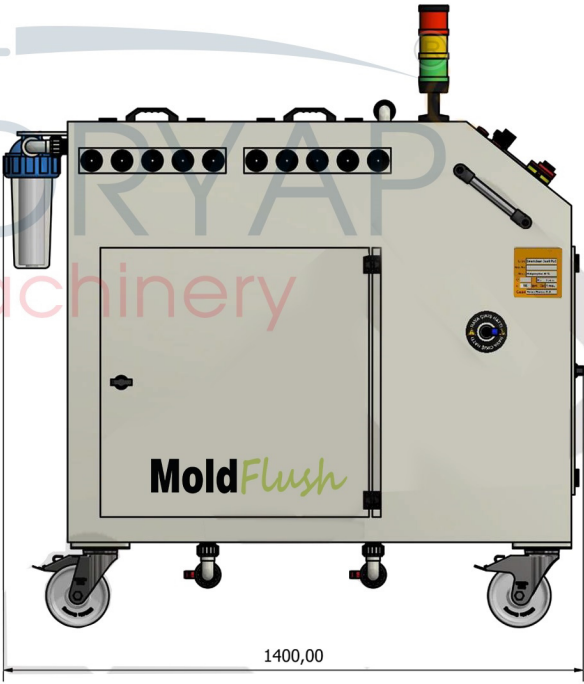
Working Viscosity

- Appox. 100.000 CST

Power

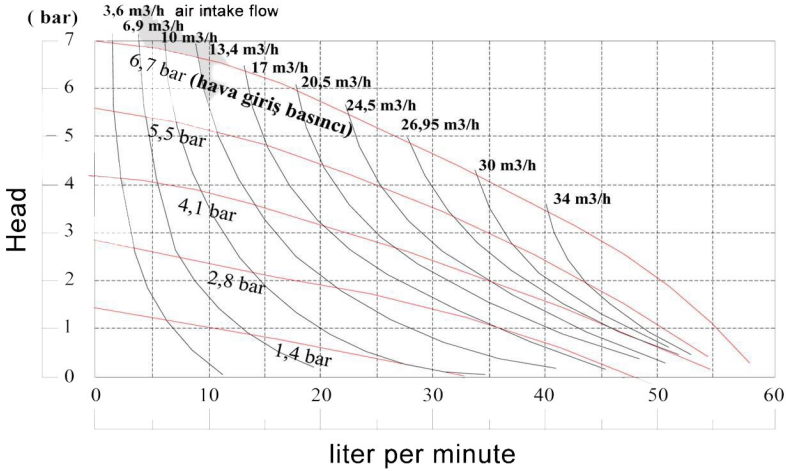
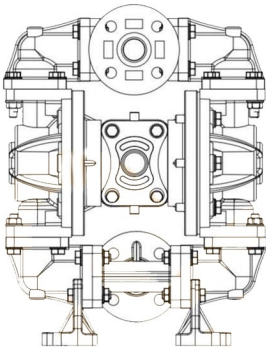
- 220v - 3kw - Monophasic

MoldFlush Dual v3 PLC Technical Dimension and Diagram



All dimensions mm

Performance curve



Inlet / outlet 3/4"	Max. capacity 55lpm	Max. solid part permeability 3mm.	Max. working pressure 7bar	Pump weight 4,2kg
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Working bar : 0 - 7Bar

Working temperature : 0 - 90°C

PRODCUT	DESCRIPTION
Smartclean Series	Smartclean Dual v3 PLC

KIT CONTENTS		
UNIT	PART NO.	DESCRIPTION
1 PCS	TRP 5543	Ems Force 5543 Thread Sealing 250 ml
1 PCS	PRESSURE SENSOR	Outlet pressure sensor
40 PCS	CSK 090-13	Quick Lock Coupling hose connection 1/2"
21 PCS	090 EUB 21	Quick Lock Coupling connection plug
12 PCS	TRP FIP 25	Ø25mm Polypropylene connection union
2 PCS	TRP-SV210-PPH	Ø25mm Polypropylene ball valve



CSK 090-13 Series
with checkvalve
hose connection 1/2"



090 EUB 21 Series
with checkvalve
Outlet and Return
line connection plug



EMS Force 5543
Thread Sealig



Ø25mm Polypropylene
Union



Outlet pressure
sensor



Ø25mm Polypropylene
Ball valve

