

# Wet Blast Phosphating System





# Formation of high quality phosphate film (high adhesion / high coating strength) for antivibration rubber and brake pad metal fittings

A dense and strong granular film crystal is stably formed because phosphating treatment is performed immediately after wet blasting degreases, cleans and activates the surface to a high level.

# Integration and automation of pretreatment and phosphating treatment processes

Conventionally divided processes can be compactly integrated, realizing space and labor savings.

## Cost reduction, environmental friendliness

The proprietary phosphating system reduces chemical usage, water supply and drainage, and the minimized dust generation and completely covered phosphate tank provide a good working environment.

#### **Process Outline**

BL-740TH

Installation area: about 42'8"×18'5"×12'10'

Processing time: 100 s / batch

2 Degreasing

Work entry

### Wet blast effect and benefits

#### Processing principle



Wet blasting is a technique of spraying a mixture of water and abrasives at high speed with compressed air to clean, process and refine the surface. The wet treatment process has high performance in terms of forming finely roughened surfaces because of high detergency and the ability to use fine abrasives.

### Processing image



degreasing, cleaning and



# High quality phosphate coating

#### Wet blast / phosphate coating film

Work discharge

Work chute

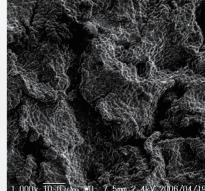
By transferring only the work, the proprietary transfer method reduces liquid removal and limits the consumption of phosphate liquid

realizing treatment in a short time with no unevenness

7 Drying

6 Water / hot rinse

5 Phosphating treatment



formed using wet blast pre-processing. Since the film is a dense crystal that is hard to peel off, it is excellent in adhesive strength, corrosion resistance, drawability, and is difficult to peel off even in bending tests, contributing to improvement of drawing ratio, etc., for antivibration rubber parts.

#### Phosphate coating after bending test

A dense and uniform phosphate film is





Coating weight: 1 to 3 g /  $m^2$ , Crystal size: 1 to 3  $\mu m$ 

## Processed example

#### **Antivibration rubber** (Bush type)















#### Antivibration rubber (Liquid seal type)







### Brake pad







# Lineup









Model

40L double head type BL-740TH

40L-WBP-G

20L For aluminum BL-720

7L mini barrel MSB-S7

System configuration

Wet blast × 2
Degreasing
Rinsing
Rinsing
Activation
Phosphating
Phosphating
Rinsing
Rinsing
Rinsing

Hot rinse Drying Wet blast
Degreasing
Rinsing
Rinsing
Activation
Phosphating
Rinsing
Hot rinse / Drying

Wet blast
Rinsing
Rinsing
Hot rinse / Drying

Wet blast

1 batch throughput	Max. capacity: 40L / 10.5US gal	Max. capacity: 40L / 10.5US gal	Max. capacity: 20L / 5.3US gal	Max. capacity: 7L / 1.8US ga
	Max. weight: 50kg / 110lb	Max. weight: 50kg / 110lb	Max. weight: 30kg / 66.1lb	Max. weight: 10kg / 22lb
Tact time	100 Seconds / Batch	360 Seconds / Batch	210 Seconds / Batch	200 Seconds / Batch
Main unit dimensions	13000×5600×3900mm /	10000×2400×3900mm /	7000×2800×3650mm /	1400×1365×1850mm /
(W×D×H)	42'8"×18'5"×12'10"	32'10"×7'10"×12'10"	23'×9'2"×12"	4'7"×4'6"×6'1"
Barrel	40L Tire type	40L Cylindrical type	20L Tire type	7L Cylindrical type
Blast gun	ф11mm×8 Consecutive zigzag gun	φ11mm×6 Consecutive zigzag gun	φ11mm×5 Consecutive zigzag gun	Compact gun 9.5mm×2
Power supply	AC200V, 50/60Hz, 3-phase	AC200V, 50/60Hz, 3-phase	AC200V, 50/60Hz, 3-phase	AC200V, 50/60Hz, 3-phase
Power capacity	Blast L: 17.3kVA	51.9kVA	7.3kVA	5.2kVA
	Blast R: 17.3kVA			
	Phosphating: 26kVA			
Air consumption	12.5m³/min(NPT) / 441CFM	6m³/min[NPT] / 212CFM	5.5m³/min(NPT) / 194CFM	2.0m³/min(NPT) / 71CFM
	(At blast air pressure 0.4 MPa / 58psi)	[At blast air pressure 0.4 MPa / 58psi]	[At blast air pressure 0.4 MPa / 58psi]	(At blast air pressure 0.4 MPa / 58psi)
Water consumption	1.2m³/h / 0.7CFM	1.2m³/h / 0.7CFM	0.6m³/h / 0.35CFM	No consumption
Steam consumption	400kg/h / 0.24CFM	325kg/h / 0.19CFM	200kg/h / 0.12CFM	_
Displacement	60m³/min / 2119CFM	55m³/min / 1942CFM	8m³/min / 283CFM	3m³/min / 106CFM



Specifications are subject to change without notice. The drawings and pictures in this brochure are images. They may be different from the actual product. Specifications of the products listed are those as of May, 2017. Although we are careful in the production of our brochures, we are not responsible for any damage caused by typographical errors or omissions.



B1028-02-1706 Copyright© 2017 MACOHO Co., Ltd. All Rights Reserved.