

For pre-drawing process

No shot blasting anymore

Wet blast scale removal for steel bars

Combines special abrasive with wet blast to remove oxide scale on steel surfaces.

The equipment is simpler and more compact than ones for conventional pickling and shot blasting methods, and there are fewer consumables and replacement parts, enabling stable production.



No pickling anymore



Wet blast equipment for removing steel bar scale
BSB-012-C

- 1 Compatible with diverse steel materials**
Scale removal is possible regardless of chemical resistance because of physical treatment. Alloy steel, carbon steel, stainless steel, etc.
- 2 Easy maintenance**
Low frequency of parts replacement, and easy maintenance.
Dust does not occur during work.
- 3 From cleaning to draining “all-in-one”**
Integrating cleaning and drainage saves space.
Drainage becomes very small by circulation use of water.

What is wet blast scale removal?

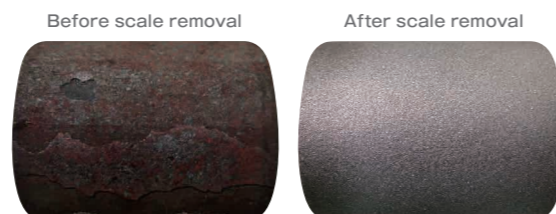
The scale removal method using "wet blast technology" is a method that can remove oxide film with high accuracy without using chemicals such as sulfuric acid or hydrochloric acid.

Because it is wet, generation of dust can be suppressed, thus realizing a manufacturing process that takes into consideration the work environment.

Wetblast
Descal

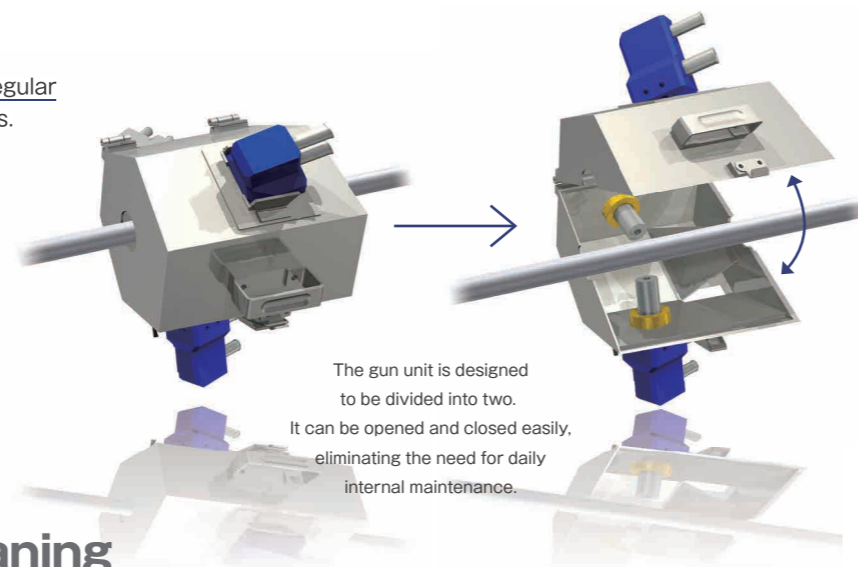
1 Compatible with diverse steel materials

Due to physical treatment, scale removal of alloy copper, carbon copper, stainless steel, etc. regardless of chemical resistance.



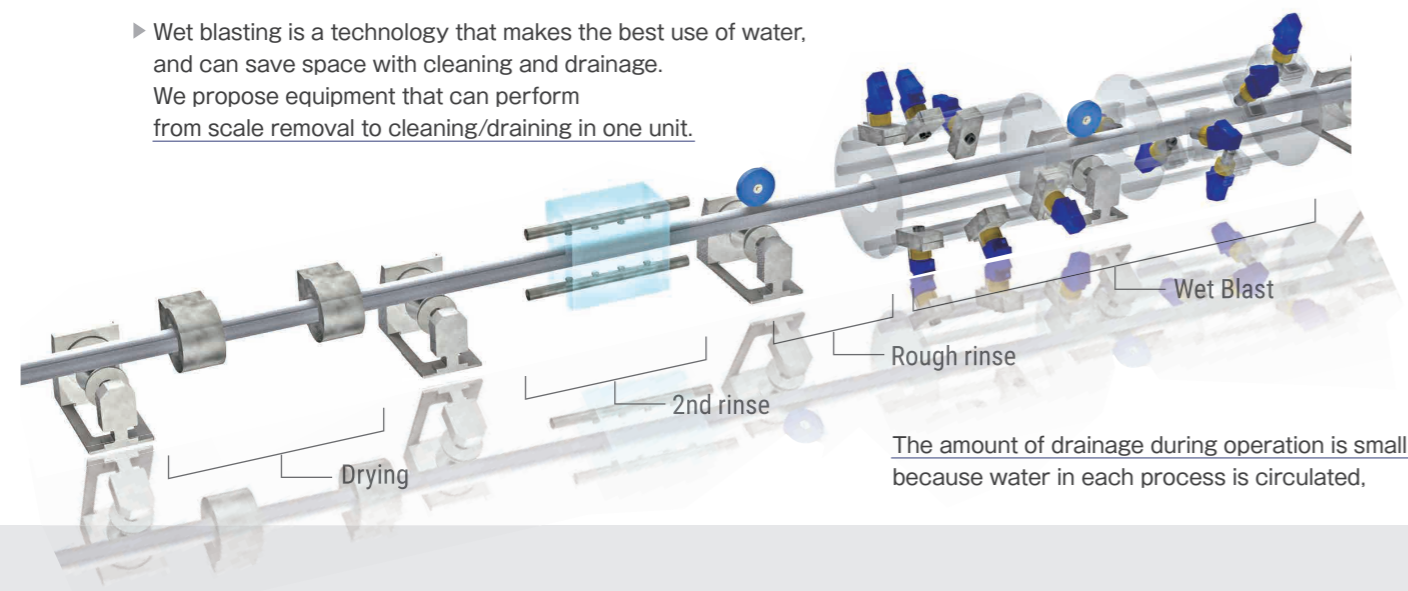
2 Easy maintenance

- ▶ There is no need to replace heavy items in regular maintenance. Reduce the burden on workers.
- ▶ The main consumables are made of special materials with excellent wear resistance. Reduce the frequency of replacement.
- ▶ By mixing blast media with water and treating it in a fluid state, dust generation is suppressed. You do not need a dust mask during maintenance.



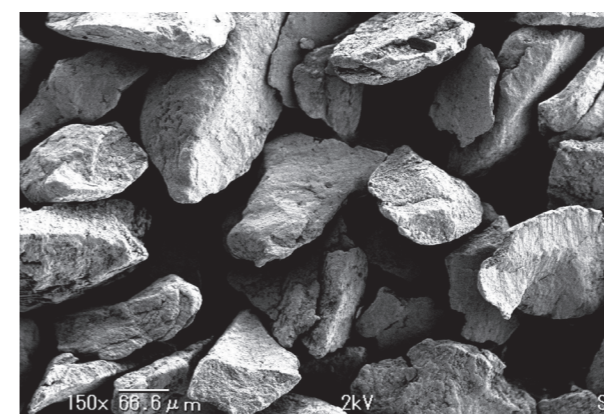
3 "All-in-one" from cleaning after scale removal to draining

- ▶ Conventional blasting techniques have to avoid getting the media wet and scale removal and cleaning / drainage equipment have to be provided separately.
- ▶ Wet blasting is a technology that makes the best use of water, and can save space with cleaning and drainage. We propose equipment that can perform from scale removal to cleaning/drainage in one unit.



✓ Abrasive material used for wet blasting

By using fine stainless steel grit with high processing capability and abrasion resistance, wet blasting can achieve scale removal with significantly improved surface roughness compared with conventional blasting methods.



Name	GH 0.10-0.20
Material	High hardness stainless steel
Shape	Grit
Size	Central particle size 140μm
Hardness	HV750
*SUS 304 cut wire around HV 200	

Abrasive features

- ▶ 1/4 particle size of common shot blast abrasives
- ▶ Particles are hard and wear is very low, resulting in long life
- ▶ Recoverable with magnetic filter

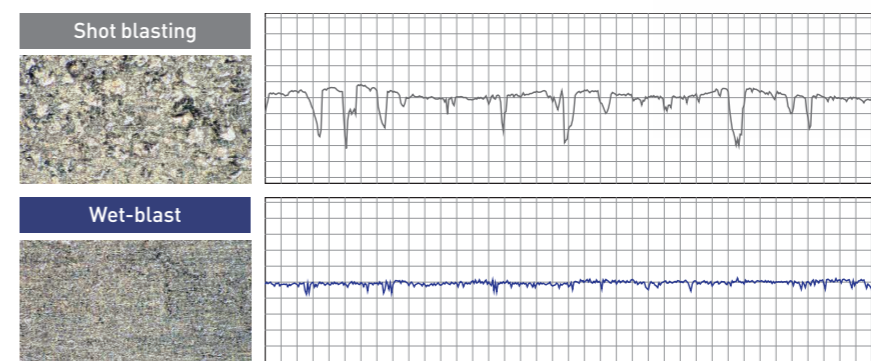
✓ Improvement of surface roughness

Oxide scale removal of rolled steel



Comparison with shot blasting

Data provided by Ogiso Kogyo Co., Ltd.



Surface roughness

→ Ra=1.06μm

→ Ra=0.22μm

Conforms to JIS B0601: 2013

- ▶ The use of a fine stainless steel grid improves the surface roughness after scale removal.
- ▶ The surface roughness is greatly improved even after the drawing process.

*The above data show surface roughness after drawing process.

Equipment lineup

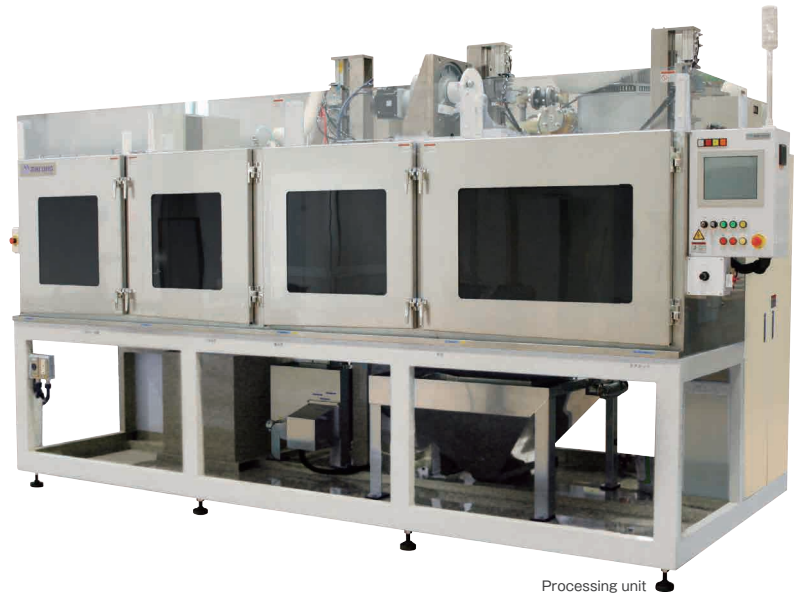
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φ1/2" long compact gun Fully automatic

Roller transport method

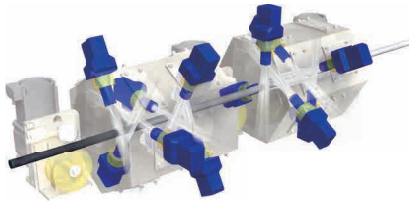
Rinsing Drying Iron powder recovery option

- ▶ Twelve blast guns enable high speed processing of bar-shaped workpieces without unevenness around the circumference
- ▶ Depending on the recipe setting, the guns move up and down to process various kinds of workpieces
- ▶ Processing takes place under continuous washing and draining, and the workpiece is discharged in a clean state
- ▶ Not only round bars, but also for profiles



Processing unit

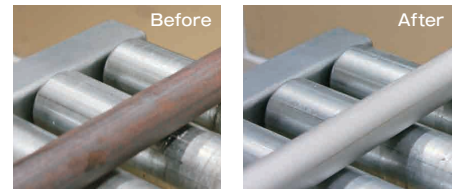
Image of processing unit



Blast chamber



Processing example

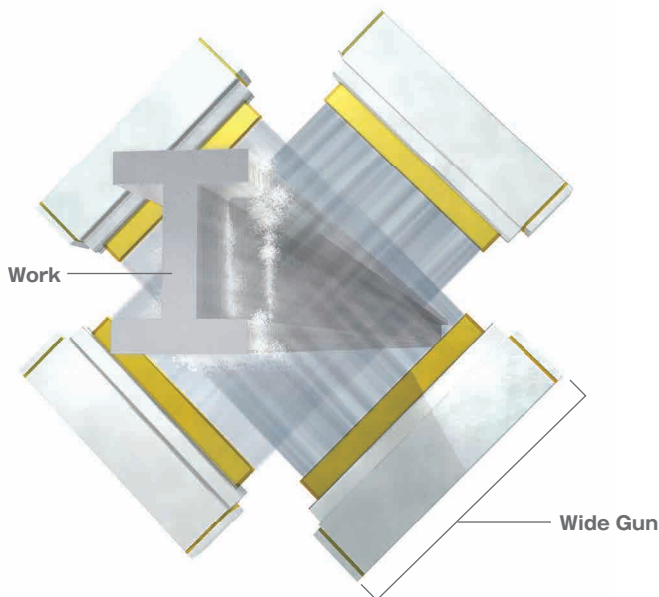


Dimensions 4000W×1750D×2330Hmm
Processing range Shaft Outer diameter: 17 to 55mm Length 3.8 to 7 m
Blast gun φ1/2" compact gun × 12

Transfer speed ~ 50m/min
Power supply 200 V AC, 50/60 Hz, 3 phase
Air consumption 17.0m³/min (NTP, at blast air pressure 0.4MPa)

☑ Processing of profile material

- ▶ Even non-rod shaped profiles can be processed by projecting with wide guns without blind spots from all directions.



☑ Sludge recovery unit

- ▶ We provide a sludge recovery unit (the removed scale + abrasive material worn away) suitable for stabilizing processing quality.



- ▶ Centrifugal separation type
- ▶ Magnet separator type

Inquiry
contact

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More information is also available on our product information web pages.

www.macoho.co.jp

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