

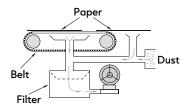
Regenerative Blowers for Pressure and Vacuum 50Hz/60Hz





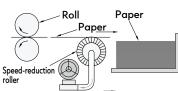
Printing Machinery

Dry Copier



Gripping paper and collection of waste within machine.

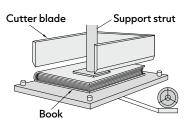
Roller Gripping



Gripped and held by speed-reduction roller before stacking paper printed on high-speed copiers.

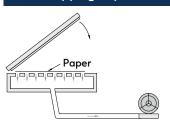
For gripping (negative pressure)

Bookbinding



Gripped while cutting.

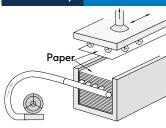
Gripping Paper



For discharge (positive pressure)

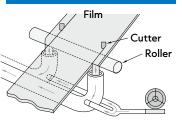
Paper gripped and held to prevent slippage.

Paper Feed



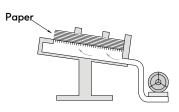
Air blown between sheets of paper to produce a gap, and paper then gripped for transport.

Recovery of Cut-Off Edges



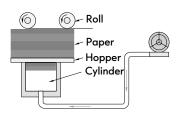
Recovery of cut-off edges of tape and paper.

Paper Aligned Automatically



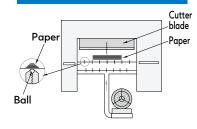
Positioning of printed paper and binding paper.

Positioning of Paper (1)



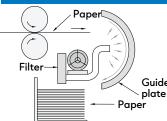
Hopper pushed up to maintain height of paper.

Positioning of Paper (2)



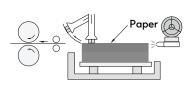
Positioning of paper for cutting, and air cushion for movement.

Drying of Paper



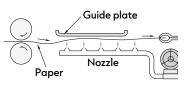
Drying printed paper.

Paper Feed (1)



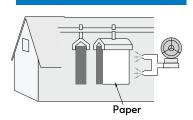
Air blown between sheets of paper to prevent simultaneous feed of multiple sheets.

Paper Feed (2)



Paper suspended on air blown from the nozzle, preventing contamination of the printed surface.

Drying of Paper in Storage



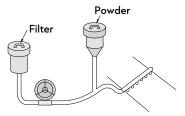
Drying of paper in storage chamber.

Drying of Photographic Paper



Drying of photographic paper.

Dry Sprayer



Powder dispersed into wet printing unit, and dried to prevent adherence of dust, and to prevent scuffing of text.



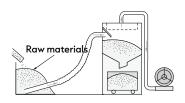
Transport Equipment

Hopper Loader

Tank Filter Material Damper weight

Transport of material (e.g. PVC, polyethylene, plastic resin).

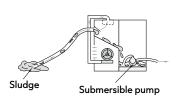
Transport of Granular Solids



Transport of raw materials (e.g. rice, wheat, soybeans, powder, bean curd refuse, almonds, senbei cracker materials).

For gripping (negative pressure)

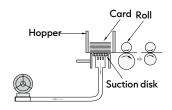
Sludge Recovery Equipment



Recovery of sludge with shield method.

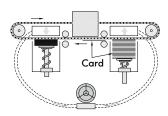
Card Feed (1)

For discharge (positive pressure)



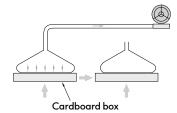
Card gripping feed.

Card Feed (2)



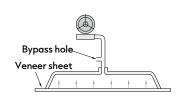
Cards gripped by suction through holes in belt during transport.

Air Lift (1)



Gripping of items by suction for transport.

Air Lift (2)



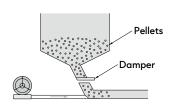
The large air flow allows stable gripping of large items.

Transport of Mixtures of Water and Granular Material



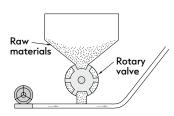
Recovery of small fish etc.

Transport of Granular Solids



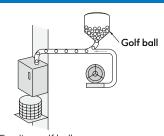
Air conveyance of pellet-type raw materials (e.g. PVC and polyethylene pellets).

Transport of Cereals



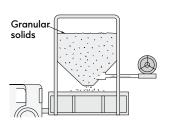
Air conveyance of raw materials (e.g. wheat) dropped in discrete amounts using a rotary valve.

Golf Ball Feed



Feeding golf balls.

Mixing in Hopper



Air forced into hopper to eliminate bridging with granular solids.



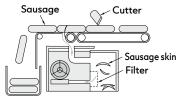
Food Machinery

Automatic Bottle Filling Machinery

Tank Bottle Filter

Drain chamber Generates negative pressure during packing.

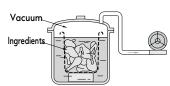
Sausage Skin Peeler



Grip by suction to ensure effective peeling, and collect peeled skins.

For gripping (negative pressure)

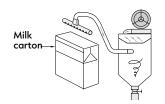
Food Processing Equipment



Vacuum impregnation for flavoring of ingredients.

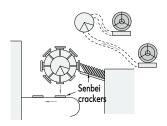
Filling Cardboard Milk Cartons

For discharge (positive pressure)



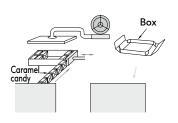
Removal of bubbles by suction when filling milk cartons.

Automatic Equipment for Aligning Senbei Cracker materials



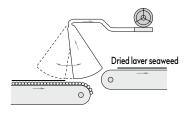
Automatic alignment in senbei cracker baking equipment.

Carmel Candy Packing Equipment



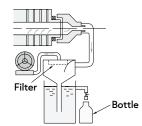
Caramel candy packing equipment.

Dried Laver Seaweed Peeling Equipment



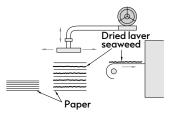
Suction for peeling dried laver seaweed from drainage slats.

In Combination with Press



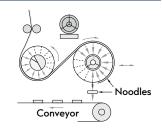
Suction removal of liquid during squeezing.

Dried Laver Seaweed Pick-and-Place



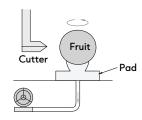
Source of suction for gripping dried laver seaweed.

Ramen Noodle Manufacturing Equipment



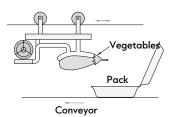
Suction and blowing of noodle raw materials.

Fruit Peeling Equipment



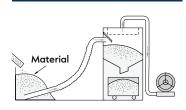
Gripping and holding fruit.

Filling Vegetable Packs



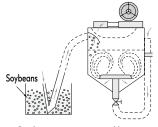
Filling vegetable packs.

Transport of Granular Solids



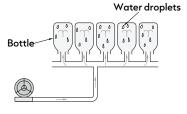
Transport of raw materials (e.g. rice, wheat, soybeans, powder, bean curd refuse, almonds, senbei cracker materials).

Tofu Manufacturing Equipment



Soybeans transported by suction. Switched to blowing for cleaning.

Bottle Washing Equipment



Removal of water droplets in bottles after washing.

Bottle and Assembly Lines

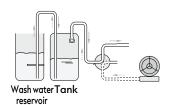


Blowing water droplets from bottles.



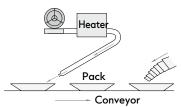
Food Machinery

Automatic Tank Washing Equipment



Automatic washing inside tank with air mixing.

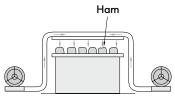
Pack Drying



Drying packs with hot air.

For gripping (negative pressure)

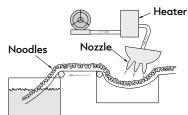
Ham Processing Equipment



Blowing water droplets off hams.

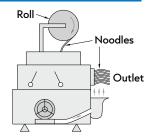
For discharge (positive pressure)

Ramen Noodle Processing Line



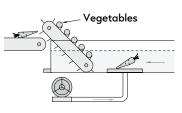
Removal of oil from ramen noodles using hot air.

Spaghetti Processing Equipment



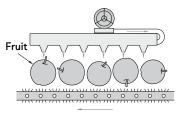
Preventing sticking of spaghetti.

Vegetable Washing Equipment



Aeration when washing vegetables.

Fruit Washing Equipment



Removal of water droplets from washed fruit.



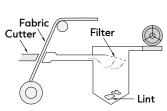
Textile Equipment

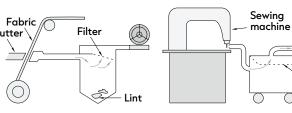
Lint Recovery (2) Lint Recovery (1)



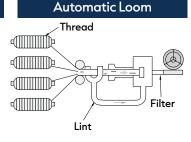
For gripping (negative pressure)

For discharge (positive pressure)







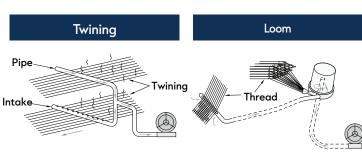


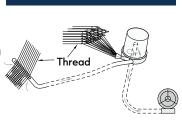
Recovery of fabric off-cuts and lint produced during trimming.

Recovery of lint produced during industrial sewing machine operation. sagging and non-uniform knitting.

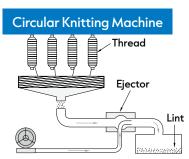
Gripping of socks, and preventing

Gripping thread before it reaches the weaving machinery, and removal of cotton and lint.





Automatic Loom Thread **Ejector** Lint



Removal of soot produced in the process of twining

Woof air tensioning, and recovery of lint. Application of air tension to the woven Application of air tension to the woven

Filter

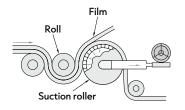
product to facilitate weaving, and simultaneous waste collection.

product to facilitate weaving, and simultaneous waste collection.



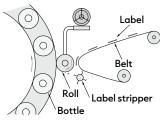
Packaging Equipment

Plastic Film Processing



Gripping plastic film with suction roller.

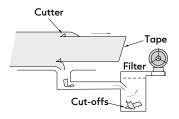
Label Applicator Equipment



Labels held on roll, and applied to bottles etc.

For gripping (negative pressure)

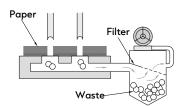
Automatic Packaging Equipment



Removal of tape cut-offs.

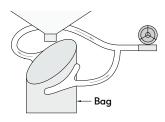
Hole Puncher

For discharge (positive pressure)



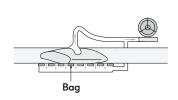
Collection of waste from hole puncher in filter hav

Vertical Packaging Equipment



Opening and gripping bags.

Horizontal Packaging Equipment



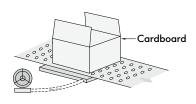
Opening and gripping bags.

Automatic Packaging Equipment



Collection of waste (e.g. particles) from table of automatic packaging machine.

Cardboard Packaging



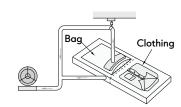
Preventing displacement of, and gripping, cardboard.

Vacuum Forming Equipment

Film

Film formation.

Dry Cleaning Packaging



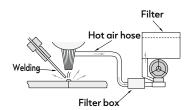
Opening and gripping dry cleaning bags.

 $Note: The \ above \ recommended \ types \ are \ all \ based \ on \ examples \ delivered \ by \ the \ manufacturer.$



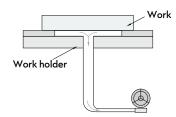
Machine Tools

Welder



Removal of smoke, heat and fumes during welding work.

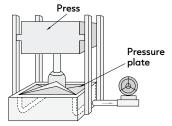
Gripping Work



Gripping non-magnetic materials such as timber and plastic.

For gripping (negative pressure)

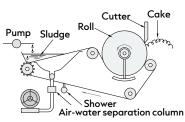
Laminating Press



Removal of excess air on surface of pressure plate before lamination.

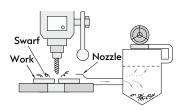
Dehydrator

For discharge (positive pressure)



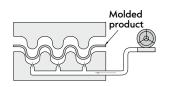
Vacuum dehydration of sludge.

Swarf Removal



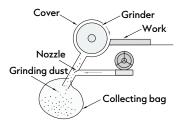
Collection of swarf produced during machining operations.

Press



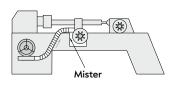
Removal of molded products from mold.

Grinder



Suction to collect grinding dust.

Cutting Oil Mister



Source of pressure to generate cutting oil mist.

 $Note: The \ above \ recommended \ types \ are \ all \ based \ on \ examples \ delivered \ by \ the \ manufacturer.$



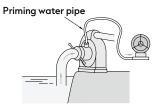
Plant and Machinery

Construction Site

Tunnel Dust

Localized removal of dust and toxic gases from construction sites in restricted spaces such as tunnels.

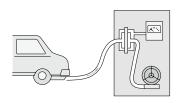
Water Uptake Pump



Priming water for water pump.

For gripping (negative pressure)

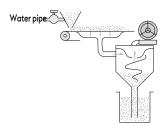
Auto Exhaust Gas Detection Equipment



Testing of automobile exhaust gas.

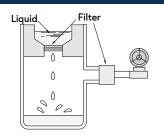
Vacuum Dehydration

For discharge (positive pressure)



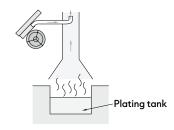
Vacuum dehydration of silica sand.

Filter



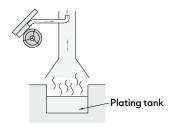
Reduce filtering time.

Extraction of Plating Gases



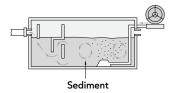
Extraction of plating gases.

Car Washing Equipment



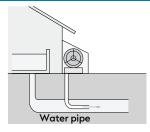
Extraction of plating gases.

Cleaning Tank



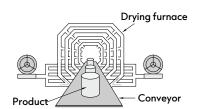
Mixing of sediment, and aeration of comparatively shallow water treatment plants.

Freezing Prevention



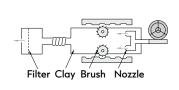
Prevention of freezing in water piping.

Drying Line



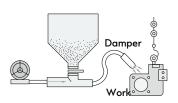
Small-scale drying lines.

Mold Cleaning Equipment



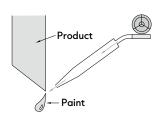
Blows clay removed from surfaces of the tile mold by rotation of the brushes.

Sand Blasting



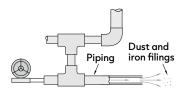
Air source for blasting.

Painting Line



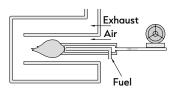
Blowing to prevent paint drips on finished surfaces.

Cleaning Piping



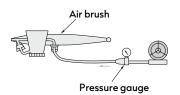
Removal of dust and iron filings produced during replacement and periodic inspection of piping.

Gas Burner



Atomization of fuel.

Air Brush



High-pressure air free of oil is highly desirable for air-brushing.



Plant and Machinery

For gripping (negative pressure)

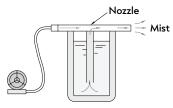
For discharge (positive pressure)

Spray

Plating Tank

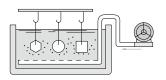
Plating Tank

Plating Line

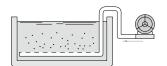




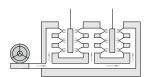
of oil for spraying.



Air blown into the tank to remove bubbles from electrolyte and thus improve plating quality.



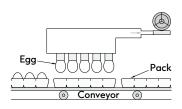
Maintains temperature of plating fluid, and prevents separation of cutting fluid.



Blows away water droplets following plating, reducing energy consumption during drying.

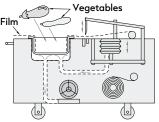
Forestry and Fishing Machinery

Egg Packing



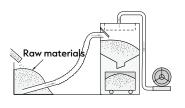
Gripping and placing eggs in packs.

Vegetable Packaging



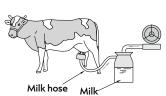
Forming and cutting of vegetable packaging film.

Transport of Granular Solids



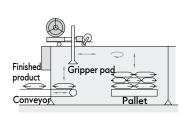
Transport of raw materials (e.g. rice, wheat, soybeans, powder, bean curd refuse, almonds, senbei cracker materials).

Milking Machine



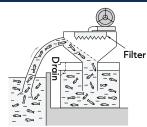
Dairy milking.

Gripping and Transport for Rice Bagging



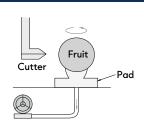
Gripping and transport for rice bagging and stacking.

Transport of Mixtures of Water and Granular Material



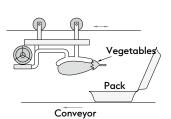
Recovery of small fish etc.

Fruit Peeling Equipment



Gripping and holding fruit.

Filling Vegetable Packs



Gripping and packing vegetables.



Forestry and Fishing Machinery

For gripping (negative pressure)

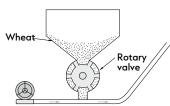
For discharge (positive pressure)

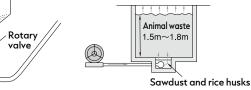
Transport of Cereals

Fermentation of Animal Waste

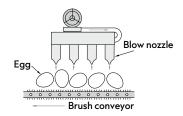
Fruit Washing Equipment

Egg Washing Equipment





Fruit



Air conveyance of wheat dropped in discrete amounts using a rotary valve.

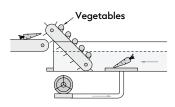
Promotion of animal waste fermentation.

Removal of water droplets from washed fruit.

Automatic egg washing.

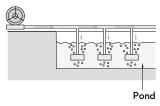
discrete amounts using a rotary valve.

Vegetable Washing Equipment



 $\label{thm:prop} \mbox{Aeration when washing vegetables}.$

Supplementary Oxygen for Fish Breeding Ponds



Supplementary dissolved oxygen for fish breeding ponds.

Medical and Welfare Equipment

Dental Equipment

FilTooth debris and salivater Filter

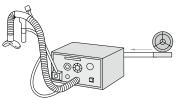
Removal of tooth debris and saliva produced during dental work.

Therapeutic Baths



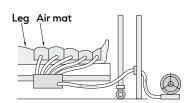
Aeration in bath.

Respiration Equipment



Prevention of irregular respiration, and assisting respiration.

Massage Equipment



Vibration of air mat promotes circulatory function within the skin.



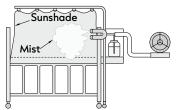
Medical and Welfare Equipment

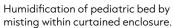
For gripping (negative pressure)

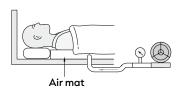
For discharge (positive pressure)

Humidifier (Mist Generated Within Enclosure)





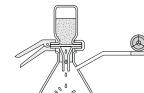




Body support and protection for burn victims and bedridden patients.

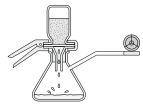
Other

Leak Tester



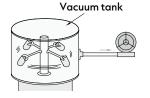
Seal testing.

Vacuum Filter



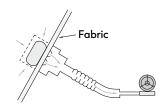
Rapid filtering by vacuum.

Chemical Testing Equipment



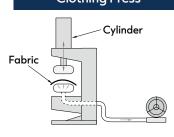
Vacuum tank for chemical testing equipment.

Stain Remover



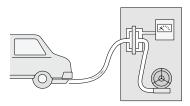
Removal of moisture in fabric.

Clothing Press



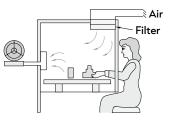
Removal of steam by suction.

Exhaust Gas Detection Equipment



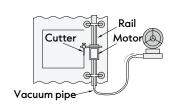
Employed in automobile exhaust gas testing equipment.

Clean Room



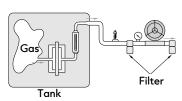
Localized ventilation in clean rooms.

Flame Cutter



Gripping and holding cutters for glass and plastic materials.

Gas Decomposition Equipment



Suction source for gas spectrometer.

