

Produce Washing and Packing Machinery for the Productive Grower!



821 Crooked Lane
Ephrata, PA 17522
PH: 717-733-2584
FAX: 717-733-4567





Hours:

Monday - Friday: 8AM - 11:30AM + 12:30 PM - 5:00 PM

Closed Saturdays and Sundays and for all Religious Holidays

We accept these major credit cards:

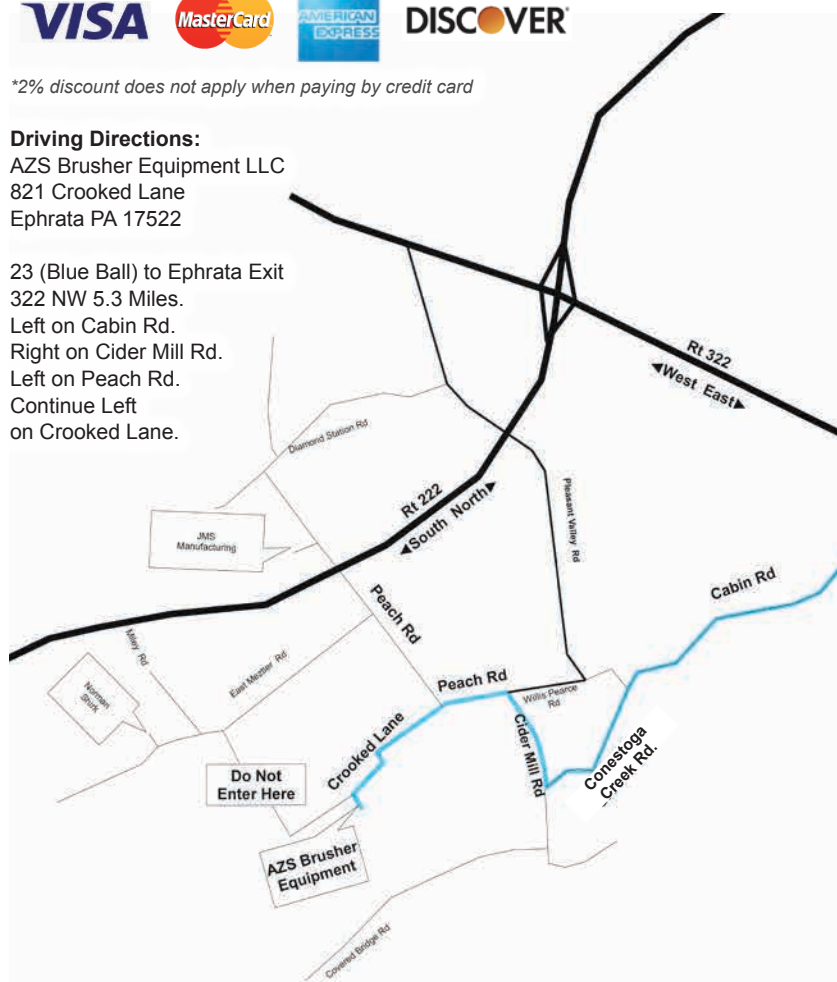


*2% discount does not apply when paying by credit card

Driving Directions:

AZS Brusher Equipment LLC
821 Crooked Lane
Ephrata PA 17522

23 (Blue Ball) to Ephrata Exit
322 NW 5.3 Miles.
Left on Cabin Rd.
Right on Cider Mill Rd.
Left on Peach Rd.
Continue Left
on Crooked Lane.



Safety and Operating Instructions:

Please read carefully before operating equipment

- Keep all guards and shields in place. Failure to do so could result in personal injury or cause amputation of body parts.
- The owner is responsible to properly train all workers initially and at least annually thereafter, in the safe operation and servicing of the equipment.
- Always make sure everyone is standing clear before starting machinery.
- Do not wear loose fitting clothing around moving parts of any machinery while it is in operation. Doing so could result in torn clothing, broken bones, serious injury or even death.
- Do not place hands into machinery while in operation.
- Keep hands and clothing away from all moving parts.
- Keep children away from machinery at all times.
- Make sure that electric service is properly grounded.
- !!!! ALL WORKERS OR CHILDREN WORKING AROUND MACHINERY! Long hair, ponytails, or pigtails must be tied up properly. Moving brushes and sponges have caught hair frequently, take extreme caution to avoid this from happening!!!

A.Z.S. Brusher Equipment LLC Limited Warranty

A.Z.S. Brusher Equipment LLC warrants to the original purchaser that

the equipment shall be free of defects in material and workmanship under normal use and service for a period of 90 days from first usage, but not more than 480 days after date of purchase.

The defective parts will be replaced or repaired at no charge, buyer is responsible for all freight expenses to and from factory.

Under no circumstances shall A.Z.S. Brusher Equipment LLC be liable for any direct, incidental or consequential damages arising in connection with the use, inability to use, mis-use, or misapplication of this equipment.

Ammon Z. Shirk

Choose the power
that works best for you!

5-Unit Packing Line Assembly

Available in painted or stainless. Large selection of conveyer lengths, washer lengths and dryer options.

Measurements:

- 4 width options (16", 24", 32" and 40")



Available
with Casters



Available
with Casters

4-Unit Packing Line Assembly



**Engine
Mount**



**Electric
Motor
1 & 3 Ph**



**Electric
Variable
Speed**



**Air Motor
(Only for
smaller
models)**



**Gasoline
Engine
Honda**



**Gasoline
Engine
Flex Shaft
Honda**



**Hydraulic
Motor
Kit**

Receiver Belt Conveyers



The smooth white rubber conveyer belt slowly feeds produce into the Washer (Brusher). This unit is normally powered by the Washer but can also be powered with it's own variable speed gear motor.

Measurements:

- 4' - Standard unit length
- 6' - 8' length is recommended if used with a Bindumper
- Standard belt height is 32" to 38".

RBL1604 = 20" W x 48" L

RBL2404 = 28" W x 48" L

RBL3204 = 36" W x 48" L

RBL4004 = 44" W x 48" L

4 Ft. Receiver Brushers



UHMW
Bushings



or



Optional
Sealed Ball
Bearings
(choice of zinc
or stainless)

This unit can be used as an alternative to the Receiver Belt Conveyor, however, they do not function together. It can also be used with or without water. Built with (13) 3 1/2" diameter nylon brushes. Brush choice of soft or stiffer bristles. The first 2' of the unit is open on top where produce is dumped on the brushes. The remaining half has an 8 1/2" high hood over top with moderate-pressure water nozzles installed in top. The outfeed end of the unit has a pivot point that hooks to the washer, making the opposite end fully adjustable from 24" to 37" high. This helps to control produce flow. This unit is powered off washer only. Standard with UHMW bushings or optional sealed ball bearings (choice of zinc or stainless).

Measurements:

RBB1604 (4 Nozzles, 2 GPM, 40 PSI) = 20" W x 48" L

RBB2404 (6 Nozzles, 3 GPM, 40 PSI) = 28" W x 48" L

RBB3204 (8 Nozzles, 4 GPM, 40 PSI) = 40" W x 48" L

RBB4004 (12 Nozzles, 6 GPM, 40 PSI) = 48" W x 48" L

For odd shaped or hard to clean produce like cucumbers, squash, gourds, turnips, peppers, and potatoes.

Washer Brushers

Order 6 - 16
Weeks in Advance!



Standard with 3 1/2" diameter nylon brushes with either soft or stiff bristles on plastic core. Washes and brushes, or dry brushes the produce. It is completely enclosed with metal top and rubber side flaps. The standard washer has 14" overhead clearance. Water pan to catch water and/or dust has 2" MPT drain port. The brusher is available with UHMW self-lubricated plastic bushings or sealed ball bearings (zinc or stainless) for longer wear and heavier use. An electric motor, gas engine, hydraulic motor, or even an air motor can be used to power this unit and most of our complete packing lines.



Measurements:

16" W = 24" Overall Width
24" W = 32" Overall Width
32" W = 40" Overall Width
40" W = 48" Overall Width

• Available in 30 1/2" to 36 1/2" height
• 32 1/4" to 38 1/4" discharge height

UHMW
Bushings



or



Optional
Sealed Ball
Bearings
(choice of zinc
or stainless)

10-Brush - 38" Long Unit

Number of Nozzles in 10-Brush Washer			
16" Wide	24" Wide	32" Wide	40" Wide
4 Nozzles	6 Nozzles	8 Nozzles	12 Nozzles
Gallons per Minute at 40 PSI			
2 Gallons	3 Gallons	4 Gallons	6 Gallons

14-Brush - 52" Long Unit

Number of Nozzles in 14-Brush Washer			
16" Wide	24" Wide	32" Wide	40" Wide
6 Nozzles	9 Nozzles	12 Nozzles	18 Nozzles
Gallons per Minute at 40 PSI			
3 Gallons	4.5 Gallons	6 Gallons	9 Gallons

20-Brush - 73" Long Unit

Number of Nozzles in 14-Brush Washer			
16" Wide	24" Wide	32" Wide	40" Wide
8 Nozzles	12 Nozzles	16 Nozzles	24 Nozzles
Gallons per Minute at 40 PSI			
4 Gallons	6 Gallons	8 Gallons	12 Gallons

Stainless Steel or Painted Finish

Our entire product line (except for the Water Tanks) are available in both painted or T304 stainless steel (#4 polish finish). Water Tanks are only fabricated from stainless steel. Stainless equipment is solely stainless except for motors, gearboxes, sprockets, roller chain as well as some accessories. These items are also available in stainless upon request.

Overhead Brushes

12" soft tufted brush for placement in most high top washers. One or two can be installed in one unit, depending on the washer model. The top brush helps keep a more steady flow, it's 4 1/2" long bristles reach into crevices, bell ends, and narrow ends of odd shaped or large produce. Accepts up to 10" diameter crops.

Ideal for squash, cantaloupes, gourds, turnips, potatoes, cucumbers and many other crops. It also works well to polish apples, pears, peaches, tomatoes, peppers and more.



Sponge Water Absorbers



*Stainless steel model shown

(7) Rows of low RPM squeeze-dried 4" latex sponge rolls and (1) 3 1/2" diameter nylon brush at end. Foam sponges remove enough water from the produce to keep from streaking. Standard with UHMW self lubricated bushings or optional ball bearings. Sponge Water Absorbers are powered off the washer motors.

Measurements:

- 36" - Standard unit length
- 31" to 37" Discharge
- 16" W = 20" Overall Width
- 24" W = 28" Overall Width
- 32" W = 36" Overall Width
- 40" W = 44" Overall Width



UHMW Bushings



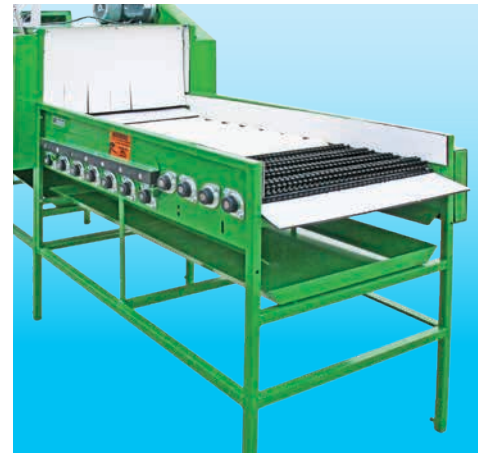
or



Optional Sealed Ball Bearings
(choice of zinc or stainless)



Absorber - Repolishers



(7) Rows of low RPM squeeze-dried 4" latex sponge rolls and (4) 3 1/2" diameter nylon brushes at end. Foam sponges remove enough water from the produce to keep from streaking. The 4 additional nylon brushes add more shine to produce. Produce dried on foam sponges tends to appear dull or smudged. The high speed brushes on this unit restore the shiny appearance. Standard with UHMW self lubricated bushings or optional ball bearings. Absorber - Repolishers are powered off the washer motors.

Measurements:

- 46 1/2" - Standard unit length
- 31" to 37" Discharge
- 16" W = 20" Overall Width
- 24" W = 28" Overall Width
- 32" W = 36" Overall Width
- 40" W = 44" Overall Width

10-Brush Slingers



Ideal for drying squash, cantaloupes and more.

(10) rows of 3 1/2" diameter nylon brushes. Features 3/8" flipper-bars below the brushes to sling the water out of the brushes. Will not remove the amount of water that the latex foam will remove. This unit can also be lengthened to achieve more brushing area. Standard with UHMW self lubricated bushings or optional ball bearings. 10-Brush Slingers are powered off the washer motors.

Measurements:

- 38" - Standard unit length
- 31" to 37" Discharge
- 16" W = 20" Overall Width
- 24" W = 28" Overall Width
- 32" W = 36" Overall Width
- 40" W = 44" Overall Width



UHMW Bushings



or



Optional Sealed Ball Bearings
(choice of zinc or stainless)

5' Rotary Packing Tables



5' diameter white plastic top. 2" padded sides. Moves produce around to people that are packing. Table speed is 2 1/2 rpm. Powered by gear motor or optional belt drive off unit that its attached to.

Measurements:

- 60" round

Rubber Belt Sizing Units



Rubber sizing belt with round punched holes, padded rollers, padded sides, or optional powered side conveyor and NEW PVC push-up rollers to reduce pinching and squashing. Side rollout chutes are not compatible with 32" and 40" wide models, only compatible with 16" and 24" wide models. Standard holes are 1/8" apart in sizes from 2" to 3". Also, several sizes available outside that range. The standard hole size for tomatoes is: Smalls 2 7/8", Large 3 1/4". These units can be powered off washer units or the optional gear motor. With the gear motor it is more convenient for moving as no bolts, shields, or chains need to be disconnected.

Measurements:

- 32" - Standard unit length
- 32" to 38" intake
- 32" to 38" discharge height



Square hole belts and hex sizing chains provide greater accuracy

Side Conveyers

for Belt Sizers

This conveyor replaces the side chute on the belt sizers. Effectively keeps the produce moving out in a steady flow, which reduces jams and bruises under the sizer belt. Produce can be packed directly into shipping boxes or rolled out on a side packing table. First conveyor in a series of side conveyers is equipped with a 1/3 HP gear motor.

Measurements:

- 10" wide x 48" long

Hex Chain Sizing Units



Shown with Side Packing Tables



NEW hex chain sizer with rubber coated chain - less marking on tomatoes!

Side Packing Tables for Sizers



Poly slanted table that fits at side discharges on sizer units. Table top is HDEP polyethylene. Features spring-loaded lid on the bottom that opens to fill boxes.

Measurements:

- 26 1/2" wide x 37 1/2" long
- 23" to 29" discharge height



Spring-loaded lid in open position

FBC – Flat Belt Conveyors



Materials

- Stainless Steel OR Painted Steel

Width

- 4 standard width options (16", 24", 32" and 40")
- Custom widths available

Length

- 4ft to 100ft in 6" increments

Height

- Standard table

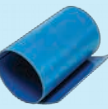
Elevator Style W/ Optional Hoppers



Belt Type Options



White 120 PVC



Blue
Thin-N-Tuff 75

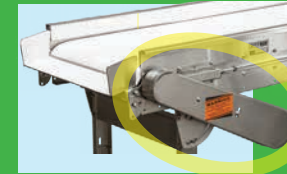


Black 120 PVC
Smooth or cleated



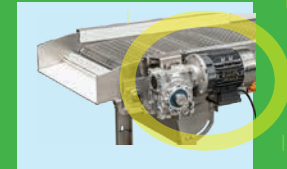
Flat Wire Belt
T304 Stainless

Conveyor Options



Under mount Gear-drive

- Chain Drive
- 115v, 230v, 1ph, or 3ph
- 1Speed or Variable speed



Axle mount Gear-drive

- Direct Drive
- 115v, 230v, 1ph, or 3ph
- 1Speed or Variable speed



Variable Speed Drive

- VFD Controlled
- 115v, 230v, 1ph, or 3ph



Casters

- 3" Poly Wheel, 300# each
- Stainless Steel or Zinc.
- Rigid mount or Swivel with Brake



Discharge Tray

- Padded
- Adjustable angle
- Use with smooth rubber belt



Discharge Brush & Tray

- Padded Tray
- Adjustable angle
- Use with Flat Wire Belt
- Brush required to pull product Away from the chain!

RIC-Roller Inspection Conveyor



Roller Inspection Conveyor rolls product as the PVC rollers move along the conveyor. This allows you to see all sides of Product as it rolls on the rollers!

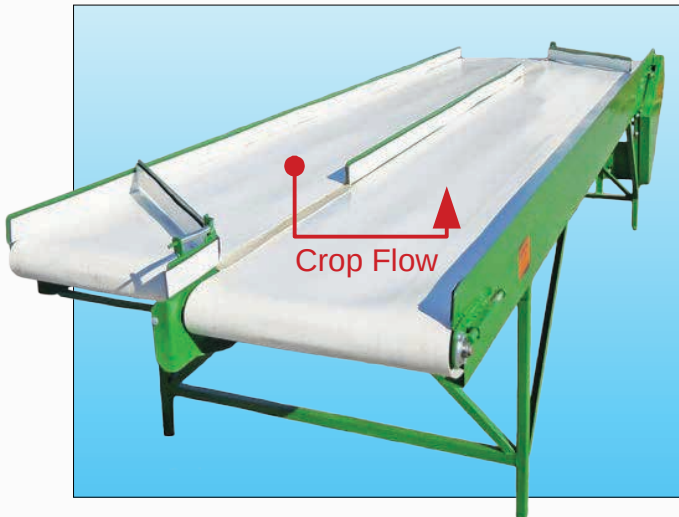
Powered By:

- Drive off other equipment (see FBC Conveyor Options)
- Under mount Gear-drive Chain Drive
- Axle mount Gear-drive
- 115v, 230v, 1ph, or 3ph
- 1Speed or Variable speed

Measurements + Weight:

- Available Lengths 10' to 75'
- Available belt Widths 16" 24" 32"

2-Way Sorting Belts

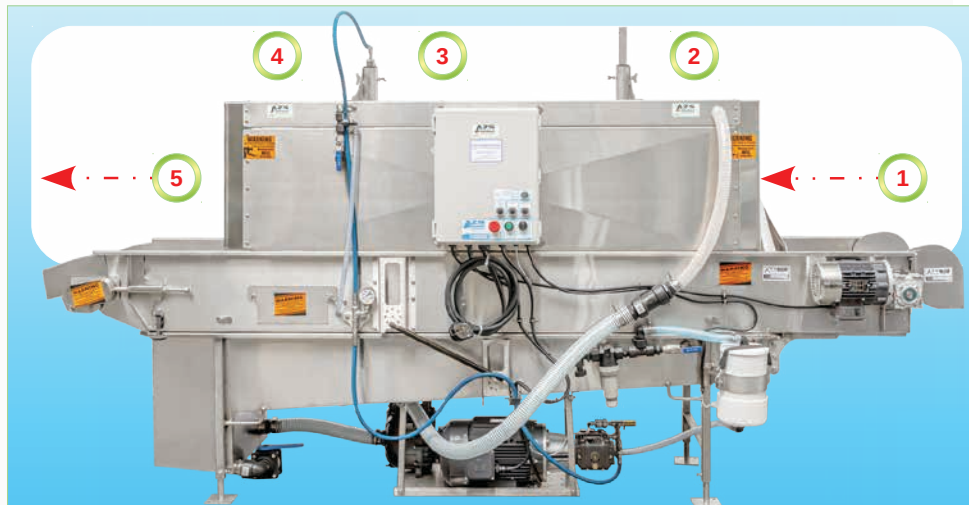


Swinging gate on the belt transfers produce from side to side. Side Gates also available

Measurements + Weight:

- Available Lengths 10' to 75'
- Available belt Widths 16" 24" 32"

RC2410 – Rinse Conveyors



What Can it be used for ?

FRUITS

- Apple, Pear, Plum, Oranges, Papaya, Blueberry?, Tomato, Pepper, Cucumber, Eggplant, Melons, Okra, Plantain, Pumpkin, Winter Squash, Summer Squash, Zucchini, Spaghetti Squash, Chestnut, Osage Orange etc.

ROOTS

- Beet, Carrot, Celeriac, Radish, & Turnip

TUBERS

- Cassava, Artichoke, Potato, Taro Root, & Yam

BULBS

- Fennel Bulb, Garlic, Leek

STEMS and SHOOTS

- Asparagus?, Celery Stalk & Bulb

FLOWERS

- Broccoli, Cauliflower

LEAVES

- Brussels Sprout, Cabbage, Kale, Lettuce, Spinach

LEGUMES

- Bean – green?, Peas?, Snow Peas?, & Sugar Snap?

OTHER

- RPC's, Baskets, Hydroponic flats, Hydro-cooling

Foot Notes :

? = Modifications may need to be considered for this product!



How does the Rinse Conveyor work ?

- 1 • **Produce Enters** conveyor & the washer. (Shown with optional 6" loading tray)
- 2 • **Wash stage #1: (LPHV)** Low pressure / high volume pre-soaking water.
 Use • **Soak water** to help penetrate soil !
 Use • **Pre-Rinse** as much loose soil as possible !
 Use • **Hydro-Cool** Crops ! (Can be assisted with: Well water, Ice, or a Chiller)
- 3 • **Wash stage #2: (HPWR)** High-pressure fresh water washing / rinsing.
 Use • **Deep-Cleaning** crops ect. ! (Soft to Hard crops, Baskets, RPC's, Trays, Boards, Stones)
 Use • **Rinse** ! (To clean rinse with fresh water)
 Use • **Apply Chemicals** ! (An applicator can be used to inject chemicals into the fresh water)
- 4 • **Wash stage #3: (LPWR)** Low-pressure fresh water washing / rinsing.
 Use • **Rinse** ! (To clean rinse with fresh water in applications where High Pressure Wash / Rinse can not be administered)
 Use • **Apply Chemicals** ! (An applicator can be used to inject chemicals into the fresh water)
- 5 • **Produce exits** the washer & conveyor directly after fresh water rinse. (Shown with optional discharge tray)

PC128- – Gas Power for Rinse Conveyor

- Optional when no electricity is available
- PC128-137G62P Has 1: 13hp & 1: 6.5hp Gas powered engine
- Pressure pump = 7gpm & 1500 PSI
- Portable to run outside & bring in
 - when freezing



Conveyor Opened for cleaning Out the water circulation tank



What Utilities are required ?

1 • Electric or Gas

1.1 • 230V 1ph: H1 30Amp, H2 35Amp, H3 50Amp (* 3ph)

1.2 • Gas & Air for: 13hp + 9hp Gas Honda + 1/3hp Air Motor

2 • Fresh Water

2.1 • H1 4gpm, H2 5.5gpm, H3 7.5gpm

3 • Drain

3.1 • 1-1/2" Overflow nipple: H1 4gpm, H2 5.5gpm, H3 7.5gpm

3.2 • 2" Ball Valve Drain with Cam-lock: 75Gal of Dirty water

Foot Notes :

* = Optional Feature

Rinse- Conveyor OPTIONS

9RK – Casters

- Casters for the Rinse conveyor
- **Size; 5" Cap; 900Lbs each**
- **Material; Zinc or SS both with poly wheel**



CPI120 – Fertilizer/Chlorine Injector



- Connect in the fresh water supply line (Garden hose connections)
- **100:1 Ratio**
- **Reservoir = 6.5 Gal**
- **Bypass valve assembly**

RCP2FT1 – Feed in tray

- Install on RC – Conveyor inlet
- **RCP2FT10-24SS = 6" deep tray**
- **RCP2FT11-24SS = 16" deep tray**
- **Used to help with tipping baskets onto RC conveyor when no infeed conveyor is used.**

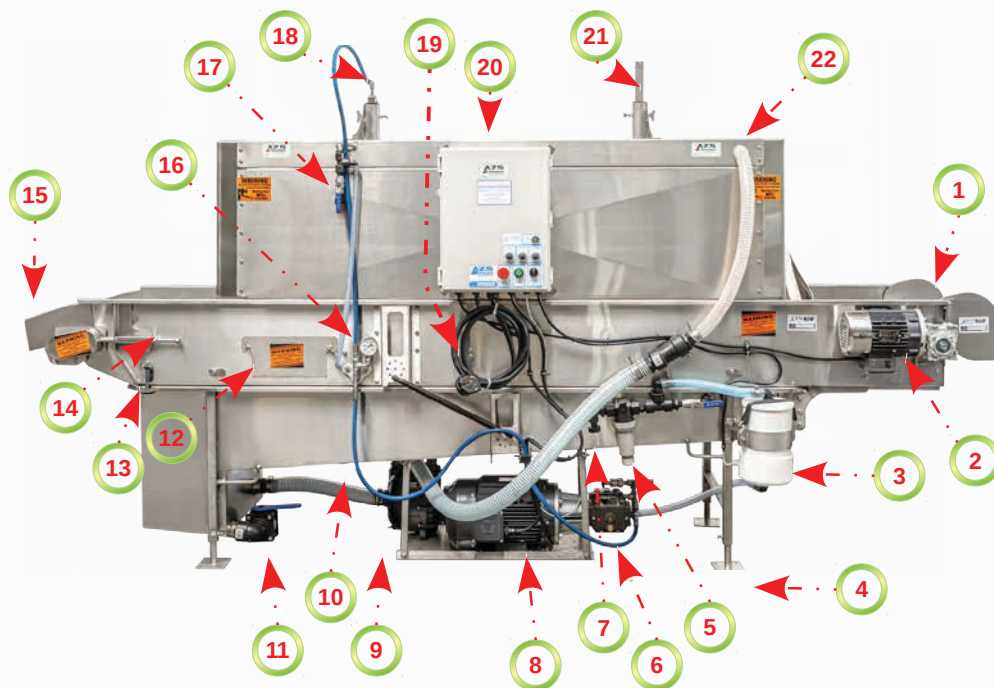


FBC – Feed in conveyor

- Feed product into the Rinse conveyor
- **Width; 24"**
- **Lengths; 8ft to ??**
- **Optional Opening for bin-dumper to feed the conveyor.**
- **Optional Variable Speed**
- **Wire or Rubber belt**



Electric – Rinse Conveyor Details

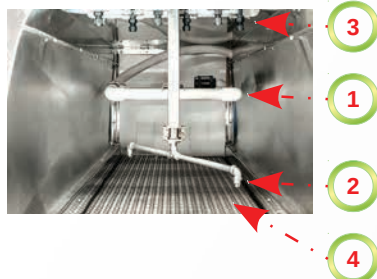


Rinse Conveyor Details

1. **Produce Enters** conveyor
2. **Conveyor Drive Motor**
3. **White Float Canister** for fresh water supply to High Pressure pump
4. **Adjustable legs** with bolt pattern for **Optional** casters
5. **Fresh water inlet filter**
6. **High Pressure pump**
 1. Also pointing out oil sight glass
7. **Fresh water inlet** for high pressure pump & circulation water fill valve
 1. 8gpm required depending on Model
8. **High pressure pump Motor**
9. **Pump for (LPHV)**
 1. Also pointing out the drain plug
10. **Overflow port** (1-1/2" fpt)
11. **Drain Valve** (2" with 2" male cam-lock)
12. **Access cover** for nozzles under the conveyor
13. **Rubber latch** to hold conveyor closed
14. **Conveyor Chain Tensioner** (3/4" wrench required)
15. **Product discharge tray**
16. **Pressure Gauge** for (HPWR) High Pressure nozzles
17. **Fresh water inlet** for (LPWR) Low pressure rinse
 1. Garden hose pressure range; 30 – 80psi
18. **Adjustable height** for (HPWR) High Pressure nozzles
19. **Power plug** on 9ft Power cord, Plug style varies by Model
20. **Motor Control panel**, style varies by Model
21. **Adjustable height** for (LPHV) Low pressure / high volume pre-soak
22. **Re-circulation hose** for (LPHV)

View of wash area

1. **Overhead Nozzles** for (LPHV) Low pressure / high volume pre-soak
2. **Overhead Nozzles** for (HPWR) High Pressure nozzles
3. **Overhead Nozzles** for (LPWR) Low pressure rinse
4. **SS Conveyor Chain**



Features of the Washer ?

- 1 • Conveyor For product (Fruits & Vegetables)
- 2 • LPHV Low Pressure High volume circulation water pump
- 3 • HPWR High Pressure Low volume volume circulation water pump
- 3 • LPWR Low Pressure High volume circulation water pump

Foot Notes :

* = Optional Feature

After The Rinse Conveyor



BWS- – Brush Water Slinger

- With attachment for stand-alone & self-powered
- Optional with BH1224 – Air Shear
- Soft brushes for removing water
- Width; 24"
- Length; 10 Brush 46" long
- Length; Optional 16 Brush
- Optional with Casters



FBC- – Flat belt conveyor

- With attachment for stand-alone & self-powered
- Optional with BH1224 – Air Shear
- Soft brushes for removing water
- Width; 24"
- Length; 10 Brush 46" long
- Length; Optional 16 Brush
- Optional with Casters

Rinse Conveyor Add-Ons

BH12-- Air Shear

- Install over BWS dryers & Conveyors to help dry crops after the Rinse conveyor
- Width; 16", 24", 32", & 40"
- Power; 1.5hp, 1ph 230volt – Optional variable speed



RT05-- Rotary table

- Install @ the end of packing line
- Opening Width; 16", 24", 32", & 40"
- Diameter; 60"
- Power; 1/10hp, 1ph 115volt – Optional variable speed



Rinse Conveyor Suggested Layouts

- 1) Feed-in Tray
- 2) Rinse Conveyor
- 3) Discharge Brush & Tray
- 4) Onto the rotary packing table

- 1) Feed-in Tray
- 2) Rinse Conveyor
- 3) BWS Brush Dryer with or without the Air Shear
- 4) Rotary packing table

- 1) Bin-dumper
- 2) FBC – Flat belt conveyor
- 3) Rinse Conveyor
- 4) FBC – Flat belt conveyor with the BH12 Air shear installed @ head of conveyor
- 5) Rotary packing table

- 1) Bin-dumper
- 2) FBC – Flat belt conveyor
- 3) Rinse Conveyor
- 4) BWS Brush Dryer with the BH12 Air shear installed
- 5) FBC – Flat belt conveyor with the BH12 Air shear installed @ head of conveyor
- 6) Rotary packing table

BD3 25-Bushel Bindumpers



Dumping position



Down position



Telescopic arms clamp boxes



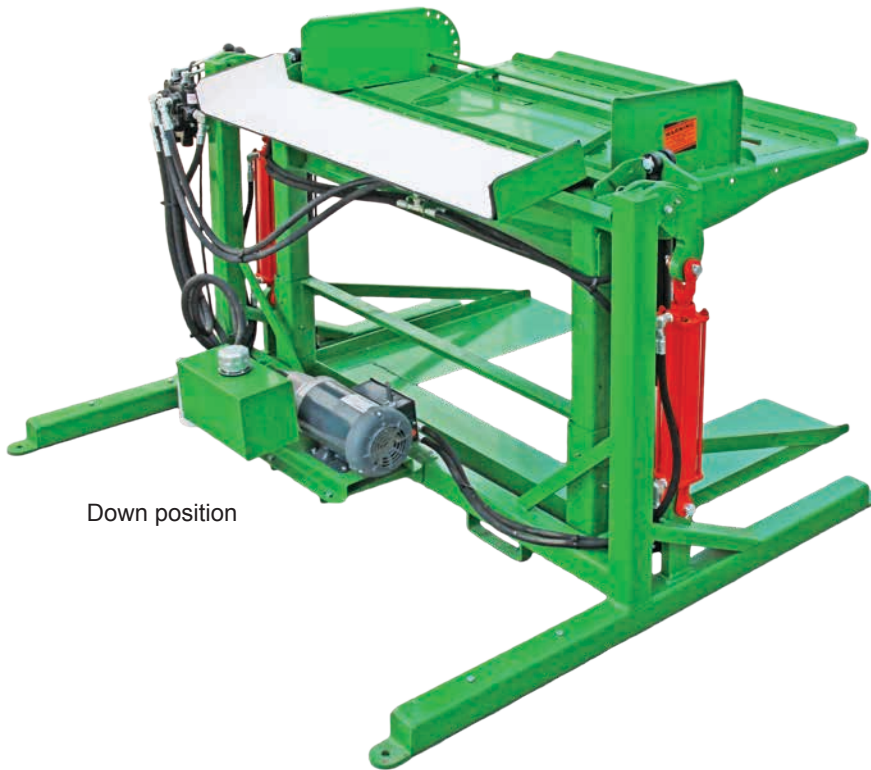
Convenient flow control

This unit dumps 25 bushel or smaller bins of produce onto the receiver belt conveyor or into the water dump tank. It handles bins up to 54" long x 48" wide x 27 1/2" to 38 1/2" high. Features hydraulic bin adjustment, adjustable produce flow, 3-way loading and adjustable dump height. 2-stage hydraulic pump powered by 1 1/2 HP, 220V electric motor (motor included). (10' ceiling height is required to dump bin. Ideally the dumper should stand on solid concrete or wooden flooring and be bolted down securely.

Measurements:

- 8' long x 64" wide x 68" high (Standard gravity chute output height is 32" to 44" high x 38" wide)
- Weight = 1300 lbs.

BD2 Low-Profile Bindumpers



Down position



Convenient flow control



Down position - loading view

Measurements:

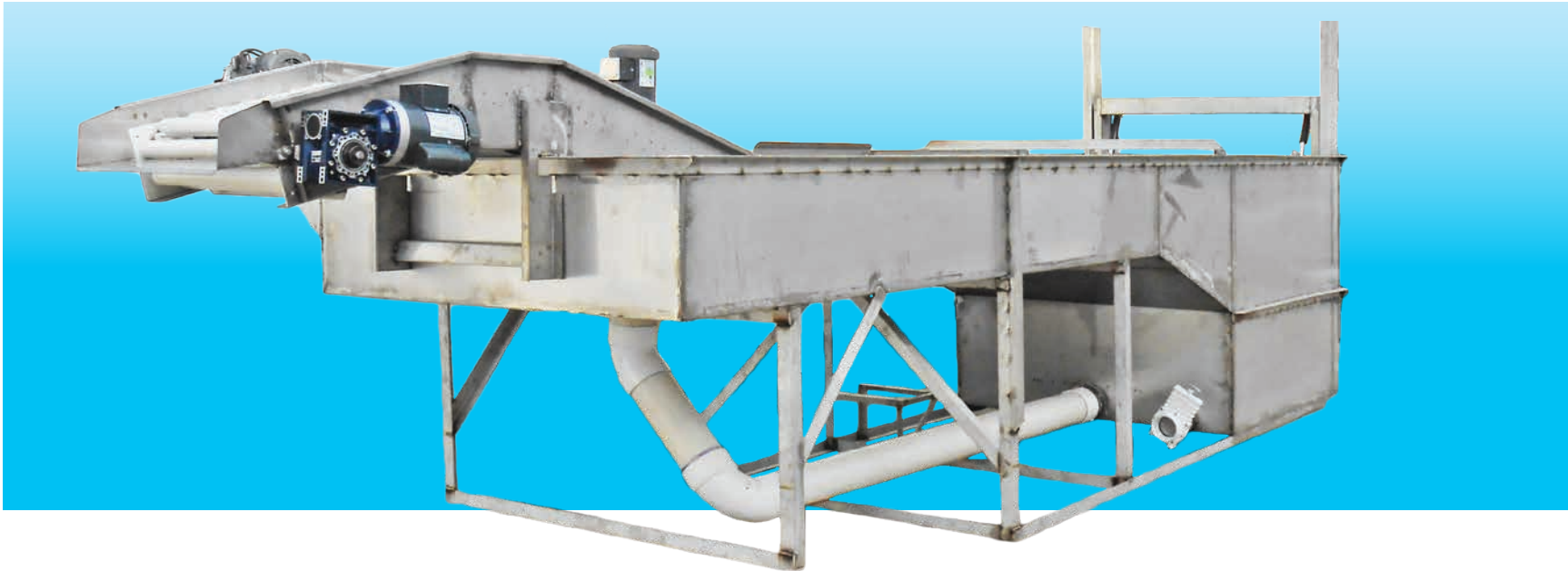
- 80" wide x 76" deep x 58" high
 - 105" ceiling height required
 - Weight is 880 lbs.
 - Discharge is 48" wide x 40 1/2" output height
- More adjustment on bin clamp than bin dumper



Dumping position
(Stainless Model Shown)

- Pallet jack loadable
- Lower clearance dumping
- Less floor space
- Less length on roll-out tray
- Flow control lid
- Available in stationary or mobile

Pre-soak Water Float Tanks



Submerge produce bin below water and float fruit out of the bin. Ideal for re-packing out of large bulk bins. This unit is more gentle on fruit than dumping with a bindumper. Features a carriage to lower the complete produce bins into water. Powered by 1HP 220V single phase motor.

16", 24", 32" and 40" fruit conveyers available. Powered trash screens optional (Pulls leaves and stems out of water).

Stainless steel fabrication.

4" gate valve for clean-out.

Water capacity = Approximately 1,300 gallons.

Measurements:

- 16' length x 64" wide x 88 1/2" high
- 10' 4" ceiling height required
- Top of tank is 56 5/8"
- 62" fruit discharge

Barrel Washers



Available in Painted or Stainless Finish

Sweetcorn Desilkers

2 Models
to fit the
volume you
process!



SCD4 Series (4-Brush)

This unit removes silk as you feed the sweetcorn through. One person desilking can keep up to ten people busy husking. Handles approximately 1 1/2 dozen per minute. 110V AC power.

Measurements + Weight:

• 31 1/2" x 8 1/2" x 18 1/2" • 65 lbs.

SCD1 Series (1-Brush) - not pictured

Removes silk as you hold ears of corn against spinning brush. This tool is a few times faster than brushing or desilking by hand. PVC construction with powered rotating brush. No water necessary. 110V AC power.

Sweetcorn Creamers



This unit creams approximately 1 1/4 dozen per minute. Stainless steel and poly construction. 110V AC power.

Measurements + Weight:

• 11" x 28" x 15 1/2" high • 53 lbs.

Note: Early order discounts do not apply to sweetcorn processing units

Kerian Speed Sizers

Sizing: Peppers, cucumbers, carrots, potatoes, radishes, squash, sweet potatoes, nuts and more. Not for tomatoes.



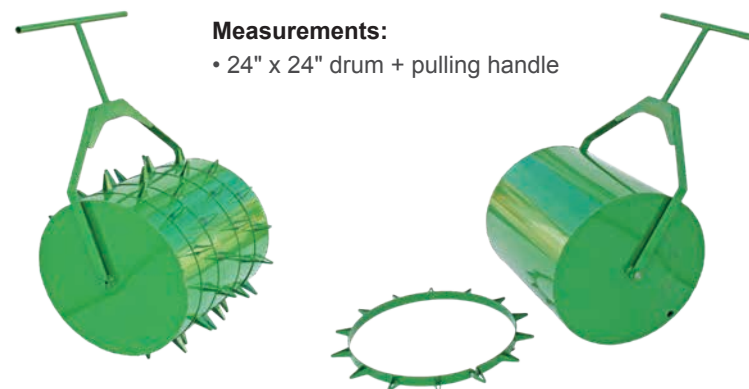
Plastic Hole Punchers

Punch holes in plastic at preferred spacing. Fill drum with water, as it needs weight to operate.

- Install 1 - 5 spike rings
- Onions: 4 rings with 6" spacings
- Can be ordered with custom spikes and spaces

Measurements:

• 24" x 24" drum + pulling handle



Packing Line

Assembly and Operating Instructions

- **Step #1** - Assembly of Brusher and Absorber. If they were taken apart for shipment. Remove guards over motor and Absorber chain as well as the 4 bolts that are used for attaching Absorber to Brusher.
- **Step #2** - Position Absorber unit in place and connect to Brusher with 4 bolts.
- **Step #3** - Take chain apart at master link (on Absorber). Feed chain around drive sprocket on Brusher unit. Recouple chain and adjust slack with idler sprocket (using a 3/4" wrench).
- **Step #4** - Replace all guards.
- **Step #5** - Position in-feed belt and attach to Brusher using the two brackets attached to the in-feed legs. Leave a 1/4" to 1/2" gap between belt and Brusher.
- **Step #6** - For Belt Sizer. Fasten to Absorber with 2 bolts. Connect drive chain onto the last sprocket on the Absorber. **Important! Replace all chain guards!**
- **Step #7** - Position Rotary Table against Sizer (or Absorber if Sizers are not used). Make sure there is a 1/2" gap between top of table and bottom of output plate. Rotary Table does not attach to the Absorber or Sizer unless table is powered off the Brusher engine. (Reference step #8).
- **Step #8** - To fasten the Rotary Table to last unit. This unit will need to have a special belt drive, which is normally installed at factory. Position Rotary table in place. Fasten brackets from rotary table to last unit. Put v-belt from Rotary Table around large 12" v-pulley on table and around 2" v-pulley on jack shaft. V-belt has to be twisted a 1/4 turn clockwise to be put on 2" v-pulley.
- **Step #9** - Route drains from Brusher and Absorber drain pans to floor drain or outside waterway. (Most drains are 2" male pipe thread).
- **Step #10** - Adjust all machinery legs so that equipment is level (Especially important for tomatoes, apples, peaches, oranges and pears).
- **Step #11** - For peppers, cucumbers, squash, guards, pie-pumpkins, potatoes, sweet potatoes, cantaloupes and grapefruits the Brusher and Absorber should run uphill to keep produce from going through the Brusher too fast. (Step #10 may not be necessary if you have a top brush in the brusher unit).

Adjustments and Checkpoints

- #1** - The wear strip to hold the chain down on the sprockets of the Brusher, Absorber, Feeder Brusher and 10-Brush Slinger is adjustable and should hold chain firmly down against sprockets. (On the 10-Brush Slinger the chain needs to be pushed up).
- #2** - The Absorber squeeze rolls can be adjusted if necessary; however, pulling them too tight may ruin the sponges which will make them stop turning completely. There are (2) 5 1/2" long carriage bolts in both sides of the Absorber to make this adjustment.
- #3** - To change the sponges, take the (2) 5 1/2" long vertical bolts out from opposite side of the chain and sprockets. You do not have to pull shafts out of the opposite side and lift out of frame. Never attempt to use steel punch or hammer on the ends of any metal shafts, as they will spread and bind in the bushings. If the shafts get tight spray only a very light oil on the shafts.
Example: V-Pure to remove the shield for any reason concerning the changing of the sponges. Pull side panel off the sponge shafts, then pull shafts out of the other side and lift out of frame. Never attempt to use steel punch or hammer on the ends of any metal shafting (WD40 or Dry-Lube). If you use a heavy oil the shaft will only get tighter yet.
- #4** - To change brushes and bushings in the Brusher, use a 3/16" punch to punch the stainless steel roll pin out of the brush. You will find the roll pin on the same end of the brush as the sprockets are on shafts. The roll pin should also be lined up with the key in the end of the shaft. Next take the wear strip and chain off, now the sprockets, and finally you can pull the shafts out of the brushes.
- #5** - To change bushing strips in brushes made after 12-2001. Take chain and sprockets off, then take out (3) vertical bolts on either side and knock strips from inside out. Shafts and brushes can then be removed easily without removing the roll pin.
- #6** - Adjusting the belt on Conveyers and Sizers. Do not over-tighten the belts. They should not be tight at the edges, only in the center. To track the belt, loosen the side you want the belt to move to. For sizer belt tracking, use adjustment bolt on the side of the top rear roller.

Equipment Options / Accessories / Parts

Electric Motor Kit



For Washer-Brushers

PKWBM07-11 (E1) Washer Motor Kit 3/4hp-110V 1ph
 PKWBM07-21 (E2) Washer Motor Kit 3/4hp-220V 1ph
 PKWBM07-21V (V2) Washer Motor Kit 3/4hp-220V

1ph Variable speed
 PKWBM07-23 (E3) Washer Motor Kit 3/4hp-220V 3ph
 PKWBM10-11 (E1) Washer Motor Kit 1hp-120V 1ph
 PKWBM10-21 (E2) Washer Motor Kit 1hp-220V 1ph
 PKWBM10-21V (V2) Washer Motor Kit 1hp-220V

Variable Speed



1ph Variable speed
 PKWBM10-21V (V2) Washer Motor Kit 1hp-220V

1ph Variable speed
 PKWBM10-23 (E3) Washer Motor Kit 1hp-220V 3ph
 PKWBM15-21 (E2) Washer Motor Kit 1-1/2hp 220V 1ph
 PKWBM15-23 (E3) Washer Motor Kit 1-1/2hp 220V 3ph
 PKWBM20-21V (V2) Washer Motor Kit 2hp-220V
 1ph Variable speed



Engine Mounting Kit

Install on Washers to release belt tension while starting engines

PKWBE16 (GM) Engine Mounting 16" Brusher
 PKWBE24 (GM) Engine Mounting 24" Brusher
 PKWBE32 (GM) Engine Mounting 32" Brusher
 PKWBE40 (GM) Engine Mounting 40" Brusher



GX120 Honda - combined with the above kit for Washer - Brushers

PKWBEN16GX120
 PKWBEN24GX120
 PKWBEN32GX120
 PKWBEN40GX120

Flexible Drive Kit to be mounted on the Washer Brusher



SE-FD0116-12 SE flexible Drive Kit / 16" Washer
 SE-FD0124-12 SE flexible Drive Kit / 24" Washer
 SE-FD0132-12 SE flexible Drive Kit / 32" Washer
 SE-FD0140-12 SE flexible Drive Kit / 40" Washer
 Available in 6', 8', 10', 12', 14', 16', 18' and more



Flex Shaft Mounting

Bolted to an Engine Mounting



WBHYM0.45-F (H2) 0.45CID

Hydraulic Motor Kit

Hydraulic Drive motor for Brush-Washers includes Quick-Couplers, Bypass valve, Belt, & Motor Pulley



Air Motor Drive

PKWBMA22 (A1) Air Miser Drive kit
 Only available on 16" x 10 brush washers



Top Brush Kit for washers YR-2011 or newer

Shown is for
10 Brush x 16" wide

WBOB24
WBOB24SS
WBOB32
WBOB32SS
WBOB40
WBOB40SS
WBOB1416
WBOB1416S
WBOB1424
WBOB1424S
WBOB1432
WBOB16
WBOB16SS

Over Head Brush for 24" x 10B
Over Head Brush for 24" x 10B Stainless
Over Head Brush for 32" x 10B
Over Head Brush for 32" x 10B Stainless
Over Head Brush for 40" x 10B
Over Head Brush for 40" x 10B Stainless
Over Head Brush for 16" x 14B
Over Head Brush for 16" x 14B Stainless
24" top brush kit 14 Brush
Over Head Brush for 24" x 14B Stainless
24" top brush kit 14 Brush
Over Head Brush for 16" x 10B
Over Head Brush for 16" x 10B Stainless



Feed-In Tray for front of Brush-Washers

BP316 Bucket Platform
Infeed 16" Stainless
BP324 Bucket Platform
Infeed 24" Stainless
BP332 Bucket Platform
Infeed 32" Stainless



CPI120 12Gpm Proportional Fertilizer/Chlorine Injector

Complete on Cart (100:1 Ratio)
Adjustable pump 1:150-1:500 available
Reservoir = 6.5 Gal
Total weight (No packing) 43 lb



Caster Legs - for 1" frame

PMAEXTC311 3" Swivel Caster w/Brake & 11/16" rod 1-1/4" Frame
PMAEXTC315 3" Swivel Caster w/Brake & 15/16" rod
PMAEXTC315RSS 3" Rigid Caster - no Brake - 15/16" rod - SS
PMAEXTC315S1 3" Zinc Swivel Caster w/Brake 15/16" SS Extension Leg
PMAEXTC315SS 3" Swivel Caster w/Brake - 15/16" rod - SS

Casters



3PB3X1-1/4 -S-TB 3" Swivel Casters w/ Brake - Stainless Steel
SS-K3PB3X114S-TB 3" Swivel Casters w/ Brake - Stainless Steel
SS-K3PB3X114-R 3" Rigid Casters - Stainless Steel
9RK5X2PS-R Rigid Caster 5x2 900lb - Polyolefin
9RK5X2PS-S-TB Swivel Caster 5x2 900lb - Polyolefin

Brushes



A16032G16L Tufted Brushes 3-1/2" x 16" .016 Green PSE
A16032N10L Tufted Brushes 3-1/2" x 16" 6-6 Black Nylon
A24032G16L Tufted Brushes 3-1/2" x 24" .016 Green PSE
A24032N10L Tufted Brushes 3-1/2" x 24" 6-6 Black Nylon
A32032G16L Tufted Brushes 3-1/2" x 32" .016 Green PSE
A32032N10L Tufted Brushes 3-1/2" x 32" 6-6 Black Nylon
A40032G16L Tufted Brushes 3-1/2" x 40" .016 Green PSE
A40032N10L Tufted Brushes 3-1/2" x 40" 6-6 Black Nylon



Brushes

AOB11511015P Tufted Brush 11" OD 15" L x 3/4" ID on 1 1/2" tube - overhead Brush .015 Polypropylene
 AOB11511022NP Tufted Brush 11" OD 15" L x 3/4" ID on 1 1/2" tube - overhead Brush .022 Black Poly-Pex
 AOB12311015P Tufted Brush 11" OD 23" L x 3/4" ID on 1 1/2" tube - Overhead Brush .015 Polypropylene
 AOB12311022NP Tufted Brush 11" OD 23" L x 3/4" ID on 1 1/2" tube - Overhead Brush .022 Black Poly-Pex
 AOB13111015P Tufted Brush 11" OD 31" L x 3/4" ID on 1 1/2" tube - Overhead Brush .015 Polypropylene
 AOB13111022NP Tufted Brush 11" OD 31" L x 3/4" ID on 1 1/2" tube - Overhead Brush .022 Black Poly-Pex
 AOB13911015P Tufted Brush 11" OD 39" L x 3/4" ID on 1 1/2" tube - Overhead Brush .015 Polypropylene
 AOB13911022NP Tufted Brush 11" OD 39" L x 3/4" ID on 1 1/2" tube - Overhead Brush .022 Black Poly-Pex



Spring Pin - Slotted

SPP0720S 7/32" x 1-1/4" Stainless Steel 420
 Use 1 pin per brush to fasten brushes to shaft.



Sponges

SPONL400*10 Sponge Latex 3-7/8" OD x 5/8" ID x 1-1/2"
 SPONB400*10 Sponge Blue Devil 4" OD x 5/8" ID x 1-1/2"
Below for TEW Absorbers
 SPONB400*10 Sponge Blue Devil 4" OD x 5/8" ID x 1-1/2"



Inserts and Flanges

SB204-12 Sealed Bearing Insert 3/4" Zinc
 47M2ZP Bearing Flange Stamped Steel 3/4" Zinc
 SSB204-12 Sealed Bearing Insert 3/4" stainless
 47M2SS Bearing Flange Stamped Steel 3/4" Stainless Steel
 BU204-12U UHMW Bushing - 204 x 3/4"



W1720 Oetiker 2 Ear Hose Clamp 0.64" to 0.79" Stainless



Ideal Hose Clamps - Stainless

HCI63128S Hose Clamp Ideal 63128 2-1/2" x 8-1/2" SS
 HCI6806S Hose Clamp Ideal 6806 3/8" x 7/8"
 HCI6808S Hose Clamp Ideal 6808 7/16" x 1"
 HCI6812S Hose Clamp Ideal 6812 1/2" x 1-1/4"
 HCI6820S Hose Clamp Ideal 3/4" x 1-3/4"
 HCI6828S Hose Clamp Ideal 6828 1" x 2"
 HCI6832S Hose Clamp Ideal 1-1/2" x 2-1/2"
 HCI6836S Hose Clamp Ideal 1-3/4" x 2-3/4"
 HCI6888S Hose Clamp Ideal 6888 4" x 6"



3NTT12 Nozzle Body Poly Tee x 1/2" Hose Barb



3NTL12 Nozzle Body Poly Elbow x 1/2" Hose Barb



DVP4 Yellow nozzle tip Plastic D4
DVP3 Green nozzle tip Plastic D4
DVP5 Blue nozzle tip Plastic D4
DVP6 Red nozzle tip Plastic D4
DVP10 White nozzle tip Plastic D4



DC56NY Black Nozzle Core, Nylon
DC31NY White Nozzle Core, Nylon
DC36NY Brown Nozzle Core, Nylon



4514NY Blue Nylon Mesh 50 screen



NCP1116 Nozzle Body Cap Poly 11/16-16UN



XR110015VP XR TeeJet 110° 015 Green V-Polymer
XR11001VP XR TeeJet 110° 01 Oran. V-Polymer
XR11001VS XR TeeJet 110° 01 Oran. V-Stainless
XR11002VK XR TeeJet 110° 03 Yellow V-Ceremic
XR11003VK XR TeeJet 110° 03 Blue V-Ceremic
XR11004-VK XR TeeJet 110° 04 Red V-Ceremic
XR11008VP XR TeeJet 110° 08 White V-Polyme



TXVS1 Visflo Cone Jet - SS
TXVS2 Visflo Cone Jet - SS

6108 per FT - Clear Reinforced PVC Tube - 1/2" ID x 3/4" OD, Braided 215
PSI +14° - +140° F



CRC03040
Food Grade Silicone
Lubricant - Good
for Food Handling
Equipment
16oz aerosol



64510
Ag Specialty
JD Green Industrial
12oz aerosol



046532
Ag Specialty
Light Ford Gray
12oz aerosol



41150
Grease / Super Lube
14.5oz tube (for
Foodgrade Use
(Food Grade NSF H1)

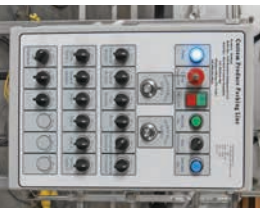


L37229
QuickStix C5-A
Copper Anti-Seize - 7oz



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we can assist
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