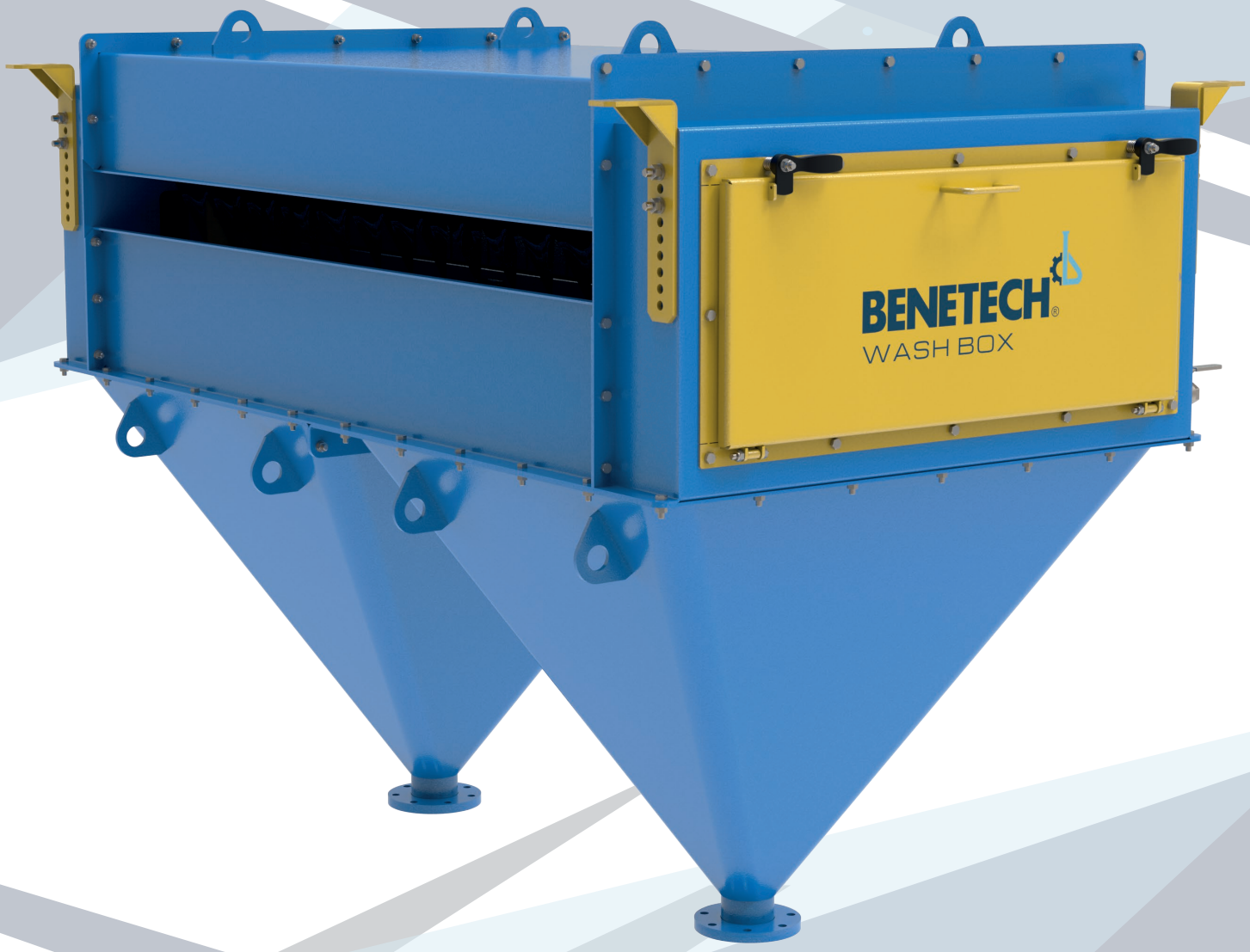
LINE OF PRODUCTS

ADVANCED TRANSPORT OF MATERIAL

CONVEYOR BELT CLEANING

MATERIAL FOR SEAMLESS BELT



WASH BOX

Commercial Presentation & Installation Guide

BENETECH®

IMPORTANT BENETECH BRASIL DECLARES ITS EXEMPTION IN CASE OF:

Incorrect installation of the equipment;
Inadequate sizing of the equipment; Damage due to contamination of the material;
Failure of the user to inspect the equipment;
User failure to maintain the equipment;
User failure to take proper care of the equipment;
Risk of injury or damage resulting from the use or application of this product contrary to the instructions information and specifications contained in this document.

BENETE CH BRASIL'S LIABILITY SHOULD BE LIMITED TO REPAIR OR REPLACEMENT OF DEFECTIVE EQUIPMENT.

Review and understand all the safety regulations given here, along with the standards and regulations local and governmental regulations. Know and understand the Lockout / Tagout or Lockout procedures and Dangerous Energy Signaling Z244.1-1982 from the American Institute of National Standards (ANSI) , the American National Standard for Personnel Protection - Blocking and Signaling of Energy Sources –Minimum Safety Requirements and the Occupational Safety and Health Administration (OSHA) or Occupational Health and Safety Administration Federal Register, PART IV, 29 CFR PART 1910, Control of high risk energy sources (Blocking and Signaling); Final Rule. Also note all local government regulations regarding entry into confined spaces, welding, cutting,grinding, washing procedures and all personal protective equipment (PPE).

DANGER
Indicates immediate hazards that will result in serious personal injury or death.

ATTENTION
Indicates risks or unsafe practices that can result in personal injury.

IMPORTANT
Indicates instructions that must be followed for proper installation and / or operation of the equipment.

NOTE
Indicates general items to assist the reader / installer / operator.

ATTENTION
Indicates risks or unsafe practices that can result in personal injury.

Pay attention to all items and warnings.
They have been included here for your safety and ease of installation.

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WASH BOX

Introduction

The Wash Box is made up of a water spray washing system and a scraper set. Integrated secondary pains and ensuring the superficial cleanliness of its entire area, removing all waste so that there are no anomalies in the equipment.
The equipment is built in Stainless Steel, guaranteeing a long working day without maintenance. maintenance or replacement of its entire structure by oxidation, our Secondary Scrapers kit guarantees high performance in cleaning and waste removal, system with high pressure spray nozzles for removing waste and rollers to remove excess water and dry the belt.

Description of Equipment Parts

01-WASHING BOX BWB1-72

Structural set formed by assembly modules, where all assembly is fixed and carried out Manifolds, Scrapers, Connections and Rollers.
Reference Drawing:

17406DM-01-002_REV0
17406DM-01-003_REV0
17406DM-01-004_REV0
17406DM-01-005_REV0
17406DM-01-006_REV0
17406DM-01-007_REV0
17406DM-01-008_REV0
17406DM-01-009_REV0
17406DM-01-010_REV0
17406DM-01-011_REV0
17406DM-01-012_REV0
17406DM-01-013_REV0
17406DM-01-014_REV0
17406DM-01-015_REV0
17406DM-01-027_REV0

02-MANIFOLD WITH SPRAY NOZZLES

Set of Spray nozzles connected to a pipe that can be sized for each type and width Conveyor Belt.
Reference Drawing:
17406DM-01-016_REV0

03-DISTRIBUTION BRANCH

Feed distribution system to the Manifolds, equipped with a valve for maintenance and filter for removing impurities.
Reference Drawing:
17406DM-01-002_REV0
17406DM-01-017_REV0 / P. assembly see drawing.

04-INSPECTION WINDOW

The Inspection Window is a fundamental item in the equipment, facilitating preventive maintenance and daily inspection that can be described differently from company to company.
It is possible to perform corrective maintenance through the window, in case there is a need to replace any installed component and it is not accessible to access it, check the need to remove any of the parties.
Reference Drawing:
17406DM-01-018_REV0
17406DM-01-002_REV0 / P. assembly see drawing.

System Operation

Conveyor Belt Cleaning

The purpose of the Wash Box is to guarantee the cleanliness of the Conveyor Belt.
As soon as the equipment enters the operating mode, the belt passes through the Box and the Nozzles Spray has the function of moistening all material so that, as soon as it passes through the scrapers, cleaning carried out with full guarantee and efficiency.
The Benetech Wash Box comes standard with 02 Sets of Secondary Scrapers,guaranteeing the system performance for any model of Conveyor Belt and Situation of Work.

Assembly and Adjustments

Box

Following the guidelines of drawing 17406DM-01-001_REV0, the person responsible for assembly must be attentive to all the measures and annotations mentioned in the drawing, ensuring total effectiveness of the process and that there is no damage to the equipment where it will be installed, this could result in major operating problems, material loss and even the breaking of the Conveyor Belt.
Always remember to use the right tools and do not subject yourself to local risks.

IMAGE-01-CX-L

Scrapers

In the Lateral module, the guiding screws for fastening the Scrapers are standard. The height of this fixing is manufactured according to the customer's need.

1. Fix the tensioner screws. When screwing the tensioner, it must be aligned perpendicularly to the belt.
2. After fixing the tensioners, position the shaft and blades. Then tighten the screws position " A ", as shown in figure 02.
3. If the blades are not aligned, loosen the " B " screws, adjust in the center and secure again.
4. Lock the " D " axis.
5. Adjust the height of the structure by turning the spindle " C " - on both sides of the scraper, until the blades touch the belt evenly.
6. To tension the scraper, continue turning the " D " spindle. This tensioning must always be done on both sides with the same number of turns.
7. The final tensioning must be done with the belt in operation so that it is possible to observe the cleaning efficiency.

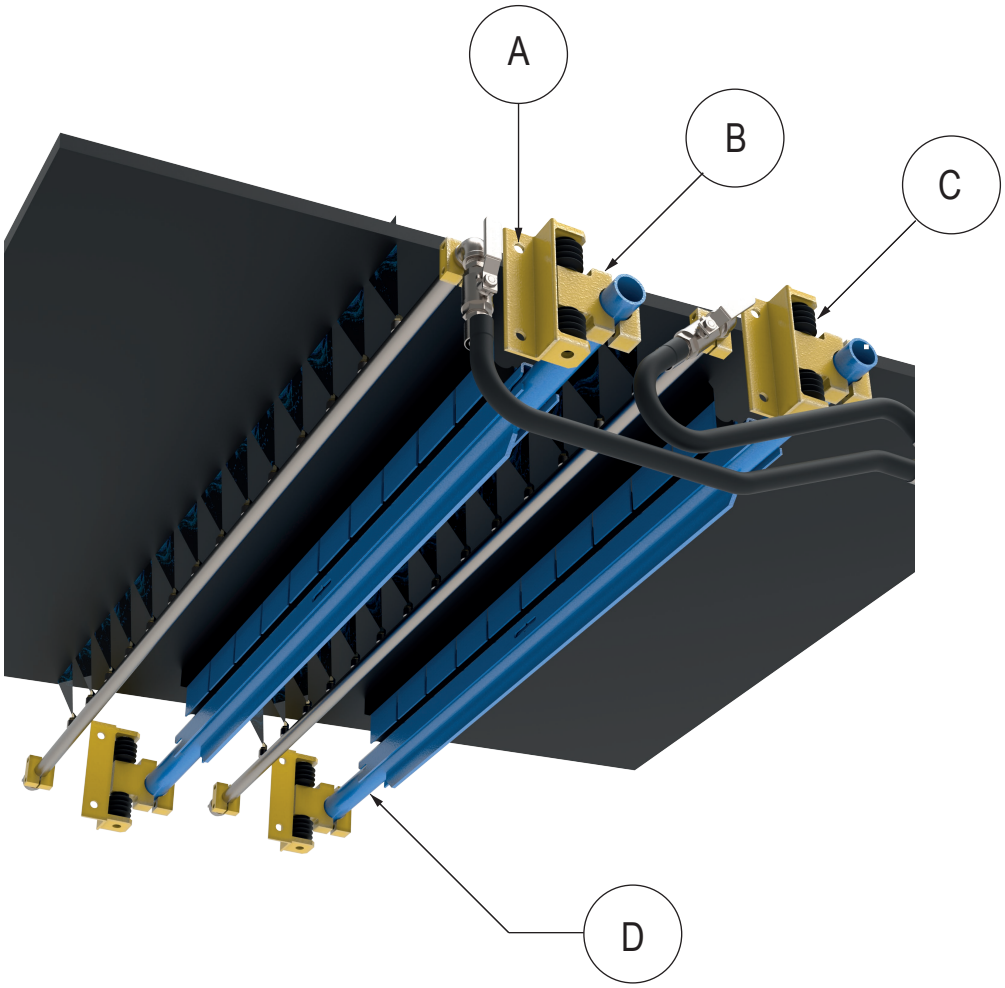

IMAGE-02-CX-L

Rollers

On the roller fixing base, it is possible to make all the adjustments for assembly and adjustments in the maintenance tendencies.
Respect the tolerance limit on the face of the Conveyor Belt with the Tangent face of the Return Roller.and the Dewatering Roller.

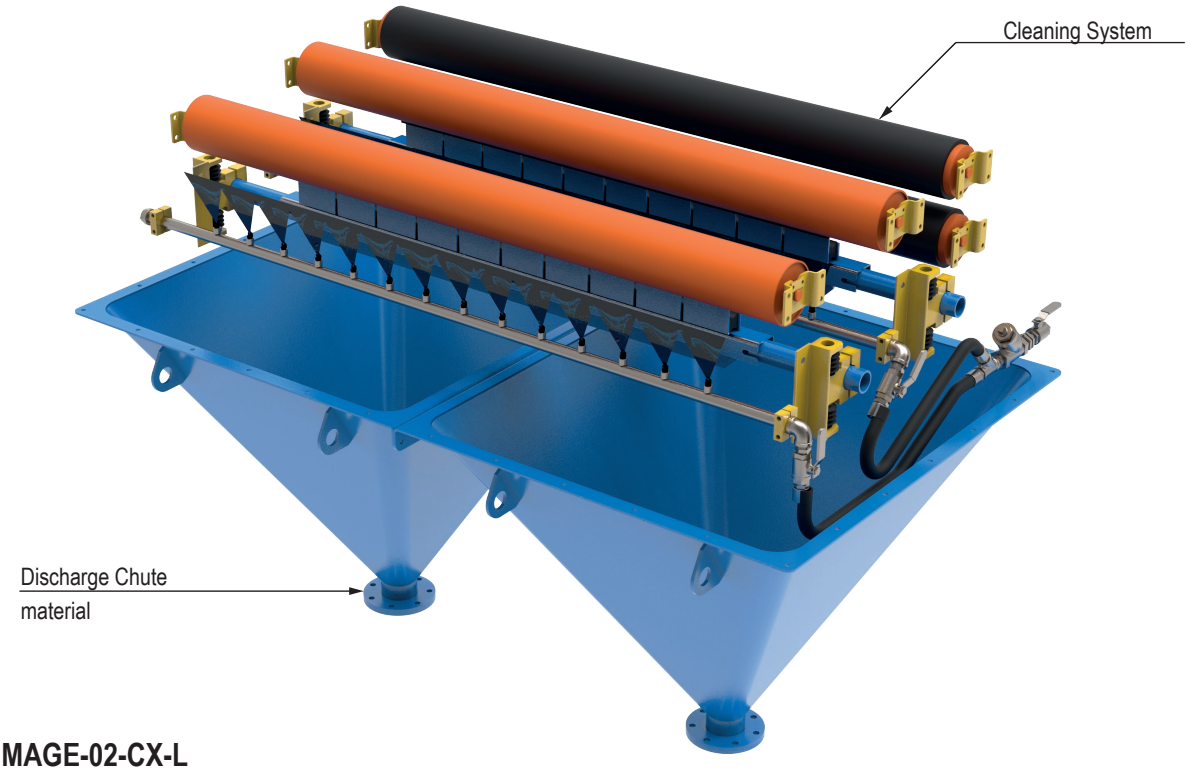

IMAGE-02-CX-L

Manifolds

The side modules of the Wash Box by default, come with the adjustments made on top of the drawing provided by the client, respecting all rules and adequate distance to guarantee the efficiency of cleaning. Check the image below for its installation and illustration of the nozzles in Operation Mode.

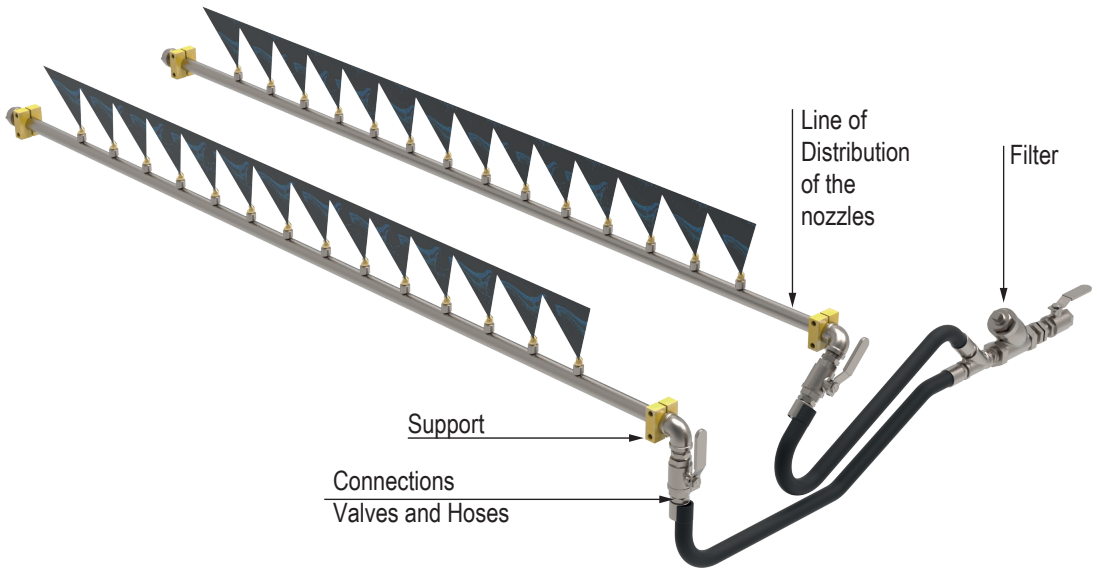

IMAGE-03-CX-L

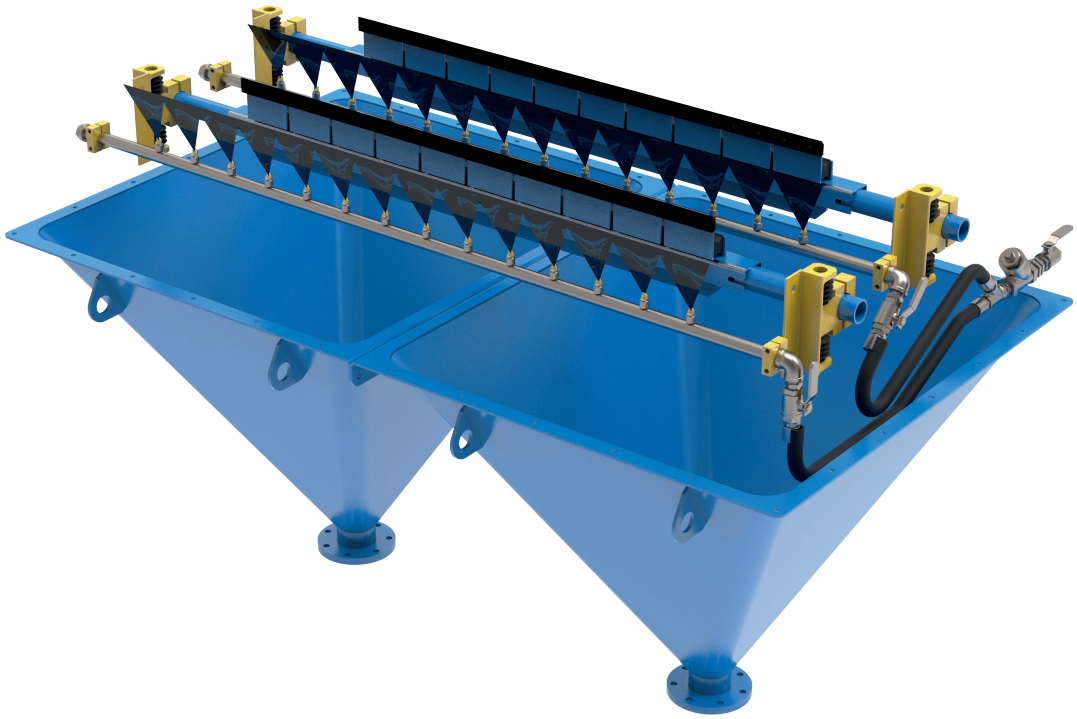

IMAGE-04-CX-L

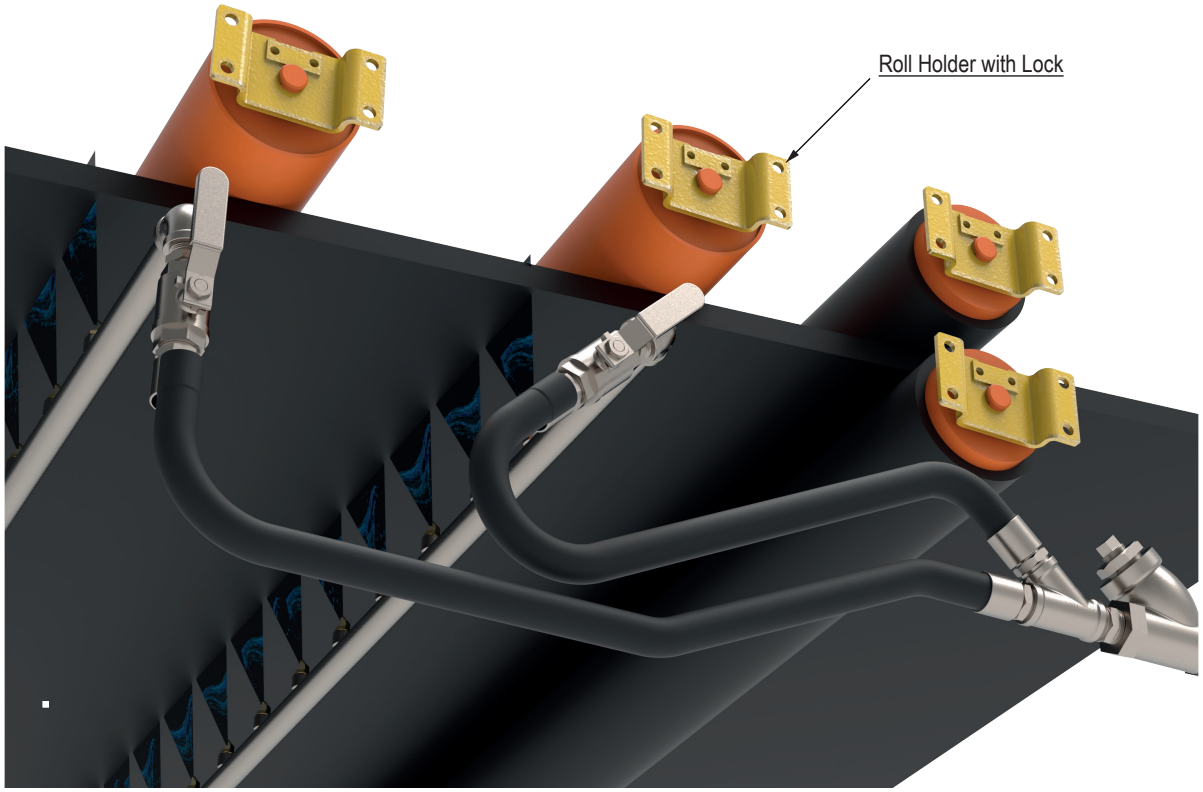

IMAGE-05-CX-L

Inspection Window

The model is standardized for each Wash Box model, ensuring full access to roller adjustment parts, scrapers and manifold adjustments.

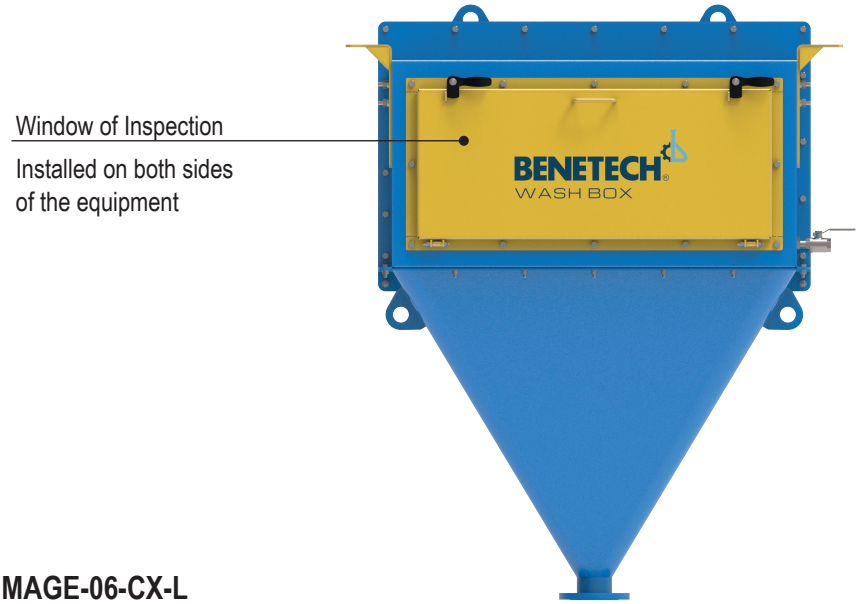

IMAGE-06-CX-L

Supports

For better installation adjustment, and possible adjustments over time, our support has auxiliary drilling, which allows this adjustment at the time of installation and in future adjustments. To ensure correct fixing, check the product assembly drawings, all information is visible on it necessary so that it is not fixed in the wrong way.

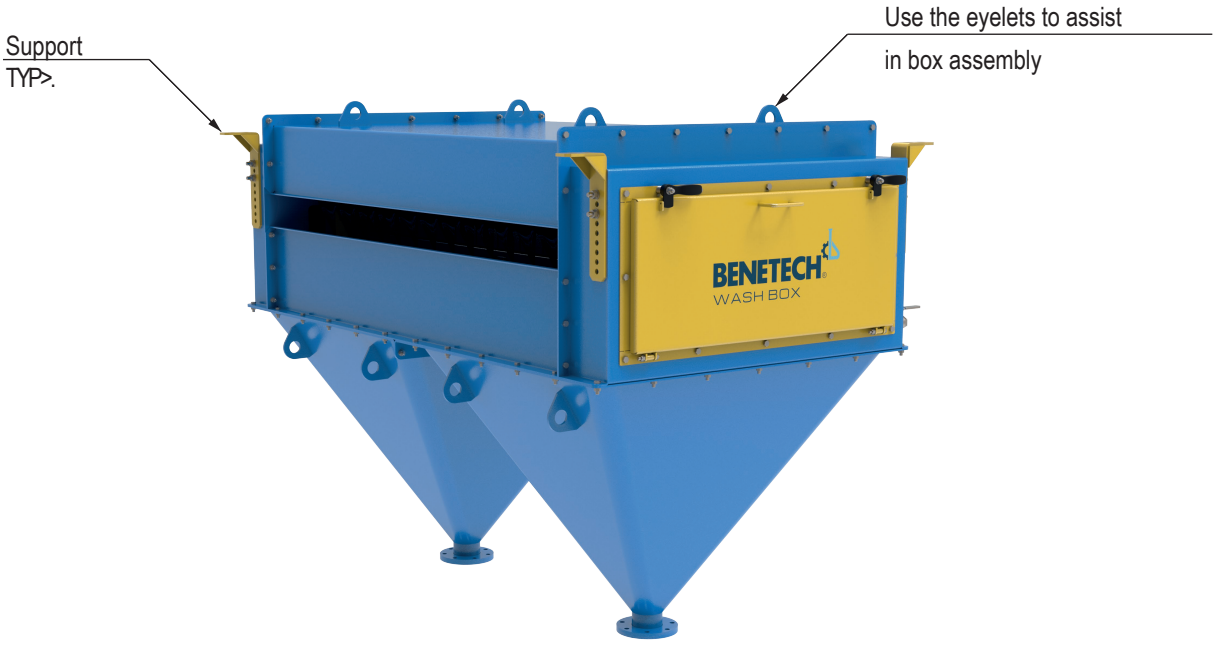

IMAGE-07-CX-L

Supports

Material Discharge Pipe

The customer is responsible for the installation of a line suitable for the equipment, so that the correct collection of waste and that it is deposited in an appropriate place, without causing anomalies in process.

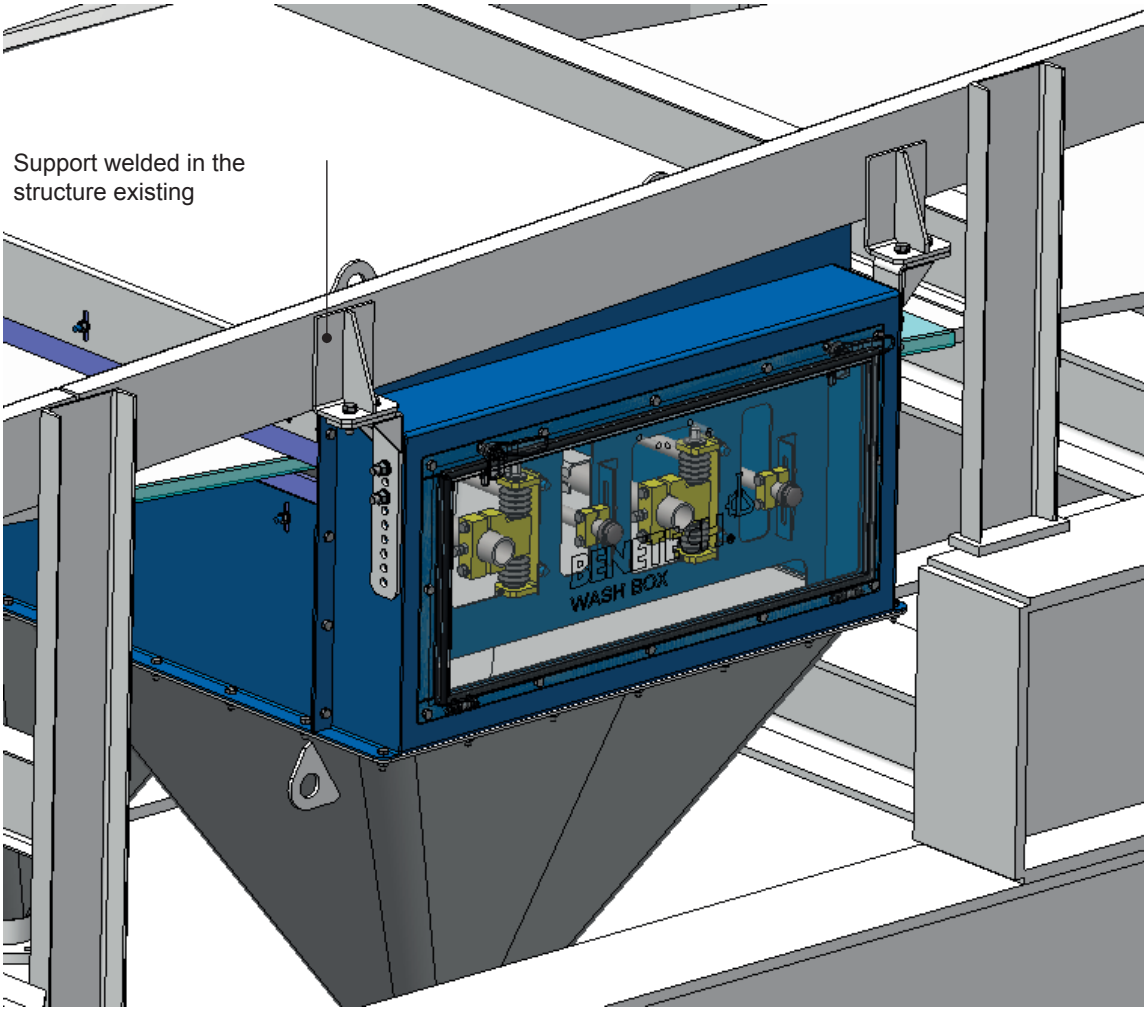

IMAGE-08-CX-L

The image shows exactly its assembly fixed by the welded supports in the existing structure and by the movable supports that allow the height adjustment of the box.

Assembly Procedure

Roll Assembly Procedure

After installing the washing box in the location indicated in the drawing, follow the following list below..

1-Fix the roller support on the side covers;

2-Fit the roller below the belt so that it does not force or generate any tangent point.

3-After the assembly, lock them with a plate indicated in the manufacturing drawing, it will guarantee that the roller does not come off the fixing base.

4-Install the upper rollers following the same procedure (2).

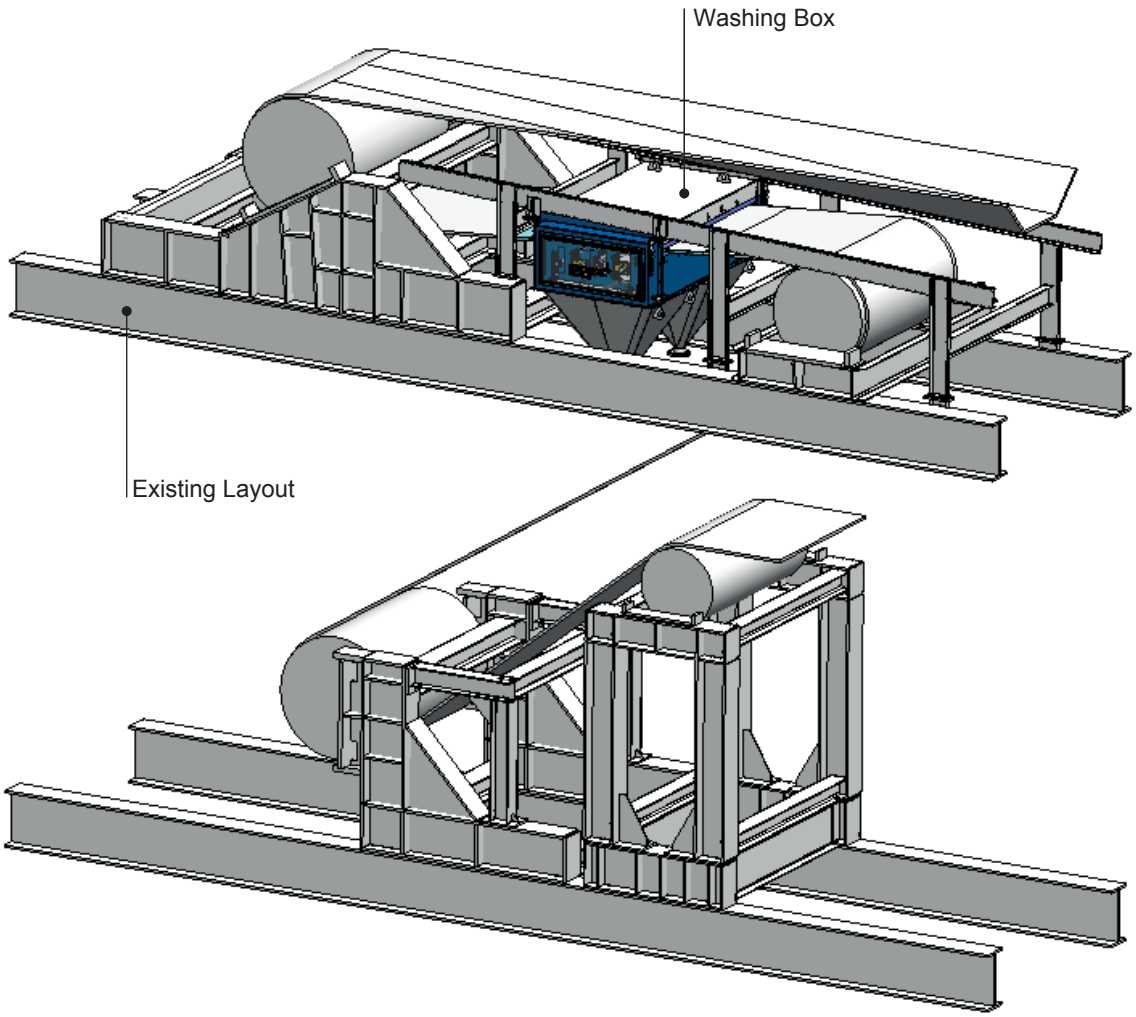

IMAGE-09-CX-L

Complete layout of the place where the Wash Box will be assembled.

Assembly Procedure

Roll Assembly Procedure

After installing the washing box in the location indicated in the drawing, follow the following list below.

1-Fix the roller support on the side covers;

2-Fit the roller below the belt so that it does not force or generate any tangent point.

3-After the assembly, lock them with a plate indicated in the manufacturing drawing, it will guarantee that the roller does not come off the fixing base.

4-Install the upper rollers following the same procedure (2).

The Upper Roller (A) must be parallel to the belt, adjusting the height through the support slots (B) while the Lower Roller (C) is held in position bottom. After adjusting the Upper Roller (A), in the same way, the Lower Roller (C) must be touched on the belt through the Support Spindle Nuts (D). Adjustment should also be carried out in both sides.

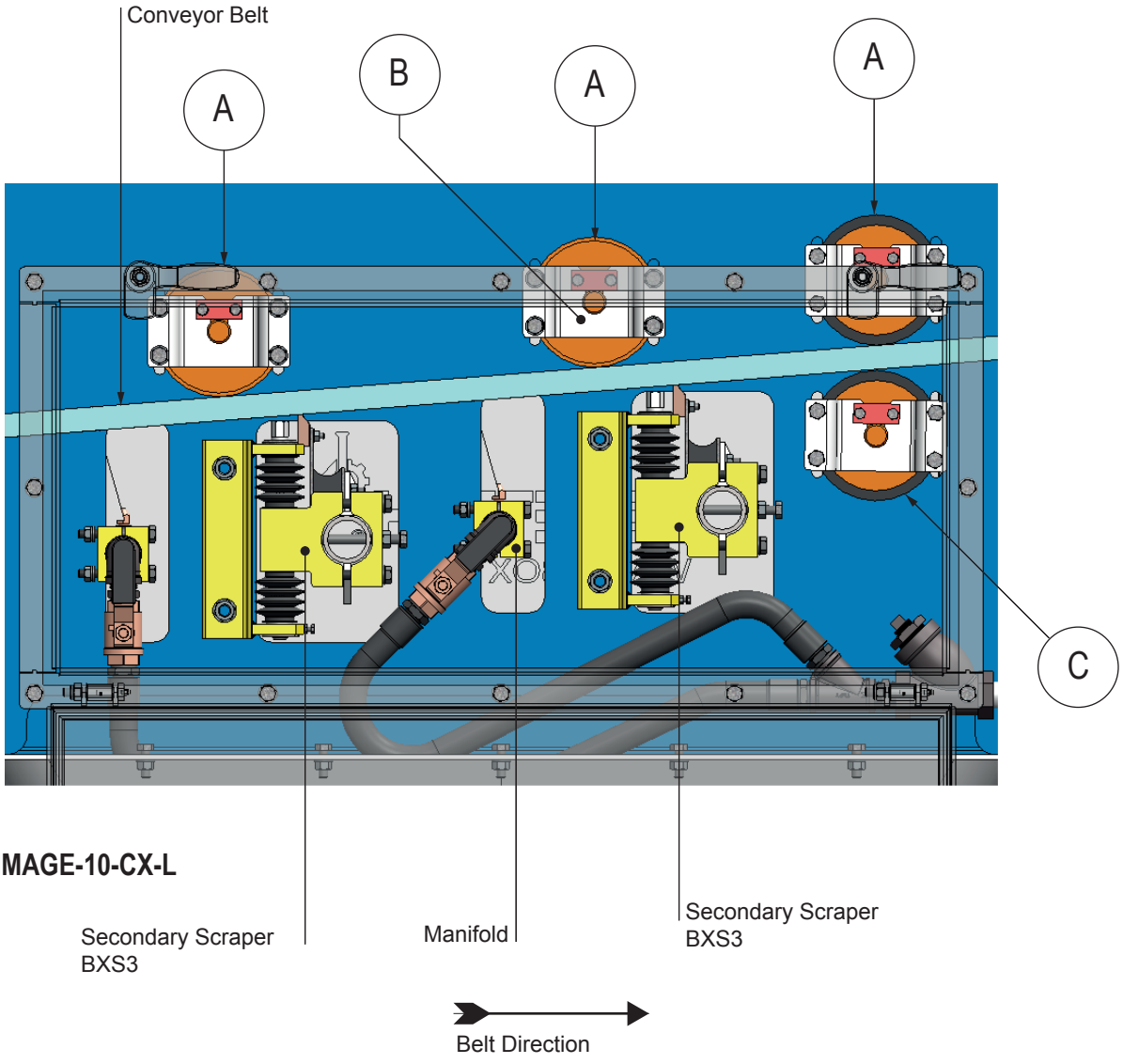

IMAGE-10-CX-L

AFTER INSTALLATION

Read the entire section before starting work.

1. After installing the belt scraper and tensioner, check the measures to ensure that the structure is parallel to the pulley.
2. Make sure the blades are 90º from the belt.
3. Measure from the center point of the pulley to the outer end of the first and last blade, to ensure that the blades are centered on the belt.
4. Clean the chute wall thoroughly, clean over the belt scraper on the operator's side. Place the Conveyor Products Warning Label on the chute wall, visible to the operator of the chute belt scraper.

WARNING

Failure to remove tools from the installation area prior to turning on the power supply may cause serious injury to personnel and / or damage to the equipment.

5. Remove all tools and fire retardant covers from the installation area and the conveyor belt.

DANGER

Do not touch or get close to the conveyor belt or the conveyor accessories when the conveyor belt is in operation. Part of your body or clothing may become stuck, and pull the body into the conveyor belt, causing serious injury or death.

6. Turn on the conveyor belt for 1 hour.

WARNING

Before adjusting the belt scraper, dewatering roller and sprinkler manifolds switch off and lock the power source of the conveyor belt and the conveyor accessories.

8. After 1 hour of operation, disconnect and lock the power source of the conveyor belt.
9. Make sure that all tensioners are tight.

MAINTENANCE

IMPORTANT

Read the entire section before starting work.

WARNING

1. Disconnect and lock the power supply from the belt shipping company.
2. Make sure that all tensioners are tight. Tighten again if necessary.
3. Check the blades for excessive wear. If the blades are worn down to the wear, replace them as follows form:

A. Relieve the tension of the structure.
B. Remove the blades.
C. Install the new blades.
D. Make sure that the blades are centered in relation to the belt.
E. Apply tension to the belt scraper according to the applicable tensioner manual.

4. Clean all labels. If the labels are not legible, contact Benetech or the distributors to replace them.
5. Remove all tools from the maintenance area.
6. Start the conveyor belt.

RECOMMENDED SYSTEM MAINTENANCE

GENERAL USE

- Regular maintenance and cleaning of the equipment is very important to ensure that the it will always work correctly.

NOTE: We recommend that this cleaning interval should be a maximum of 5 days.

- In general, we emphasize that all flanged connections that are eventually opened they must, necessarily, count on the exchange of the joint. The same applies to threaded connections that they must always have new and suitable applications of teflon tape for reassembly.
- Also check the detailed maintenance information for each of the equipment.

DAILY

- Check for proper functioning of all valves.

WEEKLY

- Check for leaks.
- Perform a visual inspection of the spray nozzles, they must present the same jet behavior. If necessary, clean the nozzles with the help of a brush with nylon bristles, similar to toothbrushes, (NEVER USE STEEL BRUSHES OR NEEDLES), change the nozzle if necessary.

FORTNIGHTLY

- Carry out manual cleaning of the Y-filters located inside the Wash box.
- Check the accumulation of material on the walls of the waste collector.

SCRAPERS

- Access the scraper manual directly for more information.

SPARE LIST

The items listed below refer to any part of the equipment that will suffer some type of friction or wear of use, consider repairing or replacing the components individually after an inspection analysis and maintenance.

ITEM	QTY	MATERIAL DESCRIPTION
1	14	SPRAY NOZZLE 1/4 "P-SS5010 BRONZE
2	1	BALL VALVE DN 25 (Ø1 ") NPT 600 PSI TUPY BRONZE
3	2	SECONDARY SCRAPER BXS3 FOR BELT 72 "BENETECH 62.4 124.8
4	2	SMOOTH RETURN ROLLER BELT 72 "- 2000x165x2044x30
5	2	SMOOTH RETURN ROLLER BELT 72 "- 2000x165x2044x30 WITH RUBBER COATING
6	1	MOUNTED HOSE Ø1 "x 1000
7	1	MOUNTED HOSE Ø1 "x 800
8	2	AGAINST NUT SEXT. Ø1 ", BSP TUPY STEEL
9	1	TUBE DN 25 (1 ") SCH 40 x 100 - NPT GALVANIZED
10	1	T 45 ° DN 25 (Ø1 ") NPT 300 PSI TUPY FE. CAST
11	1	Y FILTER DN 25 (Ø1 ") NPT 125 PSI, NPT, STAINLESS STEEL MESH 40 MESH FE. CAST
12	1	NIPLE DN 25 (Ø1 ") NPT 300 PSI TUPY
13	1	BALL VALVE DN 25 (Ø1 ") NPT 600 PSI TUPY

MaxClean

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