

# BMS E2401 Primary Belt Cleaner

## Installation Instructions

Note: All dimensions shown in millimetres



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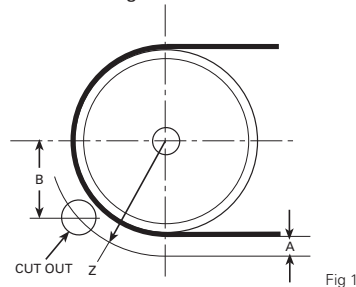
**SHUT DOWN AND LOCKOUT CONVEYOR BEFORE PERFORMING ANY MAINTENANCE**

Tools and resources required:

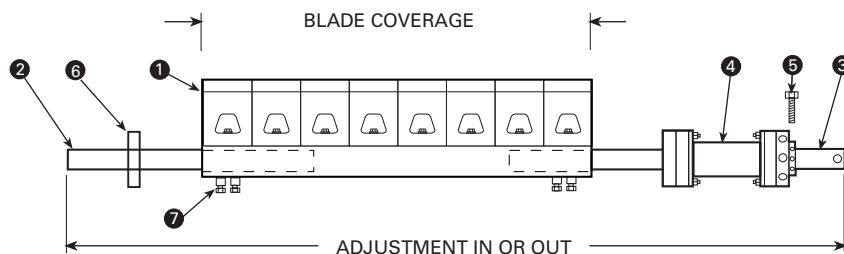
- ✓ Tape Measure
- ✓ Straight Edge
- ✓ Cutting Torch
- ✓ Adjustable Spanner
- ✓ Welding Equipment

**step 1.** Determine the diameter of the head pulley and the thickness of the conveyor belt.  
Example: head pulley diameter = 609.6mm, belt thickness = 19.05mm. Take one half of the head pulley measurement (in this case 304.8mm and add the belt thickness. This will give an effective radius of 323.85mm.

**step 2.** To this number add dimension 'A' either 69.85mm or 88.9mm. To determine dimension 'A' (spacing from the face of the belt), you must first determine the head pulley diameter. If the pulley diameter is 560mm or smaller, then an 'A' dimension of 88.9mm should be used. If the head pulley diameter is larger than 600mm, use an 'A' dimension of 70mm. This will give you the 'Z' dimension. See fig.1.



**step 3.** Using the 'Z' dimension as described in step 2, use the string and chalk to draw an arc (with radius of 'Z') to define the area for cutting the mounting holes on the chute wall.



Item	Qty	Description
1	1	mainframe blade assembly
2	1	opposite side support pipe
3	1	tensioner side support pipe
4	1	urethane tensioner assembly
5	1	tensioner bolt
6	1	collar
7	1	s.s. square head set screw

Fig 2

**step 4.** From the centerline of the head pulley measure down 241.3mm (see fig 1, dimension 'B'). This is the highest point that the cleaner should be mounted. It can be mounted anywhere along the radius that was marked off in step 3. the limiting factor is the restriction of a dribble chute or lack of a dribble chute at the point where the belt leaves the head pulley on the return side.  
**Note: DO NOT INSTALL THE CLEANER WITHIN THE TRAJECTORY OF THE MATERIAL.**

**step 5.** After you have located the correct position to mount the cleaner, mark two holes approximately 63.5mm x 76.2mm in size. These should now be torched or cut out.  
**Note: DO NOT USE EXISTING HOLES FROM ANOTHER BRAND OF CLEANER.**

**step 6.** Dismantle the cleaner (fig 2). You will notice whenever the tensioner is removed, there is another weld collar (item 7 - fig 2). This is the weld collar for the opposite side. You will also find the tensioner wrench inside the tensioner pipe. Loosen the setscrews (item 9 - fig 2) on the mainframe. **CAUTION!** loosen them only enough to allow both pipes (items 2 & 5 - fig 2) to be removed from the cleaner mainframe (item 3 - fig 2).

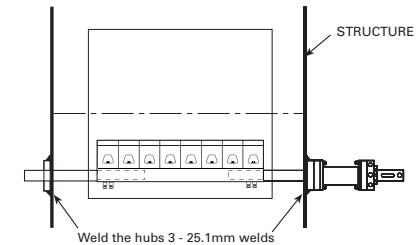
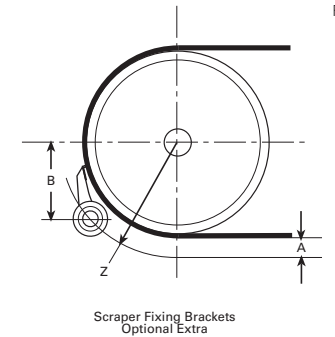


Fig 3

**step 7.** Put frame and blade assembly (items 1 & 3 - fig 2) inside the chute, and slide the support pipes (items 2 & 5 - fig 2) through the 63.5mm x 76.2mm holes previously cut. Then slide the weld collar (item 7 - fig 2) and the tensioner (item 4 - fig 2) onto the support and tensioner pipes. Next, level the cleaner in relation to the head pulley. Tack weld the weld collar and tensioner into place. Set the cleaner blade against the belt and tighten the set bolts (item 6 - fig 2) into the tensioner hub. Tighten the set bolts on the mainframe and complete welding the hubs 3 - 25.1mm welds on each hub is enough. Check if the cleaner rotates freely in the hubs; if it doesn't, realign the hubs until it rotates freely.



**step 8.** Carry out any final adjustments to ensure that the cleaner is performing (item 6 - fig 2) and rotate the tensioner and lock in place with set bolts (see fig 4) in the tensioner hub.

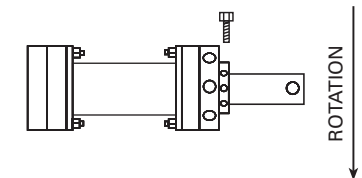


Fig 4

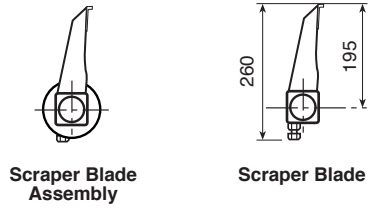
IF THERE ARE ANY QUESTIONS OR COMMENTS PLEASE CONTACT BMS

BMS Belt Cleaners Limited continuously modify and improve its product range, therefore, information given in this leaflet may be subject to change without prior notice.

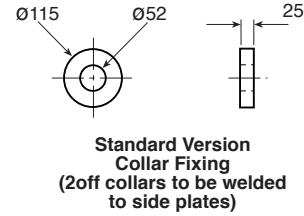
# General Arrangement for BMS E2401 Primary Tungsten Tip Scraper & Collars

Note: All dimensions shown in millimetres

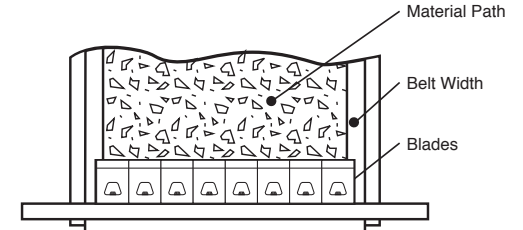
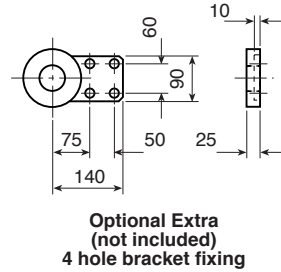
## Scraper Blade



## Standard Collar Fixing



## Optional Bracket Fixing

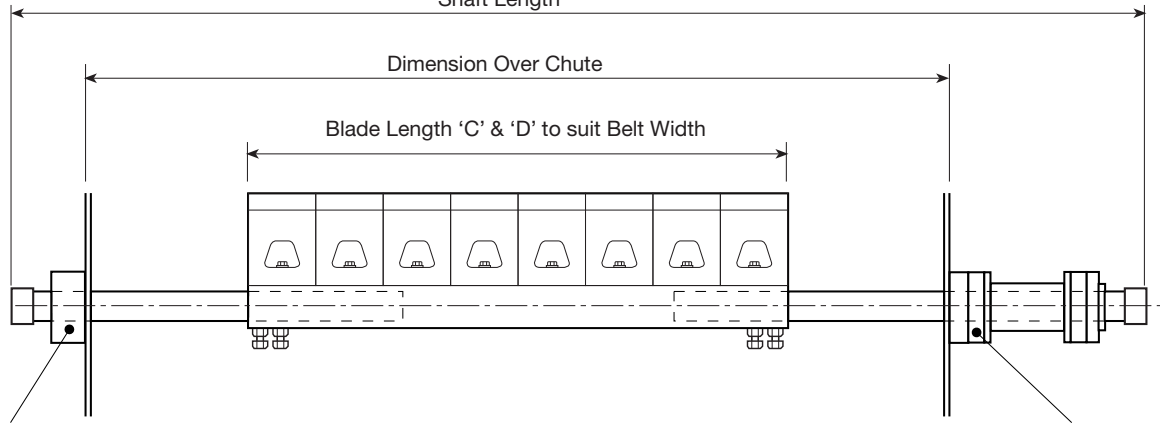


Blade to match belt width

Shaft Length

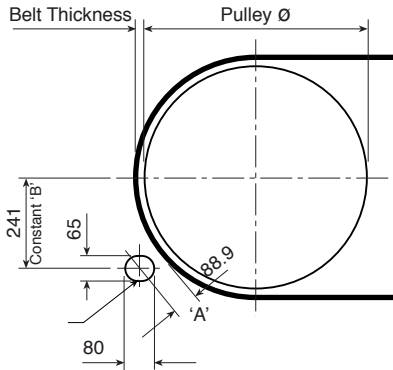
Dimension Over Chute

Blade Length 'C' & 'D' to suit Belt Width

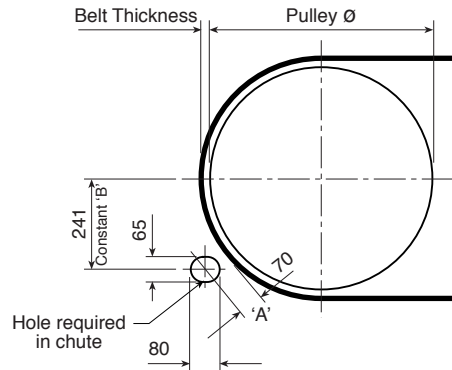


Welded Collar / Bracket

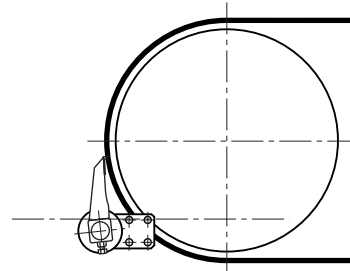
Welded Collar / Bracket



Example to position scraper for pulleys smaller than  $\varnothing 560\text{mm}$



Example to position scraper for pulleys bigger than  $\varnothing 560\text{mm}$



Example of scraper in position

Belt Width (mm)	Cleaning Width (mm)	Number of Blades per Scraper	Shaft Length (mm)
450	360	3	1950
600	480	4	2100
650	600	5	2150
700	600	5	2200
750	720	6	2250
800	720	6	2300
900	840	7	2400
1000	960	8	2500
1200	1080	9	2700
1350	1320	11	2850
1500	1440	12	3000
1650	1500	13	3150
1800	1680	14	3300
2000	1920	16	3500
2200	2160	18	3700
2400	2280	19	3900

