

SECONDARY BELT CLEANERS

Patented





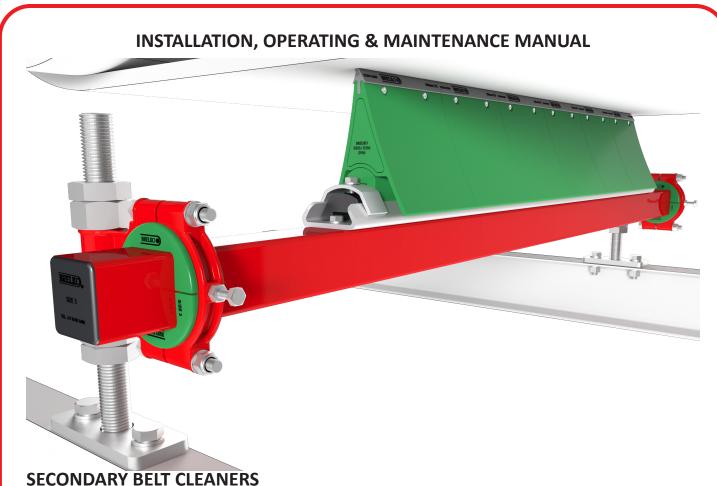


Table o	of Contents	
1.	Disclaimer	4
2.	Safety Measures and Warnings	4
2.1.	The following symbols may be used in this manual:	4
3.	General Information	4
3.1.	Technical Specifications	5
3.2.	Intended Use	6
3.3.	Component Overview	7
3.4.	Parts List and Hardware	8
3.5.	Dimensions	10
3.6.	Order Information	17
4.	Before Installing Belt Cleaners	18
4.1.	Receiving the Goods	18
4.2.	Work Safety	18
4.3.	Handling	18
4.4.	Storage	18
4.5.	Preparation for installing Belt Cleaners	19
4.6.	Recommended Tools List	20
5.	Installation	21
5.1.	Standard Mount	21
5.2.	Torsion Mount (Single and Double Arm)	22
6.	After Installing Belt Cleaner	23
7.	Maintenance	24
7.1.	New Installation	24
7.2.	Routine Visual Inspection (every 2 to 4 weeks)	24
7.3.	Routine Physical Inspection (every 6 to 8 weeks)	24
8.	Troubleshooting Guide	25
9.	EU Declaration of Conformity	26









PATENTED

Project Name	:
Project Number	
Order Number	:
Model Number	
Purchase Date	:
Purchased From	:
Installation Date	:

Model number information can be found on the label on the belt cleaner box.

This information will be helpful for any enquires or questions about the Belt Cleaner replacement parts, specifications, or troubleshooting.



All technical and dimensional information is subject to change.

All general Terms and Conditions of sale, including limitations of our liability, apply to all products and services sold.



1. Disclaimer

Brelko Conveyor Products (Pty) Ltd hereby disclaims any liability for: damage due to contamination of the material; user's failure to inspect, maintain and take reasonable care of the equipment; injuries or damage resulting from use or application of this product contrary to instructions and specifications contained herein. Brelko's liability shall be limited to repair or replacement of equipment shown to be defective.

2. **Safety Measures and Warnings**

Observe all safety rules given herein along with owner and Government standards and regulations. Know and understand lockout/tag-out procedures as defined by National Standards Institutes, National Standard for Personnel Protection -Lockout/Tag-out of Energy Sources - Minimum Safety Requirements and Occupational Health and Safety.

2.1. The following symbols may be used in this manual:



: immediate hazards that will result in severe personal injury or death.



: hazards or unsafe practices that could result in personal injury.



: hazards or unsafe practices that could result in product or property damages.

IMPORTANT : instructions that must be followed to ensure proper installation/operation of equipment.

NOTE : general statements to assist the reader.

3. **General Information**

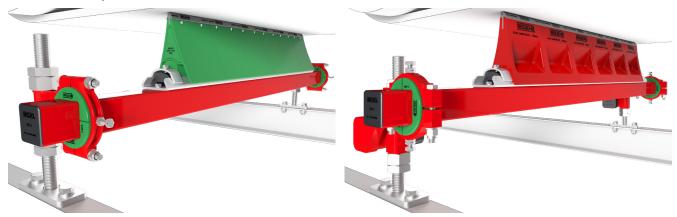
Brelko Belt Cleaners are designed to operate with minimum maintenance. However, to maintain superior performance some service is required. When the Belt Cleaner is installed a regular maintenance program should be set up. This program will ensure that the Belt Cleaner operates at optimal efficiency and problems can be identified and fixed before the Belt Cleaner stops working. All safety procedures for inspection of equipment (stationary or operating) must be observed. Belt Cleaners operate along the length of the conveyor and are in direct contact with the moving belt. Only visual observations can be made while the belt is running. Service tasks can be done only with the conveyor stopped and by following the correct lockout/tag-out procedures.







Technical Specifications 3.1.



STANDARD MOUNT

TORSION MOUNT

APPLICATIONS

 Secondary belt cleaners are primarily intended for use in conveyor bulk material handling applications for the removal of residual fines (carry-back) that remain on the belt behind the primary / head pulley belt cleaners.

FEATURES

- Specially formulated polymeric blades give maximum life, and keep the possibility of damage to belt repairs, splices, and metal fasteners to a minimum.
- Patented blade design ensures optimum combination of flexibility and stiffness to adapt to belt profile.
- Patented V-base blade mounting makes blade changing quick and simple.
- Optional self-adjusting torsion mountings allow the cleaner to maintain a constant pressure on the belt and greatly extends adjustment intervals.

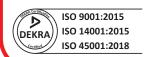
SPECIFICATIONS

Belt	Recommended	Max. Belt	Max. Service	Handles	Available Blade Material		
Cleaner	Belt Width	Speed (m/sec)	Temperature	Reversing Belts & Rollback	Urethane	Tungsten (T3)	
E205S or T	850 to 1200	6.0	140°C	X*		x	
E252S or T	850 to 2400	8.0	90°C Continuous 120°C Intermittent	X*	COMPOSITE	Х	
E255S or T	850 to 2400	8.0	140°C	X*		Х	

(S) Standard Mount / (T) Torsion Mount

Please note: Stainless steel main frame and mounts are available for corrosive environments.

()* to be used in conjunction with Brelko's torsion mounting.

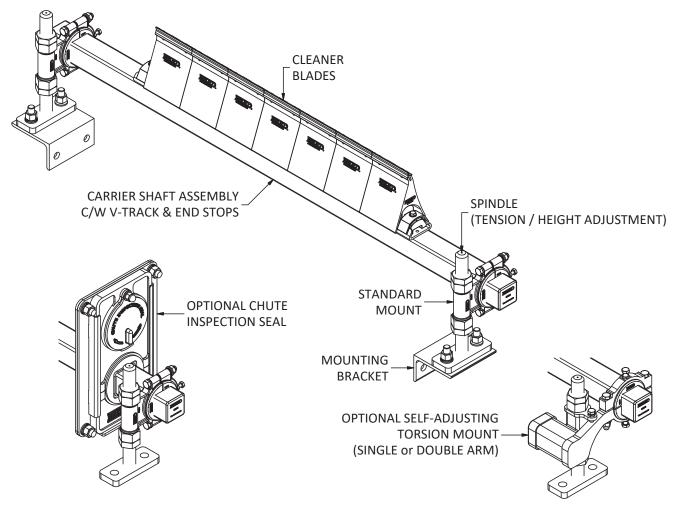






3.2. **Intended Use**

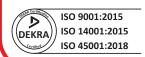
Secondary conveyor belt cleaners are primarily intended for use in conveyor bulk material handling applications for the removal of residual fines (carry-back) that remain on the belt behind the primary cleaner. Its location is typically close enough to the pulley so that the cleanings will return to the main material stream making the conveyor systems safer and more productive.



Additional tertiary cleaners can be installed to provide final cleaning. These cleaners can be the same model as the secondary cleaner, or of a different design to allow efficient cleaning and maintenance within the available space.

As these cleaners are typically installed off the pulley, they should be placed on a flat, and rigid section of the belt ahead of the snub pulley or first return roll. Firm support prevents the cleaning pressure from raising the belt line and reducing cleaning efficiency, and belt damage.

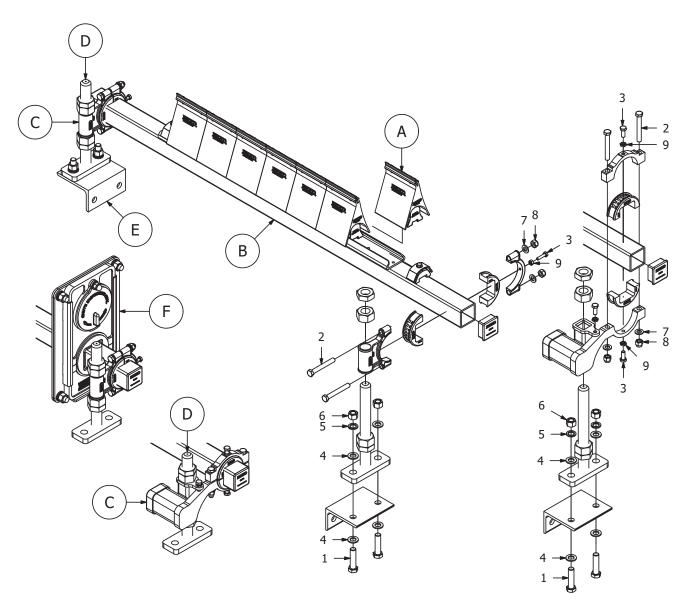
Note: only standard features and options are shown. For additional options or specifying non-standard products, please consult your Brelko representative for assistance.







3.3. **Component Overview**



IMPORTANT NOTE: MODEL E205 DEPICTED IN THE VIEW

(SHEET 1 OF 3)







3.4. **Parts List and Hardware**

ITEM No.	DESCRIPTION	SIZE (mm)	BELT WIDTH (mm)	CODE
	CLEANER BLADE OPTIONS: -			
	E105 - PU BLADE (FRAS)	120	400 TO 1200	2-7.8
A	E205 - TORSION HOLDER CW 2MM TUNGSTEN BLADE	120	400 TO 1200	2-5.62
A	E252 - PU COMP BLADE CW 2MM TUNGSTEN BLADE (FRAS)	150	1350 TO 2400	2-7.83
	E255 - TORSION HOLDER CW 2MM TUNGSTEN BLADE	150	1350 TO 2400	2-5.64
	E255 - TORSION HOLDER CW 4MM TUNGSTEN BLADE	150	1350 TO 2400	2-5.65
В	CARRIER ACCEMBLY INCL. CHAFT VITRACK & FND CTORC	SIZE 3	400 TO 1200	PLEASE SPECIFY
В	CARRIER ASSEMBLY INCL. SHAFT, V-TRACK & END STOPS	SIZE 4	1350 TO 2400	BELT WIDTH
	MOUNT OPTIONS: -			
	STANDARD MOUNT ASSEMBLY INCL. CLAMP PIECE, NYLON	SIZE 3	400 TO 1200	2-3.3
	BUSHES & HARDWARE	SIZE 4	1350 TO 2400	2-3.4
С	TORSION MOUNT SINGLE ARM ASSEMBLY INCL. CLAMP PIECE,	SIZE 3	400 TO 1200	2-2.1-2
	NYLON BUSHES & HARDWARE	SIZE 4	1350 TO 2400	2-2.1-3
	TORSION MOUNT DOUBLE ARM ASSEMBLY INCL. CLAMP PIECE, NYLON BUSHES & HARDWARE	SIZE 4	1350 TO 2400	2-2.2-3
D	SPINDLE ASSEMBLY INCL. LOCK NUTS	SIZE 3	400 TO 1200	2-1.3
D	SPINDLE ASSLIVIDLE INCL. LOCK NOTS	SIZE 4	1350 TO 2400	2-1.4
E	SPINDLE MOUNTING BRACKET	SIZE 3	400 TO 1200	2-11.2
	STREET WOODING BRACKET	SIZE 4	1350 TO 2400	2-11.3
F	CHUTE SEAL ASSEMBLY - SINGLE ROW	SIZE 3 & 4	400 TO 2400	2-10.1

PU = Polyurethane / FRAS = Fire Retardant Anti-static / COMP = Composite

Hardware - Standard Mount Size 3 & Size 4 E105S, E205S, E252S & E255S

ITEM No.	DESCRIPTION	QTY.
1	SET SCREW - HEX HD - M16 X 65 -ZP	8
2	BOLT - HEX - M12 X 90 - ZP	4
3	SET SCREW - HEX HD - M8 X 35 - ZP	2 / 4*
4	WASHER - FLAT - M16 - ZP	16
5	WASHER - SPRING - M16 - ZP	8
6	NUT - HEX -M16 - ZP	8
7	WASHER - FLAT - M12 - ZP	4
8	NUT - NYLOC - M12 - ZP	4
9	NUT - HEX - M8 - ZP	2 / 4*

(SHEET 2 OF 3)







Hardware - Torsion Mount Single Arm Size 3 & Size 4 E105T & E205T

ITEM No.	DESCRIPTION	QTY.
1	SET SCREW - HEX HD - M16 X 65 -ZP	8
2	BOLT - HEX - M12 X 90 - ZP	4
3	SET SCREW - HEX HD - M10 X 40 - ZP	4
4	WASHER - FLAT - M16 - ZP	16
5	WASHER - SPRING - M16 - ZP	8
6	NUT - HEX -M16 - ZP	8
7	WASHER - FLAT - M12 - ZP	4
8	NUT - NYLOC - M12 - ZP	4
9	NUT - HEX - M10 - ZP	4

Hardware - Torsion Mount Double Arm Size 3 & Size 4 **E252T & E255T**

ITEM No.	DESCRIPTION	QTY.
1	SET SCREW - HEX HD - M16 X 65 -ZP	8
2	BOLT - HEX - M12 X 90 - ZP	4
3	SET SCREW - HEX HD - M8 X 35 - ZP	2 / 4*
4	WASHER - FLAT - M16 - ZP	16
5	WASHER - SPRING - M16 - ZP	8
6	NUT - HEX -M16 - ZP	8
7	WASHER - FLAT - M12 - ZP	4
8	NUT - NYLOC - M12 - ZP	4
9	NUT - HEX - M8 - ZP	4

BLANK = Common to Size 3 & 4 = Denotes, specific to Size 4

ZΡ = Zinc Plated

(SHEET 3 OF 3)

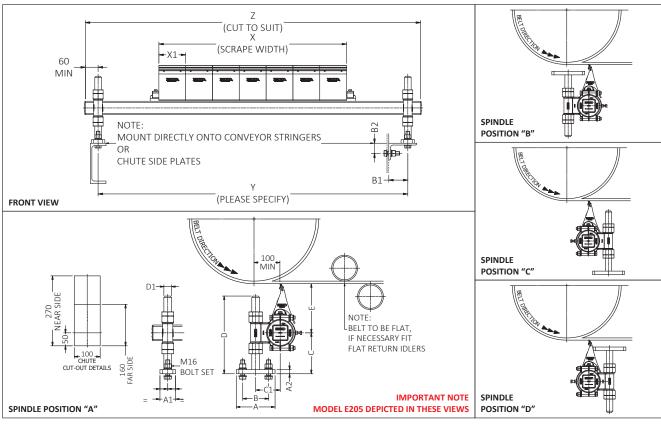






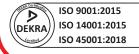
3.5. Dimensions

3.5.1. Size 3 Standard Mount - E105, E205 & E252



	BELT V	VIDTH	400	450	500	600	650	750	800	850	900	1000	1050	1200
	No DIADEC	E105 & E205	3	3	4	5	5	6	6	7	7	8	8	9
	No. BLADES	E252	2	3	3	4	4	5	5	5	5	6	6	7
	SIZE RANGE		3											
	A		150											
	A1		60											
	A2		16											
E252	E		100											
& E2	B1			70										
5 8	B2							3	5					
E205	С	MIN						12	20					
E105,	(160mm)	MAX						20	00					
E1(С	1	95											
	[300											
	D	1						M30)	(3.5P					
				E1	05			E2	05			E2	52	
				199	9±1			190)±1			210	0±1	
)	(360	360	480	600	600	720	720	840	840	960	960	1080
	Х	X1		120 120						150				
	7	Z				1500						2000		

Note: only standard features and options are shown. For additional options or specifying non-standard products, please consult your Brelko representative for assistance.

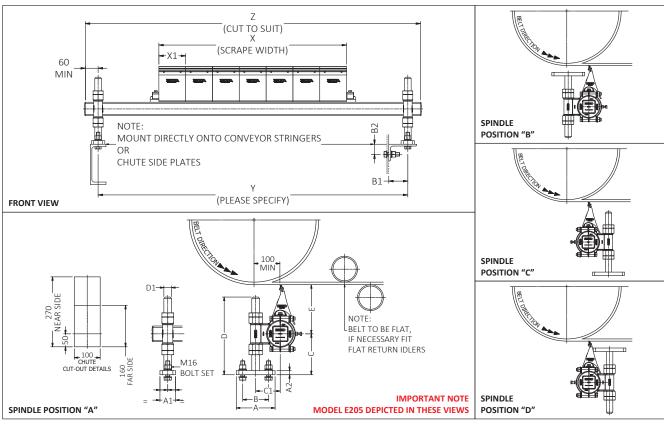


All technical and dimensional information is subject to change. All general Terms and Conditions of sale, including limitations of our liability, apply to all products and services sold.

Secondary Belt Cleaners - Page 10 of 29



3.5.2. Size 3 Standard Mount - E105, E205, E252 & E255



	BELT V	VIDTH	1350	1400	150	00	1600	1650	1800	2000	210	0	2200	2400
	No DIADEC	E105 & E205	11	11	12	2	13	13	14	16	17		18	19
	No. BLADES	E252 & E255	8	9	9		10	10	11	13	13		14	15
	SIZE RANGE		4											
	1	4	200											
	А	1	80											
E255	A2			20										
	E						13	35						
2 8	В		85											
E252	B2			45										
)5,	С	MIN						13	35					
E205,	(175mm)	MAX						21	15					
E105,	С	1	110											
E1	[350											
	D	1						M42)	K 4.5P					
		_		E105			E205			E252			E255	
			2	207±1			198±1	L	2	218±1			204±1	
)	(1320	1320	144	10	1560	1560	1680	1920	204	0	2160	2280
	х	X1		120			120 150				150			
	7	Z		2500						3000				

Note: only standard features and options are shown. For additional options or specifying non-standard products, please consult your Brelko representative for assistance.

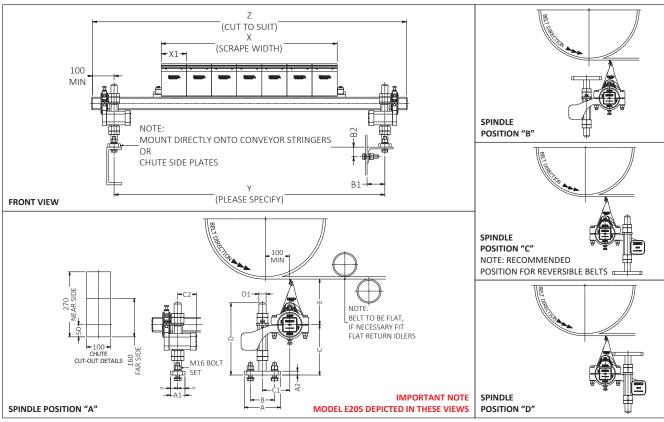


All technical and dimensional information is subject to change. All general Terms and Conditions of sale, including limitations of our liability, apply to all products and services sold.

Secondary Belt Cleaners - Page 11 of 29



3.5.3. Size 3 Single Arm Torsion Mount - E105 & E205



	BELT V	VIDTH	400	450	500	600	650	750	800	850	900	1000	1050	1200
	No. BL	.ADES	3	3	4	į	5	(5	7		8		9
	SIZE R	ANGE	3											
	Д	1	150											
	A	1	60											
	A2		16											
	В			100										
	B1			70										
E205	В	2		35										
8 E2	C (210mm)	MIN						18	30					
)5 8		MAX						24	10					
E105	C	1	113											
	С	2	78											
	С)	300											
	D	1						M30 2	(3.5P					
	E				E1	05					E2	05		
		•			199	9±1					190	0±1		
	Х	(36	50	480	60	00	72	20	84	10	9	60	1080
	Х	X1			120									
	Z					1500						2000		

Note: only standard features and options are shown. For additional options or specifying non-standard products, please consult your Brelko representative for assistance.

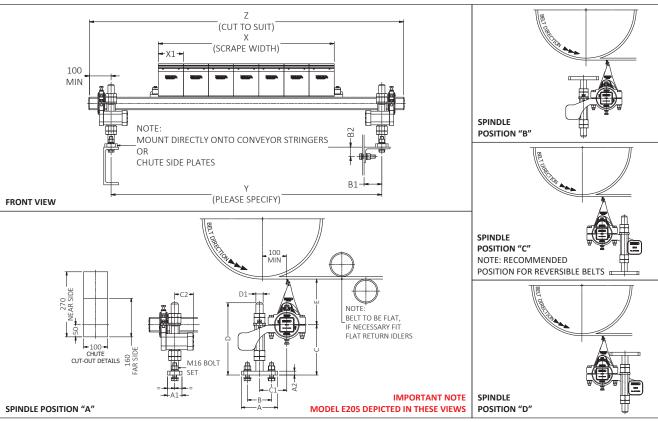


All technical and dimensional information is subject to change. All general Terms and Conditions of sale, including limitations of our liability, apply to all products and services sold.

Secondary Belt Cleaners - Page 12 of 29



3.5.4. Size 4 Single Arm Torsion Mount - E105 & E205



	BELT V	VIDTH	1350	1400	1500	1600	1650	1800	2000	2100	2200	2400	
	No. Bl	LADES .	11 12			1	3	14	16	17	18	19	
	SIZE R	ANGE	4										
	A	١	200										
	A	1	80										
	A	20											
	Е					13	35						
	В					8	5						
E205	В	2		45									
& E2	C (225mm)	MIN					19	95					
)5 8		MAX					25	55					
E105	С	1	109										
	С	2	68										
			350										
	D	1					M42)	(4.5P					
	E				E105					E205			
					207±1					198±1			
	>	(1320 1440 1560 1680 1920 2040 2160 2									2280	
	Х	X1		120									
	Z	2		2500					3000				

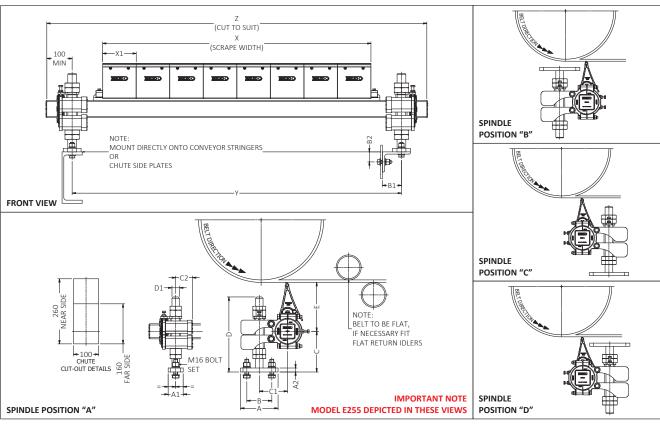
Note: only standard features and options are shown. For additional options or specifying non-standard products, please consult your Brelko representative for assistance.



All technical and dimensional information is subject to change. All general Terms and Conditions of sale, including limitations of our liability, apply to all products and services sold.



3.5.5. Size 3 Double Arm Torsion Mount - E252 & E255



	BELT V	VIDTH	750	800	850	900	1000	1050	1200						
	No. Bl	.ADES		5 6											
	SIZE R	ANGE		3											
	A	\				150									
	А	1	60												
	А	2	16												
	Е	3				100									
	В	1		70											
E255	В	2		35											
& E2	С	MIN				140									
22 8	(160mm)	MAX				180									
E252	С	1	113												
	С	2	68												
			300												
	D	1				M30 X 3.5P									
	E			E252				E255							
				210±1				196±1							
	>	(75	90	00	1050								
	Х	1													
	Z			15	00			2000							

Note: only standard features and options are shown. For additional options or specifying non-standard products, please consult your Brelko representative for assistance.

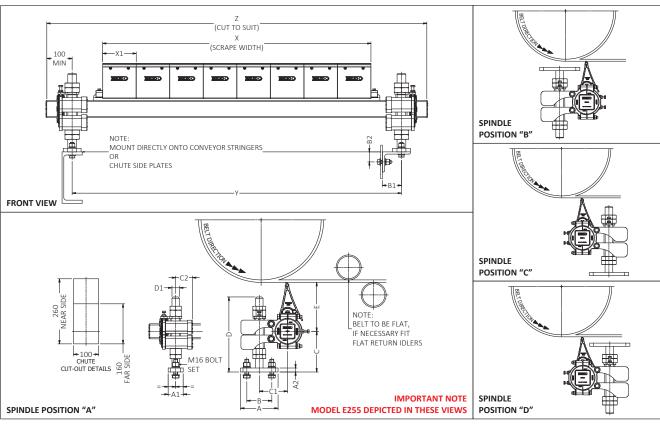


All technical and dimensional information is subject to change. All general Terms and Conditions of sale, including limitations of our liability, apply to all products and services sold.

Secondary Belt Cleaners - Page 14 of 29



3.5.6. Size 4 Double Arm Torsion Mount - E252 & E255



	•										· ·	
	BELT WIDTH		1350	1400	1500	1600	1650	1800	2000	2100	2200	2400
	No. BLADES		8	g)	10		11	13		14	15
	SIZE RANGE		4									
	Α		200									
	A1		80									
	A2		20									
	В		135									
	B1		85									
E255	B2		45									
EZ EZ	C (190mm)	MIN	170									
2 &		MAX					21	LO				
E252	С	1					13	35				
	C2		79									
	D		350									
	D1		M42 X 4.5P									
	E		E252			E255						
			218±1			204±1						
	Х		1200	13	50	15	00	1650	19	50	2100	2250
	X1		120									
	Z		2500 3000									

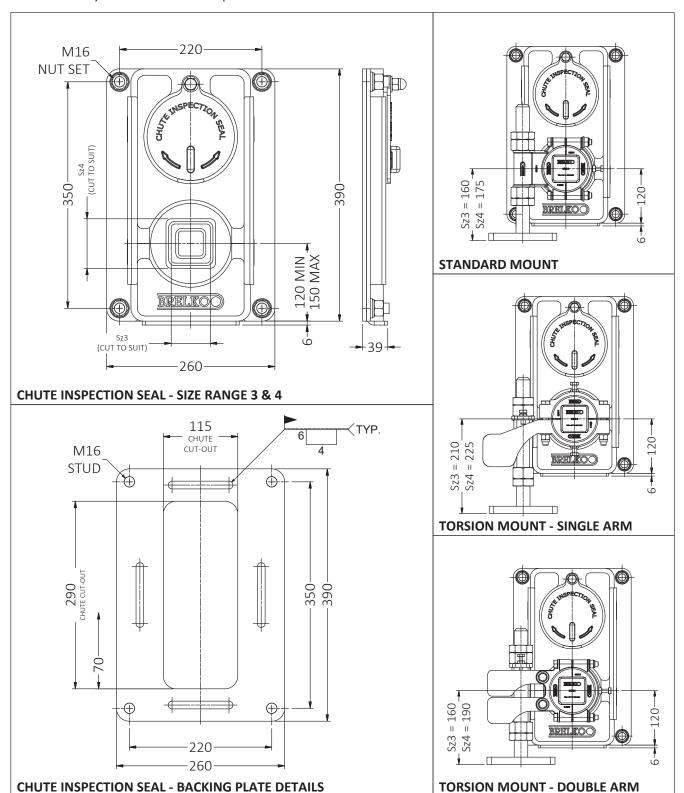
Note: only standard features and options are shown. For additional options or specifying non-standard products, please consult your Brelko representative for assistance.



All technical and dimensional information is subject to change. All general Terms and Conditions of sale, including limitations of our liability, apply to all products and services sold.



3.5.7. Secondary Belt Cleaner Chute Inspection Seal - All Models



Note: only standard features and options are shown. For additional options or specifying non-standard products, please consult your Brelko representative for assistance.

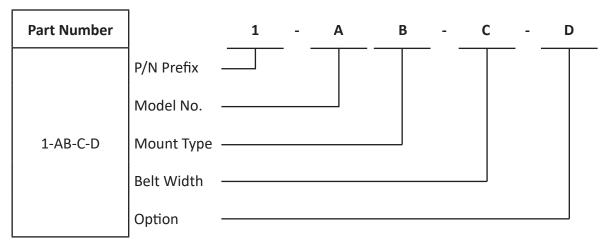


All technical and dimensional information is subject to change.

All general Terms and Conditions of sale, including limitations of our liability, apply to all products and services sold.



3.6. Order Information



MODEL NUMBER

SERIES

Please specify.

Blank = Standard

Example: : E105

Other = Consult your Brelko representative for available options.

: E205

MOUNT TYPE

S = Standard Mount T = Torsion Mount

BELT WIDTH

Please Specify.

Example: 0400 = 400 Belt Width : 1200 = 1200 Belt Width

Note: All measurements in millimetre (mm).

Cleaner Blade Selection Guide

1	Polyurethane Low abrasion, high impact, low / medium speed belts.
2	Tungsten Carbide - 2mm thick High abrasion, impact, corrosion e.g., slurry, coke, silica etc.
3	Tungsten Carbide - 4mm thick High abrasion, impact, corrosion, high speed belts.

Cleaner Mounting Selection Guide

1	Standard Mountings Most common use, low cost. Manual adjustment for blade wear and correct pressure against the belt. Cleaner models: E105, E205, E252 and E255
2	Torsion Arm Mountings Auto compensating for blade wear, varying belt thickness, ease passage of belt fasteners, handles reversing belts and rollback. Single arm torsion mount: E105 and E205 Double arm torsion mount: E252 and E255

"The above guidelines are not exhaustive or definitive; please contact us if in any doubt"

Note: Improper selection, installation & maintenance of cleaners could cause serious injuries, plant, and equipment damage. Only use trained & qualified personnel for these functions.



All technical and dimensional information is subject to change.
All general Terms and Conditions of sale, including limitations of our liability, apply to all products and services sold.

Secondary Belt Cleaners - Page 17 of 29



4. **Before Installing Belt Cleaners**

4.1. **Receiving the Goods**

Check that the shipment contains all the items specified on the delivery note. If this does not match the delivery note or if the items show any transportation damage, list it on the freight bill. Describe the damage and the number of incorrect or faulty items and contact your supplier immediately.

Defective parts should not be used under any circumstances. Claims must be made within 8 days from the arrival of goods. Brelko do not cover claims or exchange of product if installation was not carried out according to installation instructions.

4.2. **Work Safety**

Always use protective gloves and clothing. Always use a lifeline and soft-sole footwear when work will be carried out on raised platforms. Before you move a Belt Cleaner, check that it is securely attached to the lifting equipment. Always follow local safety regulations.





Before removing/installing equipment, lock out/tag out energy source to conveyor, and/or conveyor accessories.



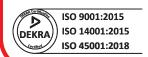
Turn off and lock out/tag out energy source according to local standards. If equipment will be installed in an enclosed area, test gas level or duct content before using a cutting torch or welding. Using a cutting torch or welding in an area with gas or dust may cause an explosion.

4.3. Handling

Belt Cleaners are supplied semi-assembled in a cardboard box. Care should be taken not to damage the box when unloaded from the transportation vehicle onto customer's platform.

4.4. Storage

Belt Cleaners can be stored unpacked or in transportation package. Belt Cleaners must not be stored unpacked on top of one another, protect the Belt Cleaners by storing them in the transportation package in a cool dry area on a flat surface.







4.5. Preparation for installing Belt Cleaners

- 1. Cleaners will be boxed and clearly marked with the model number, cleaner blade grade and belt width.
 - Note: cleaners will be supplied with all nuts and bolts to complete the assembly and installation.
- 2. Referring to the parts list and installation data sheet, check that the correct parts and quantities have been supplied for the model and belt width of cleaner ordered.
- 3. Normally cleaners are supplied with the blades assembled on the carrier shaft. If not, assemble as shown using a lithium base grease as a lubricant to ease future removal of blades. If necessary, use a rubber mallet to tap the blades into the "V" track. Do not over-tighten the end stop set screws.
- 4. Check that the blades are free to deflect forwards and backwards. If any blades foul those adjacent, slightly slacken the end stop set screws, and tap the torsion holders sideways until the blades clear each other. Tighten end stop set screws.
 - **Note**: There should be 0.5mm gap between blades.
- 5. Check that the lock nuts move freely on the spindles.
- 6. Depending on the installation access an optional three piece shaft and offset plates may be required, then one or both of the carrier shaft end pieces and offset plates must be attached.

Note: Three piece carrier shafts and offset plates are not supplied as standard and must be ordered separately.







4.6. Recommended Tools List

QTY	DESCRIPTION
2	EXTENSION CORD (20m MINIMUM)
1	PORT-A-PACK (OXY-ACETYLENE)
1	PRICKER
1	COMBINATION GAUGE (WITH SPIRIT LEVEL)
1	STRAIGHT EDGE (1M MINIMUM)
1	90° SET SQUARE
1	5M TAPE MEASURE
1	ADJUSTABLE SPANNERS
1 SET	PIPE WRENCH (3" MINIMUM)
1	SOCKET RATCHET SET (6mm - 30mm)
2	RING SET SPANNERS - M13, 15, 16, 17, 18, 19, 24
2	STANLEY KNIFE
1	M46 SET SPANNERS
1	M65 SET SPANNERS
1	HARD FACE HAMMER - 4lb
1	SOFT FACE HAMMER - 1kg
1	NYLON ROPE
1	"G" CLAMPS - 6" - 8"
1	JIMMY LEVER







5. Installation

Standard Mount 5.1.

1. Referring to the dimensions given in the table, see the Installation drawing, select the most optimum position for the cleaner and mark the location of the access apertures.

Note: cover the conveyor belt to prevent burning during drilling and cutting activities.

2. Remove the standard mount spindle mounting bracket from the spindle and secure to the chute side plates with the mounting bolts, washers, spring washers and nuts.

Note: There are four possible positions for the spindle, but in all cases ensure that the spindles remains at 90° (± 10°) to the belt surface. If no suitable location can be found to attach the spindle foot to the conveyor structure, an optional 3 piece offset shaft can be used.

Note: Offset plates and 3-piece shafts are not supplied as standard, and must be ordered separately.

- 3. Secure the standard mount to the spindle mounting brackets with the mounting bolts, washers, spring washers and nuts.
- Remove the standard mount clamp piece and green nylon bushes from the standard mounts.
- Position the carrier shaft and secure the standard mount clamp pieces and bushes on the standard mount with the mounting bolts, washers, and nuts.

Note: Tighten finger tight.

Note: It may be necessary to adjust the location of the mount on the spindles by means of spindles nuts so that the blades are clear of the belt surface.

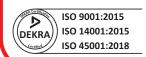
- 6. Position the carrier shaft centrally underneath the conveyor belt with reference to the belt edges and head pulley.
- 7. Place an angle finder or lay a straight edge on the top face of the carrier shaft end piece and rotate the assembled carrier shaft until the straight edge is parallel to the belt surface.

Note: This step must be done carefully to ensure that the angle of the blades to the belt is correct.

- 8. Tighten bolts and nuts. Do not over tighten!
- 9. By means of spindle nuts, adjust the cleaner towards the belt surface until all the blades contact the belt surface.
- 10. Adjust the cleaner half a turn of the spindle nuts towards the belt.
- 11. Check that all nuts and bolts are firmly fastened.
- 12. Check that the spindle lock nuts are firmly tightened.
- 13. Start the conveyor and check if all blades are moving freely and cleaning in full contact with the belt surface. If further adjustment is required, stop the conveyor, and adjust the cleaner half a turn of the spindle nuts towards the belt until all blades are cleaning satisfactory.

Note: Do not over adjust the cleaner.

- 14. Check that the spindle lock nuts are firmly tightened.
- 15. To ensure future adjustment of the spindle nuts, wrap thread with protective cloth, to protect the thread against corrosion, rust, and ingress of dust.
- 16. It may be necessary to install stabilising rollers to keep the belt surface flat and stop belt bounce.







5.2. Torsion Mount (Single and Double Arm)

Referring to the dimensions given in the table, see the Installation drawing, select the most optimum position for the cleaner and mark the location of the access apertures.

Note: cover the conveyor belt to prevent burning during drilling and cutting activities.

Remove the torsion mount spindle mounting bracket from the spindle and secure to the chute side plates with the mounting bolts, washers, spring washers and nuts.

Note: There are four possible positions for the spindle, but in all cases ensure that the spindles remains at 90° (± 10°) to the belt surface. If no suitable location can be found to attach the spindle foot to the conveyor structure, an optional 3 piece offset shaft can be used.

Note: Offset plates and 3-piece shafts are not supplied as standard, and must be ordered separately.

- 3. Secure the torsion mount to the spindle mounting brackets with the mounting bolts, washers, spring washers and nuts.
- Remove the torsion mount clamp piece and green nylon bushes from the standard mounts.
- Position carrier shaft and secure the standard mount clamp pieces and bushes on the standard mount with the mounting bolts, washers, and nuts.

Note: Tighten finger tight.

Note: It may be necessary to adjust the location of the mount on the spindles by means of spindles nuts so that the blades are clear of the belt surface.

- 6. Position the carrier shaft centrally underneath the conveyor belt with reference to the belt edges and head pulley.
- 7. Place an angle finder or lay a straight edge on the top face of the carrier shaft end piece and rotate the assembled carrier shaft until the straight edge is parallel to the belt surface.

Note: This step must be done carefully to ensure that the angle of the blades to the belt is correct.

- 8. Tighten bolts and nuts. Do not over tighten!
- 9. By means of spindle nuts, adjust the cleaner towards the belt surface until all the blades contact the belt surface.
- 10. Continue to adjust the cleaner towards the belt in increments of half a turn of the lock nuts until the torsion arm set screws just clears the torsion arms.
- 11. Slacken the set screws four full turns and tighten the lock nuts.
- 12. Check that the complete cleaner assembly can move freely up and down on the torsion mounts.
- 13. Check that all nuts and bolts are firmly fastened.
- 14. Check that the spindle lock nuts are firmly tightened.
- 15. Start the conveyor and check if all blades are moving freely and cleaning in full contact with the belt surface. If further adjustment is required, stop the conveyor, and adjust the cleaner half a turn of the spindle nuts towards the belt until all blades are cleaning satisfactory.

Note: Do not over adjust the cleaner.

- 16. Check that the spindle lock nuts are firmly tightened.
- 17. To ensure future adjustment of the spindle nuts, wrap thread with protective cloth to protect the thread against corrosion, rust, and ingress of dust.
- 18. It may be necessary to install stabilising rollers to keep the belt surface flat and stop belt bounce.







After Installing Belt Cleaner

IMPORTANT

Read entire section before starting work.

Remove all tools and fire-retardant cover from installation area and conveyor belt. Thoroughly wipe chute or stringers clean above Belt Cleaner on both sides of belt.





Failure to remove tools from installation area and conveyor belt before turning on energy source can cause serious injury to personnel and damage to belt.





Do not touch or go near conveyor belt or conveyor accessories when conveyor belt is running. Body or clothing can get caught and pull body into conveyor belt, causing severe injury or death.

2. Turn on conveyor and check if all blades are moving freely and cleaning in full contact with the belt surface. Note: allow belt to run through at least three to five revolutions.



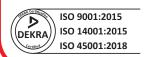


Before adjusting Belt Cleaner, turn off and lock out / tag out energy source to conveyor and conveyor accessories.

- 3. If further adjustment is required lock out / tag out energy source.
- 4. Adjust the cleaner half a turn of the spindle nuts towards the belt until all blades are cleaning satisfactory. Note: Do not over adjust the cleaner.

IMPORTANT

5. Make sure all fasteners are tight. Tighten if necessary.







7. Maintenance

Brelko Belt Cleaners are designed to operate with minimum maintenance. However, to maintain superior performance some service is required. When the Belt Cleaner is installed a regular maintenance program should be set up. This program will ensure that the Belt Cleaner operates at optimal efficiency and problems can be identified and fixed before the Belt Cleaner stops working. All safety procedures for inspection of equipment (stationary or operating) must be observed. Service tasks can be done only with the conveyor stopped and by following the correct lockout/tag-out procedures.

7.1. **New Installation**

After the new Belt Cleaner has run for a few days, a visual inspection should be made to ensure the Belt Cleaner is performing properly. Make adjustments as needed.

Routine Visual Inspection (every 2 to 4 weeks) 7.2.

A visual inspection of the Belt Cleaner and belt can determine:

- If the mounts are adjusted at the correct pressure for optimal cleaning
- If the belt looks clean or if there are areas that are dirty
- If the blade is worn out and needs to be replaced
- If there is damage to the blade or other cleaner components
- If fugitive material is built up on the cleaner or in the transfer area
- If there is cover damage to the belt
- If there is vibration or bouncing of the cleaner on the belt
- If a snub pulley is used, a check should be made for material build-up on the pulley
- If any of the above conditions exist, a decision should be made on when the conveyor can be stopped for cleaner maintenance.

If any of the above conditions exist, a determination should be made on when the conveyor can be stopped for Belt Cleaner Maintenance.

Routine Physical Inspection (every 6 to 8 weeks) 7.3.

When the conveyor is not in operation and properly locked and tagged out, perform a physical inspection of the Belt Cleaner performing the following tasks:

- Clean material build-up off the cleaner blade and carrier shaft.
- Closely inspect the blade for wear and any damage. Replace if needed.
- Check blade for proper installation and condition. Replace if needed.
- Ensure full blade to belt contact.
- Inspect the cleaner carrier shaft assembly for damage.
- Inspect all fasteners for tightness and wear. Tighten or replace as needed.
- Replace any worn or damaged components.
- Check the pressure of the cleaner blade on the belt. Adjust the pressure, if necessary, refer to installation guide.

When maintenance tasks are completed, test run the conveyor to ensure the Belt Cleaner is performing properly.







Troubleshooting Guide

Problem	Possible Cause	Possible Solution					
	Cleaner under-tensioned	Adjust to correct pressure - refer installation instructions					
Poor cleaning	Cleaner over-tensioned	Adjust to correct pressure - refer installation instruction					
performance	Cleaner installed in wrong location	Verify dimension - refer installation drawing					
	Cleaner blade worn or damaged	Replace cleaner blade					
	Tension on cleaner too high/low	Adjust to correct tension - refer installation instruction					
	Cleaner not located correctly	Check cleaner location for correct dimensions					
Rapid Blade Wear	Blade cleaning angle incorrect	Check cleaner location for correct dimensions					
Napia Blade Wear	Material too abrasive for blade	Option: switch to alternate cleaner tip grade (contact Brelko for available options)					
	Mechanical splice damaging blade	Repair, skive or replace splice					
Centre wear on blade	Blade smaller than material path	Add additional blade to match material path					
(smile effect)	Tension on cleaner too high/low	Adjust to correct pressure - refer installation instruction					
	Mechanical splice damaging blade	Repair, skive or replace splice					
Unusual wear or	Belt damaged or ripped	Repair or replace belt					
damage to blade	Cleaner not correctly located	Verify dimension - refer installation drawing					
	Damage to pulley or pulley lagging	Repair or replace pulley					
	Cleaner not located correctly	Verify dimension - refer installation drawing					
	Blade attack angle incorrect	Verify dimension - refer installation drawing					
	Cleaner running on empty belt	Use a spray bar when the belt is empty					
Vibration or noise	Cleaner tension too high/low	Adjust to correct pressure or slightly adjust to diminish					
	Cleaner locking bolts not secure	Check and tighten all bolts and nuts					
	Cleaner not square to head pulley	Verify dimension - refer installation drawing					
	Material build-up in chute	Clean up build-up on cleaner and in chute					
	Cleaner tension not set correctly	Ensure correct pressure / increase tension slightly					
Cleaner being pushed away from pulley	Sticky material is overburdening cleaner	Increase pressure / add primary (head pulley) cleaner					
	Cleaner not set up correctly	Confirm location dimensions are equal on both sides					

All technical and dimensional information is subject to change. All general Terms and Conditions of sale, including limitations of our liability, apply to all products and services sold.







9. **EU Declaration of Conformity**

according to 2006/42/EC, appendix IIB for incorporation of partly completed machinery

We, Brelko Conveyor Products (PTY) Ltd

of, 44 Chambers Street, Reuven Extension 1, Booysens, Johannesburg, South Africa

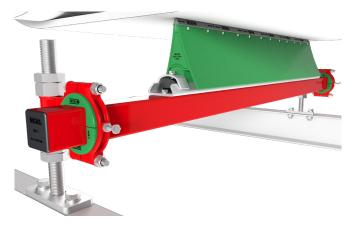
Declare that the declaration of Conformity is issued under our sole responsibility and belongs to the following product rage:

Model Number(s) : 1-AB-C-D

: Secondary Belt Cleaner Type

Part Number : See shipping documents (example: 1-E205S-0400)

Machinery of the declaration:



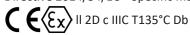
SECONDARY BELT CLEANER

Complies with the applicable Essential Health and Safety Regulations (EHSR) of the:-

- Machinery and its amending directive; and additional EU regulation, 2006/42/EC

- Manufacturer ATEX and its amending directive 2014/34/EU

Directive 2014/34/EU - Specific marking of explosion protection



The following harmonised standards has been applied:

BS EN IEC 60079-00:2018 Explosive atmospheres Part 01: Machinery

General requirements;

BS EN ISO 80079-36:2016 Explosive atmospheres Part 36: Non-electrical Machinery for explosive atmospheres

Basic method and requirements

BS EN ISO 80079-37:2016 Explosive atmospheres Part 37: Non-electrical Machinery for explosive atmospheres

Non-electrical type of protection constructional safety "c"

The above listed products are also produced under an integrated management system compliant with the international standards:

ISO 9001:2015 **Quality Management System**

ISO 14001:2015 -Environmental Management System; and,

ISO 45001:2018 -Occupational Health and Safety Management System.

This partly completed machinery must not be put into operation until the final machinery into which it is to be incorporated has been declared in conformity with the provisions of this Directive 2006/42/EG, where appropriate.

This declaration is invalidated by any modification outside the scope of those intended by the manufacturer.

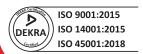


All technical and dimensional information is subject to change. All general Terms and Conditions of sale, including limitations of our liability, apply to all products and services sold.

Version 8.3 - @ 11/2023



otes:			





All technical and dimensional information is subject to change. All general Terms and Conditions of sale, including limitations of our liability, apply to all products and services sold.



Head Office

South Africa

Brelko Conveyor Products (Pty) Ltd

44 Chambers Street, Reuven Extension 1, Booysens, Johannesburg, South Africa Website: www.brelko.com, E-Mail: sales@brelko.com, Tel: +27 11 013 4000

Branches

United States of America

Brelko Conveyor Products Inc.

Telephone: +1 303 544 0817, Fax: +1 303 544 0818

E-mail: sales@brelko.us

Agents: Africa

Botswana

Etuba

Mobile: +267 297 2305 E-Mail: admin@etuba.com

Lesotho

Mafube Industrial Supplies

Mobile: +27 82 066 0560

E-Mail: mollo@mafubeindustries.co.za

Namibia

Sepp Thalmaier

Telephone: Windhoek +264 61 225 808, Fax: +264 63 232 015, Oranjemund: +264 63 233 111, E-Mail: info@seppthalmaier.com

United Kingdom

Simm Conveyor Services Ltd

Telephone: +44 170 981 8511, Fax: +44 170 981 2557

E-Mail: info@simm-conveyors.co.uk

Zambia

Conveyor Engineering & Equipment

Mobile: +260 96 811 1646, +260 97 729 6288 E-Mail: andy.mtonga@conveyoree.com

Zimbabwe

Hilmax

Telephone: +263 77 213 4610/1/2/3, Fax: +263 4 620 670

E-Mail: info@hilmax.co.zw

Master Distributors: International

Europe

OFC - Optim' For Conveyors

Telephone: +32 (0) 71 20 08 09 E-Mail: info@ofc-eu.com

Greece

Solergon Ltd.

Telephone: +30 210 86 75 229 E-Mail: solergon@otenet.gr

Malaysia & Indonesia

Max Classics (M) SDN. BHD.

Telephone: +60 35 635 6212, Fax: +60 35 636 1190

E-Mail: maxclassics@gmail.com

Mexico

Construmac

Telephone: +52 55 53 281 700

E-Mail: atencionaclientes@construmac.com

GCC Region (Gulf Cooperation Council)

Synergies Tech

Telephone: +971 4 4275069, Fax: +971 4 4324256

E-Mail: info@synergies-group.com







Head Office: Brelko Conveyor Products (Pty) Ltd.

44 Chambers Street, Reuven Extension 1, Booysens, Johannesburg, South Africa Website: www.brelko.com

Managing Director: **Kenny Padayachee**

Tel: +27 11 013 4000 email: kenny@brelko.com

IT & Projects Director: Michelle Padayachee

Tel: +27 11 013 4000 email: michelle@brelko.com

Service Manager: Craig Abbey

Tel: +27 82 407 8581 email: craig@brelko.com

IT Manager: **Grant Ritson**

Tel: +27 82 337 8162 email: grant@brelko.com Sales & Marketing Director: **Sharon Padayachee**

Tel: +27 11 013 4000 email: sharon@brelko.com

General Manager: Jay Pillay

Tel: +27 82 557 5998 email: jay@brelko.com

Technical & CADD Manager:

Riaan Rynders

Tel: +27 82 507 3839 email: riaan@brelko.com

Africa - Sales & Service Manager:

Jacques du Randt

Tel: +27 82 783 9990

email: jacquesdurandt@brelko.com

United States of America - Brelko Conveyor Products Inc.

5311 Western Avenue, Unit 165, Boulder, CO.80301, USA, Telephone: +1 303 544 0817, Toll Free: 1-866-891-6820 Website: www.brelko.com

President: **Brent Weller**

Tel: +1 (801) 300 6572

email: brentweller@brelko.com

