

# MSA Overbelt & Suspension Magnet

MSA's Overbelt Permanent Magnet offers superior strength and reliability and are designed for separation of ferrous metal from all kinds of belt conveyed products. The advanced design and construction make suspension overband magnets ideal for use in recycling, fire shredding, wood chipping, mining, and demolition applications.

MSA self-cleaning magnets are designed, tested, and assembled in Australia, incorporating as many locally sourced components as possible. They are robust, dependable, and easily serviceable using standard, locally available consumables such as bearings, motors, shafts, and belts - this means reduced downtime and wider availability of parts. Electromagnet and permanent magnet options are available.

Permanent magnets can be bought inclusive of self-cleaning feature or manual-clean with a cleaning tray. Electromagnet options are also available.

## SPECIFICATIONS



Applicable Conveyor Width	600-2000 mm
Recommended Suspended Height	300 mm
Drive Drum Dia.	To be specified
Magnet Housing	Mild Steel
Machine Support Frame	Mild Steel
Magnet System	Permanent or Electromagnet
Discharge Beld Speed	2 m/s
Bearing	OEM
Motor	Hydraulic, electric gear motor and airdrive
Gearbox	Helical-Bevel Gear Type
Warranty	One Year
Delivery Time	Upon request

### It is incumbent upon your company to:

- Undertake a risk assessment to identify the hazards prevalent at your workplace which could impact upon the safe operation of the equipment and take action to control those hazards.
- Review the Safety Operating Procedure (SOP) to ensure it captures all the steps involved in your specific use(s) of the equipment and modify accordingly.
- Ensure that staff operating the equipment have been adequately trained in it's safe use, provided with the appropriate Personal Protective Equipment (PPE) identified in the SOP and provided with a copy of the Safety Operating Procedure.

Your company also agrees to undertake a risk assessment, review the SOP in light of that risk assessment, make any modifications to reflect how the equipment is to be used at their workplace and then adequately train those people who are going to use the equipment.

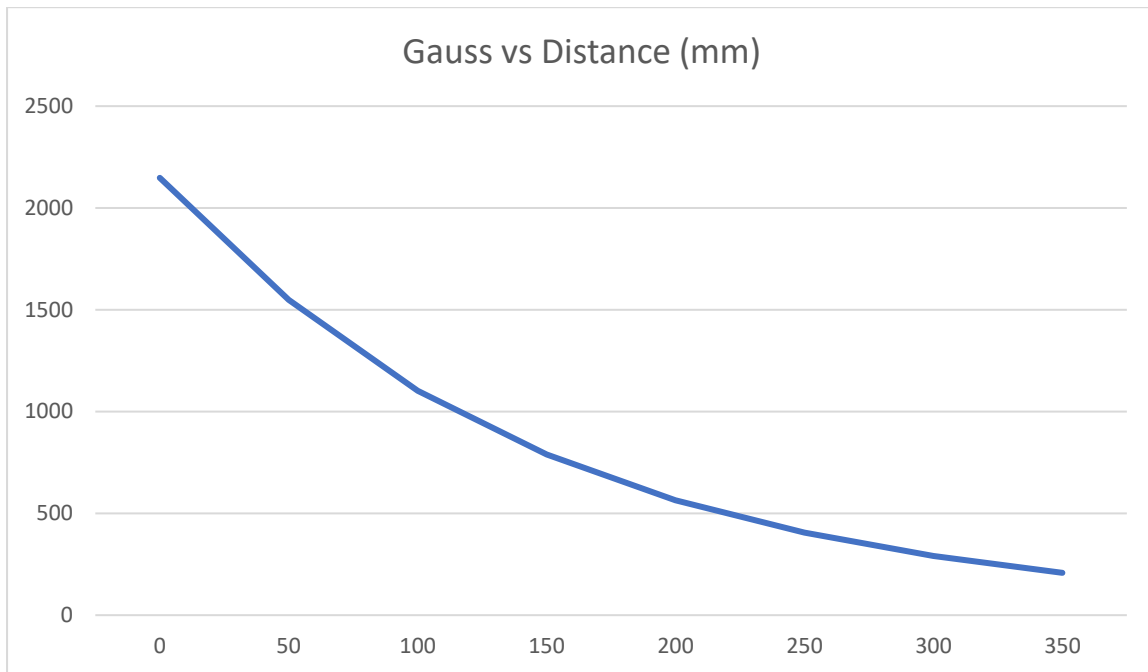
## FEATURES & BENEFITS:

- Protection of crushers and expensive plant equipment
- Improve product purity by effective extraction of contaminants such as roof bolts, pins, drill rods, earthmoving equipment parts and scrap metal, etc.
- Designed and manufactured in Australia in accordance with Australian Std 3556-1998
- Design options for remote locations
- Prevention of downtime and reduction of maintenance as a result of damage to equipment or contamination of product
- Manual or self-clean designs
- Inline or crossbelt applications

## INDUSTRIES:

- Mining
- Foundries
- Quarries
- Recycling
- Brick works
- Timber processing
- Concrete batching
- Stockfeed and much more!

KSF-060, KSF-090, CKF-090 & CKF-120 PERFORMANCE GRAPH								
GRAPH OF GAUSS VS DISTANCE								
Distance	0	50	100	150	200	250	300	350
Gauss	2148	1549	1102	789	565	405	290	208



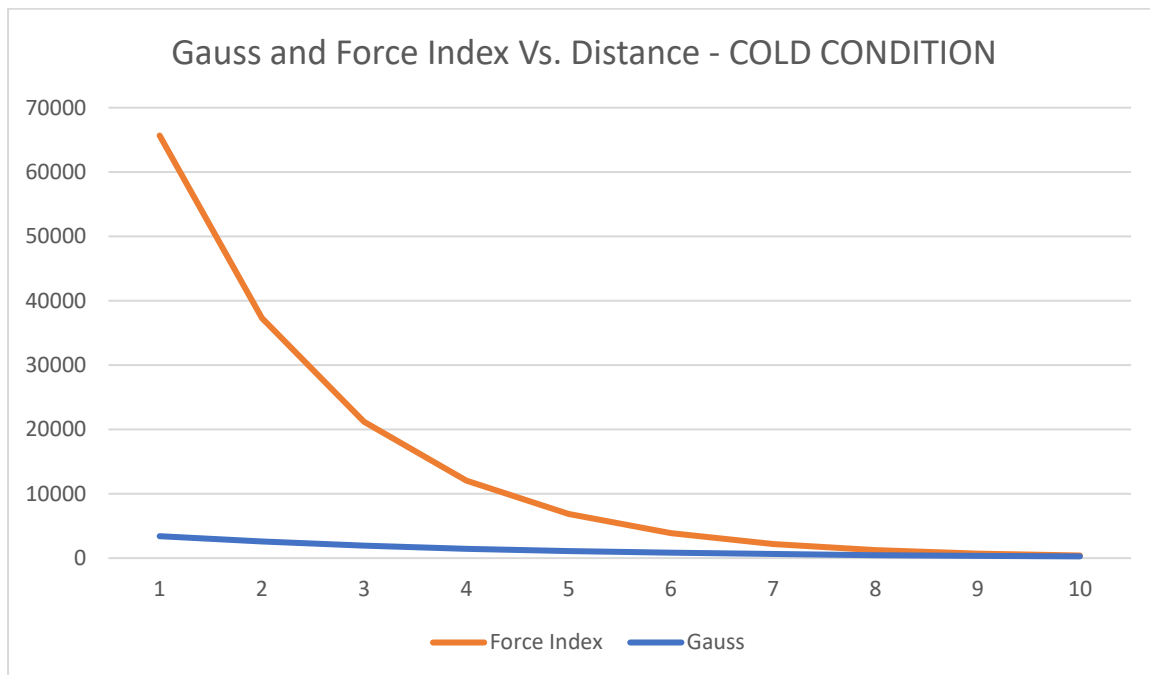
Note: This Gauss chart is only a guidance, the actual values may vary due to factors such as surrounding steel structure and environment, etc. Engineered options available for a range of gauss distance profiles.

TMG-100 PERFORMANCE GRAPH. COLD CONDITION. Additional performance options and models are available upon request.										
GRAPH OF GAUSS AND FORCE INDEX VS DISTANCE										
No	1	2	3	4	5	6	7	8	9	10
Equivalent Distance (mm)	50	100	150	200	250	300	350	400	450	500

F.I. = FORCE INDEX = GAUSS x GAUSS / mm

FLUX DENSITY AT 300 / 350 mm 830 / 626 GAUSS Respectively

FORCE INDEX AT 300 / 350 mm 3893 / 2212 GAUSS x GAUSS / mm Respectively



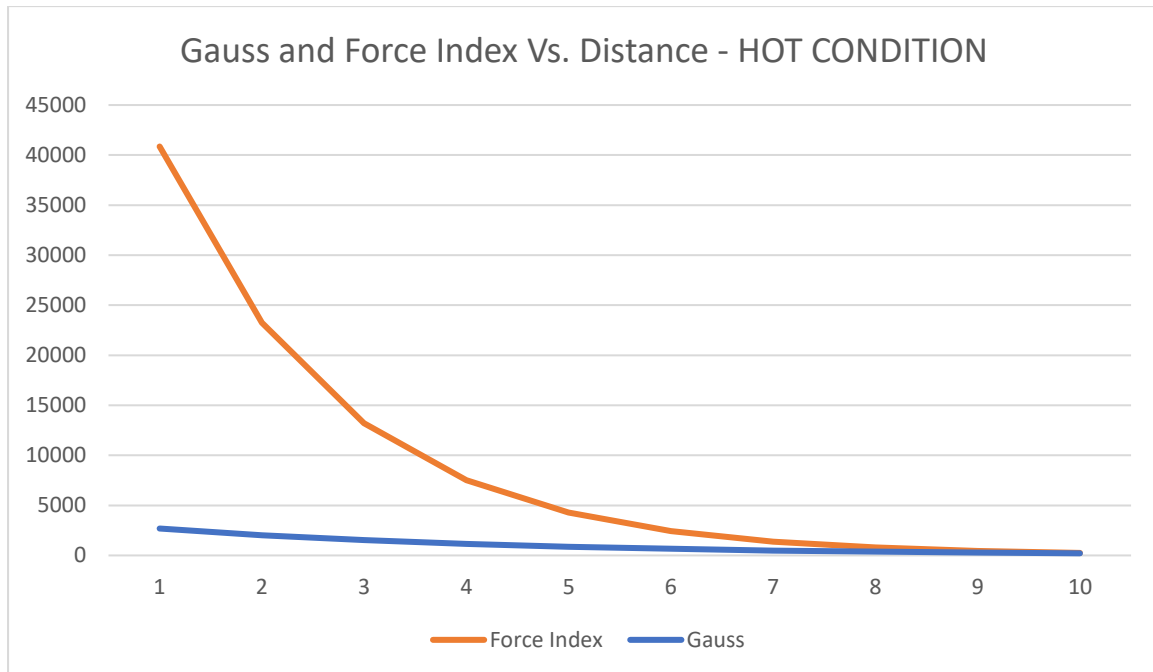
Note: This Gauss chart is only a guidance, the actual values may vary due to factors such as surrounding steel structure and environment, etc. Engineered options available for a range of gauss distance profiles.

TMG-100 PERFORMANCE GRAPH. HOT CONDITION. Additional performance options and models are available upon request.										
GRAPH OF GAUSS AND FORCE INDEX VS DISTANCE										
No	1	2	3	4	5	6	7	8	9	10
Equivalent Distance (mm)	50	100	150	200	250	300	350	400	450	500

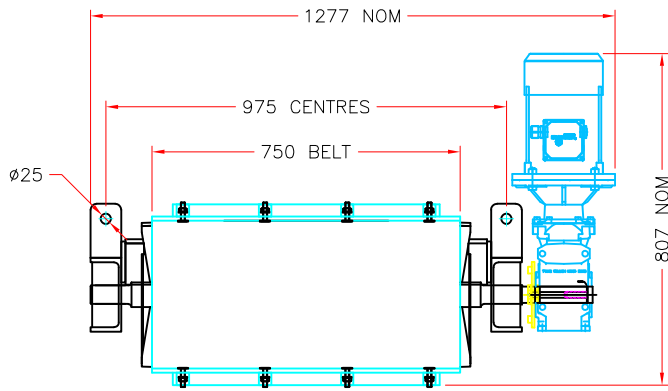
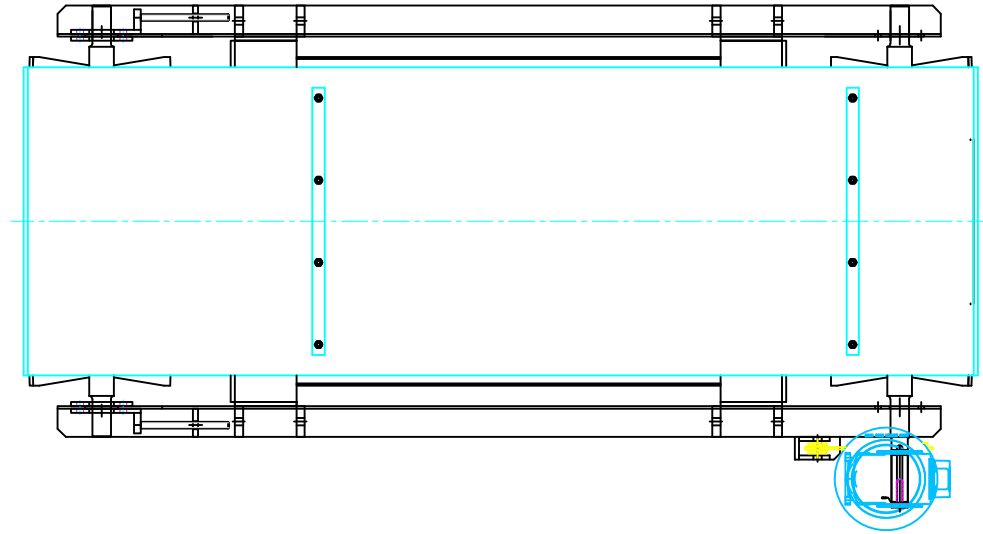
F.I. = FORCE INDEX = GAUSS x GAUSS / mm

FLUX DENSITY AT 300 / 350 mm 657 / 496 GAUSS Respectively

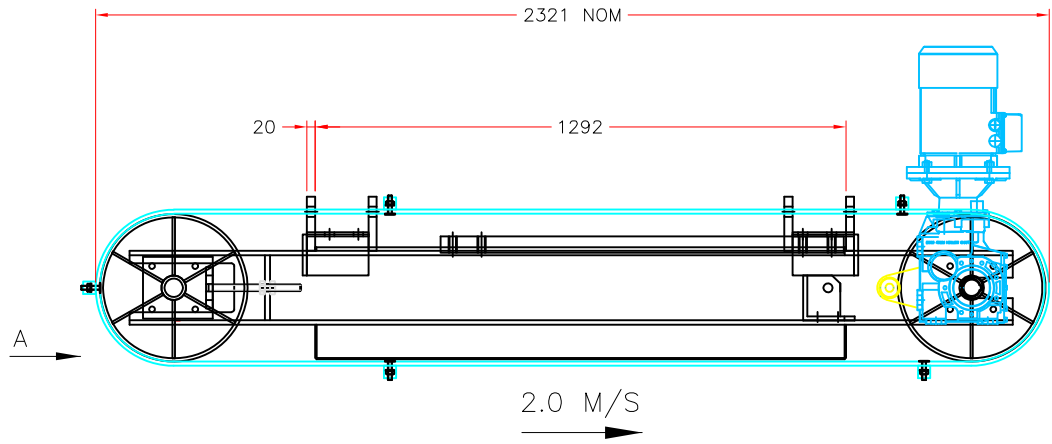
FORCE INDEX AT 300 / 350 mm 2435 / 1385 GAUSS x GAUSS / mm Respectively



REV	REVISION NOTE	BY	DATE
-	-	DC	-



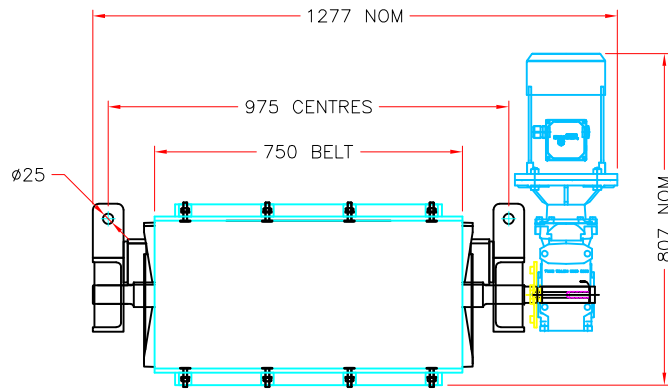
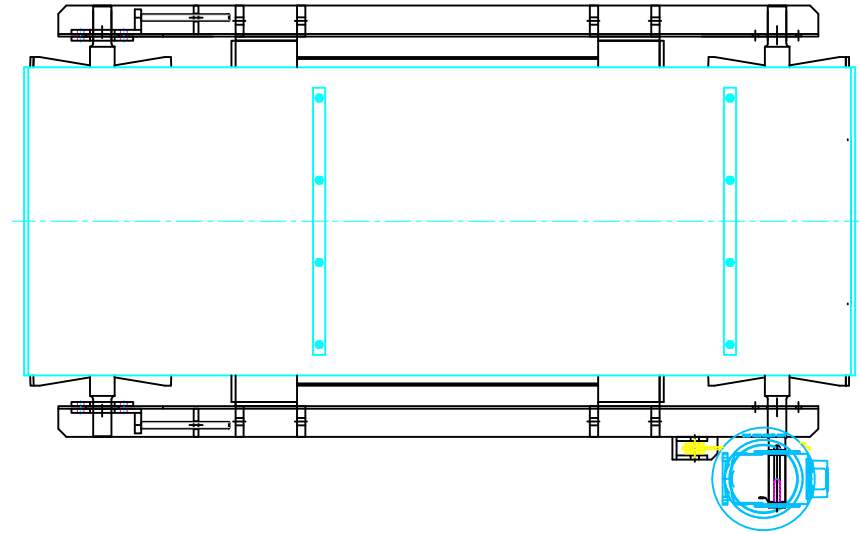
VIEW A



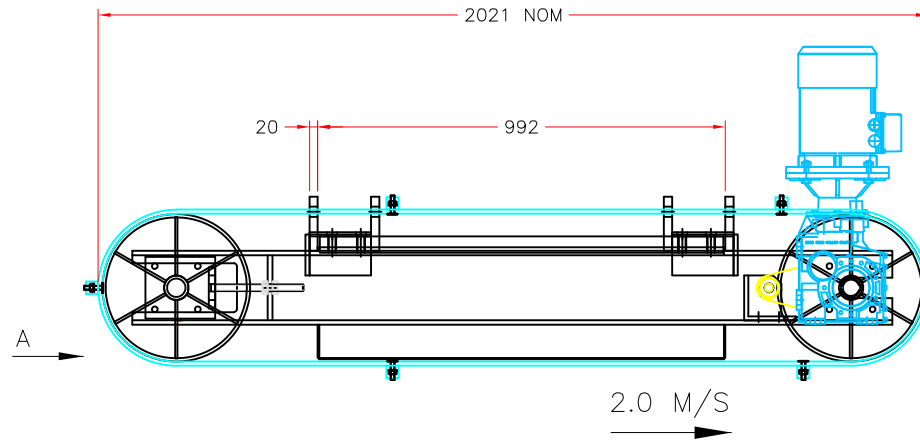
BELT MOTOR POWER: 2.2 KW – 415VAC / 3Ph / 50 Hz  
MAGNET WEIGHT: 1,800 KG (NOM)

<b>MSA</b> 16 PRINCE OF WALES AVE, UNANDERRA 2526 sales@magnetsalesaustr.com.au P: +61 2 4272 8130 F: +61 2 4272 5927	<b>TITLE:</b> CKF-120 PERMANENT SEPARATOR			
	<b>CLIENT:</b>			
<b>DRAWN:</b> D CLOW <b>DATE:</b> 11/11/24 <b>CHECKED:</b> <b>DATE:</b>	<b>SHEET SIZE:</b> A4	<b>DRAWING NUMBER:</b> MKF51200		<b>SHEET:</b> 10F 1
			<b>REV:</b> 0	

REV	REVISION NOTE	BY	DATE
-	-	DC	-



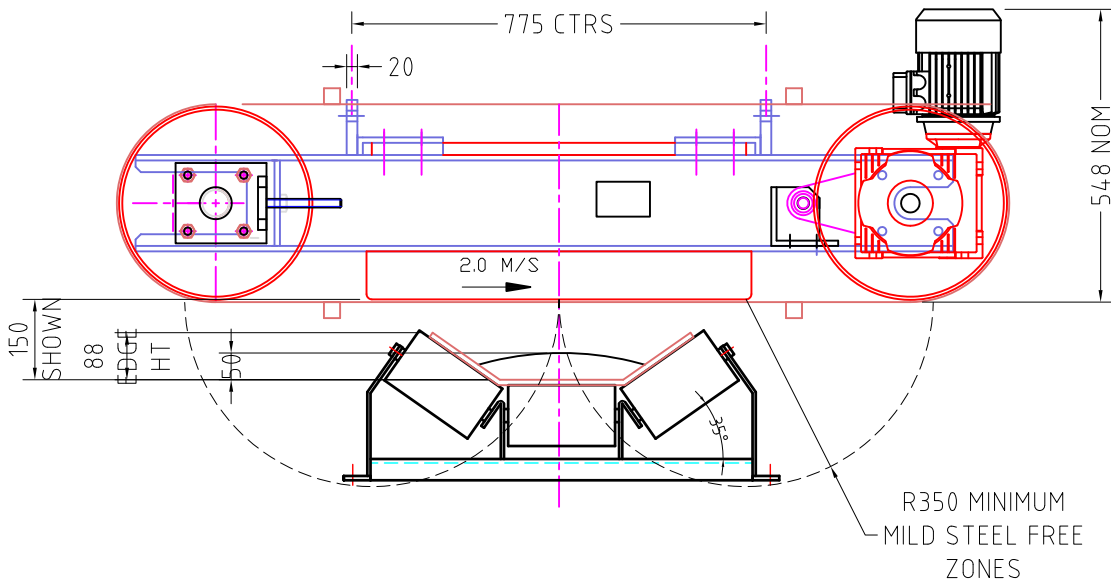
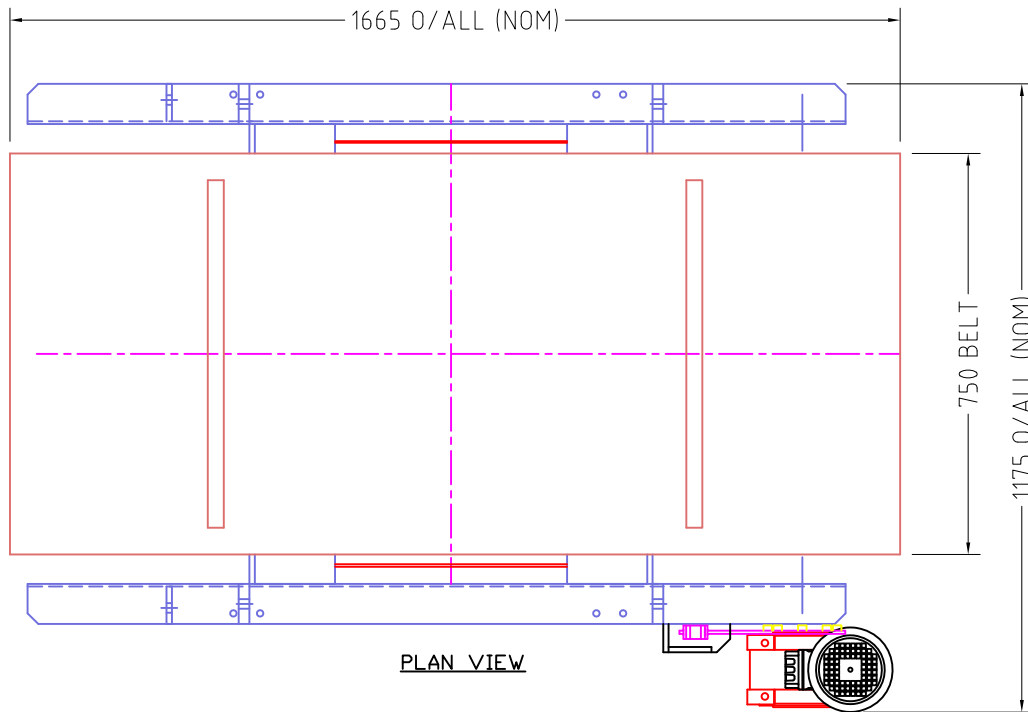
VIEW A



BELT MOTOR POWER: 2.2 KW – 415VAC / 3Ph / 50 Hz  
MAGNET WEIGHT: 1,500 KG (NOM)

<b>MSA</b> 16 PRINCE OF WALES AVE, UNANDERRA 2526 sales@magnetsalesaustr.com.au P: +61 2 4272 8130 F: +61 2 4272 5927	<b>TITLE:</b> CKF-090 PERMANENT SEPARATOR			
	<b>CLIENT:</b>			
<b>DRAWN:</b> D CLOW <b>DATE:</b> 11/11/24 <b>CHECKED:</b> <b>DATE:</b>	<b>SHEET SIZE:</b> A4	<b>DRAWING NUMBER:</b> MKF50900		<b>SHEET:</b> 1 OF 1
			<b>REV:</b> 0	

REV	REVISION NOTE	BY	DATE
-	-	-	-

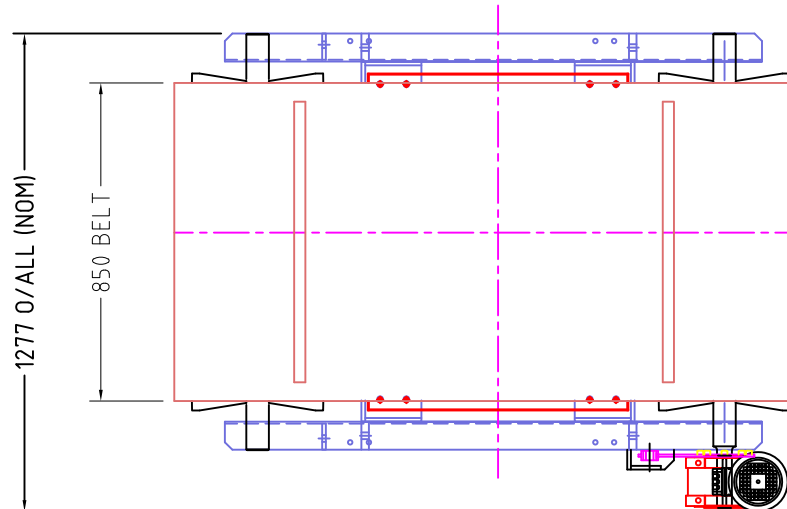


BELT WIDTH / CAPACITY / SPEED: 450MM / 38.5TPH / 1.25 M/S  
 MATERIAL / SIZE: LITHIUM SPODUMENE / 0.05 MM

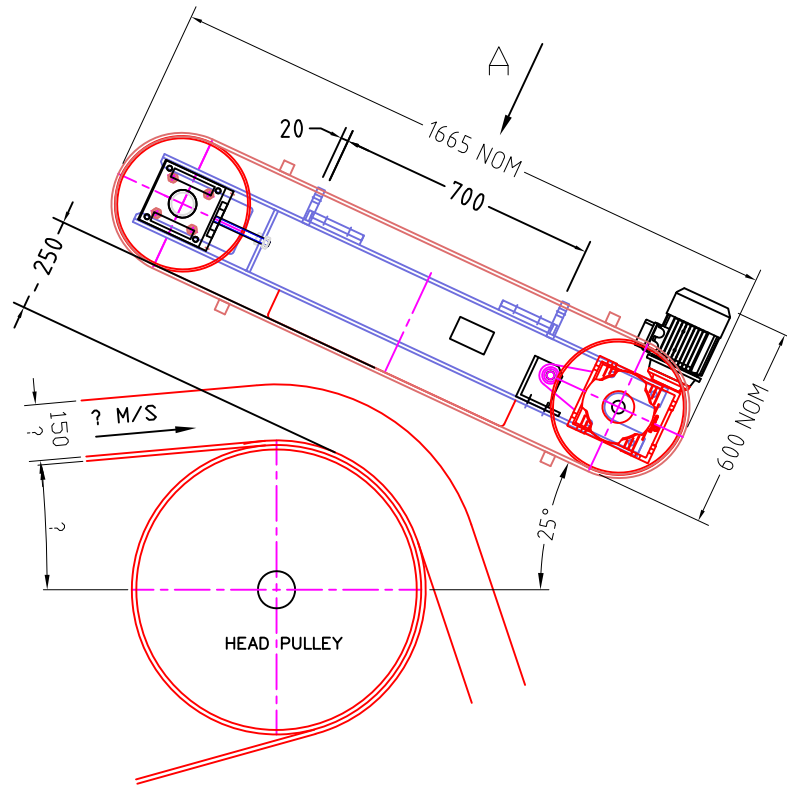
MOTOR POWER: 1.5KW - 415 VAC / 3PH / 50 HZ  
 SEPARATOR WEIGHT: 1,200 KG (NOM)

MSA 16 PRINCE OF WALES AVE. UNANDERRA 2526 sales@magnetsalesaust.com.au P: +61 2 4272 8180 F: +61 2 4272 5927	TITLE: <b>CKF-060 PERMANENT SEPARATOR</b> <b>GENERAL ASSEMBLY</b>			SHEET 1 OF 1	REV: 0
	CLIENT:				
DRAWN: V NGUYEN DATE: 05/12/25 CHECKED: - DATE: -	SCALE NTS	DRAWING NUMBER: 251200MSAC 01			

REV	REVISION NOTE	BY	DATE
-	-	-	-



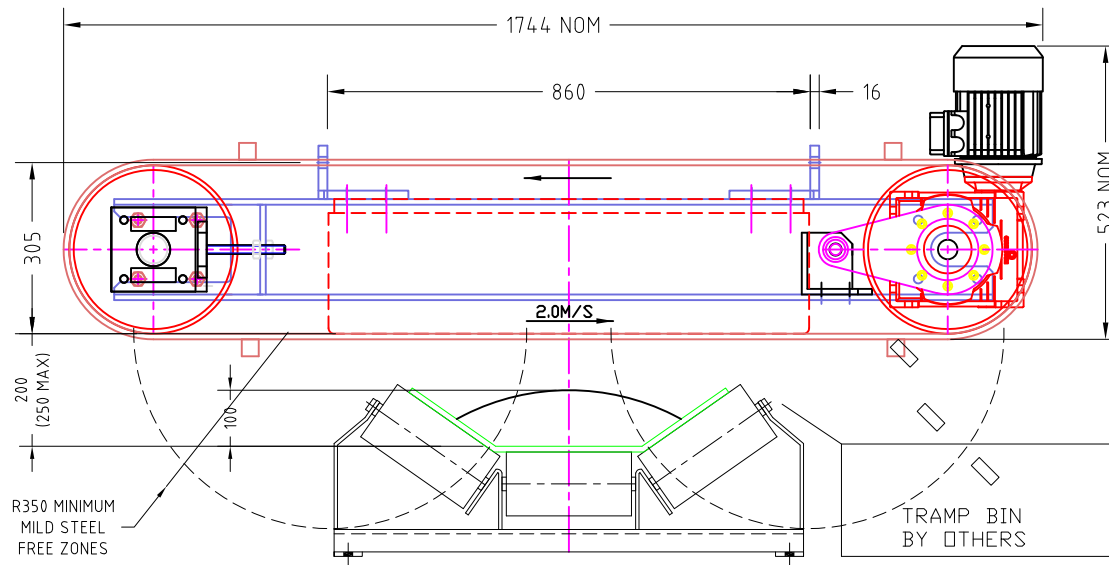
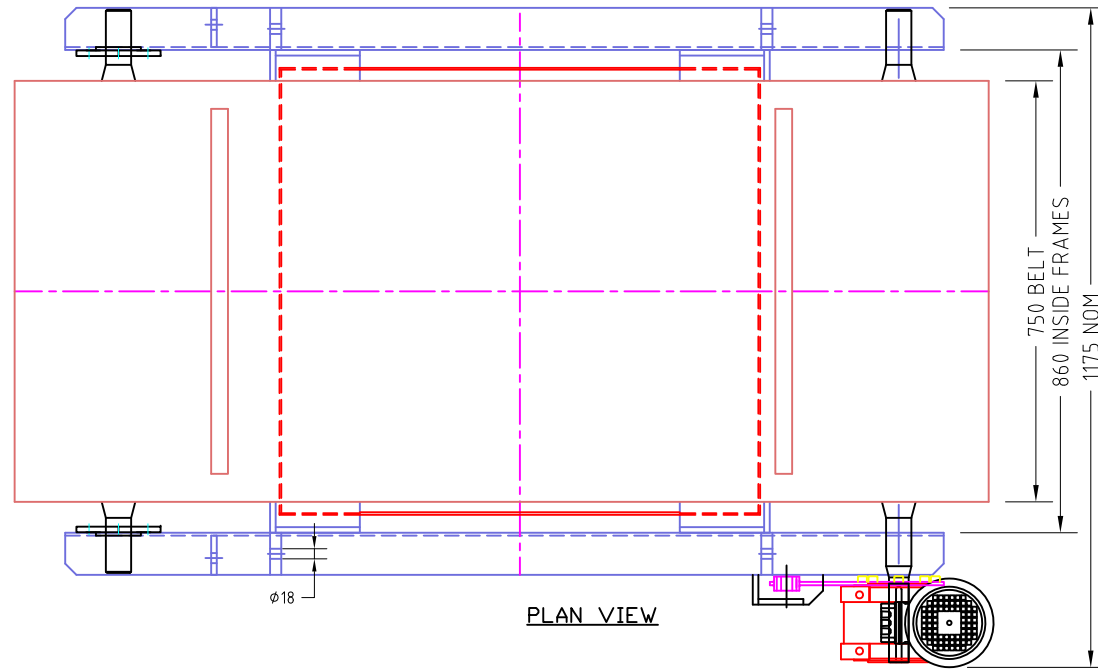
VIEW A





SEPARATOR WEIGHT: 1,200 KG Approx.  
 MOTOR: 415V/3P/50HZ - 1.5 KW  
 QTY: 1 OFF

MSA 4 PRINCE OF WALES AVE UNANDERRA 2526 Ben.Broadhead@msamagnetics.com.au M: 0488 738 161	TITLE: <b>LKE-090 PERMANENT SEPARATTOR</b> <b>GENERAL DIMENSIONS</b>			
	CLIENT:			
DRAWN: V NGUYEN DATE: 17/07/25 CHECKED: - DATE: -	SCALE NTS	DRAWING NUMBER: 250705MSAB 01	SHEET 1 OF 1	REV: 0

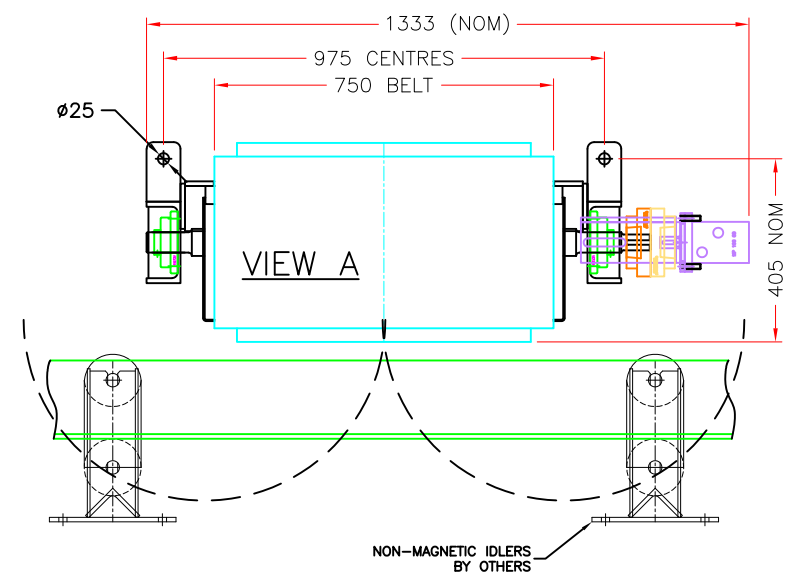
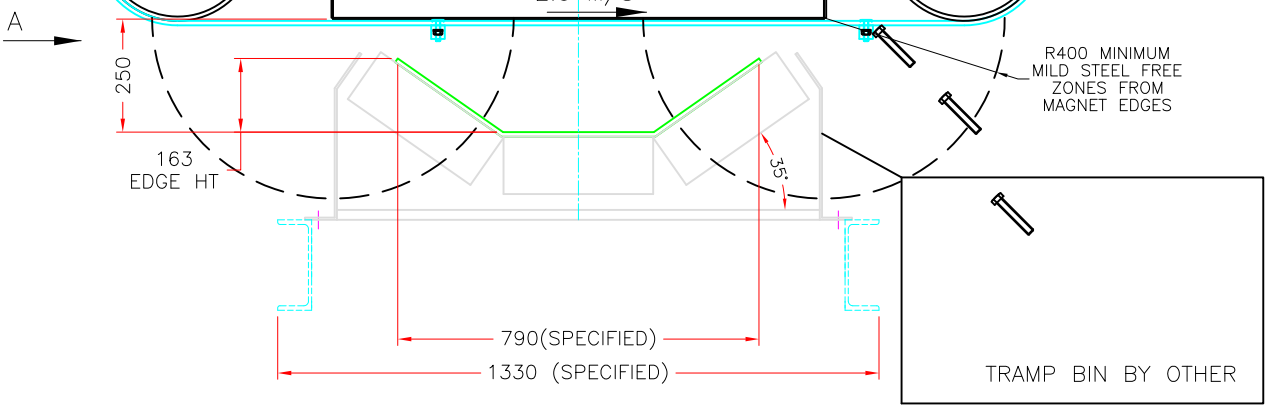
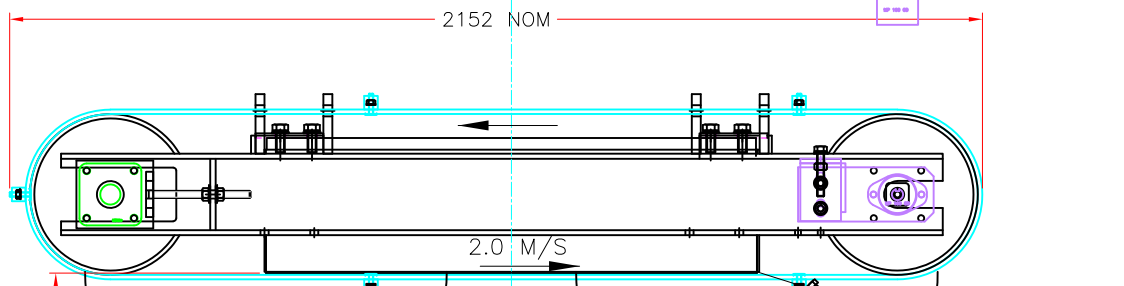
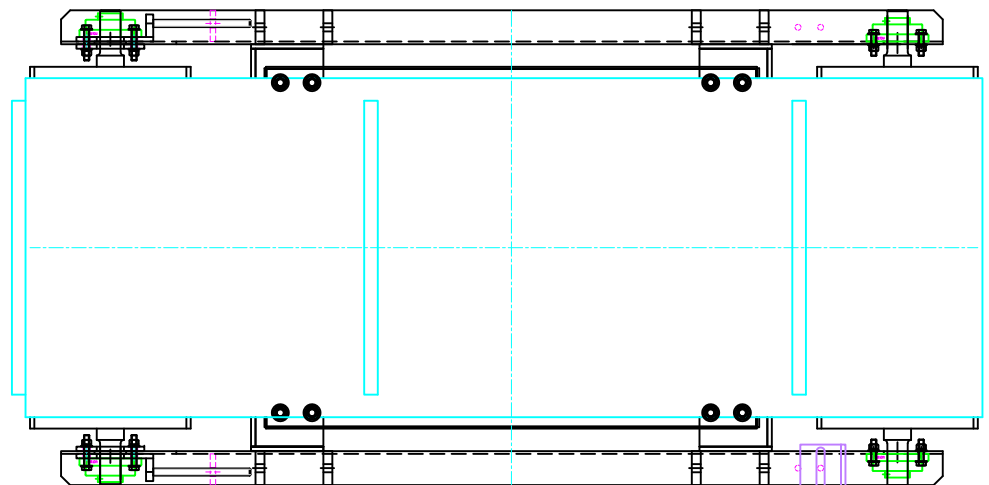
REV	REVISION NOTE	BY	DATE
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BELT SPEED/WIDTH/TROUGH: TBA  
 CAPACITY: TBA  
 SEPARATOR WEIGHT: 1,200 KG (APPROX.)  
 BELT MOTOR: 380-460VAC / 3PH / 50Hz - 2.2 kW

MSA 4 PRINCE OF WALES AVE UNANDERRA 2526 Ben.Broadhead@msamagnetics.com.au M: 0488 738 161	TITLE: <b>CKE-090 PERMANENT SEPARATOR          INSTALLATION ARRANGEMENT</b>		 	
	CLIENT:			
DRAWN: V NGUYEN DATE: 17/04/25 CHECKED: - DATE: -	SCALE 1:1	DRAWING NUMBER: 250400MSAB 01	SHEET 1 OF 1	REV: 0

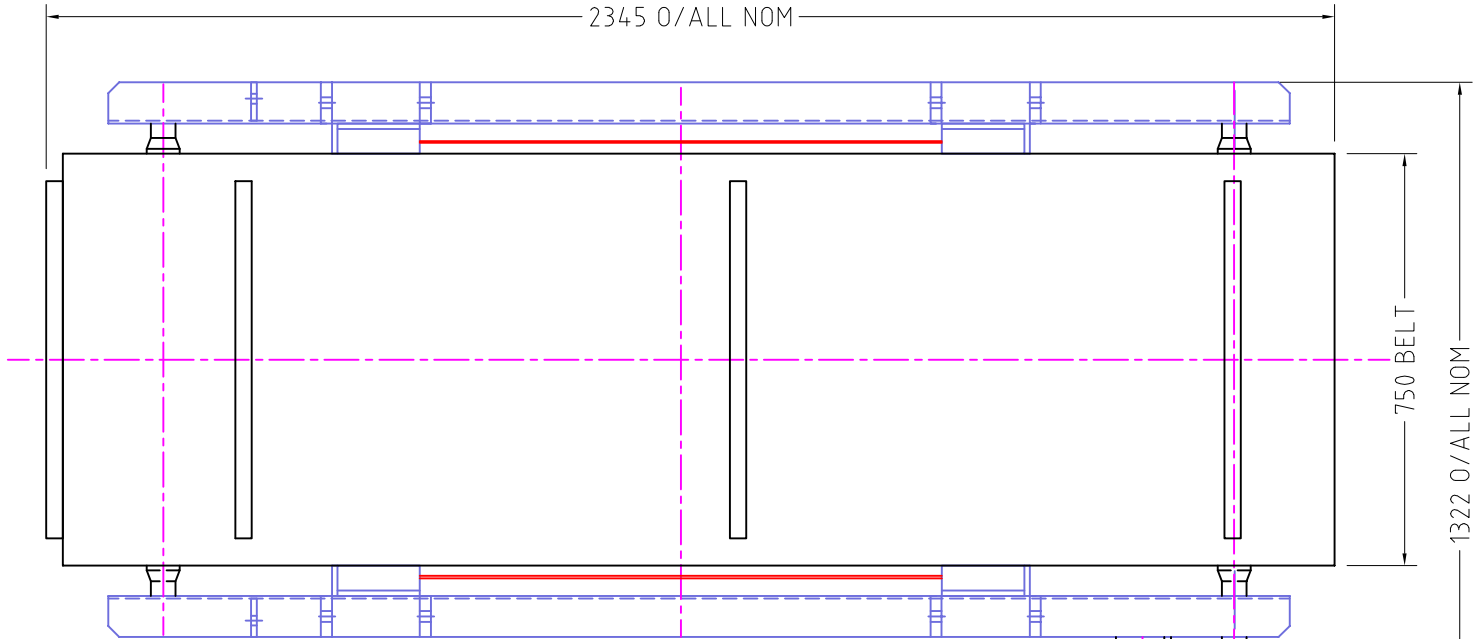
REV	REVISION NOTE	BY	DATE
1	1	1	1



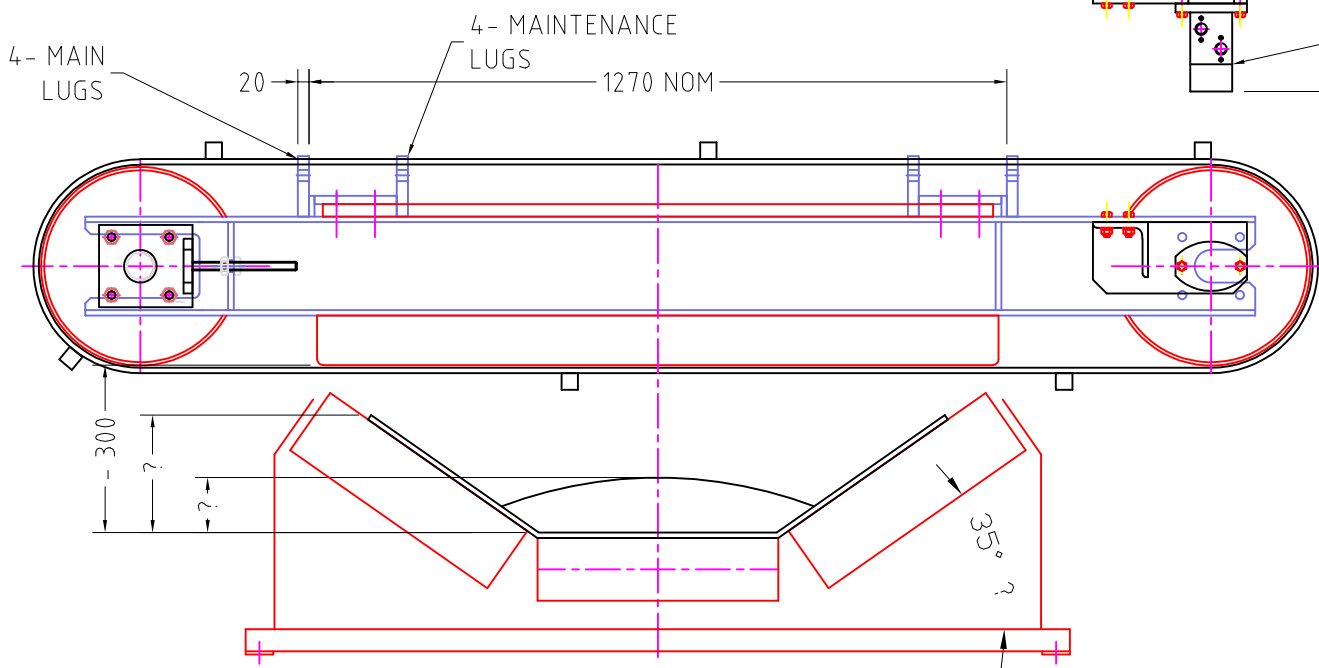
BELT WIDTH / CAPACITY / SPEED: 900 / ? / ? M/S  
 BELT MOTOR: 120 BAR / 10 L/M (NOM)  
 MAGNET WEIGHT: 1,500 KG (NOM)

MSA 4 PRINCE OF WALES AVE UNANDERRA 2526 Ben.Broadhead@msamagnetics.com.au M: 0488 738 161	TITLE: <b>CKF-090-HY SEPARATOR</b> MAIN ASSEMBLY (HYDRAULIC MOTOR)		
	CLIENT: MSA		
DRAWN: V NGUYEN DATE: 07/04/25 CHECKED: - DATE: -	SCALE A4	DRAWING NUMBER: 25007300	SHEET 1 OF 1
			REV: 0

REV	REVISION NOTE	BY	DATE
-	-	-	-



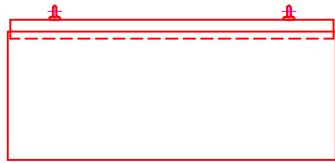
PLAN VIEW



WEIGHT: 1,600 KG (NOM)

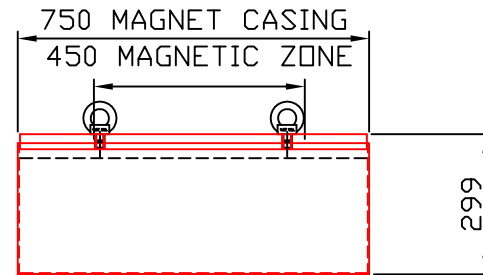
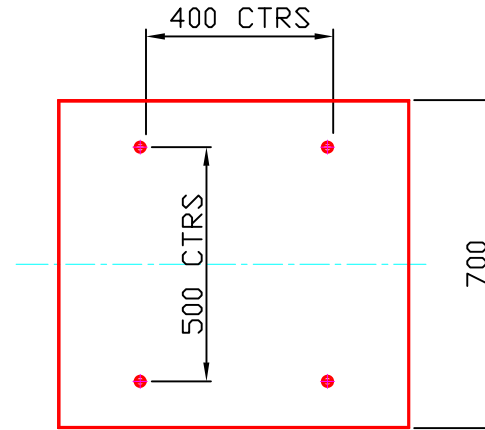
MSA 4 PRINCE OF WALES AVE, UNANDERRA 2526 sales@msamagnetics.com.au P: +61 2 4272 8180		TITLE: <b>CKF-120/HY PERMANENT SEPARATOR          GENERAL ASSEMBLY</b>	
DRAWN: V NGUYEN		SCALE	DRAWING NUMBER:
DATE: 05/22		NTS	220505MSAM 1
CHECKED: -			
DATE: -			
		SHEET	REV:
		1 OF 1	0

REV	REVISION NOTE	BY	DATE
-	-	DC	-



VIEW A

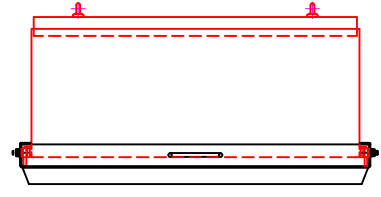
A



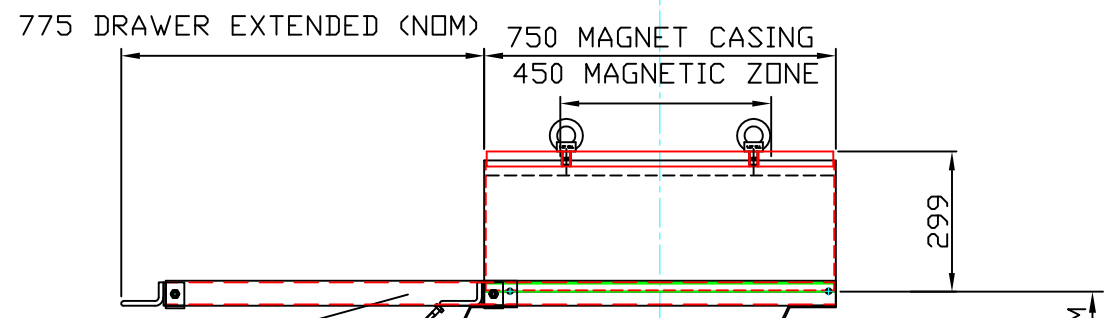
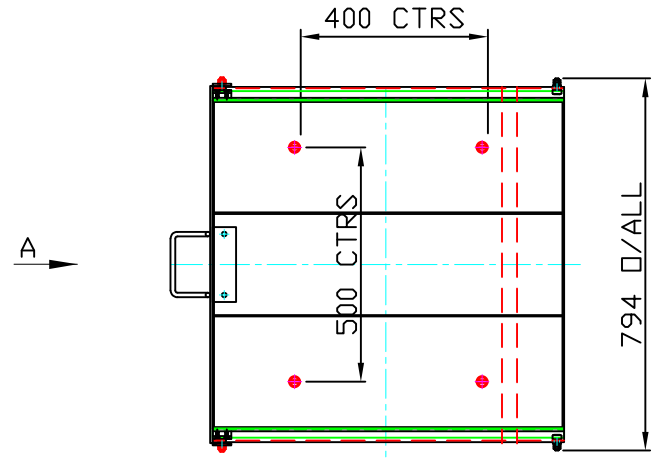
WEIGHT: 580 KG (NOM)

<b>MSA</b> 16 PRINCE OF WALES AVE. UNANDERRA 2526 sales@magneticsoutheast.com.au P: +61 2 4272 8180 F: +61 2 4272 5927	TITLE: KSF-060 PERMANENT SEPARATOR INSTALLATION ARRANGEMENT			
	CLIENT:			
DRAWN: D CLOW DATE: 11/11/24 CHECKED: DATE:	SHEET SIZE A4	DRAWING NUMBER: MIF50600	SHEET 1 OF 1	REV: 0

REV	REVISION NOTE	BY	DATE
-	-	DC	-

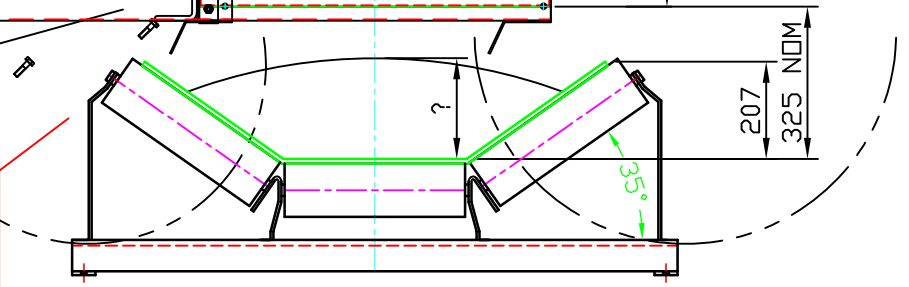


VIEW A





R450 MINIMUM MILD STEEL FREE ZONE

TRAMP BIN BY OTHERS



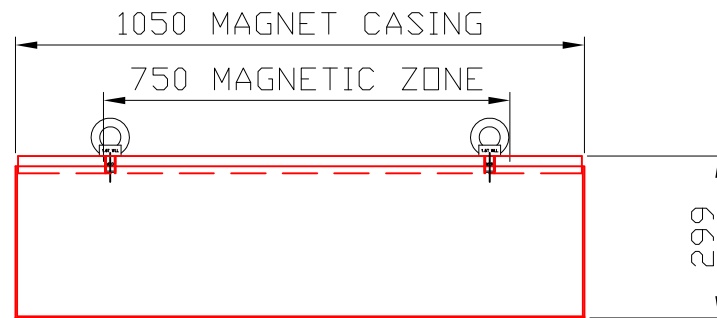
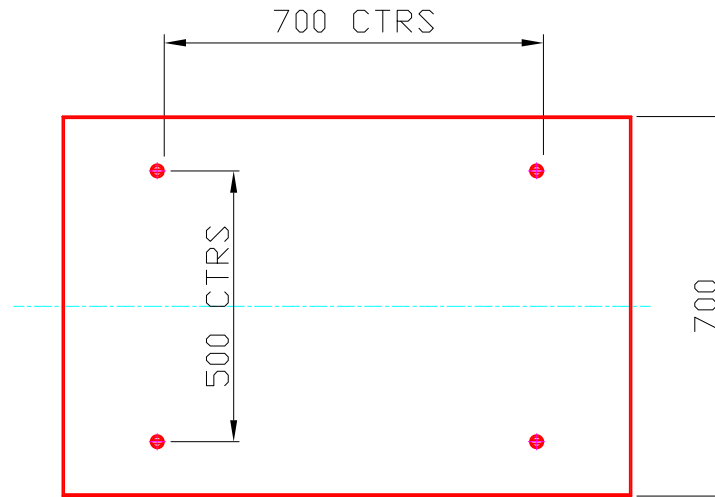
WEIGHT: 600 KG (NOM)

<b>MSA</b> 16 PRINCE OF WALES AVE, UNANDERRA 2526 sales@magneticsouth.com.au P: +61 2 4272 8180 F: +61 2 4272 5927		TITLE: KSF-060-SD PERMANENT SEPARATOR INSTALLATION ARRANGEMENT	
		CLIENT:	
DRAWN: D CLOW DATE: 11/11/24 CHECKED: DATE:	SHEET SIZE A4	DRAWING NUMBER: MIF50650	 
		SHEET 1 OF 1	REV: 0

REV	REVISION NOTE	BY	DATE
-	-	DC	-



VIEW A

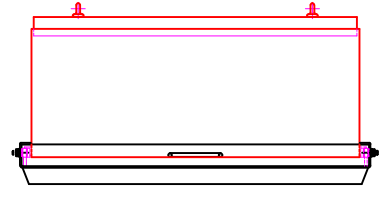


A →

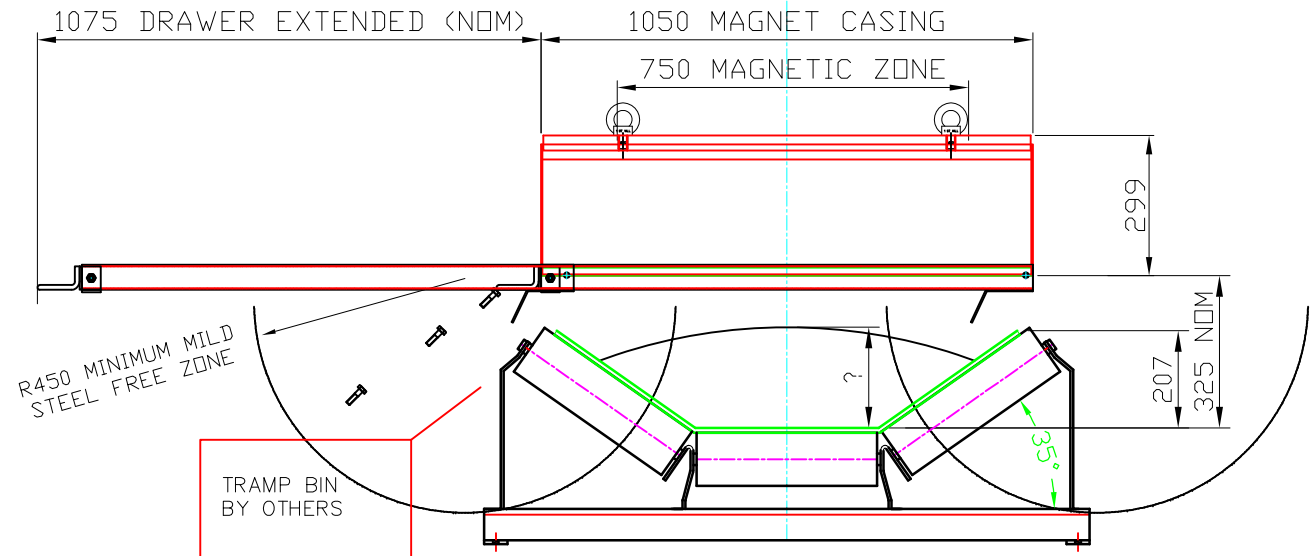
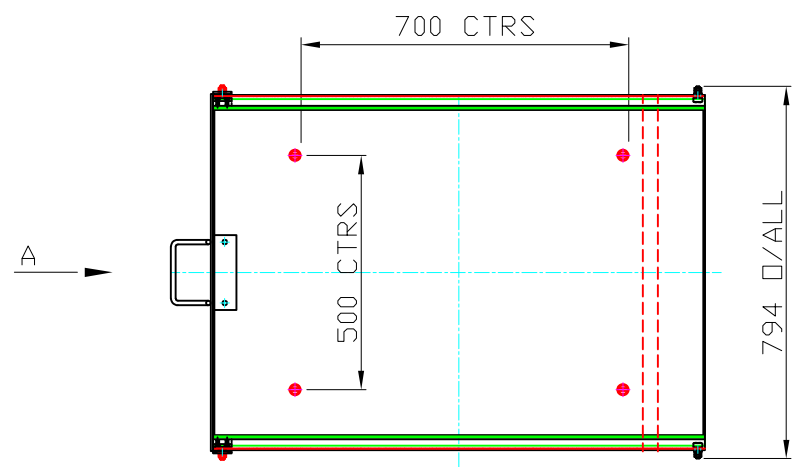
WEIGHT: 980 KG (NOM)

<b>MSA</b> 16 PRINCE OF WALES AVE. UNANDERRA 2526 sales@magnetsalesaustr.com.au P: +61 2 4272 8130 F: +61 2 4272 5927	TITLE: KSF-090 PERMANENT SEPARATOR INSTALLATION ARRANGEMENT			
	CLIENT:			
DRAWN: D CLOW DATE: 11/11/24 CHECKED: DATE:	SHEET SIZE A4	DRAWING NUMBER: MIF50900	SHEET 1 OF 1	REV: 0

REV	REVISION NOTE	BY	DATE
-	-	DC	-



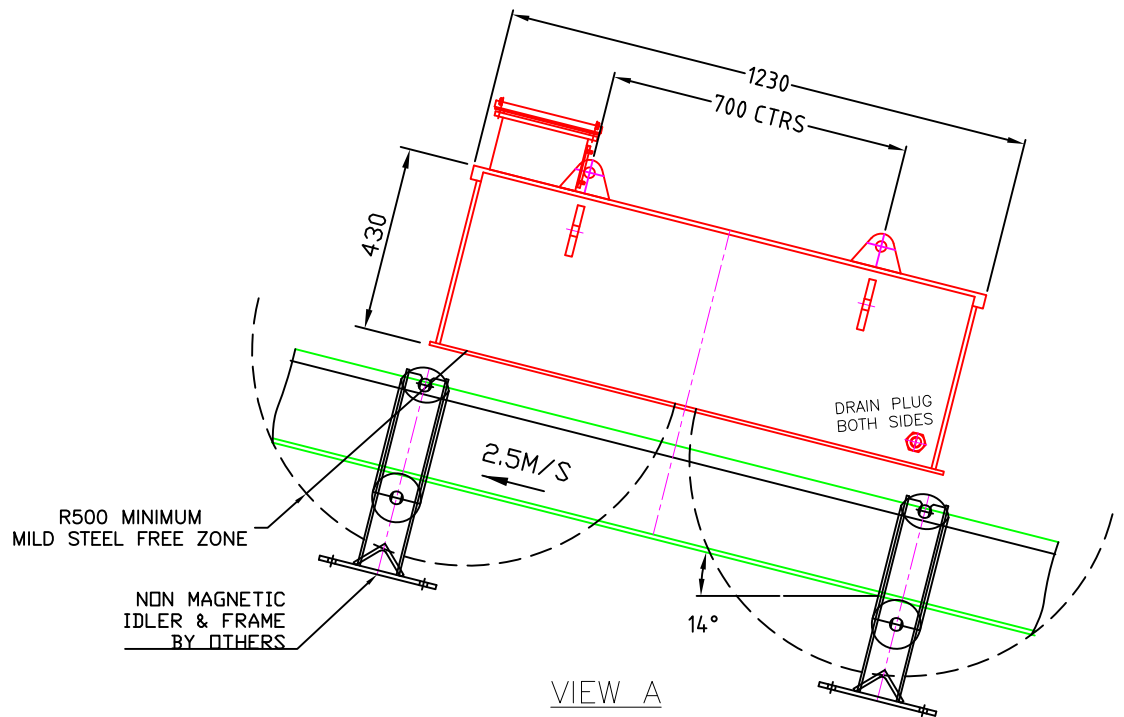
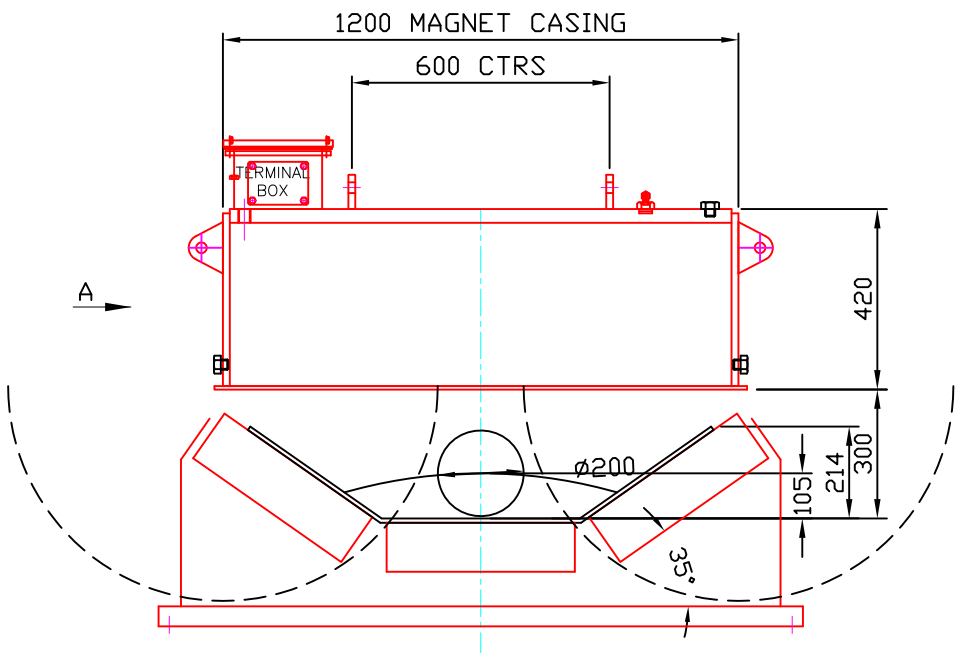
VIEW A



WEIGHT: 1000 KG (NOM)

<b>MSA</b> 16 PRINCE OF WALES AVE. UNANDERRA 2526 sales@magnetsalesaustr.com.au P: +61 2 4272 8130 F: +61 2 4272 5927	TITLE: KSF-090-SD PERMANENT SEPARATOR INSTALLATION ARRANGEMENT		
	CLIENT:		
DRAWN: D CLOW DATE: 11/11/24 CHECKED: DATE:	SHEET SIZE A4	DRAWING NUMBER: MIF50950	SHEET 10F 1
			REV: 0

REV	REVISION NOTE	BY	DATE
-	-	-	-



CONVEYOR WIDTH / CAPACITY / SPEED: 1200 MM / 300 TPH / 2.0 M/S

WEIGHT: 1,000 KG (NOM)

<b>MSA</b> 4 PRINCE OF WALES AVE UNANDERRA 2526 Ben.Broadhead@msamagnetics.com.au M: 0488 738 161	<b>TITLE:</b> TMG-120 ELECTRO MAGNET INSTALLATION ARRANGEMENT		
	<b>CLIENT:</b> -		
<b>DRAWN:</b> V NGUYEN <b>DATE:</b> 20/01/25 <b>CHECKED:</b> - <b>DATE:</b> -	<b>SCALE:</b> NTS	<b>DRAWING NUMBER:</b> 250105MSAB 02	<b>SHEET</b> 1 OF 1
			<b>REV:</b> 0