



Murugan 2025/07/17
Kriel PS System Engineer

General Manufacturing Notes

Material & Cutting

All materials must comply with SANS 50025 / EN 10025 (Structural Steel Grade S355JR or S275JR) unless otherwise specified.
Cutting to be performed using plasma cutting (ISO 9013:2017), chainsaw blade cutting, or milling as per drawing requirements.
Cut edges must be smooth, free from burrs, and without excessive heat-affected zones (HAZ).

Welding

All welding to be performed using MAG (ISO 4063:135) or Stick welding (ISO 4063:111) as specified in the drawing. Standard fillet weld size: 6mm, unless otherwise stated. Welding to conform to ISO 9606-1 (Welder Qualification) and ISO 15614-1 (Welding Procedure Qualification). All welds must be continuous, free from cracks, porosity, and undercutting. Welds must be cleaned after welding, and slag must be removed per ISO 8501-3 (Surface Preparation Standards).

Forming & Machining

Hot forming and pressing must be performed within tolerances and per ISO 7438 (Metallic Materials - Bend Test) without causing material damage. Milling operations must meet required surface finish per ISO 1302 (Indication of Surface Texture). Thin plate profiling must be performed to prevent warping and distortion, following ISO 9013 (Thermal Cutting - Classification of Cut Quality). Center lathe machining must comply with ISO 286 (Geometrical Product Specifications - Limits & Fits).

Tolerances

Cutting & Machining Tolerances: ±0.5 mm (ISO 2768-m)
Welded Assembly Tolerances: ±2 mm (ISO 13920-BF)
Hole Positioning: ±0.5 mm (ISO 286-1 IT9)

Surface Finish & Inspection

All components must be free from sharp edges, burrs, and welding splatter per ISO 13715 (Edges & Burrs Control). All assemblies must be inspected for dimensional accuracy before final processing. Any deviations must be approved by the responsible engineer before proceeding

PARTS LIST				
ITEM	QTY	PART NUMBER	DESCRIPTION	MATERIAL
1	2	JC-KRL-CE02-AS01-PT001	80 X 10 FLAT BAR	S275JR
2	1	JC-KRL-CE02-AS01-PT002	ANVIL HEAD	S355JR
3	2	JC-KRL-CE02-AS01-PT003	KEEPER PLATES	S275JR
4	1	JC-KRL-CE02-AS01-PT004	SAPCER BUSH	EN8
5	1	*****	M20 X 100	GR 8.8 BLACK
6	2	*****	M24 NUTS	GR 8.8 BLACK
7	2	*****	M24 X 120	GR 8.8 BLACK
8	1	*****	M20 NUT	GR 8.8 BALCK

QTY : OFF

UNIT 3

PLEASE NOTE :

M24 BOLT TORQUE SETTING - 665 Nm
M20 BOLT TORQUE SETTING - 385 Nm
M16 BOLT TORQUE SETTING - 197 Nm

REV	DATE	DRAWN	DESCRIPTION
0	12/06/2025	Progress	

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REMOVE ALL BURR AND BREAK SHARP EDGES.			
A3	NAME	DATE	SIGNATURE
DRAWN	Progress	12/06/2025	
CHECKED	Michael Mathee		
APPROVED	Douglas Louw		

KRIEL POWER STATION	RAPPER BAR ASSEMBLY	
DRAWING NUMBER		REVISION
JC-KRL-CE02-AS01		0
273 FLEMING ROAD MEADOWDALE JOHANNESBURG		J&C ENGINEERING (Pty) Ltd empowering the environment

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