

## Annual Assessment of Thermal Cutting Process 2023



**D. KENNEDY Steel Supplies Ltd.**

Tested in accordance with:	EN1090-2 (Annex D) EN ISO 9013
Type of cutting process:	Plasma Cutting
Manufacturer:	D. Kennedy Steel Supplies
Machine make & model	Ermaksan Plasma – Hypertherm XPR300
Material thickness:	50mm
CPQR No:	24167.02 / 50mm Plasma Ermaksan
Documents included in this pack:	<ol style="list-style-type: none"><li>1. Surface Roughness, Visual and Perpendicularity Report</li><li>2. Hardness Test Report</li></ol>

## Cutting Procedure Inspection Report

EIS FORM No.CPTR 001

<b>Test Report No.:</b>	10017	<b>Date:</b>	24/04/2023
<b>EIS Job No.:</b>	30774		

<b>Manufacturer:</b>	D. KENNEDY STEEL SUPPLIES
<b>Address:</b>	PLAMERSTOWN LOWER, DUBLIN 20
<b>Manufacturers pCPS No.:</b>	PRELIM 24167.02/50mm PLASMA ERMAKSAN
<b>Manufacturers CPQR No.:</b>	24167.02/50mm PLASMA ERMAKSAN

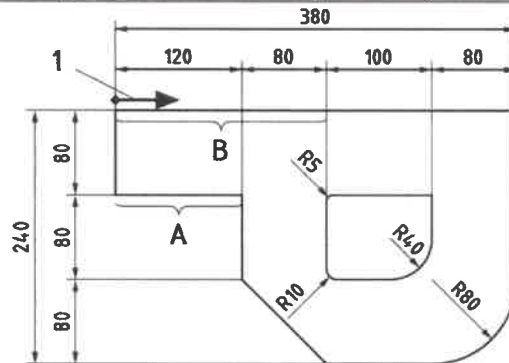
<b>Procedure No.:</b>	<b>In Accordance with:</b>	<b>Acceptance Criteria</b>
Procedure for Checking Capability of Thermal Cutting Process	EN 1090-2:2018 Annex D	BS EN ISO 9013:2017 (Range 4 & 5)

Test Equipment Used			
Surface Roughness Equipment			
<b>Surface Roughness Test Unit</b>	Diavite AG	<b>Unit Serial No.</b>	01608
<b>Probe / Tracer Type:</b>	SH-00/10/90/5	<b>Probe Serial Number:</b>	9958
<b>Calibration Block Type Settings:</b>	Ra=3.00 / Sm=100 / Rz=9.46	<b>Calibration Block Serial Number:</b>	2423
Visual Inspection & Measurement Equipment			
<b>Digital Calipers:</b>	Accu Inside 1108	<b>Measurement Reticule:</b>	0.1mm Increments

Cutting Machine Details	
<b>Machine Manufacturer:</b>	ERMAKSAN
<b>Model:</b>	HYPERTHERM XPR300
<b>Serial Number:</b>	000303
<b>Material Thickness:</b>	50mm
<b>Material Grade:</b>	S275

### Test Results

Test Piece Shape & Dimensions - Figure D.1 (EN 1090-2:2018)



Picture of Test Piece & Test Location





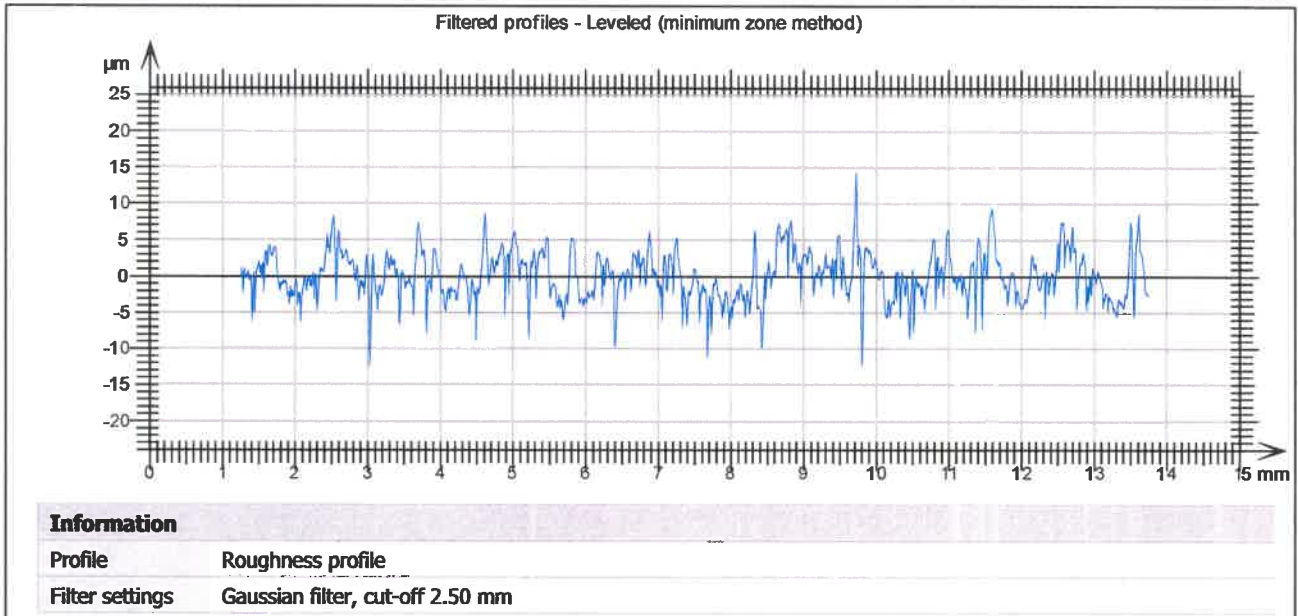
## Cutting Procedure Inspection Report

EIS FORM No.CPTR 001

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Manufacturer:	D. KENNEDY STEEL SUPPLIES
Address:	PLAMERSTOWN LOWER, DUBLIN 20
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### Surface Roughness Evaluation Profile Sample:



Element:	Zt1	Zt2	Zt3	Zt4	Zt5
Element Profile µm	21.4	17.3	17.2	27.3	16.2

Item / Description	Result / Data	Pass		
		Yes	No	N/A
Plate Thickness	50mm	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Thickness Reduction Δa	2.0mm	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Allowable Mean Height Profile	196.4µm	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Measured Mean Height Profile Rz5	19.88µm	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Allowable Perpendicularity Tolerance	2.88mm	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Actual Perpendicularity Value	1.1mm	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Visual Inspection Sharp Corner	Acceptable	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Visual Inspection Curved Sample	Acceptable	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

TECHNICIAN:	NIAL O'BRIEN	QUALIFICATION:	PCN LEVEL II	DATE:	24/04/2023
SIGNATURE:		FIRM OFFICIAL STAMP:			
INSPECTION AUTHORITY:	BS EN ISO 1090-2:2018 (Annex D) & BS EN ISO 9013:2017				
CLIENT WITNESS / R.W.C.:					



## Cutting Procedure Inspection Report - Hardness

EIS FORM No.CPTR 002

Test Report No.:	10018	Date:	24/04/2023
EIS Job No.:	30774		

Manufacturer:	D. KENNEDY STEEL SUPPLIES
Address:	PLAMERSTOWN LOWER, DUBLIN 20
Manufacturers pCPS No.:	PRELIM 24167.02/50mm PLASMA ERMAKSAN
Manufacturers CPQR No.:	24167.02/50mm PLASMA ERMAKSAN

Procedure No.:	In Accordance with:	Acceptance Criteria
Procedure for Checking Capability of Thermal Cutting Process	EN 1090-2:2018 Annex D / EN 9015-1:2011 / EN 6507-1:2018	-

Test Equipment Used			
Hardness Tester Make	NewSonic	Unit Serial No.	778
Hardness Tester Model:	SonoDur2		

Cutting Machine Details	
Machine Manufacturer:	ERMAKSAN
Model:	HYPERTHERM XPR300
Serial Number:	000303
Material Thickness:	50mm
Material Grade:	S275

### Test Locations

Test Piece Shape & Dimensions - Figure D.1 (EN 1090-2:2018)							
	Hardness test carried out on surfaces A & B Position of readings as per EN1090-2:2018 figure D.4 & table D.1						
	<table border="1"> <tr> <th><math>t \leq 5</math></th> <th><math>t &gt; 5</math></th> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td style="text-align: center;">Indent Numbers</td> <td style="text-align: center;">Indent Numbers</td> </tr> </table>	$t \leq 5$	$t > 5$			Indent Numbers	Indent Numbers
	$t \leq 5$	$t > 5$					
Indent Numbers	Indent Numbers						

### Test Results

Free Surface	Hardness Type	Tested in Accordance with:
A	Vickers HV10	BS EN ISO 6507-1:2018 & BS EN 1090-2:2018 Annex D
B	Vickers HV10	BS EN ISO 6507-1:2018 & BS EN 1090-2:2018 Annex D

Please see the following tables for all hardness reading taken.



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EIS Job No.:	30774		

Manufacturer:	D. KENNEDY STEEL SUPPLIES
Address:	PLAMERSTOWN LOWER, DUBLIN 20
Manufacturers pCPS No.:	PRELIM 24167.02/50mm PLASMA ERMAKSAN
Manufacturers CPQR No.:	24167.02/50mm PLASMA ERMAKSAN

Free Edge Surface - A			
Plate Thickness:	50mm	Total Indents Required:	15
Indent Number	Required (Y/N)	Hardness HV	Position on Free Edge Surface (Cut Surface)
I1	Y	407	Upper side of plate
I2	Y	404	Upper side of plate
I3	Y	414	Upper side of plate
I4	Y	418	Upper side of plate
I5	Y	420	Upper side of plate
I6	Y	409	Centre of plate
I7	Y	423	Centre of plate
I8	Y	427	Centre of plate
I9	Y	434	Centre of plate
I10	Y	425	Centre of plate
I11	Y	419	Lower side of plate
I12	Y	418	Lower side of plate
I13	Y	426	Lower side of plate
I14	Y	415	Lower side of plate
I15	Y	424	Lower side of plate

Free Edge Surface - B			
Plate Thickness:	50mm	Total Indents Required:	15
Indent Number	Required (Y/N)	Hardness HV	Position on Free Edge Surface (Cut Surface)
I1	Y	417	Upper side of plate
I2	Y	419	Upper side of plate
I3	Y	413	Upper side of plate
I4	Y	425	Upper side of plate
I5	Y	426	Upper side of plate
I6	Y	409	Centre of plate
I7	Y	421	Centre of plate
I8	Y	412	Centre of plate
I9	Y	419	Centre of plate
I10	Y	410	Centre of plate
I11	Y	422	Lower side of plate
I12	Y	428	Lower side of plate
I13	Y	421	Lower side of plate
I14	Y	417	Lower side of plate
I15	Y	412	Lower side of plate

TECHNICIAN:	NIALL O'BRIEN	QUALIFICATION:	PCN LEVEL II	DATE:	24/04/2023
SIGNATURE:		FIRM OFFICIAL STAMP:			
INSPECTION AUTHORITY:	BS EN ISO 1090-2:2018 (Annex D) & BS EN ISO 9013:2017 & BS EN ISO 6507-1				
CLIENT WITNESS:					