



工程指示 / 要求簡箋 ENGINEER INSTRUCTIONS(E.I.)

工程指示編號:	EI- 9155	修改版本:	-
	HK-		
工程編號:	J 861	工程名稱:	己連拿利
收件人:	羅小姐	發件人:	細佬
工程項目:	安排地盤驗超聲波焊	日期:	09/10/2025

<input type="checkbox"/> 原合約工程包	<input type="checkbox"/> 原合約工程加 / 減賬 QT-	<input type="checkbox"/> 新工程報價 QT-
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信件批核號碼/圖紙參考編號:	批核模具圖紙編號:
客戶指示附件:	管理內部批簽署:

<input type="checkbox"/> 初步鋁料 B.M.	<input type="checkbox"/> 加工拆圖, 然後生產	<input type="checkbox"/> 尺寸表
<input type="checkbox"/> 正式鋁料 B.M.	<input type="checkbox"/> 技術上資料/指示	<input type="checkbox"/> 報價
<input type="checkbox"/> 配件 B.M.	<input type="checkbox"/> 樣辦或貨品說明書	<input type="checkbox"/> 分判合約
<input type="checkbox"/> 其他:		

內容:

附頁位置因空間太少, 不能驗磁粉, 要改用驗超聲波焊
驗10 %超聲波, 100 %目測

時間會由地盤呀明打電話回公司約時間

完成上列要求日期: 29/10/2025

國內

<input type="checkbox"/> 生產技術總監	<input type="checkbox"/> 連附件	<input type="checkbox"/> 技術部	<input type="checkbox"/> 連附件	<input type="checkbox"/> 生產部	<input type="checkbox"/> 連附件
<input type="checkbox"/> 採購部	<input type="checkbox"/> 連附件	<input type="checkbox"/> 生產統籌部	<input type="checkbox"/> 連附件	<input type="checkbox"/> 報關組	<input type="checkbox"/> 連附件
<input type="checkbox"/> 質檢部	<input type="checkbox"/> 連附件	<input type="checkbox"/> 會計部	<input type="checkbox"/> 連附件	<input type="checkbox"/> 機械設計部	<input type="checkbox"/> 連附件
<input type="checkbox"/> 香港辦	<input type="checkbox"/> 連附件	<input type="checkbox"/> 其他:			

香港

<input type="checkbox"/> 行政部	<input type="checkbox"/> 連附件	<input type="checkbox"/> 會計部	<input type="checkbox"/> 連附件	<input type="checkbox"/> 統籌部	<input type="checkbox"/> 連附件	<input type="checkbox"/> 工程部	<input type="checkbox"/> 連附件
<input type="checkbox"/> 採購部	<input type="checkbox"/> 連附件	<input type="checkbox"/> QS部	<input type="checkbox"/> 連附件	<input type="checkbox"/> 地盤管理	<input type="checkbox"/> 連附件	<input type="checkbox"/> 維修部	<input type="checkbox"/> 連附件

*發件人簽署:	*組別成員批核簽署:
傳遞編號:	項目經理簽署: 



METHOD STATEMENT

Ultrasonic Test of Welds

(BS 3923: Part 1: 1981 / BSEN 1714: 1998 / BSENISO 17640:2010/2018)

1. Introduction

This method statement described the procedure for ultrasonic test of fusion welded joints in all forms of ferritic steels have a thickness range of 6mm to 150mm and when in circular form a minimum outside diameter of 100mm for BS 3923: Part 1: 1981 and thickness equal to and above 8mm which exhibit low ultrasonic attenuation for BSEN 1714: 1998 & BSENISO 17640:2010/2018.

The method statement in accordance with the requirement of BS 3923: Part 1: 1981 / BSEN 1714: 1998 / BSENISO 17640:2010/2018.

2. Acceptance criteria & Sampling

The acceptance criteria and sampling shall be in accordance with the project specification or specified by client.

3. Equipment

3.1 For measuring the various parameters and features of weld, the following equipment shall be used:

1. *Flaw Detector*

The Ultrasonic flaw detectors with an A-scan presentation unit capable of oscillating at frequency of 1 to 5 MHz

2. *Probes*

The probes to be used shall be of either single or twin crystal transducers. The angle probes refracted angle shall be 45° to 70° within the material.

3. *Calibration Block*

Reference blocks for calibration, verification and determination of equipment and specific probe characteristics shall be as described in BS 2704 and BS 4331 : part 3. For setting the sensitivity of test (DAC curve), the reference calibration block prescribed in BS 3923 : Part 1 shall be used.

4. *Couplants*

It shall be obtained by either contact or gap scanning, using a liquid, gel or paste medium suitable for the application and compatible with the material under test. The maximum surface temperature when using conventional probes and couplants shall not exceed 50°C for BS 3923 : Part 1 : 1981 and shall not exceed 40°C for BSEN 1714 : 1998 & BSENISO 17640:2010/2018.

5. 150mm steel rule & Welding Gauge





4. Procedure

4.1 Check the scanning surface shall be of enough width to permit 100% examination coverage of the volume of the weld to be tested plus adjacent areas within 10 mm or heat affected zone, whichever is greater. The scanning surface shall be of sufficiently uniform contour and smoothness such that satisfactory acoustic coupling can be maintained.

4.2 Parent Metal Examination

The sensitivity setting for normal probe (0°) scanning of the parent metal in an area should be free from imperfections such that the second back wall echo is displayed at full screen height.

4.3 Weld Examination

The sensitivity setting for normal and angle probe scanning of the weld examination shall depend on the examination level to be applied, and the type of scan to be employed. The scanning sensitivity shall be set by adjustment of the instrument gain to the value at which the corrected DAC curve was plotted. The gain shall then be further increased by the appropriate decibel value.

4.4 Sizing the imperfections

Indications shall be sized using those probes that receive the optimum response. As necessary, indications will be plotted and evaluated with more than one angle probe to confirm location and type of discontinuity.

5. Record

The test results shall be recorded in a standard form.





METHOD STATEMENT

Visual Examination of Welds

(BS 5289:1976 / BSEN 970:1997 / BSEN ISO 17637:2011 / 2016)

1. Introduction

This method statement described the procedure for visual inspection of fusion welded joints in accordance with the requirement of BS 5289 : 1976 / BSEN 970 : 1997 / BSEN ISO 17637:2011 / 2016.

2. Acceptance criteria & Sampling

The acceptance criteria and sampling shall be in accordance with the project specification or specified by client.

3. Equipment

For measuring the various parameters and features of weld, the following equipment shall be used:

1. Welding gauge / Profile gauge
2. Measuring Tape / 150mm Steel Rule
3. White Light Meter
4. Magnifying lens with 2X / Mirror

4. Viewing conditions

- 4.1 The surface to be inspected shall be have a minimum white light intensity of 500 lux.
- 4.2 Visual examination shall be made with the eye at within 600mm distance and at angle of not less than 30° to the surface being examined. To confirm or verify doubtful imperfection may be carried out by using a hand magnifying lens.

5. Procedure

The following items shall be checked against the acceptance criteria.

- 5.1 *Cleaning and dressing*
- 5.2 *Penetration and root inspection*
- 5.3 *Weld contour and reinforcement*
- 5.4 *Weld width and overlap*
- 5.5 *Undercut and Stray arcing and other weld flaws*

6 Record

The test results shall be recorded in a standard form.

