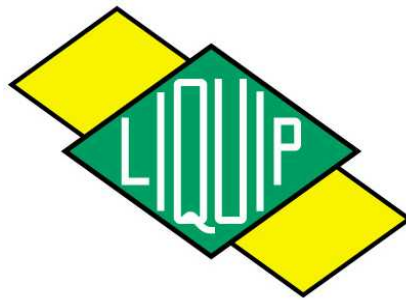




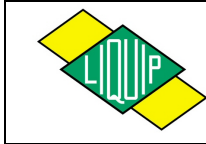
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Tech talk 62



Quality Control Documentation and Certificates



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Tech Talk No. 0062

Quality Control Documentation and Certificates

Customers may request Quality Control documents when negotiating an order and such requests must be attended to from the very start.

Attached is an example of one request (Origin Energy LPG arm). We will use this as an example.

1. There is a cost involved in this, indeed some suppliers charge us for provision of a certificate for components and raw materials

We should quote an additional separate charge for anything over and above a simple in-house certificate for a standard product. We should also query any apparently inappropriate requests.

This is a Sales responsibility at quoting stage.

2. The Job Sheet must list all required certificates exactly as written on the order. Production, Purchasing, Quality Control and Store should be made aware of this prior to commencing the job.

This is a Sales function to ensure the requirements are correctly listed.

3. What to do with the certification at completion and where to send the package should also be added to the Job Sheet.

This is a Sales function.

4. Where special tests or reports are required, Production should consult with Sales, Quality Control and possibly Engineering to formulate methods and create standard certificate layout. For example: 'Paint Report', we do not currently have a standard format.

This is a Production responsibility to coordinate.

5. All data received from suppliers must be forwarded to Quality Control who compile the assembled document.

Documents may be received by the Store (raw material), Production (from radiography sub-contractor), Purchasing (valves or other bought-in components) and all must be collected by Quality Control.

This is a joint responsibility with Quality Control to coordinate.



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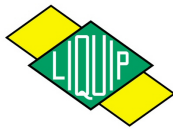
6. Welding Reports.

Liquip has limited experience and little standardised paperwork for the detailed welding reports requested in the example. It is recommended that Production, Quality Control and Engineering collectively draft out a standard format for future application.

This is a joint responsibility, with Engineering required to state the weld procedures on the drawing and to produce a weld map: Production to ensure suitable certificates for materials and operators are available; and Quality Control to ensure all procedures are carried out and collate the documentation.

7. The assembled document may be referred to as a MDR or 'Manufacturer's Data Record'.

The MDR is the total package as requested by the customer on each particular order. See example attached.



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ORDER NUMBER MUST BE QUOTED ON ALL INVOICES AND DELIVERY DOCKETS

PLEASE SUPPLY the following in accordance with the terms and conditions of supply overleaf

Item.	Description	Qty	Unit Price	AUD \$
	THIS PURCHASE ORDER REPLACES THE ORIGINAL ORDER (NUMBERED BG:000393) IN ITS ENTIRITY. IT REITERATES ALL OF THE ORIGINAL REQUIREMENTS AND ADDS ITEMS 8 TO 11 INCLUSIVE.			
	Macufature and supply LPG Loading Arm (Liquip Part No. 6375) with all of the options listed in your Quotation 12659 of 21 June 2004. All shall be suitable for the following design conditions:			
	Design Pressure:- 2,400 kPag			
	Design Temperature: 60 / -29 deg C			
	The scope shall include the following:			
	-minimum 10% radiography of the weld joints			
	-hydrotest of the arm in accordance with ASME B31.3			
	-full material traceability			
	-Manufacturer's Data Record (MDR)			
	MDR to include as minimum:			
	-certified as-built dimensional drawing of the arm			
	-NDT reports including radiography reports			
	-hydrotest reports			
	-paint report			
	-material certificates			
	-weld reports including WPS, PQR, WQR, weld traceability, welding consumables certificates			
1	LPG Loading Arm	1.00		
	OPTIONS INCLUDED:			
2	Mounting Post	1.00		
3	Breakaway dry-break & cabling	1.00		
4	Outboard pipe drain	1.00		
5	Remote pressure tapping	1.00		
6	Parking stand	1.00		
7	Packing and freight into store (FIS) Victoria			
	FOLLOWING ADDITIONS AS PER YOUR QUOTE QR12659 OF 22/10/04			
8	LPG Vapour Hose (as per drawing attached to your Quotation)	1.00		
9	Tray to suit above Vapour Hose	1.00		
10	1.5" Flange A.P.C Breakaway Coupling	1.00		
11	Certificate of Chemical and Mechanical Conformity	1.00		
			Subtotal	
			GST	
			Total	AUD \$