

# FLANGE MANAGEMENT ***TRAINING***

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M A R C E M

PERTH · KALGOORLIE · KARRATHA · DARWIN

**SPECIALIST EQUIPMENT, *MADE SIMPLE***

# TRAINING PROPOSAL

This course is designed to assess the candidates' necessary underpinning knowledge and practical skills to make and break flanged joints with hydraulic bolt-up methods. At the end of this course, each candidate's competency shall be assessed, ensuring their ability to manage the integrity of flanges on pipework and vessels in process plants, per your client's requirements aligned with the company's safe operating policies and procedures. This verification process will be further developed in consultation with the company as required.

**These courses will cover assessment in the following areas of candidates' knowledge and practical abilities:**

- Safety Precautions
- Flange and gasket types
- Flange and gasket identification
- Reasons for Flange Leaks
- Bolt Load Principals
- Flange dismantling
- Flange inspection
- Flange reassembly
- Knowledge of relevant parts of ASME PCC-1-2010 Guidelines for Pressure Boundary Bolted Flange Joint Assembly
- Assessment of Flange Management System
- Bolt Tightening Process – Hydraulic Torquing
- Bolt Tightening methods – Hydraulic Tensioning

**Assessment:** Practical assessments will be conducted as proof of competency as per the rules of evidence to support a judgment of competence against the assessment criteria listed above. This will be conducted via a direct observation checklist and direct questioning on the day of assessment, considering any necessary reasonable adjustments and LLN issues. Any candidate that fails to meet the required objective unit outcomes will be given the opportunity for further training and re-assessment. Practical hydraulic wrench and tensioning assessment will be conducted using a specially designed training rig to ensure that knowledge and skills are applied correctly in the workplace and as per company requirements.

**Outcome:** At the successful completion of this course, candidates will be issued with a verification of competency outlining the areas of assessment. National Accreditation optional with Level 1 only.



# PRACTICAL ACTIVITY

## BREAKING AND MAKING FLANGES

### INSTRUCTIONS:

As part of this activity, you will be required to break, inspect, and make a flanged joint. This also incorporates the removal, inspection, and fitting of gaskets (as required).

During each step, you will also be required to answer some questions relating to the tasks being performed. The assessor will complete an observation checklist as you proceed with the task as briefed by the assessor. The assessment will also include setting up the pump and connecting all required hoses and hydraulic or pneumatic tools as required.

If at any stage of the process the assessor observes a major breach of safety protocols is about to occur or if it becomes obvious to the assessor the candidate is not yet competent to carry out the task, the assessment shall be stopped, and arrangements made for further training and assessment as required.

All necessary LLN issues and reasonable adjustments to the assessment will be applied as required and all assessment tools i.e., direct observation checklist and questions asked to candidates shall be recorded and kept as evidence and proof of each candidate's competence against the required standard of performance as outlined in the assessment criteria above.



# COMMERCIAL TERMS

**MAX 6 / MIN 3 PEOPLE PER SESSION**

<b>LEVEL 1</b>	<b>BREAKING AND MAKING FLANGES</b>	<b>\$800 +GST/ PERSON</b>	<b>FOR COURSES DELIVERED ON-SITE</b> <ul style="list-style-type: none"> <li>• Mobilisation fees for training rig at cost if required.</li> <li>• Travel time from Perth and inductions for trainer are <b>\$1200/day</b>.</li> <li>• Accommodation and expenses at cost +10%, unless provided by the client. <i>(Does not apply to courses held in Perth)</i></li> </ul>
<b>LEVEL 2</b>	<b>HYDRAULIC TORQUE AND TENSIONING</b>  (level 1 is recommended before level 2)	<b>\$800 +GST/ PERSON</b>	

An additional cost of **\$250/person** will be applied for National Accreditation  
*(applicable to Level 1 only).*





# ASSESSOR CV

<b>Title:</b>	Senior Trainer/Assessor – Mechanical Fitting
<b>Training Competencies:</b>	Trainer/Assessor in Hydraulics, Mechanical Fitting, Flange Integrity, Bolt Tightening
<b>Brief Work History:</b>	All trainers and assessors have extensive experience in mechanical fitting, hydraulics, and flange integrity. With backgrounds in industry, government, and technical education, they have worked in various sectors, including rail, mining, oil & gas, and manufacturing. Many have held senior training roles, overseeing technical education programs and liaising with government departments, corporate personnel, and industry clients. Trainers bring decades of expertise in delivering high-quality, competency-based training to ensure candidates meet industry standards.
<b>Qualifications</b>	<p>All trainers and assessors hold relevant qualifications, including but not limited to:</p> <ul style="list-style-type: none"> <li>• Completed apprenticeship in Mechanical Fitting</li> <li>• Certificate and Diploma in Teaching (Technical)</li> <li>• Bachelor of Education majoring in Education</li> <li>• Technology Teachers Higher Certificate</li> <li>• Occupational Health and Safety for Supervisors Certificate</li> <li>• Management Guide to Loss Control Certificate</li> <li>• Certificate in Industrial Relations from the University of New South Wales</li> <li>• 'Interaction Management Facilitator' with Development Dimensions International</li> <li>• <b>TAE 40110 – Certificate IV in Training and Assessment</b></li> <li>• First Aid Certificate from St John <b>HLTFA311A</b></li> </ul>
<b>Nationally Recognised Units of Competency:</b>	<p>Trainers and assessors are skilled in delivering training across a range of nationally recognised competencies, including:</p> <ul style="list-style-type: none"> <li>• <b>TMEM09002B</b> – Interpret technical drawings</li> <li>• <b>MEM12023A</b> – Perform engineering measurements</li> <li>• <b>MEM18001C</b> – Use hand tools</li> <li>• <b>MEM18002B</b> – Use power tools/hand-held operations</li> <li>• <b>MEM18003C</b> – Use tools for precision work</li> <li>• <b>MEM18006B</b> – Repair and fit engineering components</li> <li>• <b>MEM18055B</b> – Dismantle, replace, and assemble engineering components</li> <li>• <b>MEM18020B</b> – Maintain hydraulic system components</li> </ul>
<b>Professional Memberships:</b>	Trainers and assessors are actively engaged in industry through memberships in professional associations such as the Fluid Power Association, ensuring they stay up to date with industry standards and best practices.

# ***OUR LOCATIONS*** **SPAN THE GLOBE**

Marcem operates across the globe, providing various services from six locations in Australia as well as our **our Canadian office in Edmonton, Alberta**. Our offices across Australia are located in **Perth (HQ)**, **Kalgoorlie**, **Karratha**, **Darwin**, **Brisbane**, and **Gladstone**. The Marcem team is constantly growing and expanding.



# TRUSTED EQUIPMENT

Focusing on quality service and cost-efficiency, we offer an extensive range of equipment and tools for both hire and purchase to suit many needs. Most importantly, we are proudly accredited and authorised distributors for our trusted partners and official distributors of premium products.





# READY TO ASSURE YOUR **OPERATIONAL PERFORMANCE**

Our expertise extends beyond hire and sales, with workshops fully capable of servicing, repairing, and meticulously calibrating specialised tooling and equipment according to your specific requirements.

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