



**Gujarat Council of Vocational Training
Gandhinagar**



9343
9323

1. Name of Course :

Marine welder

Centre :

ITI AMOD /VAGRA

7212.30

N.C.O. No. for Skills Covered:
(Please refer National Classification of
Occupations -2004 available
on www.dget.nic.in)

2. Engineering OR Non-engineering
& Course objective :

Engineering
To prepare skilled and specialized
welders for ship building industry

3. No. of students per batch :

10 per batch

4. Duration in Hours. :

200 hours

5. Duration in Month :

1.25 Months @ 42 hours/Week.

6. Examination Scheme:

No.	Name of Subject	Teaching Hours during full course.	Maximum Marks. (Excluding Sessional)	Minimum Marks required for Passing (Excluding Sessional).	Sessional Marks if any.
Subject-1	Trade Practical	104	As per GCVT norms	-	-
Subject-2	Trade Theory	96	As per GCVT norms	-	-

Practical Competencies	Underpinning Knowledge (Theory)
Welding Positions as applied to plates and pipes	Ship Building Terminology
Welders Qualifications Test (Plates and Pipes)	Welding processes such as Manual metal arc, Flux cored arc welding, Submerged arc welding, Tig welding ect.
Importance of distortion control and methods to control	Welding Positions as applied to plates and pipes
Hydrogen Cracking and method to avoid	Materials in general use
Baking of Electrodes	Welding Qualification Requirements.
Welding defects, causes and remedies	Welders Procedure Qualifications (Plates and Pipes)
Radiographic quality welds	Welders Qualifications Test (Plates and Pipes)



C/345

C-325



Gujarat Council of Vocational Training Gandhinagar



Non-destructive testing of welds	Importance of distortion control and methods to control
Safety in welding	Hydrogen Cracking and method to avoid
Use of Personal Protective Equipments	Baking of Electrodes
Welding in confined compartments / tanks / pipes etc.	Use of Portable Ovens
Care to be taken for welding on repairs ships, new construction ships etc.	Pre-heating, Inter-pass temp and post heating
Welding at heights.	Proper earthing, loose connections etc.

7. Entry qualification for Trainee:

Minimum entry qualification (Essential):	10 th pass
Desirable:	-

3. Minimum qualification for Trainer:

Minimum qualification (Essential):	Diploma in Mechanical Engineer
Desirable:	-

2. Syllabus Committee Member: Will be finalized by Head Office

Sr. No	Name	Organization	Designation	Technical Qualification	Experience in Years	Signature
1.	Shri J.B.Parikh	ITI AMOD	Principal	DME	32Y	<i>[Signature]</i>
2.	Shri V.D.Vasava	Employment Exchange, Bharuch	Employment officer	BA	8 years	<i>[Signature]</i>
3.	Shri P.K. Chakra	ABG Shipyard	Vice President	MPM LLB BSc(Hons)	25yrs	<i>[Signature]</i>
4.	Shri B.B. Talavia	Gujarat Maritime Board	Chief Engineer	BE(Civil)	22y	<i>[Signature]</i>

10. Terminal Skills of trainee: (Should be well defined and having reference to NCO):

The trainee, after successful completion of training, will have following skills...

1. Having knowledge of welding machine.
2. As a marine welder Technician, he can be get good opportunity in different industries, particularly in ship building industry

(please attach separate sheet, if more space is required)



343/3



Gujarat Council of Vocational Training Gandhinagar



327

11. Approximate cost of Tools / Equipments / Machinery for starting one batch of the course:

Rupees
7.00 lakh

Reference Year
2011-12

12. Area required for practical / Workshop for one batch.

112 Sq. Meter

13. Minimum Power connection required

.....2.4..... K.W.

14.1 No of items in Standard list of Machinery :

As per list

14.1.1. Page NO from ___ to ___.

14.2 No of items in Standard list of Shop outfit :

-

14.2.1. Page NO from ___ to ___.

14.3 No of items in Standard list of Trainee Toll-Kit :

As per list

14.3.1. Page NO from ___ to ___.

***** FOR OFFICIAL USE *****

Approved by GCVT in Governing Body meeting on

19/01/2012

Syllabus implemented w.e.f. admission session

with immediate effect

Revision History :

1. Revision No..... Revision Date.
2. Revision No..... Revision Date.
3. Revision No..... Revision Date.





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1349 2

Standard List of Machinery - Equipment / Shop-outfit / or Trainee Toolkit
for Trade of welder marine.

Sr. No.	Description of Item with detailed specifications	Item type i.e. Machinery / Equipment OR Shop Outfit OR Trainee Toolkit	Quantity Required per one Batch of Students	Quantity Required per one Batch of Students for Instructor	Total Quantity Required (Total of previous two columns)
1.	Tonguest	Toolkit	10	1	11
2.	Steel wire brush	Toolkit	10	1	11
3.	Chipping hammer	Toolkit	4	1	5
4.	Hand screen	Toolkit	4	1	5
5.	Lather gloves	Toolkit	4	1	5
6	Hammering Block 5 CM Thick 60 SQ.	Machinery	As per requirement		
7	Weld Measuring Gauge Fillet and Butt	Machinery	As per requirement		
8	Cutting Torches with 10 Nozzles 2 To 45 Low Pressure with Nozzle	Machinery	As per requirement		
9	Heavy duty cutting and Gouging Blow pipe with cutting and gouging Nozzles	Machinery	As per requirement		
10	Cutting Torth Oxy-Acetylene with cutting Nozzle 3/65 and Gouging Tips	Machinery	As per requirement		
11	Pressure Regulator Oxygen double stage	Machinery	As per requirement		
12	Transformer welding continuous welding current with all accessories 300 A 400 A	Machinery	As per requirement		
13.	ARC Weldeing set Rectifier Type 300-450 Amps continuous welding current with all accessories.	Machinery	As per requirement		



351 2



Gujarat Council of Vocational Training Gandhinagar



14	Welding generator DC Rotary Set 200-300 Amps with all accessories	Machinery	As per requirement		
15	CO2 Welding machine complete 400 AMPS	Machinery	As per requirement		
16	TIG WELDING set complet 300AMPSAC/DC	Machinery	As per requirement		
17.	OXYGEN cutting MACHINE (Line & Circle	Machinery	As per requirement		
18.	Grinder-D E 30 CM WHEEL motoried pedestal Type-2800RPM	Machinery	As per requirement		
19.	Vice Bench 100 MM Jaw	Machinery	As per requirement		

331

(As many sheets as required should be used to accommodate all items)

