



Rev. No. Set 008 23-Dec-16

OTTC Practical Diploma /merSETA - REFRIGERATION MECHANIC Training Plan – 2017 Including All Requirements for SA Trade Test

OTTC Director: Mrs. Isolde Döbelin or Maureen Stangherlin Tel/Fax No.: 011-816-2580/011-366-1219			Web: www.ottc-training.center	Email: info@ottc.co.za	
Client:			Learner:		
Contact:			Tel. No.:		
Address			Cell. No.:		
			LOG BOOK		
Module	Course	Content / Objective Refrigeration Mechanic (Commercial)	Duration	Includes Apprentisan Module Codes	
1	MetB - 1, 2, 3, 4	Metal Basic: Practical tool skills, drilling cutting fieling, welding, arc welding, measuring, manufacturing frames, brackets, support structures etc. - implement all stages from planning, drawing, specifying to produce & manufacture components / parts for installation purposes.	4 weeks	SF1,SF2,SF3,SF4,SF5,HT1HT2,HT3,HT4,WT1,WT2, WT3,WT39,WT20,WT22,MA1,MA2,MA3,MA5,MA16, MA17,MO1,MT9HS1,HS2,HS3,HS4,HS5,HS7,HS8,AO 1,AO2,AO3,AO4,GW10,GW11,GC1,GC3,DS1,DS2, DSE4, DSE5,DSE8	
3	RPI - 1, 2, 3, 4	Plotting & manufacturing of refrigeration components, soldering, brazing, pipe bending with different bending methods, full pipe installation on wall, insulation of pipes, components and ducts	4 weeks	GW10,GW11,GW12,GW13,GC1,GC2,GC3,DS2,DS3 ,INS2,PF1,PF2,INS1,PF3	
2	PR - 1/ PR - 2	Mechanical principles of refrigeration cycle and components, placement of components, functions of components, practical safe-handling of refrigerant	2 weeks optional	FN1,REF9,REF10,REF11,REF17,REF18,REF20,ACS1,E V1,LU7,TA1,	
4	Math/ Phys	Theoretical Training Mathematics and Physics applied in refrigeration and air-conditioning and N1, N2	2 weeks optional	TT1,TT2	
5	R-1 / R-2	Mechanical principles of refrigeration cycle and components. connection of service gauges, main components, compression principles, compressor types, refrigeration cycle and components, types of heat exchangers, types of expansion devices, pressure switches and thermostats, reclaiming and recharging refrigerant	2 weeks	REF2,REF6,REF7,REF9,REF10,REF11,REF12,REF14,R EF15,REF16,REF17,REF18,REF19,EV1,EV2,EV3,LU7, AS1,AS2,AS3,FN4,FN5,FN6,COM7,COM8,GOM9,LU2, INS1,CODE1,TA1,TT1,TT2	
6	SH-R	Authorized Practitioner training includes practical demonstration and hands on, using an reclaim unit and vacuum pump All the Unit Standards to obtain the level 3 for Refrigeration SAQCC Gas After successfully completion thereof they can apply for the SAQCC Gas Registration	1 week	Unit Standards 116223, 116334, 116355, 116700, 116704, 116468, 262159	
	AC- Service	Dismantle & assemble AC&R equipment, remove, install and service bearings, use, maintain service tools and instruments, elementary air-flow measurements & calculations, Drawings and sketches	1 week	DSE2,DSE15,DSE17	
The top courses are recommended for the first year of apprenticeship recommended for beginners					
7	Mech RIG	Mechanical servicing of compressors, repair & overhaul skills, fault identification. Belt drives, pulley alignment. Bearing service, Couplings, Key and Locking Devices Basic lifting techniques	3 week	BE7,BE8,BE9,BE10,CP1,CP2,CP3,CP9,DR12,DR2, DR3,DR4,DR7,AS3,AS7,AS8,AS9,AS10,AS11,AS12,C OM7,COM8,GOM9,LU1,LU2,LU3,PU8,PU9,PU10, WT20, BG2,BG3,BG4	
8	ELC - 1, 2, 3,4	Physical electricity basics in refrigeration, single and three phase systems, single and three phase motors, starters, pressure and temperature Controllers. Wiring diagrams for electromechanical controlling, plant protection, motor managements, suction control, defrost control. Electronic motor management, soft starter, frequency converters, electronic cold room controllers	4 weeks	FA3,FA4,FA5,FA6,FA7,FA8,DSE1,DSE3, DSE4,ET1,AC5,AC6,AC7,CA1,CA2,CA4,TT2	
9	R - 3/ R - 4	Advanced study of mechanical refrigeration cycle, heat load calculations, cold room design, capacity calculations, food-load, defrost methods; reversed cycles, pressure regulators, humidity control, frequency inverters, methods of energy saving, pump down, Advanced study of system design, h, lg p- diagram, sizing of main components, sizing of pipe-work, oil-problems, fault finding, refrigeration cycle analysis, refrigerant types condenser, evaporator, chiller	2 weeks	TA2,TA3,TA4,RSY1, TT2, CT1,CT2,CT3,	
13	RPT	Refrigeration plant technical - Final installation, commissioning, charging operating testing of diploma project plant, fault finding	2 weeks	AS3,AS7,AS8,AS9,AS10,AS11,AS12FA3, FA4,FA5,FA6,FA7,FA8,EV3,PF1,PF2,PF3,DSE8,REF14 ,REF15,IM3,IM4,RSY1,TT2	
14	T - Dip	National Trade Test can be booked at merSETA	2 days		
Quoted prices include: Work Sheets, Material, Lunch, Tea, Coffee.					
<p>Pass mark per course 60%, pass mark for diploma test 75% theoretical and practical. Pre-requisites: literacy + numeracy. Courses are presented in English. OTTC training programmes also cover SAQA unit standards, see "OTTC LEARNERSHIP PROGRAMME". Assessments for NQF learnership qualifications and/or trade test testing can be arranged. Select your own course dates from OTTC programme.</p> <p>OTTC has full Accreditation by MERSETA for: Trades of Commercial & Industrial Refrigeration Mechanic TA/1647/01 Provider of Education & Training for the Training of Learners at NQF Level 2, 3, 4 Certificate No 17-QA/ACC/0333/08</p> <p style="text-align: center;">© OTTC 2017 all rights reserved</p>					
					For Price and dates please contact OTTC direct