



# FRIGAIR

EXHIBITION 2018



WELCOME

Presented by: Grant Laidlaw



# Lastest Role Players / Acronyms

- SAQA South African Qualifications Authority
- NQF National Qualifications framework
- NAMB National Artisan Moderating Body
- QCTO Quality Council for Trades and Occupations
- SETA Sector Education Training Authority
- CLO Client Liaison Officer
- ARPL Recognition of Prior Learning applicable to Learnerships and Section 28
- SDF Skills Development Facilitator



# Current LEVELS of Qualifications on the NQF

<i>NQF Level</i>		<i>Band</i>	<i>Qualification</i>	<i>Provider</i>
<i>8/9/10</i>		<i>Higher Education</i>	<i>Doctorates</i>	<i>Universities</i>
<i>7</i>			<i>Masters</i>	
<i>6</i>			<i>Degrees</i>	
<i>5</i>	<i>Senior Artisan/ Technician/Management</i>		<i>Certificates/Diplomas</i>	<i>Public/Private FET</i>
<i>Artisan - (Trade tested or L4 Certificate)</i>				
<i>4</i>	<i>Artisan</i>	<i>Further Education</i>	<i>National Certificates</i>	<i>Accredited Public/ Private Providers</i>
<i>3</i>	<i>Junior Artisan</i>			
<i>2</i>	<i>Assistant</i>			
<i>1</i>	<i>General Education</i>	<i>Grade 9 - ABET Level 4</i>	<i>N2</i>	<i>Public/Private Schools</i>



# Apprenticeship Training

- Full Certification - Trade Test - National Qualification. (3 - 4 years to complete)
- New system has three components, a **Knowledge** component (At an Accredited Training Provider), a **Practical** component (At an Accredited Training Provider) and a **Workplace** component (At an accredited work place)
- New mentor ratio: **4:1**
- An apprenticeship consists of a fully managed process of formal modular training - theoretical and practical components at a training provider 48%
- Workplace training component 52%.

## **Formal Training Options at Accredited Training Provider:**

- Option 1: Modules completed in 2 to 3 week periods over 2 or 4 years, depending on apprenticeship term, while the apprentice works.
- Option 2: All modules completed in the first 6 months before apprentice starts working.
- Proof of training: Reports and **Logbooks**



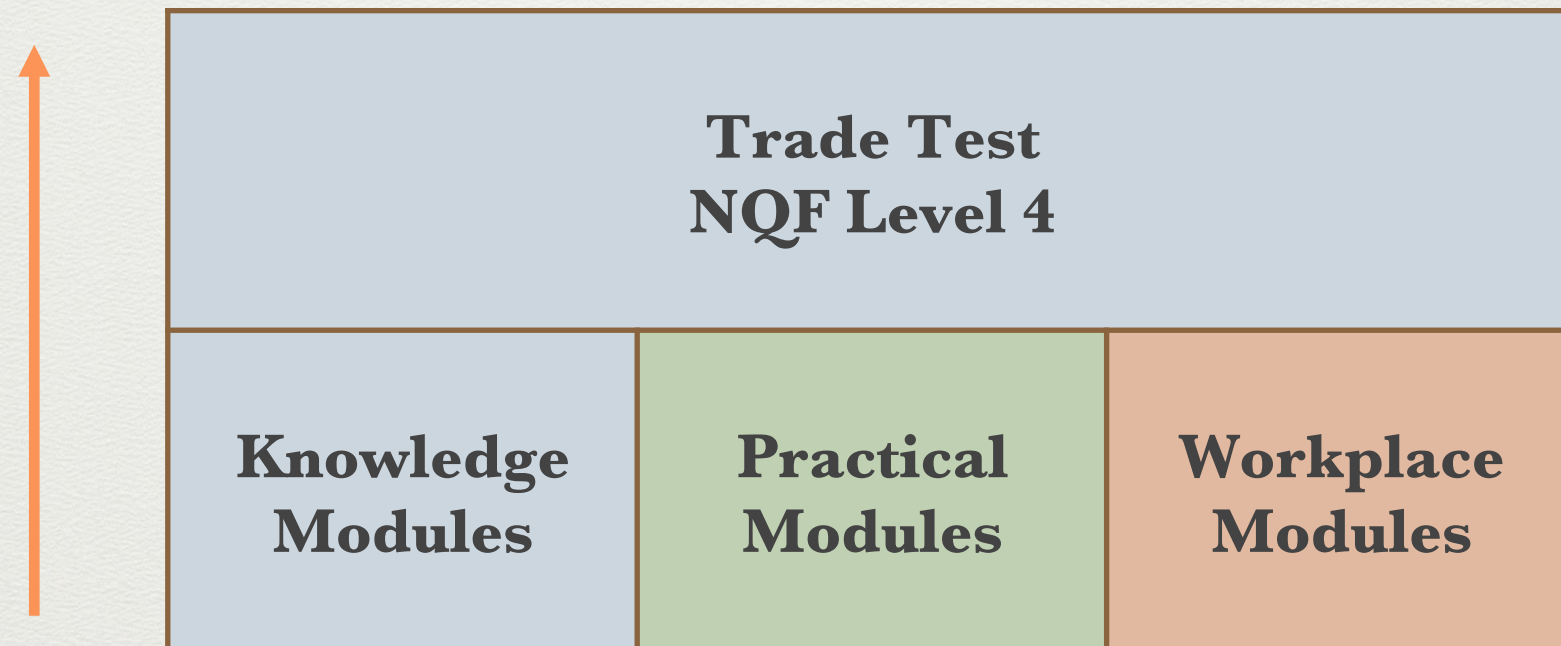
# Apprenticeships, Part Qualifications and Skills Programmes

<i>Apprenticeships</i>	<i>Part Qualifications</i>	<i>Skills programmes</i>
<p><i>Refrigeration Mechanic / Air Conditioning, Refrigeration Mechanic</i></p>	<p><i>Registered (Mini) qualifications in air conditioning refrigeration and ventilation</i></p>	<p><i>Training providers certificate</i></p>
<ul style="list-style-type: none"> <li>• <i>Nationally registered qualification.</i></li> <li>• <i>Available to new entrants and existing employees.</i></li> <li>• <i>Time and competency based learning.</i></li> <li>• <i>Registered and controlled by QCTO.</i></li> <li>• <i>Trade test at an accredited site to qualify, controlled by NAMB</i></li> <li>• <i>One contract for period.</i></li> <li>• <i>Made up of Knowledge modules, Practical Modules and Workplace modules.</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>Forms part of Nationally registered qualification.</i></li> <li>• <i>Focused on specific types of work in industry.</i></li> <li>• <i>Available to new entrants and existing employees.</i></li> <li>• <i>Time and competency based learning.</i></li> <li>• <i>Registered and controlled by QCTO.</i></li> <li>• <i>Trade test at an accredited site to qualify, controlled by NAMB</i></li> <li>• <i>One contract for period.</i></li> <li>• <i>Made up of Knowledge modules, Practical Modules and Workplace modules.</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>Involves at least one complete Module: i.e: Knowledge and relevant practical modules.</i></li> <li>• <i>Not a national qualification</i></li> <li>• <i>Can be used as credits towards part qualifications or full qualification, (Are building blocks towards qualifications)</i></li> <li>• <i>Registration not required.</i></li> <li>• <i>Highly focused.</i></li> </ul>
<p><i>Full Certification (Previously Section 13)</i></p>	<p><i>ARPL/Section 26D Certification (Previously Section 28)</i></p>	



New Qualification  
Occupational Certificate Air-Conditioning Mechanic  
O.F.O. Code: 66270100 - 659 Credits

**End Apprenticeship**



**Begin Apprenticeship**



# Air-Conditioning Part Qualifications

## Main Qualification Air-Conditioning Mechanic



**Unitary Air Conditioning Installer, NQF Level 2, Credits: 190**



**Air Conditioning and Refrigeration Systems Pipe Work Installer, NQF Level 2, Credits: 83**



**Refrigerant Pipe Work Fitter, NQF Level 2, Credits: 103**



**Evaporative Cooling Systems Installer, NQF Level 2, Credits: 90**



**Duct Work Installer, NQF Level 3, Credits: 72**



**Vehicle Air Conditioning Fitter, NQF Level 2, Credits: 69**



**Air Conditioning Filtration Worker, NQF Level 4, Credits: 61**



**Air conditioning and Refrigeration Compliance Verifier, NQF Level 4, Credits: 146**



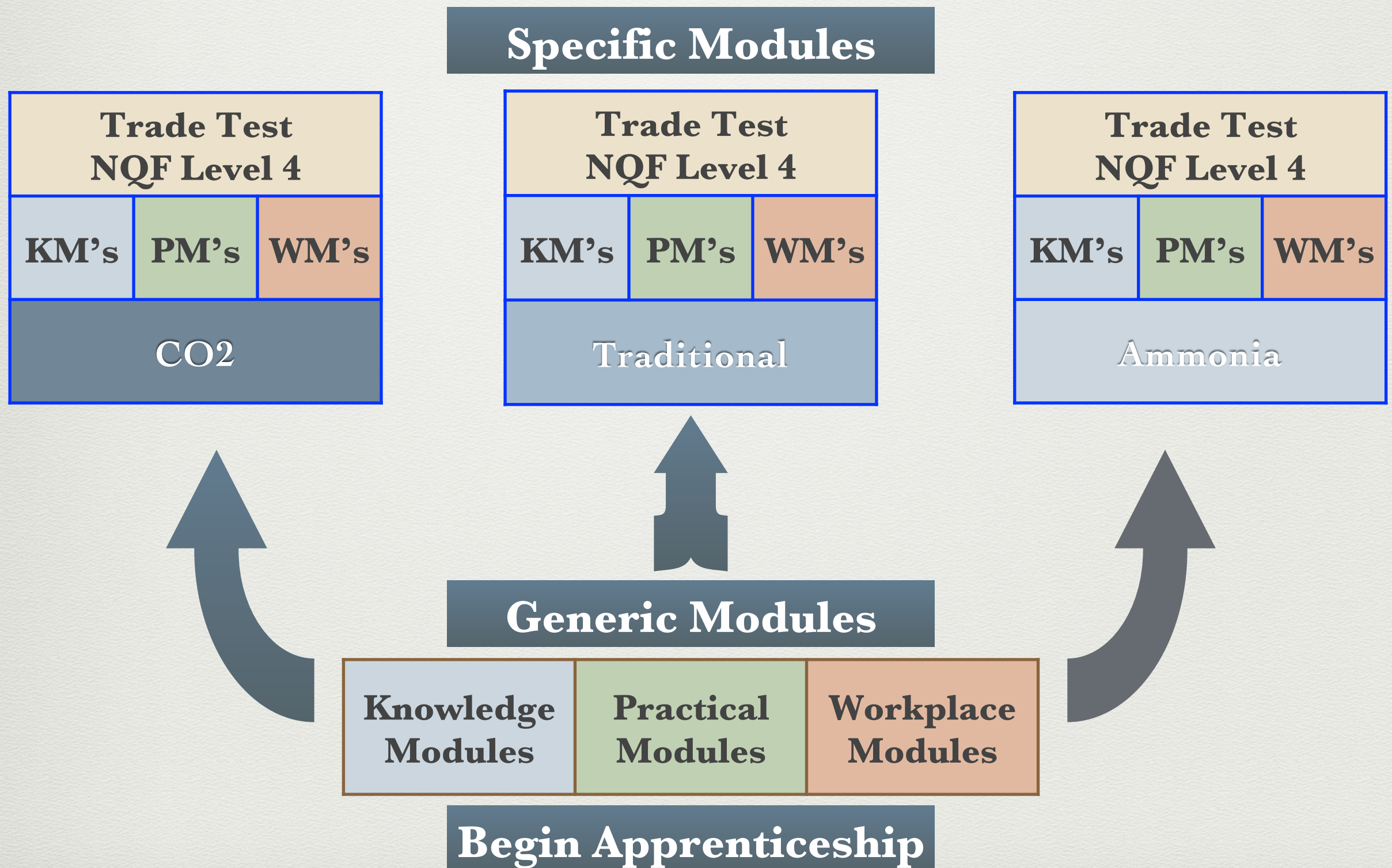
**Heating, Ventilation and Air Conditioning (HVAC) Control Fitter, NQF Level 4, Credits: 155**



# New Refrigeration Qualifications

## Occupational Certificate Refrigeration Mechanic

O.F.O. Code: 642701000 - 545 Credits





# Refrigeration Part Qualifications

## Main Qualification Refrigeration Mechanic

- **Domestic and Light Commercial Refrigeration Serviceman, NQF Level 2, Credits: 173**
- **Refrigeration Fitter, NQF Level 2, Credits: 209**
- **Refrigerant Pipe Work Installer, NQF Level 2, Credits: 167**
- **Industrial Refrigeration Mechanic Plant Room Operator, NQF Level 2, Credits: 110**
- **Mobile Refrigeration Fitter, NQF Level 4, Credits: 399**
- **Refrigeration Maintenance and Repair Workman, NQF Level 4, Credits: 415**
- **Air Conditioning and Refrigeration Certificate of Compliance Verifier, NQF Level 4, Credits: 144**
- **Refrigeration Control fitter, NQF Level 4, Credits: 169**





higher education & training

Department:  
Higher Education and Training  
REPUBLIC OF SOUTH AFRICA



Skills Development Act 1998, Act 97 of 1998  
Section 26D (f)

### TRADE CERTIFICATE

This is to certify that

[Redacted Name]

Identity document number: DN172696

has passed a trade test in the trade

**REFRIGERATION MECHANIC (COMMERCIAL)**

(Listed Trade and Code on the Organising Framework for Occupations  
642702: Refrigeration Mechanic)

*H. Joyce Machabela*

Chief Executive Officer  
Quality Council for Trades and Occupations

Certificate Number: [Redacted]

Date Trade Tested: 2015-04-24

Date issued: 2015-05-15

!KE E: /XARRA /KE



ZA 00 [Redacted]

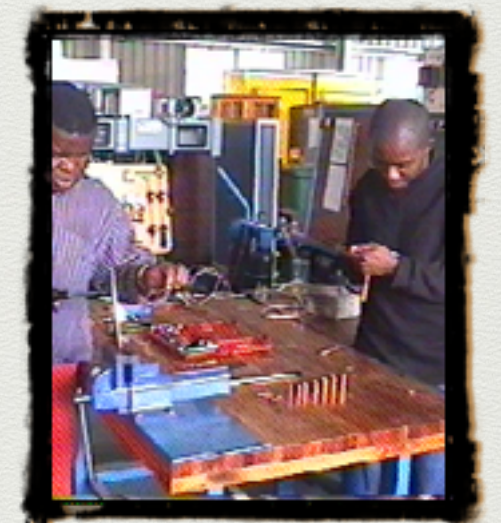


# Setting Up Of Apprenticeships

- Appoint a SDF.
- Are you paying into the correct SETA?sic code 17-35691, if not, correct with SARS.
- Complete work place skills plan. (Your SDF Must consult with merSETA to ensure all aspects are in place).
- Apply for Workplace Approval.
- Most documents are available on the merSETA web site:  
[www.merseta.org.za](http://www.merseta.org.za)



- Choose an accredited training provider.
- Select candidates for Apprenticeships.
- Complete agreements to register candidates.
- Appoint mentor/s.
- Undergo training and assessments.
- Complete logbooks.
- Complete Apprenticeship, ending with a Trade Test.





# merSETA Funded Projects And Grants

- Mandatory Grants: 20% of Company Skills Development Levies.
- Pivotal Programmes: 80% of available discretionary grants.
- Discretionary Grants (DG):
  - ▶ Apprenticeships ending in a trade test: R150 000.00



# Qualifying For Grants, Company Requirements

- To Qualify for these grants a Company must have the following:
  - ▶ Must be Registered with merSETA - (SARS) form “EMP 201” Levy number/sic code 17-35691.
  - ▶ Must have merSETA Workplace Approval.
  - ▶ Must have Qualified Technicians (The ratio of 2 apprentices to 1 qualified technician applies).



# Applying For merSETA Grants

- merSETA opens Pivotal/DG windows annually during the first quarter for approximately 30 days and organisations have to apply during this window period.
- merSETA hosts Capacity Building workshops at the beginning of each year.
- Awarding of grants are up to merSETA's discretion and notification is around September.
- Applications are done online (ACRA can assist).



# SARS Rebate

- There are two opportunities to claim:
  1. Once at the beginning.
  2. Once at the successful completion of the training intervention.
- The details of the tax incentive are contained in Government Gazette No. 23709 that was published on 5 August 2002. You can find a full copy on the SARS website: [www.sars.gov.za](http://www.sars.gov.za) (Select first legislation, then Acts, then Act No 30 of 2002.).



# New ARPL TRADE TEST Process And Training required

- Section 26D (previously Section 28) Certification.
- A (Decentralised trade test centre) will assess Candidates to determine if they meet all the criteria.
- New Process no longer housed with the SETA's
- Decentralised trade test centre to manage entire process
- ARPL entry criteria has changed: No schooling required, three years relevant experience (To be thoroughly scrutinised by decentralised trade test centre.)

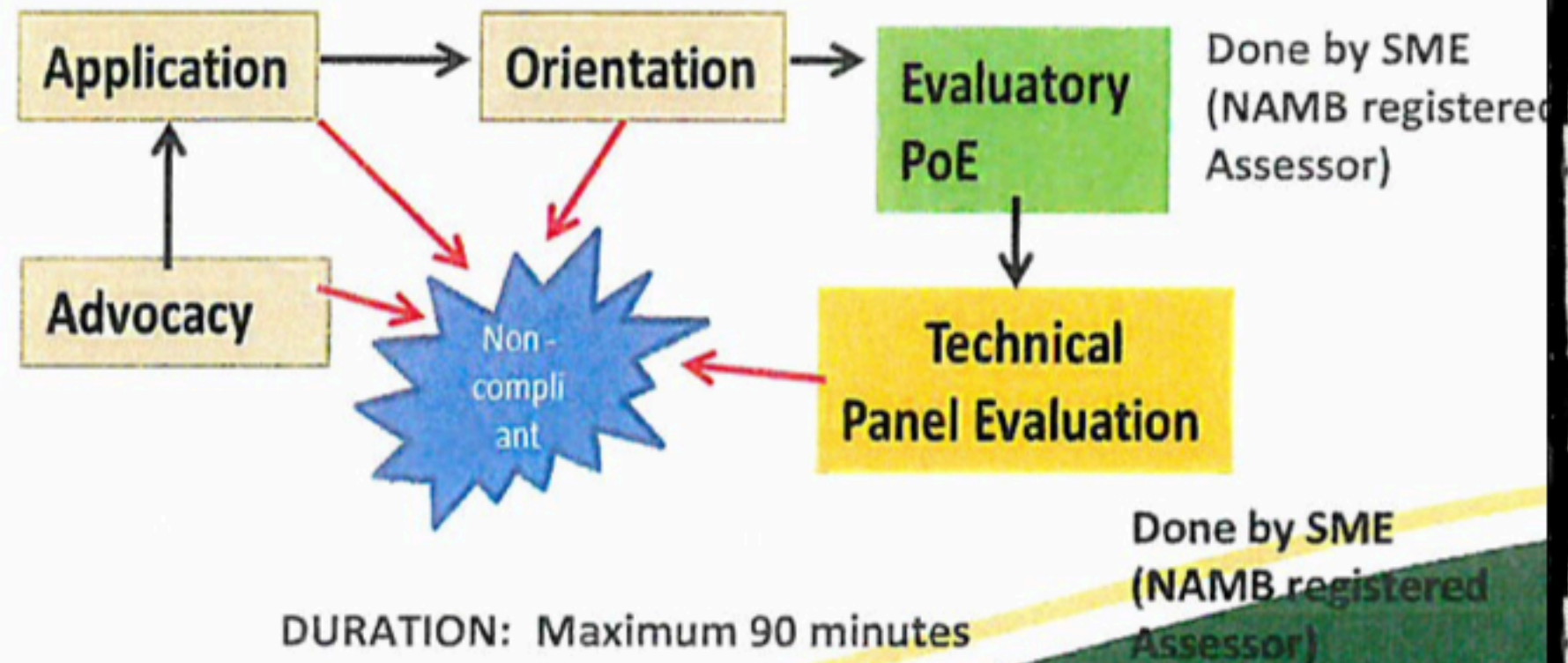




# higher education & training

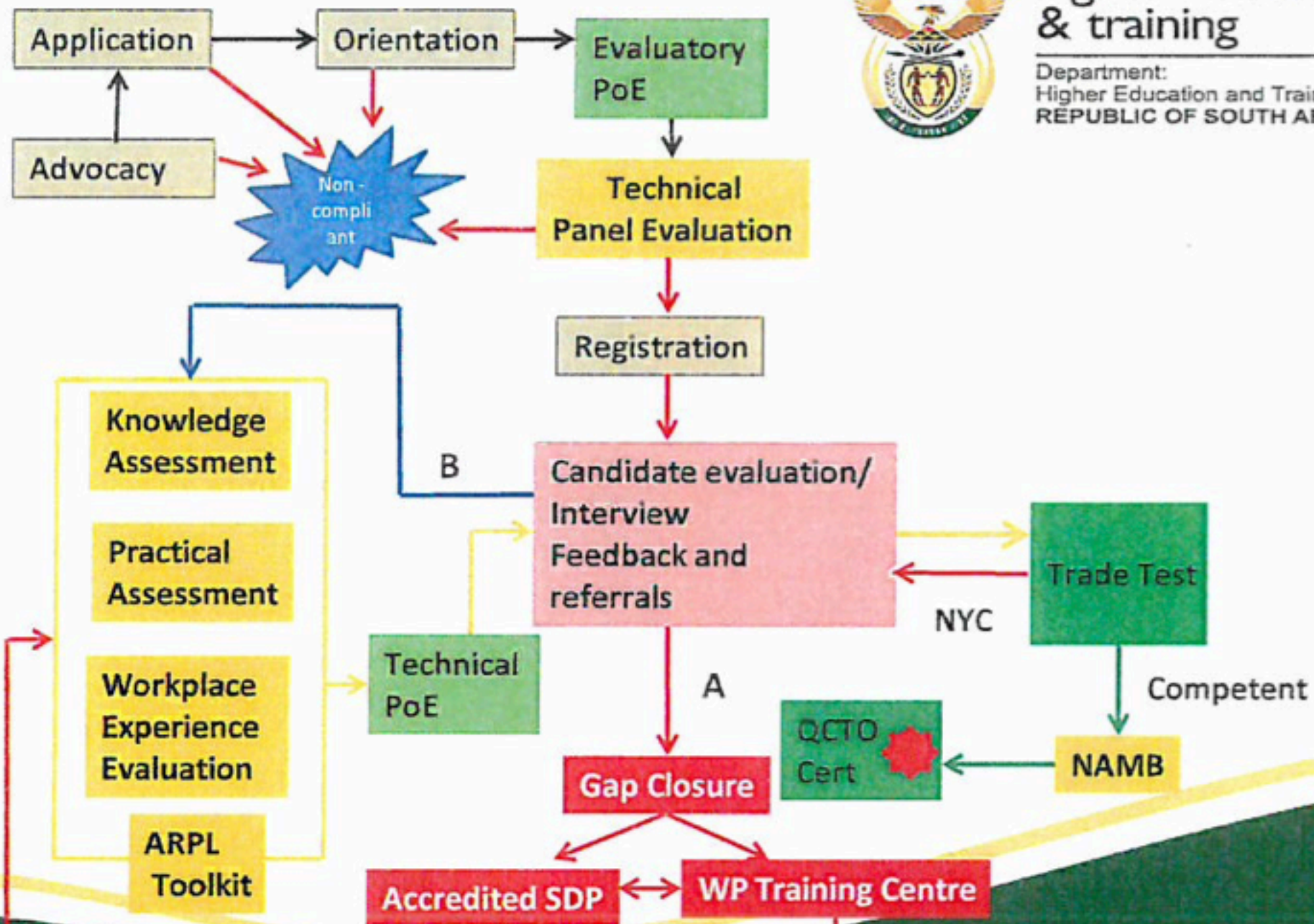
Department:  
Higher Education and Training  
REPUBLIC OF SOUTH AFRICA

## SIFTING PROCESS



Together Moving Post-School Education and Training Forward™







# Trade Test (Current)

- Possible 12 jobs on Commercial
- Possible 14 on Industrial
- 5 Practical Tests over a two-day Period

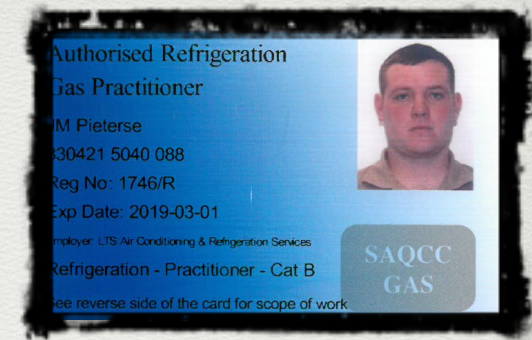
# Trade Test (New)

- Possible 100 jobs for each trade
- Part qualifications culminate in a trade test.
- Computer selected - Random
- Theoretical and Practical Tests and over a three-day Period
- Held at a Decentralised Trade Test Centre





# Safe Handling License



**Safe Handling, why is safety training important ?**

**What can happen when refrigerants are misused?**



**D**IS 'n doodgewone Vrydagaand op Lichtenburg en die Van der Walts begin die naweek op 'n rustige noot ná die bedrywighede van die afgelope week.

Pa Waldo en ma Hanolene sit op die bank in die leefkamer en kyk 7de Laan terwyl hul jongste, Rikus (12), in sy kamer rekenaarspeletjies speel.

Buite is ouboet Rewaldi (15) in die agterplaas doernig met die ditjies en datjies van 'n tienerseun.

Maar die volgende oomblik ruk die knal van 'n oorverdowende ontploffing deur die huis.

Waldo en Hanolene spring op en haas hulle buitentoe - en daar lê Rewaldi in 'n plus bloed onder die afdak in die agterplaas.

Sy kreungeluide weerklank in die skemer en bloed pomp uit sy bene. Eenkant lê die verfrommelde stukke van 'n gasbottel waarmee lugverkoelingstelsels werk...

Hanolene (41), 'n tandartsassistent by 'n praktyk op Lichtenburg, steek in haar spore vas en hardloop terug by die huis in. Sy gryp haar selfoon waar dit in die leefkamer lê, bel die gesin se huisdokter en roep oor die foon dat daar 'n ontploffing was en dat Rewaldi baie seergekry het; hy moet onmiddellik kom.

Waldo (46), 'n oudpolisiesman en deesdae 'n sakeman en gekwalifiseerde verkoelingstegnikus, gryp twee kussings van die rusbank, lig sy seun se bene versigtig op en sit dit op die kussings neer om die bloedvloei te vertraag.

"Ek het net heelyd vir hom gesê hy moenie aan die slaap raak nie. Ek het geweet ek moet koelkop bly en hom kalm hou," onthou Waldo in die wagkamer van die Wilmed Park-hospitaal in Klerksdorp waar sy seun ná die ongeluk aansterk.

Hulp het blitsig gekom: Die huisdokter was binne drie minute by hul huis om Rewaldi te stabiliseer en binne 45 minute het die ambulans hom by die hospitaal in Klerksdorp gehad.

Terwyl Hanolene agterin die ambulans saam met Rewaldi en die paramedici na die hospitaal gejaag het, het Waldo in hul motor agternagery. "Ek wou nooit aan die ergste dink nie. Heelyd het ek net gebied en geweet ons seun gaan dit maak," onthou hy.

Waldo het nog nie by die hospitaal aangekom nie toe Rewaldi na die teater

Moedig glimlag Rewaldi van der Walt saam met sy ouers, Waldo en Hanolene, en kleinboet, Rikus, nadat 'n gasbottel-ontploffing sy onderbeen en twee van sy vingers geëis het.



# 'N KNAL... EN TOE TRAGEDIE

Rewaldi het 'n been en twee vingers verloor toe 'n gasbottel vir lugverkoeling onverwags ontplof

Deur JACQUES MYBURGH

Foto's: FANI MAHUNTSI

gehaas word en dokters vir Hanolene sê haar kind se lewe is in gevaar; sy moet toestemming gee dat sy heen geamputeer word om sy lewe te red.

Hier waar sy in die wagkamer sit, vertel sy moedig: "Ek het heelyd gewonder of ek die regte ding doen, maar dit was 'n kwessie van lewe of dood. Die dokters het gesê hulle kan nie die been red nie."

Kort daarna, op die aand van 19 Januarie wat so gewoon begin het, is haar seun se regterbeen onder die knie geamputeer asook sy linkermiddel- en -wysvinger.

**T**OE Rewaldi die volgende middag in die hoësoorgheid uit 'n geïnduseerde koma ontwaak, moes sy ouers hom die hartverskeurende nuus gee dat die lewe wat hy eens geken het nooit weer dieselfde sal wees nie.

"Ons het gewonder hoe ons vir hom die nuus gaan breek dat sy heen afgesit is, maar by het dit onmiddellik besef toe hy sy oë oopmaak," onthou Hanolene.

Rewaldi het na sy been gewys omdat hy weens die lugpyp in sy keel nie kon

praat nie, maar Waldo het saggies vir hom gesê: "Ons sal daarvoor gesels wanneer jy kan praat."

Eers toe hy vier dae later kon praat, het hy sy ouers gevra hoekom sy heen geamputeer is. "Ek het verduidelik dat dit baie seergekry het en dat dokters die been nie kon red nie," vertel Waldo.

"Hy wou weet of sy been en vingers in die agterplaas lê, want hy was bang sy boetie kom daarop af. Ek het hom gerugstel dat die ledemate eers hier by die hospitaal geamputeer is."

Dit was toe dat hul seun hulle kon vertel wat daardie verskriklike Vrydagaand gebeur het.

Waldo installeer deelyds lugverkoelers vir 'n ekstra inkomste, en spesiale gasbottels word in van hierdie lugverkoelingstelsels gebruik. Hy bère van die bottels onder die afdak in hul agterplaas.

Rewaldi het gesê hy wou die kraan van 'n leë gasbottel oopdraai omdat hy al gehoor het die laaste gas in die bottel sou teen die kraan vasvries. Hy wou uit nuuskierigheid sien hoe dit gebeur, vertel sy pa.

Waldo vermoed daar was 'n "statiessie reaksie", want dit was toe dat die gasbottel ontplof.

Toe 'n hospitaalportier Rewaldi se hospitaalbed na die binnehof stoot sodat hy 'n bietjie in die son kan kom, vertel die seun self wat gebeur het.

"Ek onthou nog die ontploffing," sê hy met 'n skaam, moedige glimlag. "Ek was heelyd wakker, maar het nie regtig enige pyn gevoel nie. Ek was ná die tyd baie deurmekaar, maar het dadelik my pa langs my gesien."

Hy lig die komberse en wys wat van sy regterbeen oor is. Sy ander been het drie penne in nadat dit weens die slag van die ontploffing gebreek het.

Rewaldi geniet die laatmiddagsonnetjie in die buitehof van die hospitaal toe die gr. 11-omgeegroep van die Hoërskool Lichtenburg hom met lekkernye kom veras.



Albei bene is in verbande toegedraai.

"Die spookpyn is erg," vertel Rewaldi saggies. "Partykeer voel dit vir my of ek in my kait krampe kry en dan besef ek ek het nie meer die onderbeen nie."

"Aan die begin het dit gevoel of my twee vingers gebuig is en so in die verbande toegedraai is, maar dit is nie. Dis geamputeer..."

Hy sê wat hom die meeste in die hospitaal pla, is die verveling. Sy hande is nog in verbande toegedraai en dit frustrer hom dat hy nie met sy iPad kan werk nie. "Dit raak maar eensaam hier, en al wat ek eintlik kan doen, is TV kyk."

Net toe daag sy onderwyseres, Lize van Niekerk, op saam met 'n omgeegroep van die Hoërskool Lichtenburg, waar Rewaldi in gr. 9 is. Hulle is vrolik in pienk T-hemde en bring vir hom lekkernye.

Sy juffrou buk en gee hom 'n soen op die voorkop. "Jy moet gou gesond word. My rekenaars wag om reggemaak te word."

Waldo verduidelik Rewaldi was nog nooit erg oor sport nie en is eerder gek oor rekenaars en rekenaarspeletjies. "Die onderwysers is mal oor hom, want hy kan enige rekenaarprobleem by die skool

vir hulle oplos. As iemand met hul rekenaar sukkel, kan hulle altyd op Rewaldi staatmaak," sê Waldo.

Dan vertel die pa trots: "Hy wil eendag 'n meganiese ingenieur word."

Die Van der Walts is nog nie seker hoe lank Rewaldi in die hospitaal sal moet bly nie, maar omdat die pad na rehabilitasie lank sal wees, sal hy nie vanjaar kan terugkeer skool toe nie.

"Maar hy kan nie 'n hele jaar van skool misloop nie," sê Waldo. "Ons sal vir hom tuisonderrig reël. Sy kamer is op die boonste verdieping, maar hy hou voet by stuk hy sal steeds daar kan uitkom." ■

## OPPAS VIR DIÉ GASGEVAAR

Die gasbottels wat vir lugverkoeling gebruik word, is nie algemene gebruiks-items nie, sê Grant Laidlaw, president van die Suid-Afrikaanse Instituut vir Verkoeling en Lugversorging. Die bottels is dus nie dieselfde as die gasbottels wat algemeen in huishoudings gebruik word nie.

"Die bottels kan nie sonder 'n lisensie gekoop word nie en moet deur 'n kundige geïnstalleer word," sê Grant.

Hy sê die verkoelingsbottels is nie juis vlambaar nie, maar dit kan gebeur dat 'n bottel ontplof. "Die bottel wat die seun beseer het, het waarskynlik in die son gestaan en weens die drukking was daar 'n skeuring en 'n ontploffing toe die kraan oopgemaak word."

Hy verduidelik die gas in die bottels moet onder konsekwente druk wees. "Wanneer die gasmolekules bo 'n sekere temperatuur verhit word, begin hulle beweeg. Dan bou drukking op en kan die bottel ontplof."

Volgens Grant moet die bottel veilig in 'n koel, donker plek gebère word waar dit nie aan hitte blootgestel kan word nie.

"Moet dit ook nie buite los nie; die silinder kan skade opdoen en dan is daar 'n groter kans dat dit kan ontplof."

Hy sê 'n tegnikus moet ingeroep word as gebruikers die bottels of gas lui vervang.



BO: Sy gr. 9-juffrou, Lize van Niekerk, wens haar dapper leerder sterkte toe. REGS: Elke ledemaat in verbande. Rewaldi sê dit frustrer hom dat hy nog nie met sy hande sy iPad kan gebruik nie.







He lost his leg and two fingers





# SAIRAC Training



- The courses are aimed at the gap that exists between the artisan/technician level and engineers.
- Please view the SAIRAC website courses offered and for booking details - [www.sairac.co.za](http://www.sairac.co.za).
- The skills gap found in industry is well known and much talked about.
- Examples of the courses offered throughout the year:
  - ▶ Ventilation
  - ▶ Psychometrics
  - ▶ Load Estimating
- Coupled to the training is an opportunity for senior people in industry who may be interested to share their experience with the younger generation. Or possibly just a passion to become involved in training and offer their expertise and experience in these evening classes.



# Special Projects

## Expression Of Interest to participate as a Workplace Provider for Refrigeration Mechanic Apprentices Project

### **Project Overview**

- We have initiated a Training Project for the Air Conditioning and Refrigeration Industry. This is a funded project in that SETA will pay for all the training, assessment and trade testing. This represents a fantastic opportunity for industry to get involved in the Training and Up-Skilling of young people as well as addressing the skills shortage.

### **Your Involvement (as Workplace Provider)**

- To provide Workplace Experience for Apprentice(s) for a period of approximately 18 months and signing off their log books. Whilst with you (Workplace Provider) these Apprentices will be productive members of your team and you will need to remunerate them an Apprentice Wage. Please take note that this is NOT an Employment Contract and once the Apprenticeship is completed you are under no obligation to employ the Apprentice(s).





Winner business of the year award!

**FULLY ACCREDITED TRADE TEST CENTRE**

Merseta Accreditation No's.

17-QA/ACC/0357/09

17-QA/ACC/0228/07

203 Element road, Chloorkop, Kempton Park 1619

PO Box 1709, Edenvale, 1610

Tel: (011) 393 1642 / 3 / 8

Fax: 086 671 0402

[info@acra.co.za](mailto:info@acra.co.za)

[www.acra.co.za](http://www.acra.co.za)

CK 1995/051145/23

VAT. NO. 476 018 8229

**EXPRESSION OF INTEREST**

to participate as a Workplace Provider for  
**Refrigeration Mechanic Apprentices**

**MERSETA / DHET Project**

**Company Details**

Name of Company:

Name and Surname of Company Representative:

Telephone Number:

Cellphone Number:

Email Address:

Physical Address:

Postal Address:

SARS Levy Registration Number:

SETA Registered:

Seta Name:

Amount of Qualified Technicians currently  
employed by the Company:  
(Trade: Refrigeration Mechanic)

The Company is interested in taking on \_\_\_\_\_ Number of Apprentices

**I hereby express my interest to participate as a Workplace Provider for Apprentices**

Name and Surname of Company Representative:

Date:

Signature:

Please return the form via email to [annelize@acra.co.za](mailto:annelize@acra.co.za).

Expression Of Interest  
Form



# Questions







# FRIGAIR

## EXHIBITION 2018



# THANK YOU

Grant Laidlaw

203 Element Road, Chloorkop, Kempton Park

Tel: 27 11 609 1118

E-mail: [info@acra.co.za](mailto:info@acra.co.za)

Website: [www.acra.co.za](http://www.acra.co.za)