

A-GAS[®]

Shanghai Inspection and Testing Services



Pictured: Leak testing as part of our Pre-Shipment Inspection Procedures ensuring product quality.












A-Gas is a global market leader in the supply and lifecycle management of speciality chemicals such as refrigerants and fire protection agents for use in industries operating in the HVAC, refrigeration, manufacturing, aviation and industrial industries. Our state-of-the-art testing laboratory in Shanghai, China, offers testing services for refrigerants and fire protection agents internationally.



The laboratory has been constructed and equipped under the strict guidelines of AHRI 700 testing requirements. This enables us to offer a wide variety of services to both local and international customers, including test and inspection customisation where requested.

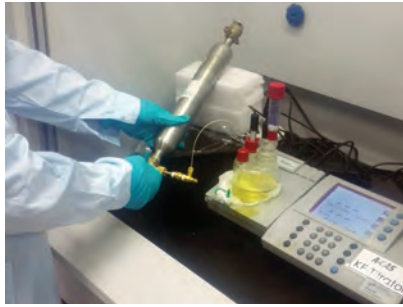
TEST Services for Refrigerants, etc.

We are proud to offer testing of the following items:

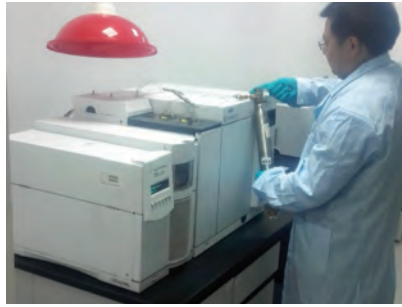
-  Water content
-  Acidity
-  High boiling residue
-  Non-condensables
-  Chloride
-  Unsaturates
-  Purity and blend ratio
-  Particulates
-  Qualitative and semi-quantitative for volatile substances

TEST Standards

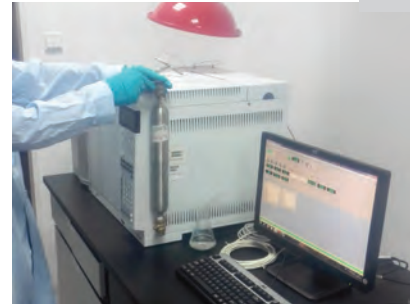
AHRI 700
ASTM 5632
ASTM 6064
ISO 7201



Water content testing



Purity / blend ratio / Unsaturates



INSPECTION Services for Refrigerants, etc.

Pre-Shipment Inspection

This takes place when the merchandise is complete, packed and ready for shipment.






Random sampling standards, unless specified differently by customers, are based on the table alongside for non-tank products.

Product Quantity (bottle)			Sampling Size (bottle)
Over 400kg / bottle	100 - 400kg / bottle	Under 100kg bottle	
≤ 3	≤ 5		1
4 - 10	6 - 20	≤ 100	2
11 - 40	21 - 50	101 - 500	3
> 40	51 - 100	501 - 1000	5
	> 100	1001 - 5000	10
		> 5000	20

SAMPLING Standards

ANSI / ASQ Z1.4
BS 6001
DIN 40080
ISO 2859
NFX 06-022
Other customer-specific standards

The following aspects are inspected:

-  Leak detection using professional tools
-  Unit weight of small package products
-  Product quantity
-  Carton artwork, label, shrink seal, valve size and cylinder handle
-  Others as specified by customers



Leak detection



Small package weight checking

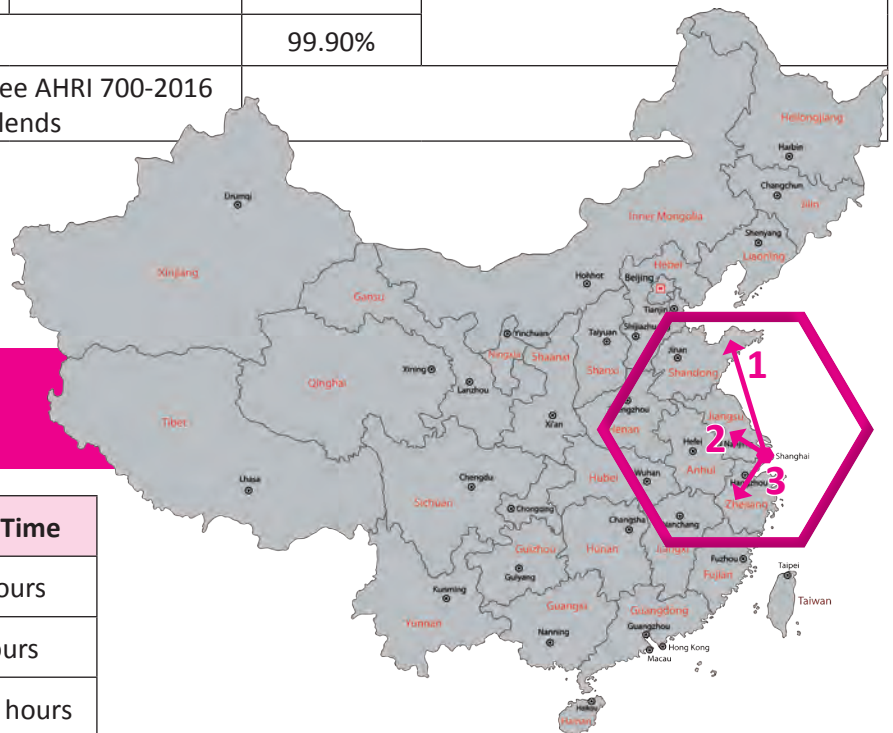
Loading Inspection

This service takes place on site at the manufacturer's premises or warehouse during containerisation before shipments. The following aspects are inspected:

- ✔ Condition of containers and tank
- ✔ Quantity of product loaded
- ✔ Others as specified by customers
- ✔ Condition of cartons
- ✔ Loading process

AHRI 700-2016 Specifications for Refrigerants

No.	Items	Fluorocarbon	Hydrocarbon	CO ₂ (R744)	Remarks
1	NCG	1.50%		1.50%	R11/R113/R123/R141b/R1233zd(e)/R245fa-N.A.; R142b-2%
2	Water	10ppm		10ppm	R11/R113/R123/R245fa/R1233zd(e)/ R419A/R422C/R429A/R430A/R435A/R432A/R510A/R511A -20ppm; R142b-15ppm; R141b-100ppm
3	HBR	0.01%		0.0005%	
4	Suspend matter	Visually clean			
5	R40	300ppm			
6	Acidity	1ppm			R445A-N.A.; R142b-3ppm
7	All other volatile impurities	< 0.5%			R141b-0.9%
8	Halogenated unsaturated volatile impurities	40ppm			R1233zd(e)/R1234yf/R1234ze(e)/R1336mzz(Z)-N.A.; < 5000ppm R1234yf in R134a
9	Chloride	No visible turbidity			
10	Isomer content	See AHRI 700-2016			Only single component fluorocarbon
11	Other allowable impurities			See AHRI 700-2016	
12	Nominal composition			99.50%	
13	Sulphur odour			No sulphur odour	
14	Total C3C4C5 polyolefins			0.05%	
15	Purity			99.90%	
		Allowable comp see AHRI 700-2016 for blends			



Distance and Work Time for Shanghai INSPECTION

No.	Destination	Distance	Work Time
1	ShanDong	1400 km	20 hours
2	JiangSu	120 km	8 hours
3	ZheJiang	600 km	14 - 16 hours



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YOUR SOLUTIONS PROVIDER

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at time of print and is subject to change*