CE APPLICATION FOR LVD

On Behalf of

Changzhou ChiNa Welding Equipment Co.,Ltd.

Product Name:	**Welding torch**
Trademark:	**N/A**
Model :	36KD, 14AK, 15AK, 24KD, 25AK, 501D, 610D, 180A, 200A, 350A, 600A, PSF250, PSF350, PSF405, WP9, WP12, WP17, WP18, WP20, WP22, WP25, WP26, WP27, QQ150, QQ350, QQ500, PT17, PT27, PT31, PT40, PT60, PT80, PT100, PTM80, PTM100, SG51, SG55, AG60, TC60, TC80, TZ60, TZ100, YG80, YG160, P80, P160, CB50, CB70, CB100, CB150, A101, A141, CBM100, CBM150, AL2300, AL4000, AW4000, AW5000, K600, K800, K2000, K4000, 500A, 600A, 350, 200A, 500A, 600A, 315, 300, 150, 200A, 260, 400A.
Prepared For :	**Changzhou ChiNa Welding Equipment Co.,Ltd.**
Address:	9 Hua Tong Road,YaoGuan, ChangZhou,JiangSu,China
Prepared By :	**Shenzhen BKC Testing Co., Ltd.**
Address:	6/F, Building 3, Zhouteng Industrial Park, Nanwan Street, Longgang District, Shenzhen, Guangdong, China
Test Date:	**Aug. 21, 2019 - Aug. 29, 2019**
Date of Report :	**Aug. 29, 2019**
Report No.:	**BKC-190802184S**

TEST REPORT
EN 60974-7: 2013
Arc welding equipment - Part 7:Torches

Report Number.....:	BKC-190802184S
Date of issue.....:	Aug. 29, 2019
Total number of pages.....:	13 pages
Applicant's name.....:	Changzhou ChiNa Welding Equipment Co.,Ltd.
Address.....:	9 Hua Tong Road,YaoGuan, ChangZhou,JiangSu,China
Test specification:	
Standard..... :	EN 60974-7: 2013
Test procedure.....:	LVD
Non-standard test method.....:	N/A
Test Report Form No.....:	EN60974A
Master TRF.....:	Dated 2014-12
Test item description.....:	Welding torch
Trademark..... :	N/A
Manufacturer.....:	Changzhou ChiNa Welding Equipment Co.,Ltd.
Address.....:	9 Hua Tong Road,YaoGuan, ChangZhou,JiangSu,China
Model/Type reference.....:	36KD

Possible test case verdicts:

- test case does not apply to the test object.....: N(/A) (Not Applicable)

- test object does meet the requirement.....: P (Pass)

- test object does not meet the requirement.....: F (Fail)

General remarks:

The test results presented in this report relate only to the object tested.
This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.
"(see Enclosure #)" refers to additional information appended to the report.
"(see appended table)" refers to a table appended to the report.

Throughout this report a ☐ comma / ☒ point is used as the decimal separator.

Manufacturer's Declaration per sub-clause 6.2.5 of IECEE 02:

The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided.....:

☐ Yes
☒ Not applicable

When differences exist; they shall be identified in the General product information section.

General product information:

These series appliances are Welding torch, they are with the similar construction, the differences among them are appearance and model name. All tests were conducted at the model of 36KD. The test results comply with the requirement of the relevant standards.

Name and address of the testing laboratory : **Shenzhen BKC Testing Co., Ltd.**
6/F, Building 3, Zhouteng Industrial Park, Nanwan Street, Longgang District, Shenzhen, Guangdong, China.

Date of Test: **Aug. 21, 2019 - Aug. 29, 2019**

Prepared by(Engineer):

Reviewer(Quality Manager):

Approved&Authorized Signer(Manager):

EN 60974-7			
Test case	**Test Item**	**Result**	**Verdict**
4	**Environmental conditions**	–10 °C to +40 °C; 50% to 90% humidity	**P**

5	**Classification**		**P**
5.1	General		P
5.2	Process		P
5.3	Guidance		P
5.4	Cooling		P
5.5	Main arc striking for plasma processes		P

6	**Test conditions**		**P**
6.1	General		P
	All tests shall be carried out on the same new and completely assembled torch, fitted with the cable-hose assembly normally supplied.		P
6.2	Type tests		P
6.3	Routine tests		P

7	**Protection against electric shock**		**P**
7.1	Voltage rating		P
7.2	Insulation resistance		P
7.3	Dielectric strength		P
7.3.1	General requirement		P
7.3.2	Additional requirements for plasma cutting torches		N/A
7.3.3	Additional requirements for striking and stabilizing voltage rating		P
7.4	Protection against electric shock in normal service (direct contact)		P
7.4.1	Degree of protection requirements		P
7.4.2	Additional requirements for plasma cutting torches		N/A

8	**Thermal rating**		**P**
8.1	General		P
	Manual torches shall be rated at a minimum of 100 % or 60 % or 35 % duty cycle. Mechanically guided torches shall be rated at a minimum of 100 % duty cycle. Fume extraction torch shall be rated at the extraction flow rate defined by the manufacturer.		P

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Test case	**Test Item**	**Result**	**Verdict**
8.2	Temperature rise		P
8.3	Heating test		P
8.3.1	General		P
8.3.2	Metal inert/active gas (MIG/MAG) or self-shielded flux-cored arc welding torch		P
8.3.3	Tungsten inert gas (TIG) and plasma arc welding torch		N/A
8.3.4	Plasma cutting torch		N/A
8.3.5	Submerged arc welding torch		N/A
9	Pressure of the liquid cooling system		P
	The liquid cooling system of liquid-cooled torches shall withstand a minimum pressure of 0,5 MPa (5 bar) at a minimum temperature of 70 °C without leakage.		P
10	Resistance to hot objects		P
	The insulation of the handle and the cable-hose assembly shall be capable of withstanding hot objects and the effects of a normal amount of weld spatter without being ignited or becoming unsafe.		P
11	Mechanical provisions		P
11.1	Impact resistance		P
	Manual torches shall have sufficient mechanical strength to ensure that, when used in accordance with the requirements, no damage occurs which will impair the safety or operability.		P
11.2	Accessible parts		P
	Accessible parts shall have no sharp edges, rough surfaces or protruding parts likely to cause injury.		P
11.3	Handle material		P
	Torch handles for manually guided plasma cutting torches shall have a flammability classification of HB or better in accordance with IEC 60695-11-10.		P
12	Marking		P
	The torch shall be clearly and indelibly marked as follows:		P
	a) name of the manufacturer, distributor, importer or the registered trademark;		P
	b) type (identification) as given by the		P

EN 60974-7			
Test case	**Test Item**	**Result**	**Verdict**
	manufacturer;		
	c)reference to this standard, confirming that the torch complies with its requirements.	EN 60974-7: 2013	P
13	Instructions for use		P
	Each torch shall be delivered with an instruction sheet. This instruction sheet shall include, as a minimum, the following information, if applicable:		P
	a) process, see 5.2;		P
	b) method of guidance, see 5.3;		P
	c) arc striking and stabilizing voltage rating, see 7.3.3;		P
	d) rated current and corresponding duty cycle, see 8.1;		P
	e) type of shielding gas (for example argon, CO_2 or mixed gases with their percentage) or, for plasma cutting torches, type of gas, flow rate and/or operating pressure;		P
	f) length of the cable-hose assembly;		P
	g) type and diameter range of the electrode or,for plasma cutting torches, proper combinations of plasma tip, nozzle and electrode types;		P
	h) type of cooling, see 5.4;and for liquid-cooled torches: 1) minimum flow rate in l/min; 2) minimum and maximum inlet pressure in MPa (bar); 3) minimum cooling power in kW;and for fume extraction torches: 4) extraction flow rate in m_3/h;		P
	i) rating of electrical controls incorporated in the torch;		P
	j) requirements for the connection of the torch;		P
	k) essential information about the safe operation of the torch including environmental conditions;		P
	l) reference to this standard confirming that the torch conforms with its requirements;		P
	m) conditions under which extra precautions are to be observed (for example environment with increased hazard of electric shock, flammable surroundings, flammable products, elevated working positions, ventilation, noise, closed containers, etc.). And additional for plasma cutting torches:		P
	n) maximum and minimum gas pressure at the inlet;		P

EN 60974-7			
Test case	**Test Item**	**Result**	**Verdict**
	o) essential information about the safe operation of the plasma cutting torch and the functioning of interlocking and safety devices, for example a list of suitable plasma arc cutting system components identified by the manufacturer, model, catalogue and/or serial number, which the manufacturer recommends for use with the system. Each component listed shall be such that it provides the level of protection to the operator (including compatibility of safety devices and/or protection circuits, no-load voltage, striking voltage and safe connection of the torch to the plasma cutting power source) as originally provided;		P
	p) type (identification) of plasma cutting power source or sources that can form a safe system with the plasma cutting torch.		P

Table 1 – Voltage rating of torches

Classification	Voltage rating V_{peak}	Insulation resistance MΩ	Dielectric strength V r.m.s.	Degree of protection in accordance with IEC 60529			
				Nozzle orifice	Handle	Torch coupling device[a]	Other parts[b, c]
Manually guided torches except for plasma cutting	113	1	1 000	IP0X	IP3X	IP2X	IP3X
Mechanically guided torches except for plasma cutting and submerged arc welding	141	1	1 000	IP0X	Not applicable	IPXX	IP2X
Mechanically guided submerged arc welding torches	141	1	1 000	IP0X	Not applicable	IPXX	IPXX
Manually guided plasma cutting torches	500	2,5	2 100	Plasma tip, see 7.4.2	IP4X	IP3X	IP3X
Mechanically guided plasma cutting torches	500	2,5	2 100	IP0X	Not applicable	IP2X	IP2X

[a] Degree of protection for torch coupling device is tested while coupled.

[b] Other parts are, for example, gas nozzle, neck.

[c] Wire drive systems of motorized torches that are accessible to touch are not considered as other parts: IPXX.

Table 2 – Test values for metal inert gas arc welding (MIG) of aluminium alloys

Welding current A	Nominal diameter of the wire electrode mm	Distance between contact tip and metal tube ±20 % mm	Maximum gas flow l/min
Up to 150	0,8	10	10
151 to 200	1	15	12
201 to 300	1,2	18	15
301 to 350	1,6	22	18
351 to 500	2	26	20
Above 500	2,4	28	20

Table 3 – Test values for metal active gas arc welding (MAG) of mild steel

Welding current A	Nominal diameter of the wire electrode mm	Distance between contact tip and metal tube ±20 % mm	Maximum gas flow l/min
Up to 150	0,8	10	10
151 to 250	1	15	13
251 to 350	1,2	18	15
351 to 500	1,6	22	20
Above 500	2	26	25

Table 4 – Test values for metal active gas arc welding (MAG) with flux-cored wire

Welding current A	Nominal diameter of the wire electrode mm	Distance between contact tip and metal tube ±20 % mm	Maximum gas flow l/min
251 to 350	1,2 to 1,4	25	15
351 to 500	1,6 to 2	30	18
Above 500	2,4	35	20

Table 5 – Test values for self-shielded flux-cored arc welding of mild steel

Welding current A	Type of wire electrode	Nominal diameter of the electrode mm	Distance between contact tip and metal tube ±20 % mm
Up to 250	1	Up to 1,2	20
251 to 350	2	1,6 to 2,0	50
351 to 500	2	2,4 to 3,0	50
Above 500	2	3,2 and more	60

Table 6 – Test values for tungsten inert gas arc welding (TIG)

Welding current A	Maximum gas flow l/min	Distance between nozzle and copper block ±1 mm mm	Distance between electrode and copper block ±1 mm mm
Up to 150	7	8	3
151 to 250	9	10	5
251 to 350	11	10	5
351 to 500	13	10	5
Above 500	15	10	5

Table 7 – Test values for plasma arc welding

Welding current A	Distance between plasma tip and copper block ±1 mm mm
Up to 30	3
31 to 50	3
51 to 100	3
101 to 150	4
151 to 200	6
201 to 250	8
251 to 280	8
Above 280	10

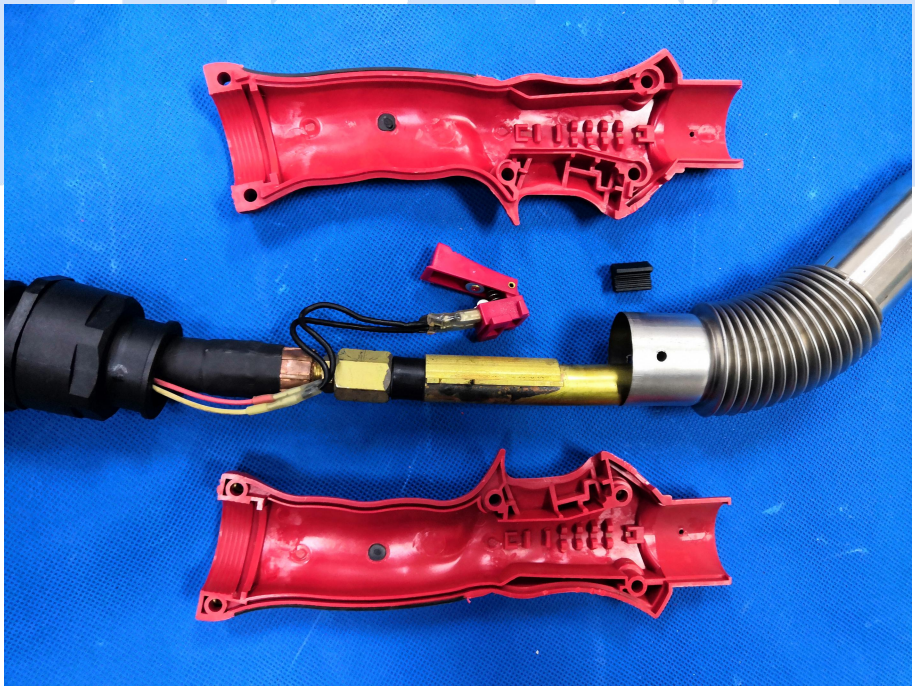
Product photos

EUT Photo 1

EUT Photo 2

EUT Photo 3

EUT Photo 4



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