



华南国家计量测试中心
广东省计量科学研究所
SOUTH CHINA NATIONAL CENTER OF METROLOGY
GUANGDONG INSTITUTE OF METROLOGY



校准证书

CALIBRATION CERTIFICATE

证书编号 CJC20096377
Certificate No.
(代替CJC20096307号证书)

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委托方
Client

委托方地址
Add. of Client

计量器具名称
Description

IPX3-4SPray Nozzle

型号规格
Model/Type

SFT S2-1030

制造厂
Manufacturer

Safequipment Limited

出厂编号
Serial No.

620F0002

接收日期
Date of Receipt

2009 年 10 月 20 日
Y M D

校准日期
Date of Calibration

2009 年 10 月 30 日
Y M D

批准人
Approved Signatory

张玉珍

核 验
Inspected by

张玉珍

校 准
Calibrated by

张玉珍

证书专用章

本中心地址: 中国广州市广园中路松柏东街30号 邮政编码: 510405
电话: (8620)86594172 传真: (8620)86590743 E-mail: scm@scm.com.cn
Add: No.30, Songbaidong Street, Guangyuanzhong Road, Guangzhou, P. R. China
Post Code: 510405 Tel: (8620)86594172 Fax: (8620)86590743



说 明

证书编号 CJC20096377
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DIRECTIONS

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- 本中心是国家质量监督检验检疫总局在华南地区设立的国家法定计量检定机构, 计量授权证书号是:
(国)法计(2007)01043号、(国)法计(2007)01032号。
This laboratory is the National Legal Metrological Verification Institution in southern China set up by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China (AQSIQ) under authorization certificates No.(2007)01043 & (2007)01032.
- 本中心所出具的数据均可溯源至保存在中国计量科学研究院的国家计量基准和国际单位制(SI)。中国计量科学研究院于1999年代表中国签署了“国家计量基标准及国家计量研究院出具的校准和测量证书相互承认协议”。
All data issued by this laboratory are traceable to national primary standards maintained in National Institute of Metrology (NIM) and International System of Units (SI). NIM is the signatory to the Mutual Recognition Arrangement (MRA) for national measurement standards and for calibration and measurement certificates issued by national metrology institutes.
- 本次校准的技术依据:
Reference documents for the calibration:
GB/T 1958-2004 产品几何量技术规范(GPS) 形状和位置公差 检测规定 Geometrical Product Specifications(GPS)Geometrical tolerance Verification prescription

- 本次校准所使用的主要计量标准器具:
Major standards of measurement used in the calibration:

设备名称/型号 Name of Equipment /Model	编号 Serial No.	证书号/有效期 Certificate No. /Due Date	计量特性 Metrological Characteristic
万能工具显微镜 Universal Measuring Microscopes /19JC	001245	CYY20090030 /2010-02-03	MPE: (1+L/100) μ m
三坐标测量机 Coordinate Measuring Machines /Prismo Navigator 795 HTG	127026	CJC20092263 /2010-05-04	MPE: ± (1+L/400) μ m

- 校准地点、环境条件:
Place and environmental conditions of the calibration:
地点 本中心精测实验室(P. M. Lab.) 温度 (20.0±1.0) °C 相对湿度 <60 %
Place Temperature RH
- 被校准仪器限制使用条件:
Limiting condition of the instrument calibrated:

注: 1. 本证书校准结果只与受校准仪器有关。
2. 未经本中心书面批准, 不得部分复制此证书。
Note: 1. The results relate only to the items calibrated.
2. This certificate shall not be reproduced except in full, without the written approval of our laboratory.



校准结果

RESULTS OF CALIBRATION

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原始记录编号: 520090736
Record No.

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1 外观(Appearance): 合格(Pass)

2 抽检5个(采用△标记)孔径见表1[参考值: $\phi 0.5$ mm]

5 holes sampled were marked with Δ , the measured value see table 1 [Nominal value: $\phi 0.5$ mm]

表1(Table 1)

序号 (NO.)	测量值(Measured value)	扩展不确定度 U_{95} Expanded uncertainty
1	$\phi 0.57$	0.03
2	$\phi 0.55$	0.03
3	$\phi 0.55$	0.03
4	$\phi 0.55$	0.03
5	$\phi 0.55$	0.03

3 抽检5个平面内分度(采用┆标记)见表2 [参考值: 15° 或 30°]

5 angles sampled were marked with ┆, the measured value see table 2 [Nominal value: 15° 或 30°]

表2(Table 2)

序号 (NO.)	测量值(Measured value)	扩展不确定度 U Expanded uncertainty
1	$29^\circ 46'$	$10'$
2	$29^\circ 48'$	$10'$
3	$14^\circ 52'$	$10'$
4	$14^\circ 54'$	$10'$
5	$14^\circ 53'$	$10'$

4 抽检两垂直截面分度见表3(A-A' 截面)和表4(B-B' 截面)[参考值: $6^\circ 30'$]

Section A-A' and section B-B' sampled were marked on nozzle, the measured value see table 3 and table 4 [Nominal value: $6^\circ 30'$]

表3(A-A' 截面)(Table3 section A-A')

从花洒中心点到A,共6个角度 From the center point to A, total 6 angles measured.	从花洒中心点到A',共6个角度 From the center point to A' , total 6 angles measured.	扩展不确定度 U Expanded uncertainty
$6^\circ 42'$	$6^\circ 51'$	$15'$
$6^\circ 48'$	$6^\circ 27'$	$15'$
$6^\circ 45'$	$6^\circ 35'$	$15'$
$6^\circ 52'$	$6^\circ 46'$	$15'$
$6^\circ 54'$	$6^\circ 51'$	$15'$
$6^\circ 56'$	$6^\circ 52'$	$15'$



校准结果

RESULTS OF CALIBRATION

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表4(B-B' 截面)(Table4 section B-B')

从花洒中心点到B,共6个角度 From the center point to B, total 6 angles measured.	从花洒中心点到B',共6个角度 From the center point to B' , total 6 angles measured.	扩展不确定度 U Expanded uncertainty
6° 48'	6° 51'	15'
6° 48'	6° 41'	15'
6° 52'	6° 38'	15'
6° 51'	6° 51'	15'
6° 40'	6° 41'	15'
6° 32'	6° 51'	15'

5 花洒头直径(Diameter of spray nozzle): $\phi 101.91$ mm[参考值(Nominal value): $\phi 102$ mm]

6 花洒头球表面圆弧半径(Radius of sphere for spray nozzle):75.81 mm
[参考值(Nominal value): 75.5 mm]

7 测量结果的扩展不确定度: 花洒头直径: $U=0.05$ mm, 圆弧半径: $U=0.10$ mm, 其余见表格,
包含因子: $k=2$

[依据 JJF1059-1999 测量不确定度评定与表示]

According to JJF 1059-1999 Evaluation and Expression of Uncertainty in Measurement,

Expanded uncertainty of measuring results: For diameter of spray nozzle: $U=0.05$ mm, for radius of sphere
for spray nozzle: $U=0.10$ mm ,Cover factor: $k=2$

说明 (Note):

1 CJC20096307 号校准证书作废[Calibration certificate (No. CJC20096307) become invalid]

2 建议校准周期不超过 1 年(The period of calibration advised within one year)