



青岛创梦仪器有限公司

Qingdao ChuangMeng Instrument Co., Ltd.

马氏漏斗粘度计 Marsh Funnel Viscometer



使用手册

Instruction Manual

版本 1.0

Version 1.0

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请你仔细阅读《使用手册》，正确掌握本产品的安装和使用方法。阅读后请将本《使用手册》妥善保管，以备今后进行检修和维护时使用。

Carefully read this User Manual to learn how to install and use the product correctly. After reading, properly keep the User Manual as a reference for future maintenance and repair.

联系方式 Contact:

邮编 Zip code: 266100

网址 Website: www.qdcmyq.com

电话 Tel: 86-0532-66993768

传真 Fax: 86-0532-66993744

邮箱 E-mail: cmtech@sina.com

公司地址: 中国 青岛市市北区温州路 7 号

生产基地: 青岛市城阳区流亭街道兴海路 3 号

Address: No. 7 Wenzhou Road, City Northern District, Qingdao City, China

Production base: No. 3 Xinghai Road, Liuting Street, Chengyang District, Qingdao

Контакт:

Почтовый индекс: 266100

Телефон: 86-0532-66993768

Электронная почта: cmtech@sina.com

Адрес: Но. 7, Ул. Вэньчжоу, Район Север города, Г. Циндао, Китай

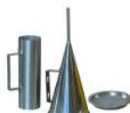
Производственная база: Но. 3, Ул. Синхай, Пр. Лютин, Район Чэнян, Г. Циндао, Кит

1、概述 Introduction

马氏漏斗粘度计是一种用于日常测量钻井液粘度的仪器。采用美国 API 标准制造，以定量钻井液从漏斗中流出的时间来确定钻井液的粘度。结构简单、使用方便。广泛应用于石油，地质勘探等部门。

Marsh funnel is an apparatus used to measure the viscosity of drilling fluids for daily. Adopting the API standard, determine the viscosity of drilling fluids with the time required for a given volume of drilling fluids pouring out from the funnel. The structure of the apparatus is simple. It is convenient for use and applied extensively in the departments dealing with petroleum and geological exploration.

2、型号及参数

仪器 参数				
型号 Model	1112	1110		
箱体(选配) Box (Choose)				
量杯 Measuring cup	500ml	946ml	946ml	946ml
滤网孔径 Filter aperture	1.25mm (16 目)	1.6mm (12 目)	1.6mm (12 目)	1.6mm (12 目)
漏斗容量 Funnel Capacity	700±15ml	1500±15ml	1500±15ml	1500±15ml
不锈钢漏斗 Stainless steel funnel	有 Yes	选购 Choose	选购 Choose	选购 Choose
不锈钢盛液杯 Stainless steel cup	无 No	选购 Choose	选购 Choose	选购 Choose



3、操作 Operation:

- 1)用手指堵住漏斗下部的流出口，将新取的钻井液样品经筛网注入干净并直立的漏斗中，直到钻井液样品液面达到筛网底部为止。
 - 2)移开手指并同时启动秒表，测量钻井液流至量杯中的 946ml（一夸脱）刻度线所需要的时间。
 - 3)测量钻井液的温度，以℃（或°F）表示。
 - 4)以秒为单位记录马氏漏斗粘度，并记录钻井液的温度值℃（或°F）。
- 1)Block the flowing outlet of the funnel with finger, and then pour the drilling fluid sample into the clean and straight-upright funnel through screen until the surface of the fluid reaches the bottom of screen.
 - 2)Put aside finger and at the same time start stopwatch, and then measure the time required for the drilling fluid flowing to the graduation mark of 946 ml (1qt.) in the sample cup.
 - 3)Measure the temperature of the drilling fluid indicated by °C (or °F) .
 - 4)Record the Marsh funnel viscosity using second as the unit, and the temperature of the drilling fluid using °C (or °F).

4、校验 Check

- 1.将测量环境温度控制为 $20 \pm 2^{\circ}\text{C}$ ，秒表校定在备用状态。
- 2.手握漏斗呈直立位置，用手指堵住下端导流管出口。
- 3.将蒸馏水 1500ml（ 20°C ）注入漏斗内用量杯量取。
- 4.然后放开手指，同时开始计时，当容量瓶中流入 946ml 时停止计时，其时间应符合 $26 \pm 0.5\text{s}$ 。

注意:未测定前必须把全部仪器用清水冲洗干净。

- 1.The ambient temperature is controlled at $20 \pm 2^{\circ}\text{C}$, and stopwatch is in reserve.
- 2.Hold the funnel in an upright position, and use fingers to block the outlet of the lower end of the draft tube.



3.The distilled water 1500ml (20℃) was injected into the funnel.

4.Then release the fingers and start the timer. When the volume bottle enters 946ml, stop the time. The time should be $26 \pm 0.5s$.

Note: before testing, all instruments must be rinsed clean.

5、外转筒、内筒和扭力弹簧

Outer sleeve, floater and torsional spring

6、故障的判定与排除

现象 Phenomenon	原因 Reason	维修方法 Maintenance method
流量大于标准流量。 Flow rate is greater than standard flow	导流管内径尺寸由于磨损偏大。 The inner diameter of the guide tube is larger because of the wear.	更换导流管。 Replace the diversion pipe.
流量小于标准流量。 Flow rate is less than standard flow	导流管内径堵塞。 The inner diameter of the diversion pipe is blocked. 导流管流出口变形。 The outlet deformation of the diversion pipe flow.	疏通、清洗导流管内径。 Dredge and clean the inner diameter of the diversion pipe. 修复导流管流出口。 Repair the outlet of the diversion pipe flow.



青岛创梦仪器有限公司 装箱单

Qingdao Chuangmeng Instrument Co., Ltd. Packing list

生产企业：青岛创梦仪器有限公司

Manufacturing enterprise: Qingdao Chuangmeng Instrument Co.,Ltd.

生产地址：青岛市城阳区流亭街道兴海路 3 号

Production address: No. 3 Xinghai Road, Liuting Street, Chengyang District, Qingdao

主机型号：

Model :

出厂编号：

Manufacturing No:

序号 No	编号	名称及规格 Name and specification	数量 Quantity;	备注 Remarks
1		漏斗 Funnel	1	
2		量杯（946ml） Measuring cup	1	
3		盛液杯（2000ml） Liquid cup		
4		滤网（16 目） Filter net		
5		量筒 Messuring cylinder		
6		秒表 Stopwatch		
7		使用手册 Instruction Manual	1	
8		合格证 Certificate	1	



产品合格证

Product Quality Certificate

出厂编号:

Manufacturing No:

产品名称: Description:	
产品型号: Model:	
检验标准: Standard:	
生产日期: Date of Manufacture:	
产品编号: Product Code:	
结论: Conclusion: 经检验, 青岛创梦仪器有限公司生产的产品符合上述标准的要求。准予出厂。 After inspection, Qingdao Chuangmeng Instrument Co., Ltd The products produced meet the requirements of the above standards. Approved for delivery. 本企业通过: IS0014004 环境管理体系认证; IS09001:2015 质量管理体系认证; IS018000 职业健康安全管理体系认证质检科; QC Department:	