

# Flow-Check Meter

part no.  
487995

## instructions

### **WARNING**

THIS MANUAL MUST BE CAREFULLY READ BY ALL PERSONS WHO HAVE OR WILL HAVE THE RESPONSIBILITY FOR USING OR SERVICING THE PRODUCT. Like any piece of equipment, the Flow-Check Meter from MSA will perform as designed only if used and serviced according to the instructions. OTHERWISE, THE PRODUCT COULD FAIL TO PERFORM AS DESIGNED, AND PERSONS WHO RELY ON THIS PRODUCT COULD SUSTAIN SERIOUS PERSONAL INJURY OR DEATH.

The warranties made by Mine Safety Appliances Company with respect to the product are voided if the product is not installed, used, and serviced in accordance with the instructions in this manual. We encourage our customers to write or call for a demonstration of this equipment prior to use, or for any additional information relative to use or repairs.

Call 1-800-MSA-2222 during regular working hours.



**MSA**

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MINE SAFETY APPLIANCES COMPANY  
PITTSBURGH, PENNSYLVANIA, U.S.A. 15230

# Introduction and Use

## INTRODUCTION

The Flow-Check Meter from MSA is used to verify the minimum required air flow rates on the following respirators from MSA:

- constant-flow air-line respirators with tight-fitting facepieces;
- constant-flow hoods which utilize a valve-connector;
- powered air-purifying respirators (PAPR) which use tight-fitting facepieces;
- powered air-purifying mask-mounted respirators (PAPR) with full facepiece.

### **⚠ CAUTION**

The Flow-Check Meter from MSA must not be used to set the flow rate for the respirator. The flow rate must be set by adjusting the inlet pressure to the respirator as specified in the NIOSH approval for the respirator.

## USE

All Respirators:

Assemble the complete respirator following the instructions supplied.

### **⚠ WARNING**

Do not remove the breathing tube, motor-blower or filter in a hazardous environment. All testing *must* be done in a non-hazardous area. Failure to follow this precaution may cause inhalation of contaminants and result in severe respiratory injury or death.

## CONSTANT-FLOW AIR-LINE RESPIRATORS, AS WELL AS THE POWERED AIR-PURIFYING RESPIRATORS (PAPR) BREATHING TUBE FROM MSA WHICH USE TIGHT-FITTING FACEPIECES

1. Remove the breathing tube from the facepiece and connect the Flow-Check Meter coupling nut to the breathing tube.



**Note:** If an adjustable valve-connector is used, fully close it.

2. Turn the air source on.
3. Hold the Flow-Check Meter in the vertical position to obtain accurate readings.

### **⚠ CAUTION**

Do NOT block the vertical tube slots or filter during the test. Inaccurate readings will result.

4. Read the position of the ball. The ball must be above the LOWER line marked "ENTIRE BALL MUST BE ABOVE THIS LINE FOR RESPIRATORS WITH FACEPIECES".



If the respirator meets the minimum flow requirements, it is ready for use. If the respirator does not meet the minimum flow requirements, locate and correct the cause of the low flow rate **before** using respirator.

# Use

## CONSTANT-FLOW HOODS FROM MSA WHICH USE A VALVE-CONNECTOR

Testing PAPR with Hood must use Adapter P/N 489999

1. Remove the breathing tube from the valve-connector and connect the Flow-Check Meter coupling nut to the valve-connector.

**Note:** If an adjustable valve-connector is used, fully close it.

2. Turn the air source on.
3. Hold the Flow-Check Meter in the vertical position to obtain accurate readings.

### **CAUTION**

Do NOT block the vertical tube slots or filter during the test. Inaccurate readings will result.

4. Read the position of the ball. The ball must be above the UPPER line marked.  
"ENTIRE BALL MUST BE ABOVE THIS LINE FOR RESPIRATORS WITH HOODS".



If the respirator meets the minimum flow requirements, it is ready for use. If the respirator does not meet the minimum flow requirements, locate and correct the cause of the low flow rate **before** using respirator.

## MASK MOUNTED POWERED AIR-PURIFYING RESPIRATOR (PAPR) WITH FULL FACEPIECE

1. Remove the motor blower module from the mask.
2. Thread Mask Mounted Adapter (P/N 491046) to Flow-Check Meter.
3. Thread the motor blower module into Mask Mounted Adapter.
4. Turn ON the PAPR power switch.
5. Hold Flow-Check Meter in a vertical position to obtain accurate readings.

### **CAUTION**

Do NOT block the vertical tube slots or filter during the test, inaccurate readings will result.

6. Read the position of the Ball.



- Ball must be above the **lower** line marked. ENTIRE BALL MUST BE ABOVE THIS LINE FOR RESPIRATORS with FULL FACEPIECES.
7. If the respirator meets the minimum flow requirements, it is ready for use. If the respirator does not meet the minimum flow requirements, locate and correct the cause of the low flow rate **before** using the respirator.

# Maintenance

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## **MAINTENANCE**

The Flow-Check Meter must be clean to ensure accurate readings. Dirt on the inside of the tube or on the indicating ball must be removed before the meter is used. The meter may be cleaned using ConfidencePlus™ Cleaning Solution (P/N 10009971) from MSA or a mild cleaning solution. Follow the instructions supplied with the cleaning solution.

The Flow-Check Meter should be inspected regularly for cracks, chips or other signs of physical damage. The meter must be replaced if damaged.