

Steam Trap Survey Assistant

Dr. Trap® Jr.

PM11

It is the ideal partner for steam trap inspections.

PM11 is capable to work with most of the steam traps of the main manufacturers.



Ultrasonic Checker PM11



Temperature Probe



SurveyPro Light PM150 V2.0

Features PM11

The Steam Trap Ultrasonic Checker PM11 has been designed to assess the operating condition of steam traps during operation by measuring the vibration and the temperature of the surface.

- The system consists of the Ultrasonic Checker PM11, a Temperature Probe and the SurveyPro Light PM 150 Software revision 2.0.
- Measures Vibration and temperature at the same time
- The temperature probe can measure temperatures between 0°C and 250°C
- It estimates and displays the saturation pressure by measuring the temperature. Useful for testing not only steam traps, but also valves
- One key operation for all functions
- Long battery life – 40 hours or more of continuous use
- It shut-offs automatically if the device is not in use for 5 minutes
- Includes a stop watch for monitoring periodic characteristics of vibrations
- Compact, lightweight and easy to carry

Software SurveyPro Light PM150 V2.0

Software for analyzing the data which had been measured by using the steam trap checker PM11 and for determining the condition of the steam trap. The software is available only in English version.

- Standard and Special versions available
- The new version allows the estimation of CO₂ emissions which correspond to leaking steam traps.
- Compatible with Windows XP, Vista and now with Windows 7 32 bit and 64 bit and Microsoft Office 2010 32 bit and 64 bit
- Full data compatibility. Data generated by the previous version can be integrated into the new software*
- The new version comes with an updated list of steam trap models of the main steam trap manufacturers.
- The new software allows a better classification of steam traps to various groups and areas inside a plant with the possibility for more detailed analysis of selected groups or areas.

* For more details please contact MIYAWAKI Inc. or an authorized representative

Working Flow

<p>1 Tagging of Steam Traps</p> <p>Put a tag on or text to each trap in your factory, so that it can be easily identified any time.</p>	<p>2 Survey List set-up</p> <p>Run the Survey Pro Light software and fill in the basic information of the steam traps. Information such as survey list name, tag number, area, manufacturer, inlet pressure or size are filled in at this moment.</p>	<p>3 Traps inspection</p> <p>Diagnose each trap on site using the checker PM11. Write down the vibration data measured for each trap.</p>
<p>4 Filling out of Survey List</p> <p>Run again the Survey Pro Light software and enter the measured vibration data into the survey list for each trap. Once the vibration value of a trap has been entered, the operating condition of the trap will be displayed immediately. The list will also display the steam loss of each trap (if detected) and the related financial losses.</p>	<p>5 Analysis</p> <p>After entering all test results of the survey, the software can show an analysis for each trap type and manufacturer, an analysis of steam losses and related financial losses for each manufacturer and trap type, an analysis of CO₂ emission, or an analysis for kind of application (process, tracing, etc.), with the possibility of showing the results by areas or groups.</p>	<p>6 Trend Analysis</p> <p>Comparisons can be made by Manufacturer, by the installed types, by the pressure classification and by applications. In each case the failure rate, the steam loss and money loss tendencies will be shown.</p>

Technical Specification

Probes	Vibration	Piezo-electric-ceramic acceleration sensor (10K – 40 KHZ)	Displays	Illuminated liquid crystal display (LCD)
	Temperature	Thermistor Range: 0 – 250°C / 32 – 482°F	Housing	Heat-resistant plastic (ABS), simple waterproof design
Weight	230 g (incl. batteries)		Ambient working temperature	0 – 40°C (32 – 104°F)
Power supply	2 x 1.5V AA alkaline batteries (40 hours or more) 2 x 1.2V AA NiMH (32 hours or more)			

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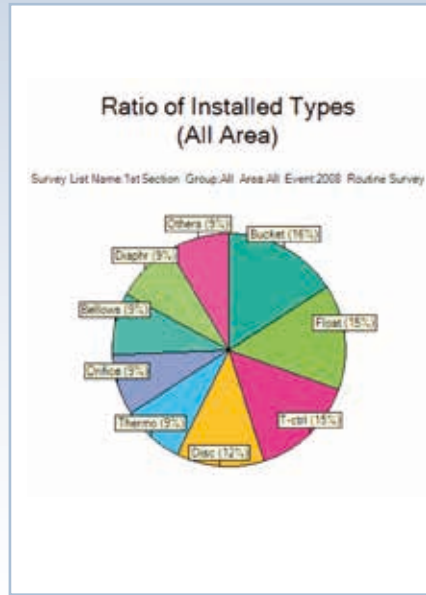
SurveyPro Light PM150 V2.0

Main Functions – Standard Version

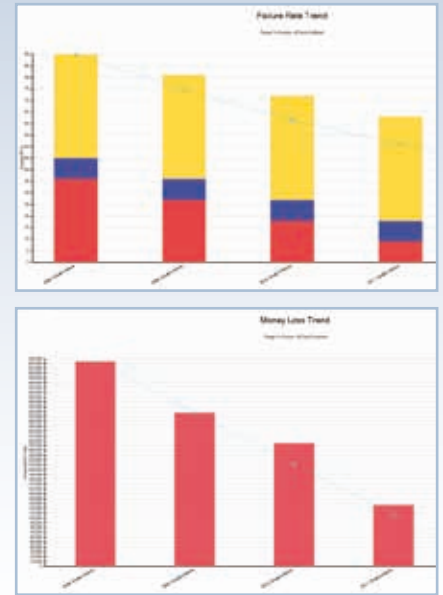
Survey List

ID	Survey List Name	Group	Area	Trap No.	Event Name	Survey/Service Date	Unit	Location	Type
888	1st Section	00019	20	2011 Routine Survey	4-10-2011	Trap			Trap
889	1st Section	00019	20	2011 Routine Survey	4-10-2011	Trap			Trap
890	1st Section	00019	20	2011 Routine Survey	4-10-2011	Trap			Trap
891	1st Section	00019	20	2011 Routine Survey	4-10-2011	Trap			Trap
892	1st Section	00019	20	2011 Routine Survey	4-10-2011	Trap			Trap
893	1st Section	00019	20	2011 Routine Survey	4-10-2011	Trap			Trap
894	1st Section	00019	20	2011 Routine Survey	4-10-2011	Trap			Trap
895	1st Section	00019	20	2011 Routine Survey	4-10-2011	Trap			Trap
896	1st Section	00019	20	2011 Routine Survey	4-10-2011	Trap			Trap
897	1st Section	00019	20	2011 Routine Survey	4-10-2011	Trap			Trap
898	1st Section	00019	20	2011 Routine Survey	4-10-2011	Trap			Trap

Analysis



Trend Analysis



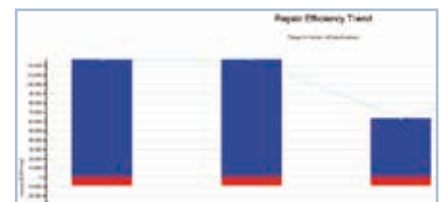
Additional Functions – Special Version

The Special Version includes the functions of the Standard Version plus the following ones:

Integration of multiple survey files into a single one

Repair Cost Management

Repair Efficiency



Management of other kind of failures

- Failure of inlet valve
- Failure of outlet valve
- Failure of other than valves

User and Ranking Summaries

Service Period

Average Consumption Cost

