

hammerer-system-messtechnik

# Inspection of fittings with GIS and mobile PC

Inspection of fittings – Repair protocol - Data analysis



# Safety and Economy by documented fitting inspection management

**Successful with PROFI** Programme for Pipe Network Organisation, Operation and Maintenance

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## Inspection of fittings with mobile PC



GIS-View and software for inspection of fittings is installed on a mobile PC. By switching at the display, the selected fitting will be highlighted in the graphic display or the fitting from the graphic will be selected in the list. Thus, a direct link between graphical pipe data and the inspection software is provided. In the following the dataset of the fitting will be edited and the inspection information is entered directly and stored in the mobile PC. In the course of inspection visual checks, functional checks and condition checks and in addition for hydrants performance measurements are carried out according to the existing guidelines. The inspected fittings are marked with an (x) in the list and with colouring in the graphic. So, the user gets a fast overview on the fittings that still have to be inspected and the following work. On the mobile PC the user can see the work progress and analyze it. The handling of the mobile PC is done with window technology supported by touch screen and plain text. Thereby, errors can be avoided and the inspection is documented clearly on the mobile PC.

		U	Arm-Nr	Strasse	Lage
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- sthusur			25263	AM ROLAND	FAHRBAHN
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			22568	AM ÖLBUSCH	FAHRBAHN
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[22403]	0550		22460	AM ÖLBUSCH	GEHWEG
			22461	AM ÖLBUSCH	GEHWEG



### Steps of the fitting inspection

#### 1. Preparation of inspection

Inspection areas or streets and fittings which have to be inspected according to required inspection intervals are selected and displayed in lists and tables for the presentation of inspection volume and preparation of work.

#### 2. Inspection with support of mobile PC

The GIS-Viewer and the inspection software PROFI are installed on the mobile PC. The user can switch between graphic programmes and inspection data input. So, a paperless processing can be guaranteed. The data input on the condition of the fittings is done directly on the mobile PC.

#### 3. Analysis of inspection results

The inspection results can be analysed directly on the PC in lists, tables and graphically. In addition a repair protocol is created for every result where repair is required. This repair protocol can be printed or directed electronically to the work process planning department within the company information system.

#### 4. Repair and failure analysis

In the course of repair actions failures, their cause and the conducted work are entered in a failure protocol and later on in the failure database. A feedback from the finished repair confirms the completion of the work. With this procedure the tracking from the inspection to the repair is given.

-[Überprü	fungso	laten ]	
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	2	GESTÄNGE	
	3		
	4		
Prüfer		Lampichl	
Erledigung			
Bemerkung			

Failure data	a Water/Gas	s Fail	urenu	umber:	
Place of the failure	Versorgungsgebiet Straßenname Leitungsnummer Hausnummer	Measure:		Reparatur Abtrennung Erneuerung Teilerneuerung	
Registration	Tag der Meldung Tag der Reparatur Mediumaustritt	Information	:	Leoksuche	
Defect on:	Transportleitung Verteilerleitung			Mediumaustrit	
	Anschlussleitung Anbohrung Armatur	Location:	Messwagen Korrelation Akustisch		
Type of the defect	Korrosion Querbruch Verbindung	Condition of	f the pipe:	Material Bettung Isolierung Korrosion Inkrustation	
Condition of the pipe	Material Bettung Isolierung Korrosion Untersuchte Länge Verlegetiefe	gut gut gut gut	mittel mittel mittel m m	schlecht schlecht schlecht schlecht	

Repair file	Contract number:
Fitting number: Supply zone: Measuring zone: Street name: Building number:	30007 B 7 17 <b>ERNST-STENNER-STRASSE</b> 14
Fitting data: Dimension Leitung: Dimension Armatur: Armatur Gangzahl Einbaujahr: Armaturenart: Lage der Armatur: Überprüfer Name: Überprüfetatum: Nächste Überprüfung:	300 300 28 1954 Schieber Strasse Merz 24.07.2004 2008
Repair:	Gestänge verbogen Geräusch Kappe geborsten
Übergeben an: Übergeben am: Erledigt am:	

Inspection input mask – Repair protocol - Failure protocol



## **Examples of fitting inspection analysis**

The analysis of fitting inspections takes place in lists, tables and graphical displays. The user can compile and print out several combinations for the evaluation of required information of inspected fittings and the failure data analysis. In the following several analysis examples are presented.

Inspected	fittings in	n lists,	tables	and	graphical	display	in the	GIS
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