

## FRS ZK MS Damp Cleaning Kit




Nominal voltages up to 36 kV / 15 ... 60 Hz

LIVE CLEANING EQUIPMENT



Based on DIN VDE 0681 Part 1 and DIN VDE 0682 Part 621  
Universal gear coupling according to EN/IEC 60832  
(DIN VDE 0682 Part 211)

- Not for use in wet weather 
- For indoor and outdoor installations
- Equipment for damp cleaning under live conditions with special cleaning liquid
- Universal gear coupling for replacing and adjusting the angle of operating heads
- Rigid and flexible plug-in operating heads allow fast and easy replacement of the sponges

### Application

Damp sponges allow for removing tough pollution layers and cleaning oily transformer surfaces. The special insulating cleaning liquid (e.g. Rivolta SLX 500; SLX TOP or SLX Super made by Bremer & Leguil, Duisburg/Germany, and Florin 2000 made by Flore, Koblenz/Germany) has to be selected in accordance with the rated voltage of the installation and environmental conditions.

### Requirements

FRS ZK MS allows maintenance work to be done under supervision of a qualified electrician at voltages from 1 to 36 kV according to EN 50110-1 "Operation of electrical installations – Minimum Requirements", observing clauses 6.3.1 to 6.3.12. In Germany apply sections BGV A3 and BGR



Damp cleaning of a transformer using the FRS ZK MS damp cleaning kit.

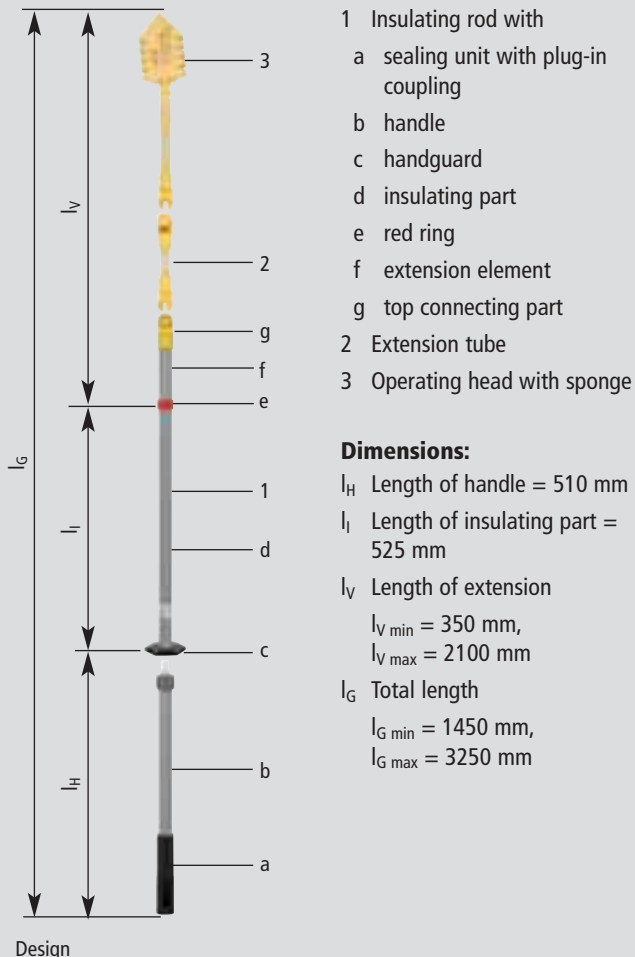
A3 of the national accident prevention regulations (UVV) "Elektrische Anlagen und Betriebsmittel" [Electrical installations and equipment] issued by the German Employer's Liability Association for Precision and Electrical Engineering (BGFE).



The universal gear coupling permits fast replacement of operating heads and extension elements.



Damp cleaning of an insulator with a dual operating head.



**LIVE CLEANING EQUIPMENT**

Type	Model	Part No.
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**A FRS ZK MS Damp Cleaning Kit**

Standard kit includes

Pos.	Qty.	Type	Description	Part No.
2	1	IS T 36 ZK STK 1300	Insulating rod with handle and plug-in coupling	785 315
4	1	ISV 220 ZK MS	Extension, 220 mm	785 316
5	1	ISV 320 ZK MS	Extension, 320 mm	785 317
6	1	ISV 420 ZK MS	Extension, 420 mm	785 318
7	1	ISV 820 ZK MS	Extension, 820 mm	785 319
14	1	AK RS S ZK MS	Operating head, rigid	785 324
15	1	AK RS ZK MS	Single operating head, flexible	785 322
16	1	AK RS 2 ZK MS	Dual operating head, flexible	785 323
17	10	RS 1544 MS	Rectangular cleaning sponge	785 274
18	10	RS 1574 MS	Rectangular cleaning sponge	785 275
19	10	RS 15104 Z MS	Rectangular cleaning sponge, serrated	785 279
20	10	RSD 15104 Z MS	Triangular cleaning sponge, serrated	785 280
33	1	RP 15 ZK MS	Round brush	785 321
34	1	S 30 ZK MS	Scraper	785 320
50	1	KKL FRS ZK MS	GRP case, blue	785 229

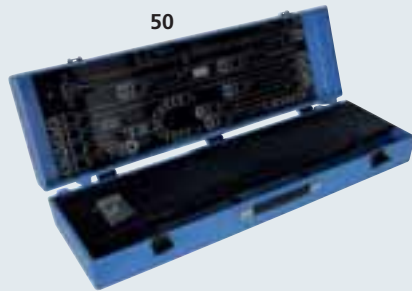


FRS ZK MS	Contents and GRP case included	<b>785 940</b>
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# Single Parts of FRS ZK MS Damp Cleaning Kit



## LIVE CLEANING EQUIPMENT



### GRP Case, empty

With retaining clips and printed bottom insert

Type	Colour	Dimensions	Position	Part No.
KKL FRS ZK MS	●	850 x 300 x 200 mm	50	785 229



### Insulating Rod with Handle and Plug-In Coupling

For use as operating rod with handle, handguard, insulating part, red ring and extension, extendible handle

Type	Dimensions	Position	Part No.
IS T 36 ZK STK 1300	1300 mm	2	785 315



### Extension

Type	Diameter	Dimensions	Position	Part No.
ISV 220 ZK MS	20 mm	220 mm	4	785 316
ISV 320 ZK MS	20 mm	320 mm	5	785 317
ISV 420 ZK MS	20 mm	420 mm	6	785 318
ISV 820 ZK MS	20 mm	820 mm	7	785 319



### Round Brush

Type	Diameter	Dimensions	Position	Part No.
RP 15 ZK MS	20 mm	270 mm	33	785 321



### Scraper

Type	Diameter	Dimensions	Position	Part No.
S 30 ZK MS	20 mm	280 mm	34	785 320

## LIVE CLEANING EQUIPMENT

### Rigid Operating Head

For attaching cleaning sponges

Type	Diameter	Dimensions	Position	Part No.
AK RS S ZK MS	20 mm	200 mm	14	785 324



### Single Operating Head

Flexible, for attaching cleaning sponges

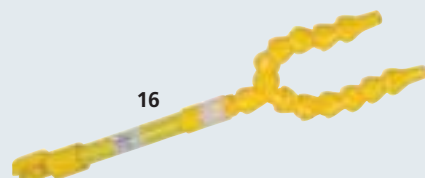
Type	Diameter	Dimensions	Position	Part No.
AK RS ZK MS	20 mm	400 mm	15	785 322



### Dual Operating Head

Flexible, for attaching cleaning sponges

Type	Diameter	Dimensions	Position	Part No.
AK RS 2 ZK MS	20 mm	415 mm	16	785 323



### Rectangular Cleaning Sponge

Type	Dimensions	PU	Position	Part No.
RS 1544 MS	150 x 40 x 40 mm	5 pc(s)	17	785 274



### Rectangular Cleaning Sponge

Type	Dimensions	PU	Position	Part No.
RS 1574 MS	150 x 70 x 40 mm	5 pc(s)	18	785 275



### Rectangular Cleaning Sponge, serrated

Type	Dimensions	PU	Position	Part No.
RS 15104 Z MS	150 x 100 x 40 mm	5 pc(s)	19	785 279



### Triangular Cleaning Sponge, serrated

Type	Dimensions	PU	Position	Part No.
RSD 15104 Z MS	150 x 100 x 40 mm	5 pc(s)	20	785 280

