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# Update – the new installation guide by the RAL Quality Assurance Association for Windows and Doors

## Workshop 1

### 1 Introduction

The new “Guide to planning and implementing the installation of windows and entry doors in new build and refurbishment” was published in March 2014 to coincide with the fensterbau/frontale trade fair. This was the 5th revised edition of the guide, the first edition of which was published in 1994. It was initially conceived

as a convenient summary in paperback form for use on building sites as a substitute for the unwieldy 200-page book “Installation according to the RAL quality assurance guidelines for windows and entry doors”.

A lot has changed since the first edition was published. Gradually the guide has been revised over the years to take account of changes in normative documents, new, tougher requirements and new products relevant to installation, and experience gained in the course of everyday installation practice. Many associations and institutions have also got involved, incorporating the guide into their own guidelines.

**Table 3.1** Expected changes in characteristic values, properties, and extent of installation work, for various external wall structures and installation situations

No.	Image (schematic)	Characteristic values/properties						Window installation (cost/effort)			
		$f_{re}$	$\psi$ -value W/(mK)	Protection against weather	Sound insulation	Light incidence	Extent of maintenance	Design	Fixing	Sealing	Cost
1	Monolithic external wall										
1.1		0.69	0.09	-	o	++	-	o	-	-	-
1.2		0.74	0.04	o	o	o	o	o	o	o	o
1.3		0.78	0.09	++	o	-	o	o	o	o	o

Fig. 1 Excerpt from chapter 3 (Planning tasks)

### 2 What are the main changes?

The “handy” guide is now fatter than ever, with around 300 pages! A convenient paperback has therefore been created especially for use by window installers on-site, containing key information and tips from the “Installation guide” textbook.

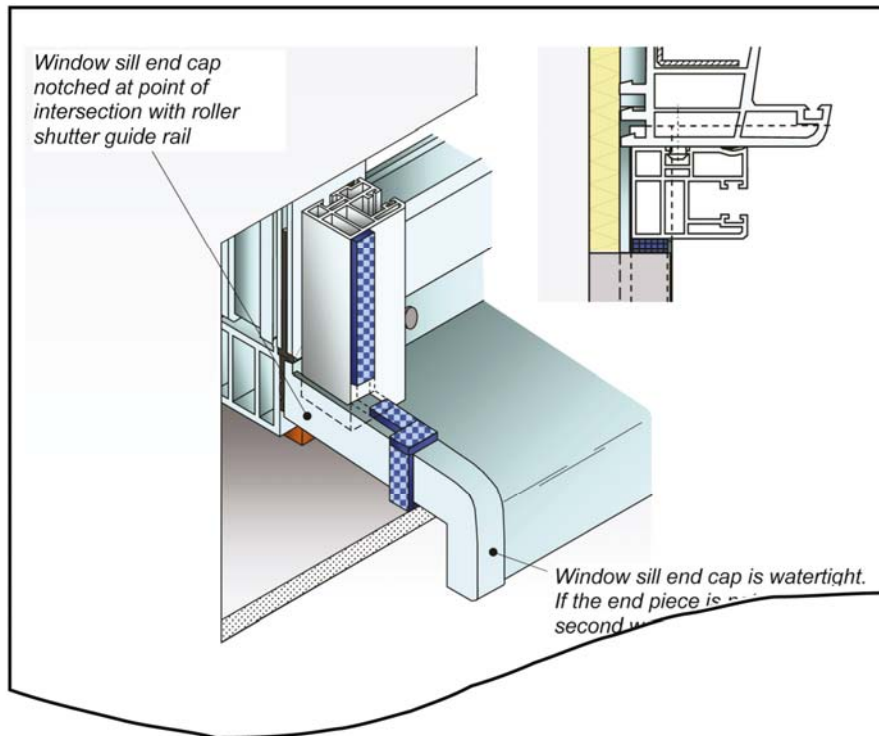


Fig. 2 Excerpt from chapter 7 – Close-up showing potential problem areas following implementation

In addition to editorial changes to the guide, the following chapters have also been revised and expanded:

### 2.1 Chapter 3 – Planning tasks

A new overview has been added that highlights the effects (both positive and negative!) of the planning requirements for window installation on key characteristics of the window, on the amount of maintenance required during operation, and on the necessary extent of installation work.

In addition, the planning checklist has been updated and expanded. What tasks planners face is shown using the example of the floor connection and threshold design in windows and entry doors, taking account of changes in accessibility requirements (DIN 18040). A new topic – “Planning tasks of installers – window replacement” – has additionally been incorporated into the legal section.

### 2.2 Chapter 5 – Fixing and load transfer

As before, windows and doors must be fixed in such a way that all of the forces acting on the component according to the plans must be reliably transferred to the supporting wall. The current recognised rules of workmanship are however increasingly reaching the limits of their usefulness. To provide orientation, three separate scenarios have therefore been created with regard to fixing the components: standard case, special case 1 and special case 2. Whereas the standard case is the same as before, for special case 1 more detailed installation planning is

required, and for special case 2, verifications are needed.

### 2.3 Chapter 7 – Practical implementation

In chapter 7, one section – “Special care to be taken at transitions/joints” – has been expanded. Details that have not been sufficiently cleared up in advance, forcing the installer to work under time and cost pressure on-site, are one of the most common reasons for complaints and damage following the installation. This illustrated section contains tips for ensuring proper workmanlike detailing.

## 3 Aims of the workshop

This workshop will highlight and discuss the main changes/additions to the guide, illustrating them with examples.