

Box-out forms for slab apertures economical, efficient, cost-saving

- High-quality coated cardboard, pressed and
- perforated in one sheet
- Strong due to internal stiffening
- Concrete cannot enter the void
- All types are 240 mm high
- Can be site-cut to reduce height, as required
- Easy stripping by pulling the hand holds on the cover
- For larger apertures use steel box-out shutters
- (see page 69)
- The opening becomes bigger by combining several box-out forms

#### Possible combinations:

























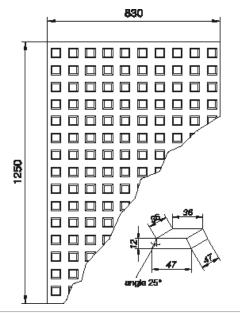
#### Box-out forms for slab apertures

20/1 00/1 10/11							
Art. no.	Туре	Size (bottom part) cm	Carton contents piece	contents Weight		Weight kg/pallet	
SBOXD0	D0	10 x 10	50	9	20	200	
SBOXD1	D 1	15 x 15	50	14	15	230	
SBOXD2	D2	15 x 24	50	19	15	305	
SBOXD4	D4	20 x 20	50	21	10	230	
SBOXD3	D3	24 x 24	50	26	10	280	

## Joint profile former

made from plastic, 2 mm thick

Art. no.	Dimensions cm	Profile height mm	
FFP12083	125 x 83	12	



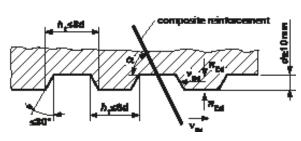
Creates the optimum concrete surface for the absorption of shear forces in construction joints

Replaces trapezoidal strips

Can be used repeatedly

Can be cut to size on-site

The joint profile fulfils the requiremens according to DIN 1045-1:2008-08. Maximum category: "interlocked".





#### **Box-out shutters**

Box-out sh height cm		20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	Steel grille base
a x b cm	Wound-off length cm																			
20/20	80																			
25/25	100																			
30/30	120																			
35/35	140																			
40/40	160																			
45/45	180																			
50/50	200																			
55/55	220																			
60/60	240																			
65/65	260																			
70/70	280																			
75/75	300																			
80/80	320																			
85/85	340																			
90/90	360																			
95/95	380																			
100/100	400																			

Calculate prices for intermediate heights. Box-out shutters unmounted including sheet metal screws. Box-out shutter mounted, article number KSMONT Box-out shutter unmounted, article number KSUMON



### Benefits of the unassembled version:

No freight and storage problems
Easy transport to site
Easy and quick assembly with the included self
tapping screws using pre-drilled holes
Due to shutter corners being pre-punched in the
works, folding the shutter together is extremely
simple

#### Self tapping screw

Art. no.	Pack size	
SBKBSS	50 pcs./pack	

## Fixing angle (nailing angle four-sided)

Art. no.	
SBKNW	



# Pre-assembled Box-out shutters

Pre-assembled Box-out shutter with bracing





Instead of bracing on site, we can supply the pre-assembled box-out shutter complete with bracing. Price on application.

Joint category "interlocked" – the shutter profile fulfils the maximum requirement for a joint according to DIN 1045-1. Maximum category: "interlocked".

## FRANK Box-out shutters and recess formers

## L-shaped box-out

Box-out shut height cm	ter	150	160	170	180	190	200	210	220	230	240	250
a x b cm	Wound-off length cm											
70/70	280											
75/75	300											
80/80	320											
85/85	340											
90/90	360											
95/95	380											
100/100	400											
110/110	440											
120/120	480											
130/130	520											
140/140	560											
150/150	600											
160/160	640											
170/170	680											
180/180	720											

Calculate prices for intermediate heights. These box-out shutters must in general be stiffened at site. Box-out shutter L-angle, article number KSLWINKEL





Advantages of L-shaped box-out:

Very large sizes are possible Items are supplied to site as two separate L-angles Quick and easy assembly without additional fixings No freight and storage problems

#### Stiffening chart

Values given in the chart are approximate values only and depend on the actual at-site conditions and on the concreting speed

Box-out shutter			Box-out shutter height cm														
width cm	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190
45/45																	
50/50																	
55/55																	
60/60																	
65/65																	
70/70																	
75/75																	
80/80																	
85/85																	
90/90																	
95/95																	
100/100																	
Box-out shutter self-	-supportin	na l		Stiffen bo	x-out shi	itter at sit	e										

All measures are internal dimensions

(when ordering always indicate internal dimensions).

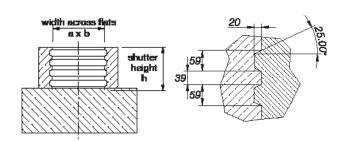
Assume a section depth of 20 mm when designing reinforcement.

Manufacturing tolerances:  $\pm$  20 mm

Shutter heights can be selected in increments of 50 mm.

Any rectangular shapes is available; prices depend on size.

Stable trapezoidal section – there is usually no need for bracing.



Joint category "interlocked" – the shutter profile fulfils the maximum requirement for a joint according to DIN 1045-1. Maximum category: "interlocked".

