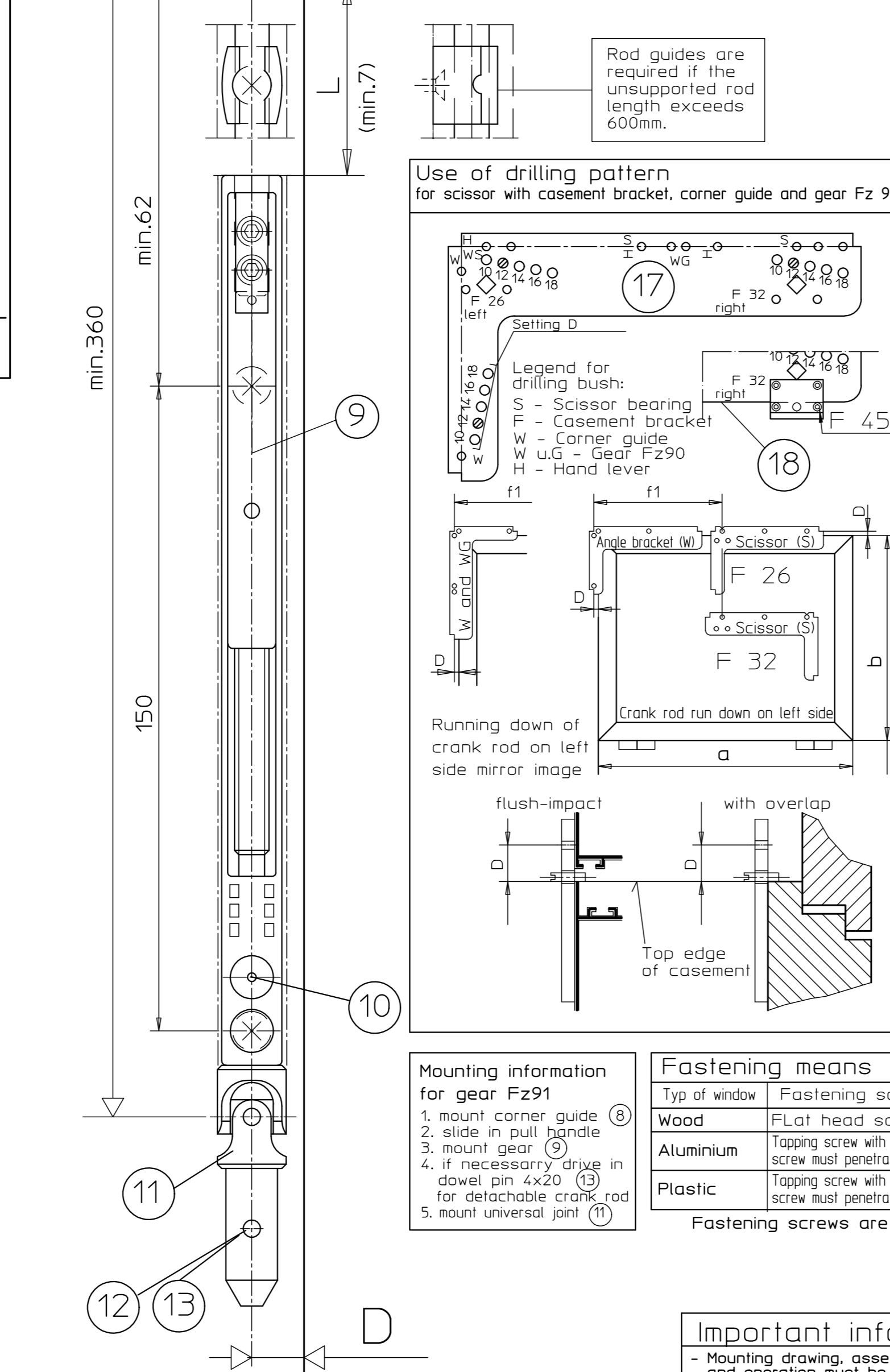


Gear Fz 90 L (Fz 90 R is mirror image)

Fitting dimensions	
Width of casement a	Segmentation of scissor Length of the rods (L0,LZ) and cover profiles (LA)
380-420	<p>1 Scissor</p> <p>$f1 = a/2 + D - 20$</p>
420-1200	<p>1 Scissor</p> <p>$f1 = a/2 + D$</p> <p>(for $a \geq 900$ 2 scissors can be installed)</p>
900-2400	<p>2 Scissors</p> <p>$f1 = a/4 + D$ $f2 = a/2$</p> <p>(for $a \geq 1300$ 3 scissors can be installed)</p>
1300-3600	<p>3 Scissors</p> <p>$f1 = a/6 + D$ $f2 = a/3$ $f3 = a/3$</p> <p>(for several casements)</p>
Overall width of the casement	<p>$f1 = \text{min.}180$ $f2 = \text{min.}340$ $a = \text{max.}3600$</p>



Technical data

- Opening width approx. 170mm (standard), stroke of fitting 54mm
- Opening width limitable to approx. 100-130mm. Fitting stroke 38-42mm with lift limiter for gears Ident.-Nr.12335

Further installation drawings for GEZE OL 90 N:

- OL 90 N with Fz 91 and additional locking devices 40444-EP-022
- Supplementary sheet 40444-0-008
- OL 90N with gear Fz 91 or Fz 92 40444-EP-007
- for angular windows
- OL 90 N crank rods and accessories 40444-EP-011
- for gear Fz 90, Fz 91, Fz 92

Mounting information for gear Fz91

- mount corner guide (8)
- slide in pull handle (4)
- mount gear (9)
- if necessary drive in dowel pin 4x20 (13) for detachable crank rod
- mount universal joint (11)

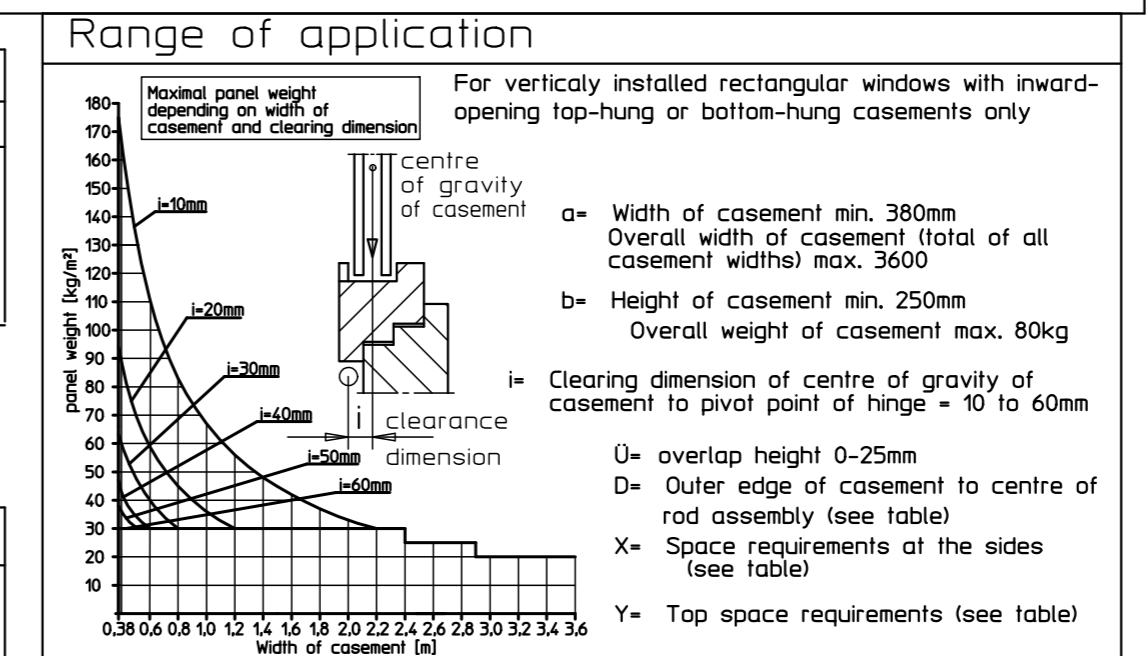
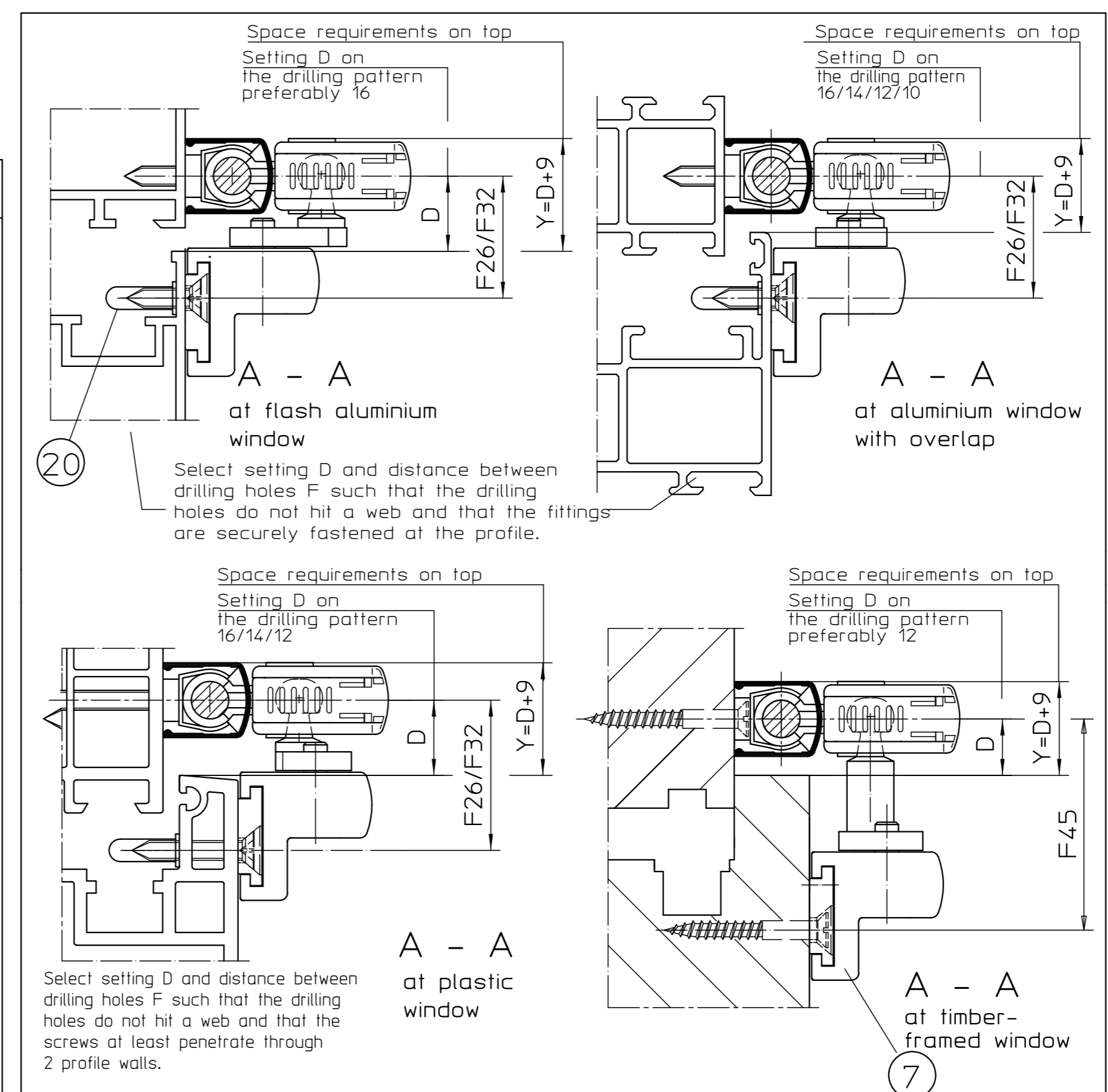
Fastening means

Type of window	Fastening screws	drilling ø
Wood	FLat head screws 4x35 DIN 97 or DIN 7997	2,5mm
Aluminium	Tapping screw with countersunk head 4,2xL DIN 7972 or DIN 7982. screw must penetrate through a profile wall of at least 1,8mm thickness	3,5mm
Plastic	Tapping screw with countersunk head 4,2xL DIN 7972 or DIN 7982. screw must penetrate through 2 profile walls	3,5mm

Fastening screws are not included.

Important information:

- Mounting drawing, assembly instructions, requirements for maintenance and operation must be followed.
- The specified range of applications must be maintained!
- The mounting dimensions must be observed.
- The required fixtures must be used.
- To avoid injury, protective covers must be screwed on projecting threads of the fastening screws.
- Fittings have been drawn in the closed position, however, assembly must occur in open position.
- All attachment screws in open position must be tightened with an Allen key 3mm with 5Nm.
- After assembly and before operation check function and make sure all clamping screws are tightened.
- Linkage and sliding points must be lubricated with an acid-free grease according to DIN 51825.
- The free accessibility of the fittings for lubricating and maintenance must be guaranteed according to DIN 18357.
- If rods or cover profiles of other manufacturers are used, GEZE will neither assume any liability for material quality and sufficient corrosion protection in accordance with the RAL quality assurance nor for possibly occurring damages and consequential losses.
- As of a free rod length of 600mm, rod guides must be used.
- For bottom-hung windows, using a suitable catch guard is mandatory (see GEZE catch guard and cleaning safety).



Running down of crank rod

Running down of crank rod	Dimension D	Space requirements at the side X at the side
GearFz 90 L/R and Fz 91 with fixed crank rod	min. 10mm	D + 9mm
detachable crank rod	min. 14mm	D + 14mm

if the admissible width of the casement is not exceeded, up to 3 scissors may be installed. Segmentation of scissors see table fitting dimension.

Order requirements * for rectangular window OL90N with...

		Fittings (see list of parts)				
		A	B+B1	C	D	E
Gear Fz 90 on left side	aluminium, /plastic window	X			X	
	timber-framed window		X		X	
Gear Fz 90 on right side	aluminium, /plastic window	X				X
	timber-framed window		X			X
Gear Fz 91	aluminium, /plastic window	X		X		
	timber-framed window		X	X		

* Cover profiles and rod must be ordered separately

Item	Pcs.	Designation	Id.-No. for colour					Pcs.		
			anod. alu.	white RAL9016	dark bronze	black	RAL...			
A	1	Scissor OL 90 N	30373	30377	30374	74509	30376	6		
1	1	Contents:								
	1	Simline scissor OL 90 N								
	1	Scissor bearing								
	1	Casement bracket								
	1	Rod guide								
5	1	Back plate								
6	1	Joint								
20	2	Protective covers								
B	1	Scissor OL 90 N without casement bracket	71203	71207	71204	99477	71206	4		
B1	1	Pos.: 1, 2, 4, 6;								
	1	Casement bracket f. timber-framed window with euro nut	30886	30890	30887	99475	30889	2		
7	1	Contents:								
	1	Casem. bracket f. timber-framed window								
	1	Back plate								
	1	Joint								
	1	Protective covers								
C	1	Corner guide with gear Fz 91	30817	30817	30818	30818	30817 or 30818	6		
8	1	Contents:								
	1	Corner guide								
	1	Gear								
	1	Headless pin M4x10,8								
	1	Universal joint								
	1	Dowel pin 4x16 for fixed crank rod for detachable crank rod								
	1	Dowel pin 4x20								
	1	Cover cap								
	D	1	Angle bracket with gear Fz 90 on left side	30809	30809	30810	30810	30809 or 30810	4	
	15	1	Contents:							
		1	Items: 10, 11, 12, 13, 14							
		1	Angle bracket with gear Fz90L							
		E	1	Angle bracket with gear Fz 90 on right side	30811	30811	30812	30812	30811 or 30812	4
		16	1	Contents:						
1			Items: 10, 11, 12, 13, 14							
1			Angle bracket with gear Fz 90 R							

Rods and cover profiles

Cover profile	L=2m *	30401	30405	30402	74537	30404
Cover profile L=3m *	30396	30400	30397	74539	30399	
Cover profile L=6m	27558	27561	27559	74540	28342	
Rod ø8 galvanised L=2m			16555			
Rod ø8 galvanised L=3m			16591			
Rod ø8 galvanised L=6m			16592			

Accessories (must be ordered separately)

Drilling pattern	for wood 54799 yellow	for plastic/metal 54800 blue
17		
18		28141
19		43546
4		10878
10		12335

* Both ends of cover profile milled

Diese Zeichnung entspricht dem Entwicklungsstand des Zeichnungsdatums bzw. der letzten Änderungsangabe. Die Benutzung der Zeichnung können keine Ansprüche, gleich welcher Art, einschließlich Schadensersatzansprüche gegenüber uns geltend gemacht werden. Die Zeichnung bleibt unser Eigentum und ist Dritten nur für die Vertragsabwicklung zur Benutzung überlassen. Sämtliche aus der Zeichnung ergebenden Ansprüche stehen ausschließlich GEZE zuzurechnen. Vorherige Zustimmung von GEZE darf diese Zeichnung weder vervielfältigt noch Dritten zugänglich gemacht werden.