

## **FA 90-5 TYPE WATERSTOP**

### **(Joint End Waterstop)**

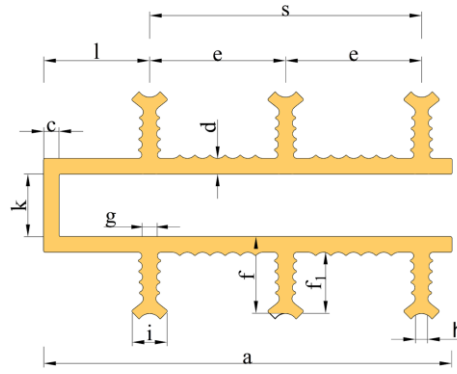
- *Waterstop with U-shaped cross-section and placed on the outer surface of the structural element.*
- *Resistant to high water pressures.*
- *Waterstop tapes can be joined to each other by heat (thermal) welding (150 °C - 180 °C).*



### **TECHNICAL DATA**

#### **General Application Areas of Waterstop**

- *Dams,*
- *Irrigation canals,*
- *Water tanks, reservoirs,*
- *Water purification plants,*
- *Swimming pools,*
- *Docks Transmission tunnels,*
- *Hydroelectric power plants,*
- *Bridges,*
- *Metro constructions,*
- *Viaducts,*
- *Retaining walls,*
- *Slabs on ground and foundations,*
- *Industrial structures.*
- *Production length 20 meters.*



- |                      |   |          |  |
|----------------------|---|----------|--|
| <b>a</b>             | Total width   | <b>h</b> | Thickness at the thinnest part of the notched anchor thread      |
| <b>c</b>             | Thickness of the joining piece                        | <b>i</b> | Head thickness of notched anchor thread                          |
| <b>d</b>             | Thickness of the anchor section                       | <b>k</b> | Net width of the joining piece                                   |
| <b>e</b>             | Between the axes of notched anchor threads distance   | <b>l</b> | Between the notched anchor thread and the joining piece distance |
| <b>f</b>             | Height of notched anchor thread                       | <b>s</b> | Width of anchor section ( $e \times (N-1)$ )                     |
| <b>f<sub>1</sub></b> | Height of notched anchor thread (excluding thickness) | <b>N</b> | Number of notched anchor threads                                 |
| <b>g</b>             | Thickness of notched anchor thread at the joint       |          |  |

*Type FA waterstop cross-section*

*Type FA waterstop nominal dimensions (mm)*

Product Code	a Min.	c Min.	d Min.	N Min.	e Min.	f Min.	f <sub>1</sub> Min.	g Min.	h Min.	i Min.	k Min.	l Min.
FA 90-5	90	5	5	4	45	25	20 f-c	5 ≥ d ≥ 0.2f	4	11 ≥ h+6	20	35

*Tolerances for length dimensions*

Nominal Size Range (mm)											
< 3	≥ 3 < 6	≥ 6 < 10	≥ 10 < 18	≥ 18 < 30	≥ 30 < 50	≥ 50 < 80	≥ 80 < 120	≥ 120 < 180	≥ 180 < 250	≥ 250 < 320	≥ 320
± 0.3	± 0.4	± 0.5	± 0.6	± 0.7	± 0.8	± 1.0	± 1.2	± 1.4	± 1.7	± 2.0	± %0.8

*Tolerances for wall thicknesses*

Nominal Size Range (mm)					
< 1.2	≥ 1.2 < 2.5	≥ 2.5 < 4	≥ 4 < 6.5	≥ 6.5 < 10	≥ 10
± 0.2	± 0.3	± 0.4	± 0.5	± 0.6	± %0.8

### Mechanical Properties

Analysis	Standard	Basic requirement
Appearance inspection	TS 3078-2	No gaps, cracks, shrinkage, etc.
Size inspection	TS 3078-2	Dimensions must comply with TS 3078-1
Shore A hardness	TS 3078-2	70 ± 5
Tensile strength	TS 3078-2	≥ 10 MPa
Elongation rate at break	TS 3078-2	≥ %275
Tear resistance	TS 3078-2	≥ 12 kN/m
Low temperature behavior: Elongation at break at -20 °C	TS 3078-2	≥ %200
Behavior: a) After soaking in slaked lime milk b) Behavior in the face of heat c) Behavior after aging Percentage change in the average value compared to the initial value:	TS 3078-2	
Tensile strength		≤ %20
Elongation rate at break		≤ %20
Modulus of elasticity		≤ %50
Joint strength Short-term junction factor ( $f_z$ )	TS 3078-2	Rupture outside the weld zone or ≥ 0.6
Fire reaction class according to TS EN 13501-1+A1	TS 3078-2	Class E must be
Residue fraction by mass	TS 3078-2	< %5.0