PENETRON WATERSTOP SYSTEMS & SUPPORTING ELEMENTS

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PRODUCT DATA SHEET

WATERSTOP SYSTEMS FOR SEALING CONSTRUCTION OR EXPANSION JOINTS OF CONCRETE STRUCTURES

DESCRIPTION

PENETRON® WATERSTOP systems and supported elements is a complete series of products for sealing Expansion Joints (EJ) or Construction Joints (CJ) of concrete structures. PENETRON® WATERSTOP systems are available in different sizes and types (PVC, TPE, Fuel Resistant Waterstops) depending on their use. PENETRON® WATERSTOP systems are tested according to BS 2571 (P300) or DIN 18541, Part 1 – Part 2 (P350).

RECOMMENDED FOR

Typical areas of application are: Tunnels, Dams, Basements, Underground Constructions, Retaining Walls

TECHNICAL CHARACTERISTICS

Chemical Base	Polyvinyl Chloride (PVC)
Color	Blue / Orange
Application Temperature	≥ 0ºC
Welding Temperature	~180 ºC (356 ºF)
Service Temperature	-35 ºC to +55 ºC (-31 ºF to +131 ºF)

Technical characteristics of PENETRON® WATERSTOP systems according to BS 2571 (P300)

Characteristic	Test Result	Test Method
Elongation at break	> 300 %	EN ISO 527-2
Tensile Strength	> 12,5 N / mm^2	EN ISO 527-2
Hardness (Shore A scale)	70-80	ISO 868
Tear Strength	> 18 N / mm	ISO 34-1

Technical characteristics of PENETRON® WATERSTOP systems according to DIN 18541 Part 1 – Part 2 (P350)

Characteristic	Test Result	Test Method
Elongation at break	> 400 %	EN ISO 527-2
Tensile Strength	> 13,5 N / mm^2	EN ISO 527-2
Hardness (Shore A scale)	~70	ISO 868
Tear Strength	> 22 N / mm	ISO 34-1

All data are average values obtained under laboratory conditions. Impractical use, temperature, humidity and absorption of the substrate may influence the above given values.

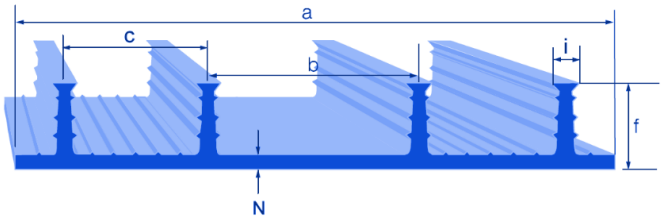
PENETRON® ADVANCED WATERPROOFING & PROTECTION SYSTEMS

ISO 9001 ISO 14001 ISO 45001

WATERSTOP SYSTEMS FOR SEALING CONSTRUCTION
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Types of PENETRON® WATERSTOP systems

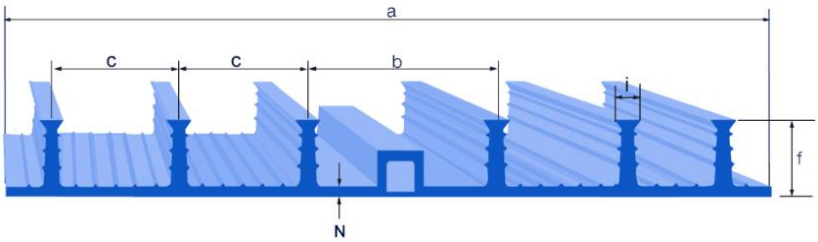
P-WATERSTOPS for construction joints – External Application





Type	a	b	c	f	N	i	Pins	Length (m)	Roll/Pallet
P-WATERSTOP P300 CJE 250/20-4	250	80	45	20	3,2	9	4	15	10
P-WATERSTOP P350 CJE 250/25-4	250	90	45	25	4	11	4	15	10
P-WATERSTOP P350 CJE 320/25-6	320	100	45	25	4	11	6	10	8
P-WATERSTOP P350 CJE 400/25-6	400	125	45	25	4	11	6	10	6
P-WATERSTOP P350 CJE 500/25-6	500	125	45	25	4	11	6	10	4

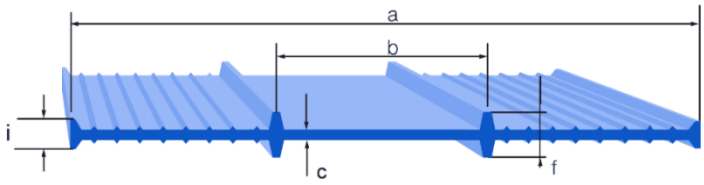
P-WATERSTOPS for expansion joints – External Application

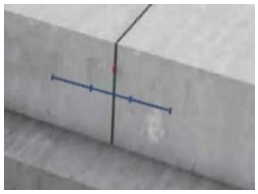




Type	a	b	c	f	N	i	pins	Length (m)	Roll/Pallet
P-WATERSTOP P300 EJE 250/20-4	250	80	45	20	3,2	11	4	15	10
P-WATERSTOP P350 EJE 320/25-6	320	100	45	25	4	11	6	10	8
P-WATERSTOP P350 EJE 400/25-6	400	125	45	25	4	11	6	10	4
P-WATERSTOP P350 EJE 500/25-6	500	125	45	25	4	11	6	10	4

P-WATERSTOPS for construction joints – Internal Application

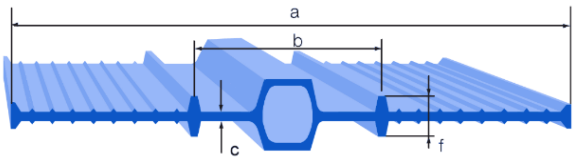




Type	a	b	i	f	c	Length (m)	Roll/Pallet
P-WATERSTOP P300 CJI 150	150	40	11	15	3,2	25	18
P-WATERSTOP P300 CJI 200	200	70	11	15	3,2	25	15
P-WATERSTOP P300 CJI 240	240	80	11	15	3,2	25	15
P-WATERSTOP P350 CJI 320	320	100	11	15	4,5	20	8
P-WATERSTOP P350 CJI 400	400	150	11	18	5	10	4
P-WATERSTOP P350 CJI 500	500	150	11	18	6	10	4

WATERSTOP SYSTEMS FOR SEALING CONSTRUCTION OR EXPANSION JOINTS OF CONCRETE STRUCTURES

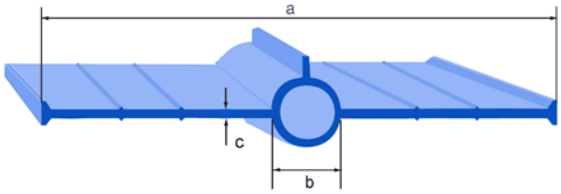
P-WATERSTOPS for expansion joints - Internal Application





Type	a	b	i	f	c	Length (m)	Roll/ Pallet
P-WATERSTOP P350 EJI 320	320	100	11	15	4,5	10	8
P-WATERSTOP P350 EJI 400	400	150	11	18	5	10	4
P-WATERSTOP P350 EJI 500	500	150	11	18	6	10	4

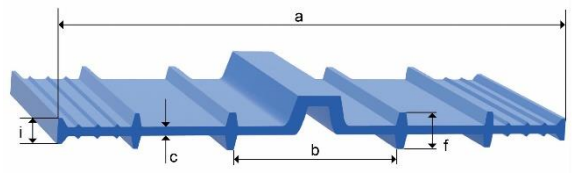
P-WATERSTOPS for expansion joints (Light Type) - Internal Application





Type	a	b	c	Length (m)	Roll/ Pallet
P-WATERSTOP P300 EJI 250/25	250	25	2,2	15	15

P-WATERSTOPS for expansion joints (⊓type) - Internal Application





Type	a	b	i	f	c	Length (m)	Roll/ Pallet
P-WATERSTOP P300 EJI ⊓350	350	120	11	18	5	10	8
P-WATERSTOP P300 EJI ⊓400	400	150	11	18	5	10	8
P-WATERSTOP P300 EJI ⊓500	500	150	11	18	5	10	8

WATERSTOP SYSTEMS FOR SEALING CONSTRUCTION
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P-WATERSTOP SUPPORTING ELEMENTS

	Product	Packaging
	P-WATERSTOP CORNER-SECTION P350 250/30 500x500 mm	5 Items
	P-WATERSTOP CORNER-SECTION P350 320/25 500x500 mm	5 Items
	P-WATERSTOP T-SECTION P350 250/30 650x500 mm	5 Items
	P-WATERSTOP T-SECTION P350 320/25 650x500 mm	5 Items
	P-WATERSTOP CROSS-SECTION P350 250/30 650x650 mm	5 Items
	P-WATERSTOP CROSS-SECTION P350 320/25 650x650 mm	5 Items
	P-Fixing Clips	250 Items /box
	P-Welding Blades 350mm	1 Item

Table Key	
P	PVC
T	TPE
FR	FUEL RESISTANT
350	DIN 18541
300	BS 2571
CJ	CONSTRUCTION JOINT
EJ	EXPANSION JOINT
E	EXTERNAL
I	INTERNAL
-4	4 PINS
-6	6 PINS

WATERSTOP SYSTEMS FOR SEALING CONSTRUCTION
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DIRECTIONS FOR USE

Application: External waterstops are installed flush with the outside surface of concrete. Internal waterstops are integrated in the concrete cross section. The distance from the edge of the building component should be half of the total width of the joint strip as a minimum. Waterstops may only be installed if no damage or deformation is present. They must be installed with no wrinkles and planar to the joint axis. The secure fastening must not be released during concreting. Maintain a minimum distance from the reinforcement of ≥ 20 mm. Before concreting, clear the strips of any dirt or soiling that may be present. The waterstops must be fully enclosed by the concrete and must be concreted in free voids. When compacting the concrete, make sure the strips are not in contact with the concrete vibrator. During formwork stripping with external waterstops, make sure that the waterstop is not loosened. If necessary, extend the stripping time.

Establishing connections on the building site: A waterstop connection is established through welding. The halves to be connected are melted and joined together whilst in a plastic state.

For this purpose, both prods are cut straight and right angled and then placed in a welding device. Here the halves to be joined are:

- aligned
- heated / melted
- shifted
- joined together
- cooled by the ambient temperature

Important instructions:

- Only facing welds should be applied on the building site. Pre-formed pieces are fabricated in the factory.
- External waterstops may not be used on the top side of horizontal or angled building components.
- With external waterstops, it may be adventurous to compact the concrete with an external vibrator.
- Connection with adhesives is now permissible.
- Building site joints / connections should only be applied by experienced personnel.
- Each building site joint can require approx. 0.5 – 2 hours of work time and these must therefore be planned and executed in good time before the following steps.

SPECIAL CONSIDERATIONS

Please contact PENETRON HELLAS S.A. for additional information, regarding your project.

PACKAGING

Please refer to the product tables.

STORAGE / SHELF LIFE

When properly stored in a dry place in unopened and undamaged original packaging, shelf life is 60 months.

WARRANTY - DISCLAIMER

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