# WATER FILLED TUBES





THE PREFERRED SOLUTION FOR FLOOD PROTECTION





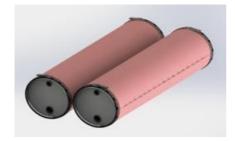
# PRO SOLUTION

### LARGE SCALE FLOOD PROTECTION – from 50 m to 1.000 m or more

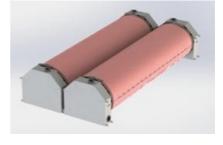
The PRO solution offers a superior solution for professional, flexible and cost-efficient large-scale flood protection from 50 up to 1.000 meters or more. Each section can be continuously extended by the interconnection of special Junctions to create an almost infinite length/ prolongation of the barrier to suit the risk.

The PRO barrier can be configured with different Terminals and Junctions, depending on the location, distance, water retention height, deployment experience, intended use etc.

The PRO solution can be deployed on all surfaces (such as but not limited to sand, grass, asphalt and concrete) and in almost any configuration (circles, 45 degree turns, 90 degree turns etc.). Here are some examples:



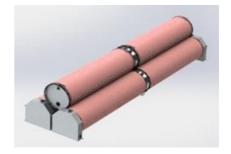
PRO Barriers with Single Terminals



PRO Barriers with Flat Base Terminals



Combination of Terminals PRO Triple Arrangement



PRO can be delivered in modules ranging from 50 to 200 meters and in two standard heights: 60 cm (retention height minimum 37 cm) and 125 cm (retention height minimum 80 cm).

Specific characteristics of the PRO solution:

Superior solution for distances more than 50 meters

Carries Terminals and/or Junctions = easy to fill with water

Easy to ventilate – release/fill with air

Easy to handle for the ground crew

Compatible with high-volume pumps and can be filled from just one access point



# **PRO TERMINALS**

# PRO Single Terminal

The Single Terminal is used to start/end a section of The Single Tube. There are two inlets in the Terminal for filling of air and water.



Product Name	Ø	Length	Height	Width	Weight	Product
	[cm]	[cm]	[cm]	[cm]	[kg]	ID
PRO Single Terminal 60	60	60	50	22	9	MB-1T02
PRO Single Terminal 125	125	130	115	22	21	MB-1T03

Dimensions and weight can vary 2-5 cm / 2-5 kg depending on size and type of couplings.

### COUPLING TYPES AND SIZES

On request Environment Solutions offers the Junctions and Terminals with all international coupling standards e.g. BIC / John Morris, Forestry couplings, etc.





### PRO Single Terminal Flat Base

The Single Terminal is used to start/end a section of the Single Barrier. The advantage of the Flat Base Terminal is that one of the two filling points is placed on the top, facilitating easy extension of the barrier.



Product Name	Ø	Length	Height	Width	Weight	Product
	[cm]	[cm]	[cm]	[cm]	[kg]	ID
PRO Single Terminal 60_Flat base	60	85	65	53	20	MB-1TA2
PRO Single Terminal 125_Flat	125	155	123	53	40	MB-1TA3

base Dimensions and weight can vary 2-5 cm / 2-5 kg depending on size and type of couplings.

#### **COUPLING TYPES AND SIZES**

On request Environment Solutions offers the Junctions and Terminals with all international coupling standards e.g. BIC / John Morris, Forestry couplings, etc.





# **PRO JUNCTIONS**

# PRO Single Junction

The Single Junction is used to extend the Barrier. The Single Junction has two filling points placed on top, facilitating easy filling and emptying of the barrier.



Product Name	Ø	Length	Height	Width	Weight	Product
	[cm]	[cm]	[cm]	[cm]	[kg]	ID
PRO Single Junction 60	60	60	62	66	12	MB-1J02
PRO Single Junction 125	125	130	120	66	30	MB-1J03

Dimensions and weight can vary 2-5 cm / 2-5 kg depending on size and type of couplings.

### COUPLING TYPES AND SIZES

On request, Environment Solutions offers the Junctions and Terminals with all international coupling standards e.g. BIC / John Morris, Forestry couplings, etc.





### PRO Single Junction\_Chassis

The Single Junction is to extend the Single Tube Barrier. The Single Junction has two filling points placed on top and on the side, facilitating easy filling and emptying of the barrier.



Product	Name		Ø	Length	Height	Width	Weight	Product
			[cm]	[cm]	[cm]	[cm]	[kg]	ID
PRO Sin	gle Junction	60_Chassis	60	60	65	66	15	MB-1JD2
PRO	Single	Junction	125	133	123	66	34	MB-1JD3

125 Chassis
Dimensions and weight can vary 2-5 cm / 2-5 kg depending on size and type of couplings.

### COUPLING TYPES AND SIZES

On request Environment Solutions offers the Junctions and Terminals with all international coupling standards e.g. BIC / John Morris, Forestry couplings, etc.





### PRO TUBES PRO Twin Tube

The Twin Tube is the standard tube structure used for The Barrier. The tubes are intertwined.

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Product Name 10 m 15 m	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	50 m	100 m	200 m
	Weight [kg] Weight [kg]	Weight [kg]	Weight [kg]	Weight [kg]
PRO Twin Tube 60 16 24		80	160	320
Product ID MB-2U32 MB-2U42		MB-2U72	MB-2U82	MB-2U92
PRO Twin Tube 125 32 48		160	320	640
Product ID MB-2U33 MB-2U43		MB-2U73	MB-2U83	MB-2U93
PRO Twin Tube 250 180 270				1010 2033
Product ID MB-2U35 MB-2U45		900	1800	
PRO Twin Tube 400 206 309		MB-2U75	MB-2U85	
Product ID MB-2U38 MB-2U48		2060		
Troduct ID MID 2000 WID 2010		MB-2U78		

Length / Weight can vary within a tolerance of 5%. Upon request, Environment Solutions offers The Tubes in any length up to 200 meters.

### **PACKING**

We recommend tubes delivered in boxes of 200-meter TwinTube capacity. The dimensions given below are for tubes to be placed in boxes, special pallets, or a drum. Actual packing dimensions may differ from the numbers given below.

### 10 m 15 m 50 m 100 m 200 m

L x W x H [cm] L x W x H [cm]

60 120 x 40 x 30 120 x 40 x 40 120 x 140 x 40 120 x 140 x 70 120 x 140 x 120

125 230 x 40 x 30 230 x 40 x 40 220 x 140 x 40 220 x 140 x 70 220 x 140 x 120

250 410 x 200 x 15 410 x 200 x 20 410 x 200 x 70 410 x 200 x 120

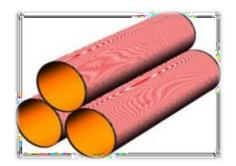
400 360 x 180 x 70 360 x 190 x 80 360 x 210 x 150





### PRO Triple Tube

The Triple Tube structure must be used with the Triple Junctions and Terminals to create the Triple Tube Barrier.



Product Name	10 m	15 m	50 m	100 m
	Weight [kg]	Weight [kg]	Weight [kg]	Weight [kg]
PRO Triple Tube 60	24	36	120	240
Product ID	MB-3U32	MB-3U42	MB-3U72	MB-3U82
PRO Triple Tube 125	48	72	240	480
Product ID	MB-3U33	MB-3U43	MB-3U73	MB-3U83

Length / Weight can vary within a tolerance of 5%.

Upon request, Environment Solutions offers The Tubes in any length up to 100 meters.

#### PACKING

The dimensions given below are for tubes to be placed in boxes or on special pallets. Actual packing dimensions may differ from the numbers given below.

### 10 m 15 m 50 m 100 m

LxWxH[cm]LxWxH[cm]LxWxH[cm]LxWxH[cm]

60 120 x 140 x 20 120 x 140 x 25 120 x 140 x 60 120 x 140 x 120

125 230 x 140 x 20 220 x 140 x 25 220 x 140 x 60 220 x 140 x 120







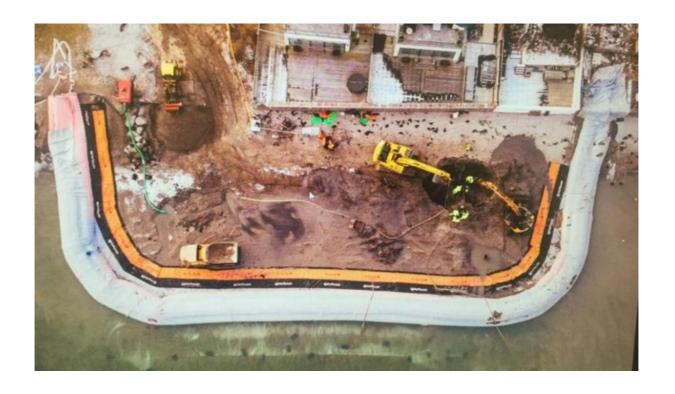
# **M**EMBRANES

# Retention Membrane for NOFLOODS TUBES

The retention membrane serves the purpose of eliminating seepage, increasing water retention height.



Product Name	Dimensions L x W [cm]	Packing Dim. L x W x H [cm]	Weight [kg]	Product ID
Retention Membrane, TwinTube60	2500 x 300	100 x 60 x 25	56	CP-MB2F
(Incl. reinforced rings and velcro)				
Retention Membrane, TripleTube60 (Incl. reinforced rings and velcro)	1500 x 500	100 x 60 x 25	47	CP-MB3H
Retention Membrane, TwinTube125 (Incl. reinforced rings and velcro)	2500 x 600	90 x 60 x 40	104	CP-MB2I
Retention Membrane, TripleTube125 (Incl. reinforced rings and velcro)	2000 x 800	90 x 65 x 35	114	CP-MB2J





### Connection Membrane for NOFLOODS TUBES

The connection membrane serves the purpose of eliminating leakage in between Terminals or Junctions when extending the Barrier.



Product Name	Dimensions	Packing Dim.	Weight	Product
	L x W [cm]	L x W x H [cm]	[kg]	ID
Connection Membrane, TwinTube60	600 x 300	120 x 80 x 15	14	CP-MB2E
(Incl. reinforced rings and velcro)				
Connection Membrane, TripleTube60	600 x 500	120 x 80 x 25	23	CP-MB2G
(Incl. reinforced rings and velcro)				
Connection Membrane, TwinTube125	600 x 600	120 x 80 x 30	27	CP-MB2P
(Incl. reinforced rings and velcro)				
Connection Membrane, TripleTube125	600 x 800	120 x 80 x 40	36	CP-MB2K
(Incl. reinforced rings and velcro)				

# Corner Membrane for NOFLOODS TUBES

The membrane serves the purpose of eliminating leakage in between Terminals or Junctions when extending the Barrier in a 90-degree angle.



Product Name	Dimensions L x W x H [cm]	Packing Dim. L x W x H [cm]	Weight [kg]	Product ID
Corner membrane, TwinTube60	425 x 600 x 100	70 x 60 x 15	24	CP-MB2Q
(Incl. reinforced rings and Velcro) Corner membrane, TwinTube125	425 x 600 x 200	70 x 60 x 20	31	CP-MB2R
(Incl. reinforced rings and Velcro)	425 x 600 x 200	70 x 60 x 20	31	CP-MB2R
Corner membrane, TripleTube60 (Incl. reinforced rings and Velcro)	423 X 000 X 200	70 X 00 X 20	31	CF-IVIDZIV
Corner membrane, TripleTube125	425 x 600 x 300	70 x 60 x 20	39	CP-MB2U
(Incl. reinforced rings and Velcro)				



# COMPLIMENTARY PRODUCTS AND SPARE PARTS

# Hydraulic Winch

The Hydraulic Winch is used to deploy and/or roll in the Tubes in an easy and efficient way.

The drums and wings are exchangeable for easy storage of the tubes.



Product Name	Length	Height	Width	Weight	Product
	[cm]	[cm]	[cm]	[kg]	ID
Hydraulic Winch 60_exch. Drums_SET	330	180	152	300	CP-HWA2
Hydraulic Winch 125_exch.	550	180	152	480	CP-HWA3

Drums\_SET

Specification on the Hydraulic Engine:	The Connection of the Engine:
Max. Oil Flow: Norm. 200 - Max. 240 [L/min]	2x 3000mm long hydraulic hoses
Max. Speed: Norm. 250 - Max. 300 [rpm]	2x BSP female with O-ring and 60° pack
Max. Output: Norm. 42.5 - Max. 48 [kW]	flat 1x 90° Female with O-ring and 60°
Torque: Norm. 188 - Max. 247 [da/Nm]	pack flat 1x Adaptor 1" BSP x 1" BSPT
Pressure: Norm. 210 Max. 300 [Bar]	

For deployment videos please see this blog post: https://nofloods.com/deployment-and-removal/





# Exchangeable Drum

The exchangeable drums can be used to store the tubes and enable direct deployment using the winch. The drums can be delivered in 2 sizes.



Product Name	Length	Height	Width	Weight	Product
	[cm]	[cm]	[cm]	[kg]	ID
Exchangeable Drum 60	230	18	18	30	CP-HCO2
Exchangeable Drum	430	18	18	50	CP-HCO3

125

# Exchangeable Wings

The wings (2 pcs.) stabilize and keep the tubes in place during deployment and roll in of the tubes.



Product Name	Diameter	Width	Weight	Product
	[cm]	[cm]	[kg]	ID
Exchangeable Wings 60 – set	150	5.3	44	CP-HA22
Exchangeable Wings 125 – set	150	5.3	44	CP-HA23

The Exchangeable Wings come in a set (pair of two).



# Profile Strengthener

The Profile Strengthener increases the strength of the Straps.



Product Name	Length	Width	Weight	Product
	[cm]	[cm]	[kg]	ID
Profile Strengthener 60	40	2.3	0.3	AC-PS12
Profile Strengthener 125	40	2.3	0.3	AC-PS13

### Straps

The Straps are used to connect and tighten the PRO Tubes to the Terminals and Junctions.



Product Name	Length	Height	Width	Weight	Product
	[cm]	[cm]	[cm]	[kg]	ID
Straps 60	60	50	2.5	2	SP-AS02
Straps 125	130	110	2.5	3	SP-AS03

### Rubber

The Rubber is used to increase the friction between the Junctions / Terminals and the tubes, and to prevent leakage.



Product Name	Circumference	Thickness	Width	Weight	Product
	[cm]	[cm]	[cm]	[kg]	ID
Rubber 60	188	0,2	33	2	SP-BA02
Rubber 25	392	0,2	33	3	SP-BA03



# Deployment & Storage Boxes

The Deployment & Storage Boxes facilitate easy storage and deployment of the NoFloods Barriers.



Product Name	Length	Height	Width	Weight	Product
	[cm]	[cm]	[cm]	[kg]	ID
Deployment & Storage Box 60	140	125	140	150	TR-TR22
Deployment & Storage Box 60/2	140	75	140	110	TR-TH22
Deployment & Storage Box 125	228	121	127	220	TR-TR23
Deployment & Storage Box 125/2	228	76	127	130	TR-TH23

# Deployment & Storage Platforms

The Deployment & Storage Platforms facilitate easy storage and deployment of the Barriers.



Product Name	Length	Height	Width	Weight	Product
	[cm]	[cm]	[cm]	[kg]	ID
Platform60	140	13	140	40	TR-PT22
Platform125	230	13	140	65	TR-PT23







# Pump Boxes

The Pump Box System is an independent system providing all necessary pumping equipment and tools for a successful deployment.

Standard coupling size: Storz 4" 110 A.



Product Name	Nom. Capacity [m3/h]	Weight [kg]	Dimensions L x H x W [cm]	Product ID
Pump Box 100	96	267	140 X 75 X 140	AC-CG1D
Pump Box 200	192	421	230 x 75 x 140	AC-CN1D
Pump Box 500	480	750	230 x 125 x 140	AC-CP1D

### CONTENT

Variants	Pump Box 100	Pump Box 200	Pump Box 500
Water Pump (Petrol)	1	2	5
Air Blower (5.5HP Petrol)	1	1	1
Suction Hoses (5m)	1	2	5
Suction Strainer	1	2	5
Divider	1	1	2
Fire Hose (15m)	2	4	10
Jerry Can (20L)	1	1	2
Hose Shut Off	1	2	5
Tool Kit Box	1	1	2
Rope, 200m, 10mm PP	0	1	1
Storage & Deployment Box	1	1	1

The NoFloods Pump Boxes can be tailored to all specific needs, e.g. diesel or electric operation, coupling type, and sizes, etc.





The innovative NoFloods Barrier is based on a patented solution designed and produced by Environment Solutions ApS.

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