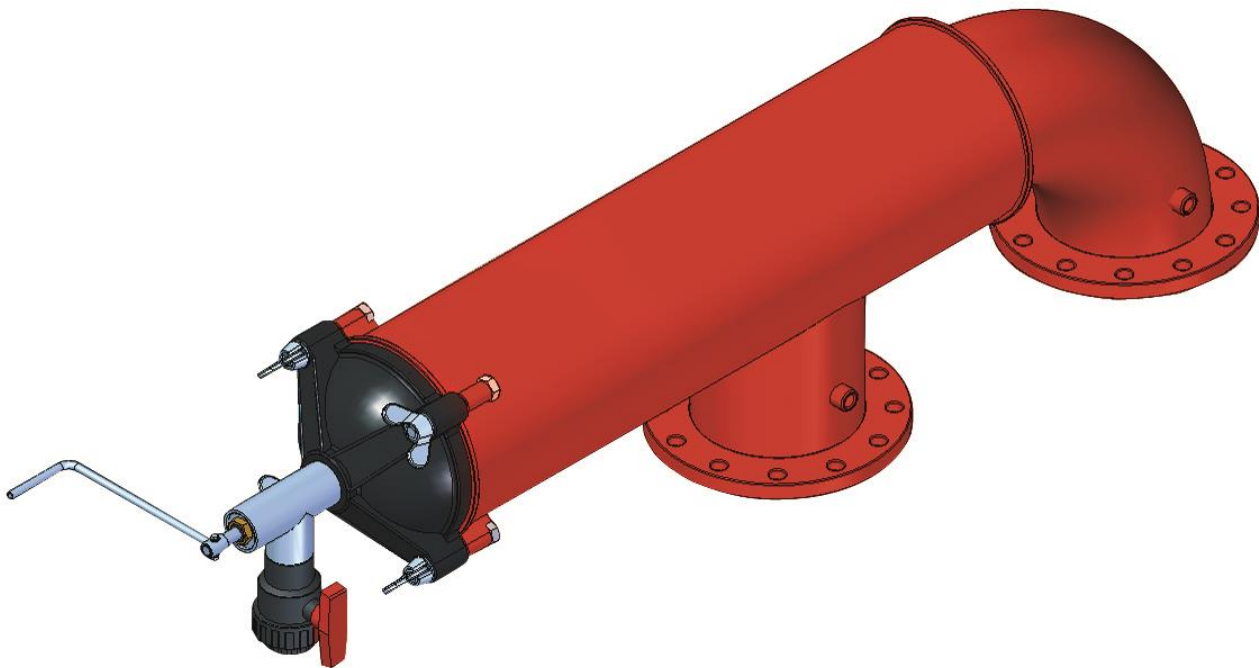


# AMIAD WATER SYSTEMS Ltd.

## AMIAD 150mm (6") Super and 200mm (8") Modular Brushaway Filters



### Installation and Maintenance

### Instructions

Amiad Manual and Semi-Automatic Screen Filters and Spare Parts On-line Orders

910101-000621 /03.2019

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## SAFETY INSTRUCTIONS

### General

1. Prior to installation or any treatment given to the filter, read carefully the installation and operation instructions.
2. While treating the filter all conventional safety instructions should be observed in order to avoid danger to the workers, the public or to property in the vicinity.
3. No changes or modification to the equipment are permitted without a written notification given by the manufacturer or by its representative, on the manufacturer behalf.

### Installation

1. Install the filter according to the installation instructions detailed in this manual.
2. Make sure to leave enough clearance to enable easy access for future treatments and safe maintenance operations.
3. Extra safety devices should be installed on hot water applications to avoid skin burn danger.

### Operation and Maintenance

1. Loosening or unscrewing bolts should be done only after the pressure in the filter had been released.
3. Avoid splashing and water leaking to minimize slipping danger or damage to the equipment caused by moisture.
4. Always open and close valves slowly and gradually.
5. Remove grease and fat material residues in order to avoid slipping.
6. After treatment has been completed, re-assemble the protection covers.
7. Manual cleaning of filter element using high water pressure or steam should be performed in accordance with the cleaning system instructions and without endangering the operator or his vicinity.
8. Manual cleaning of filter element using acid or other chemical agents should be performed in accordance with the relevant material safety instructions and without endangering the operator or his vicinity.

### Use of Lifting Equipment

1. While using lifting equipment, make sure that the filter or the lifted part is chained securely and in a safe manner.
2. Do not leave lifted equipment if there is no necessity. Avoid working below lifted equipment.
3. Wear a safety helmet while using lifting equipment.

## PRINCIPLE OF OPERATION

The Amiad series of semi-automatic filters trap dirt from water as it flows through a perforated or a weave-wire stainless steel filtration element. Filtration elements are available for various filtration degrees and are color-coded for convenient identification.

Water flows through the filter element from the inside out, so that dirt accumulates on the inner surface of the filtration element. The direction of flow is indicated by an arrow on the filter housing.

The Brushaway filters provide an excellent method of manually cleaning the filter screen without removing the screen itself. The cleaning process is based on mechanical wiping of the inner surface of the screen element and flushing the wiped debris from the filter housing by opening the flush valve.

This document is the Installation, Operation and Maintenance manual of the 6" S and the 8" Modular Brushaway filters.

## INSTALLATION

### Installation Site design recommendations

1. Select a convenient location for the installation of the filter where operation and maintenance will be optimal.
2. Refer to the drawing on page 4 for a typical installation drawing.
3. Isolation valves are needed in order to isolate filter during maintenance or repair.
4. Design the installation according to the correct direction of flow as indicated by an arrow on the filter housing.
5. Take care to leave enough room to remove the filter element for cleaning or service.
6. It is recommended that the filter housing be situated in 45° downwards or in a horizontal orientation.

### Installation instructions

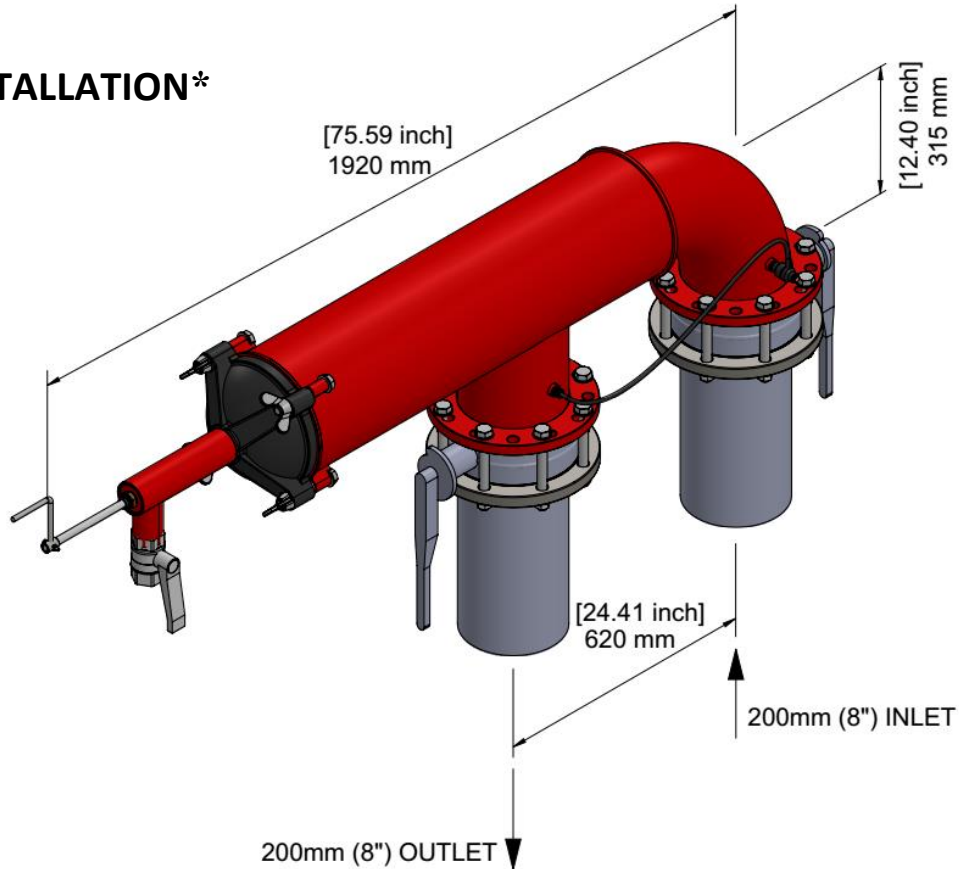
1. Install the filter on suitable foundations. Make sure to bolt it and anchored it properly. Ensure the direction of flow according to the arrow marked on the filter housing.
2. Prior to installing the filter, flush the main line at the connection point thoroughly in order to remove large objects that may damage the filter's internal mechanism.
3. Arrange for suitable lighting at the area of the filter to enable good visibility and safe maintenance.
4. Arrange suitable platforms and safety barriers to enable easy access to the filter without climbing on pipes and other equipment.
5. Install a non-return valve on the filter outlet port for protecting the filter from back flow or pressure surge.

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### IMPORTANT!!

**Installation of a Non-return Valve protects your filter from static backpressure and dangerous reverse flow!**

## TYPICAL INSTALLATION\*



\*Dimensions refer to 8" Modular Brushaway Filter

## Operation instructions:

1. Cleaning the filter must be done when pressure differential across the screen reaches 0.5-bar.
  2. **Cleaning the Brushaway filter must be done while the filter is under pressure.**
  3. Open the flushing valve gradually.
  4. Turn the handle clockwise a few times.
  5. Close the valve gradually.
  6. In case that the filter is still clogged, repeat the above while the downstream valve of the filter is closed.
- In most cases, this will clean the screen. However, if necessary, close the upstream valve, drain the filter and clean it manually.

## Maintenance:

1. Check that the filter operates properly, following a general inspection.
2. If necessary, take care of any leakage from the spindle shaft by replacing the internal O-ring seal (#17) and lubricating it with silicon grease.
3. In case of reduction in cleaning ability of the filter, remove the screen with the Brushaway mechanism and visually check the condition of the brushes. The brush bristles should be pressed against the screen. If the bristles do not touch the screen, they should be replaced.

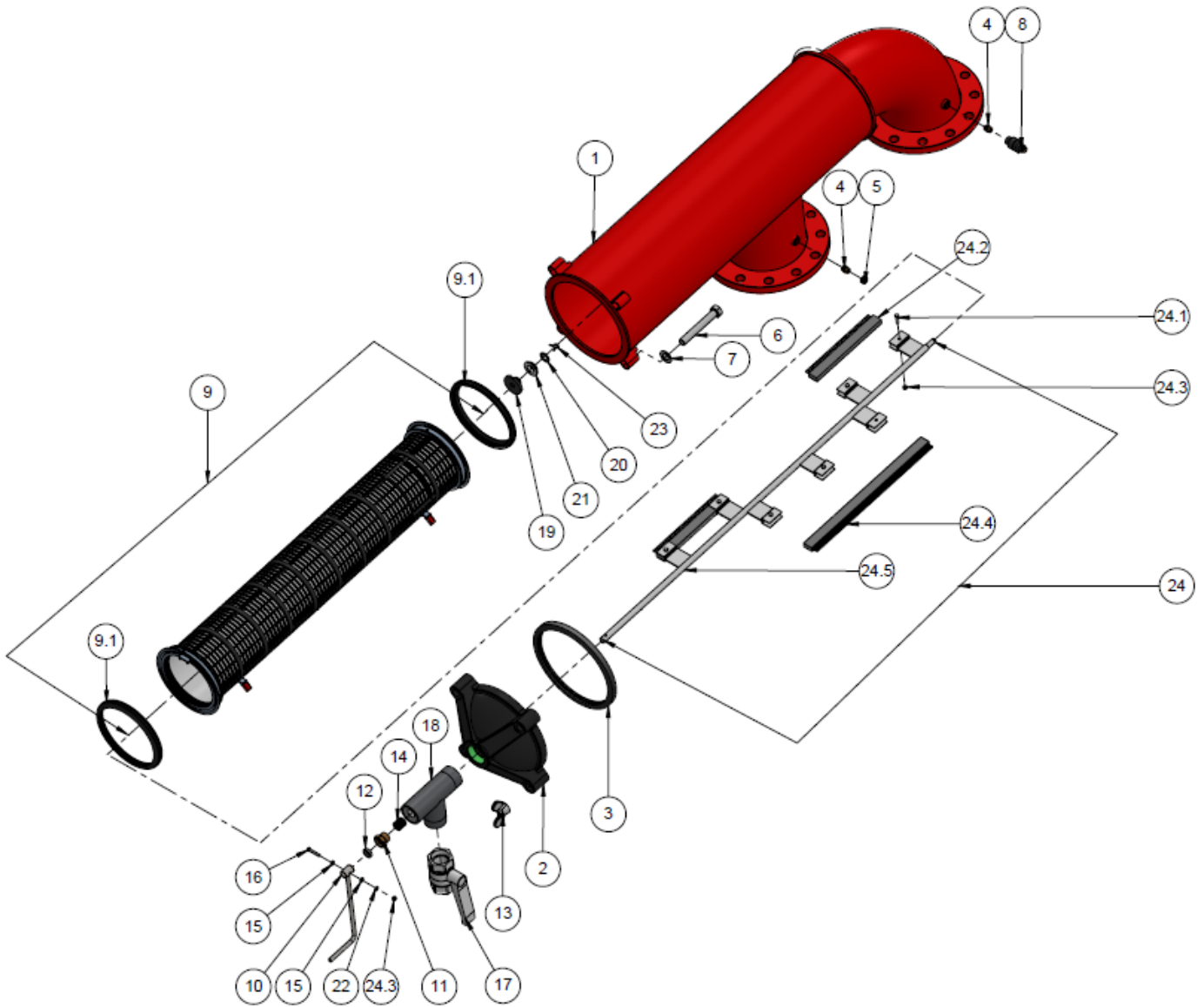
**Warning!** In order to prevent water hammer (Surge), always open and close valves in a gradual motion.

**Remark:** 200 microns is the finest filtration degree recommended with Brush filters.

## PARTS SCHEDULE (Molded Screen)

No.	CAT. No.	Description	Qty	Material
1	710105-000210	METAL HOUSING 6"S MODULAR BSTD PKPK 3002 C/ST POLYESTER	1	ST 37-2
1	710105-000212	METAL HOUSING 6"S MODULAR JAD PKPK 3002 ST.37-2 PAINTING	1	ST 37-2
1	710105-000261	METAL HOUSING 8" MODULAR ISO16 PKPK 3002 ST.37-2 POLYESTER	1	ST 37-2
1	710105-000257	METAL HOUSING 8" MODULAR BSTD PKPK 3002 ST.37-2 POLYESTER	1	ST 37-2
1	710105-000259	METAL HOUSING 8" MODULAR ASA150 PKPK 3002 ST.37-2 POLYESTER	1	ST 37-2
2	710103-000679	LID 6"-14" 8" METAL POLYESTER W/2"THR	1	PE-100
3	770104-000089	HYDRAULIC SEAL NBR 45 SHORE POLYESTER LID STEEL FILTER	1	NBR
4	710103-000591	NIPPLE 1/4" 2" METAL BRASS BSPT	2	Brass
5	700190-001305	PRESSURE CHECK POINT (PLASTIC) W/O NIPPLE	1	Various
6	760101-000297	HEX BOLT PARTIAL THRD 3/4"UNC 5 1/4" C/ST ASME B18.2.1 Z. PLATED	4	Z. Plated C/ST
7	760103-000070	FLAT WASHER M20 DIN125 C/ST ZINC PLATED	4	Z. Plated C/ST
8	700190-001245	CLOGGING INDICATOR	1	Various
9	700101-000515	MOLDED WEAVEWIRE SCREEN S/ST316L 5720SQ.CM 130MIC 8" METAL	1	Various
9.1	770104-000080	HYDRAULIC SEAL EPDM YELLOW DOT 70 SHORE SCREEN STEEL FILTER	2	EPDM
10	710102-000219	OPERATING HANDLE S/ST316L F/4"-14" BRUSHAWAY	1	S/ST 316L
11	710103-000740	TIGHTENING NUT 6" METAL SEMI-AUTO BRASS NUT 4"S-14"BRUSH	1	Brass
12	710103-000739	BUSHING 6" METAL SEMI-AUTO DELRIN F/4"S-14"	1	Delrin
13	760102-000076	WING NUT 3/4"UNC C/ST ZINC PLATED B18.17	4	Z. Plated C/ST
14	700190-001363	SEALING ROPE SET 4MM L-1779	0.22	PFTE
15	760103-000094	FLAT WASHER M6 DIN125 S/ST316	2	S/ST 316
16	760101-000447	HEX BOLT FULL THRD M6 35MM S/ST304 DIN933	1	S/ST 304
17	730104-000265	2-WAY BALL VALVE 2" F/F BRASS MANUAL BSP	1	Nickel Coated
17	730104-000265	2-WAY BALL VALVE 2" F/F BRASS MANUAL NPT	1	Nickel Coated
18	710102-000130	2" T CONNECTOR C/ST BSPT BRUSHAWAY RED	1	ST. 37-2
18	710102-000132	2" T CONNECTOR C/ST NPT BRUSHAWAY RED	1	ST. 37-2
19	710103-000777	BUSHING 4"-14" 8" METAL SEMI-AUTO DELRIN GUIDE BRUSH AXIS	1	Delrin
20	710101-000974	FERTILIZERS CLIP PBT BLACK	1	PBT
21	780101-000975	NUT 3/4" THREADED PP PLASSON	1	PP
22	760103-000109	SPRING WASHER M6 DIN127 S/ST316	1	S/ST 316
23	760107-000053	LOCK SPRING SHAFT STEEL FILTERS S/ST316L DW	1	S/ST 316L
24	700190-001462	BRUSHAWAY ASSY 6"S-14" FOR MLD SCREEN	1	Various
24.1	760101-000445	HEX BOLT FULL THRD M6 25MM S/ST316 DIN933 DW	7	S/ST 316
24.2	710103-000749	BRUSH 260MM 8" METAL SEMI-AUTO PLASTIC UNIT F/MOLDED SCREEN	2	PVC
24.3	760102-000085	HEX NUT M6 S/ST316 DIN934 DW	8	S/ST 316
24.4	710103-000748	BRUSH 473MM 8" METAL SEMI-AUTO DUPLEX UNIT	1	Various
24.5	710102-000221	8" SPINDLE+FRAME S/ST316L BRUSHAWAY F/MOLDED SCREEN	1	S/ST 316L

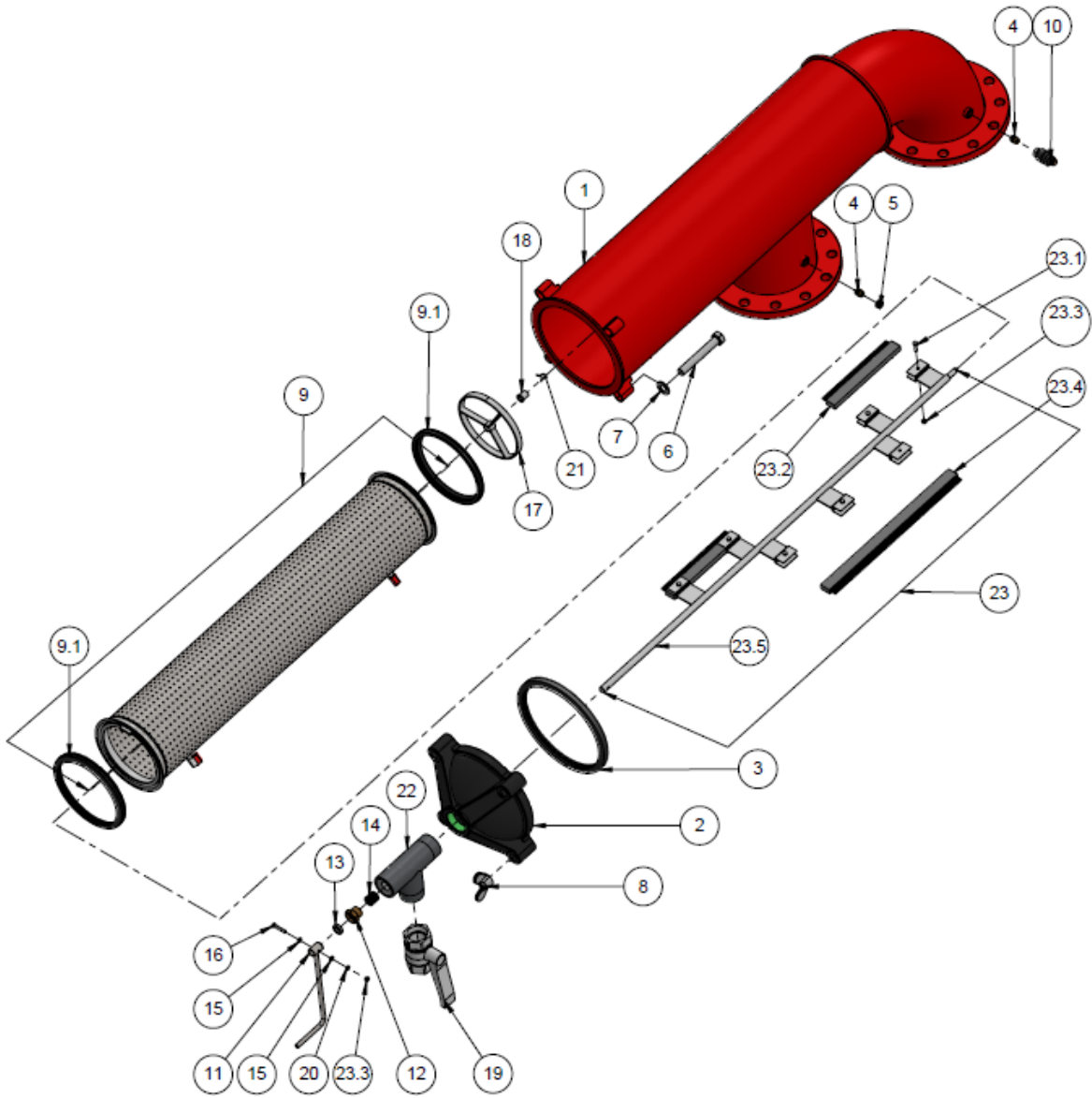
**PARTS DRAWING (Molded Screen)**



## PARTS SCHEDULE (Perforated Screen)

1	710105-000210	METAL HOUSING 6"S MODULAR BSTD PKPK 3002 C/ST POLYESTER	1	ST 37-2
1	710105-000212	METAL HOUSING 6"S MODULAR JAD PKPK 3002 ST.37-2 PAINTING	1	ST 37-2
1	710105-000261	METAL HOUSING 8" MODULAR ISO16 PKPK 3002 ST.37-2 POLYESTER	1	ST 37-2
1	710105-000257	METAL HOUSING 8" MODULAR BSTD PKPK 3002 ST.37-2 POLYESTER	1	ST 37-2
1	710105-000259	METAL HOUSING 8" MODULAR ASA150 PKPK 3002 ST.37-2 POLYESTER	1	ST 37-2
2	710103-000679	LID 6"-14" 8" METAL POLYESTER W/2"THR	1	PE-100
3	770104-000089	HYDRAULIC SEAL NBR 45 SHORE POLYESTER LID STEEL FILTER	1	NBR
4	710103-000591	NIPPLE 1/4" 2" METAL BRASS BSPT	2	Brass
5	700190-001305	PRESSURE CHECK POINT (PLASTIC) W/O NIPPLE	1	Various
6	760101-000297	HEX BOLT PARTIAL THRD 3/4"UNC 5 1/4" C/ST ASME B18.2.1 Z. PLATED	4	Z. Plated C/ST
7	760103-000070	FLAT WASHER M20 DIN125 C/ST ZINC PLATED	4	Z. Plated C/ST
8	760102-000076	WING NUT 3/4"UNC C/ST ZINC PLATED B18.17	4	Z. Plated C/ST
9	700101-000508	PERFORATED SCREEN S/ST316L 5720SQ.CM 1500MIC 8" METAL	1	Various
9.1	770104-000080	HYDRAULIC SEAL EPDM YELLOW DOT 70 SHORE SCREEN STEEL FILTER	2	EPDM
10	700190-001245	CLOGGING INDICATOR	1	Various
11	710102-000219	OPERATING HANDLE S/ST316L F/4"-14" BRUSHAWAY	1	S/ST 316L
12	710103-000740	TIGHTENING NUT 6" METAL SEMI-AUTO BRASS NUT 4"S-14"BRUSH	1	Brass
13	710103-000739	BUSHING 6" METAL SEMI-AUTO DELRIN F/4"S-14"	1	Delrin
14	700190-001363	SEALING ROPE SET 4MM L-1779	0.22	PFTE
15	760103-000094	FLAT WASHER M6 DIN125 S/ST316	2	S/ST 316
16	760101-000447	HEX BOLT FULL THRD M6 35MM S/ST304 DIN933	1	S/ST 304
17	710102-000163	8" CENTERING RING S/ST316L	1	S/ST 316L
18	710103-000735	CENTER.RING 6"MTL S. AUTO DELRIN INSERT	1	POM
19	730104-000265	2-WAY BALL VALVE 2" F/F BRASS MANUAL BSP	1	Nickel Coated
19	730104-000268	2-WAY BALL VALVE 2" F/F BRASS MANUAL NPT	1	Nickel Coated
20	760103-000109	SPRING WASHER M6 DIN127 S/ST316	1	S/ST 316
21	760107-000053	LOCK SPRING SHAFT STEEL FILTERS S/ST316L DW	1	S/ST 316L
22	710102-000130	2" T CONNECTOR C/ST BSPT BRUSHAWAY RED	1	ST. 37-2
22	710102-000132	2" T CONNECTOR C/ST NPT BRUSHAWAY RED	1	ST. 37-2
23	700190-001461	BRUSH ASSY 6"S-14" (194) F/PERF	1	Various
23.1	760101-000445	HEX BOLT FULL THRD M6 25MM S/ST316 DIN933 DW	7	S/ST 316
23.2	710103-000685	BRUSH 242X14MM 2" PLASTIC SEMI-AUTO PLASTIC 2"T/8" B/A DW	2	Various
23.3	760102-000085	HEX NUT M6 S/ST316 DIN934 DW	8	S/ST 316
23.4	710103-000748	BRUSH 473MM 8" METAL SEMI-AUTO DUPLEX UNIT	1	Various
23.5	710102-000220	8" SPINDLE+FRAME S/ST316L BRUSHAWAY F/PERFORATED SCREEN	1	S/ST 316L

## PARTS DRAWING (Perforated Screen)





## Amiad Limited Warranty

1. This certificate applies to Amiad Water Systems Ltd. ("**Amiad**") products purchased by you (the "**Buyer**") from Amiad unless specifically agreed otherwise in writing by Amiad. This Warranty extends only to the original purchaser, and is not transferable to anyone who subsequently purchases, leases, or otherwise obtains the product from the original purchaser.
2. Amiad hereby warrants that the products are and will be free from defects in material and workmanship under normal use and service. Amiad warrants that it will correct manufacturing defects in the products, in accordance with the conditions set out in this Warranty.
3. This Warranty is enforceable for a period of 12 months after the date upon which the products were delivered (the "**Warranty Period**").
4. In the event that during the Warranty Period the Buyer discovers a defect in material and/or workmanship in any product or part (the "**Defective Product**"), it shall submit a written complaint to Amiad using Amiad's standard Buyer Complaint Form. For the receipt of the Buyer Complaint Form, the submission of the complaint or any questions please contact your service representative.
5. Upon written demand by Amiad the Buyer shall return the Defective Product - or a sample thereof - to Amiad, at Amiad's cost. If the Buyer ships any such Defective Product, Amiad suggests the Buyer package it securely and insure it for value, as Amiad assumes no liability for any loss or damage occurring during shipment. Provided however that in the event Amiad determines that this Warranty does not apply to such product, Buyer shall promptly reimburse Amiad for such cost (including freight and customs). Any returned product or part must be accompanied by the Warranty certificate and the purchase invoice. It is clarified that the Buyer may not return the Defective Product unless such return was coordinated and approved by Amiad in advance.
6. Amiad's obligation under this Warranty shall be limited to, at Amiad's option, the repair or exchange, free of charge, of the product or any part which may prove defective under normal use and service during the Warranty Period. The provision of a repair or replacement of a product during the Warranty Period will result in an extension of the Warranty Period by an additional period of 12 months, provided that the total accumulated Warranty Period shall in any event be no more than 18 months from the date upon which the products were delivered.
7. This Warranty is valid on the condition that the products are installed according to Amiad's instructions as expressed in Amiad's instruction manuals and according to the technical limitations as stipulated in Amiad's literature or as stated by a representative of Amiad.
8. This Warranty will not apply to damaged or defective products resulting from or related to:
  - (i) Fire, flood, power surges or failures or any other catastrophe and/or unforeseen occurrence, such as but not limited to those for which the Buyer is customarily insured for, or any force majeure events;
  - (ii) Fault, abuse or negligence of the Buyer;
  - (iii) Intake water not meeting the agreed standards, as set forth in a written document, approved by Amiad, or improper storage;
  - (iv) Improper or unauthorized use of the product or related parts by the Buyer, including Buyer's failure to operate the product in conformity with the recommendations and instructions of Amiad, as set forth in Amiad's manuals and other written materials, the operation of the product other than by a trained and qualified operator, or improper installation of the product by a third party not authorized by Amiad;
  - (v) Performance by the Buyer of maintenance or operation other than in conformity with the recommendations and instructions of Amiad, or other than in accordance with procedures defined in the literature supplied for products (including the timely replacement of requisite parts), and for services provided other than by a trained and qualified advanced operator; or
  - (vi) Any alteration, modification, foreign attachment to or repair of the products, other than by Amiad or its authorized technical representatives.
9. In no event shall Amiad be liable to the Buyer or any third party for any damages to property, or for any intangible or economic loss, including loss of profits, loss of customers or damage to reputation, for any damages, including indirect, special, consequential damages, or punitive damage arising out of or in connection with this Warranty, or arising out of or in connection with the product's performance or failure to perform, even if it has been advised of the possibility of such damages.
10. Amiad will be excused for failure to perform or for delay in performance hereunder if such failure or delay is due to causes beyond its reasonable control or force majeure preventing or hindering performance.
11. This Warranty set forth herein is the only contractual warranty given by Amiad and is provided in lieu of any other warranties created by any documentation, packaging or otherwise.
12. Amiad makes no warranty whatsoever in respect to accessories or parts not supplied by Amiad. In the event that Amiad is required to correct a Defective Product or product not covered by this Warranty, it will do so solely in consideration for additional fees.
13. The parties will actively endeavor to amicably settle any dispute arising between them. In the event that the parties are unable to reach an equitable settlement of such dispute, any claim or lawsuit related to the Warranty, its validity execution, its performance be brought before only the courts of Tel-Aviv, Israel. Israeli law will govern the Warranty, to the exclusion of any conflict of law rules.

**Manufacturer:** Amiad Water Systems Ltd. The product is under European Directive: 2014/68/EU PED SEP. Requirements of Sound Engineering Practice of a member state have been met.

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