

# ODIS

IRRIGATION EQUIPMENT LTD.

## PLASTIC BODY SCREEN/ DISC FILTERS

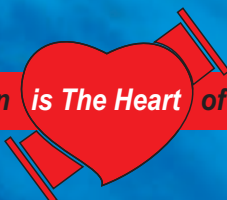
SERIES  
**2100**

### APPLICATIONS

- Mainly used as Control Filter in agriculture or gardening.
- Stainless steel/ plastic screen or grooved plastic discs.



ODIS Filtration *is The Heart* of Every Irrigation System



## DESCRIPTION

### SCREEN / DISC FILTERS SERIES 2100

A water filter with reinforced plastic body and a stainless steel or plastic screen or grooved discs. The filter has a male threaded or female swivel connection and horizontal inlet and outlet.

Available in the following sizes: ¾", 1", 1½", 2".

Each filter is equipped with a drain port located at the bottom of the filter for easy flushing. Models 2115 and 2120 are equipped with two pressure testing ports in order to check the head loss between inlet and outlet of the filter without interfering with the water flow.

Filters contain one stainless steel or plastic screen or plastic grooved discs.

### Dimensions & Weight

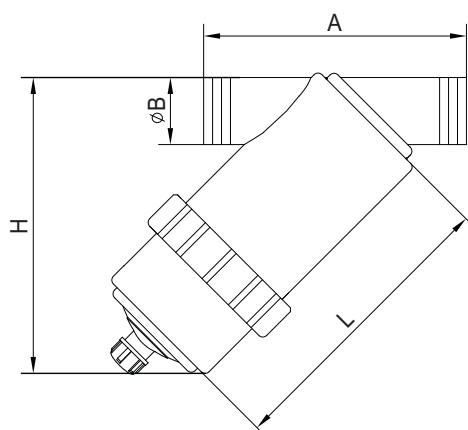
#### Metric Units

Model	B		A	H	L	Weight	
	inch	mm	mm	mm	mm	kg	
						screen	disc
2107	¾"	20	120	175	145	0.2	0.3
2110	1"	25	120	175	145	0.2	0.3
2115	1½"	40	256	280	270	1.1	1.4
2120	2"	50	256	280	270	1.1	1.4

### Dimensions & Weight

#### U.S. Units

Model	B	A	H	L	Weight	
	inch	inch	inch	inch	Kg	
					screen	disc
2107	¾"	4.8"	7	5.7	0.5	0.7
2110	1"	4.8"	7	5.7	0.5	0.7
2115	1½"	10.1"	11	10.6	2.5	3
2120	2"	10.1"	11	10.6	2.5	3



## Screen Area & Recommended Flow Rates






Metric Units/ U.S. Units





Model	Inlet/Outlet diameter		Max. Flow Rate		Screen Element Area		Disc Element Area	
	inch	mm	m <sup>3</sup> /h	U.S. gpm	cm <sup>2</sup>	inch <sup>2</sup>	cm <sup>2</sup>	inch <sup>2</sup>
2107	¾"	20	Up to 3	Up to 13	130	20	180	28
2110	1"	25	Up to 5	Up to 22	130	20	180	28
2115	1½"	40	Up to 10	Up to 44	550	85	505	78
2120	2"	50	Up to 15	Up to 66	550	85	505	78

## Technical Data

- Filter element options :
  - \* Stainless-steel/ plastic screen.  
Models 2107 and 2110 can be supplied with plastic screen.
  - \* Models 2115 and 2120 can be supplied with different screen grades under 80 mesh over 180 micron woven stainless steel wire mesh mounted on the inner surface of a PVC cylinder.
- Grooved discs.
- Horizontal inlet and outlet.
- Male threaded connections or swivel connections for quick installation
- \* Maximum working pressure:
  - \* Models 2107, 2110 - 8 bar
  - Models 2115, 2120 - 10 bar

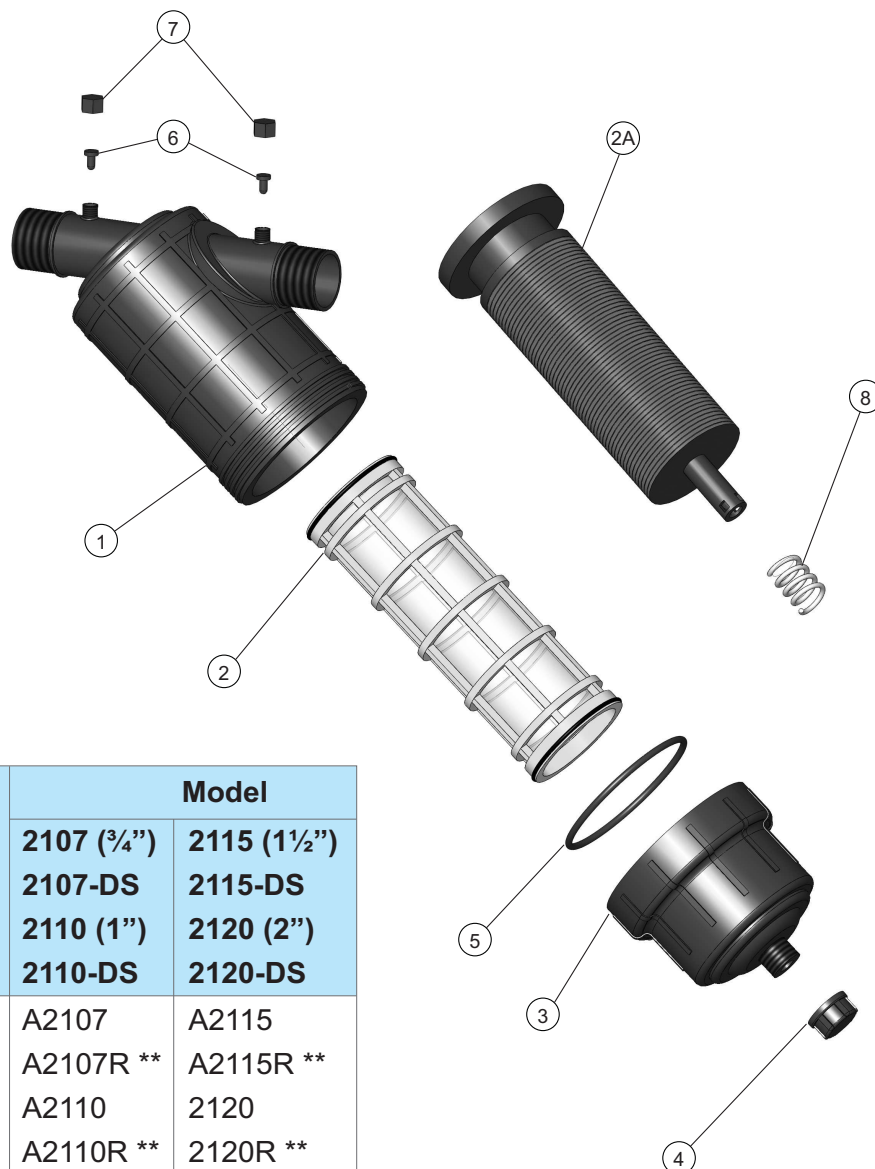
## Filtering Grades

Color	*Screen Element	
	Mesh	Micron
Blue ** 	40	400
Light Blue 	80	180
Brown 	120	120
Green 	155	95
Violet 	200	80

Color	*Disc Element	
	Mesh	Micron
Blue 	40	400
Yellow 	80	180
Red 	120	120
Black 	140	110

\* When ordering, please specify screen or discs element and required mesh grade.

\*\* For models 2107 and 2110



### Catalog Numbers

No.	Description	Model	
		2107 (¾")	2115 (1½")
		2107-DS	2115-DS
		2110 (1")	2120 (2")
		2110-DS	2120-DS
1	Filter Body	A2107 A2107R ** A2110 A2110R **	A2115 A2115R ** 2120 2120R **
2	Screen *	E211090	E212090
3	Cover	E211751	E211145
4	Plug	H071307	H071307
5	Cover Seal	E210050	E210110
6	Pressure test port seal	-	E382020
7	Pressure test port cap	-	T382020
<b>Disc Element</b>			
2A	Spine Discs Assembly	E210702	E212004
8	Spring	E210704	E212003

\* When ordering, please specify screen/Discs mesh or micron required and filter model:

SS - Stainless Steel Screen

PL - Plastic Screen

PVC - Woven stainless steel wire mesh mounted on the inner surface of a PVC cylinder for models 2115 and 2120.

\*\* Swivel connection



## GENERAL INSTRUCTIONS

### Operation

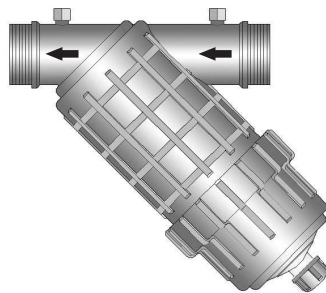
- Normal working conditions are obtained when head-loss is less than 0.25 bar (4 psi) with clean filter screen.
- If head-loss exceeds 0.25 bar (4psi) – filter is either partially clogged or operating under an excessive flow rate.
- Maximal operational pressure should not exceed 8 bar (120 psi) for models 2107 (3/4"), 2110 (1").
- Maximal operational working pressure should not exceed 10 bar (150 psi) for models 2115 (1½"), 2120 (2").
- Verify head-loss by inserting pressure gauge with needle into pressure testing ports assembled at inlet and outlet of filters models 2115 (1½"), 2120 (2").

### Installation

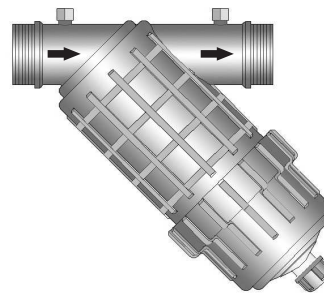
- The filter should be installed with drain port pointing downward.
- Flow direction is clearly marked by arrow.
- It is recommended to install a drain valve at the drain port.
- All filters are supplied with instructions for correct assembly, installation, operation and maintenance.
- If pressure is not controlled effectively a pressure relief valve must be inserted before the filtering installation.

#### NOTE:

Special attention must be given to flow direction according to filtering element.



DISC FILTER



SCREEN FILTER

### Manual Flushing

- Manual flushing is performed by simply opening drain port located at filter bottom.
- Check time required to reach a head-loss of 0.4 bar (6 psi)
- Open drain valve (9) and flush filter for 10-30 seconds.
- Check pressure reading again: head-loss should be 0.25 bar (4 psi) or less.
- Recommended cleaning of filter and checking of screens: every two weeks or when head-loss reaches 1.0 bar (15 psi), and on completion of irrigation.

## Periodic Cleaning

- Close valve at the inlet of the filter.
- Open drain port located at filter bottom, to release pressure within filter and drain.
- Open filter cover.

### In Case of a Screen Filter.

- Gently remove filter screen.
- Rinse filter screen thoroughly with clean water. Using a brush to remove particles from screen (do not use a wire brush!).  
After cleaning, assemble filter as follows:
- Verify that filter screen and the "O" rings are not damaged and are properly located in their grooves on the screen.
- Replace filter screen carefully into the filter housing.

### In Case Of a Discs Element

- Gently remove the filter element.
  - Open the tightening nut counterclockwise till loose, then rinse the discs thoroughly.
  - Verify that filter O-Rings are not damaged and properly located in their grooves.
  - Close the tightening nut clockwise.
  - Replace filter element carefully into filter housing.
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- Replace filter cover and tighten.
  - Check pressure reading again: head loss should be 0.25 bar or less.
  - Recommended cleaning of filter and checking of discs: every two weeks or when head-loss reaches 1.0 bar (15psi), and on completion of irrigation.

### WARNING:

- Do not tighten or open cover during operation or under pressure.

### NOTE:

In the event that a bristle brush does not remove particles from screen, immerse filter screens in acid/alkaline solution.

Keep it there for some time then rinse thoroughly.

## How To Order Odis Filters

1. Type of filter required.
2. Catalog Number of filter (see Packing / Shipping Data \*\*).
3. Preferred mesh grade.
4. Screen or discs element.
5. Min. /max. pressure.
6. Maximal Flow rate.
7. Additional accessories: Nipples/Valves/Pilots/Relays/Manifolds/Pressure Gauges.

## PACKING / SHIPPING DATA

### Metric Units/ U.S. Units

Model **	Inlet / Outlet Diameter	Gross* Weight		Gross* Volume	
	inch	Kg	lbs	m <sup>3</sup>	cu.ft
2107R-PL/SS	¾"	0.26	0.57	0.003	0.11
2107R-DS	¾"	0.35	0.77	0.003	0.11
2110R-PL/SS	1"	0.26	0.57	0.003	0.11
2110R-DS	1"	0.35	0.77	0.003	0.11
2115/R-SS/DS	1½"	1.15	2.55	0.017	0.6
2115/R-DS	1½"	1.45	3.20	0.017	0.6
2120/R-SS/DS	2"	1.15	2.55	0.017	0.6
2120/R-DS	2"	1.45	3.20	0.017	0.6

\* Gross weight includes packaging materials.

\*\* PL/SS - Plastic/ Stainless steel screen element.

\*\* DS - Disc element.

\*\* R - Swivel connections