

Expert since 1928



hth® easiflo® First Chlorine Feeder System Installation Manual for Models 20 & 50



How to Use This Manual

Please read this manual carefully before commencing installation of the feeder, to ensure the safety of users and bathers in both installation and operational conditions.

The information contained within this document must be followed precisely. Innovative Water Care cannot be held responsible for any incident if the instructions contained within this manual are not followed.

To help with the installation the following symbols are used throughout:



Injury or accident risk



Electrical hazard



Malfunction or damage may be caused if ignored



Observation

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1. General Information

1.1 Storage and Transport

It is necessary to store and transport your **hth**[®] easiflo[®] Feeder in its original packaging to prevent any damage.



Ambient temperature and humidity for storage must be within the following parameters:

Temperature:	-5°C – 40°C
Humidity:	Maximum 90%

1.2 Warranty

This product is guaranteed for 2 years under the terms of our general conditions of sale and delivery, to the extent that the following conditions are met:

- Use of the equipment in accordance with the instruction manual.
- No modifications are carried out on the **hth**[®] easiflo[®] First feeder which may alter the performance of the dosing system, without Innovative Water Care's prior written consent.
- Local electrical regulations are adhered to.
- Only **hth**[®] easiflo[®] Briquettes are used within the feeder.

1.3 Pool Water Chemistry

The following pool water conditions should be maintained:

Total Alkalinity:	60 – 80 mg/l
Calcium Hardness:	<250 mg/l
pH:	7.0 – 7.6

1.4 Supply Water

The **hth**[®] easiflo[®] First feeder(20 /50 models) requires the supply/ feed water to meet the following conditions:

Ideal inlet pressure :	1 – 2 bar
Total Alkalinity:	60 – 80 mg/l

This will then allow the feeder sufficient water to provide the following flow ranges:

hth [®] easiflo [®] First 20:	190 – 470 l/h
hth [®] easiflo [®] First 50:	250 – 610 l/h

The **hth**[®] easiflo[®] First feeders incorporate water spray technology with utilisation of designated jets to spray the **hth**[®] easiflo[®] briquettes, the top float washdown and the base of the tank to aid solution circulation.

	Model 20	Model 50
Water Spray Jets		
Top float wash-down spray	1	1
Briquette sprays	2	4
Base circulation spray	1	1

The table below identifies the spray flow in liters per minute at the individual jets relevant to differentials in inlet water pressure.

Inlet Water Pressure	0.5 Bar / 7.25 psi	1.0 Bar / 14.5 psi	2.0 Bar / 29 psi	3.0 Bar / 43.5 psi
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Performance Data – Spray Flow				
Briquette sprays	0.5 l/min	0.70 l/min	1.0 l/min	1.20 l/min
Base circulation spray	1.20 l/m	1.80 l/min	2.50 l/min	3.0 l/min

2. Safety and the Environment

2.1 Equipment Use

The use and operation of this unit may change the chemical composition of your pool. Therefore, it is necessary to read these instructions carefully and ensure that ALL staff are properly trained and familiar with the use of the **hth**[®] easiflo[®] First feeder. Non-compliance with the instructions held within this document could lead to the feeder failing (resulting in inadequate chlorination of pool water) and the feeder warranty becoming invalid.



You will need to :

- Read the manual before unpacking, installing or servicing the feeder
- Complete a full site risk assessment before installation is carried out

2.2 Chemical Use

The **hth**[®] easiflo[®] First feeder is based on the exclusive use of calcium hypochlorite **hth**[®] easiflo[®] 7g Briquettes. The use of any other products within the feeder will invalidate the warranty and could cause operational issues, such as severe chemical reactions (see below).

Remember – NEVER MIX CHEMICALS

This product should never be in contact or mixed with any other preparation, wherever this may be (bucket, feeder, skimmer, tank, etc.). Contamination and improper use or storage may cause fire, explosion or the release of toxic gases. Read product labels thoroughly before use.



Health and Safety

Product Safety Data Sheets are supplied upon request. They should be read and understood by all supervisory personnel and employees before using the product. If there is any doubt please contact your local Innovative Water Care sales office for advice.



2.3 Conditions of Sale

Operators of the **hth**[®] easiflo[®] First Feeder must accept and adhere to the following conditions:

- Proper training and supervision is carried out for any employee servicing or using the **hth**[®] easiflo[®] First feeder.
- A total understanding of the functions of the feeder is required
- Any pool operator must have read and understood this manual before any work is carried out on the feeder.

2.4 Risk Management



The installation and commissioning of the **hth**[®] easiflo[®] First feeder must be completed by a fully qualified technician, this includes electrical qualifications relevant to the location of the installation.



The installation must adhere to all electrical requirements within the country of operation.

Before adjusting or working with any electronic valves, timing units and sensors the unit must be totally isolated from the mains electrical connection.

Repairs and maintenance must only be carried out by an authorised, fully qualified and trained technician.

2.5 Environmental Compliance

Any parts of the packaging or equipment that can be recycled must be disposed of within your local regulations.



Items such as cardboard, paper and plastic packaging can be recycled within your local environment recycling guidelines.

In accordance with the European Directive 2002/96/EC, this symbol indicates that from 12th August 2005 electrical appliances cannot be disposed of in household or industrial waste containers. Consumers within the European Union are required from that date, to dispose of electrical items marked with this symbol via the appropriate methods.



In accordance with the European Directive 2002/95/EC, this symbol indicates that the **hth**[®] easiflo[®] First feeder has been designed in compliance with the Restriction of Hazardous Substances.



In accordance with the Low Voltage Directive (2006/95/EC) and the Electromagnetic Compatibility Directive (2004/108/EC), this symbol indicates that the unit has been designed in compliance with this regulation.



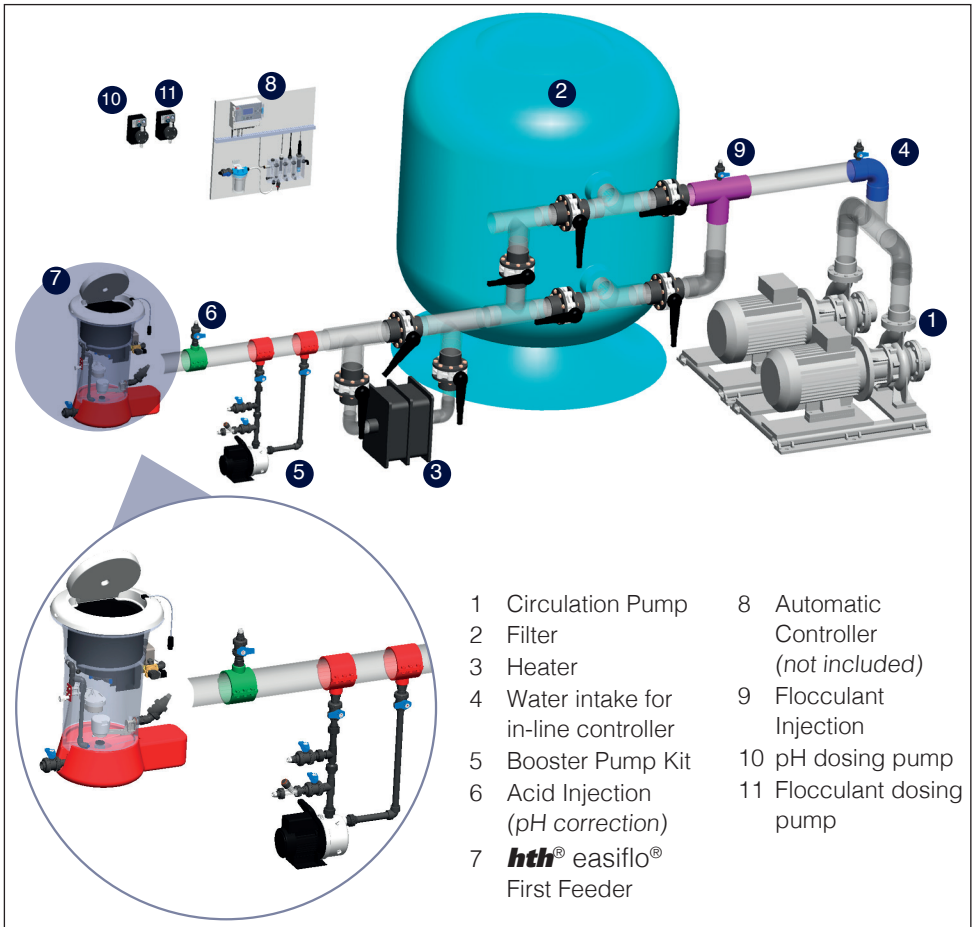
3. Plant Room Installation

3.1 Feeder Location



Ensure the location of the feeder is within a suitable area of the plant room. This space should take into consideration access for any future maintenance requirements and enough space for daily inspection and filling of the feeder hopper by the operator.

3.2 Typical Plant Room /Installation



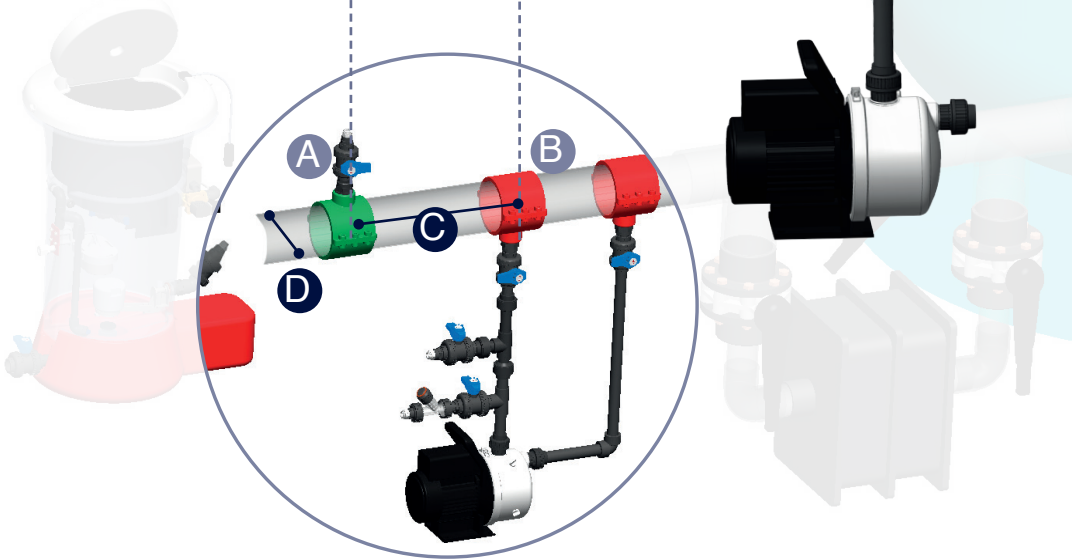
3.3 Booster Pump and Venturi Kit

This drawing is not to scale, but in order to prevent mixing of incompatible chemicals we recommend the acid injection point (pH correction)– A, should be sited at least 10 times the diameter of the pipe away from the venturi entry point – B. For example, if the pipe has a diameter of 140 mm (D) then the distance between the points should be at least 1.40 m (C).



The booster pump loop isolating valves and pipe work are **not** included with the **hth® easiflo®** First range of feeders.

$$C = D \times 10$$



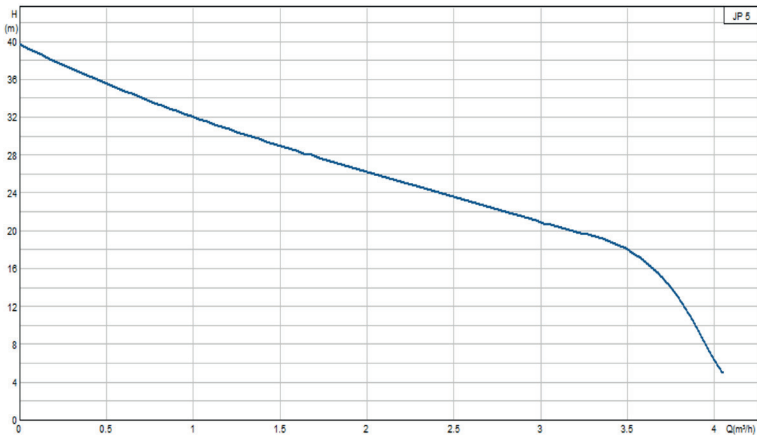
Booster Pump



We recommend the use of the « Calpeda » booster pump type MXAM 203 single phase (ref 00218148). If other models are used you must follow the pump curves and information as set out below :

Auto-priming

Flow Q :	7.3m ³ /h
Hmt, H :	50m
Head :	8m
Pressure of service :	6 bars



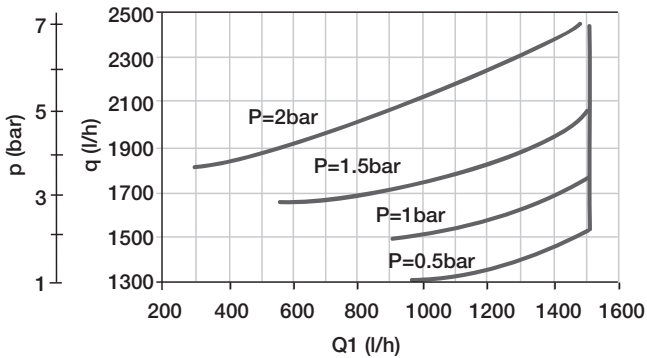
Performance range :

Electrical data:

Current	850W
Hertz	50–60 Hz
Voltage	220–230 V
Amps	3.5A
Ip Rating	IP44
Class of insulation	F
Cable plug type	DK

Venturi

The new type of venturi in use with the **hth**[®] easiflo[®] First feeder is a Stübbe type SP820 Ø32 DN25. If other venturis are used they must have similar technical characteristics as set out here :



p : venturi entry pressure (bar)

q : entry flow through the venturi (l/h)

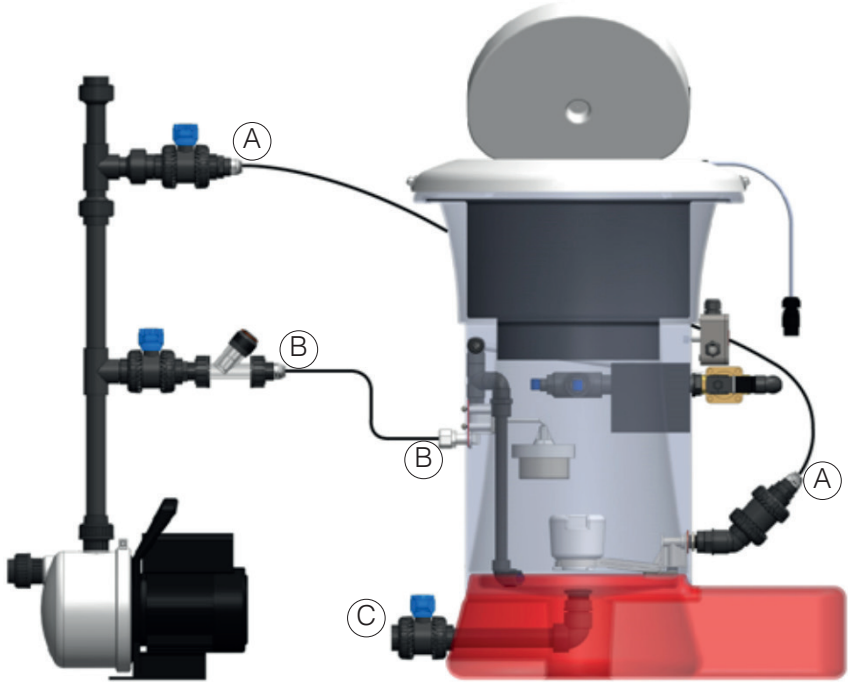
P : back pressure (bar)

Q1 : suction rate delivered by the venturi (l/h)

The Stübbe venturi supplied within the **hth**[®] easiflo[®] First feeder box has been pre drilled with a 5.5mm hole, but manually check the inside of the venturi before installation to ensure the 5.5mm hole has been completed. If no hole is present, drill a 5.5mm hole in the removable green part of the venturi cone.



3.4 Tubing Connections



i If you require additional tubing (more than the 10m supplied), this can be ordered by using ref : 00205490 Tubing PE 1/2" .

If this **hth**[®] easiflo[®] First model is replacing an old **hth**[®] easiflo[®] 3 type feeder, it is possible to re-use the venturi, solenoid and tube connections that are already in place at the site.



If you are replacing other **hth**[®] easiflo[®] feeders with this model, check the hydraulics of the booster pump employed to ensure it meets the specific requirements of this feeder model.



Base Rinsing Kit (C) – any waste **hth**[®] Calcium Hypochlorite substances, mixtures and insolubles should be disposed of in accordance with local regulations and should not be allowed to enter the main sewage system.

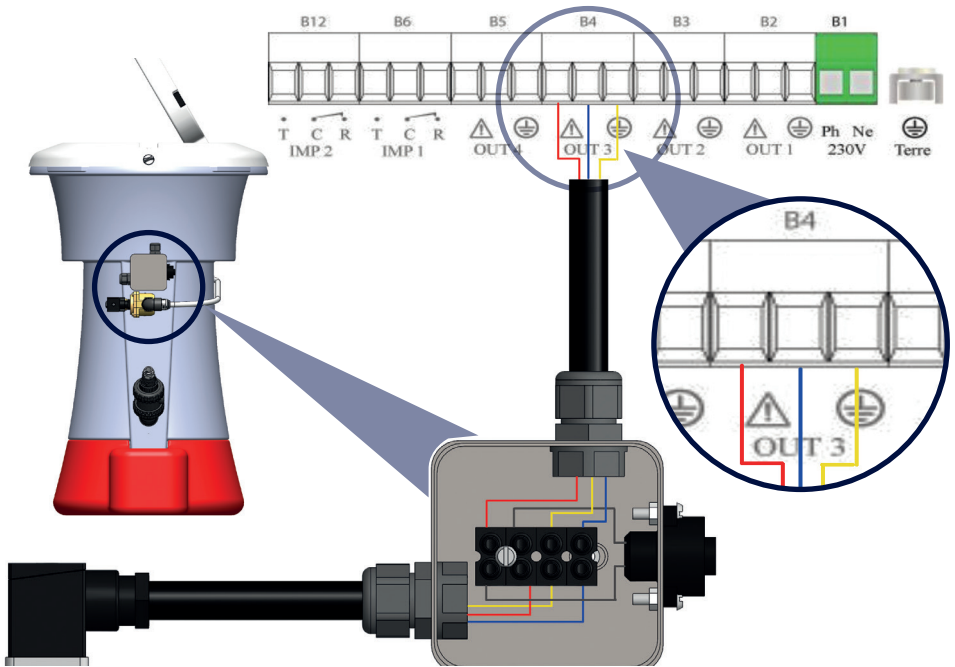
4. Electrical Installation

4.1 Linking to an Automatic Controller

Shown here with a typical Cycl'eau® installation



The CYCL'EAU® controller is **not provided** with the **hth**® easiflo® First feeder but is available to order from Innovative Water Care.



Attention : If other automatic controllers are used, make sure the output form the controller is 230VAC-50hz. If other outputs are delivered then a transformer may be required to connect the box to the **hth**® easiflo® First feeder.



If your controller requires a dry contact, you will need to connect the box via an auxiliary relay and not directly to the **hth**® easiflo® First feeder.

4.2 Booster Pump Connection



A 230VAC-50Hz electrical line connected to the main circulation system will power the booster pump. The venturi will be placed in a bypass loop and all electrical connections must be made in accordance with local electrical laws. The **hth**[®] easiflo[®] First feeder consumes at least 3.6A and so the line must be protected with a circuit breaker to cover their use.



The various electrical circuit breakers are **not provided** with the **hth**[®] easiflo[®] First feeder



5. Emergency Response Procedure

1. In the event of a Health, Safety or Environmental Emergency involving Innovative Water Care water treatment products, including but not limited to the following:
 - Injury to persons requiring medical treatment
 - Loss of containment of product to the environment
 - Involvement of the Emergency Services (Police, Fire, Medical)
 - Involvement of the Environmental agencies
 - Major damage to property

FIRST telephone +44 (0)1235 239670

This will connect you with the NCEC (National Chemical Emergency Centre) who support the Innovative Water Care Emergency Response (it operates 24 hours a day, 365 days a year).

THEN Phone your local Innovative Water Care office (during office hours)

2. NCEC will provide initial assistance and advice (in English).
3. NCEC will also contact Innovative Water Care Head Office.
4. When calling the Emergency number, have the following information available (use your Emergency Response Procedure Checklist):
 - Your name
 - Your job title
 - Your company name and location
 - The Telephone (and fax) number that you can be contacted on
 - The Product Name
 - The Product Code
 - The nature of the emergency
 - The action you have taken
 - Are the emergency services involved?
 - Are the environmental agencies involved?

Always contact NCEC in the event of a health, safety or environmental emergency involving Innovative Water Care water treatment products but please only use this number for health, safety and environmental emergencies (including those described above).

6. Parts List & Drawings

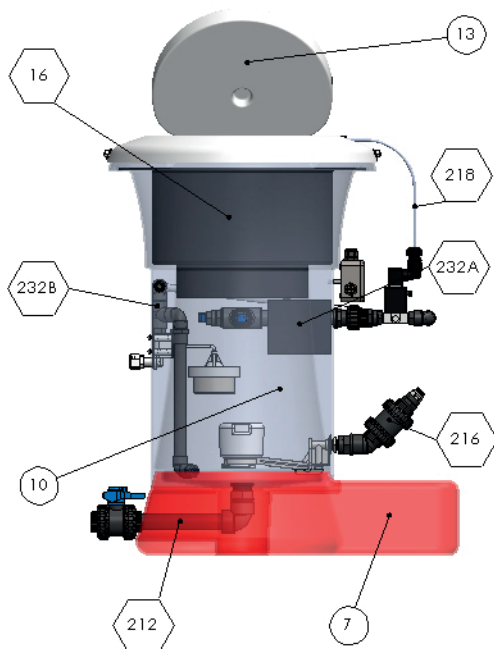
Note: some parts are not shown in drawings and some are universal to other feeders in the easiflo® range.

Part Number	Description	Reference
1	SPRAY NOZZLE E20/50/100	00217916
2	TUBING 1/2" (m)	00205490
3	TUBE FITTING MALE 1/2" D1/2"	00217938
4	CARTRIDGE FILTER E20/50/100	00205474
5	LID SENSOR	00215312
6	LID MAGNET SENSOR	00215313
7	BASE E20	00218051
8	BASE E50	00218052
10	BODY E20	00218054
11	BODY E50	00218055
13	LID E20	00218057
14	LID E50	00218058
16	COMPLETE GRID E20	00218060
17	COMPLETE GRID E50	00218061
19	GRID SUPPORT E20	00218063
20	GRID SUPPORT E50	00218064
22	GRID E20	00218066
23	GRID E50	00218067
25	GRID TOOL E20/50/100	00218069
27.5	SPRAY DEFLECTION PLATE 20/50/100	00218072
28	BRIQUETTE CLEANING PAN E20	00218073
29	BRIQUETTE CLEANING PAN E50	00218074
32	WASHDOWN SPRAY NOZZLE E20/50/100	00218077
33	SOLENOID VALVE 6281 E20/50/100	00218078
34	ELECTRICAL BOX 80x80x45	00218079
36	CABLE GLAND PG13,5	00218081
37	PVC NON-RETURN VALVE Ø32	00218082
38	PVC BALL VALVE Ø32	00218083
41	NYLON SCREW M4x16	00218085
42	NYLON WASHER M5	00218087
43	NYLON NUT M4	00218088
46	PVC WALL CLAMP 3/4"	00218091

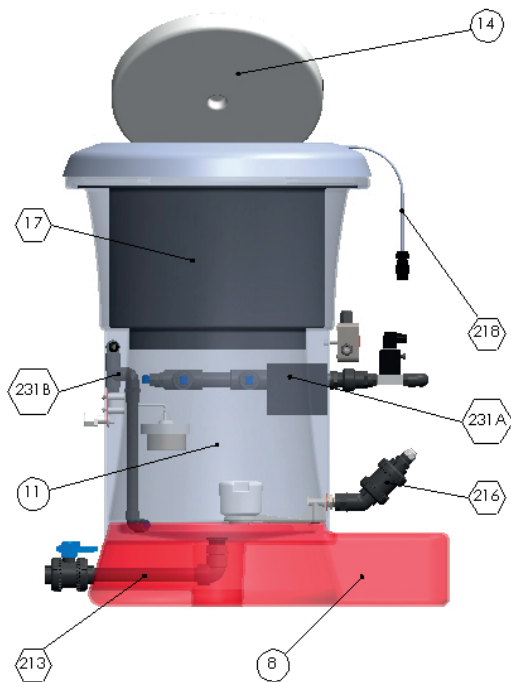
Part Number	Description	Reference
47	1/2 PVC WALL CLAMP 1"	00218092
48	PVC ELBOW 45° Ø32x32/25	00218094
49	PVC ELBOW 90° 1/2"	00218095
53	PVC ELBOW 90° Ø32x1"	00218100
56	PVC CROSS Ø32	00218103
57	PVC MALE THREADED FITTING Ø32x25x1/2"	00218104
59	PVC FEMALE THREADED FITTING Ø20x16x1/4"	00218107
63	PVC FEMALE THREADED FITTING Ø32x25x1/2"	00218111
64	PVC FEMALE THREADED FITTING Ø32x25x3/4"	00218112
71	PVC THREADED NIPPLE 3/4"x1/2"	00218119
72	PVC REDUCTION 1/2" TO 1/4"	00218120
74	PVC REDUCTION Ø32 TO Ø20	00218124
78	PVC UNION Ø32	00218128
80	PVC TE 1/2"	00218131
82	PVC TE Ø32	00218132
85	VENTURI Ø32	00218135
85.1	VENTURI NOZZLE Ø32	00218136
85.2	VENTURI UNION Ø32	00218137
85.3	VENTURI UNION Ø32	00218138
85.4	VENTURI O RING Ø32	00218139
94	CIRCULATOR	00218145
97	NIPPLE 1/2"	00205545
99	PVC MIXED THREADED UNION 1"x32	00218130
100	FILTER Y 1/2"	00219132
103	NIPPLE 1/2"-3/8"	00220472
104	PVC MALE THREADED FITTING Ø25x20-1/2"	00220473
105	ELBOW 90° Ø20-1/2"	00220474
110	EMERGENCY SHUT OFF VALVE	00205442
110.1	EMERGENCY SHUT OFF FLOAT	00217918
110.2	EMERGENCY SHUT OFF FLOAT PLATE	00205454
110.3	EMERGENCY SHUT OFF MOUNTING PLATE	00205451
110.4	EMERGENCY SHUT OFF VALVE BODY WITH ARM ONLY	00205450
110.5	EMERGENCY SHUT OFF MOUNTING NUTS	00205453
110.6	EMERGENCY SHUT OFF MOUNTING PVC SCREWS	00217927
110.7	TUBE FITTING MALE 1/4" D1/2"	00205483
113	RUBBER GASKET EMERGENCY SHUT OFF VALVE	00205540
114	GLAND Ø12	00223559

Part Number	Description	Reference
200	CIRCULATING PUMP KIT E20 50 100	00218148
201	VENTURI KIT E20 50 100	00218149
202	INPUT KIT E20 50 100	00218150
212	DRAIN KIT E20 FIRST	00220546
213	DRAIN KIT E50 FIRST	00220547
216	SUCTION KIT E20 50 FIRST	00220859
218	SAFETY LID KIT E20 50 FIRST	00220548
231	MANIFOLD KIT E50 FIRST	00220544
232	MANIFOLD KIT E20 FIRST	00220545

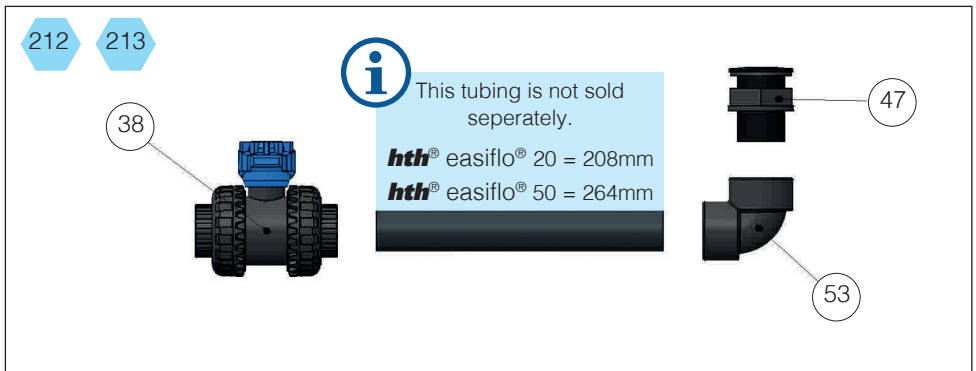
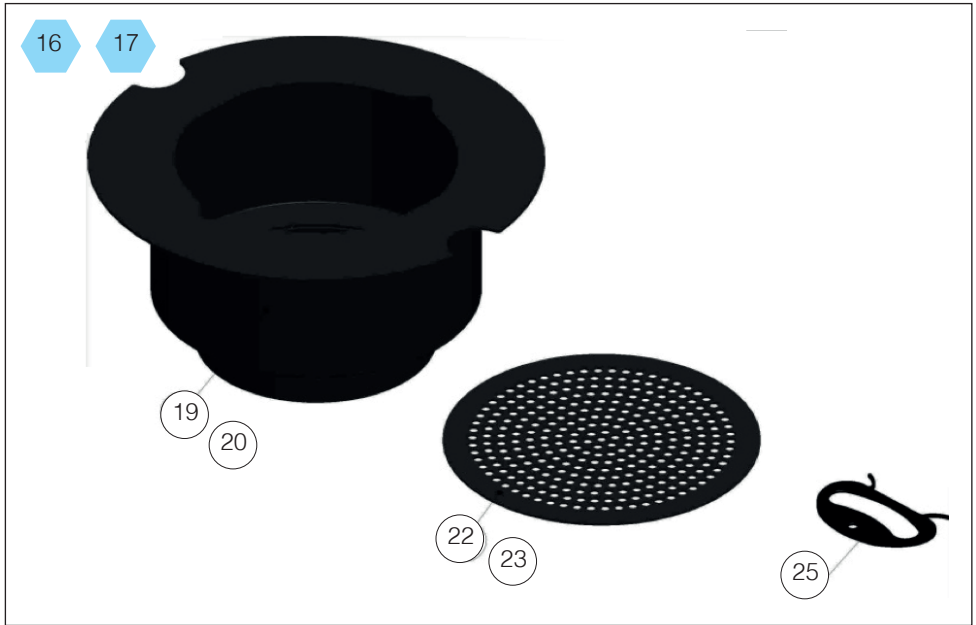
hth® easiflo® First 20



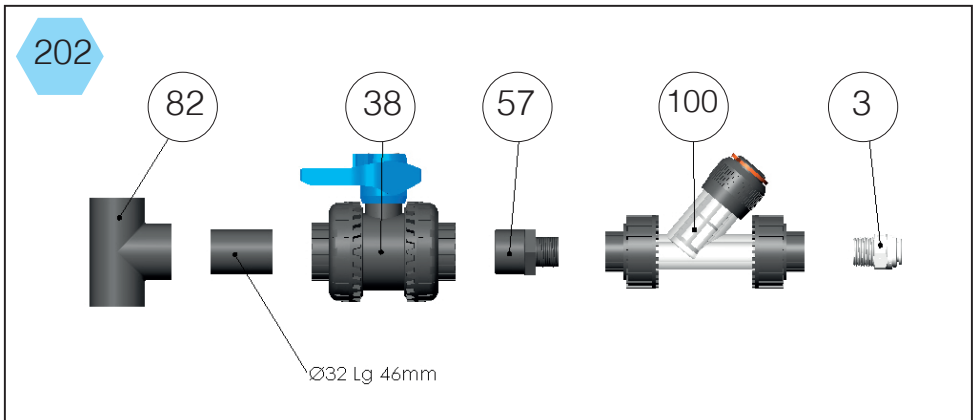
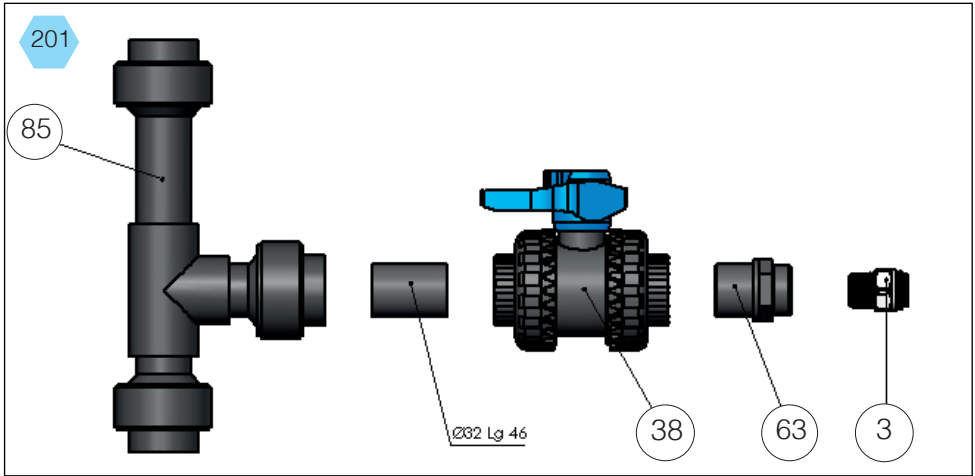
hth® easiflo® First 50



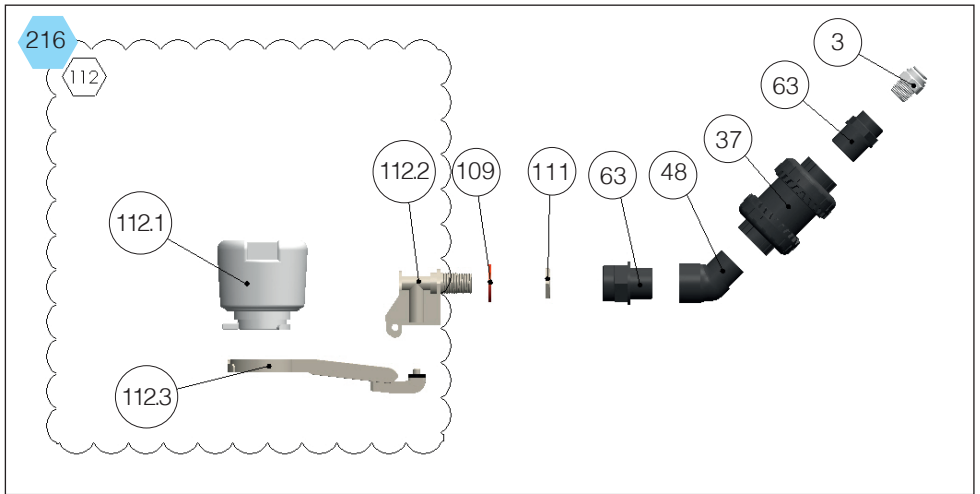
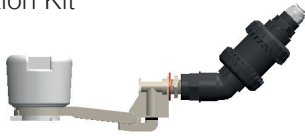
Hopper & Grid



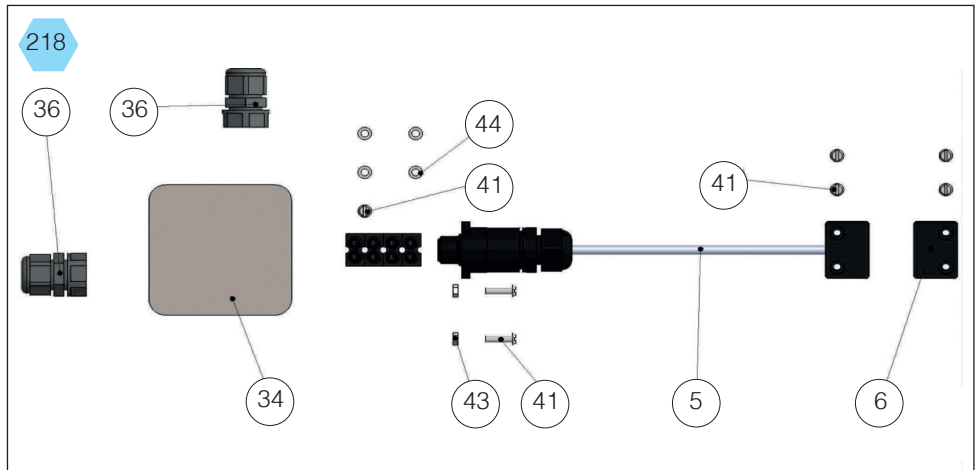
Booster Pump and Venturi



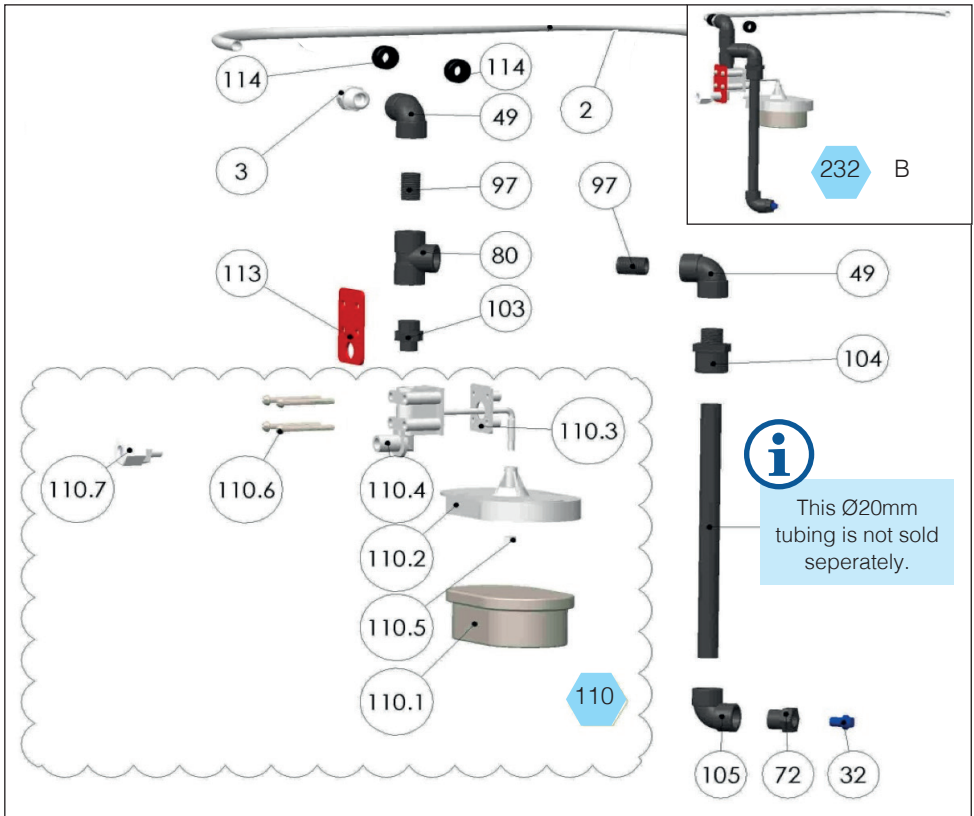
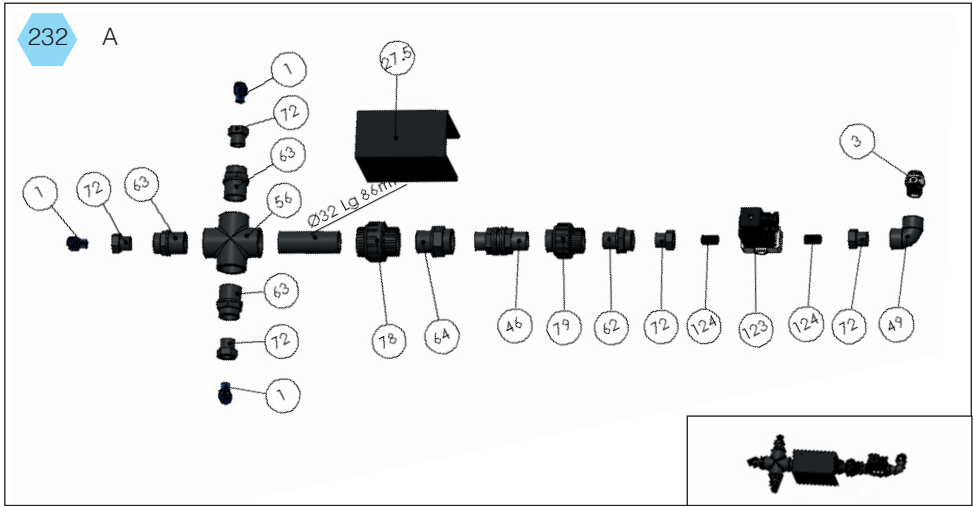
Suction Kit

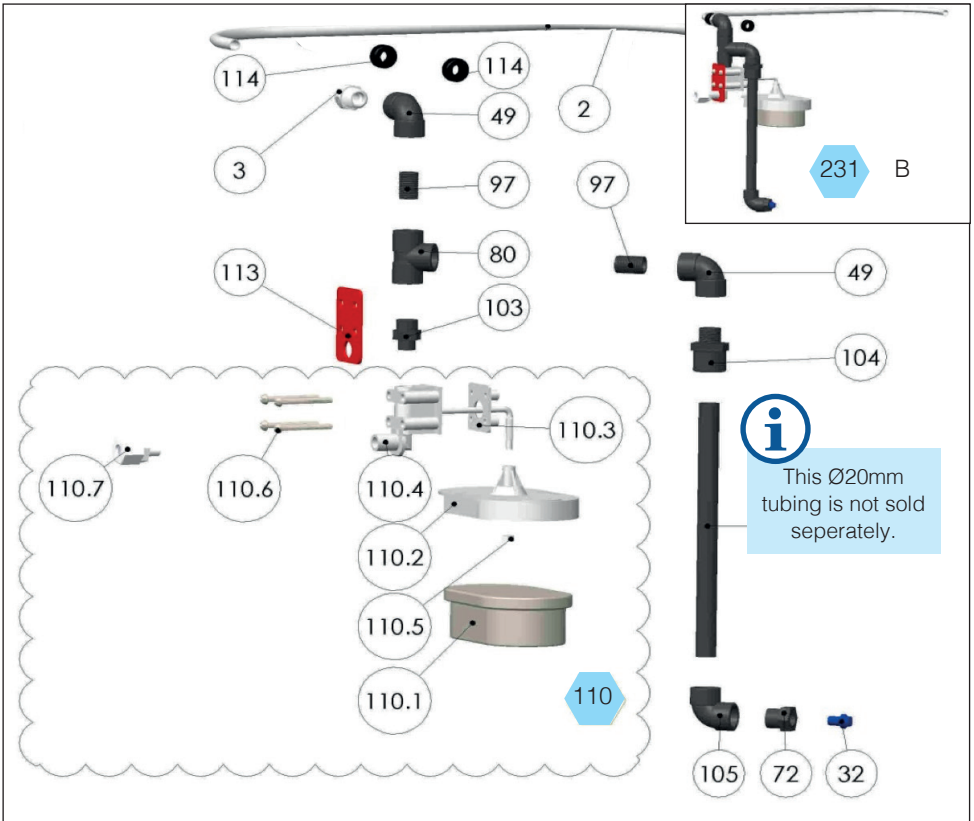
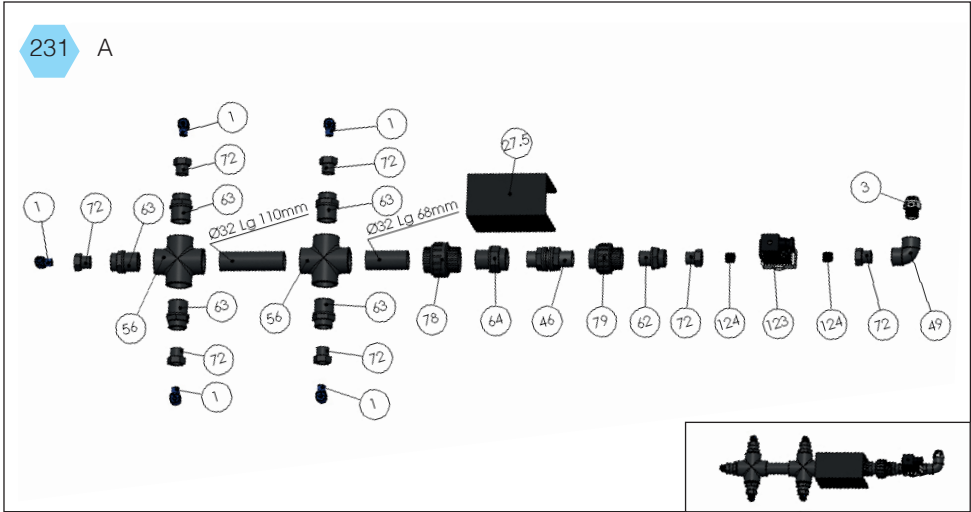


Safety Lid Kit



Manifold Kit **hth**® easiflo® First 20





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