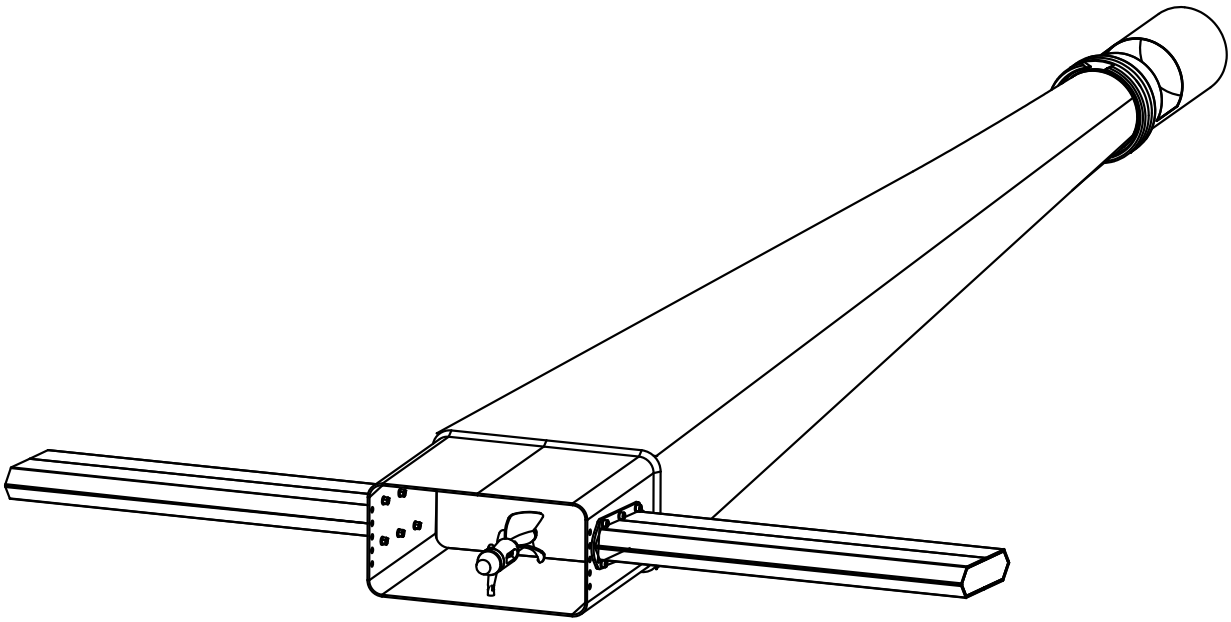
HYDRO-BIOS



‘MANTA’ for Microplastics

OPERATION MANUAL

Product ID 438 217

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GENERAL DESCRIPTION

The microplastic net ‘Manta’ has been designed for open but calm waters, rivers or lakes. The speciality of the Manta design is that it has wings mounted to the sides to lift the frame up and care for stability. For transportation or storage these can easily be unscrewed.

Included into the scope of delivery is a support to witch a Mechanical Flow Meter can be mounted.

The maximum speed is rated to 3 knots.

Plastic debris in the environment - a problem which is drawing more and more attention. One reason for this is that plastic will never really biologically degrade and disappear from our environment but become so called microplastic. Microplastics are small particles ranging from 1 µm to 5 mm.

Tons of those particles get into our natural waters and end up in our oceans. Up to now it is not yet fully understood what physical and chemical impacts microplastic is having on any kind of living organism.

The establishment of a reliable, verified and standardized method to quantify the amount of microplastic particles in the environment plays a key role to assess the consequences of plastic debris in aquatic ecosystems.

- Large variety of mesh sizes
- Light weight but robust
- Easy to handle

TECHNICAL DATA

Length:	250 cm
Width:	130 cm
Height:	16 cm
Net opening:	30 x 15 cm (0.045 m^2)
Weight on air:	5 kg
Material of frame:	anodized aluminium
Material of net bag:	MOnyl (PA 6.6)
Standard mesh size:	300 µm

STANDARD EQUIPMENT

1. 1 Frame, mouth opening 30 x 15 cm (450 cm^2)
2. 2 Floats ('wings')
3. 12 bolts M5x12 with nuts and washers
4. 1 Nylon webbing with zip fastener
5. 1 Net bag of synthetic material with zip fastener
   front opening 30 x 15 cm
   back opening Ø 11 cm
   length 200 cm
6. 1 Fixing ring for soft net bucket
7. 1 Soft net bucket with side window, covered with sieve gauze
8. 1 Socket screw key 4 mm
9. 1 Spanner 8 mm
10. 1 Bridle with thimble and 2 shackles
11. 1 Support incl. nuts for centred mounting of the optional **Flow Meter** (438 110)
12. 1 Spanner 5,5 mm

ASSEMBLY INSTRUCTIONS

1. Mount the two lifting bodies (‘wings’) onto the net frame by using the provided bolts.
   Make sure the rounded edge of the wings’ mounting plate is facing the front opening of the net frame (Fig. 1 and 2).

2. Zip the net bag to the pre-mounted canvas part.

3. Fit the fixing ring for the soft net bucket to the end of the net bag.

4. Mount the soft net bucket to the fixing ring.

5. Fix the bridle with the shackles in one of the five holes on each side of the metal frame depending on the angle of the dragline.

6. Optionally mount the support for the Flow Meter in the centre whole of the net frame by using the provided self-securing nut (Fig. 3 and 4).

Now the ‘MANTA’ MICROPLASTIC NET is ready for deployment.

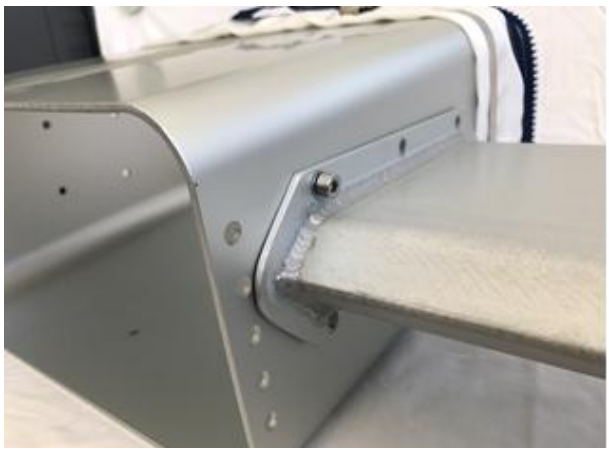


Fig. 1

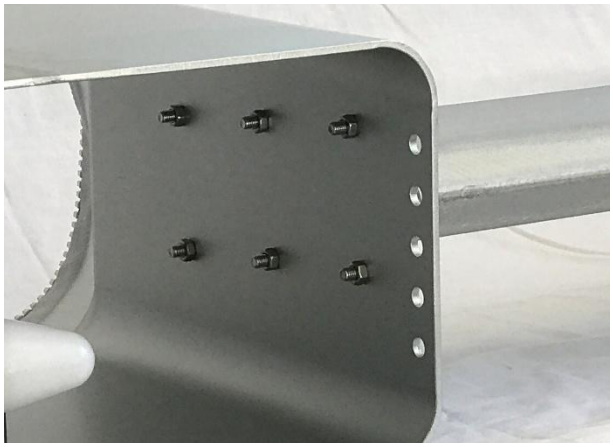


Fig. 2



Fig. 3



Fig. 4