

# Technical Note

## MetCam Mounts Installation Instructions

Sep 2023

Two mounts are available from CI Systems, a simple and cost effective tilt mount (P/N A1604800100) and a high-end pan/tilt mount (P/N A1604800111)

### MetCam Tilt mount, P/N A1604800100.

MetCam tilt mount kit, P/N A1604800100, is delivered in a separate box and the user needs to install it onto MetCam.

The mount kit includes:

- 4 standoffs P/N R00005318LF
- 4 screws P/N R00004468LF
- 1 mount P/N Z1602050120



Mount

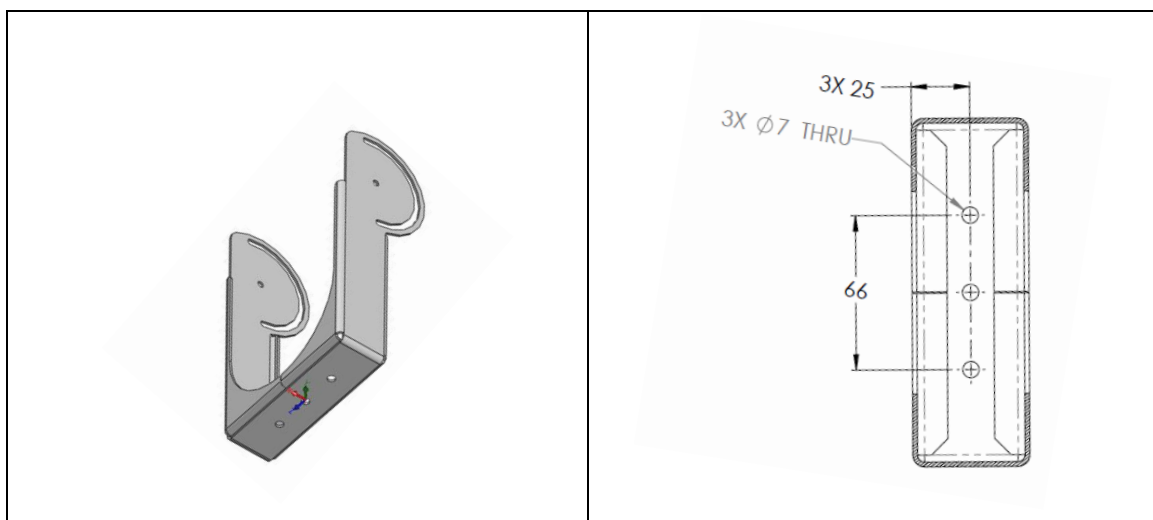


Tighten the standoffs to the threads in the MetCam body, two on each side, using a 3/8" wrench. Threads are marked with arrows in the following picture:



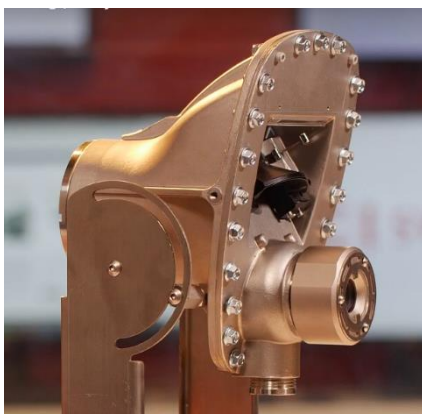
Place MetCam inside the mount and secure it in place with the screws, use a 1/8" Allen wrench/hex key.

Mount base hole dimensions are provided in the following drawing:



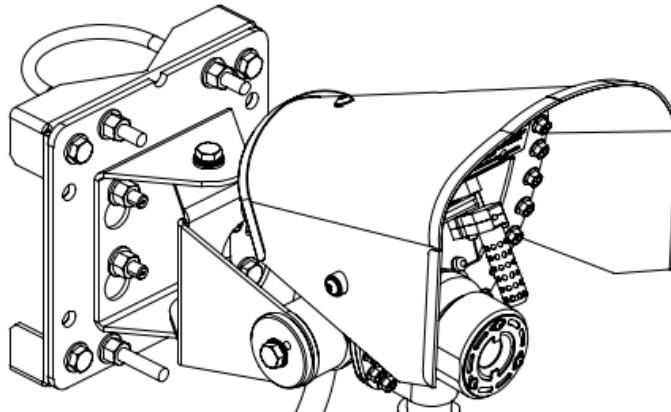
The 66 mm distance between base-hole centers should fit typical U-bolts.

Once assembled it will look like the following:



The back pair of screws serve as a pivot for the tilt operation. Tighten all 4 screws once the desired tilt angle is reached.

## MetCam pan/tilt mount (2023), P/N A1604800111.



This mount was introduced in 2023, it includes Elevation and Azimuth adjustments (pan and tilt). It further includes a quick attachment mechanism to simplify installation.

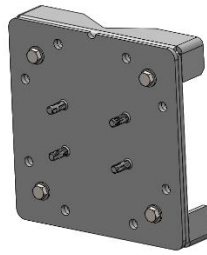
The mount is designed to attach to a surface or to a vertical/horizontal pipe with diameter in the range 2" to 2<sup>3</sup>/<sub>4</sub>" (50 – 70 mm).

The MetCam pan/tilt mount kit, is delivered in a separate package and the user needs to connect it to the MetCam.

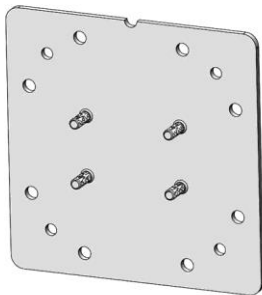
The mount kit includes 2 sub-assemblies:

- Back plate P/N A1604134251
- Mount P/N A1604134201

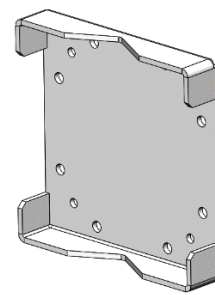
## Back plate



The back plate is made out of two parts delivered connected.  
If the mount is fixed to a flat surface, these two parts need to be separated, and the grooved back part is not used.  
The grooved part is used when connecting to a pipe.

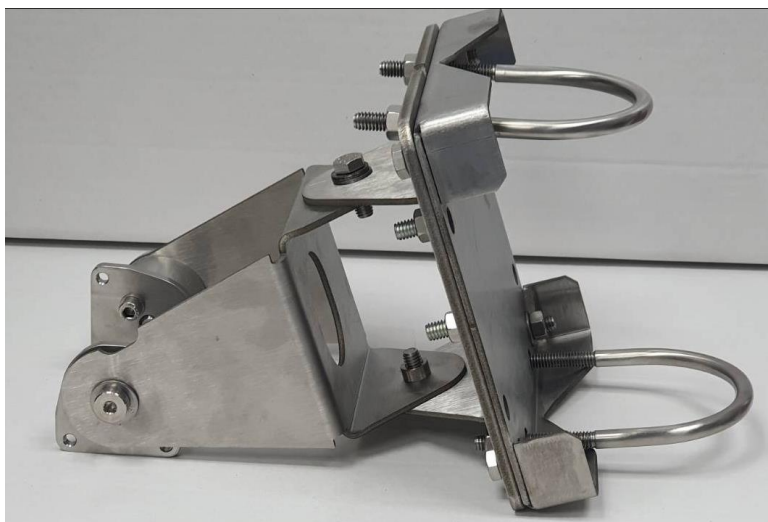


Front part



Back part (grooved)

The front part of the back plate has a notch in one of its edges, the notch should face upwards in all installation scenarios.  
The back part is symmetrical and can be connected in any orientation to the front part.  
This means it can connect to a horizontal or vertical pipe.

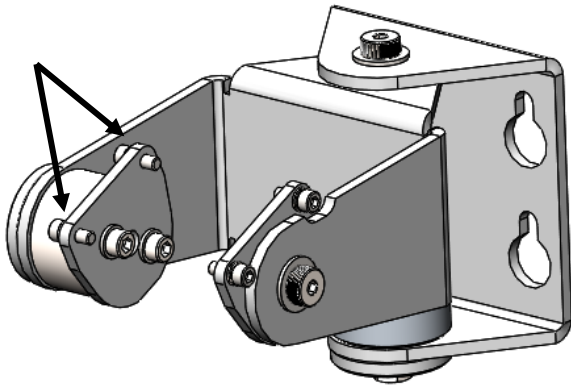


## Mount Installation

First, connect the front part of the mount to the MetCam.  
These two (MetCam + Mount) are then connected to the back plate using the quick attachment.

The mount uses a serrated locking plate in elevation.  
A single tooth rotation of the serrated plate (1 "click") is equivalent to an angular movement of 6 degrees.  
This is approximately 1/3 of the overall vertical field of view.  
In the azimuth direction, the mount allows for free rotation.

To connect MetCam to the mount tighten the connection screws to the threads in the MetCam body, two on each side, using a 5/32" Allen (Hex) key.



Connection screws location on mount



Threads on the MetCam body

Once MetCam and mount are connected, and the back plate has been attached to the wall/pipe, you can connect the MetCam + mount to the back plate by inserting the 4 holes in the mount into the nut on the back plate and then sliding it downwards.

Once the mount sits in place, tighten the 4 nuts to secure it.  
The nuts have a nylon insert to keep them from loosening.

## Aiming

To rotate the mount in Az, release the Azimuth Retain screw, rotate MetCam and tighten the screw to secure.

To rotate the mount in El, release the Elevation Retain screw by a few threads, rotate MetCam and tighten the screw to secure.

