# Profile Setting

Set such items as filter processing for created profiles.

Common settings for head A/head B.

**■ Combination (1) * Valid only when two heads are connected**

Set whether to combine profiles acquired by two heads in the X direction.
Combined profiles are treated as a single profile (up to 1600 points in the X direction).

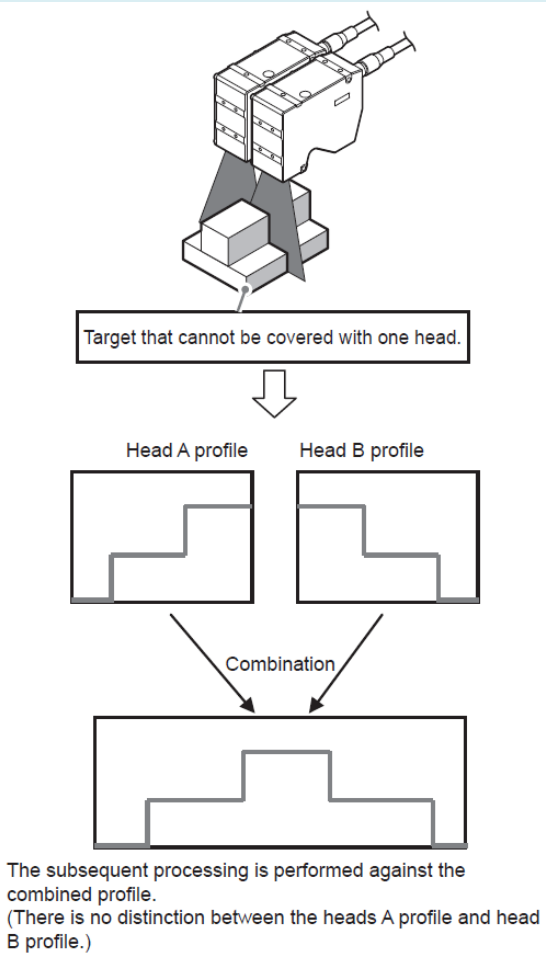
**■ Profile adjustment * Valid only when two heads are connected**

Adjust the position relation of profiles acquired by two heads.

<Inversion>
Inverts the symbol of the X or Z coordinates of profile data.
If the head installation condition setting (common measurement setting) is changed, this setting will be adjusted accordingly.

<Shift>
Measures the master workpiece to adjust the amount of shift on the profile.
* Settings of inversion and shift are reflected not only on the display but also to profile data stored or output.

1




The subsequent processing is performed against the combined profile.
(There is no distinction between the heads A profile and head B profile.)

# Profile Setting

Individual settings for head A/head B.

**■ Smoothing (2)**

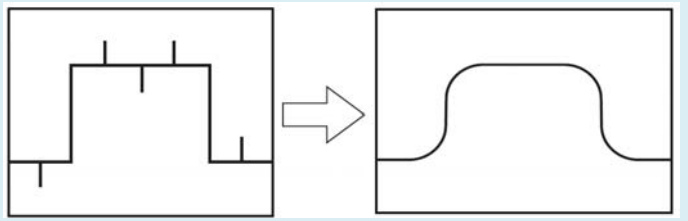
Moving average processing for profile data in the X direction.
Increase the processing time to reduce variations in the profile data.
However, profile edge rounding increases with over-processing.

**■ Averaging (3)**

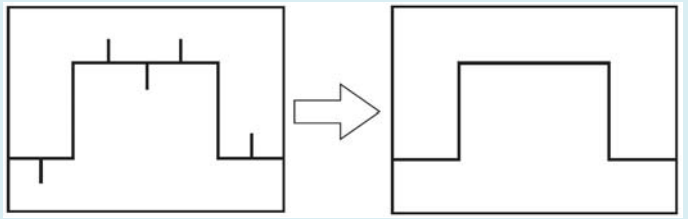
Moving average processing for profile data in the Y (time axis) direction.
Increase the processing times for improving repeatability of data in a profile.
However, the same number of triggers are required to display/output a profile.
Reduce the processing time when high responsiveness is required.

Advanced setting allows further settings.

2



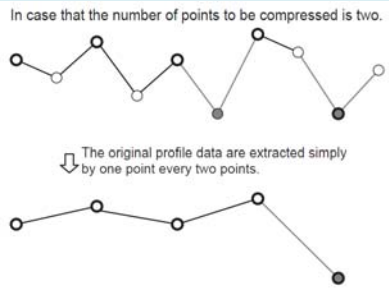
3



# Profile Setting

Common settings for head A/head B.

1

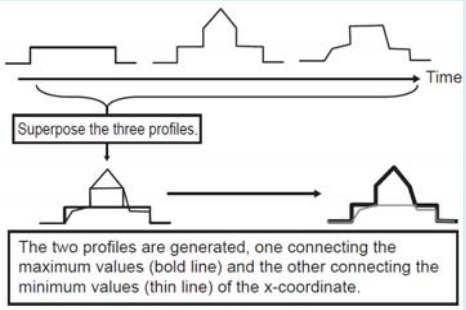



### ■ Compression setting (X-axis) (1)

Compress (skip) profile data in the X direction.
Reducing the amount of profile data improves measurement speed and increases the amount of profile data that can be stored while the measurement range in the X direction remains the same.

### ■ Compression setting (time axis) (2)

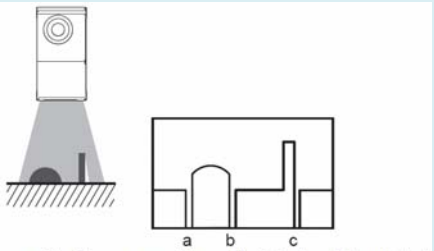
2




Compress profiles in the time axis direction.
A profile (upper side profile) composed of maximum values of each X coordinate and a profile (lower side profile) composed of minimum values on each X coordinate are created based on the compression points.
Processing more than one profile at a time speeds up measurement processing.
It also increases the amount of profile data that can be stored.
This is effective for hump/dent detection on rotating/moving workpieces.

### ■ Dead zone process valid/invalid (3)

3




a and b: Non-measurable profile data due to insufficient light volume
→ Handled as invalid data.
c: Non-measurable profile data due to a shadow of the target
→ Selectable either handled as a dead zone data or invalid data.

Dead zone refers to areas of data that cannot be reached by a laser beam or captured by a light receiving lens from a sensor head.
When this setting is valid, dead zone profile data is treated separately from invalid data.

# Profile Setting

**■ Installation correction**

Correct the tilted installation of a head.

* To correct workpiece misalignment in each sampling, use the "position correction" function.

Individual settings for head A/head B.

**■ Median (X axis) (1)**

This is median processing for profile data in the X direction.
Set the number of neighborhood points to be used for median processing.
Median processing selects an intermediate value from neighborhood data arranged in descending order.
Sudden abnormal data can be eliminated without rounding profile edges.

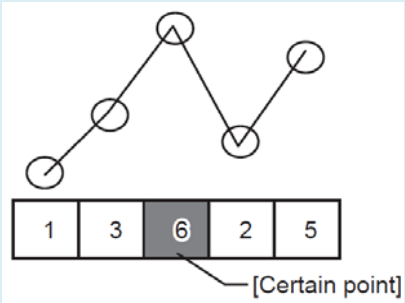
* Invalid profile data is deemed "negatively large value" and treated as valid data for calculation.

**■ Median (time axis) (2)**

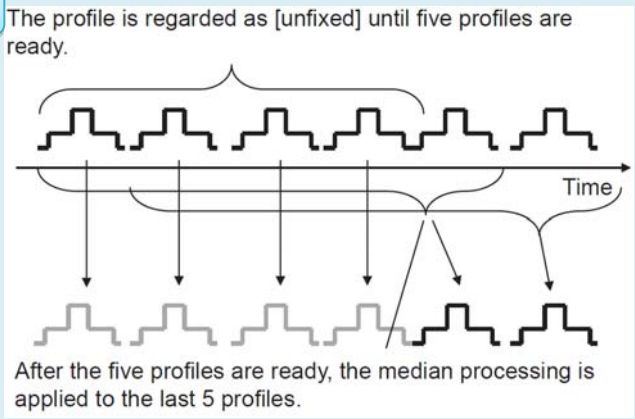
This is median processing for profile data in the Y (time axis) direction.

* Invalid profile data is deemed "negatively large value" and treated as valid data for calculation.

1




2



# Profile Setting

■ **Invalid data processing (time axis) (3)**

Set how to process "invalid data" and "abnormal data affected by such factors as stray light" which may occur when scanning a head or workpiece.

<Processing times>

Sets the number of samplings invalid values that continue on the same X coordinate before determining the profile data invalid. Holds the last value until the number of invalid values exceeds the processing time.

<Resume times>

Sets the number of samplings valid values that continue before the profile data, once treated as invalid data, is returned as a normal value.