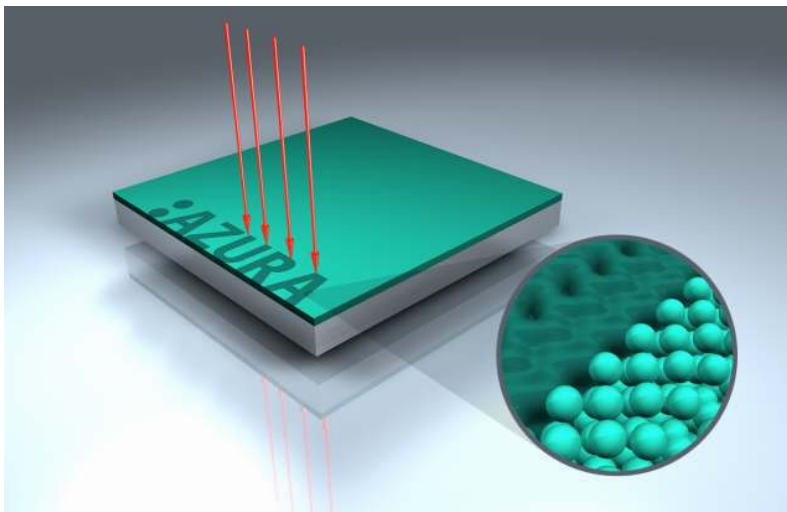


:Azura Presstek Dimension set-up guidelines

A practical technical guide to using Agfa's :Azura plate on the Presstek Dimension platesetter



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Introduction – roles and responsibilities, important information.

This practical guide explains how to get the very best performance from :Azura in the Presstek Dimension platesetter.

Please note:

- Agfa can not guarantee the system performance level even if the recommendations in this document are followed
- Agfa can take no responsibility with respect to performance or reliability of the Dimension platesetter ; nor will Agfa take any responsibility in its maintenance or service
- it is therefore essential that a clear agreement exists between the customer and a qualified Presstek service provider, which covers all aspects of warranty, maintenance and service

This means :

i) for Agfa or the Agfa representative organisation (dealer) :

Agfa or its representative will take responsibility for the installation and performance of the :C85 / :C120 cleaning unit and for the :Azura plate performance. It is not Agfa's position to get involved in modifications or changes to the Dimension as this might affect warranty or service agreements on the Dimension.

ii) for the Presstek service partner :

The Presstek service partner retains and accepts full responsibility for all aspects of performance, functionality and servicing of the Dimension platesetter.

a) Dimension operation principles

A Presstek Dimension platesetter operates somewhat differently in comparison to other external drum thermal platesetters.

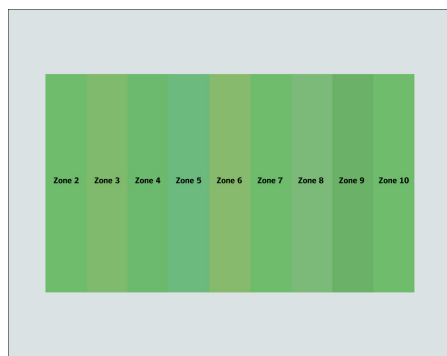
Traditional external drum thermal platesetters (e.g. Agfa's X45) have one imaging bundle or 'swath' (sometimes composed of several imaging channels), writing the complete plate from one side to the other while the drum is rotating. This means that the theoretical imaging time is depending on the plate size.

A Presstek Dimension platesetter has an imaging "bar" with several diode "blocks", each writing their own "zone" on the plate. As a consequence, the imaging time is independent of the plate size and thus fixed.

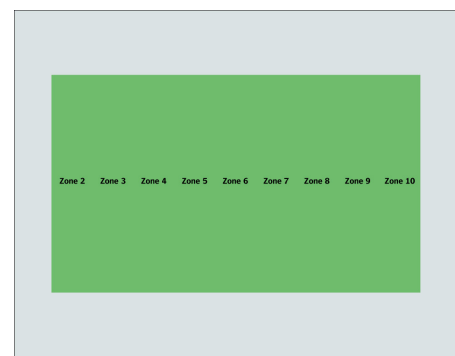
The width of such an "imaging zone" depends on the type of Presstek Dimension:

	Number of zones	Number of imaging channels	Width of an imaging zone	Max. plate width
Dimension 200	12	48 - (4x 12)	± 47 mm	530 mm
Dimension 400	16	64 - (4x 16)	± 63 mm	780 mm
Dimension 800	16	64 - (4x 16)	± 63 mm	1118 mm

The challenge during the installation of :Azura on a Presstek Dimension is to make sure that all imaging zones are very precisely leveled.



Poor balancing - imaging zones visible



Good balancing - imaging zones invisible.

b) Preparation for the setup

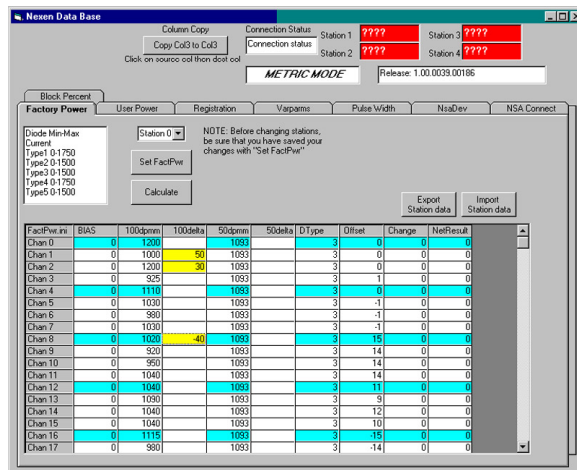
The starting assumption is that the Presstek Dimension platesetter is set in optimum condition to image Presstek's Anthem plates – i.e. the imaging channels are balanced.

The use of Agfa :Azura on a Presstek Dimension requires the Agfa approved cleaning unit - i.e. Agfa's :Azura C85 and C120 cleaning units using Agfa :Azura WG100 gum.

- Install the Agfa :Azura C85 or Agfa :Azura C120 cleaning unit.
 - See the installation and operation manual.
 - The cleaning unit only uses gum; there is no usage of water or other liquids.
 - The cleaning unit does not need connection to water supply. Used gum flows back to the gum supply container, so there is no need to provide a connection to the sink or to the drain.
 - Agfa :Azura WG100 gum is the only recommended gum.
- Save all Presstek Anthem data and databases, in case data recovery is necessary.
- There is the option to create new media (or plate sizes) for :Azura, or just overwrite the data of Anthem. This choice is up to the customer/service engineer.
- If the customer uses several plate sizes, it is recommended to use the largest plate size for the set-up.
- The installation of Agfa :Azura on a Presstek Dimension takes one full day. A test on press at the end of the day is essential.

c) Setting up the system – in 14 straightforward steps

1. Our experience during the beta phase was that the focus value for Agfa :Azura versus Presstek Anthem is not different, as long as the plate thickness remains identical. If the service engineer wants to run a focus series, it's recommended to perform step 2 and 3 first, before starting the focus series.
2. Open the Nexen database (factory power tab), so that you can see all individual imaging channels, with their corresponding power settings (in milliAmps).



Since Presstek Anthem is using ablative technology (burn off the layer - hence an extraction system and filter are required to catch particles), this material needs huge amounts of energy. The values you'll see per imaging channel are typically around 1000 mA, but can vary strongly per channel.

3. Reduce every operational imaging channel with 400 units. This change has to be made in the 100delta column, by typing -400 next to every imaging channel.

[The value "-400" is a type of reference. If the final setting for the mAmps is too high, there is a risk that text will print much too bold, in comparison with Anthem]

Click the calculate button.

Click SetFactPwr

Close the Nexen database.

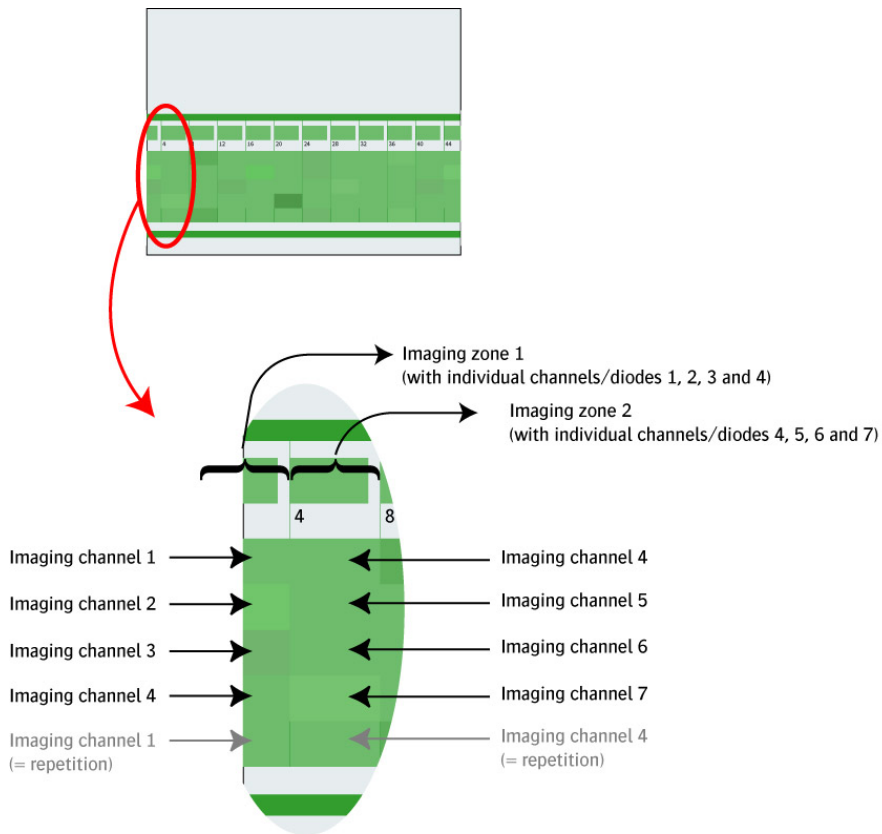
4. Punch an Agfa :Azura plate and load the plate in the Dimension.

5. Image the Presstek specific testfile for laser adjustment, called WormDens image :
Use the Nexen-based WormDens images, not the GUI-based WormDens images
Select the file 02_wormdens...100dpm-Dxxx
Image the file as positive
After imaging, clean the :Azura plate in the cleaning unit.



6. Most probably, the plate will show an area of rectangles with most of them having a different kind of gloss and shade.
The goal is to bring each of these individual blocks as balanced as possible.
An "imaging zone" is the sum of 4 individual imaging channels/diodes.

7. Explanation of the WormDens file - picture detail



In this example, channel 4, 5 and 6 are balanced, but it's clear that channel 7 is much too light.

Also, channels 2 and 3 (in imaging zone 1, which falls partly off the plate) are not OK: channel 2 is too light, channel 3 is too dark.

8. Adjustment of the individual channels

- Open the Nexen database (factory power tab), so that you can see all individual imaging channels, with their corresponding power settings (in milliAmps).
- Based on the visual appearance of the individual imaging channels (the rectangles on the plate in step 7), change the value of the imaging channels.

Evaluation of the plate after cleaning the plate in the clean-out unit:

- If a rectangle is too dark and it should become lighter: increase the current of this diode.
- If a rectangle is too light and it should become darker: decrease the current of this diode.

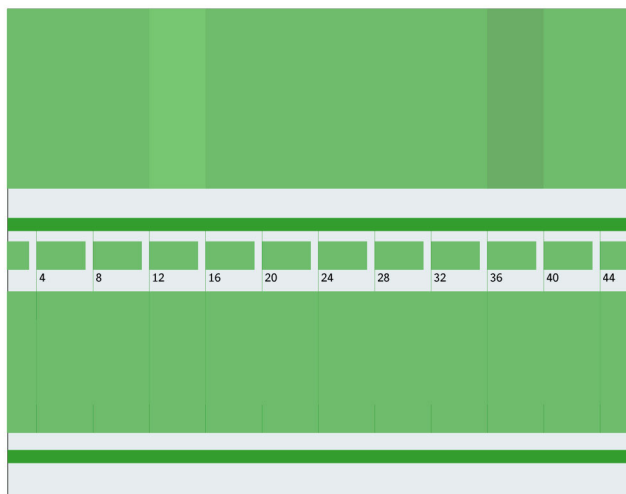
This change has to be made in the 100delta column, by typing a value next to the specific imaging channel:

- e.g. -25 to make the rectangle darker
- e.g. 25 to make the rectangle lighter

- After changing all the required diodes, click the calculate button.
- Click SetFactPwr
- Close the Nexen database.
- Re-image a plate - (see step 5)
- Evaluate the new plate and repeat step 8 in case there are still adjustments to make.

9. Step 8 should be repeated until all individual image blocks appear as one general area with the same density. Note, the colour differences visible in the illustrations below may be *less* clear if you print out a hard copy of this document, it will depend on your printer colour quality.

10. Once all individual imaging diodes are balanced, focus on the entire imaging zones. In order to get a complete imaging zone leveled, all individual diodes should be adjusted.



Example :

- Imaging zone 4 (individual imaging channels 12, 13, 14 and 15) to be made darker
- Imaging zone 10 (individual imaging channels 36, 37, 38 and 39) to be made lighter.

Via the Nexen database:

- Channels 12, 13, 14 and 15 to be decreased
- Channels 36, 37, 38 and 39 to be increased.

11. Final result

- The final result should be elimination of imager banding on plate after cleaning it in the clean-out unit.
- Even the weakest appearance of an imager band on plate will lead to press issues !

12. Calibration curve

Once all imaging channels are balanced, the creation of a new calibration curve will be required.

First of all, the general amount of power has been decreased about 40% and secondly, Azura is a negative working plate while Anthem was a positive working plate.

At 150 lpi, one should expect that a 50% dot will read like a 65-70% dot on an un-calibrated plate.

Hence a calibration is essential.

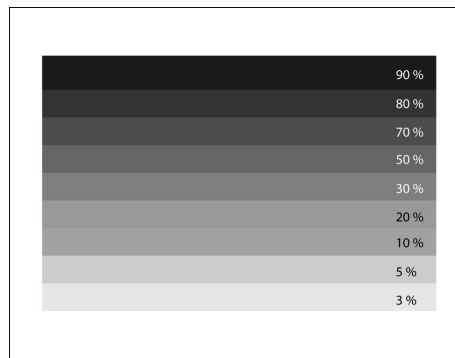
13. Print test

The last step in the process, the print test.

Send a file from the customer's front-end with the customer's screening. Image the file on an :Azura plate and print the plate.

- Practical files should be imaged in "negative" mode.

The goal is to see if there is no more imager banding visible. If banding remains visible, step 10 should be fine-tuned.



Ideal content of the file for printing (diagram above)

14. Diode stability / Education for the customer

Experience during the beta test has shown that some Dimension devices (depending on their age) can show exposure instability ('drift') over time.

Specifically, after 1-2 weeks, the power of the diodes may shift slightly, resulting in imager banding appearance. This laser power drift is not plate dependent, it may also happen on either Anthem or Applause. If this happens, the imaging zones have to be balanced again.

Therefore it may be worthwhile familiarizing the customer with imaging channels adjustments / imaging zones adjustments.