



# ProMaker

## Boom Profile Creator

Web-based interface

Operator Manual

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# Section 1: Setup

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**Topics:**

- [Setup a ProMaker Account](#)
- [Main ProMaker Web Page Explanation](#)

## Setup a ProMaker Account

1. Go to <https://promaker.capstanair.com>.

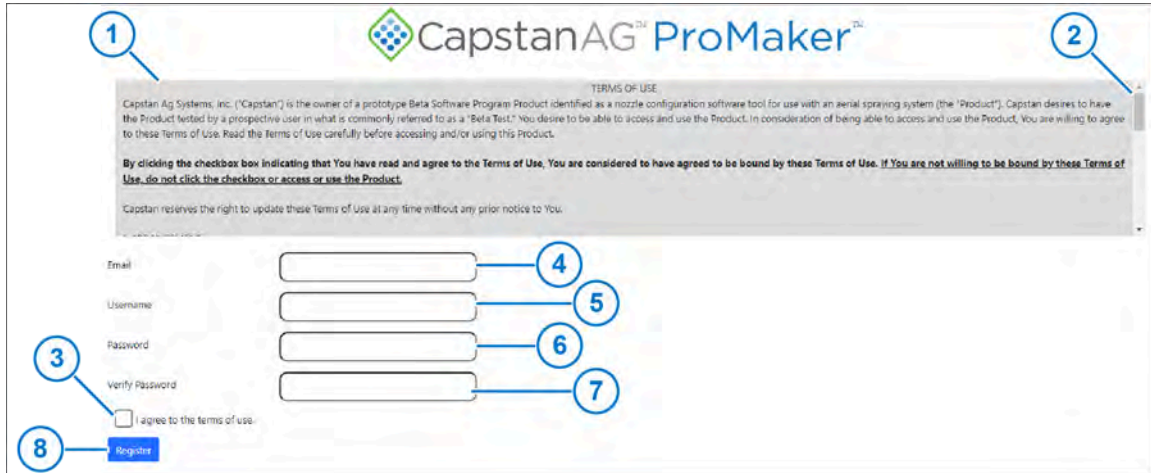


Figure 1: Sign Up Page

2. Read the **TERMS OF USE** (Figure 1, Item 1).
3. Use the slider bar (Figure 1, Item 2) to scroll through all of the information.
4. After you have read and understand the Terms of Use, put a checkmark in the box (Figure 1, Item 3) next to **I agree to the terms of use**.
5. In the box (Figure 1, Item 4) next to **Email** enter your email address.
6. In the box (Figure 1, Item 5) next to **Username** enter a username.
7. In the box (Figure 1, Item 6) next to **Password** enter a password.
8. In the box (Figure 1, Item 7) next to **Verify Password** enter the password again.
9. Select **Register** (Figure 1, Item 8).  
A verification email is sent to the email address you provided.

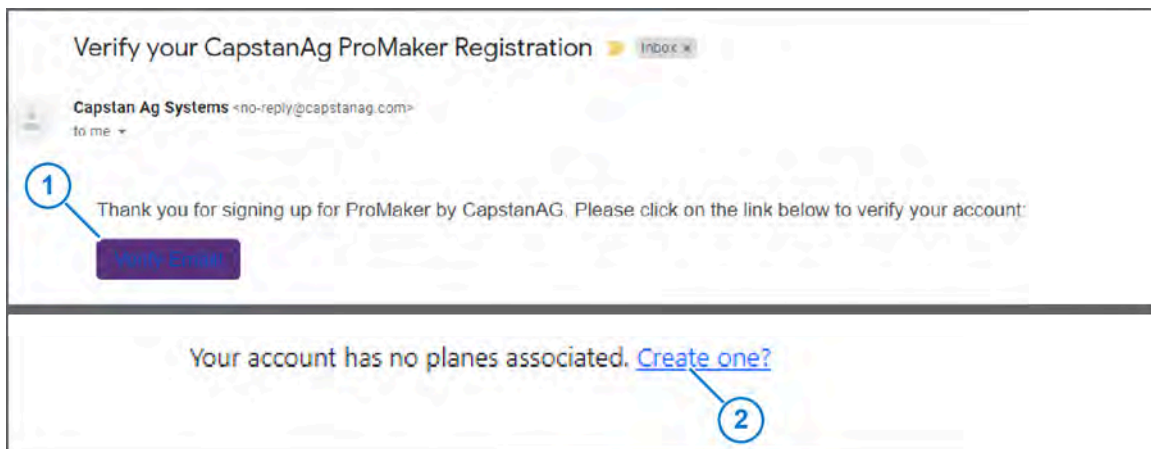


Figure 2: Verify Email

10. Go to your email and open the verification email.

11. Click **Verify Email** (Figure 2, Item 1) verify your account information.

You will taken to the homepage.

The first time you login, your account will have no planes associated with your account.

12. Select **Create one?** (Figure 2, Item 2) to make a plane profile.

Figure 3: Create Plane

13. Select the box (Figure 3, Item 1) below **Plane Model**.

14. Select your plane model from the list.

15. Select the box (Figure 3, Item 2) below **T-Boom Nozzles Left of Center**.

16. Select the correct value from the list.

17. Select the box (Figure 3, Item 3) below **T-Boom Nozzles Right of Center**.

18. Select the correct value from the list.

19. Select the box (Figure 3, Item 4) below **Name**.

20. Enter a name for your plane.

21. Select **Create Plane** (Figure 3, Item 5).

More planes can be created to fill out the entire fleet from **Plane Management** (Figure 3, Item 6) on the sidebar. For more information, see [Plane Management](#).

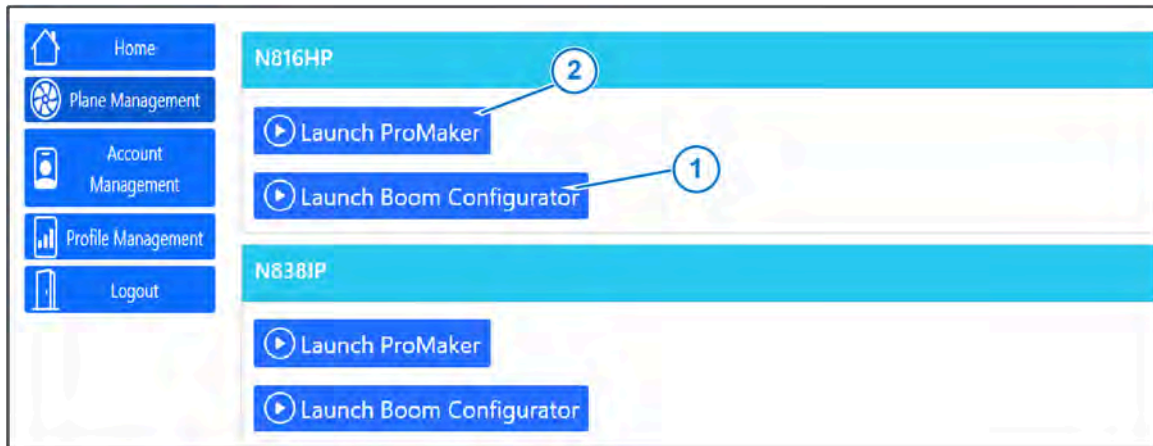


Figure 4: Home Screen

22. Select **Launch Boom Configurator** (Figure 4, Item 1) to make a boom configuration for the plane.  
For more information, see [Make a Boom Configuration](#).
23. Select **Launch ProMaker** (Figure 4, Item 2) to make a profile.  
For more information, see [Make a New ProMaker Profile](#).





After the general profile information has been entered, the bottom middle darker blue box ([Figure 5, Item 6](#)) will show the application rate and tip pressures for each configured tip size. Use **Bump Up** or **Bump Down** to quickly adjust the target rate. **Minimum Speed:** and **Maximum Speed:** boxes are only relevant when using Auto mode. This will be the speed range where the target rate can be achieved within the inputted system parameters.

To return to the Home Screen, click on the CapstanAG logo. ([Figure 5, Item 7](#)).

## Section 2: Operation

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**Topics:**

- [Make a Boom Configuration](#)
- [Make a New ProMaker Profile](#)
- [Upload and Change a ProMaker Profile](#)
- [Edit a Boom Configuration](#)
- [Plane Management](#)
- [Account Management](#)
- [Profile Management](#)

## Make a Boom Configuration

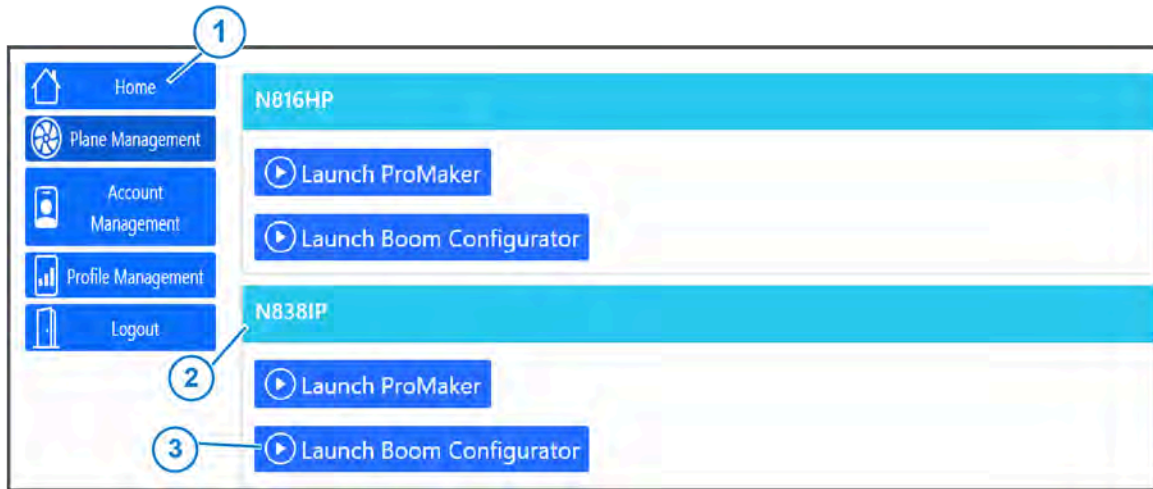


Figure 6: Home Screen

1. Log into your ProMaker account at <https://promaker.capstanair.com> or select **Home** (Figure 6, Item 1) from the sidebar.  
If you do not have a ProMaker account, see [Setup a ProMaker Account](#).
2. In the box (Figure 6, Item 2) below the desired plane, select **Launch Boom Configuration** (Figure 6, Item 3).

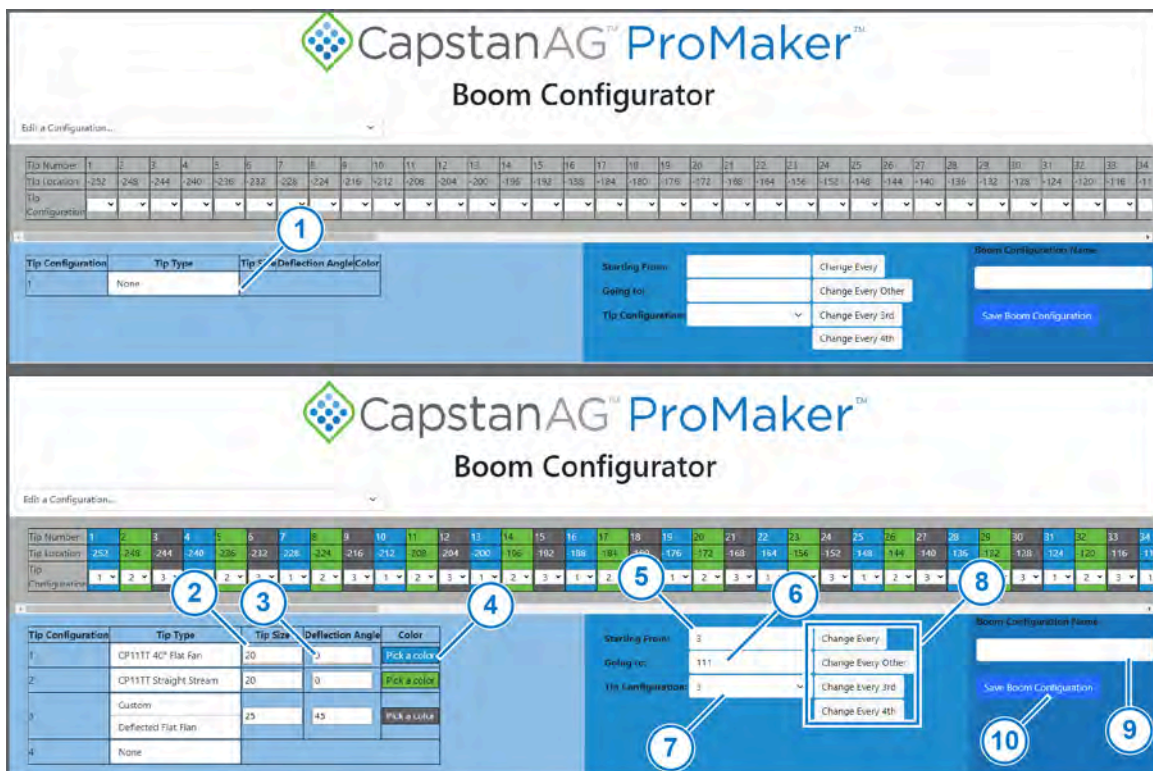


Figure 7: Boom Configurator

3. Click on the box (Figure 7, Item 1) below **Tip Type**.
4. Select the desired tip type from the list.  
Only use custom if the desired tip is not shown on the existing list.
5. Click on the box (Figure 7, Item 2) below **Tip Size**.
6. Enter the correct type size.
7. Click on the box (Figure 7, Item 3) below **Deflection Angle**.
8. Enter the correct value.
9. If desired, click on **Pick a color** (Figure 7, Item 4).
10. Pick the desired color and click anywhere outside the box that shows.
11. Repeat Steps 4 to 12 for each tip type installed on the boom.
12. After the tip configurations are made, assign the tips to the correct location on the boom.
  - a) Click in the box (Figure 7, Item 5) next to **Starting From:** and enter the starting tip number.
  - b) Click in the box (Figure 7, Item 6) next to **Going to:** and enter the ending tip number.
  - c) Click in the box (Figure 7, Item 7) next to **Tip Configuration:** and enter the correct tip configuration list on the left side of the page.
  - d) Select which tips to change from the list (Figure 7, Item 8):
    - Change Every
    - Change Every Other
    - Change Every 3rd
    - Change Every 4th
  - e) Repeat adding the tip configuration information until you have all of the information correct for your profile.  
Tip configurations can also be changed individually using the menu for each tip in the gray box.
13. Click on the **Boom Configuration Name** box (Figure 7, Item 9) and enter the desired name of the configuration.
14. Click **Save Boom Configuration** (Figure 7, Item 10).  
You will automatically go back to the **Home** screen.

## Make a New ProMaker Profile

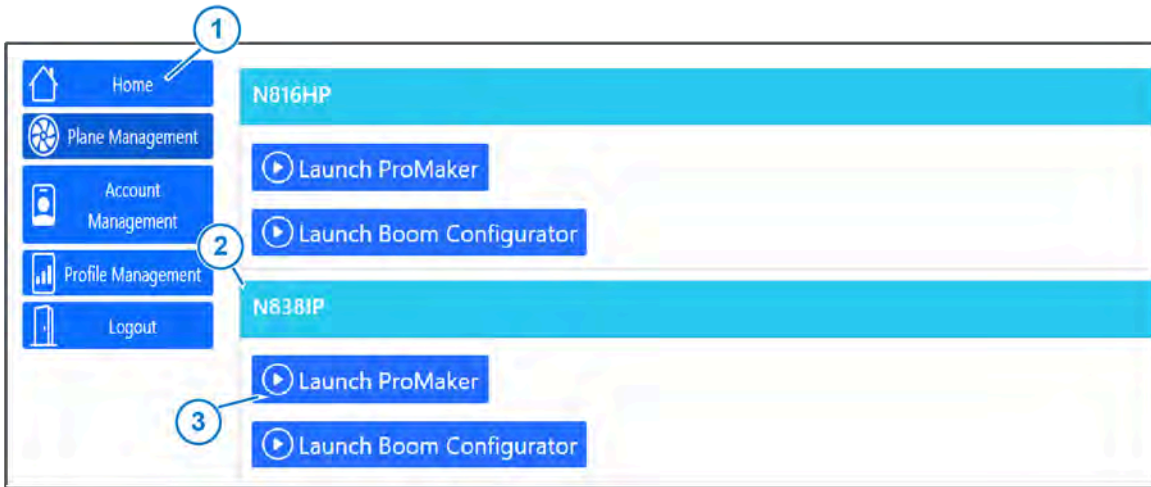


Figure 8: Home Screen

1. Log into your ProMaker account at <https://promaker.capstanair.com> or select **Home** (Figure 8, Item 1) from the sidebar.  
If you do not have a ProMaker account, see [Setup a ProMaker Account](#).
2. In the box (Figure 8, Item 2) below the desired plane, select **Launch ProMaker** (Figure 8, Item 3).

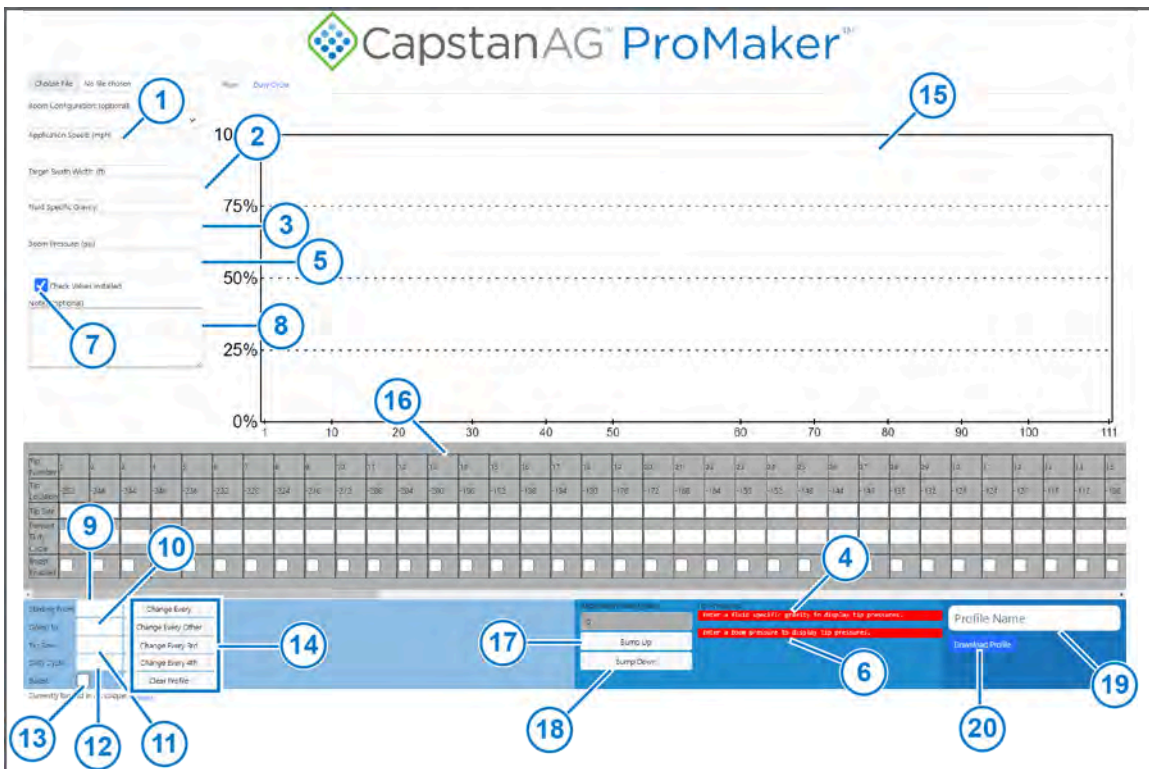


Figure 9: Main Profile Page



3. Click in the box (Figure 9, Item 1) below **Application Speed:** and enter the target ground speed at which the product will be applied.
4. Click in the box (Figure 9, Item 2) below **Target Swath Width:** and enter the target width of product application.
5. Click in the box (Figure 9, Item 3) below **Fluid Specific Gravity:** and enter the information for the product you will apply.  
This information can be found on the label for the chemicals you use. You must enter this value, or a message (Figure 9, Item 4) will show.
6. Click on the box (Figure 9, Item 5) below **Boom Pressure:** and enter the target boom pressure for application.

**Note:** This value is NOT the pressure at the tips.

You must enter this value, or a message (Figure 9, Item 6) will show.

7. If the boom uses CapstanAG check valves, make sure to put a check mark in the box (Figure 9, Item 7) next to **Check Valves Installed.**
8. If desired, click in the box (Figure 9, Item 8) below **Notes: (optional)** and enter any additional information you want to have with this profile.  
This information will only show in ProMaker and will not show on the CapView display.
9. Enter your tip information:
  - a) Click in the box (Figure 9, Item 9) next to **Starting From:** and enter the starting tip number.
  - b) Click in the box (Figure 9, Item 10) next to **Going to:** and enter the ending tip number.
  - c) Click in the box (Figure 9, Item 11) next to **Tip Size:** and enter the correct tip size.  
This box can be left blank to change duty cycle without changing the tip size.
  - d) Click on the box (Figure 9, Item 12) next to **Duty Cycle:** and enter the value of the desired duty cycle.  
This box can be left blank to change tip size without changing the duty cycle.
  - e) If you are using boost, make sure to put a check mark in the box (Figure 9, Item 13) next to **Boost.**  
A nozzle can only be boost if its duty cycle is 0.
  - f) Select which tips to change from the list (Figure 9, Item 14):
    - Change Every
    - Change Every Other
    - Change Every 3rd
    - Change Every 4th
    - Clear Profile—remove the duty cycle of all valves but does not remove other parameters such as tip size, application speed, swath width, etc.

Hovering over a button will show the changes you are about to make in orange.

Information will be added to the bar graph (Figure 9, Item 15) and the tip information table (Figure 9, Item 16).

- g) Repeat adding the tip size information until you have all of the tip sizes for your profile added.

If using a boom profile, buttons will show to let you change all valves with the same tip size in the range of start to end. When using a boom profile, tip size is disabled as it is configured in the boom profile.

10. To change the application rate, select **Bump Up** (Figure 9, Item 17) or **Bump Down** (Figure 9, Item 18).

The profile can also be changed by directly editing information in the grey region.

11. Click on the **Profile Name** box ([Figure 9](#), Item 19) and enter the desired name of the profile.
12. Click **Save Profile** ([Figure 9](#), Item 20).

The profile is now ready to upload to the CapView, see the information to [Upload a Profile to the CapView](#) in the Installation Manual, Pilot Operating Handbook, or the Instructions for Continued Airworthiness.



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## Upload and Change a ProMaker Profile

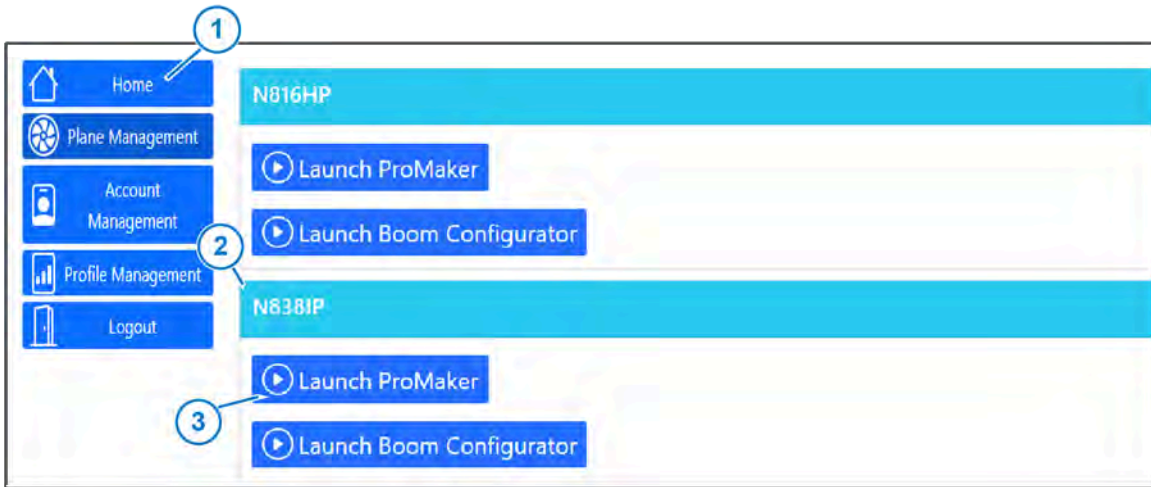


Figure 10: Home Screen

1. Log into your ProMaker account at <https://promaker.capstanair.com> or select **Home** (Figure 10, Item 1) from the sidebar.  
If you do not have a ProMaker account, see [Setup a ProMaker Account](#).
2. In the box (Figure 10, Item 2) below the desired plane, select **Launch ProMaker** (Figure 10, Item 3).

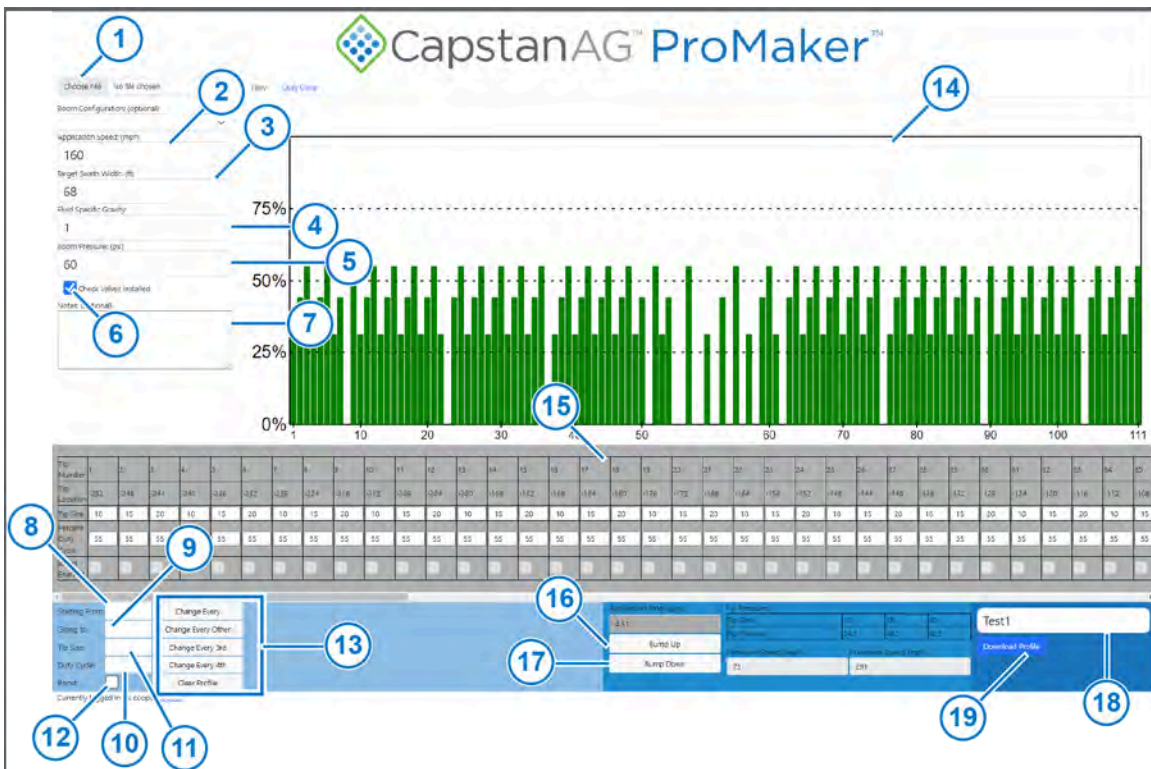


Figure 11: Change a Profile

3. Select **Choose File** (Figure 11, Item 1) and select the desired profile.
4. To change the application speed, click in the box (Figure 11, Item 21) below **Application Speed:** and enter the target ground speed at which the product will be applied.
5. To change the swath width, click in the box (Figure 11, Item 3) below **Target Swath Width:** and enter the target width of product application.
6. To change the fluid specific gravity, click in the box (Figure 11, Item 4) below **Fluid Specific Gravity:** and enter the information for the product you will apply.
7. To change the boom pressure, click on the box (Figure 11, Item 5) below **Boom Pressure:** and enter the target boom pressure for application.

**Note:** This value is NOT the pressure at the tips.

8. If the boom uses CapstanAG check valves, make sure to put a check mark in the box (Figure 11, Item 6) next to **Check Valves Installed.**
9. If desired, click in the box (Figure 11, Item 7) below **Notes: (optional)** and enter any additional information you want to have with this profile.
10. Add the tip size information to the profile:
  - a) Click in the box (Figure 11, Item 8) next to **Starting From:** and enter the starting tip number.
  - b) Click in the box (Figure 11, Item 9) next to **Going to:** and enter the ending tip number.
  - c) Click in the box (Figure 11, Item 10) next to **Tip Size:** and enter the correct tip size.
  - d) Click on the box (Figure 11, Item 11) next to **Duty Cycle:** and enter the value of the desired duty cycle.
  - e) If you are using boost, make sure to put a check mark in the box (Figure 11, Item 12) next to **Boost.**
  - f) Select which tips to change from the list (Figure 11, Item 13):
    - Change Every
    - Change Every Other
    - Change Every 3rd
    - Change Every 4th
    - Clear Profile

Information will be added to the bar graph (Figure 11, Item 14) and the tip information table (Figure 11, Item 15).

- g) Repeat adding the tip size information until you have all of the tip sizes for your profile added.
11. To change the application rate, select **Bump Up** (Figure 11, Item 16) or **Bump Down** (Figure 11, Item 17).
12. Click on the **Profile Name** box (Figure 11, Item 18) and enter the desired name of the profile.
13. Click **Save Profile** (Figure 11, Item 19).

## Edit a Boom Configuration

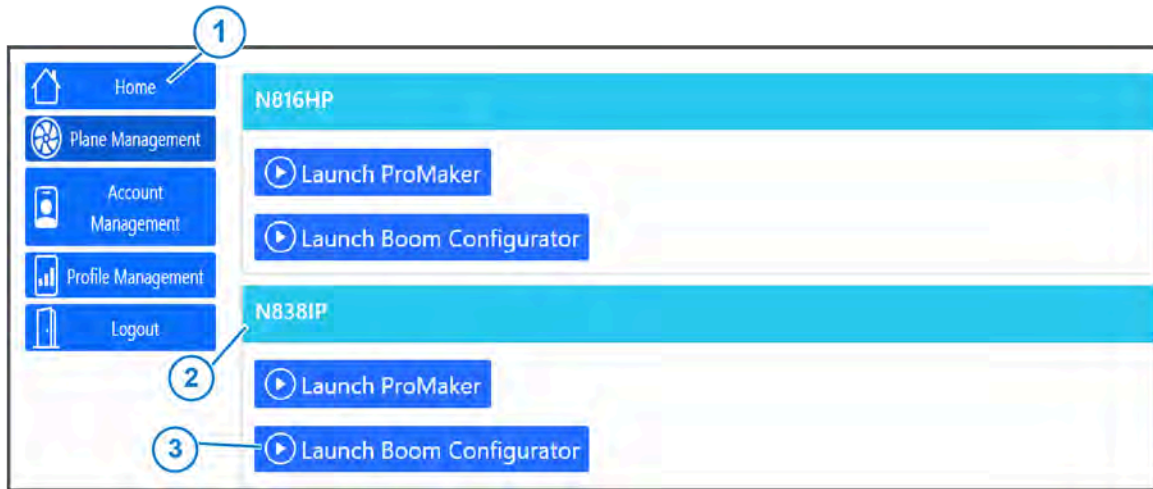


Figure 12: Home Screen

1. Log into your ProMaker account at <https://promaker.capstanair.com> or select **Home** (Figure 12, Item 1) from the sidebar.  
If you do not have a ProMaker account, see [Setup a ProMaker Account](#).
2. In the box (Figure 12, Item 2) below the desired plane, select **Launch Boom Configurator** (Figure 12, Item 3).

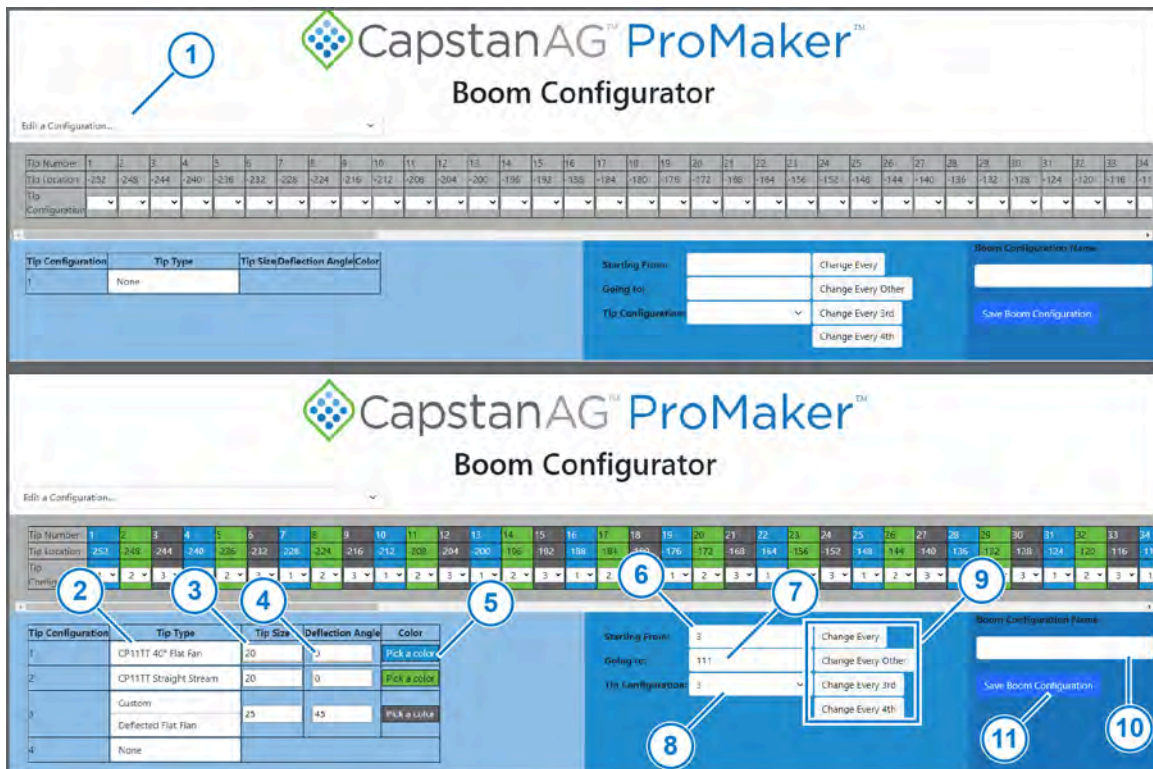


Figure 13: Boom Configurator

3. Select the **Edit a Configuration** box (Figure 13, Item 1).
4. Select the desired boom configuration from the list.
5. Click on the box (Figure 13, Item 2) below **Tip Type**.
6. Select the desired tip type from the list.  
Only use custom if the desired tip is not shown on the existing list.
7. Click on the box (Figure 13, Item 3) below **Tip Size**.
8. Enter the correct type size.
9. Click on the box (Figure 13, Item 4) below **Deflection Angle**.
10. Enter the correct value.
11. If desired, click on **Pick a color** (Figure 13, Item 5).
12. Pick the desired color and click anywhere outside the box that shows.
13. Repeat Steps 5 to 12 for each tip type installed on the boom.
14. After the tip configurations are made, assign the tips to the correct location on the boom.
  - a) Click in the box (Figure 13, Item 6) next to **Starting From:** and enter the starting tip number.
  - b) Click in the box (Figure 13, Item 7) next to **Going to:** and enter the ending tip number.
  - c) Click in the box (Figure 13, Item 8) next to **Tip Configuration:** and enter the correct tip configuration list on the left side of the page.
  - d) Select which tips to change from the list (Figure 13, Item 9):
    - Change Every
    - Change Every Other
    - Change Every 3rd
    - Change Every 4th
  - e) Repeat adding the tip configuration information until you have all of the information correct for your profile.  
Tip configurations can also be changed individually using the menu for each tip in the gray box.
15. Click on the **Boom Configuration Name** box (Figure 13, Item 10) and enter the desired name of the configuration.
16. Click **Save Boom Configuration** (Figure 13, Item 11).  
You will automatically go back to the **Home** screen.

## Plane Management

As many planes as you need can be created by selecting **Plane Management** on the sidebar. You can also edit or delete a plane from this screen.

### Create a New Plane

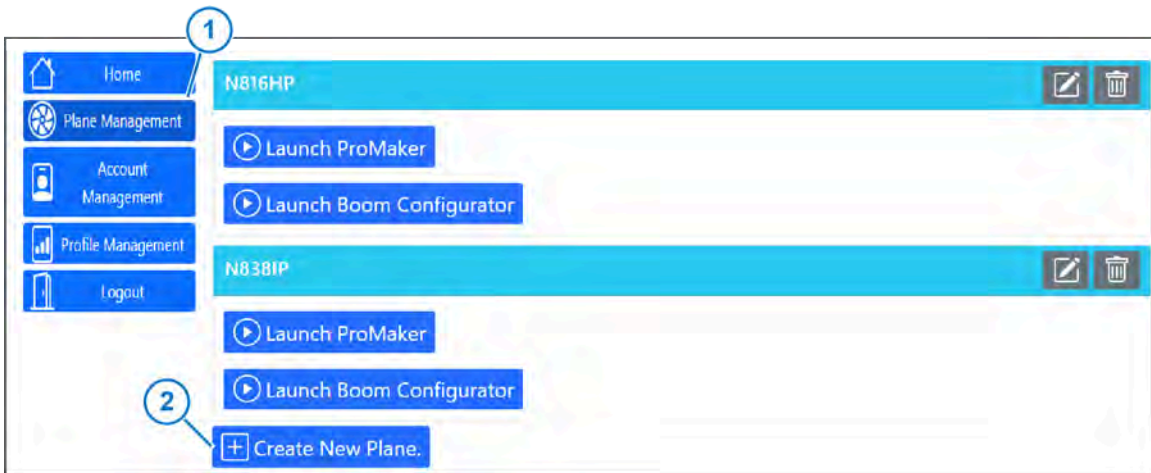


Figure 14: Plane Management

1. Select **Plane Management** (Figure 14, Item 1) from the sidebar.
2. Select **Create New Plane** (Figure 14, Item 2).

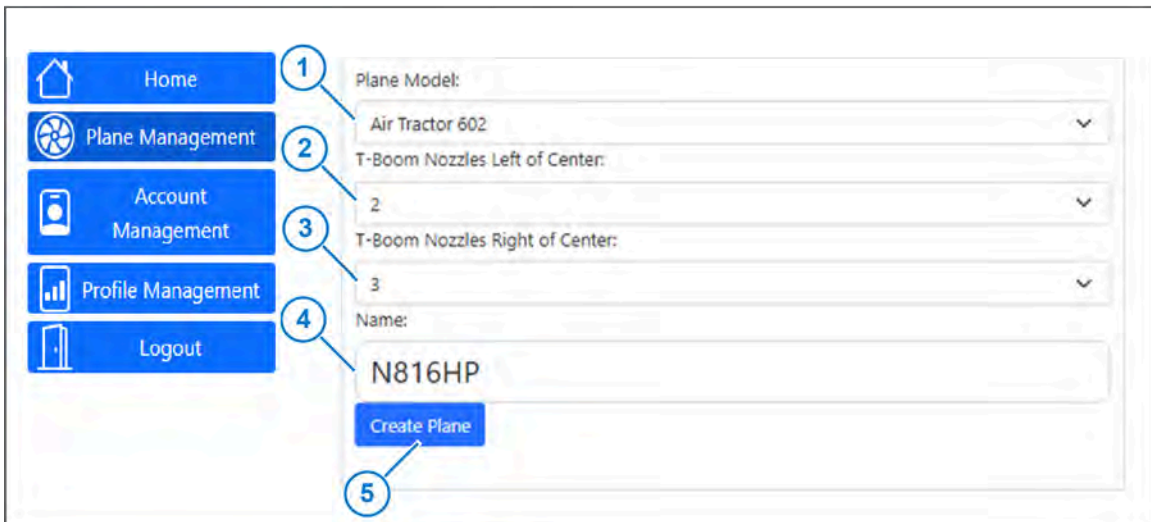


Figure 15: New Plane Screen

3. Select the box (Figure 15, Item 1) below **Plane Model**.
4. Select your plane model from the list.
5. Select the box (Figure 15, Item 2) below **T-Boom Nozzles Left of Center**.
6. Select the correct value from the list.



7. Select the box (Figure 15, Item 3) below **T-Boom Nozzles Right of Center**.
8. Select the correct value from the list.
9. Select the box (Figure 15, Item 4) below **Name**.
10. Enter a name for your plane.
11. Select **Create Plane** (Figure 15, Item 5).

## Edit a Plane

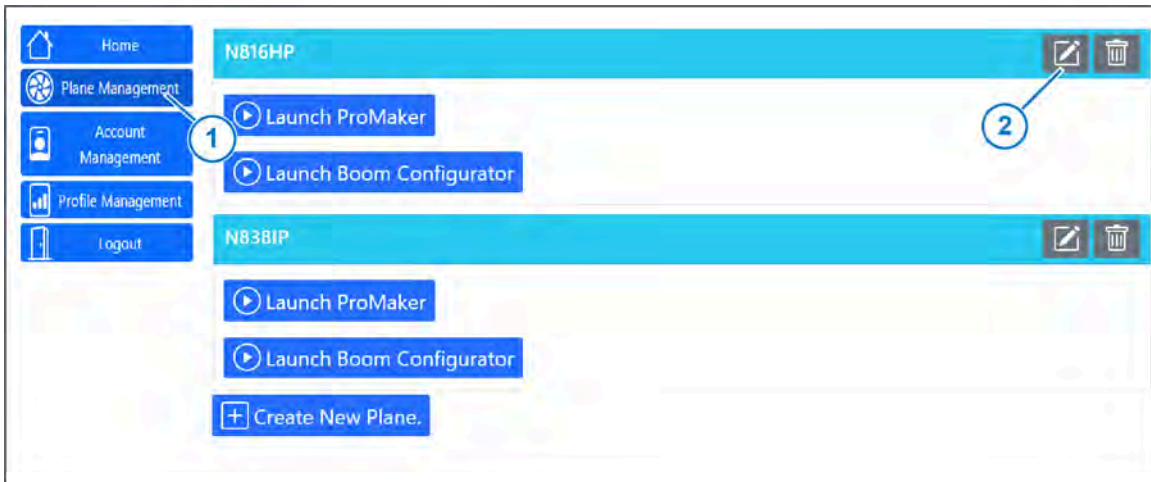


Figure 16: Plane Management

1. Select **Plane Management** (Figure 16, Item 1) from the sidebar.
2. Select the **Edit** icon (Figure 16, Item 2) next to the desired plane.

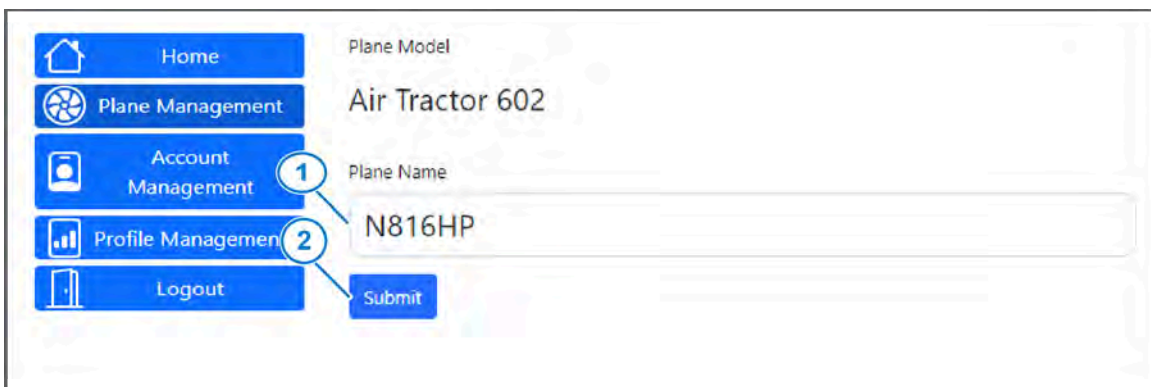


Figure 17: Edit a Plane Name

3. Select the box (Figure 17, Item 1) below **Plane Name**.
4. Enter the desired plane name.  
Only the plane name can be changed.
5. Select **Submit** (Figure 17, Item 2).

## Delete a Plane

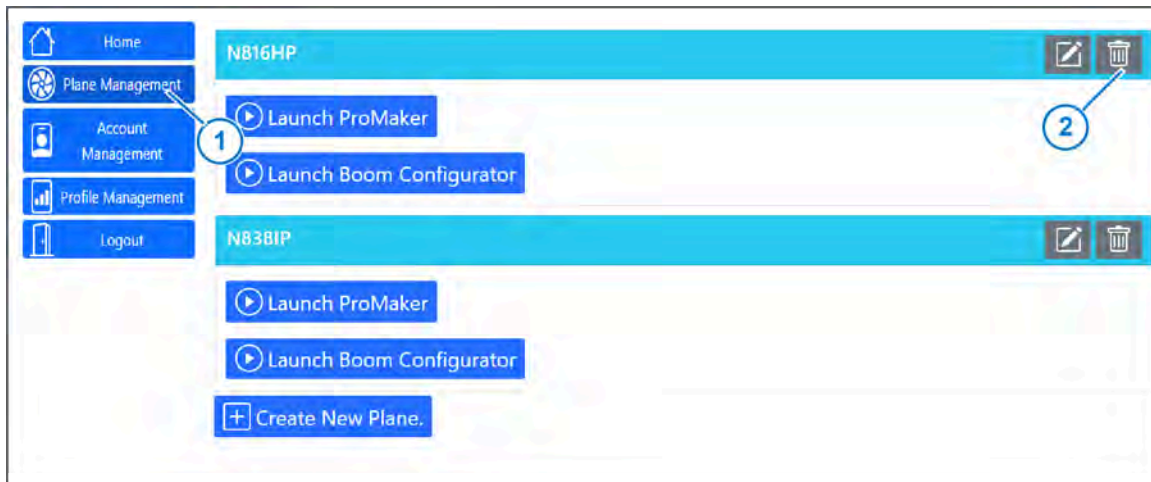


Figure 18: Plane Management

1. Select **Plane Management** (Figure 18, Item 1) from the sidebar.
2. Select the **Delete** icon (Figure 18, Item 2) next to the desired plane.



## Account Management



The screenshot displays a user interface for account management. On the left is a vertical sidebar with five blue buttons: 'Home' (house icon), 'Plane Management' (propeller icon), 'Account Management' (person icon), 'Profile Management' (bar chart icon), and 'Logout' (door icon). The 'Account Management' button is highlighted with a white circle containing the number '1' and a blue arrow pointing to it. The main content area shows a form with the following fields: 'Email' (johndoe@email.com), 'Username' (John Doe), 'Current Password' (empty), 'New Password' (empty), and 'Confirm Password' (empty). A blue 'Reset Password' button is located at the bottom of the form.

**Figure 19: Account Management**

Select **Account Management** (Figure 19, Item 1) from the sidebar to manage your account information and change your password.

## Profile Management

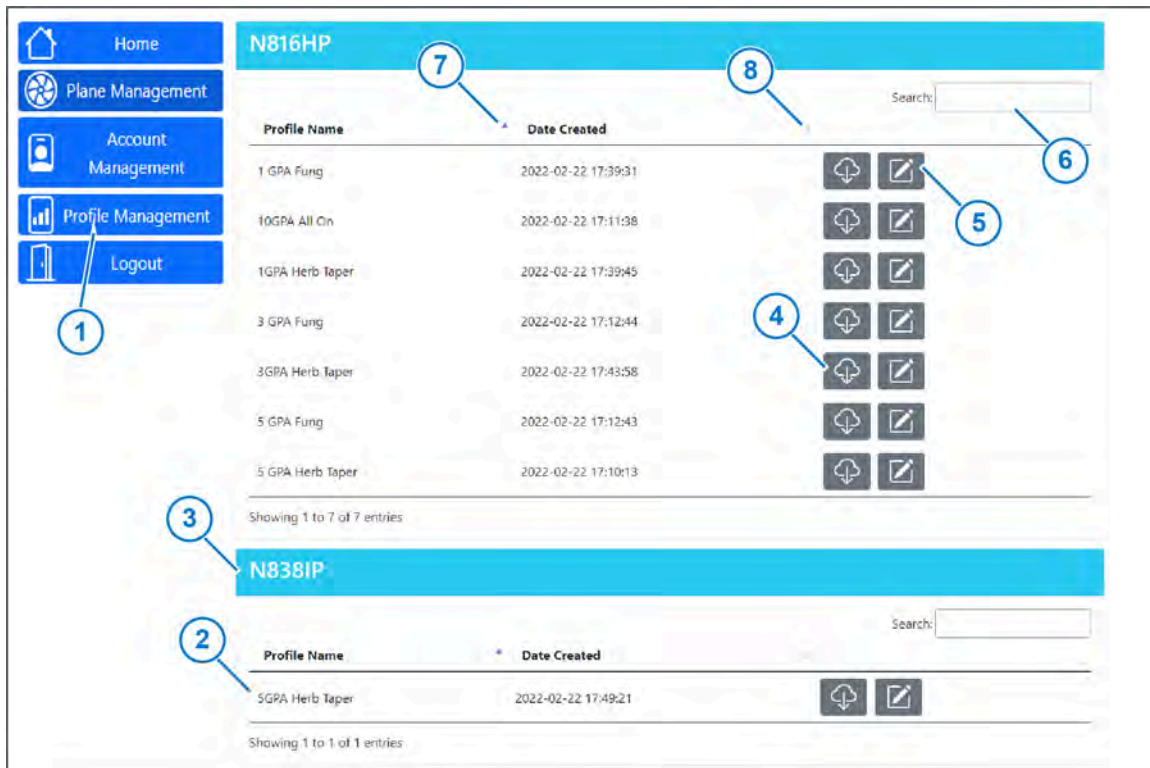


Figure 20: Profile Management

1. Select **Profile Management** (Figure 20, Item 1) from the sidebar.
2. The profiles (Figure 20, Item 2) connected to each plane will show below the plane name (Figure 20, Item 3).
3. To download a profile, select the **download** icon (Figure 20, Item 4).
4. To edit a profile, select the **edit** icon (Figure 20, Item 5).
5. To search for a specific profile, select the box (Figure 20, Item 6) next to **Search:**.
6. Select the arrow (Figure 20, Item 7) next to **Profile Name** to organize the profiles alphabetically.
7. Select the arrow (Figure 20, Item 8) next to **Date Created** to organize the profiles by date.

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## Section 3: Troubleshooting

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**Topics:**

- [Troubleshooting Charts](#)

## Troubleshooting Charts

Problem	Correction
If you have configured valves with duty cycles but the graph is blank	Verify the application speed, swath width, specific gravity, and boom pressure are appropriate values. If they are not appropriate values the graph will be blank
If you cannot horizontally scroll to more valves	Verify that you can use the scrollbar at the bottom of the gray box and not the scroll bar at the bottom of the page
If you cannot enable boost on a nozzle	Verify the duty cycle for that nozzle is 0
If you cannot change the tip size for a nozzle	Make sure that you are not using a boom profile or make a boom profile with the desired changes

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