

Guidelines for using Humid-A-Ware

Welcome to Armstrong's new Humid-A-ware system! The Humid-A-ware system will help you size, select, and document your humidification solution for simple to complex humidification projects. We hope your experience with Humid-A-Ware is enjoyable. If you need support or would like to give feedback, please contact Armstrong's humidification team at 269-273-1415 or hvac@armstronginternational.com.

To access the new Humid-A-Ware, you will need to have a username and password to access the Armstrong International website. If you already have a username, you can skip the next step. If you need to create a username and password, use the following steps.

- Go to the Armstrong International website www.armstronginternational.com
- Click on Register.

ENGLISH Log In Register



Fill out the registration page and submit.

HOME > REGISTER

REGISTER

Register

E-Mail Address *

Password *

Verify Password *

Why are you registering? *

- Select -

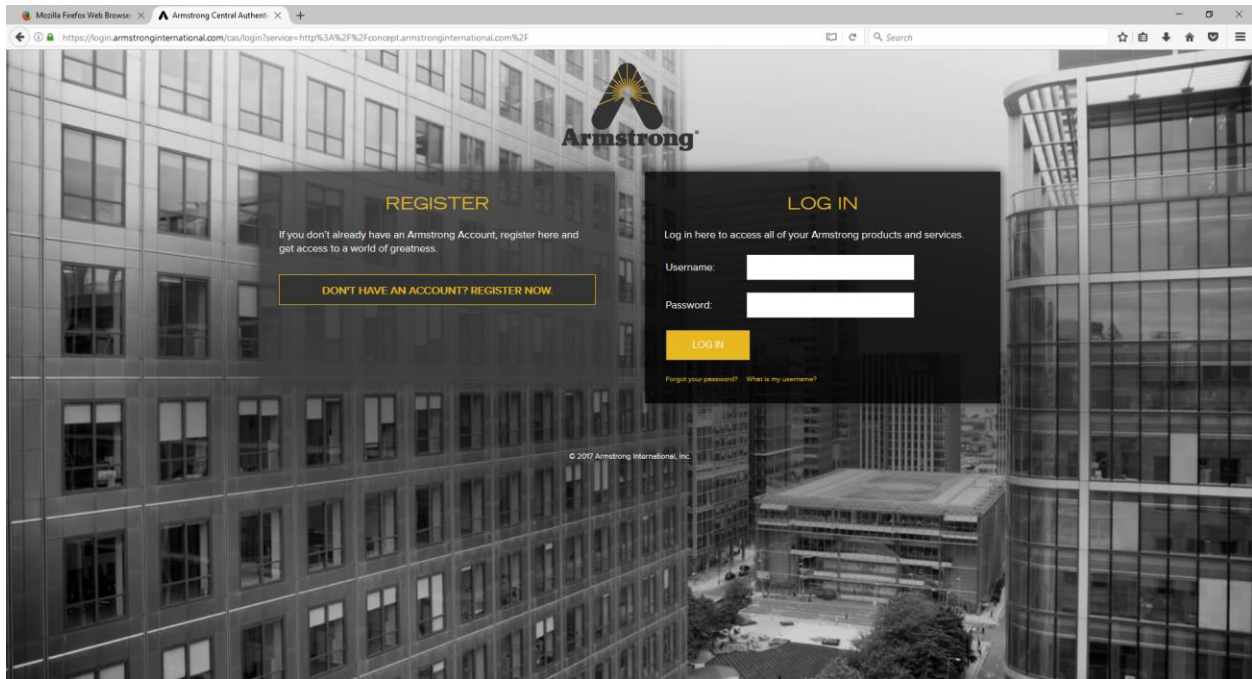
Are you an Armstrong Representative?

Identification

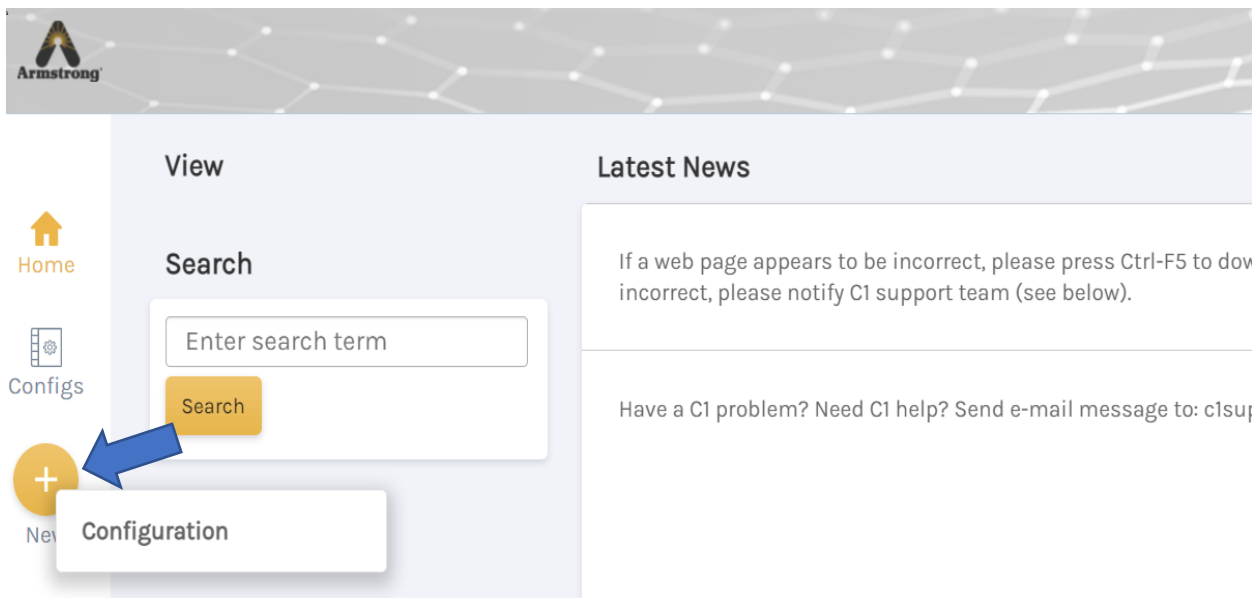
First Name *

Last Name *

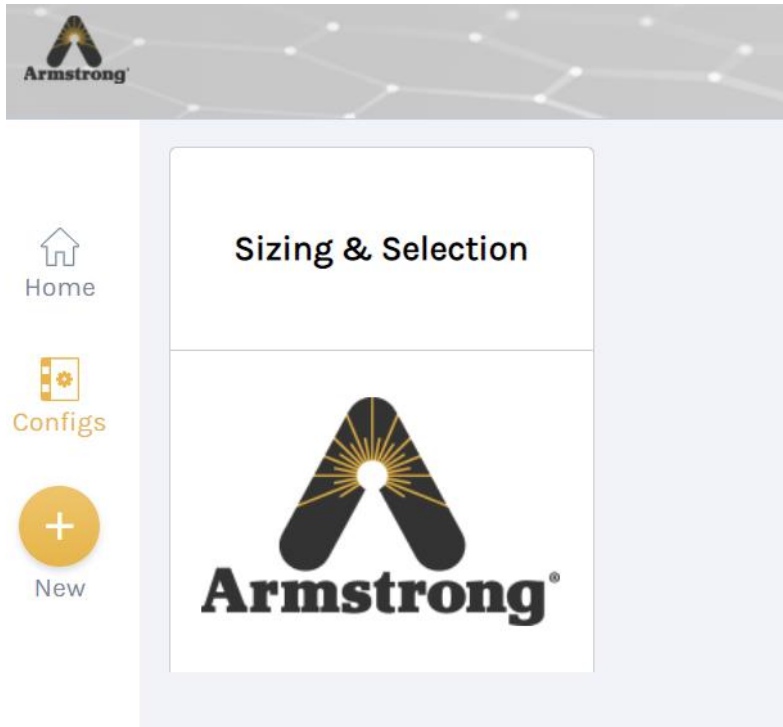
- After you have your username and password, go to <https://c1.armstronginternational.com> and use your login credentials to log into the configurator.
- The first time you log into the configurator, you will get a message that you need to be approved. The approval process usually happens within a couple of hours, but it could be up to 24 hours. After approval, you will have access to use to Humid-A-Ware 24/7.



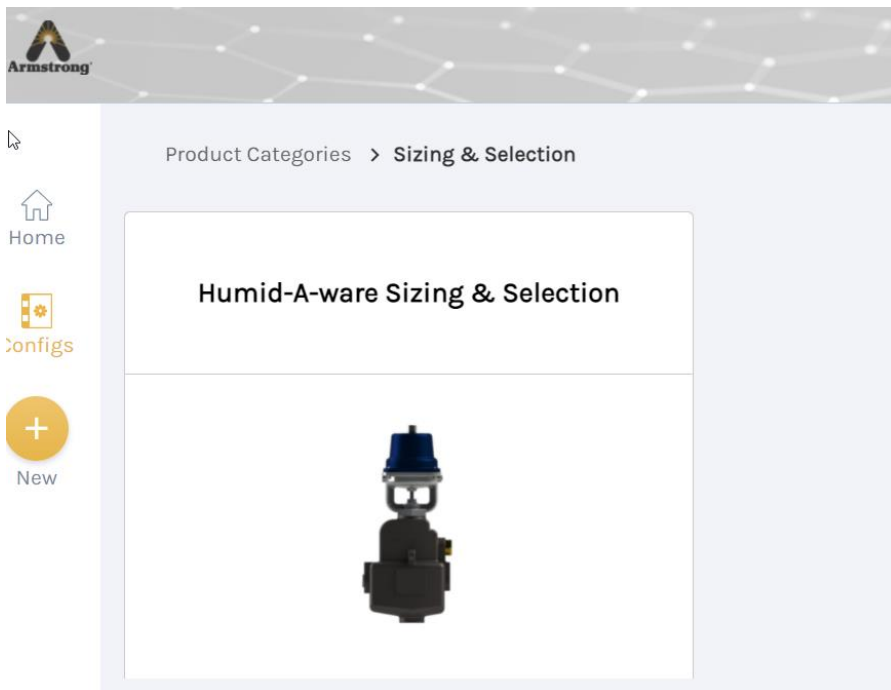
- Image below shows the Configurator Home Screen.
- To add a new Humid-A-Ware schedule, click on the “+” and then “Configuration”.



- Click on “Sizing & Selection”.



- Click on “Humid-A-Ware Sizing & Selection”.



- Enter your Schedule Name in “Configuration Name” field.
- The name that is entered here, will appear as the title on the schedule PDF.
- Click “Continue”.

- Enter City and State of the project location. The state should be entered as the two-character abbreviation.
- Click on “Use This Location”. It may take a few seconds before a pop-up window will appear showing potentially matching cities.
- Throughout Humid-A-Ware, there will be help links that use this icon: ⓘ . If you hover over the ⓘ , more detailed information will appear.

- Select the appropriate city by clicking on the city name on the appropriate row.

Installation Location Information

After supplying country, city, and state OR postal code, please click the "Use This Location" button to get the installation location's longitude, latitude, and elevation that corresponds to the installation location.

Location List

City	State	Postal Code	Country	Lat	Long	Elevation
Kalamazoo	MI		US	42.29171° N	85.58723° W	239.0
Kalamazoo	FL		US	28.8461° N	81.11006° W	9.0
Kalamazoo	WV		US	39.14149° N	79.91591° W	488.0
Kalamazoo	NE		US	41.82917° N	97.64033° W	527.0
Kalamazoo	AR		US	35.36814° N	93.69464° W	107.0

[Close](#)

Elevation FT

[Save Information Above As Default](#)

[Continue](#)

[Save](#) [Cancel](#)

- The Latitude, Longitude, and Elevation will be populated for the selected location.
- To save the selected location information as your default for future schedules, click the "Save Information Above as Default" button.
- Click "Continue".

Installation Location Information

After supplying country, city, and state OR postal code, please click the "Use This Location" button to get the installation location's longitude, latitude, and elevation. A pop-up window will appear. Select the city that corresponds to the installation location.

Country

City

State

Postal Code

[Use This Location](#)

Latitude


Longitude

Elevation FT

[Save Information Above As Default](#)

[Continue](#)

[Save](#) [Cancel](#)



To save this location as default for future projects, click here.

- Click the circle on the Weather Station that you want to use.

Humid-A-ware will use weather data, from the chosen weather station, for your schedule. You must choose a weather station if you intend to use economizer cycle to calculate humidification load. Some locations may not have a weather station near enough for the station's weather data to be relevant. Alternately, you can proceed without selecting a weather station and manually enter the outside air conditions on an upcoming page.

- Click "Continue".

Weather Station Information

ⓘ If you choose a weather station, Humid-A-ware will use weather data, from that station, for your schedule. You must choose a weather station if you intend to use economizer cycle to calculate humidification load.

Weather Station


Option:	Distance (mi)	Distance (km)
<input type="radio"/> No Weatherstation	0	0
<input checked="" type="radio"/> KLMAZO/BTL CREEK INTL ARPT	4	6.437
<input type="radio"/> TULIP CITY AIRPORT	41	65.983
<input type="radio"/> GERALD R FORD INTERNATIONAL A	41	65.983
<input type="radio"/> SW MICHIGAN REGIONAL ARPT	45	72.42
<input type="radio"/> SOUTH BEND REGIONAL AIRPORT	55	88.514
<input type="radio"/> JAKSON CO-RYNOLDS FLD ARPT	57	91.732
<input type="radio"/> CAPITAL CITY AIRPORT	60	96.56
<input type="radio"/> MUSKEGON COUNTY AIRPORT	69	111.044

- Click "Add Humidifier" to size/configure your first humidifier.

Product : Humid-A-ware Sizing & Selection
Configuration Name : ABC Hospital
Serial Number : C-471348

Humidifier Configurations

Specific Humidifier Product



- Fill in the Unit Information and Load Calculation Data.
- Click the “Calculate Load” button.

Unit Information

Unit Tag* Unit Location & Description

Adiabatic Or Isothermal

Adiabatic Isothermal

Load Calculation Data

Calculation Method Economizer Cycle Fixed % Outside Air

Airflow* acfm Elevation* ft

Outside Air* Temperature* °F Moisture Content (Humidity)* %RH

Desired Room* Temperature* °F Moisture Content (Humidity)* %RH

Duct Temperature* °F % Outside Air*

Load

- The Load values will be shown.

Load

Airflow Humidified 3500.00 acfm

Duct Relative Humidity 81.5 %

Humidification Load 120.8

Required Humidifier Capacity 132.9 lb/hr

OA Humidity Ratio (for dispersion) 3.9

DR Humidity Ratio (for dispersion) 60.3

- In this area, Humid-A-ware will show you humidifier choices that will meet your humidification requirements. When you select a humidifier, the image below will be refreshed and provide more information about the humidifier you have selected.
- Select your Humidifier Type: Steam, Gas, or Electric.
- Select appropriate steam pressure, gas type, or electrical type.
- Select the desired humidifier and click “Continue” button.

Humidifier Selection

Humidifier Type* 10 psig [0.69 bar]


- Steam
- Gas
- Electric

	Model Name	Max Steam Capacity (lb/hr)	Max Steam Capacity (kg/hr)
<input type="radio"/>	CS13-CB	175	79
<input type="radio"/>	CS15-DI	270	122
<input type="radio"/>	CS15-SB	270	122
<input type="radio"/>	92	150	68
<input type="radio"/>	1200	150	68

STEAM-TO-STEAM HUMIDIFIER WITH IONIC BED TECHNOLOGY™

Available with nickel plated copper heat exchanger (CB model), stainless steel heat exchanger (SB model), or a DI/RO water variant for use with purified water (DI model).

Steam-to-steam devices in the CS Series use boiler steam to produce chemical free steam from untreated water. Easy to install and simple to clean, Armstrong steam-to-steam humidifiers have all the benefits of steam humidification without the concern of boiler treatment carry-over. This device has all the benefits of Armstrong steam-to-steam humidifiers - plus the innovative Ionic Bed Technology™ at the heart of all HumidiClean™ humidifiers.



Continue

Save Return

- Select Model Options. (If the field is light gray then no other options are available other than the options shown.)
- Click “Continue” button.

Previous Continue

Model Options

Model * Clean Steam 13 ▾

Coil Material Nickel Plated Copper ▾

Water Type * Tap Water ▾

Water Level Control * Conductivity Probes ▾

Coil Coating No Coating Needed ▾

Pressure * Greater than 8 ▾

Previous Continue

Save Return

- Depending on Humidifier selected, other various options will be available.
- Review the options on each page and click “Continue” button when done.
- After completing all the product options for the humidifier, you can now select dispersion options(if dispersion is needed).

Previous Continue

Dispersion Need Assessment

? Do you require steam dispersion? Yes No

Previous Continue

Save Return

- If you select “No” for dispersion, the humidifier will be added to the schedule.
- If you select “Yes” for dispersion, you will now add dispersion information and choose the specific product to perform dispersion.
- Fill out the Dispersion Placement Details, then click the “Continue” button when done.

Dispersion Placement Details

? * Duct Airhandler

? Duct Shape

Width *
(in inches)

Height *
(in inches)

? Airflow Direction *

- Select the Dispersion Product Category and Dispersion Product.
- Click the “Continue” button when done.

Panel or Tube(s)

? Dispersion Product Category *

? Dispersion Product *

- Select the number of tubes desired.
- Click the “Continue” button when done.

HumidiPack Tube Selection

Header Length

	Number of Tubes	Tube Spacing (in.)	Vapor Trail (in.)	Pressure Drop (in WC)	Condensation Rate (lb/hr)	Temperature Gain (°F)
<input type="radio"/>	8	5.95	24	0.009	18.9	3.4
<input type="radio"/>	9	5.2	24	0.012	21.3	3.8
<input checked="" type="radio"/>	10	4.63	24	0.016	23.8	4.3
<input type="radio"/>	11	4.16	24	0.021	27.4	4.9

- The humidifier and dispersion (if selected) have been added to the schedule.

Humidifier Configurations

Specific Humidifier Product Add Humidifier

(1) HAW Generic Humidifier: C-471458

Humidifier Schedule and Notes

Humidifier #1	Unit Tag	Model #	Airflow	Required Capacity (lbs/hr)	Actual Capacity (lbs/hr)	Dispersion Qty	Dispersion Model	Note - Description
	H1	CS13-CB	5000	132.9	175	1	Humidipack - 10 ti	Enter Note Here

Add Humidifier Build Schedule

Save Cancel

Add humidifier specific note here

- If you want to add another humidifier to the schedule, click the “Add Humidifier” button and follow the steps as previously completed.

The example below has (3) humidifiers on the schedule. Humidifiers 1 and 2 include dispersion, humidifier 3 does not have dispersion.

Humidifier Configurations

Specific Humidifier Product Add Humidifier

(1) HAW Generic Humidifier: C-471458 ▲ ▼

(2) HAW Generic Humidifier: C-471598 ▲ ▼

(3) HAW Generic Humidifier: C-471601 ▲ ▼

Humidifier Schedule and Notes

Humidifier #1	Unit Tag	Model #	Airflow	Required Capacity (lbs/hr)	Actual Capacity (lbs/hr)	Dispersion Qty	Dispersion Model	Note - Description
	H1	CS13-CB	5000	132.9	175	1	Humidipack - 10 ti	Enter Note Here
Humidifier #2	H2	92	3000	50.5	88	3	92M-3	Enter Note Here
Humidifier #3	H3	EHU804	7000	110.3	121	N/A	N/A	No Dispersion

Add Humidifier Build Schedule

Save Cancel

- When you are done adding humidifiers to the schedule, click “Build Schedule” button.

- Click the “Build Schedule” button.
- You have the option to select which columns you want shown on the schedule.
- A partial list of available columns is shown below.

Previous Build Schedule

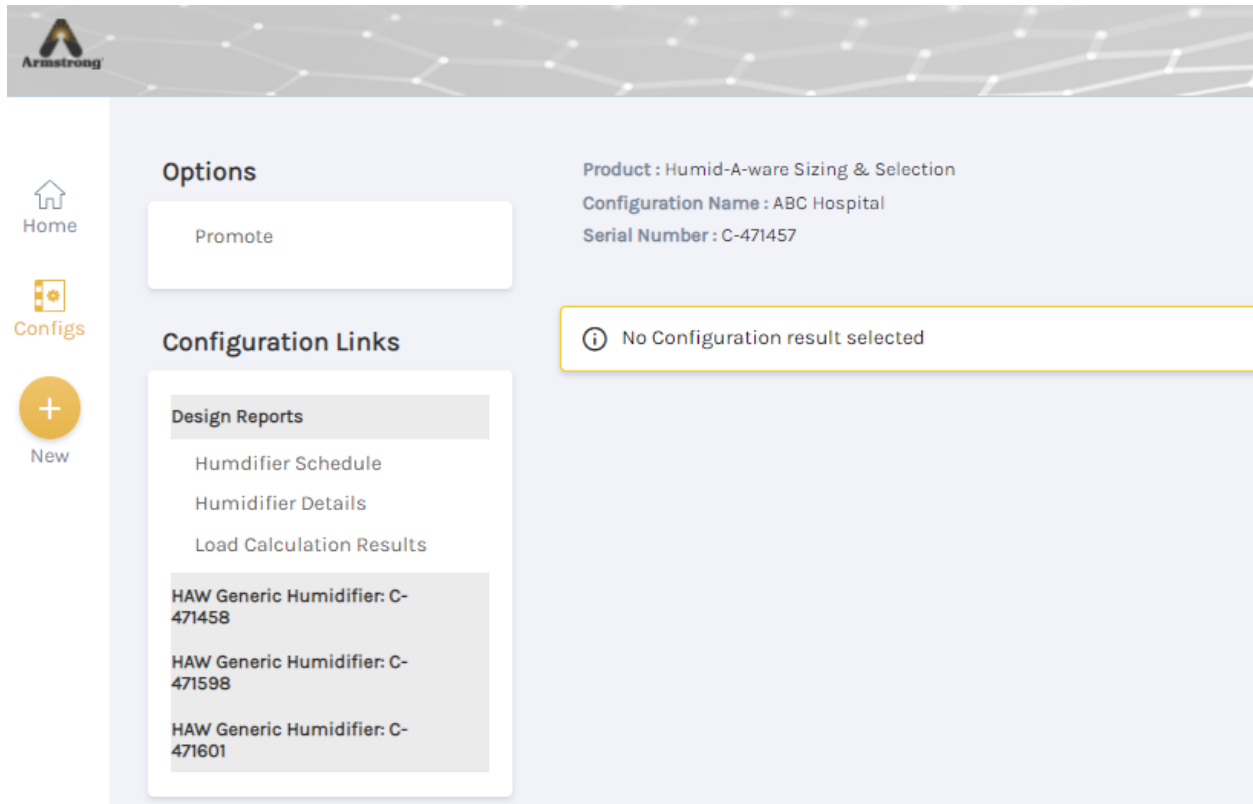
? Schedule Columns

- Unit Tag
- Model #
- Airflow
- Required Capacity
- Actual Capacity
- Unit Location/Description
- Desired Room Temperature
- Desired Room RH
- Control Signal
- Supply Voltage & Phase
- AMP DRAW
- Duct Height

? Schedule Columns

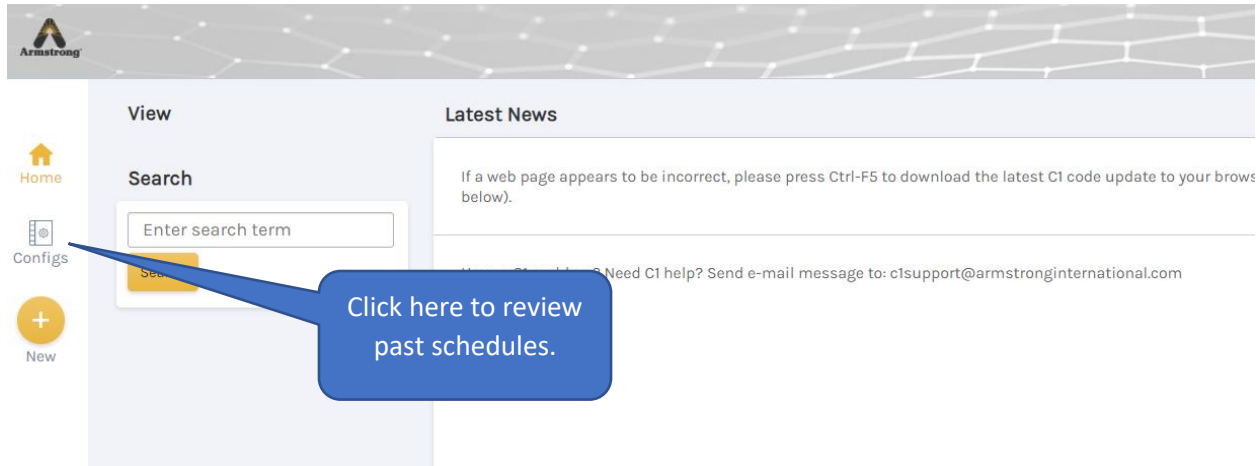
- After selecting the columns you want on your schedule, click “Build Schedule” button.
- It will take a few seconds to build the schedule and supporting documentation.

- On the left side of the screen, there is a section titled “Configuration Links”
- Links included:
 - Humidifier Schedule
 - Humidifier Details
 - Load Calculation Results
 - Supporting Documents, Literature, IOM, drawings for each humidifier.

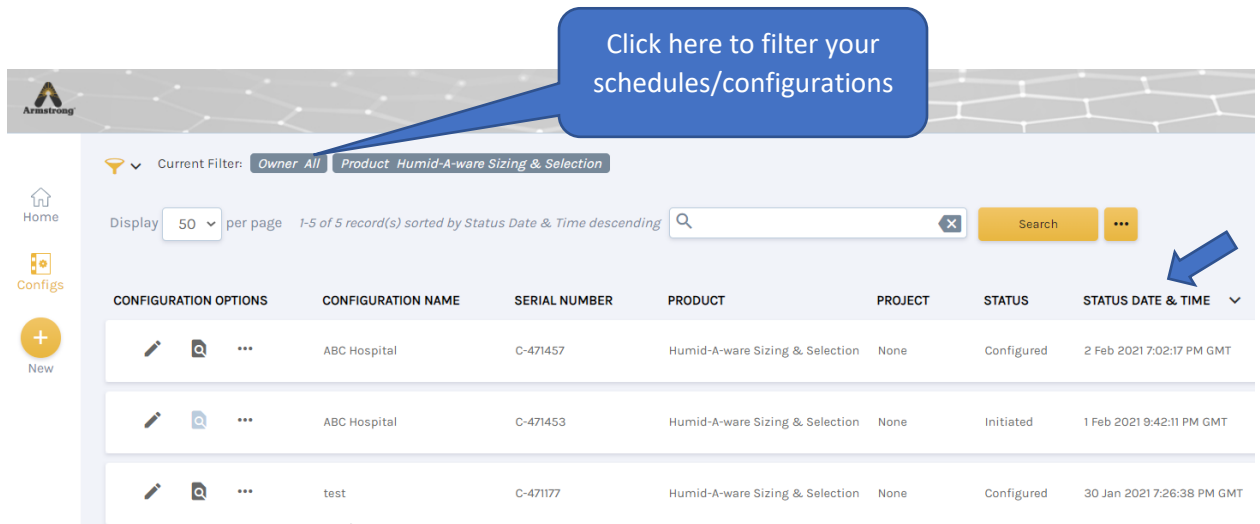


- Click “Humidifier Schedule” to view humidifier schedule PDF.
- Click “Humidifier Details” to view humidifier details PDF. This document will provide a detailed summary of the options selected for each humidifier.
- Click “Fixed % Outside Air Results” to view load calc information PDF.
- Click on individual humidifier to see product information relative to that humidifier.
- Humidifier schedule and humidifier details documents are attached.

- If you want to review a schedule that you configured in the past, you can click on the “Configs” icon link shown below.

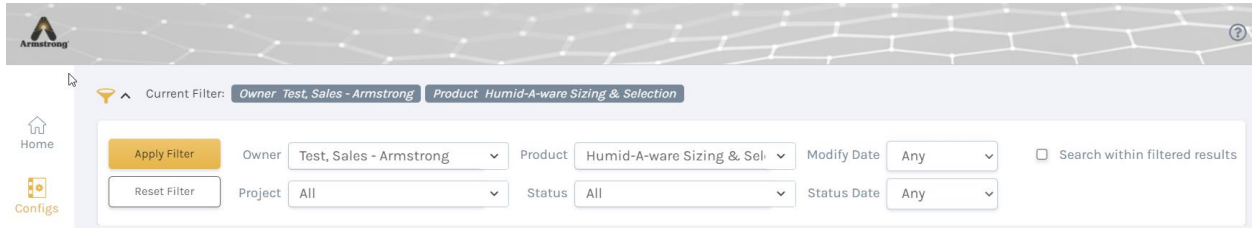


- This will show you your past schedules/configurations and will allow you to look at the results for that schedule.



- This screen allows you to sort by any column that is displayed. Click a column header to sort by that column in ascending order. Click the same column header again to switch to descending order. (see above)

- The filter screen is shown below and allows you to filter the listed schedules/configurations by various parameters.
- The schedules you see will be controlled by your filter settings. Whenever you make changes to filter settings, you must “Apply” the filter by clicking the “Apply” button. You can “Reset” filter settings to their defaults at any time by clicking “Reset” button.



Humidifier Schedule: ABC Hospital

Armstrong International

816 Maple
Three Rivers, MI 49093

Schedule ID: C-471457

Electric Humidifiers

Unit Tag	Unit Location/Description	Model #	Airflow	Humidification Load	Actual Capacity	Desired Room Temp	Desired Room RH	Control Signal	Supply Voltage/Phase	AMP DRAW	Duct Height	Duct Width	Dispersion Model	Dispersion Qty	Leaving Air RH	Leaving Air Temp	Vapor Trail	Applicable Notes	
H3	Dining Center	EHU804	7000 acfm	100.3 lb/hr	121 lb/hr	70 °F	45 %RH	0-10VDC or 4-20 mA	480/3	47	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3, 8

Steam Humidifiers

Unit Tag	Unit Location/Description	Model #	Steam Pressure	Airflow	Humidification Load	Actual Capacity	Desired Room Temp	Desired Room RH	Control Signal	Supply Voltage/Phase	AMP DRAW	Duct Height	Duct Width	Dispersion Model	Dispersion Qty	Leaving Air RH	Leaving Air Temp	Vapor Trail	Applicable Notes
H1	Roof	CS13-CB	10 psig	5000 acfm	120.8 lb/hr	175 lb/hr	72 °F	50 %RH	0-10VDC or 4-20mA	120/1 or 240/1	1	36 in	48 in	Humidipack - 10 tubes	1	81.5 %	58 F	24 in	2, 5, 6, 7
H2	Operating Room	92 HEM 3/8	2 psig	3000 acfm	45.9 lb/hr	88 lb/hr	75 °F	50 %RH	4-20 mA	240/1	0.12	24 in	36 in	92M-3	3	78.2 %	62 F	1.2 ft	1, 4

Schedule Notes

- (1) High limit option: On/Off
- (2) Lid option: (1) 4" Flanged Outlet
- (3) Humidistat option: Wall/Room Mounted
- (4) Duct pressure switch option: Differential Pressure Switch
- (5) Support legs included
- (6) Level control: Conductivity Probes
- (7) Control valve included
- (8) No Dispersion



Armstrong International

816 Maple Street, Three Rivers, Michigan 49093 - U.S.A.
Phone: (269) 273-1415 • Fax: (269) 278-6555

Unit Tag: **H1**

Location/Description: **Roof**

Humidifier Summary

Model Number: CS13-CB

Inlet Steam Pressure: 10 psig

Capacity Required: 132.9 lb/hr

Amp Draw: 1

Supply Voltage: 120/1 or 240/1

Control Signal: 0-10VDC or 4-20mA

Actual Humidifier Capacity: 175 lb/hr

Options

Coil Material: Nickel Plated Copper

Control Valve: ACV-04 BLEF 5/8"

Enclosure Type: Indoor Enclosure (Standard)

Insulation: Included

Outlet Type: (1) 4" Flanged Outlet

Strainer: Included

Support Legs: Included

Trap: Included

Water Level Control: Conductivity Probes

Water Type: Tap Water

Accessories

Room Design Conditions

Design Temperature: 72 °F

Design Relative Humidity: 50 %RH

Dispersion Method

Dispersion Type: Humidipack

Number of Tubes: 10

Tube Spacing: 4.63 in

Dispersion Data

Vapor Trail: 24 in

Duct Type: Rectangle

Duct Width: 48 in

Duct Height: 36 in

Air Flow: 5000 acfm

Duct Air Velocity: 417 ft/min

Air Flow Humidified: 3500.00 acfm

Duct Temperature at Humidifier: 58 °F

Maximum Duct Relative Humidity: 81.5 %RH

Configuration ID: C-471458



Armstrong International

816 Maple Street, Three Rivers, Michigan 49093 - U.S.A.
Phone: (269) 273-1415 • Fax: (269) 278-6555

Unit Tag: **H2**

Location/Description: **Operating Room**

Humidifier Summary

Model Number: 92 HEM 3/8

Capacity Required: 50.5 lb/hr

Actual Humidifier Capacity: 88 lb/hr

Amp Draw: 0.12

Orifice Size: 3/8 in

Inlet Steam Pressure: 2 psig

Supply Voltage: 240/1

Control Signal: 4-20 mA

Options

Operator Description: Electric Honeywell

Strainer: Included

Trap: Included

Accessories

Fan Pressure Switch: Differential Pressure Switch

High Limit Switch: On/Off

Room Design Conditions

Design Temperature: 75 °F

Design Relative Humidity: 50 %RH

Dispersion Method

Dispersion Type: M Tube

Dispersion Tube Model Number: 92M-3

Number of Tubes: 3

Tube Spacing: 6 in

Dispersion Data

Vapor Trail: 1.2 ft

Duct Type: Rectangle

Duct Width: 36 in

Duct Height: 24 in

Air Flow: 3000 acfm

Duct Air Velocity: 500 ft/min

Air Flow Humidified: 1200.00 acfm

Duct Temperature at Humidifier: 62 °F

Maximum Duct Relative Humidity: 78.2 %RH

Configuration ID: C-471598



Armstrong International

816 Maple Street, Three Rivers, Michigan 49093 - U.S.A.
Phone: (269) 273-1415 • Fax: (269) 278-6555

Unit Tag: **H3**

Location/Description: **Dining Center**

Humidifier Summary

Model Number: EHU804

Capacity Required: 110.3 lb/hr

Actual Humidifier Capacity: 121 lb/hr

Breaker Size Required: 60

Supply Voltage: 480/3

Amp Draw: 47

Control Signal: 0-10VDC or 4-20 mA

Options

Enclosure Type: Indoor Enclosure (Standard)

Outlet Type: (2) 2" Outlets

Water Type: Tap Water

Accessories

Humidistat: Wall/Room Mounted

Drain Tempering: External (Temp-R-Drain)

Communications: ModBus (Standard)

Room Design Conditions

Design Temperature: 70 °F

Design Relative Humidity: 45 %RH

Dispersion Method

A dispersion product was NOT specified for this humidifier.

Configuration ID: C-471601