PREVENT TRAPPED WATER IN THE EXTERIOR WALLS

High Performance Building Solutions
Used In Conjunction with Fiber Cement, Veneer Stone & Brick, Wood & Composite Siding, and Stucco

AMICO HYDRODRY
MOISTURE MANAGEMENT SOLUTION
MOISTURE IN THE WALL CAVITY IS A GROWING PROBLEM FOR NEW CONSTRUCTION & REMODELING

The building industry has seen an increase in moisture problems as it relates to the exterior cladding of newly built homes. These issues are affecting all types cladding. Our research shows that there are a few main factors that are impacting this sudden increase in moisture intrusion, some of these include the following:

- Water that is not released and remains inside the wall cavity will eventually permeate the OSB, studs and drywall causing mold, mildew and rotting problems.

SOLUTION

HYDRODRY is a unique self draining, vented wall system that works by creating a defined drainage and ventilation cavity behind fiber cement siding, veneer stone, stucco, and various other exterior claddings. A series of unique profiles allow water

Damage Caused By Moisture Trapped In The Wall

- Recent code changes and products designed to seal the house and improve energy efficiency have caused condensation moisture to accumulate and become trapped between the OSB and exterior cladding.
- Upgraded insulation, combined with house wraps fail to allow air to pass through the wall cavity allowing moisture to dry as it has in the past.
- Extreme temperature differentials between the inside and outside of the building causes moisture to accumulate in the wall cavity.
to drain from within the wall cavity. The remaining water vapor is then allowed to evaporate and escape through the E-Z Vent system located at the top of the wall.

Other rain screens on the market can allow water to flow down the wall but they fail to provide an adequate escape from the bottom of the wall. AMICO’s patented profile system allows water to freely drain from the bottom while a top vent allows vapor to escape from the top of the wall.

If you are looking for a cost effective way to combat water absorption in new construction and remediation then we can help. We would embrace the opportunity to sit down with your team and demonstrate to you the HYDRODRY system.

**HYDRODRY RAIN SCREEN**

Rain Screen provides a drainage path and ventilation cavity to allow air and water flow between the exterior wall finish and WRB. We recommend a 6mm Rain Screen which includes the following features:

- Superior Compressive Strength: maintaining drainage and air flow throughout the wall cavity.
- Continuous Matrix Strand Design: ensures gravity induced water flow eliminating ponding and pooling of water.
- Multi Directional Design: allows for installation and flow of water in all directions.
- Fire Retardant: meets or exceeds ASTM E84 class A flame spread.
- Filter fabric - prevents mortar from penetrating the cavity, also working as a bug screen.

**AMIFLOW DRAIN SCREED**

When water or moisture remains in the wall cavity is when damage, mold and rotting can occur. Drain screed’s patented slots allows water to flow down the drainage plain and out through the bottom of the wall.

- Rain screen termination with large slots allows the wall cavity to drain & ventilate.
- A drain trough accommodates rain screen thicknesses up to 10MM - insuring the proper 7/8” thickness throughout.
- Integrated drip edges divert and flow water.
AMIFLOW UD

Our most versatile drainage profile. Patented drainage slots allow water to flow down the drainage plane and out through the bottom of the wall.

- Large slots drain & ventilate the wall at cladding transitions, roof pitches, and sill stones.
- A drainage trough accommodates rain screen and drainage mats up to 10mm.
- Patented rain screen termination with large slots drain the bottom of the wall.
- Dedicated 7/8” ground provides consistent stucco and mortar thickness.
- Attachment holes located every 4” to nail at studs on 16” centers.
- Available in white, tan, and gray.

AMIFLOW Mid-Wall

The Patented AmiFlow Mid-Wall profile is designed to ventilate most any type of exterior finish at any thru-wall penetration or joining of different finishes.

E-Z VENT TOP OF WALL - VENTILATES AND DRIES!

E-Z Vent is a vinyl HI-PERFORMANCE trim when used in conjunction with rain screen allows the top of the wall cavity to properly vent and release unwanted water vapor through a series of venting slots.

- A 7/8” ground ensures the proper thickness of stucco is achieved.
- AMICO’s exclusive diverter conceals vent slots to provide proper ventilation while preventing water or driving rain from entering the wall cavity.
• Multiple grounds incorporated on bottom to accommodate various stucco thicknesses - direct applied, 3 coat stucco, and 3 coat stucco with a 6mm rain screen.
• Built in control joint to allow for expansion and contraction.
• Frame over block install.

**AMIFLOW DRIP EDGE**

Is designed to drain water from over the top of windows, doors and openings. This profile when used in conjunction with end caps will provide a built in dam to divert and drain water through the trough – preventing accumulation of water over the opening.

• Large slots drain & ventilate the bottom of the wall.
• A drain trough accommodates rain screen thicknesses up to 10MM - while also insuring the proper 7/8” ground thickness throughout.
• Rain screen termination with drainage slots prevent cracking at bottom of wall.
• Integrated drip edges divert and flow water.

**COMPUTATIONAL FLUID DYNAMIC - ANALYSIS**

AMICO contracted FEAmax Engineering Services to perform computational fluid dynamic modeling on our exclusive HydroDry system. They rigorously tested the system at various temperatures and found that temperature had little effect. Water exited through the Amiflow Drain Screed at an astonishing rate of 150 gallons per hour.
12th year – which spotlights individuals, projects and products that encourage sustainability and efficiency.

“We are proud of all the winners of this year’s awards program,” said Green Builder Media CEO Sara Gutterman. “These standouts represent the best practices, design, products, and ethics of sustainability in the country today. Most importantly, their innovations and commitment to green will no doubt inspire future individuals, companies, and cities to ramp up their commitment to the environment in the coming years.”

AMICO (Alabama Metal Industries Corporation) is a global leader in innovation, manufacturing and steel fabrication. HYDRODRY, AMICO’s most recent innovation creates a dedicated drainage and ventilation cavity behind exterior walls – with a rain screen and patented profiles that allow the wall to both vent and drain – extending their useful life by drying and creating continuous airflow throughout the wall cavity. This prevents moisture from damaging vital members of the wall system, providing better air quality and increasing the life and sustainability of the home.

“Traditional building practices and terminations still keep moisture trapped behind exterior walls,” said AMICO Director of Marketing, Product Innovation and Business Development Gary Baltz II. “This product is revolutionary in that it provides a dedicated drainage channel at the bottom of the wall and over openings, as well as a venting system that allows evaporated moisture to escape from the top of the cladding.

“Trapped moisture is one of the key causes of microbial growth and structural damage to a home’s framework and can cause rotting and a host of other air quality and home health problems,” Baltz added. “We’re pleased that Green Builder recognized our commitment to designing products that contribute to better comfort, sustainability and the overall health and life of the home.” - Reprinted from Green Builder Magazine

The findings were that the E-Z Vent design creates a venturi effect forcing the vapor to release through the vent openings at a rate of .08 lbs per hour. This ensures moisture in the wall cavity can now be vented out the top of the wall. This process also provides continuous airflow throughout the wall promoting dry healthy walls and greatly reducing the risk of microbial growth.

**AMICO HYDRODRY® WINS “GREEN INNOVATION OF THE YEAR AWARD” & “HOT 50”**

AMICO HYDRODRY®, a self-draining vented wall system for use behind masonry wood and shake siding, veneer stone and stucco was awarded the 2020 “Green Innovation of the Year” by Green Builder Magazine. The prestigious award was given as part of Green Builder’s “Home of the Year and Sustainability Awards” program – now in its 12th year – which spotlights individuals, projects and products that encourage sustainability and efficiency.

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INSTALLATION

AMIFLOW DRAIN SCREED
• Install Drain Screed at or below foundation plate.
• Drain Screed shall be installed no less than 4” above the earth or 2” above paved areas.
• Water resistive barrier shall lap over the Drain Screed.
• Rain Screen drainage plane shall be fully seated in the bottom of the Drain Screed - Lap scrim flap underneath mesh and cover slots to create a bug screen.
• Exterior lath shall terminate even with the horizontal ledge on the Drain Screed.

• Apply stucco to the bottom half of the wall using built in grounds to accomplish desired thickness.

FOR ALL PROFILES
• AMICO recommends the use of HYDRODRY Drain Screen drainage mat to drain and ventilate the interior of the wall cavity.
• All corners and terminations should be cut using a miter saw.
• Profiles should be attached at studs on 16” centers.
• Insert universal connector 2.5” into the end of the E-Z Vent, Amiflow Mid-Wall or Drain Screed. It is important to compress the connector several times to reduce the loading, so it fits snug but does not warp the bottom and top of the piece when you insert. Slide the next piece of profile over the remaining 2.5” of the connector.
• If you see bulging, remove connector and repeat compression until the screed is even.
• Apply cladding to manufacturers specifications just as you would with EZ Bead or standard casing bead.
• When installing stucco use the built in ground to gauge the proper thickness of the stucco. Be sure not to plug or fill vent slots with stucco.

AMIFLOW MID-WALL
• Center Mid-Wall at junction between concrete block and framing.
• Water resistive barrier shall lap over the top nailing flange of the Mid-Wall.
• Rain screen drainage plane shall be fully seated in the bottom of the Mid-Wall - For bug screen trim 1” of entangled mesh leaving a scrim flap - Lap scrim flap underneath mesh to cover slots.
• Exterior lath shall terminate even with the horizontal ledge on the Mid-Wall Screed.

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AMICO
Hydrodry Self-Draining Vented Wall System

Green Builder Sustainability Awards 2020
Innovation of the Year

For More Information on the Hydrodry System & Other High Performance Products:
AMICOBP.COM ♦ 205.470.9823