

RENEWABLE TECHNOLOGY PRODUCTS

STUCCO EXPANSION JOINT RING

for Renewable Technology Products.

Patent pending protection for pipes that pass through stucco walls.

PATENT PENDING • U.S. APPLICATION NO. 19/675,826



Expansion & contraction



Pest & water sealing*



Pipe centering



Corrosion & insulation
protection

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*When installed with WRB, flashing, backer rod and sealant per the Installation Guide.

Every unprotected penetration is a future repair

Pipes, conduit and line sets pass through stucco walls on nearly every project. In the field they are typically finished by hand: a core-drilled or hand-cut hole, then plaster or sealant packed tight against the pipe. The real-world examples below, from contractors sharing their work on YouTube, show how these penetrations look on actual jobs — and why they so often end up being cut open and patched.



Stucco Flashing Detail For Pipes

Builder Boys · YouTube

Hand-taped flashing around a round pipe opening on sheathing, before lath and stucco.



Found a Pinhole Leak in Main Water Line! Cutting Through Stucco Wall

Plumbing Clinic · YouTube

Marking out a finished stucco wall to cut in and reach a leaking water line.



Drill through a Stucco Wall for LB fitting and wire pulling

The Last Ninja Builder · YouTube

Core-drilling straight through stucco for a conduit penetration.



"A" for effort on the stucco patch

Plumbing Tales · YouTube

A field patch around a pipe at the base of a stucco wall.



Small holes around pipes can turn into big stucco problems

ZD Stucco Repair · YouTube

Yellow gas line entering stucco through a rough, stained opening.



Stucco repair due to broken water pipe

Charles Riga (C.R. Plastering) · YouTube

Wall opened down to the lath for repair after a broken water pipe.

WHAT EVERY ONE OF THESE PENETRATIONS IS MISSING

- ❌ **No expansion allowance.** Rigid plaster is packed against a pipe that moves, so the joint has nowhere to go.
- ❌ **No seal against pests or water.** Gaps around the pipe invite moisture, insects and rodents into the wall.
- ❌ **No pipe centering.** Nothing holds the pipe centered or stabilized in the opening.
- ❌ **No corrosion / insulation protection.** Pipe, metal lath and insulation are left in direct contact with cement plaster.

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A purpose-built joint for every round penetration

The **Stucco Expansion Joint Ring** is a high-performance, polymer-based circular lathing and expansion accessory engineered for exterior Portland cement-based plaster (stucco), panel and lap siding wall assemblies. It accommodates differential movement at pipe penetrations, vents, conduit and other round openings while providing enhanced performance over traditional field detailing.



REVERSIBLE RING WITH INTEGRATED PERFORATED FLANGE



SINGLE PIPE • HVAC SUCTION & DISCHARGE LINE SET

KEY FEATURES & BENEFITS

- ✓ **Reversible design**
One side for traditional stucco, the reverse for elastomeric finishes and coatings.
- ✓ **Integrated perforated flange**
1/8" holes, equally spaced, key into the base coat for secure attachment.
- ✓ **Corrosion / electrolysis resistance**
UV-stabilized polymer resists cement alkalis, corrosion and electrolysis.
- ✓ **Centers & stabilizes pipes**
In framed, concrete or CMU walls, for a consistent, professional result.
- ✓ **Multiple concentric flexible rings**
Absorb expansion and contraction movement ($\pm 1/8$ " nominal).
- ✓ **Pest protection**
Seals the penetration to help reduce insect and rodent infestation and nesting.
- ✓ **Protects pipe insulation**
Shields pipes and insulation from damage, compression and vibration.
- ✓ **Drill-out center, one ring many sizes**
Drill to the pipe O.D. — single hole or multiple-hole knockout for line sets.

It's reversible for traditional stucco or elastomeric finishes. Seals out pests, corrosion, and protects pipe insulation. Two models cover penetrations from 3/8 of an inch up to 4 and a half inches for stucco siding, concrete, and CMU walls.

$\pm 1/8$ "

nominal movement
capacity

3/8"-4-1/2"

penetration range
(models R1 & R2)

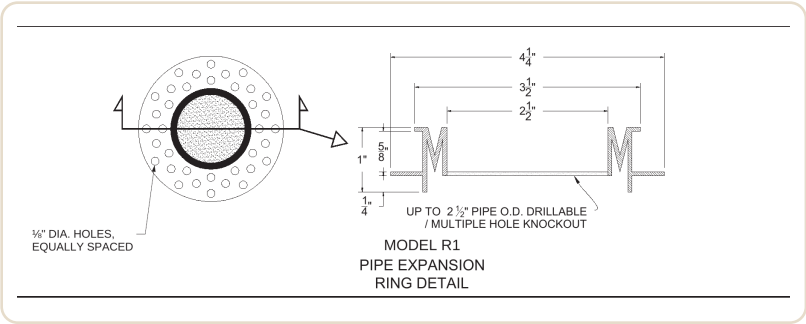
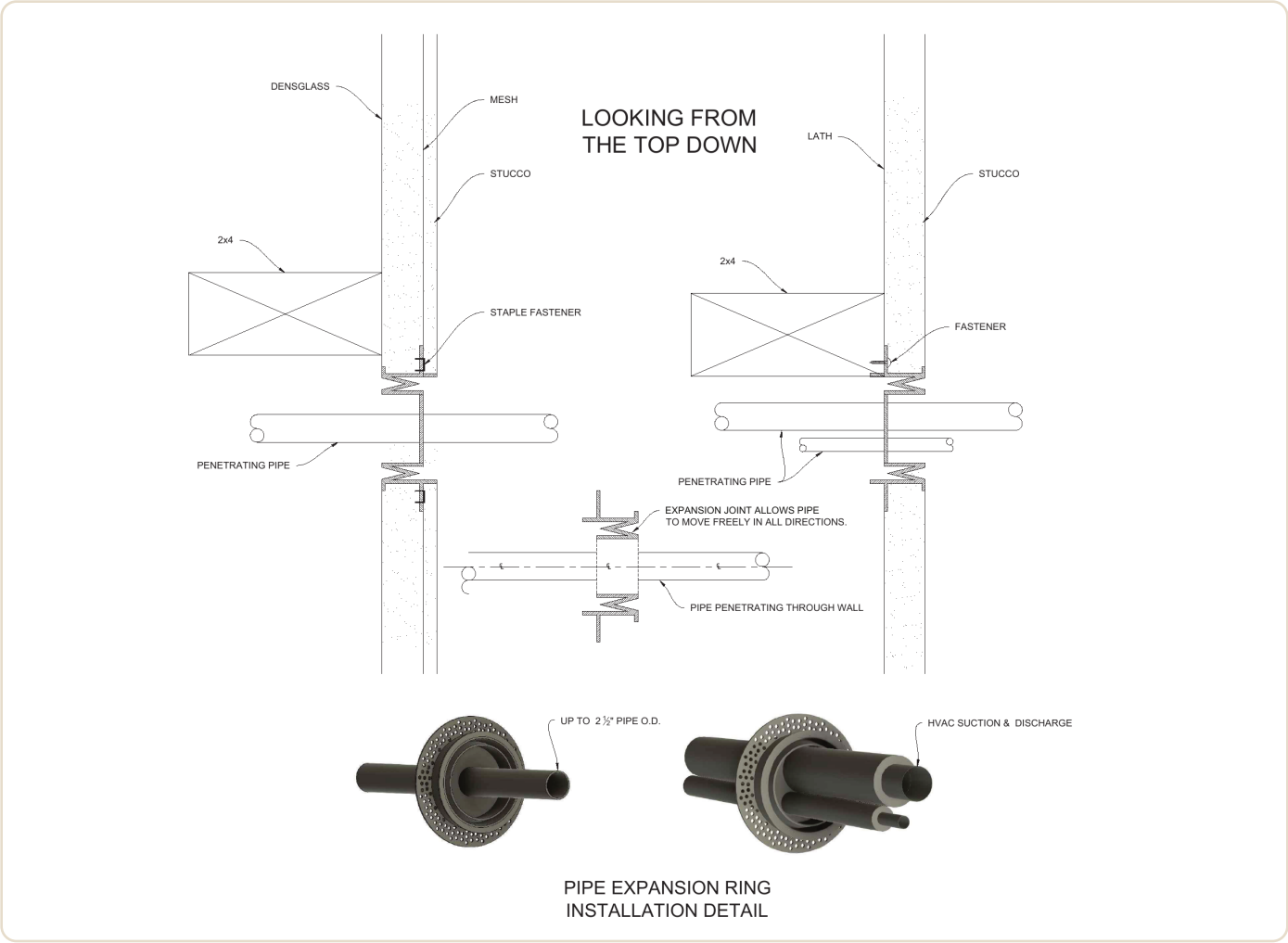
2 sides

stucco or elastomeric
finish outward

25 / 200

per bag / per box

How it works inside the wall



THE DETAIL, IN BRIEF

Shown in plan, looking from the top down: the ring's flange is fastened to the lath/substrate and keyed into the stucco, while the concentric rings form an expansion joint that lets the penetrating pipe move freely in all directions. Works over DensGlass with mesh, or lath on framing.

AVAILABLE MODELS & SIZES

MODEL	PENETRATION RANGE	FIELD SIZING	RING MOVEMENT	PERFORATED FLANGE
R1	3/8" - 2-1/2"	Drill-out center	±1/8" nominal	1/8" holes, equal distance apart
R2	2-3/4" - 4-1/2"	Drill-out center	±1/8" nominal	1/8" holes, equal distance apart

Each ring ships with a solid center: drill it out with a hole saw or step bit to match the pipe, conduit or insulated line O.D. (including 2-1/2" expansion joint pipe on R1). Size for a snug fit that still lets the rings move, and deburr the edge to protect insulation.

The difference is right at the penetration

From Patrick Binning’s stucco test panels: a plain core-drilled hole with nothing protecting it, the Stucco Expansion Joint Ring set in the panel before drilling, and a pipe run through the ring.



UNPROTECTED HOLE vs. EXPANSION JOINT RING

	UNPROTECTED HOLE	WITH THE RING
Expansion & contraction	✗ None — plaster packed tight to the pipe	✓ Concentric flexible rings, ±1/8" nominal
Seal against pests & water	✗ Open gaps around the pipe	✓ Sealed penetration*
Pipe centering & support	✗ Pipe free to shift and bear on stucco	✓ Centers & stabilizes the pipe
Corrosion / electrolysis	✗ Direct contact with cement plaster	✓ Polymer resists alkalis & electrolysis
Pipe insulation	✗ Exposed to damage & compression	✓ Shielded from damage, compression, vibration
Finished edge	✗ Hand-cut, varies job to job	✓ Pre-formed circular geometry

**Watertight performance when installed with weather-resistive barrier, flashing, backer rod and compatible sealant per the Installation Guide.*

Ring vs. bare hole, side by side

Prototype rings were installed in stucco test panels next to unprotected core-drilled holes. Each row below pairs a ring from a panel with a plain hole from the same panel.



With the ring. Ring set flush in the finish coat; the perforated flange keys into the plaster.



Unprotected. Bare core-drilled hole: raw edge, nothing to seal, center or isolate a pipe.



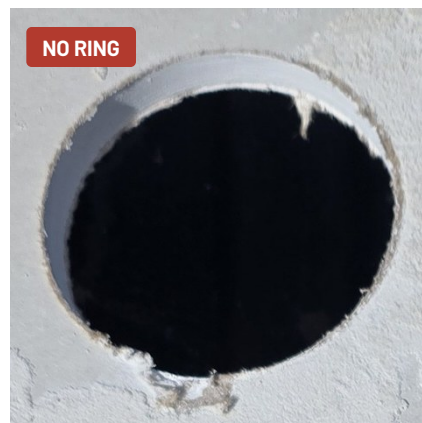
With the ring. Edge view: the 1/8" perforated flange is fastened down, then embedded in the base coat.



Unprotected. Bare hole in the same panel: an open path into the wall cavity.



With the ring. Pre-formed geometry delivers the same clean, round opening every time.



Unprotected. Hand-drilled opening: edge quality depends on the tool and the installer.

Photos: prototype test panels by Patrick Binning. Prototype appearance may differ from production units.

Built for the walls you actually work on

01

Stucco wall assemblies

Three-coat Portland cement plaster over lath.

02

Panel & lap siding

Reverse side outward for elastomeric finishes.

03

Concrete penetrations

With additional flashing / sealant as needed.

04

Metal framing

Penetrations through metal-framed walls.

05

Pipe, vent & conduit

Plumbing, gas, electrical and HVAC line sets.

INSTALLATION AT A GLANCE

1

Prepare

Prepare substrate, install WRB and flashing, center the pipe in the opening.

2

Select size & side

Choose R1 or R2, drill out the center, pick stucco or elastomeric side out.

3

Position

Slide the ring over the pipe; flange flat against lath or substrate.

4

Secure

Fasten the flange per ASTM C1063 without restricting the rings.

5

Integrate

Terminate lath at the joint; integrate siding transitions and flashing.

6

Apply coats

Embed the flange in the base coat; work plaster into the perforations.

7

Seal & inspect

Backer rod and sealant at the pipe; confirm rings move freely.

MATERIALS & STANDARDS

- Designed as a polymer lathing/expansion accessory to meet ASTM C1861 material and performance requirements.
- Supports installation per ASTM C1063 (Sections 3.2.3, 6.2, 7.4.9, 7.4.10, 7.11).
- Compatible with galvanized lath, DensGlass, concrete and CMU substrates.

PACKAGING & NOTES

- Packaged 25 per protective bag; 200 per box. Store in a cool, dry place.
- Verify compatibility with pipe materials, insulation and the overall wall assembly.
- Fire resistance is achieved through the complete wall assembly per applicable codes.



STOP PATCHING PENETRATIONS. START DETAILING THEM.

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For distribution, project inquiries and installation questions, contact:

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Field examples on page 2 are thumbnails from public YouTube Shorts, credited to their creators: Builder Boys; Plumbing Clinic; The Last Ninja Builder; Plumbing Tales; ZD Stucco Repair; Charles Riga (C.R. Plastering). They are shown only to illustrate typical unprotected penetrations; no affiliation or endorsement is implied. Material properties are design targets to be confirmed through testing. Always follow local building codes and architect/engineer specifications.