SLIMDUCT MD

A Cooler Home for a Growing Family

Living in a 1950s home in Florida's intense heat and humidity, the Birk family struggled to maintain a comfortable indoor environment. The west-facing living room bore the brunt of the evening sun, raising interior temperatures to a steady 78°F—too warm for comfort, especially with a baby on the way.

Project Info

- Location: Jacksonville, FL
- Building type: Residential
- Project type: Existing building, retrofit
- VRF Manufacturer: Boreal

Challenge

Despite having a fully functional main split HVAC system, the home's poor insulation and incorrect sizing from past system installs left a major cooling gap. The original builders never accounted for uninsulated walls, and subsequent replacements never addressed the underlying load issue.

Learn more about Slimduct MD

Solution

Kerry McIntyre, a seasoned HVAC professional and Inaba Denko America Sr. Sales Executive, wasn't going to let the Birk family bring a newborn into a sweltering home. He proposed a solution that would not only supplement the main system but also provide critical redundancy: an 18,000 BTU inverter-driven mini split.

Without time for a formal load calculation, McIntyre selected this model based on its ability to modulate between just over 5,000 and up to 18,000 BTUs as needed—a smart solution for unknown and fluctuating loads.

The job was performed in late June—a grueling time to work in Florida heat. The indoor unit was mounted on an interior wall with the lineset run discreetly down into a closet. Rather than exposing the lineset, McIntyre opted for **Slimduct MD** to maintain a clean appearance indoors.

Installing in plaster walls required extreme care. The supplied mounting template guided the hole, but the plaster quickly chewed up the hole saw. Once the indoor unit was secured and piped, the real work began.

Paircoil lineset was run under the house and up through the floor, paired with the control wire taped alongside. The pairing made the job significantly easier—cutting labor in half. Inaba Denko **DHQ UV-rated drain hose** was added to complete the indoor portion. Outside, creativity was key. The crawl space vent provided a tricky exit point for the lineset. Kerry installed a straight section of **Slimduct SD** and sealed it with **AP Putty**, avoiding the need for an elbow.

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The outdoor unit was mounted on an Inaba Denko America slab stand, and the final bends in the 5/8" copper were done with a tubing bender. Due to tight angles, he separated the Paircoil to maneuver the piping, sealing gaps again with AP Putty for a weather-resistant finish.

Inaba Denko Products Used

- Slimduct MD (interior concealment)
- Slimduct SD (exterior protection)
- Paircoil (pre-paired copper lineset)
- AP Putty (airtight, watertight sealing)
- UV-rated Drain Hose DHQ
- Slab Stand C-NG-L (outdoor unit support)

Outcome

Once powered on, the mini split began cooling the home immediately. Not only did it solve the heat issue in the living room, but the cool air began recirculating through the main system's return duct, improving comfort throughout the entire house.

Thanks to McIntyre's dedication and the efficiency of Inaba Denko accessories, the Birks now enjoy a cooler, more efficient home—just in time to welcome their newest family member.

Paircoil outside the house.

Paircoil and Slimduct SD going into the condenser with C-NG-L slab support.

DHQ drain hose and Paircoil inside Slimduct MD sealed with AP Putty in the closet.

About

Inaba Denko America supplies HVAC accessories engineered by Inaba Denko of Japan and provides support for distributors and contractors throughout North America. Our brands represent quality, precision, and durability. Primary products include copper line sets, line set covers, drain hoses, and mounting systems, ideal for mini split, VRF, ducted, ductless and heat pump installations.