

#### ► PROJECT

Radio Shack  
Headquarters

#### ► DESIGNED BY

James Johnson  
& Associates

#### ► PRICE REPRESENTATIVE

MJ Air Products

## Radio Shack Headquarters • Fort Worth, Texas USA

### ► THE CHALLENGE

When the Radio Shack Corporation began planning the construction of their worldwide headquarters facility in Fort Worth, Texas, they knew that they would be building a leading edge, state-of-the-art facility that would incorporate the latest technology in fabricated environments.

Located in Fort Worth, this 1,000,000 million sq. ft. complex features four buildings, a retail center, and a parking structure. The building façade is a marvel of architectural design that combines the rich, earthy hues of red brick with the open and inviting dimension of tall glass exposures, all accented with striking metal features. The buildings interior reflects the same commitment to a world-class facility. Rich flooring and wall treatments, marble columns, and

interesting architectural features make the interior space warm, inviting, and functional. There are restaurants, coffee shops, inside sitting areas, and beautifully configured outside decks for fair weather days. This is truly a remarkable facility.

Radio Shack also desired to create the ultimate environment from the standpoint of thermal comfort. According to Ryan Montgomery, Director of Facilities for Radio Shack, "we planned all along to install a state-of-the-art system that would provide occupants with individual control at their work stations, conserve energy, be low maintenance, and qualify for LEED certification." No small challenge for a building this large, and with such diversity in the interior spaces.

► THE SOLUTION

James Johnson and Associates, the mechanical design firm for the project, specializes in large corporate clients in the private sector. JJA is a progressive firm that stays current with industry trends and product advances. According to Walter Horn, President and Director of Engineering, "we had seen movement toward Underfloor Air Distribution Systems (UFAD) and knew that many considered it to be the 'end all' in system technology, especially in buildings with open office architecture and high 'churn' rates." The challenge would be determining if it was right for Radio Shack.

Having decided on a design approach, it was time to evaluate UFAD equipment suppliers. The group visited various locations where underfloor systems were installed and operating. According to Kyle Holmes, Project Manager for Brandt Engineering, their contract with the owner required that they evaluate and recommend the products to be used. Per Kyle, "we were more comfortable with Price's

quality and service capability". They had seen a variety of installations and schemes, but were not able to view a system that truly represented the environment at Radio Shack. One significant concern was the sheer size of the Radio Shack floor plate. Per Walter Horn and David Pick of JJA, "There were concerns over how we would move the air from the plenum source to the floor diffuser with minimal variations in pressure and temperature. The smaller system models we saw didn't answer those questions".



**Underfloor System during installation.**



**Underfloor System with Plenum during installation.**

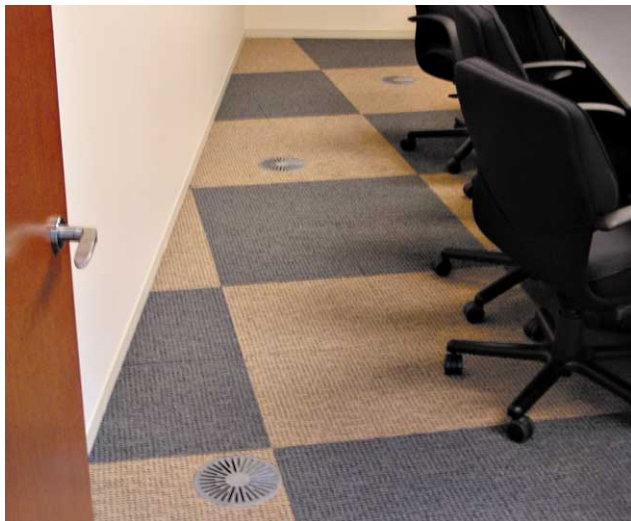
Price associates Matt Daily and Joel Finney of MJ Air Products in Dallas stepped in to fill the void. This rep group is extremely aggressive and works hard to develop strong, support-based relationships within their engineering and



**Product Highlight: RFTDA - Round Floor Turbulent Face Adjustable Diffuser**

- Architecturally pleasing swirl diffuser with High-Mixing characteristics for occupant comfort
- Gasketed press fit option provides tight seal and saves installation labor
- One piece core with narrow attractive jet slot openings adds safety
- Positive interlocking face reduces potential for accidental adjustments
- Discharge air volume adjustable at diffuser face
- Constructed of UL2043 Fire Rated engineered polymer

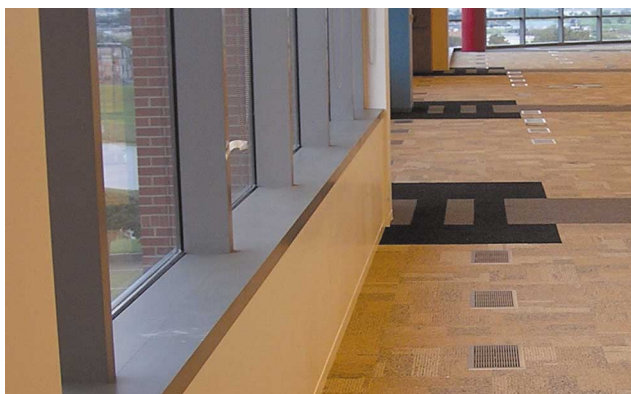
contracting communities. Matt Daily happened to be in contact with Walter Horn around the time that JJA was seeking additional information. As Walter Horn recalls "Price was the most proactive of the various manufacturers we contacted. Many told us 'just look at the catalog data', but Price worked with us to address specific issues".



**RFTDA installed in a boardroom**

MJ Air was able to coordinate an initial meeting that afforded Price the opportunity to demonstrate our capabilities, and resolve specific problems. The general design approach would install an integrated system of circular swirl floor diffusers (Model RFTDA) for more stable interior zones, and linear floor grilles (Model LFG) with Digital series underfloor air terminal units (Model FDBU) for more dynamic perimeter zones. The terminals would feature ECM motors for optimal performance and energy conservation.

Ryan Montgomery of Radio Shack observed that accessing underfloor terminal control enclosures wasn't easy. The



**LFG Underfloor System installed**



**LBMH installed in the marble lobby floor**

enclosures opened outward, an awkward position that requires you to lie on the floor or stand on your head to peer in. At the client's suggestion we relocated the enclosure opening to the top, making it easily accessible from above – this is now our standard enclosure. Ryan later commented that he found Price to be very responsive and that we "showed pride in our product". We prevailed at bid time and were proud to be selected as the UFAD equipment supplier. It was a massive project, as we supplied Brandt Engineering (mechanical contractor) with hundreds of underfloor terminals, over 4,000 linear grille assemblies, and over 6,000 swirl diffusers. We began planning the logistics with Ted Dixon and Kyle Holmes of Brandt, who, through their meticulous management of the details kept everything incredibly organized, which in turn simplified the process for us.

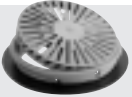

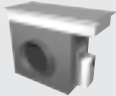



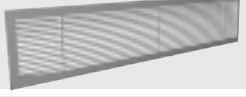


The only real drama came when we were told that the swirl diffuser was being reconsidered due to the labor requirements to install them. Price made a quick trip to Fort Worth to demonstrate the "press fit" mounting option, which actually reduced installation labor, and retained the order.

## ► THE RESULT

The project is now complete and Radio Shack has moved in. As Ryan Montgomery aptly states, "comfort control has always been the #1 complaint", and according to him, the UFAD system is working fine. He and his facility staff like the fact that occupants can adjust their own floor diffuser.

For more information on Price's full product offering of Underfloor Air Distribution systems, please contact your local Price representative.

## RADIO SHACK HEADQUARTERS PRODUCT LIST

Product	Description	Image
RFTDA - <b>Round Floor Turbulent Face Adjustable Diffuser</b>	<ul style="list-style-type: none"> <li>• Face adjustable damper</li> <li>• Has a "press fit" option for easy installation</li> </ul>	
FDCU - <b>Fan Powered Underfloor Terminal Unit</b>	<ul style="list-style-type: none"> <li>• Low noise generation for quiet operation</li> <li>• Compact configuration makes for easy install</li> </ul>	
LFG - <b>Linear Floor Grille</b>	<ul style="list-style-type: none"> <li>• Well suited for perimeter applications</li> <li>• Allows for the supply and control of warm and cold supply air from raised floor systems</li> </ul>	
SDV - <b>Single Duct Terminal Unit</b>	<ul style="list-style-type: none"> <li>• Provides VAV control</li> <li>• Accurate air volume measurements</li> </ul>	
FDV - <b>Fan Powered Terminal Unit</b>	<ul style="list-style-type: none"> <li>• Recirculating fan section operates only on a demand for heat from the space thermostat</li> </ul>	
FDBU - <b>Digital Underfloor Terminal Unit</b>	<ul style="list-style-type: none"> <li>• Clean and efficient design</li> <li>• Low noise generation for quiet operation</li> </ul>	
LBM(H) - <b>Linear Bar Grille</b>	<ul style="list-style-type: none"> <li>• Crisp styling</li> <li>• Exceptional strength</li> <li>• Durable aluminum construction</li> </ul>	
TBDI675 - <b>Linear Insulated T-Bar Grille</b>	<ul style="list-style-type: none"> <li>• Consistent horizontal air pattern ideal for VAV systems</li> <li>• Pattern controllers easily field adjusted for horizontal left or right or vertical air flows</li> </ul>	
PDDR - <b>Steel Perforated Face Grille</b>	<ul style="list-style-type: none"> <li>• Smooth and even appearance that blends into ceiling</li> <li>• Very low sound levels</li> </ul>	

The founding principles of our company have never changed - business integrity, first class service and a commitment to people. Price manufacturing endeavours arose from our belief that we could supply superior products and services at a reasonable price. Our mission is to become the worldwide supplier of preference for air distribution products and services. You can rely on Price – our products and services – with confidence.



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**Product Improvement** is a continuing endeavour at Price. Therefore, specifications are subject to change without notice. Consult your Price sales representative for current specifications or more detailed information.

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### AIR DISTRIBUTION PRODUCTS FOR WORLD CLASS CITIES



Grilles, Registers & Diffusers



Terminal Units



Underfloor Products



Security Products



Displacement Ventilation