



RSES Journal
2010
Readers' Choice Awards
WINNER

The following list represents the 2010 RSES Journal Readers Choice Award winners—selected for the highest number of reader inquiries last year. The descriptions have been abbreviated for the issue, but full versions are available at www.rsesjournal.com.

Airtec Products



Novent tamper-resistant locking caps

help prevent refrigerant theft, leaks and intentional inhalation from access ports on A/C and refrigeration equipment. The corrosion-resistant, aluminum-shrouded brass caps screw onto standard Schraeder valves. An oil and sealant-resistant neoprene O-ring seals tightly to prevent leaks and an integral torque limiter prevents over-tightening. **Circle 1 on the reader service card.**

American Standard



AccuLink communicating technology in the 20-SEER efficiency systems

digitally enables automatic and proper HVAC-system configurations without a special kit to adapt the controls. Systems run their own self-diagnostics to ensure proper air flow, heat-source configuration, blower timings and humidity control. A Charge Assist feature delivers the precise amount of refrigerant needed and then shuts itself off. **Circle 2 on the reader service card.**

A.O. Smith



Green Choice motors are designed to address today's environmental concerns. The JuggerNaut, 3-in-1 and iMotor are the first releases under the Green Choice brand that reduce energy consumption in refrigeration applications by reducing the amount of electricity needed. **Circle 3 on the reader service card.**

Arkema



Forane427A has similar operating pressures and flow rates, and performs close to R-22. **Forane407A** is Copeland-approved and closely matches the cooling capacity and flow rates of R-22 at lower temperatures. Both products are non-ozone depleting, with low GWPs. **Circle 4 on the reader service card.**

Aspen Compressor



The **rotary dc compressor** is exceptionally compact, yet has a cooling capacity of up to 1,800 Btu/h. Weighing just 1.3 lb and standing less than

3 in. tall, it provides more capacity than compressors 10 times its size. It is perfect for the difficult conditions presented by mobile refrigeration applications. **Circle 5 on the reader service card.**

Bristol Compressors



The **Compressor Replacement Instructional Video** assists with the replacement of the compressor in a safe, effective and efficient manner, using a Bristol Compressors Retro-Fit Assist Kit. **Circle 6 on the reader service card.**

ComStar



Copper Lock requires no heat to solder copper pipe and copper/brass fittings together, and is easy to apply.

Sand the areas to be joined, apply a small amount to the fitting and pipe, insert and turn the pipe 180 degrees or more. Wait 30 seconds prior to handling; pressure tests can be conducted after two minutes. **Circle 7 on the reader service card.**

Digi-Cool



The simple-to-use **Paradigm 2-valve manifold** features proprietary proportional ball valves, which means there are no knobs to turn—just a flick of the thumb controls critical liquid-refrigerant flow. The 3/8-in. bore and see-through sightglass increase technicians' time efficiency. **Circle 8 on the reader service card.**

Emerson Climate Technologies'



The **Copeland discus digital compressor** has continuous digital modulation from 10%–100%—ideal for temperature-sensitive applications. Installing one into a refrigeration system allows the system to specifically match the capacity being generated to the required load. The capacity modulation also reduces the suction pressure and temperature variation of the refrigerated space. **Circle 9 on the reader service card.**

Field Controls



Sensing pressure changes

and a need for air flow, the **Make-up Air System** opens to bring fresh air into the air handler. Cold air is tempered as it mixes with warm air in the return duct; air is then heated and distributed through the home via the central duct system. The system then closes to prevent further air infiltration. It does not require any electricity or maintenance. **Circle 10 on the reader service card.**

Fieldpiece Instruments



The **HVAC Guide system analyzer**, model HG2, leads technicians step-by-step through critical tests, including: target evaporator exit temp, target superheat, subcooling, combustion, and the CheckMe! diagnostics program. Enter data on the

input form; get results/recommendations from the output form; download data to your PC to print work orders; and more. **Circle 11 on the reader service card.**

Fluke



The **80PK-10 pipe-clamp temperature probe**

attaches securely to pipes to measure temperature and superheat. Designed for larger pipe diameters, the probe can be purchased alone or in a kit that includes a probe for smaller pipes. Both probes feature durable ribbon sensors with type-K thermocouples. **Circle 12 on the reader service card.**

GE



This **hybrid water heater** has four operating modes: E-heat only operates the heat pump to recover the water temperature;

Hybrid uses the heat pump first and foremost; High Demand operates similar to Hybrid mode, but the system reacts faster to temperature recovery; and Standard uses only the electric elements. Existing water/electrical connections can be used. **Circle 13 on the reader service card.**

Heatcraft Refrigeration



This line of **CO₂ unit coolers**

includes 62 models, in low and medium profiles, in both center-mount and low-velocity families. Capacities match standard DX models

and are measured in Btuh. Models designed for use with CO₂ are configured for low-temperature DX or medium-temperature liquid overfeed/recirculation. **Circle 14 on the reader service card.**

Mitsubishi



The **split-ductless**

P-Series A30/A36 models feature H2i capability that provides heating down to -13°F. The units also feature an enhanced look, increased moisture removal and improved HSPF. The indoor units are compatible with the PUY/PUZ-NHA3 and PUZ-HA-NHA2 outdoor units. **Circle 15 on the reader service card.**

Rheem



SolPak solar water-heating system comes with a heat-exchanger tank, collector panels, a controller, multi-

speed pump, thermal expansion tank and other essential items. The system uses a circulating pump to transfer water through the system. Sensor wires measure the temperature at various points, and activate the pump to circulate the heated fluid from the collectors to the tank and back until water is heated to the desired temperature. **Circle 16 on the reader service card.**

Ritchie Engineering



This **series of videos** is designed to help you work smarter and safer while getting the best performance from your

service tools. Each DVD includes straightforward, how-to knowledge with step-by-step instructions and product demonstrations. Several titles are available. **Circle 17 on the reader service card.**

Ritchie Engineering



The 100-page, four-color **Edition 57 HVAC&R and Automotive Service Tools Catalog** features

all Yellow Jacket HVACR service tools, including the new ACCUPROBE II heated sensor leak detector. Categories include refrigerant recovery, vacuum pumps, hoses, gauges and much more. **Circle 18 on the reader service card.**

Ritchie Engineering



This new **refrigeration system analyzer** offers a full-color graphics display that reads

analog, digital or a combination of both. It monitors two pressures, two live temperatures, subcooling and superheat, and saturation temperatures (liquid and vapor) for 84 refrigerants; and the four-valve Titan manifold and an external, replaceable vacuum sensor are standard. **Circle 19 on the reader service card.**

RSES



The **CBT3 line of interactive CD-ROMs** offers self-paced study, simple navigation tools, interactive troubleshooting exercises, animated visual

graphics, and clear and concise audio lectures for today's HVACR professional. CDs covering air flow, gas furnaces, electrical troubleshooting and residential split-system cooling are available. **Circle 20 on the reader service card.**

Solar Panels Plus



SplitCool DC18 solar-powered, dc air-conditioner

has a nominal capacity of 18,000 Btu; and uses approximately 40% fewer solar panels than a standard ac-powered system of the same max capacity running off of solar panels through an inverter. Additional features include a high-SEER brushless dc, permanent magnet motor; and variable-speed VFD. **Circle 21 on the reader service card.**

Robinair



The **43150 superheat kit** takes a direct temperature

reading through the access port for an accurate and reliable way to calculate superheat. The kit connects directly to a standard 1/4-in. flare access fitting and can handle temperatures of -58°F–302°F. The kit also includes a valve-core removal tool, digital thermometer, blow-molded protective case and instructions. **Circle 22 on the reader service card.**