

VTech e-news

CUSTOMER FOCUS



Coil Specialist Inc. Upgrades to State-of-the-Art Technology

The Gilmer, TX coil manufacturer Coil Specialist, has recently gotten “out of the water” and into a VTech 75 Leak Detection System featuring pressure decay and a Hydrogen Tracer Gas sniffer leak locator. The equipment is supplied with a barcode reader and is interfaced with a personal computer running VTech’s data logging software. This enables tracking the serial numbers of the coils for inventory and quality purposes.



VTech 75 at work at CSI

CSI started producing coils in January 2000. “After our first year we had total of 9 people on payroll,” says Gerry Averett, President. “With a top line growth of 62% and 21 people, CSI had begun a growth pattern of +50% year after year since. In 2005 CSI has 55 full-time and 6 part-time employees. CSI has invested capital dollars in top-of-the line equipment and employee development to reach for our future. As owner, I have hand-picked our top line staff; excluding me, they average under 26 years old. These men and women will take CSI to all new levels over the coming years. Our staff is one that, as time can only show, will have a great impact on this industry, from customer service to use of new technology such as yours.”

VTech is proud to play an important role in Coil Specialist’s success and continued growth in the future.

Underwater testing: The skinny on dipping

Many coil manufacturers are in fact still using underwater testing to detect leaks in their coils. This method has many disadvantages, such as being highly operator dependent, time consuming and scarcely accurate. A large drying oven must also be used to remove the excess water. The VTech 75 machine eliminates these steps and automates the process, first by testing for gross leaks using a pressure decay test and then, if the unit passes, charging or back-filling with a mixture of 5% Hydrogen and 95% nitrogen. A sniffer probe is then used to check all the brazed joints for leaks.

The machine can process two coils at a time and features a “compare” function of the pressure decay curves of two identical coils as an additional factor for detecting the presence of leaks.

Overall, the VTech 75 speeds up the leak testing process by cutting down on handling of the coils and at the same time detecting leaks that would be either undetectable or would take hours to create a bubble underwater (see the table below). The VTech 75 thereby increases productivity and improves quality all in one state-of-the-art piece of equipment.

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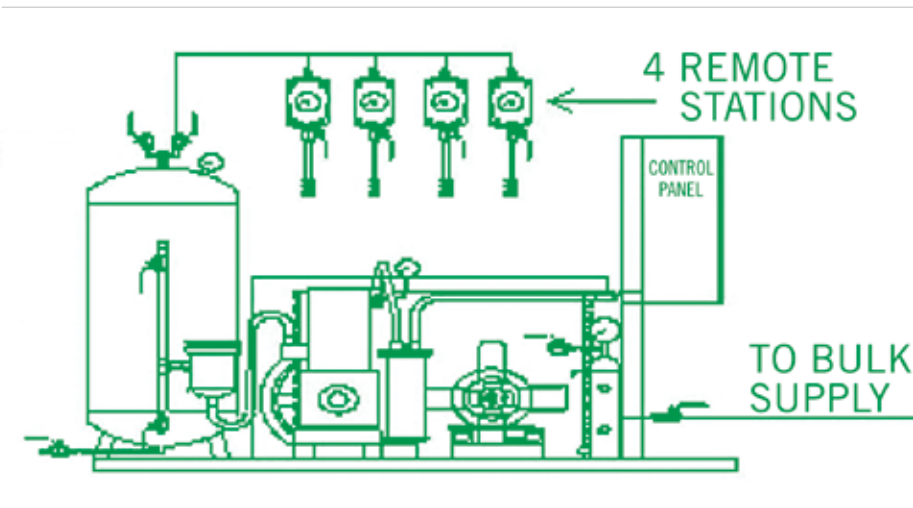
PRODUCT SPOTLIGHT

Reduce your Emissions and your Refrigerant bill with VTech VRec

Whenever a faulty unit is found during production, the refrigeration circuit must be purged before it can be repaired. When dealing with large refrigeration circuits and/or expensive high performance refrigerant fluids, dispersing the refrigerant into the air has high environmental and economical costs. Small portable recovery systems usually do not meet productivity requirements.

VTech's VRec is a unique system, which recovers and enables you to reuse the refrigerant. VRec is available with up to 4 remote recovery stations, which deliver the refrigerant from faulty units to a centralized recovery machine. It is suitable for all non-flammable refrigerants, including high pressure R410A. The recovered refrigerant can then be fed into the centralized supply system for reuse in the production line. Alternatively, it can be temporarily stored in a refrigerant accumulator, connected via a supply pump, to a refrigerant charging machine.

VRec is easy to use, thanks to pressure sensors that automatically control the entire working cycle. Fully customizable, it can be built to suit your production line.



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Texas is a leading area for the coil manufacturing industry. With the price of copper at an all time high, investments in new equipment that help reduce costs in the long run are a wise improvement over doing things the same old way. While tried-and-true methods are slow to disappear, the industry demands for speed and reliability will make it necessary to leave behind the previous methods in favor of more modern approaches.

Gas leak rate (R134a)	Leak rate (mbar l/s)	Bubble immersion (time to form one bubble)
300 g/y (9.6 oz/y)	$1.8 \cdot 10^{-3}$	13 seconds
100 g/y (3.2 oz/y)	$1.2 \cdot 10^{-3}$	45 seconds
30 g/y (1oz/y)	$1.5 \cdot 10^{-4}$	130 seconds
10 g/y (0.3 oz/y)	$8.0 \cdot 10^{-5}$	270 seconds
3 g/y (0.1 oz/y)	$1.2 \cdot 10^{-5}$	23 minutes
1 g/y (0.03 oz/y)	$5.4 \cdot 10^{-6}$	180 minutes
0.5 g/y (0.02 oz/y)	$1.5 \cdot 10^{-6}$	210 minutes

Table 1. Approximate Leak Rate Equivalents

Industry News - Upcoming Tradeshows:

IKK In Hannover

Visit us at Booth #13-928

IKK in Germany rates as one of the world's leading trade fairs for refrigeration, air conditioning and ventilation. This year's event takes place in Hannover from November 2-4. The annual three-day event gives visitors and manufacturers the opportunity to discuss the industry's latest trends.



VTech will be exhibiting in hall 13 at booth 928. The VTech exhibition space will be mainly dedicated to equipment, as visitors will have the chance to see our refrigerant charging machines and leak detection systems. Live demonstrations will be held and during the exhibition, VTech's engineers will be available to answer technical questions and advise on the best solution to fulfill production requirements.

To pre-book your invitation to the tradeshow, please contact us at: info@vtechonline.com or by phone at +39 0574 564335. We are looking forward to meeting you in Hannover!

AHR Expo, Chicago

January 23-26, 2006

VTech will be exhibiting at AHR in Chicago, USA January 23-26 2006. AHR is the world's largest HVAC&R trade show event for professionals to buy, sell, network and learn. See you in Chicago!



VTech at MCE

February 28 - March 4, 2006

VTech is taking part in MCE, the Italian trade show coming up next March. It will be held in Milan from 28th February up to 4th of March



Behind VTech: Two generations of know-how at work



William E. Wright, Sr., a Syracuse University engineering school graduate, has over 50 years of experience in the air conditioning and refrigeration industry. With Carrier Corp. for 35 years as part of their Process Development Group, he designed and built one of the world's first refrigerant charging machines. Charging "boards", as they were known as at the time, were extremely crude apparatuses consisting of a plywood "board" with various pressure gauges, valves and a sight glass for measuring the amount of refrigerant to be injected. The charge was done through hand-operated valves to the low side of the circuit. As one can imagine, this process was scarcely precise.

Up until this point, there was no such thing as a process equipment manufacturer; companies such as Carrier had to design and develop their own equipment. One of Mr. Wright's first projects was to design and build a "better system" which was realized by creating the first flow-transducer or refrigerant metering device, based on a gasoline meter. William E. Wright, Sr. also developed leak detection equipment based on pressure decay principles, automatic welding processes and fin and coil design (including the first plate fins, which were self spacing). He holds numerous patents for his designs.

Bill Wright, Jr. is the Technical Director of VTech. He heads up the manufacturing side of the equation at our Syracuse, NY facility. A former Carrier Corporation engineer for nearly 10 years, Mr. Wright's expertise comes from his hands-on experience with actual production lines as well as working closely with his father for many years at Carrier. In the late 70's they were the first to implement "Gould Modicon" PLC's in their equipment to gain an advantage over the competition. This is still true today with VTech's products, which are all PLC controlled. Bill Jr. holds several patents as well.

In 1987 Bill Sr. left Carrier and created his own company Special Process Equipment (SPE). With all of their design and manufacturing engineering knowledge and experience, he and his son Bill Jr. have been continuously developing more advanced and reliable equipment, while helping customers to optimize their production line lay-out. In the last two years Galileo Vacuum Systems and SPE have developed a joint-venture under the VTech brand name. VTech's Italian plant works closely with the Syracuse facility and although the two engineering teams' native languages are different, everything comes together in the name of technology.

Bill Wright Sr. is still active in the business; he especially enjoys talking to customers and providing his advice on various manufacturing issues.



VTech Americas – Alpharetta, GA – +1.678/513.0303 – americas@vtechonline.com
VTech Worldwide – Prato, Italy – ++39.0574.564.333 – sales@vtechonline.com
www.vtechonline.com