

SIMPLY EFFICIENT: THE NEW VITOCROSSAL 300 CU3A.



VITOCROSSAL 300 CU3A



A recent interview with Steve David, Sales Director-East, Viessmann Manufacturing Company (U.S.) Inc., about the new compact, gas-condensing, floor standing Vitocrossal 300 CU3A boiler.

What is the Vitocrossal 300 CU3A?

It's a highly efficient stainless steel gas-fired condensing boiler available in four sizes ranging from 19 MBH to 199 MBH, with a 5:1 turndown ratio. Since its release fifteen years ago in Europe, we've sold over 100,000 units in Europe; 34,000 of them in the last four years alone. June 2015 marks the introduction of the Vitocrossal 300 CU3A to the US market, where we expect it be very popular.

What makes the Vitocrossal 300 CU3A distinctive?

First of all, it's a high-mass design that means large water volume for the BTU/H input. Therefore, it isn't flow sensitive. Contractors will love that it's simple; because of the high-mass design, there is no primary/secondary piping to deal with, no low-loss headers to build into the system. And it's a floor-standing unit — it'll fit in the same footprint as your old cast-iron sectional. Installation really is as simple as connecting the existing supply and return piping. Slide out, slide in - boom. That's it. I like to call it, "Simply efficient." This is not to say that you should keep the old pumps after many years of service; there is a great opportunity for utility savings with the new VFD pumps.

Simplicity is built into the design?

Absolutely! All the pipe connections are in the back, and the vent connection is low to the ground for convenient connection to existing chimney openings. You can also sidewall vent this unit up to 198 feet. The combustion management system is self-commissioning; when the burner starts it automatically self-calibrates. Natural gas to liquid propane is also simple with no orifice to change. You don't need a combustion analyzer - the burner does all the work. The heat exchanger design actually washes itself when operating in the condensing mode, ensuring good heat transfer. The menu driven control and quick start-up guide simplify system commissioning.

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What about the efficiency side of the equation?

Think of it this way: on average, we in the United States pay about \$0.90/therm for natural gas; in Germany, they pay about \$3.00/therm, more than three times as much. In order to succeed in Europe, a boiler has to be efficient - and the CU3A delivers. The combination of our LambdaPro combustion technology, which continually adjusts the burner for optimum combustion efficiency, and our proprietary heat exchanger, delivers up to 95% AFUE. You just can't reach that kind of efficiency with a conventional sectional boiler or many of the other condensing boilers on the market.

What about build quality?

Look inside. It's all Viessmann manufactured parts, and they're all proven with a track record of durability. The heat exchanger is made from the best titanium alloy available for industrial applications, SA240-316Ti. We're talking a minimum lifespan of 20-25 years and in the real world, it's usually much longer. For the burner, the Vitocrossal 300 CU3A uses our MatriX radiant dome — it's whisper-quiet and brings NOx emissions down to just 20ppm. The controller is our Vitotronic 200 KW6B, which allows you to control the boiler and the system, including DHW. The boiler has 0-10 volt output to control a system variable speed pump. You can control up three temperatures: high temperature direct from the boiler and two low temperatures via mixing valves, besides DHW production.

What are the target applications for the CU3A?

For retrofits, there's obviously a huge opportunity anywhere you have high water temperatures and a high mass design: old homes with cast iron radiators, homes with multi-zone fin tube baseboard radiators, and homes with high DHW demands. Because of the easy swap-out with old sectionals, it'll be great in many small commercial applications too.

It's also perfect for new construction. With the Vitocrossal 300 CU3A, you get a packaged boiler that doesn't need primary/secondary piping - you save big on installation costs. There's less piping, fewer pumps, fewer valves - and best of all, less installation time.

All this quality in the CU3A comes at a cost, right?

No! We're pricing the Vitocrossal 300 CU3A very competitively. With incentives from natural gas providers, it'll cost a little more than most floor standing boilers in the marketplace. However, when you add in the savings you get in the simple installation—and the lifetime value of durable parts and low maintenance demands - you're getting an incredible value.

Where can we see the CU3A?

Visit our website: uncompromise.us. We have a Vitocrossal 300 CU3A under live fire in our U.S. headquarters in Warwick, Rhode Island. Soon we plan on installing one in our Vitomobile. Starting in June, the Vitocrossal 300 CU3A will be available at your local wholesale distributors.

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Tell us about the Viessmann Vitomobile?

Who has the time for training? Contractors and engineers are extremely busy and time-starved. It's getting more and more difficult to ask them to travel to the factory for training. The goal with the Viessmann Vitomobile was to bring our product and best-in-breed training to the streets – to the contractors and engineers. The Vitomobile was introduced last June as a fully functional boiler room on wheels. It's a mobile training lab with four Vitodens boilers operating on propane and connected with Viaga stainless steel press piping to a heat rejection fan coil unit. The Vitomobile enables Viessmann to offer service and start-up training to a contractor at any location. It allows us to deliver product introduction to our customers from contractors and engineers at their offices to wholesaler events and even to home owners at county fair events like the annual Fryeburg Fair in Maine. The response to the Vitomobile has been over whelming positive and has increased sales wherever the vehicle has traveled.

Where can we learn more about installation and training on the CU3A?

John Wrobel, our Viessmann Academy Manager and Robert Geoffery our Viessmann Technical Specialist have produced a comprehensive training program for the Vitocrossal 300 CU3A. The training modules range from remote access webex training to a complete hands-on training at the Viessmann state-of-the-art facility in Warwick, Rhode Island. You don't need to wait to install your first unit; the CU3A Quick Start Guide will walk you through the start-up. All of our technical information on the CU3A and other products is available on our website: **uncompromise.us**

About Steve David

Steve is the Sales Director - East at Viessmann. For the past 20 years, Steve's career at Viessmann has focused on promoting, designing and integrating high efficiency hot water heating systems, which include high efficiency condensing and traditional boiler technology along with renewable technologies such as biomass and thermal solar systems. Steve's experience of 15 years in mechanical contracting and 2 years with energy auditing enable him to bring a practical outlook to the installation of high efficiency renewable heating technologies. Steve can be reached at: 401-732-0667 or dav@viessmann.com

VITOCROSSAL 300 CU3A

HIGHLIGHTS

- Compact, floor-standing gas condensing boiler from 19 -199 MBH.
- Multi-boiler installation with 8 boilers up to 1592 MBH.
- High efficiency of 95% AFUE on all models.
- High temperature operation of up to 190°F.
- Inox-Crossal heat transfer surface – 316Ti stainless steel heat exchanger for efficient utilization of condensing technology – self-cleaning effect via smooth stainless steel surfaces.
- No dedicated boiler pump required and eliminates primary/secondary piping.
- MatriX dome gas burner with 5:1 turndown ratio to ensure high efficiency and extremely clean combustion.
- High water volume extends burner run time and reduces cycling.
- Simple commissioning with no field adjustments. A self-calibrating Lambda Pro combustion management system ensures optimal combustion efficiency at all times regardless of gas/air quality.
- Easy conversion from natural gas to liquid propane with no orifice change.
- Durable, reliable, and long service life with Inox-Crossal stainless steel heat exchanger and high mass design.
- Multiple venting options and configurations with vent lengths up to 198’.

Vitocrossal 300, CU3A

- 1 Vitotronic 200 control KW6B with graphic user interface
- 2 Water-cooled stainless steel combustion chamber
- 3 Modulating MatriX dome gas burner
- 4 Stainless steel Inox-Crossal heat exchanger
- 5 Highly effective thermal insulation
- 6 Flue gas collector with condensate drain pipe
- 7 Combustion air inlet connection

VITOCROSSAL 300 CU3A

Vitocrossal 300, CU3A gas-fired condensing boiler

Model		26	35	45	57
AFUE	%	95	95	95	95
Minimum Input (NG)	MBH	19	25	43	43
Maximum Input (NG)	MBH	94	125	160	199
Net AHRI Rating	MBH	76	101	129	161
Overall Dimension†					
Width	Inches	26	26	26	26
Height	Inches	67	67	67	67
Depth (Length)	Inches	27	27	31.5	31.5
Weight	lbs	269	275	341	352
Boiler Water Content	USG	13.5	13	18.8	18.8
Heat Exchanger Surface	ft.²	16.7	20.7	34.1	34.1
Maximum Operating Pressure	psig	30	30	30	30
Minimum Gas Supply Pressure					
Natural Gas	"w.c.	4	4	4	4
Liquid Propane Gas	"w.c.	10	10	10	10
Boiler water temperature maximum					
Adjustable high limit (AHL) range					
space heating (steady state)		190° F	190° F	190° F	190° F

For latest technical data, visit uncompromise.us

