NEW TROX PWX FANCOIL RANGE RE-DEFINES ENERGY EFFICIENCY AND ACOUSTIC PERFORMANCE

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TROX has announced the launch of a major new fancoil range – the TROX PWX Series – which brings to the market a 25% to 35% energy efficiency improvement over alternative models, with outstanding acoustic performance, and BACnet-enabled integrated controls packages as standard.

The launch of the new TROX PWX fancoil range follows an extensive research and development programme in which the company rejected incremental product enhancements in favour of a comprehensive rethink of fancoil technology. The new products have undergone thorough in-house testing, using TROX's test chamber (constructed to comply with ASHRAE 79, BS1397 and EUROVENT 6/3), in addition to extensive corroboration of results at an independent test facility. As a result, specifiers are able to input exact performance criteria for an extremely wide range of thermal and acoustic scenarios when planning their air conditioning schemes, instead of having to rely on less reliable 'anticipated' or 'expected' data. The TROX PWX range is therefore able to speed up the specification of projects significantly, reduce levels of risk, streamline installation and commissioning, and provide valuable environmental and cost benefits.

Whilst the basic physical dimensions of the TROX PWX units have been kept the same (270mm deep) to meet market requirements, every aspect of the thermal, electrical and acoustic performance of these models has been redesigned. With new inlet attenuators, inlet plenums and discharge attenuators, the units feature completely redesigned key components capable of achieving outstanding performance across a wide range of applications.

The SFPs across the range comply with and exceed Part L requirements, with typical values between 0.15 to 0.25 W/(l/s) at 30 Pa ESP, with a Guide NR of 35.

The environmental performance of the fancoils has been developed in conjunction with the full range of TROX air terminal device options. TROX's unique 'One Stop Shop' solution enables correct selection of air terminal devices to be tailored to each fancoil. This optimises potential energy savings without compromising air distribution (a factor very often overlooked when specifying the systems independently). The ability to source the entire system from a single supplier also enables specifiers to optimise the performance of the fancoils in VAV (variable air volume) systems. The specification process has been speeded-up by the introduction of sophisticated new in-house product selection technology. This makes it possible to identify the most effective combinations of fancoils, grilles and diffusers more quickly, making it possible to specify fancoils for entire projects in just minutes, rather than hours.

The TROX PWX fancoils are supplied with specially-designed on-board controls packages, as standard. Two different STD controls packages are offered:

- BACnet control, offering the full flexibility of uniquely addressed terminal units, which interface with Building Management Systems (BMS) and provide feedback on each unit's performance.

- TROX can also offer standalone controls that allow user control of individual units where no BMS is present.

To complement these control packages, TROX is also able to offer a full water-side control package which has been designed to work seamlessly with either control option.

These control solutions provide a number of valuable benefits. Project lead-times can be reduced significantly, as all wiring diagrams are pre-designed and readily available. This reduces the time and costs associated with additional electrical scheme design or expensive customisation of BMS programming. Specifiers also have the peace of mind that the controls technology has perfect

compatibility with the fancoil units, and has been developed specifically to optimise performance in a way that is hard to replicate with 'bolt-on' controls.

A key factor in the development of the TROX PWX Series has been the thoroughness of testing, which removes the project risks associated with incomplete or uncorroborated performance data. By thorough testing in-house using its own BSRIA type test rig, and by sourcing detailed external data for the fancoils from extensive independent testing, TROX is bringing to the market a range of products with unrivalled, verifiable, specification data. Care has been taken to test the units at specified 30 Pascal external static pressures (ESPs) and to provide exact performance figures. This improves on industry practice where lower external static pressures might be employed during testing, culminating in misleading results.

This rigorous testing of electrical and thermal performance has been matched by extensive independent acoustic testing. The acoustic testing, carried out in accordance with BS EN 16583:2015, covers the entire PWX range, including all available fan configurations across the full operating range.

Such detailed acoustic analysis allows precise selection of units to suit the customer's requirements and is complemented by TROX's new selection process, enabling user adaptation of project-specific finishes that may affect the resultant room NR level. As the suspended ceiling finish has such a big impact on the room NR, TROX has worked closely with Armstrong Ceilings to pre-programme tested ceiling tile SRI values into its new calculation programme to ensure the correct acoustic assumptions are used.

The new TROX PWX Series is designed to replace the company's earlier fancoil models. The range includes 6 different physical sizes of unit, with 9 possible airflow configurations and 16 different fan options. The units are designed for 4-pipe heating and cooling, 2-pipe cooling, or electric heating as standard. As TROX is able to supply almost every element of an air handling system, from AHUs to air terminal devices, key advantages for system designers and specifiers include the possibility of ordering the fancoils alongside VAV components and ATDs, from a single supplier, for a perfectly-integrated solution.

Please click here to download the press release or the sales flyer.

For Type PWX technical information click here.

The TROX Type PWX image can be downloaded here.

TROX is leading in the development, manufacture and sale of components, units and systems for the ventilation and air conditioning of rooms. With 27 subsidiary companies in 27 countries on 5 continents, 14 production facilities, and importers and representatives, TROX is present in over 70 countries. Founded in 1951, global market leader TROX, whose international head office is in Germany, generated in 2016 with a total of 3,770 employees around the globe revenues of approximately €500 million.

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