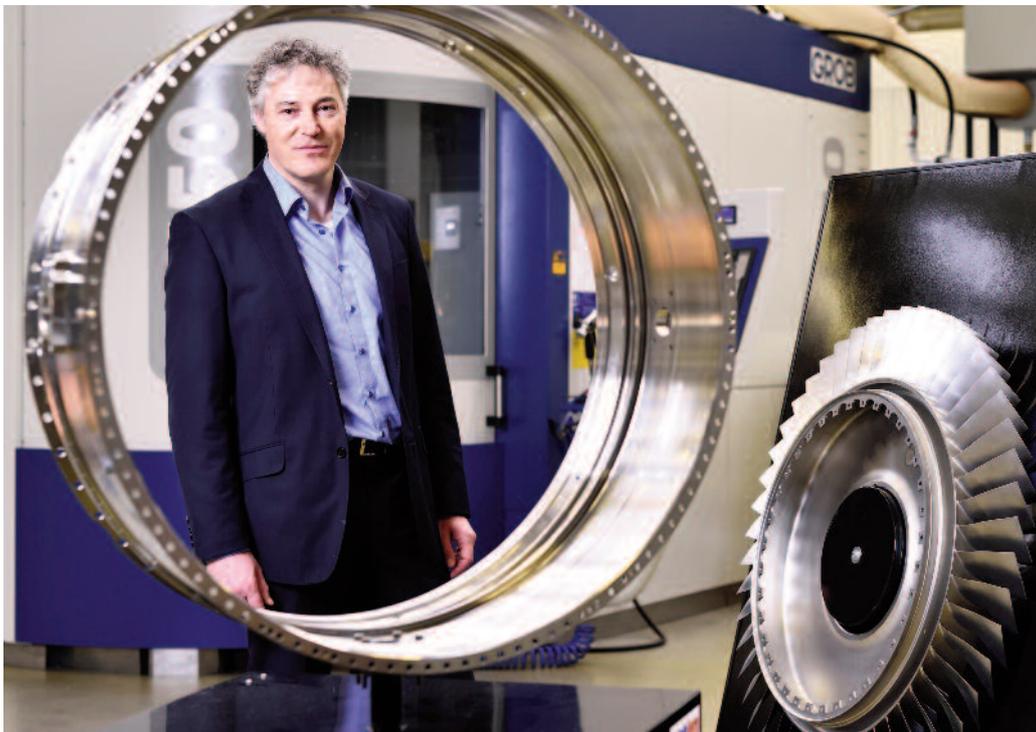


'KMWE/DUTCHAERO DID AN OUTSTANDING JOB'

Over the next 10 years, KMWE/DutchAero will be manufacturing complex engine parts for the Joint Strike Fighter (JSF, official name: F-35 Lightning II). This is a major achievement, because engine constructor Pratt & Whitney and the US Department of Defense set the bar for suppliers extremely high. 'We spent a year and a half to two years convincing them that we really could deliver what they were asking of us', says Grignon van Bakel, aerospace business manager at KMWE.

improvements in those areas. It starts with AS 9100 certification, the aerospace equivalent of ISO 9000. On top of that, the firm now holds all the required process qualifications and customer-specific approvals – and its information flows are separated in such a way that what is secret for one customer cannot leak to another. This is relevant in KMWE's case, because its customers also include Airbus, Boeing, General Electric, Rolls Royce and the French firm Snecma.



Grignon van Bakel, aerospace business manager at KMWE: 'We spent a year and a half to two years convincing them that we really could deliver what they were asking of us.' Photo: Bart van Overbeeke

EXOTIC MATERIALS

KMWE has been operating in the aerospace market for quite some years. Initially, it primarily manufactured structural parts for civil and military aircraft. In February 2014, it acquired DutchAero. This Eindhoven-based firm was the successor to the Philips business unit that built components for the F-16's engine exhaust. Subsequently, DutchAero grew to become a recognised supplier of complex machined engine parts; critical components that need to be able to withstand extremely high temperatures over long periods. Grignon van Bakel: 'We are not talking about aluminium but about titanium, which can withstand higher temperatures and allows you to design smaller and yet stronger – and therefore lighter – parts. On top of that, there's a whole range of

BY PIM CAMPMAN

The contract – worth approximately \$20 million – was signed in early January. Cliff Stone, business development & international programs director at Pratt & Whitney Military Engines, travelled specially to Eindhoven for the signing. 'KMWE/DutchAero may well be proud to have won our global sourcing competition. They did an outstanding job', said Stone. The Eindhoven company is building seven components for the F-135 jet engine for Pratt & Whitney. And the prospects for more orders are good, says Grignon van Bakel, responsible for sales and strategy within KMWE's aerospace market segment. 'Those seven components are a great start, and they represent quite a significant value. An intention has been expressed to increase that number. For

that to happen, we will have to demonstrate that we are better than anyone else in the world.'

FAILURE NOT AN OPTION

The barriers to supplying aircraft manufacturers are extremely high. Van Bakel: 'Products for this market need to be 100% reliable – 99.9% is not enough. Quality is paramount. Look, the JSF only has one type of engine. That places high demands on your qualification systems and testing equipment – and the way in which you organise your processes. Moreover, the selection is extremely strict on aspects such as financial health, reliability of delivery and capacity planning. Because it is of course not acceptable for deliveries to be halted because a supplier is having trouble maintaining the promised capability.' KMWE has it all and is constantly investing in

'exotic' materials, such as Inconel (a nickel alloy, ed.) and the so-called super alloys (alloys of cobalt, nickel, chrome, molybdenum, etc., ed.) with names like René 41 and Hastelloy.' KMWE/Dutch-Aero also has the technology in-house to provide components with hard, accurately dosed coatings. These can serve as wear-resistant or heat-resistant coatings.

The products are made on the newest generation of fully automated milling machines and lathe/machining cells. Welding robots are used for sheet metal composites (fabrications), and so forth. And crucial assets also include the extensive testing and measurement equipment, for instance for performing crack tests (fluorescent penetrant and X-ray inspections) and for measuring layer thickness/hardness, plus the materials analysis laboratory and training programmes for the over 550 staff.

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GETTING NOTICED

KMWE is therefore perfectly equipped to also manufacture critical components for aircraft (engine) constructors. But as a medium-sized supplier, how do you get noticed by a large

is no longer allowed in Europe. Certainly, the intention is that Dutch industry should get the opportunity to participate. But if we were not competitive in terms of quality, reliability of delivery or in any other way, we would not have got the order.' That was also the message from the top executive of Pratt & Whitney

'If we were not competitive in terms of quality, reliability of delivery or in any other way, we would not have got the order'

aerospace OEM like Pratt & Whitney, far away in Connecticut, USA? Van Bakel: 'We spent a year and a half to two years convincing them that we really could deliver what they were asking of us. We received excellent support from people at the Ministries of Economic Affairs and Defence – and from Maxime Verhagen (former Minister of Foreign Affairs, ed.), who acted as a special envoy to promote the involvement of Dutch companies in the JSF programme. And when it all got more concrete, the Noord-Brabant provincial authority stuck its neck out to bring the order here.'

The award has nothing to do with compensation orders, explains Grignon van Bakel. 'That

during the official contract signing. 'For every component that we do not make ourselves or in the US (the American Ministry of Defense prohibits certain critical parts being manufactured outside the US, ed.), we conducted a global search for suitable suppliers. The one that scores highest on all criteria gets the order.'

AFFORDABILITY A PRIORITY

Alongside the criteria listed above, there is one more to which Pratt & Whitney attaches crucial importance: price. Van Bakel: 'They not only demand a competitive cost price from their suppliers, but also that they continue to reduce that price step by step. Affordability is

one of the key priorities of the JSF programme. The eventual purchase price of the JSF is a very sensitive issue in the Netherlands too. Those who believe this contract is highly lucrative are wrong: we will have to work really hard to achieve the agreed price.' KMWE has some experience in this regard, said CEO Edward Voncken during the signing at DutchAero. 'Our strategy is focused on supplying high-quality products at competitive prices. Our 'lean' production philosophy is a good foundation for that.'

That formidable package of requirements is balanced by a long-term relationship, initially for ten years, based on mutual trust. 'Because we will be manufacturing those seven components, and possibly more, for all the JSFs to be built. We are investing heavily in this, and so are Pratt & Whitney. Ultimately, that will see us further deepening and broadening our technological capabilities as a supplier to the aerospace industry', concludes Grignon van Bakel.

KMWE expects the contract to generate work for 10 extra people. ●

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