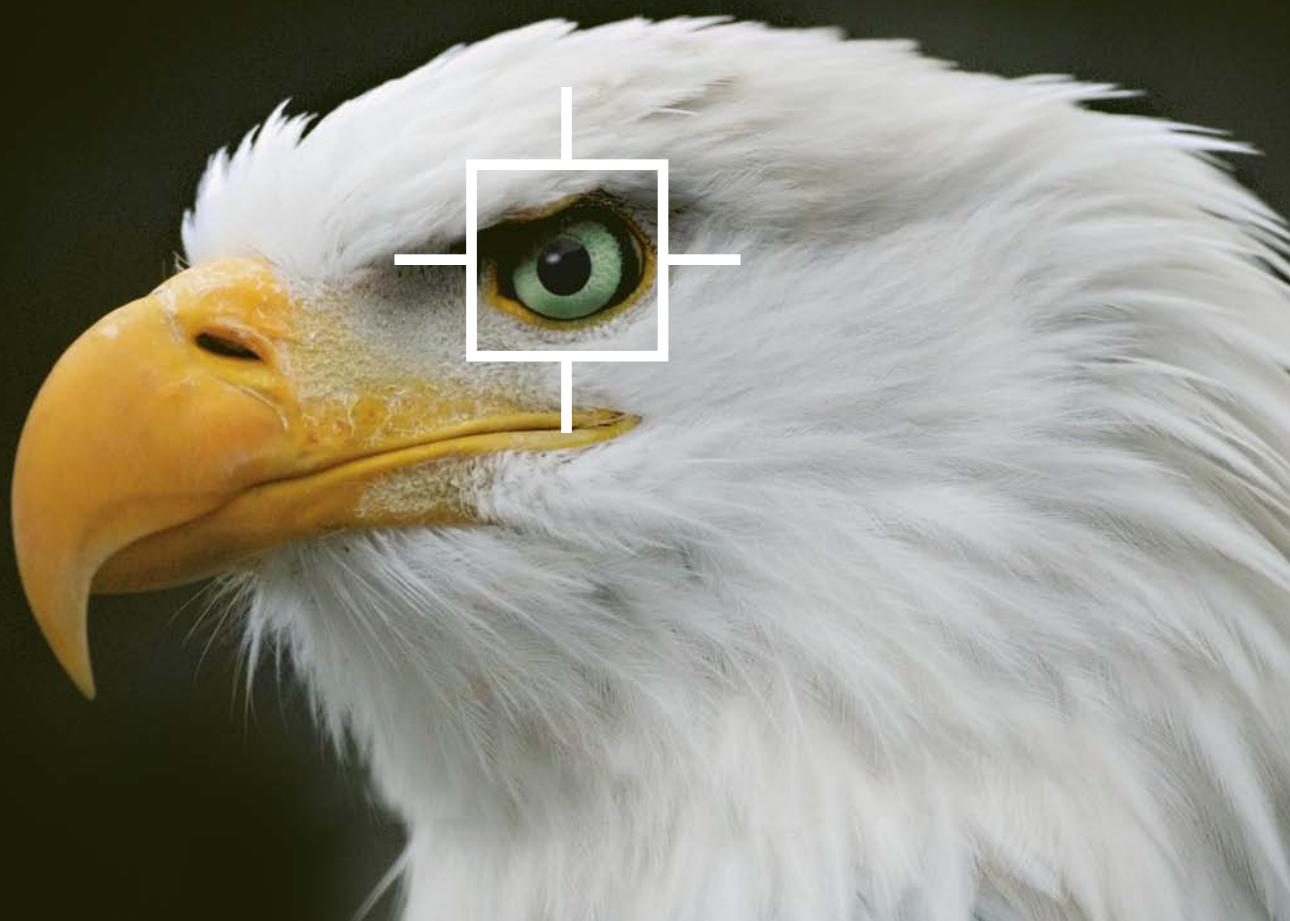


Liquids to Value



Westfalia Separator® **eagle**class
Smart. Strong. Reliable.



GEA Mechanical Equipment / **GEA Westfalia Separator**

Time for a New Generation



Westfalia Separator®
eagleclass
Smart. Strong. Reliable.

Smart

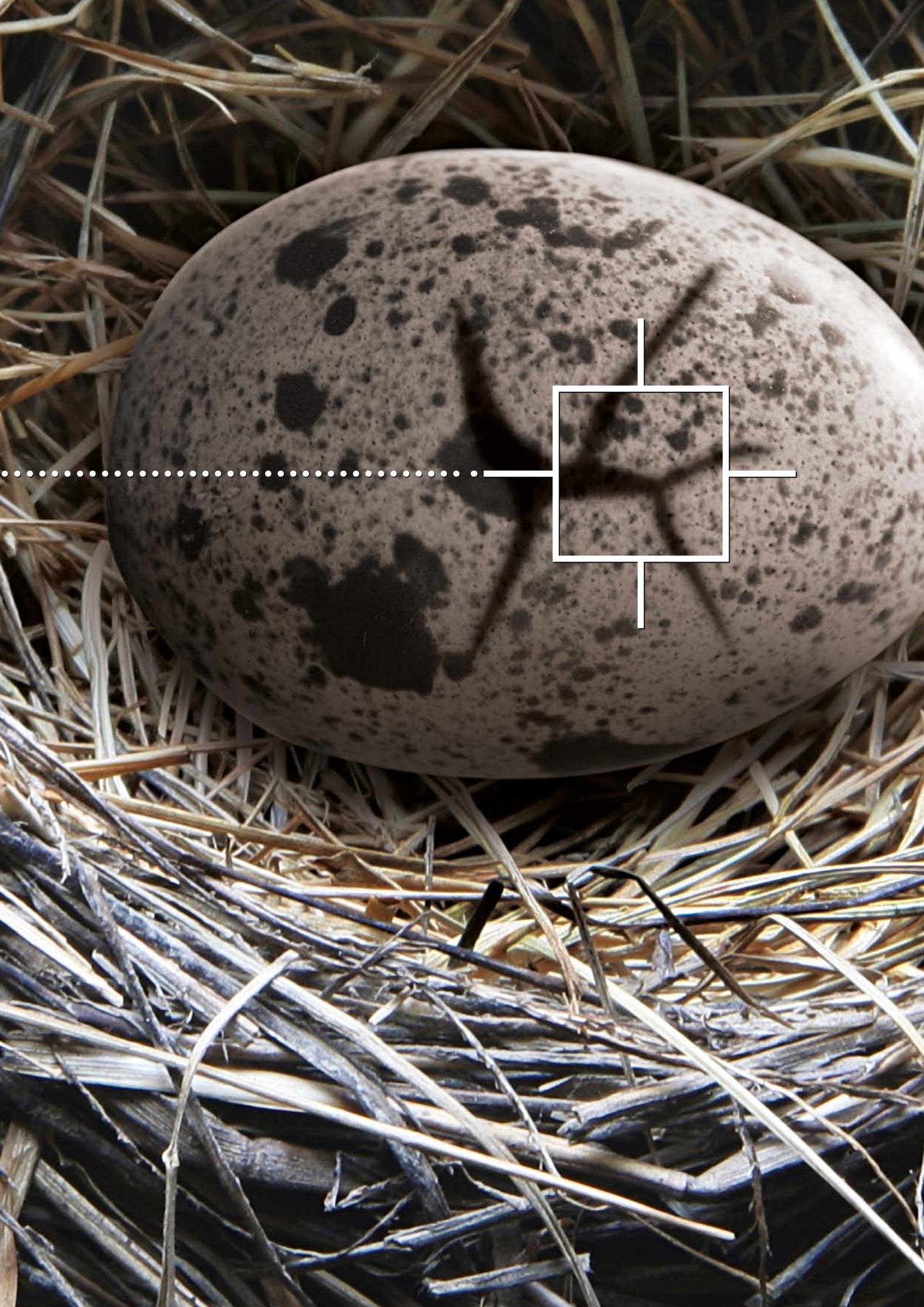
The new Westfalia Separator® **eagleclass** was developed with the know-how of the technology leader in centrifugal separation technology. The innovative separator design and the new Westfalia Separator® **unitrolplus** sensor system are setting new standards in the market segments energy, marine, oil field, industry and environmental technology.

Strong

The strong g-force permits throughput capacities of up to 80 m³/h for the first time ever. Westfalia Separator® **unitrolplus** assures highest separation efficiency of the different media such as fuel and lube oils, oily water, washing lye etc.

Reliable

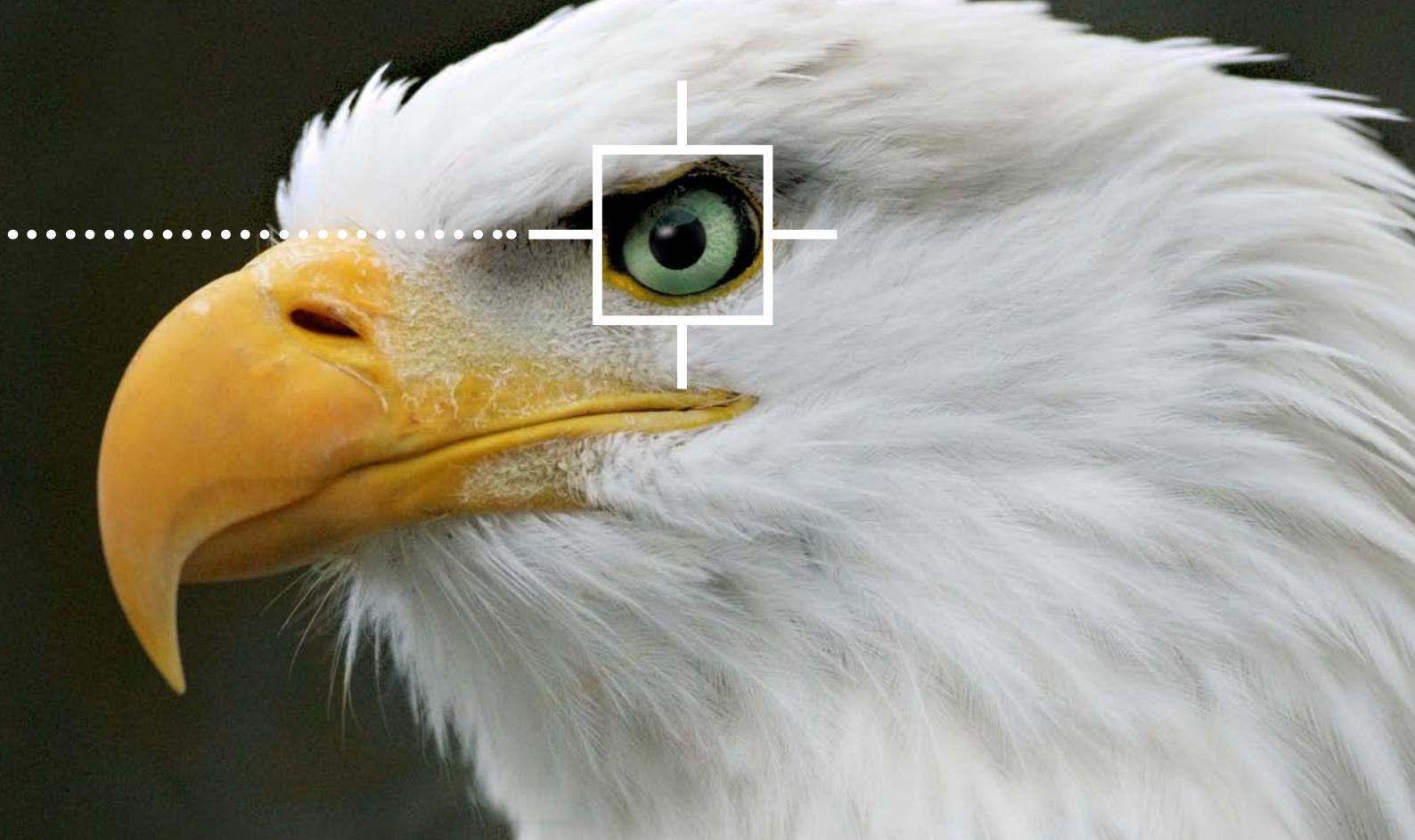
The compact, robust construction makes the Westfalia Separator® **eagleclass** particularly reliable and durable. A further feature is Westfalia Separator® **capitalcare** – the proactive service of the original manufacturer. This combination ensures maximum availability and economy throughout the entire life cycle.



Westfalia Separator® **unitrolplus**

The core element of the new separator generation is Westfalia Separator® **unitrolplus**. This automatic monitoring and control system also has heavily contaminated fuel and lube oils under control at all times.





The Oil Guardian

The new Westfalia Separator® **unitrolplus** monitoring system automates the processes and assures maximum operating reliability in the unmanned engine room.

The core of the new separator generation is the likewise newly developed Westfalia Separator® **unitrolplus**. The improved sensor technology of this system ensures the continuous monitoring of the oil for water content and the sludge space filling in a single step. This innovation makes particular sense because heavier fuels with larger degrees of contamination are being increasingly frequently used. These fuels too are treated safely and reliably.

Depending on the water content in the oil, the separator adjusts automatically to function in purifier or clarifier mode. The result: higher specific separating capacities combined with optimum separation efficiency. No regulating ring is required for this automatic

monitoring process. Thanks to Westfalia Separator® **unitrolplus**, manual errors are avoided. In this way, the self-thinking system also supports concepts for the unmanned engine room. Increased operating reliability: the Westfalia Separator® **eagleclass** is pure inspiration!

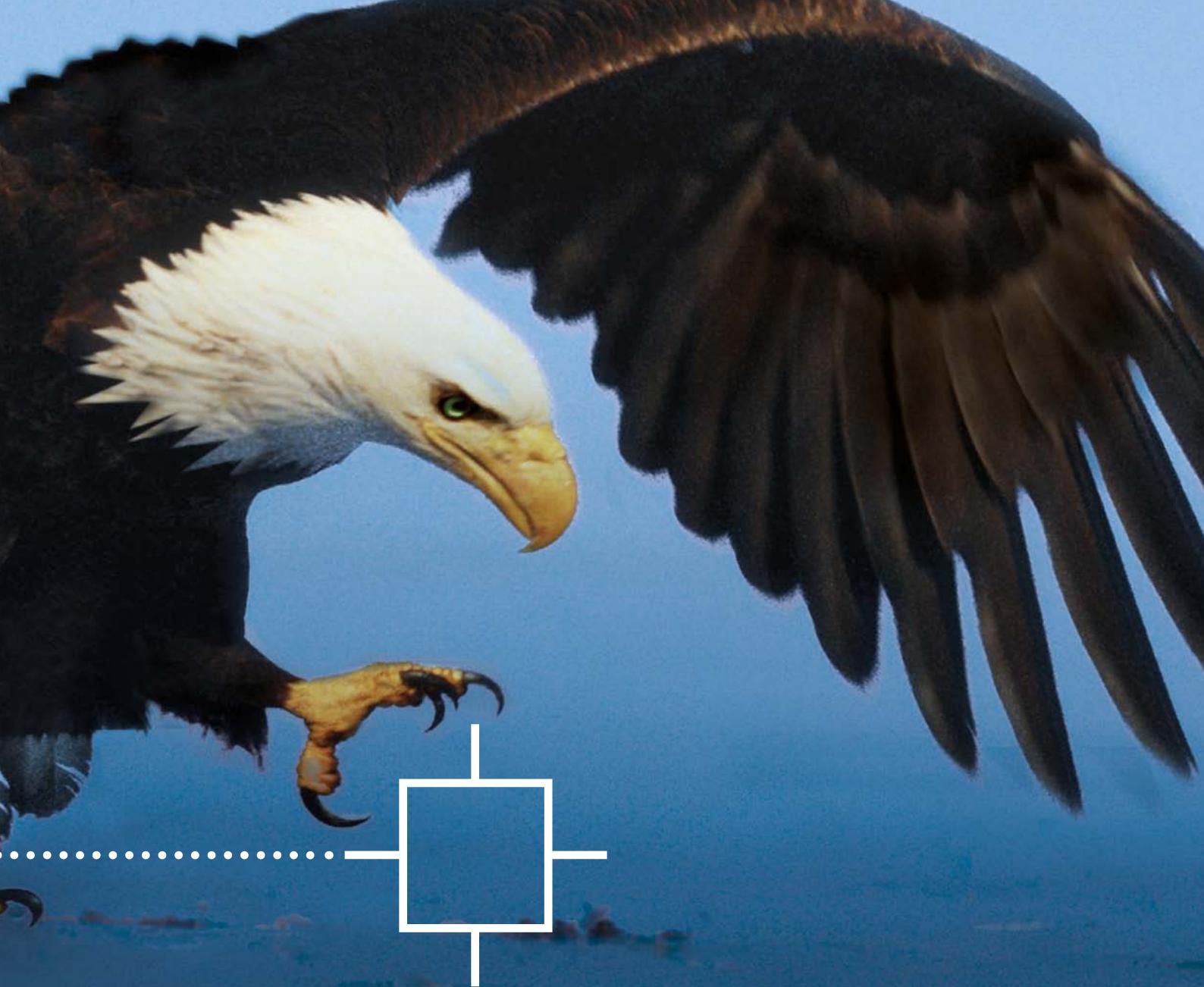
- Westfalia Separator® **unitrolplus** – a new sensor system for automatic monitoring and control for water and solids content monitoring
- Reliable treatment of particularly heavy and severely contaminated fuels
- Self-thinking system – ideal also for the unmanned engine room
- Maximum operating reliability



With higher g-forces, the new Westfalia Separator® **eagleclass** separators are setting a new record. The acceleration ensures higher throughput capacities and an even better separation efficiency than was achieved with the previous **d**type generation.



- Highest g-force
- Throughput capacities up to 80 m³/h
- Maximum separation efficiency
- Especially robust and durable
- Highest economy throughout the entire life cycle

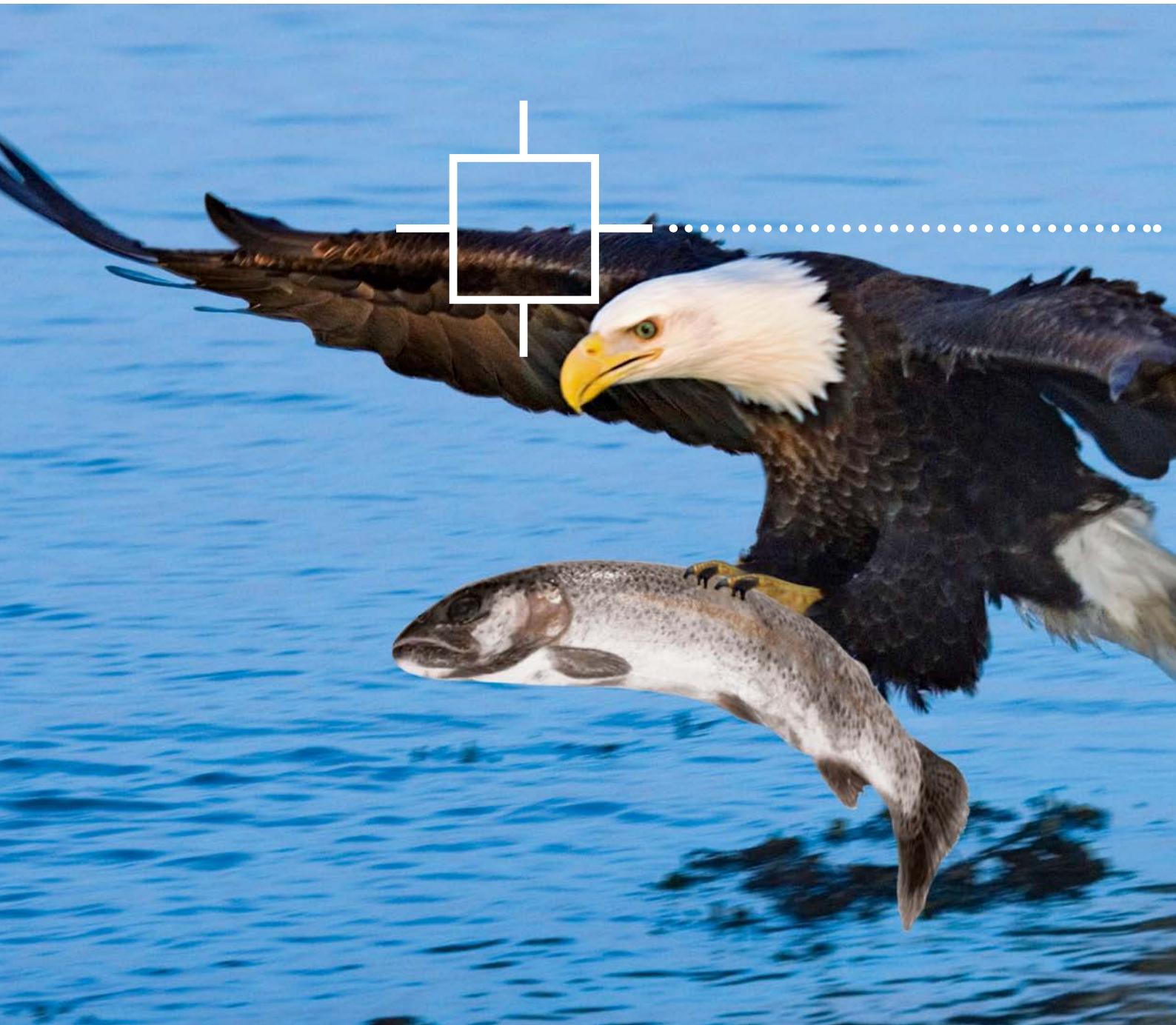


The Smart Giant

The strong Westfalia Separator® **eagleclass** permits throughput capacities up to 80 m³/h combined with highest separation efficiency for the first time ever.

Faster, stronger, more efficient: due to the extremely powerful centrifugal forces produced in the separator bowl, the new generation of high-performance separators has broken a new record. It is possible for the first time to handle capacities up to 80 m³/h. In addition to the higher throughput capacity, the separation efficiency has been further improved compared to the predecessor series. Both in terms of quantity and quality, the Westfalia Separator® **eagleclass** has opened up new possibilities for the efficient treatment of different media.

It is important to note that the higher g-force is not at the expense of the proven machine robustness. Because in this respect too, the engineers have succeeded in making something good even better. More efficient and even more robust at the same time, the new series offers optimum economy throughout the entire life cycle.



The Westfalia Separator® **eagleclass** needs little space to unfold its full performance potential – a major advantage!

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The Strong Lightweight

The Westfalia Separator® **eagleclass** convinces not only through its enormous performance potential but also through its special compactness.

Whether on ships, oil platforms, in power plants or industrial operations, every centimetre counts. That's why the boost in performance was not the only criterion to be considered when developing the new high-performance separators. The engineers were assigned the task of boosting efficiency while simultaneously developing a machine design which meets the demands at sea in every respect.

The result is wholly convincing: fewer components and a modified design mean that the machines of the Westfalia Separator® **eagleclass** are lighter and take up

less space. The compactness also results in reduced energy consumption. In times of rising energy prices and the need to preserve resources, this is an absolute priority both economically and ecologically.

- New machine design for a boost in performance potential
- Minimised weight
- Minimised space requirement
- Minimised energy consumption

Precision engineering from the technology leader: the six Westfalia Separator® eagleclass machines with a capacity range of up to 80 m³/h meet all individual needs.



"Keep it simple": the new Westfalia Separator® **eagleclass** has been consistently developed in accordance with the modular design principle. The machines require minimum maintenance as a result of the use of fewer component and wearing parts.



Champions League

The Westfalia Separator® **eagle** class covers all capacities up to 80 m³/h for oil and water treatment.

Compared to the predecessor separators of the Westfalia Separator® **dtype** generation, the capacity range has also been expanded. The new Westfalia Separator® **eagleclass** consists of six OSE separators: OSE 5, OSE 10, OSE 20, OSE 40, OSE 80 and OSE 120. This machine generation therefore covers all demands in the treatment of different media ranging from small through medium to very large volume streams. The separator model can be selected to precisely suit the respective requirements and consequently also improves operating cost management.

In addition, this series was built in accordance with a modular design principle and requires only few

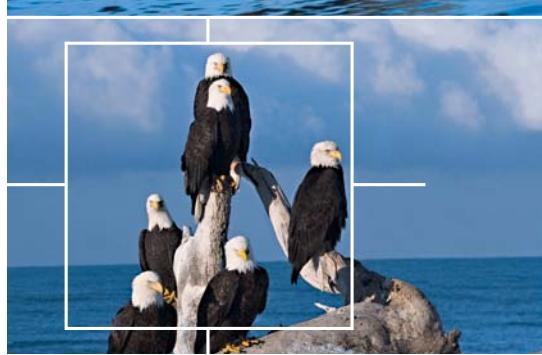
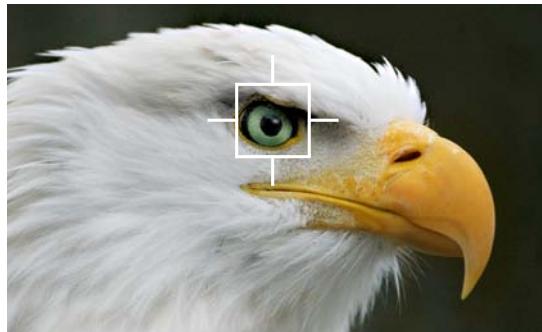
component and wearing parts. The resulting low maintenance expenditure further reduces operating costs.

- Expanded capacity range up to 80 m³/h
- Six separator types available
- Fewer component and wearing parts
- Plug and play
- Easy operation
- High service and maintenance-friendliness

Data and Facts

The new Westfalia Separator® **eagle**class surpasses the Westfalia Separator® **dtype** machine generation in all important parameters.

A comparison shows that the Westfalia Separator® **eagle**class significantly improves upon the Westfalia Separator® **dtype** separators in all important parameters.



Parameter

Throughput capacity

Power consumption

Weight

Length

Width

Height

Parameter

Throughput capacity

Power consumption

Weight (installation area)

Length (installation area)

Width (installation area)

Comparison OSE 5 to OSD 6 for IF 380

	New OSE 5/5	Old OSD 6/5	Benefit
	1200 l/h	1200 l/h	=
	2.8 kW	3.5 kW	-20 %
	150 kg	200 kg	-25 %
	693 mm	753 mm	-8 %
	350 mm	540 mm	-35 %
	760 mm	900 mm	-15 %

Comparison 2 x OSE 80/70 to 3 x OSD 60/50 for IF 700

	2 x OSE 80/70	3 x OSD 60/50	Benefit
	21,000 l/h	21,000 l/h	=
	38 kW	48 kW	-20 %
	3240 kg	4800 kg	-32 %
	5000 mm	7500 mm	-33 %
	4000 mm	6000 mm	-33 %



Westfalia Separator® capitalcare – Maximum Process Efficiency, Installation Availability and Budget Security

Westfalia Separator® capitalcare combines decades of service experience for mechanical separation technology.

Wherever separating technology tasks have to be carried out, Westfalia Separator® capitalcare assures comprehensive services right from the very beginning. In close cooperation with the customer, solutions are identified to meet their needs.

The partners benefit not only from traditional services such as inspection, maintenance, original spare parts and repair work provided by the original manufacturer; they also benefit from pro-active solutions which avoid risk, e.g. online and offline monitoring with Westfalia Separator® *wewatch*®.

Accompanying modernisation or upgrading to state-of-the-art technology also offer the option of boosting performance as required.

Training provided on site or in the modern training centre of GEA Westfalia Separator ensures that the customer's employees receive training in the proper handling of the high-tech installations. This provides additional safety.

Authorized workshops worldwide

And if problems occasionally occur or if a spare part is required at short notice, the specialists are able to attend to the customer quickly. This is ensured by a global network with more than 50 sales and service companies as well as 60 further sales partners. Authorized workshops are able to service every location in the world at short notice.

Westfalia Separator® capitalcare accordingly makes for maximum process efficiency and installation availability as well as budget security. And these benefits are provided throughout the entire life cycle of the entire installation.

Service from the original manufacturer:

- Service engineers quickly on site
- Extensive service network
- Risk avoided by service provided by the original manufacturer
- Pro-active solutions which avoid risk
- Upgrading to boost performance
- Staff training



In addition to traditional services such as maintenance or repair, Westfalia Separator® capitalcare also provides solutions which avoid risk and with which the installation availability can be pro-actively assured.

- Beverage Technology
- Dairy Technology
- Renewable Resources
- Chemical/Pharmaceutical Technology
- Marine
- Energy
- Oil, Gas & Industrial Fluids
- Fluids & Water
- Engineering
- Second Hand Machinery
- Original Manufacturer Service

The information contained in this brochure merely serves as a non-binding description of our products and is without guarantee.

Binding information, in particular relating to capacity data and suitability for specific applications, can only be provided within the framework of concrete inquiries.

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