

DIESEL
MONOBLOCK

CYLINDER

[4][6] [HYBRID
SYSTEMS]



MARINE ENGINES

COMPETENCE THROUGH EXPERIENCE

STEYR MOTORS originates from the former Steyr-Daimler-Puch group and was founded as an entirely independent company following a management buyout in 2001. Drawing from the extensive know-how and experience of 150 years of engineering history, STEYR MOTORS focuses on the development of high-performance engines and gensets, providing innovative propulsion technologies for current and future demands.

The company has a worldwide reputation for being an expert in engineering and manufacturing of high-performance diesel engines and hybrid systems. STEYR MOTORS provides strong solutions for use at land and sea, i.e. for the marine industry, for special land and amphibious vehicles and for industrial use. The product range includes diesel engines and diesel-electric solutions as well as highly-specialized engineering services for specific requirements. Great importance is placed on quality management in every step of the production and service chain. Therefore, the company regularly passes quality audits and certification procedures.

A milestone in the company's history was a remarkable investment in the expansion of the Austrian facilities doubling the premises and capacities. Inaugurated in 2015, the state-of-the-art engineering center is the heart of STEYR MOTORS' innovation competence, ensuring cutting-edge developments and extraordinary product launches for the future.



FORWARD THINKING

LIGHTWEIGHT POWER PLAYERS

Our specialty is the design of engines and gensets featuring one of the best power-to-weight ratios in the market. Though lightweight and compact, STEYR MOTORS' products are also very robust and provide remarkable performance. While downsizing became a trend in the common industry over the last years, STEYR MOTORS has always focused on small and lightweight solutions with high power density and with the same durability and reliability as heavier products competing in the same power range.

CERTIFIED & PROVEN

STEYR MOTORS' marine engines regularly master most stringent examinations, fulfilling highest safety and emission standards, and thus, are highly suitable for pleasure, work and rescue applications likewise. Our certifications include for instance:

- SOLAS (Safety of Life at Sea)
- RCD
- EPA Tier II & III
- RINA
- IMO EAPP
- IMO NOx
- EIAPP/MARPOL
- BSO II
- ZSUK
- RMRS
- CCS

Furthermore, STEYR MOTORS received several awards and certificates proving our innovational spirit as well as our endeavor for best quality and functionality. The list of achievements is constantly growing.



POWERING SUSTAINABLE SOLUTIONS WITH PASSION

Outstanding performance is a result of best-in-class people acting like owners and aiming to always exceed the customers' expectations. STEYR MOTORS pursues this guiding principle by combining passion, innovational spirit and target-orientation, thus providing one-step-ahead solutions that stand out in terms of functionality, sustainability, quality and cost-effectiveness.

We strive for excellent results and create best value for our partners by shaping the ideal solution for vehicle, marine and industrial applications in the shortest time possible and with the most efficient use of resources. This empowers our customers to being in-time to market with competitive products and services.

EFFICIENT TECHNOLOGIES FOR THE FUTURE

The product portfolio of STEYR MOTORS includes diesel engines and diesel-electric solutions for a wide range of applications in the marine, vehicle and industrial business segment. The future engineering strategy continues to focus on diesel and hybrid solutions complying with leading industry standards, such as the ISO 9001:2008 certification, but also emphasizes environmental effects, targeting reduced fuel consumption and emissions.

The development of eco-friendly e-machines and hybrid systems, projects with synthetic fuel and connectivity (IoT) applications are just some examples for future-driven projects based on STEYR MOTORS' corporate strategy.

EXCELLENCE AT SEA

Unlike many other marine offers, STEYR engines are designed and manufactured purely for marine applications, ensuring a sole focus on marine requirements and supreme quality. The underlying Monoblock design has proven time and again its striking characteristics in terms of robustness, weight and size. In addition to the patented unit injection technology, STEYR MOTORS also developed an advanced common rail injection system, offering smooth operation and low emissions in combination with best performance and enhanced features.

In its product development, STEYR MOTORS is emphasizing durability, reliability, operational safety but also the possibility to customize products with various kits and options according to individual requirements and preferences. An important feature is also the compactness and unrivaled power-to-weight ratio of STEYR engines, making them very attractive for commercial and pleasure applications likewise. Topped off with an eye-catching design, STEYR MOTORS' products have proven their excellence in prestigious pleasure yachts, prize-winning race boats as well as various (fast) rescue and SOLAS applications.



SEC 4-CYLINDER ENGINE SERIES



4
CYLINDER

FACTS

- Monoblock Common Rail
- Enhanced fuel efficiency
- Smooth and quiet operation



The SEC 4-cylinder is a remarkable combination of robust Monoblock design and efficient Common Rail technology resulting in an unprecedented driving experience with smoothest operation and best performance.



The Monoblock is the basis for the unrivaled robustness and durability of STEYR engines. The SEC 4-cylinder engine series combines this proven basis with an advanced high pressure Common Rail injection system developed in cooperation with Bosch. This unique assembly enhances the fuel efficiency, increases the driving range and reduces significantly the Noise Vibration Harshness (NVH) while keeping the renowned quality and resilience of STEYR MOTORS' product portfolio.

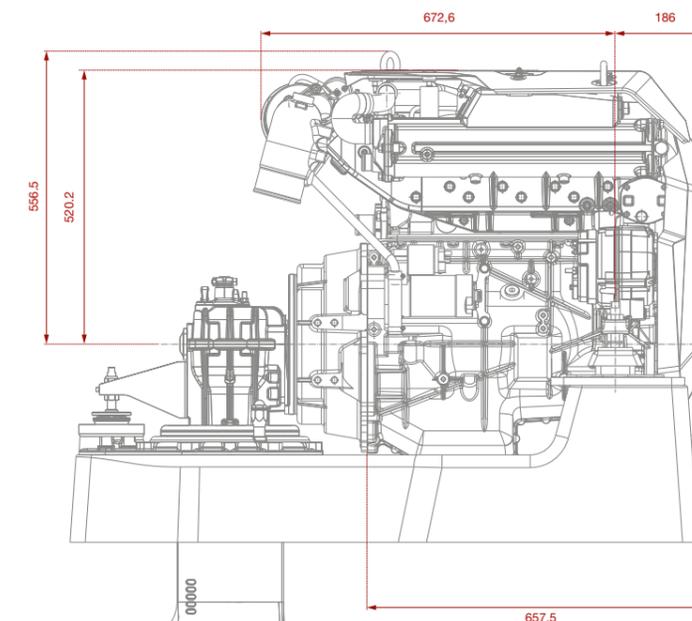
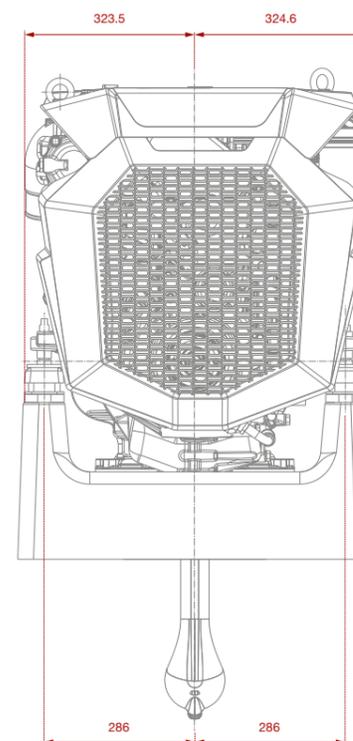


Besides its technical features, the SEC 4-cylinder series has an appealing and also very functional product design. Eye-catching covers increase safety but are easily removable for maintenance. The top cover is manufactured from a highly robust material, withstanding even a person's weight. Furthermore, the compact dimensions and the removable covers allow the application of the SEC 4-cylinder even in very limited installation spaces.

MEETING YOUR INDIVIDUAL DESIRE

The SEC 4-cylinder engine series offers various duty ratings from high output, intermittent, medium continuous duty to pleasure – hence always providing the matching engine for our customer's specific application. Moreover, the different models within the series are applicable with various propulsion systems such as sail drive, direct shaft, water jet and sterndrive.

- Sail Drive
- Direct Shaft/Bobtail
- Sterndrive
- Water Jet



| SEC 4-CYL SERIES | |
|---------------------|--------------------------|
| NUMBER OF CYLINDERS | 4 in-line |
| INJECTION SYSTEM | Bosch Common Rail System |
| DISPLACEMENT (LT) | 2.1 |
| POWER RANGE (KW/PS) | 59 / 80 - 129 / 175 |
| TORQUE RANGE (NM) | 175 - 360 |
| DRY WEIGHT (KG) | 234 kg |

For more details on the series and the engine models, please ask for our SEC 4-cylinder data sheet or contact your local distributor.

MO 4-CYLINDER ENGINE SERIES



FACTS

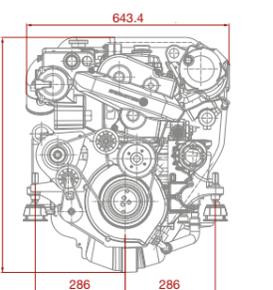
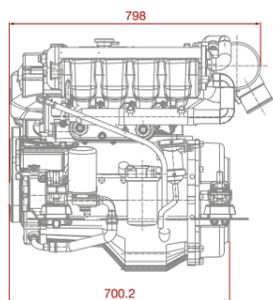
- Monoblock design
- Patented 2-stage UI system
- Robust, reliable technology
- Corrosion resistant materials

4
CYLINDER



Marine engines of STEYR MOTORS are manufactured using high alloy materials to provide enduring longevity for all running components. The proven and trusted MO 4-cylinder engine series is a reliable propulsion system based on STEYR MOTORS' patented 2-stage unit injector technology and the unique Monoblock design. It complies with SOLAS regulations, the Recreational Craft Directive (RCD 2003/44), IMO emission specifications as well as BSO II regulations. Depending on the respective MO 4-cylinder engine model, the installation of different propulsion systems is possible.

For more details on the series and the engine models, please ask for our MO 4-cylinder data sheet or contact your local distributor.



| MO 4-CYL SERIES | |
|---------------------|-----------------------|
| NUMBER OF CYLINDERS | 4 in-line |
| INJECTION SYSTEM | 2-stage unit injector |
| DISPLACEMENT (LT) | 2.1 |
| POWER RANGE (KW/PS) | 55 / 75 - 125 / 170 |
| TORQUE RANGE (NM) | 190 - 330 |
| DRY WEIGHT (KG) | 243 - 276 |

SE 4-CYLINDER ENGINE SERIES



FACTS

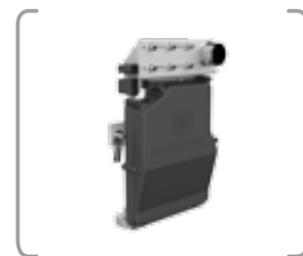
- More torque at lower speed
- New E-Box and ITD
- Sterndrive capable
- EPA Tier III certified

4
CYLINDER



The SE 4-cylinder series is based on the well-proven MO series, but designed for more torque at lower speed. Besides the exceptional performance, it is also SOLAS-approved, EPA Tier III certified, RCD compliant and fulfills the requirements of the US Coast Guard. The series is especially intended for installation with sterndrive systems. The SE engines are available as STEYR marine diesel packages with BRAVO I, II or III and also as repower kits for most common sterndrives.

For more details on the series and the engine models, please ask for our SE 4-cylinder data sheet or contact your local distributor.



| SE 4-CYL SERIES | |
|---------------------|-----------------------|
| NUMBER OF CYLINDERS | 4 in-line |
| INJECTION SYSTEM | 2-stage unit injector |
| DISPLACEMENT (LT) | 2.1 |
| POWER RANGE (KW/PS) | 106 / 144 - 120 / 163 |
| TORQUE RANGE (NM) | 315 - 330 |
| DRY WEIGHT (KG) | 277 |

SE 6-CYLINDER ENGINE SERIES



FACTS

- Compact & lightweight
- Enduring & robust
- Excellent torque and speed range

6
CYLINDER

The SE 6-cylinder series of STEYR MOTORS is an efficient and flexible marine propulsion system for leisure and commercial applications. The Monoblock design is key to a most compact core engine while the surrounding housings, manifolds and auxiliaries can be easily adapted to many requirements. Compared to larger and heavier engines, the SE 6-cylinder series is a high-performer while remaining lightweight, compact and robust.

As a standard feature, all STEYR marine engines are built with corrosion resistant materials for the entire seawater system in the dual circuit cooling system. Furthermore, the engines show a similar form factor across a wide power range. Consequently, they are perfectly applicable in fleet logistics, ensuring lean logistic practices due to a wide variety of models and many interchangeable parts.

The unrivaled cooling capacity, direct intercooling and diverse options for oil sumps, front-end accessory drives and transmission flanges are additional features of the SE 6-cylinder engine series. A variety of other options is available to equip the engines according to specific needs, including but not limited to:

- preparation for keel cooling systems to increase cooling capability and simplify installation by eliminating hull fittings, strainers and hoses
- block heating device (enabling a launch temperature down to -30 °C)
- additional alternators
- two pole electrical systems
- A/C compressor
- power take-off pulley
- hydraulic pump

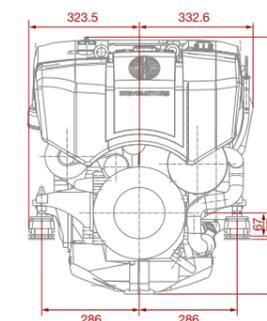
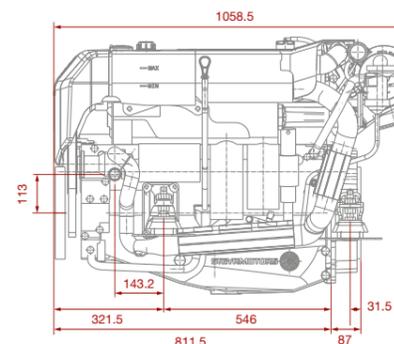


PROPULSION SYSTEMS

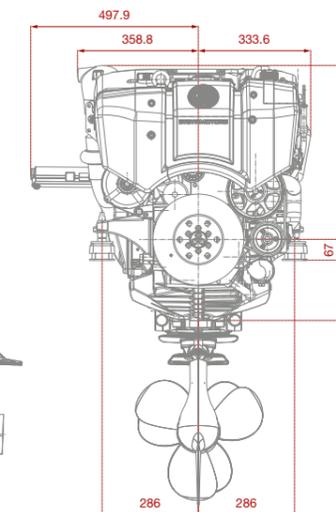
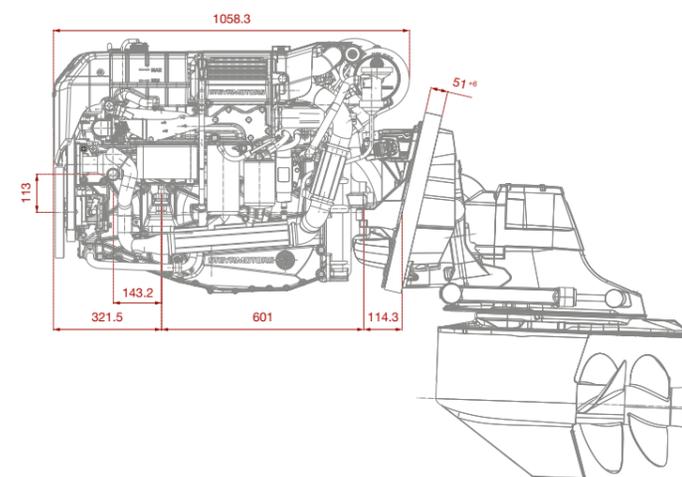
The SE 6-cylinder engine series allows the installation of different propulsion systems. Special STEYR marine diesel packages with BRAVO I, II or III and also repower kits for most common sterndrives are available.

- Direct shaft /Bobtail
- Sterndrive
- Water jet

Direct shaft /Bobtail



Sterndrive



SE 6-CYL SERIES

| | |
|----------------------------|-----------------------|
| NUMBER OF CYLINDERS | 6 in-line |
| INJECTION SYSTEM | 2-stage unit injector |
| DISPLACEMENT (LT) | 3.2 |
| POWER RANGE (KW/PS) | 88 / 120 - 215 / 292 |
| TORQUE RANGE (NM) | 390 - 600 |
| DRY WEIGHT (KG) | 340 |

For more details on the series and the engine models, please ask for our SE 6-cylinder data sheet or contact your local distributor.



SAFETY OF LIFE AT SEA

The International Convention for the Safety of Life at Sea (SOLAS) is a maritime safety treaty that ensures safety standards in construction, equipment and operation. The detailed regulations in the SOLAS treaty are managed and maintained by the International Maritime Organization (IMO).



STEYR MOTORS' 4- and 6-cylinder engine series are designed and manufactured for extreme conditions, having passed stringent testing to guarantee the engines' durability and reliability. Due to the remarkable robustness and quality, the company obtained the SOLAS approval as well as other certifications for its engines. In addition, an extensive network of distributors and dealers ensures qualified local service as well as global availability of spare parts.



BASIC SOLAS REQUIREMENTS

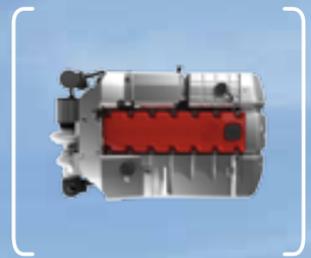
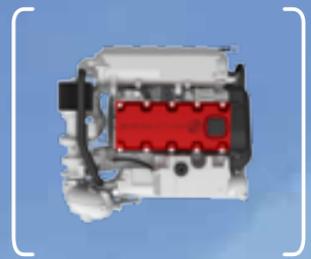
- Engines equipped to endure vessel capsizing
- Immediate start even in very low temperatures (-15 °C)
- Continuous running up to an angle of 30°
- Withstanding a drop from heights over 30 meters (free fall boats)



APPLICATIONS

Reliable engines fulfilling highest safety standards are required for leisure and commercial applications likewise, and even more so for rescue and protection purposes.

STEYR MOTORS has a lot of experience in equipping tender boats, fast rescue boats and lifeboats, including davit launched lifeboats and free-fall lifeboats. A drop of a lifeboat from an height of more than 60 meters (around 200 ft) or an immediate start of the engine even in arctic temperatures? Easy to realize with STEYR MOTORS' marine engines, because accomplishing high demands is our core competence.



ENGINE PORTFOLIO

STEYR MOTORS strives for highest functionality and best performance, particularly focusing on sustainable solutions fulfilling current and future demands and regulations. The portfolio is constantly extended, ensuring innovative systems that perform beyond expectation.



| | RATED POWER (KW/HP) | RATED SPEED (RPM) | MAX. TORQUE (NM@RPM) | DRY WEIGHT (KG) | PROPULSION SYSTEMS | | | | DUTY RATINGS* | | | |
|---|---------------------|-------------------|----------------------|-----------------|--------------------|-----------|------------|-----------|---------------|----|-----|-----|
| | | | | | TRANSMISSION | WATER JET | STERNDRIVE | SAILDRIVE | PL | HO | INT | MCD |
| SEC 4-CYLINDER SERIES THE WORLD'S FIRST MONOBLOCK COMMON RAIL ENGINE SERIES | | | | | | | | | | | | |
| SEC84E34 | 59 / 80 | 3400 | 175 @ 1800 | 234 | X | X | | X | X | X | X | |
| SEC124E33 | 88 / 120 | 3300 | 300 @ 2050 | 234 | X | X | | X | X | X | X | |
| SEC154E40 | 110 / 150 | 4000 | 330 @ 2300 | 234 | X | X | X | X | X | | | |
| SEC184E41 | 129 / 175 | 4100 | 360 @ 2400 | 234 | X | X | X | X | X | | | |
| MO 4-CYLINDER SERIES | | | | | | | | | | | | |
| MO84K32 | 55 / 75 | 3200 | 190 @ 2050 | 243 | X | (X) | | | | | | |
| MO94K33 | 66 / 90 | 3300 | 210 @ 2800 | 243 | X | (X) | | | | | | |
| MO114K33 | 81 / 110 | 3300 | 255 @ 2500 | 255 | X | X | | | | | | |
| MO144M38 | 106 / 144 | 3800 | 288 @ 2500 | 258 | X | X | | | | | | |
| MO164M40 | 120 / 163 | 4000 | 320 @ 2800 | 258 | X | X | | | | | | |
| MO174V40 | 125 / 170 | 4000 | 330 @ 2000 | 276 | X | | X | | | | | |
| SE 4-CYLINDER SERIES | | | | | | | | | | | | |
| SE144E38 | 106 / 144 | 3800 | 315 @ 2050 | 263 | X | X | X | | X | X | X | |
| SE164E40 | 118 / 160 | 4000 | 330 @ 2300 | 263 | X | X | X | | X | X | X | |
| SE 6-CYLINDER SERIES | | | | | | | | | | | | |
| SE126E25 | 88 / 120 | 2500 | 390 @ 1800 | 340 | X | | | | X | X | X | |
| SE156E26 | 110 / 150 | 2600 | 450 @ 1800 | 340 | X | | | | X | X | X | |
| SE156E32 | 110 / 150 | 3200 | 450 @ 1800 | 340 | X | X | X | | X | X | X | |
| SE196E35 | 140 / 190 | 3500 | 445 @ 2050 | 340 | X | X | X | | X | X | X | |
| SE236E40 | 170 / 231 | 4000 | 470 @ 2550 | 340 | X | X | X | | X | X | X | |
| SE236S36 | 170 / 231 | 3600 | 540 @ 1800 | 340 | X | | X | | X | | | |
| SE266E40 | 190 / 258 | 4000 | 530 @ 2300 | 340 | X | X | X | | X | X | | |
| SE266S36 | 190 / 258 | 3600 | 600 @ 1800 | 340 | X | | X | | X | | | |
| SE286E40 | 205 / 279 | 4000 | 570 @ 2550 | 340 | X | X | X | | X | X | | |
| SE306J38 | 215 / 292 | 3800 | 588 @ 3300 | 340 | | X | | | X | X | | |

*DUTY RATINGS PL ... PLEASURE HO ... HIGH OUTPUT INT ... INTERMITTENT MCD ... MEDIUM CONTINUOUS DUTY

STEYR MOTORS stands for supreme reliability, best power-to-weight ratio, highest quality standards and excellent functionality. We impose these requirements on ourselves in everything we develop and do. As a result, it is of great importance for STEYR MOTORS to provide a broad range of options and kits to further increase functionality and comfort for our customers. The following accessories are some selected options among many. Please ask our team members and partners for more information.



STEYR CONTROL CENTER 2

The STEYR Control Center 2 offers improved functionality and an even more intuitive user interface for best handling and highest comfort. A full-color, 7-inch bonded LCD display features brighter, smoother graphics and best-in-class sunlight readability while the integrated engine diagnostics enable easy trouble shooting. Furthermore, the SCC 2 offers the possibility to personalize display configurations with different menus and options.



STEYR MAREX ECS THROTTLE LEVER

Easy to operate with a unique design and extensive options: the STEYR Marex ECS provides captains with maximum reliability as proven by endurance testing with one million lever actuations. The well-established CAN bus technology ensures reliable communication between the components. Sophisticated automated diagnostics inform the user about the current operating state. The system is particularly designed for small pleasure boats and work boats.



COMPLETE SYSTEMS

A well-matched combination of engine and drive system is essential for best performance, efficiency and durability. STEYR MOTORS offers different sterndrive packages and ZF gearboxes as well as a range of adapters for further propulsion systems, thus ensuring that engine and drive perfectly complement each other.



STEYR HDS

The environmentally friendly Hybrid Drive System (HDS) enhances the performance of your STEYR MOTORS diesel engine in boost mode while operating calmly and ensuring zero emissions in the electric cruise mode. Moreover, this in-line hybrid replaces starter motor and other generator units for powering onboard equipment. Striving for excellence, the HDS is constantly further developed for highest performance and best functionality for commercial as well as leisure boating. Stay tuned for our next generation!

CUSTOMIZE YOUR ENGINE

From various types of filters, pumps and adapters to complete packages and additional kits or even custom paints, there are numerous ways to fulfill your individual demands and wishes. The range of accessories and customizing services is constantly extended, therefore please ask our team members or your regional STEYR MOTORS partner for more information on e.g.:

- Panels & Instrument Variations
- Hydraulic Options
- Additional Alternators
- Special Electric Kits & Options
- Engine Cooling Kits
- SOLAS Kit
- Air Conditioning Compressor Kits
- Fuel Compensation Kit
- High Riser & Exhaust Elbow Options
- Special Paints



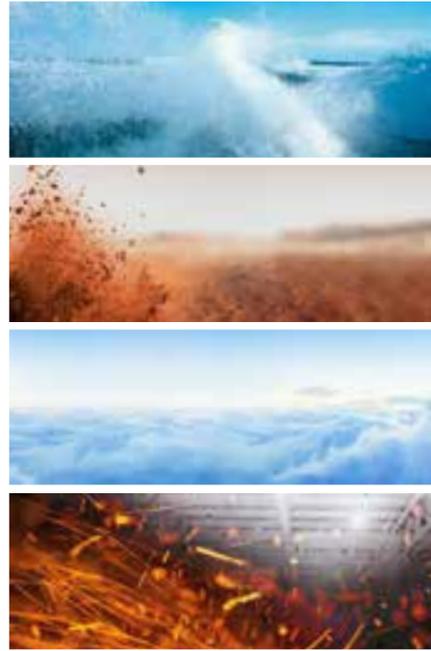


STRONG BASIS FOR NEW CHALLENGES

All engines of STEYR MOTORS are based on a well-proven Monoblock design, capable of fulfilling highest demands in operational reliability. The STEYR Monoblock is a highly efficient single casting from special high tensile alloy. Its key characteristic is a modular, compact design allowing for effective cooling through an unrestricted flow of coolant. The elimination of cylinder head warping and the reduction of mechanical and thermal forces within the Monoblock material lead to significantly improved durability and robustness of STEYR MOTORS' engines. Furthermore, due to the lack of cylinder head bolts and anchoring threads, the Monoblock design enables shorter, slimmer and more lightweight solutions.



- 1** YACHTS, SAILBOATS
e.g. Baltic Y, Nautor's Swan, Spirit Yachts
- 2** POWERBOATS, CATAMARANS
e.g. Piculjan, Swipewipes, Frauscher
- 3** LUXURY TENDERS, WATER TAXI
e.g. Fassmer, Vikal, Venmar
- 4** WORKBOATS, RIBS
e.g. Norsafe AS, Willard, Zodiac Milpro
- 5** LIFEBOATS, TENDERS
e.g. Hatecke, Diamond Princess
- 6** HYBRID INSTALLATIONS
e.g. Fast RSQ, Da Vinci, German Frers



MARINE

STEYR marine engines are particularly designed and built for the use at sea and inland waterways. Numerous certificates prove the engines' outstanding qualities for commercial as well as pleasure applications.

VEHICLE

On-highway as well as off-road, and even in extreme ambient conditions, STEYR engines are the first choice when it comes to challenging requirements for a wide range of vehicles but also for auxiliary power units and custom power packs.

ENGINEERING

In addition to our vast know-how and engineering expertise in the field of internal combustion engines, e-machines and hybrid systems, STEYR MOTORS provides a variety of testing services for engines and components.

INDUSTRIAL

Logistics, agriculture or construction – there are many fields of application for STEYR MOTORS' engines and innovative power packs. Make every single kilowatt count with a solution that fits real-life demands and significantly increases efficiency and productivity.



See more applications on our website or contact us for further references.



MARINE ENGINES



VEHICLE ENGINES



INDUSTRIAL ENGINES



ENGINEERING



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