

## News Release

### **Exclusive and extroverted - EDAG and Rinspeed present the "Chopster" - World Debut at the Geneva Motor Show 2005**

On March 1, 2005 the city on the Rhone river will witness the world premiere of the "Chopster," a very special type of SUV. The Chopster is a joint project of the exclusive Swiss automotive tuning powerhouse Rinspeed AG and EDAG Engineering + Design AG – an international innovative development partner for the automobile industry.

"The Chopster is a luxury-class life-style SUV that was designed specifically for automobile enthusiasts who appreciate a sporty and highly extroverted appearance in the SUV segment," say Rinspeed chairman Frank M. Rinderknecht and EDAG board spokesman Matthias Topp about their joint project. Given that goal the designers of both companies came up with a vehicle whose ambitious exterior immediately commands respect. To emphasize its sporty character the EDAG design team chopped the roof of the original vehicle by a whopping 70 mm and added muscular fender flares. "Our inspiration for the design of the Chopster was the image of an American football player whose outfit and athleticism stands for enormous strength and assertiveness," explains Johannes Barckmann, director of the EDAG-design studio. The wide muscular flares above the wheel arches in combination with the lowered roofline of the Chopster are consciously designed to evoke the image of a football player ready to pounce. The massive wedge-shaped side skirts visually reemphasize the SUV's urge to storm forward. The newly designed front of the vehicle is similarly impressive: The beefy front bumper features large air inlets for the intercoolers, an unmistakable sign for the enormous demands for air made by the 600-hp turbocharged engine that was developed by BSO 2001 Software & CAD Engineering.

The parallel horizontal lines of the vehicle's rear further bolster the overall muscular appearance of the Chopster. Befitting its character the Chopster runs on enormous 23-inch wheels, which were custom-cast by 'CW Fahrzeugtechnik Vertriebs GmbH.' Low-profile Continental SportContact UHP tires in size 315/25 provide the necessary grip.

The luxurious yet sporty look continues in the design of the interior. Each of the four occupants has his own separate sport seat – either by Cobra Seats or by Recaro. A futuristic center console spans the length of the interior from the shift gate to the rear seats. The bow-shaped console houses cup holders and switches as well as the on-board infotainment system with Blaupunkt monitors, DVD player and Sony PS2 game console.

The materials used in the interior are of the highest quality: The Chopster on the Rinspeed exhibit at the show is painted matte silver. The interior features a combination of black leather and dark grey Alcantara. Silver carbon inserts from steering wheel to door handles, all handcrafted by MP Design with loving attention to detail, add to the sporty character of the Chopster. Illuminated sill plates from 'INT autotechnik' round out the interior.

EDAG Engineering + Design AG exhibits yet another equipment version of the Chopster on their show display: In fine contrast to the orange-metallic exterior the interior is dominated

by natural-white leather. Various applications in body color round out the sporty yet elegant overall appearance.

“Customers can individualize the interior of their Chopster to suit their personal preferences,” explains Frank Rinderknecht. The 600-hp Chopster will be built in an exclusive small-series production run starting in April of 2005. It can be ordered from Rinspeed AG starting at about 325,000 euros. Small-series production is handled by EDAG.

The highly experienced prototype builders from EDAG Engineering + Design AG ensure that the act of chopping is done with perfect craftsmanship while retaining the high safety standards of the original vehicle. Installation of add-on parts as well as the implementation of customer-specific requests in the interior is done in the model-building shop at EDAG headquarters in Fulda.

The model-building specialists of EDAG are normally tasked with the creation of perfect design models for the international automobile industry. They guarantee that the production of the Chopster involves only the highest level of craftsmanship.

The Chopster represents an exclusive, extroverted and trendy crossover addition to the SUV segment.

### **Information about Rinspeed Inc.**

Rinspeed is a leading provider of exclusive car accessories, vehicle customizations and conversions, made-to-order vehicles and prototypes - for customers, dealers and the industry.

In keeping with their motto ‘always one idea more!’ the Swiss design powerhouse forges ahead with exceptional and often polarizing concept vehicles: From a hydrofoil sports car that ‘flies’ over the water to a compact city car that grows in length at the push of a button to an SUV equipped with a hovercraft - the Rinspeed repertoire of visionary ideas is inexhaustible. These eye catchers can be found at car shows, expos and on promotion tours around the world – from Melbourne to Moscow to Mexico City. They present a reason to dream for young and old on all six continents.

But dreams aren’t everything: A full-range tuning program from powerful engine tuning to exclusive leather interiors for all current Porsche models is very popular among sporty minded Porsche drivers. Highly individualized, custom-built and made to order - the automotive Haute Couture.

Importers or manufacturers looking to build a special edition series? Rinspeed consults, designs and implements - on time, on budget and with top quality – in any number from ten to well over a thousand units. That special something for everybody.

### **Information about EDAG Engineering + Design AG**

EDAG Engineering + Design AG is a leading full-service development partner for the international automobile industry. It offers a full range of development and project management services for vehicles, derivatives, modules and production facilities. In addition to development work EDAG also provides planning and construction of entire production

facilities for body-in-white shop and vehicle assembly. Reference projects such as e.g. the entire development of vehicle derivatives for DaimlerChrysler and PSA or turn-key projects such as the body-in-white shop for the Mercedes SL in Bremen document the company's competence as a partner responsible for development work.

EDAG employs some 4,200 specialists at 35 facilities around the globe and recorded sales of some 600 million euros in 2004, making it one of the world's largest independent engineering companies in the automotive industry.

## **The partners - the main support**

### **600+HP powered by BSO**

By contributing extensive and exclusive know how, engineering and prototyping, the BSO 2001 Group participated significantly in the realisation of the Rinspeed Chopster project.

Ralf Spangenberg, CEO of BSO 2001 said: "It was an intimidating task to us, to participate in the tuning project of Rinspeed Chopster. The challenge was, to take the, from Rinspeed already beautiful executed and innovative designed vehicle and combine this with some true "under the hood" performance".

By redesigning and reengineering the complete exhaust system of this vehicle, a significant reduction of the back pressure in the system was archived. At the same time, generated by these changes, a very distinct and sporty sound level was also archived. By reengineering the exhaust system, some new prototype high performance sport-cats were installed. At the same time a special coating was used for the metallic catalyst, which, with this type of a setup, provides an even better emission result than the factory OE setup. These modifications are the bases for the success of all further engine engineering tasks.

The next significant change was the totally new developed water-cooled intercoolers. This setup reduces the air intake temperature for the engine significantly and lets the engine operate at cooler temperatures under load. At the same time, the turbochargers were reengineered for a higher output and also the engine ECU programming was reprogrammed with a totally new base programming software. With these extensive changes to the engine, a power increase of app. 160hp was archived. Therefore the engine output was increased from a stock 450hp to app. 610hp in the modified version.

Because of this significant increase in engine horsepower, the torque of the engine increased significantly as well. The torque increase is up from a stock 620Nm of engine torque to an astonishing 800Nm of torque. Subsequently parts of the transmission had to be reengineered, in order to withstand the increased performance of the vehicle. This reengineering resulted into an updating and the reinforcing of some major parts of the transmission. All engineering work was executed exclusively by BSO 2001.

The last point was to install an upgraded brake system, which was also provided by BSO 2001. This upgraded brake system will guarantee a maximum of safety for the vehicle, even under extreme driving conditions. The totally new front brake system is equipped with a two piece floating disc. This type of setup guarantees a significant weight savings compared to the factory setup. It also guarantees a 100% alignment of the brake disc to the brake

calliper. Even when applied under extreme driving conditions, this setup guarantees a 100% brake performance. Further, the front discs are cross drilled for better heat dissipation and cooling and are also significantly larger in size than the factory discs. The so called brake hat is manufactured out of specially forged aircraft aluminium and also hard anodized. The mounting of the brake disc to the brake hat is done with a special titanium bolt setup. This setup will provide a maximum amount of strength and a minimum amount of heat transfer from the brake disc. The actual brake calliper is a high performance 8-piston brake calliper, which was originally designed for the use on race cars. The brake lines are special stainless steel braided brake lines, which are extremely heat resisted. The rear brake disc's are upgraded as well and are also cross drilled, in order to provide a better heat dissipation and to match the visual appearance of the front discs.

### **Rinspeed Chopster is fitted with ContiCrossContact UHP tyres**

The Rinspeed Chopster is a superlative lifestyle sports car: 600 hp propels the all-wheel drive, low-profile design bolide to a maximum speed of 290 km/h (181 mph). From stationary, this all-rounder does 0-100 km/h (0-62 mph) in 4.4 seconds. To ensure the full power of the V8 engine gets right on to the tarmac and the driving characteristics of the tyre match the very sporty vehicle concept, Rinspeed fitted the Chopster with ContiCrossContact UHP tyres - beefy size 315/25 R 23 Y XL front and back, on five-spoke 11x23 alloy rims. That way the driving characteristics remain sporty and predictable, even when driving at the limit.

Continental has a special tyre in its range for exceptionally powerful all-wheel drive cars - the ContiCrossContact UHP. Approved for speeds of up to 300 km/h (187 mph), this high-performance tyre offers extremely short braking distances, high cornering stability and safe driving characteristics, even on wet roads. All this makes the ContiCrossContact UHP the ideal tyre for a sporty driving style on very powerful, fast, all-wheel drive cars. The design and size of the ContiCrossContact UHP tyre also strikingly emphasize the appearance of the Chopster.

### **CW Fahrzeugtechnik / Borbet**

The Borbet-Group developed the 23" alloy wheel for Rinspeed. The Borbet-Group and its subsidiary CW Fahrzeugtechnik developed the impressive 11 x 23" alloy wheel for the new Chopster in collaboration with Rinspeed. This wheel is also soon to be available through Rinspeed for the Porsche Cayenne and the VW Touareg.

**The tires are definitely the most important thing between your car and the road. Yet the most important thing between your car's interior and the outside is the door sill.**

And since the first impression is the most important, this feature deserves a lot of attention. INTautotechnik specializes since 9 years in high quality design and refining of door sills made of polished or brushed stainless steel.

Quality is reflected not only in processing, but also in design. As a partner to renowned automakers for many years, we have often provided proof of our design skills, and we consistently work on improving these. Moreover, we continuously strive to turn the ideas and drafts of our customers into creative products.

Being a full-line supplier (door sills+luminescent strips+inverters+cable sets), all our products are adjusted and made to fit the respective car model. Of course, we apply the standards required by our customers in our development and production and fully comply with these. Commitment to top quality is the measure customers expect from us. Our TS16494-certified manufacturing process uses state-of-the-art CNC presses and grinders, and computer-controlled milling and gluing robots.

Everyone has a flaw: Ours is stubbornness and intolerance. We are stubborn in our desire for an ever-higher quality and intolerant toward errors – we neither can nor want to afford these. So we are rightly proud of our extremely low error rate performance in recent years, both in manufacturing and delivery.

### **MP Design**

Mr Kourosh Mansory founded the company MP Design & Technik GmbH located in Munich in 1989. Production moved into the current plant in Brand in Oberpfalz in 1997. The relocation of all other departments to Brand took place in July 2000. Initially, the company's main line of business was exclusive interior fittings for high-quality automobiles. The increasing demand for specially coated parts led to the construction of the company's own production facilities. Leather workmanship was added in 1993 and wood processing and refining in 1995. This, in turn, made it possible to meet customer demand for high-quality polyester surfaces. Today our product range includes gear lever knobs made of wood or veneered synthetic material, veneered original pieces and steering wheels with wooden inlays or leather coating.

The fulfilment of our customer's demands and wishes is the first priority of our highly qualified flexible staff and specialists. We work solely with carefully selected suppliers guaranteeing the quality expected of us.

Our customers include reputable wholesalers, tuners and original equipment manufacturers at home and abroad, who require our products for refitting or for special editions with specific requirements. Our long standing, regular client base appreciates our reliability and quality, as well as the quick and flexible completion of orders, MP is working under the international automotive oversight ISO certification ISO/TS 16949:2002.

### **Recaro - from bodyshell builder to seat manufacturer**

Recaro has made a name for itself as a manufacturer of sporting, ergonomic branded seats and seat units of premium quality. The name of Recaro stands for mature technical know-how resulting from almost 100 years of company history, and long-standing experience and competence in motor sport. Recaro seats reveal a clear lead in terms of ergonomics, comfort, safety and design. For vehicle manufacturers, Recaro has long advanced from a supplier of high quality seats to a first class partner of the automobile industry.

Recaro builds car seats that adapt optimally to driver's needs. The long-term experience gained in professional motor sport has benefited the development of sports seats for the road. Recaro has always been 'the trendsetter' satisfying customers' individual requirements, including design, firm contours, optimum streamlining, individual styling and exclusive looks: Get the Feeling - with a Recaro sports seat!

Yet, whether the desire is for sporting flair, freshness, dynamism, pure driving pleasure or prestige, luxury and safety, Recaro creates excellent solutions for convincing vehicle manufacturers and end consumers. Because: Winner sit in Recaro!

History: Master saddler Wilhelm Reutter established his car factory in Stuttgart in 1906. The company made a name for itself as a manufacturer of high-quality assemblies - for customers including Adler, Ansaldo, BMW, Bugatti, Maybach and others. From 1948 until 1963 the company produced the complete line of Porsche car bodies. In 1963 the production of car bodies was bought by Porsche, the resulting company known as Recaro (an acronym of REutter and CAROsserien – German for auto bodies) began producing the full line of Porsche seats. At the same time, the company introduced the after-market Recaro sport seats followed by the legendary Recaro "Ideal Seat". Today, the company still focuses on its combined objective of building series-production and after-market seats. In 1983 the 100 % take over by Keiper from Remscheid, Germany, took place. Today, Recaro is based in Kirchheim / Teck, where in 1990 the attractive Recaro Center was opened. A division of Keiper Recaro, Recaro seats have made an indelible mark in the automotive domain as one of the world's best-known and most successful brands in the after-market industry. Recaro is more than a seat, it's a philosophy.

Recaro forms part of the Keiper Recaro Group operating on 16 sites worldwide, with 6,000 employees and a sales of € 830 million in 2003.

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