



Kunststoffgehäuse - Systeme GmbH

Individuality is our strength



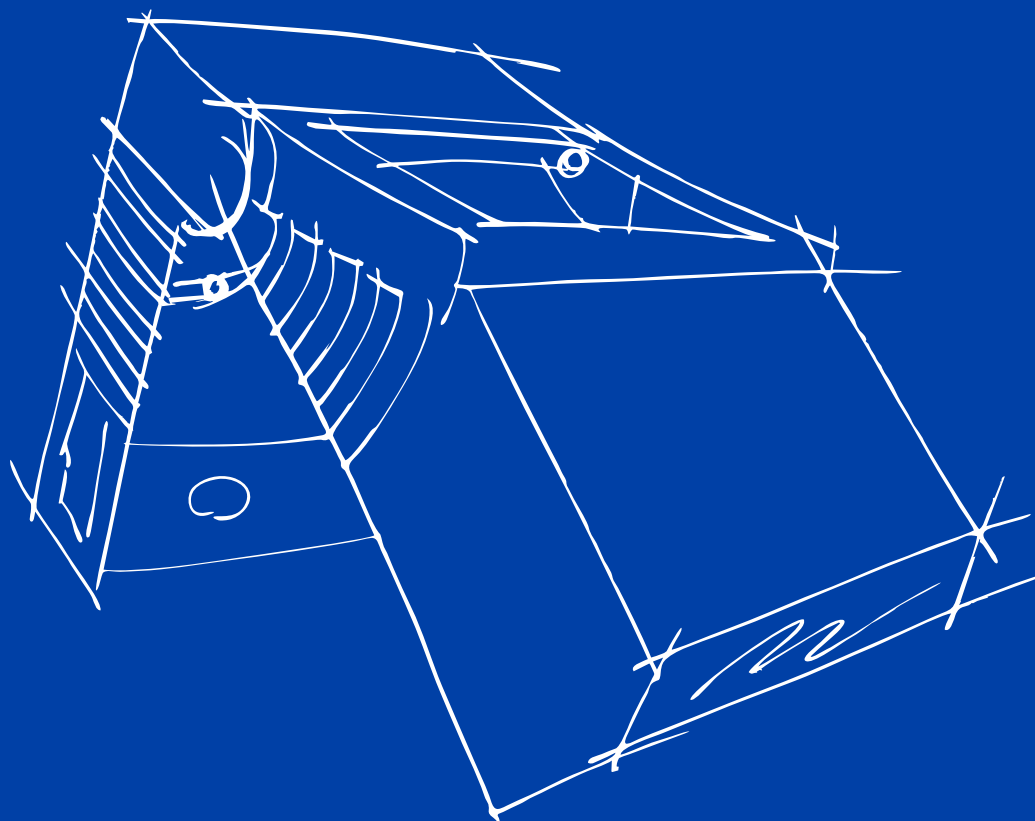


Individuality ^{is} our strength

Every product is designed to customer requirements and produced to your specific dimensions and specifications.

This results in a unique product rather than a mass-produced one. With our enclosure manufacturing options, we can fulfil even unusual customer requirements.

Your personal enclosure – individual and distinctive in terms of shape, colour and equipment.





fast
cost-effective
perfect in DESIGN

From the prototype right through to series production of several thousand pieces – the price and our performance are always at a favourable ratio.

We manufacture products precisely to customer demand and offer a wide range of features and properties in the plastic enclosures.

Third-party services are rarely required, as we carry out all necessary work ourselves, enabling us to keep our prices extremely competitive.

The technologies used allow cost-effective changes to be made to the parts.

Customers' change requests can also be introduced immediately into ongoing production at low cost and without any major delays.

We
give your ideas shape



Imagine you have an idea but do not have the packaging to present it in the best way possible. Then we are the right company for you.

We offer individual solutions - from small quantities upwards of 1 piece right through to large-scale series production. Our manufacturing procedures are flexible and cost-effective thanks to no, or extremely low, tool costs.

We are also happy to meet your complex shape and material requirements.

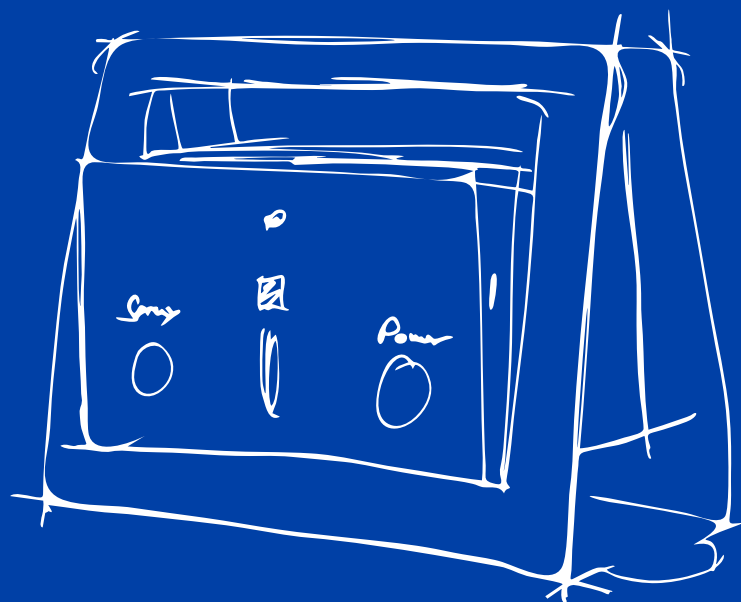




Well thought-out from start to finish

With us, you get everything from one source:

consulting, design, construction, production, refining, accessories, after-sales support. Individual, bespoke enclosures with a full service from A-Z – all at a reasonable price.



how it works

You set out your requirements – we come up with a solution.

You check and amend it – we produce the prototype.

You carry out a trial run – we produce the series.



competent consulting

You give us an idea of your plans (sketch, drawing, model) and we provide you with comprehensive and detailed consulting in relation to relevant manufacturing procedures, the right material and the possible equipping of your product.



Drafts Design proposals

Our design engineers draft products with emphasis on individuality, ergonomics and practicality.

We work with current CAD systems and inject all of our expertise into sophisticated designs.





INKUG technology

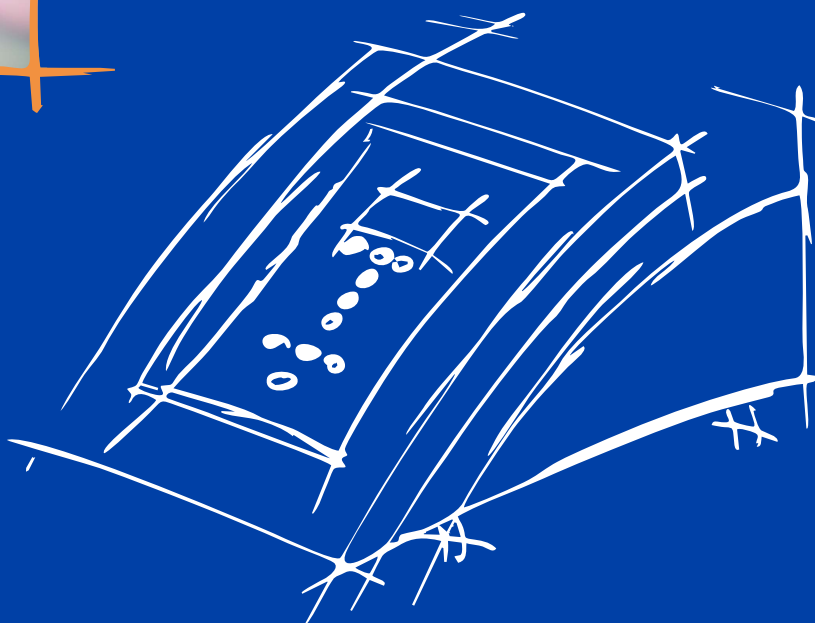


The trend towards individual design and a professional outfit, particularly for small and medium batch sizes, is forcing developers to find alternative production technologies.

Milling/bending technology offers the optimum solution:

economical production even for small piece numbers:

flexible, fast and without any tool costs.



We produce your "packaging" according to your specifications (sketches, technical drawings, components and CAD data). There are virtually no limits on what you can think up: numerous special tools are available for CNC processing and any bending angle can be achieved, even using our circular bending method.

You can design your own enclosure, choosing from a wide range of standard materials and colours.



Milling / bending

We use standard mounting methods with solid threaded inserts for service-friendly assembly.

Acrylic glass windows are installed flush in the material.

The intarsia milling method enables control panels, cover films or membrane keypads to be used as flush-installed elements.

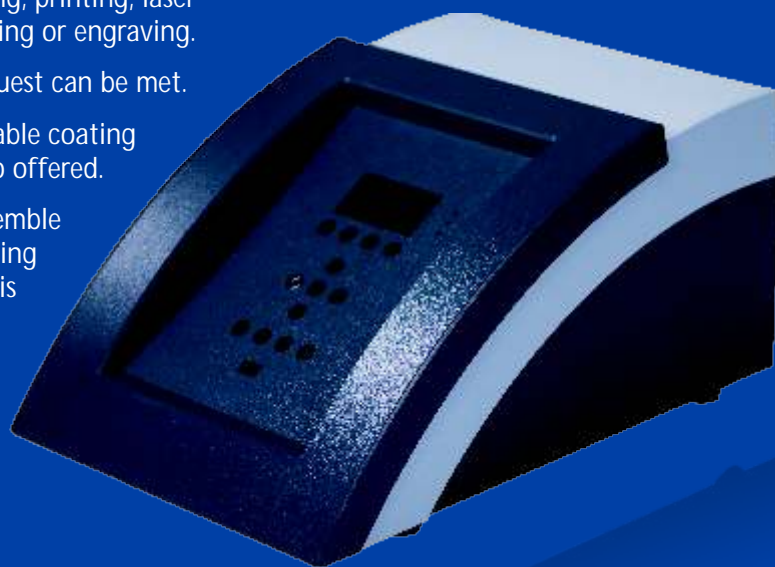


To refine the product, we offer various procedures such as painting, printing, laser printing or engraving.

Any colour request can be met.

EMI shielding with a suitable coating is also offered.

If requested, we will assemble your enclosure, including accessories, so that it is ready for installation.



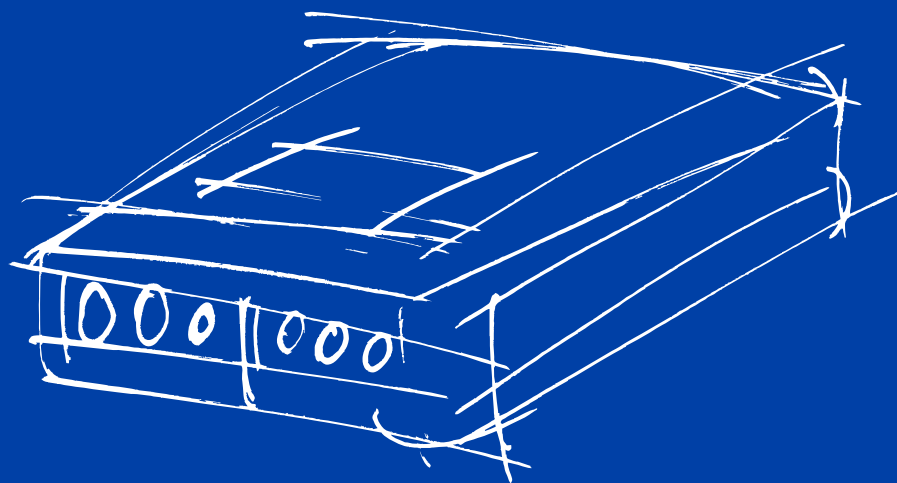


SYNPRO for small batches

Vacuum casting technology is used to manufacture prototypes and pilot runs or small batches without tools. For such production sizes, this plays an important role when it comes to cost.

Even in the case of minimal batch sizes, "just-in-time" production and a design individually tailored to customer requirements are possible. There are no tool costs incurred.

This means that no large-scale series production runs have to be commissioned out, enabling an optimum product to be realised from an operating and aesthetic viewpoint.



Thanks to a special vacuum casting procedure, plastic parts can be produced for developments, pilot runs and small batches. Within two weeks, the first prototypes or a pilot run can be delivered. High-quality materials are used, which, thanks to their thermoplastic-like properties, have high chemical, abrasion and temperature resistance.



SYNPRO vacuum casting technology



We produce your individual premaster based on our competent consulting and according to your specifications.

The premaster is a 1:1 reproduction of the desired component and can be produced from various materials.



Recasting the model with silicone produces a 1:1 negative shape, which is used as the mould. When it comes to casting in the mould, there is an almost unlimited choice of materials available in terms of colour, transparency and hardness.





OUR *shape* diversity





As their purposes vary, so do the requirements for the enclosures and their design.

Our experience ranges from the medical sector right through to aviation and space travel, and we relish each new challenge arising from your individual expectations.

As a result of these diverse tasks, we have acquired a large repertoire of different processes and production methods. With our help, your product will be something unique.





OUR **shape** diversity



We offer a bespoke shell for your product, which makes it distinctive. A visually appealing finish, with high ergonomics requirements and effective protection against external influences for your valuable electronics. Here, the focus is on optimum usability and, at the same time, visual appeal.



We devote our entire focus to your product, fulfil your specific requirements and transform these into reality. We do not supply anything "ready made", but rather deliver an individual product tailored to your expectations and ideas.





A stylish look makes for a good first impression and an individual style gives you the edge.

Why not benefit from our many years of experience, our technical possibilities and our proven creativity.

Together, we will develop a high-quality enclosure to match your product and your requirements perfectly, i.e. with individual functional parts or mechanical moving elements.

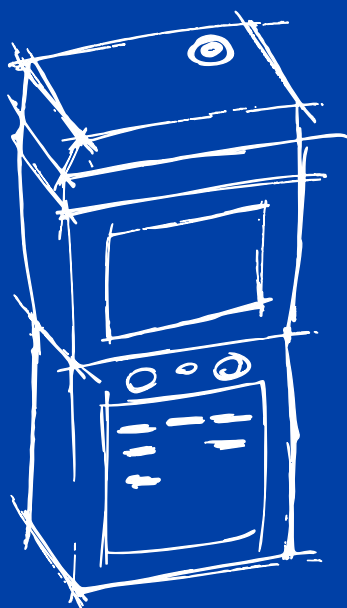


OUR *shape* diversity





tool making and plastic injection moulding



The tools are designed by our design engineers using the latest CAD and CAM systems, and modern, in-house tool making produces the required injection moulding tools. Depending on the target number of pieces, these can be manufactured in various configurations as aluminium and steel tools. We also have various tool systems and master moulds in order to ensure the most cost-effective tool design for you.

The components in a wide range of materials and colours are injection-moulded on, in some cases, fully automated injection moulding machines.

Decades of experience means that we can produce plastic parts with an injection weight of 1 – 600 gr.

With its in-house product range of panel instrument cases in accordance with DIN 43700/IEC 61554, the apra Group has a large standard range in almost all dimensions with extensive, matched accessories.





Cover films and membrane keypads

Around the world, film technology is used for inputting information with electronic devices.

We offer an entire range of film technology, from decorative film and cover film right through to membrane keypads.

We develop the optimum solution for your requirements and guarantee fast and flexible realisation in a modern design and top quality.

EMI shielding

colour filter

embossing on the keys

integrated LEDs

digital printing

method

insert pockets

and much more

Contact us to find out more!





Refining the enclosure



We will fulfil your requirements.

Any colour request can be met - whether it be a special colour or surface texture with painting, or multi-colour screen printing for control panels, we have the right refining method to suit any requirement.

We offer shielding (EMC/EMI) through suitable coating.

Company logos or lettering can also be applied by means of engraving or laser printing.





Accessories



The product should not only look good, but must also fulfil its purpose. We therefore equip it completely with functional parts such as battery compartments, seals, screw inserts, films, membrane keypads, card guides, plastic domes, hinges, windows, feet, stay bolts, mounting rail brackets and accessories.

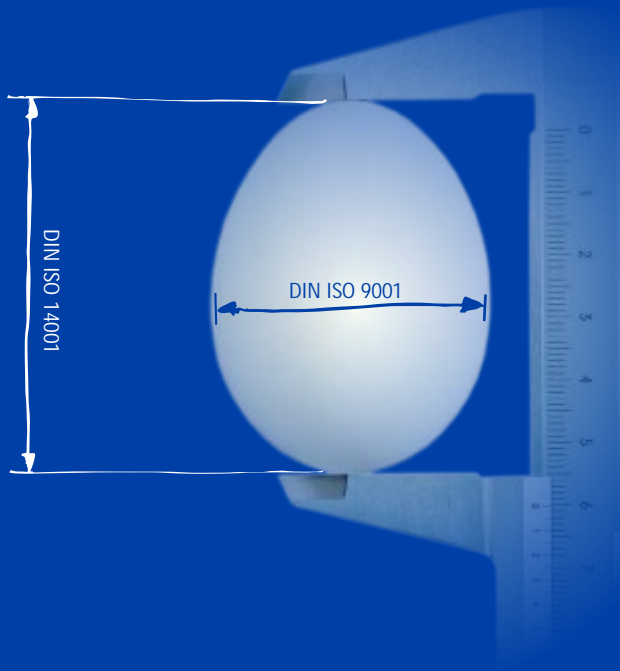
Mechanical moving and closing elements are among the challenges that we happily take on for you. There are virtually no limits.





Innovation and quality

We are hugely innovative and use our modern machinery in a targeted and efficient way. The continuous improvement process for products and procedures is an intrinsic part of our business and corporate culture. A sound quality and environmental management system is a prerequisite for this.



Quality checks during the setup phases are standard practice for us, as is responsible resources management for the good of the environment.

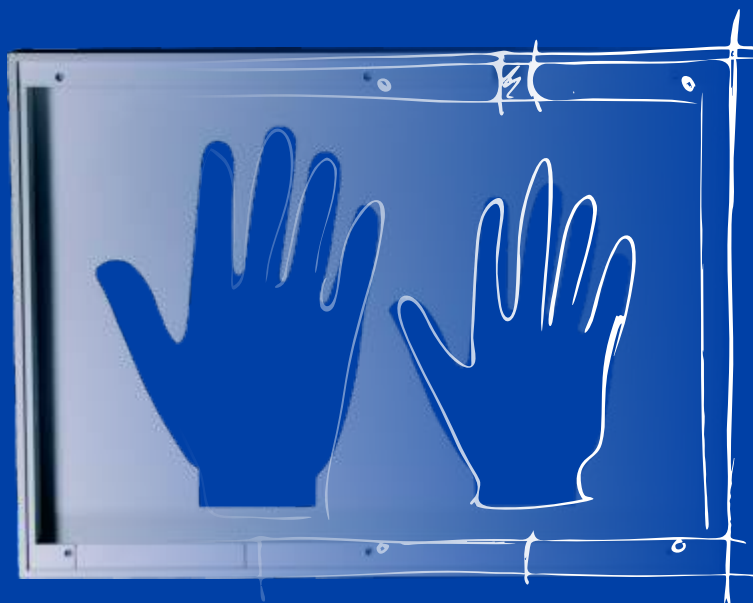
The apra Group has certification for all of its locations in accordance with current quality and environmental standards. Quality is guaranteed not only by optimum machine equipment and high-tech-controlled production processes, but also by the experience and expertise of our employees.





Experienced and customer-oriented

Only those who are able to respond quickly to changes will succeed in the long term. This success has been borne out every day for more than 40 years at the apra Group.



Our customers come from a broad range of sectors:

- | | |
|---|--------------------------|
| Medical technology | Telecommunications |
| Rail traffic technology | Chemical industry |
| Mechanical engineering and plant construction | Computer technology |
| Space travel | Refrigeration technology |
| Automation technology | Military technology |
| Airlines | Measuring |
| Electrical industry/switchgear construction | Power |
| Automotive industry | Research institutes |
| Measuring and control engineering | TV and radio |



Successful and reliable

The customer is always at the heart of everything we do.

Why not benefit from our many years of experience and you will be won over by our impressive service.



www.apra-plast.com

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Your contact for customer-specific enclosures and plastic parts.



A market leader in 19" technology. For more than 40 years, the name has been synonymous with modular cabinet, plug-in unit and enclosure systems made of sheet metal, aluminium, stainless steel or plastic.



Specialist in innovation in the area of network technology: from distribution cabinet systems right through to fibre optics.



Special enclosure solutions are our strength: displays and terminals, as well as special solutions for all areas of application.

apra-groupe

apra-plast

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