



ROTECH
SUBCONTRACTING

ROTATIONAL MOULDING AND PLASTIC WELDING



ROTECH

SUBCONTRACTING

ROTATIONAL MOULDING

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ROTATIONAL MOULDING

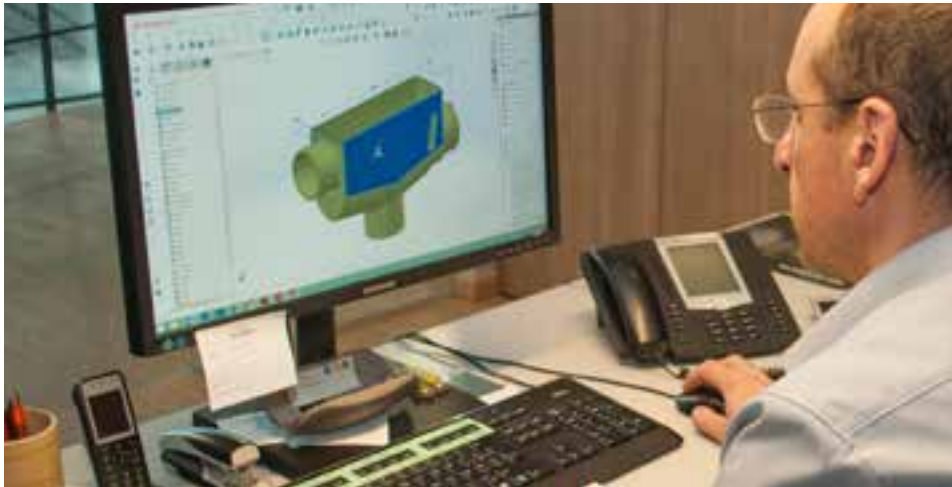


ROTATIEGIETEN

1. ALL YOUR PLASTIC PRODUCTS BY ROTECH

Rotational moulding is a thermoplastic technique that involves heating a small amount of PE or PP powder tension-free in a mould and cooling it to produce a plastic product. Over the years, the process has grown into a fully fledged alternative for thermoforming and injection and blow moulding.

2. FROM DESIGN TO PRODUCT



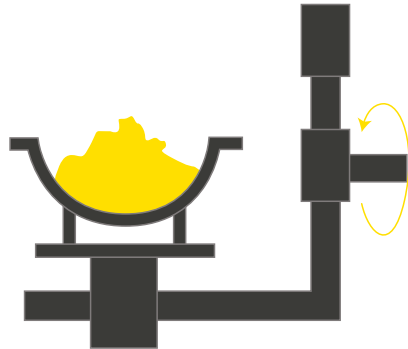
Although rotational moulding offers an extensive range of products, it does not require major investment or large production runs.

Our team of experts is always ready to turn your idea into a design and a finished end product, all the while offering support in developing your very own mould.

3. PRODUCTION PROCESS

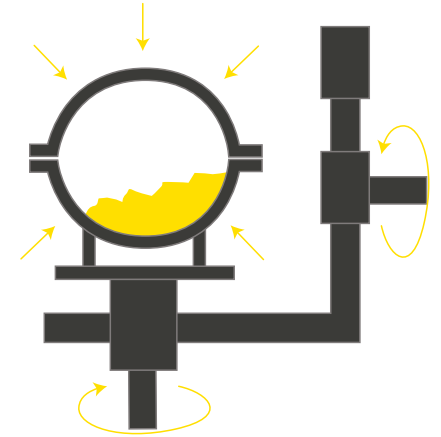
step 1:

The mould is filled with plastic powder.



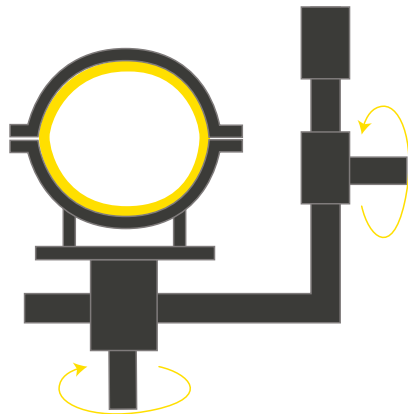
step 2:

The mould is put into the oven and rotated along two axes to ensure the powder is distributed evenly along the sides as the material sinters to a homogenous mass.



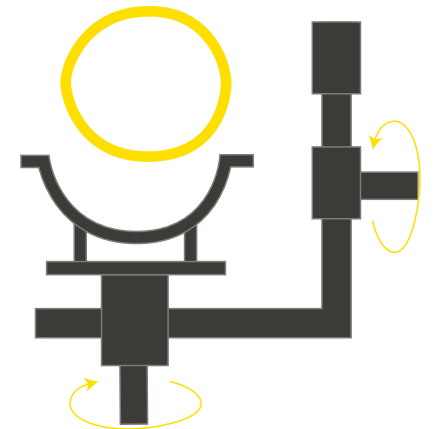
step 3:

The mould is left to cool and the material inside solidifies to make the end product.



step 4:

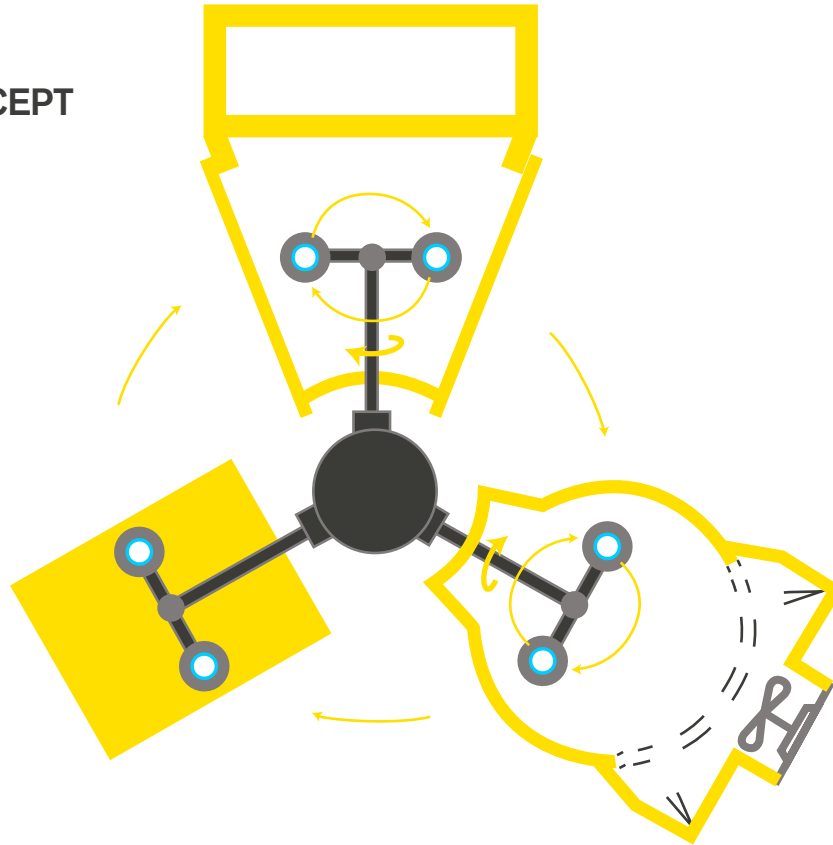
The product is taken out of the mould.



4. ROTATIONAL MOULDING SPECIFICATIONS

- Tension-free
- Relatively low investment (compared to other production techniques)
- Enormous variation in designs and shapes
- Uniform thickness
- Affordable price, also for smaller runs

5. MACHINE CONCEPT



6. ROTTECH MACHINERY



Dimensions	Vormen tot 10.000L
Average Production time	90 min
Independent arm	3 arm-systeem



Dimensions	Vormen tot 2.000L
Average Production time	80 min
Independent arm	4 arm-systeem



Dimensions	Vormen tot 2.000L
Average Production time	50 min
Independent arm	3 arm-systeem

7. RAW MATERIALS

Lots of materials are suitable for rotational moulding, but PE and PP are used the most. A large range of product characteristics can be achieved through the use of additives:

- Anti-static
- High-impact resistance
- Flexible
- Rigid

And there are of course high-tech materials for very specific applications too!



DS Plastics has its own large DS Plastics has a spacious warehouse for the storage of raw materials from which your product will be produced.

8. COLOURS

Rotech offers a large range of coloured bases and colour tones, so during the design phase customers are free to choose the colour they like best for their product

- Possibility of complex colours
- Guaranteed top quality

Rotech also has its own Turbomixer to mix polyethylene powders in different colours.

- Even colouring
- Less dye
- More economical compares to compounds



9. MOULDS

Rotation moulds can be made out of steel or aluminium, but the final choice of material is often determined by the shape the end product will have. Possibilities and characteristics of rotation moulds:

- At least in 2 parts;
- Threaded parts (screwed male and female);
- Insert holders;
- Various structures;
- Teflon or insulation to avoid sticking in certain places.





10. FINISH

Many products still need to be finished after the moulding process. Rotech has all the necessary materials and expertise to provide a quality finish:

- Deburring;
- Drilling;
- Cutting;
- Milling;
- Thermal deburring.

All products are also subjected to rigorous quality control before packaging and shipping.



11. ASSEMBLY AND PACKAGING

- Attaching separate components to products
- Assembling complete products from different parts
- Putting stickers on products
- Polishing products
- Packaging products, including user manuals, brochures, prize tags, etc.



BREAK TANK



- 2 x M6 closed insert
- 1/4inch threading
- Milled drip tray
- Material: LLDPE grey/white



DIESEL TANK



- Integrated fuel lid
- 1/2inch threading
- 1/4inch threading part x 4 (top)
- Material: LLDPE fuel-approved



BLUSTANK



- 12 x M6 closed inserts
- 3-core mould
- Connection part
- Material: LLDPE fire-retardant black

CASING



- 1 x M5 closed inserts
- Cavity for drilling
- Milled opening
- Material: LLDPE multicolour



FILTER CASING



- Filter casing and lid in one piece.
- Finish: milled lid
- Material: LLDPE various colours



LID



- Anti-slip pattern
- On bottom: kiss-offs to increase load bearing capacity
- Material: LLDPE anthracite



MUDGUARD



- Mounting opening
- Piping connection
- Material: LLDPE anthracite compound



RESERVOIR



- Plastic threading
- Pre-mounted screw lid ø65
- 2 x M6 closed inserts
- Milled opening
- Various holes drilled
- Material: PP black



SPRAY TANK



- 1 x 1/2inch open stainless steel insert
- 8 x M6 closed inserts
- Rotated threading for lid
- Material: LLDPE natural



CASING



- 12 movable cores
- Bottom milled
- Material: LLDPE natural fire-retardant



FUNNEL



- 10 x hole drilled $\varnothing 10\text{mm}$
- Bottom to removed
- Flame treatment for gloss
- Material: LLDPE black



DISPLAY



- 4 holes drilled 10 mm
- Mould with markings to cut an open front
- Material: LLDPE compound grey





PLASTIC WELDING



PLASTIC WELDING

1. NOTHING'S OUT OF BOUNDS

Polythene (or polyethylene) is the most popular (thermo) plastic in the world. Partly because it softens when heated, which makes it an excellent material for all kinds of uses.

But not only that. PE is also a great insulator, is robust, can withstand a wide range of chemicals, does not absorb any water and is relatively flexible. So it is no surprise that it is used in many industries: from agriculture, construction, building services engineering, earth works & piping, over the petrochemical industry to water management, etc. Because DS Plastics provides all these industries with products, we

have gained plenty of expertise through the decades. We take care of high-quality PE-sheet and -piping connections, modify PE sheets, and design and manufacture constructions made up of multiple sheets. We work with all our own equipment to carry out various types of welds through mirror, fluxed-core arc and extrusion welding. We will also drill any holes up to a diameter of 800 mm in any construction we make for you. Thanks to the advantages offered by the material we produce and our expertise in general, we provide well finished, light and completely watertight products.

In short, DS Plastics offers custom products, made in our facility as well as tailored support in line with your wishes and requirements. Indeed, nothing is out of bounds for DS PLASTICS!



EXTRUSION WELDING

Our extrusion welding machines join various parts together, extruding liquid PE to form an exceedingly strong and watertight seam with the heated material. This makes every seam very strong and waterproof.



TRIDENT WELDERS

Rotech uses its Trident welding machine for small nooks and crannies. We use it for small jobs as well as to prepare for extrusion welding. Because the technique fills the space in the corner completely, it makes for an exceedingly strong seam.



MIRROR WELDING

Our mirror welding machine joins tubes and other parts of up to 315 mm in diameter together for use in larger prefab welding jobs that make installation on site easier.



PANEL SAW & PIPE CUTTER

With our panel saw and pipe cutter, we can work meticulously with smooth edges for more possibilities and better finishing.

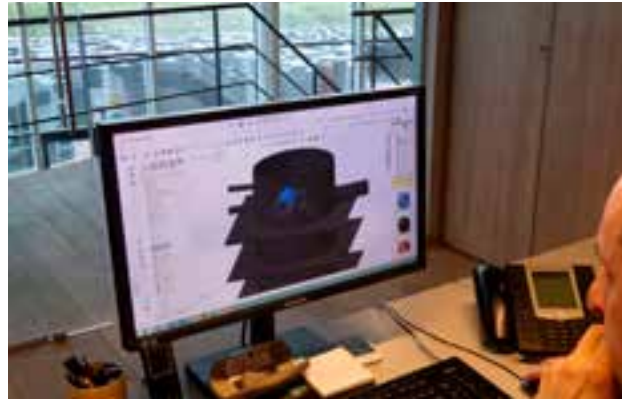


HOLE SAWS

Rotech has a wide range of hole saws of up to 800 mm in diameter for various shapes and materials.

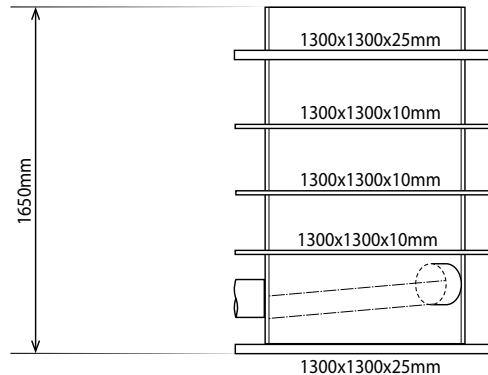
2. FROM ENGINEERING TO DELIVERY

Utilising our long-standing experience and the latest tools, we support our customers in developing new products. We work with SOLIDWORKS software during the design and drawing phase, while our skilled staff support you in getting all the details right, as they liaise with our production department to make sure everything is 100% deliverable.



Our communication lines are very short, so we never lose valuable time and drawings are handed over to production as soon as they are approved.

Your project will be put into production as quickly as possible and delivered to you by us or our transport partner.



3. WELDING CONSTRUCTIONS FROM HDPE SHEET MATERIAL

CUSTOM-MADE FROM SHEET MATERIAL 10 OR 25 MM STANDARD

- Drip trays
- Collection boxes
- Ventilation shafts
 - Ponds
- Feeding troughs
- Overflow tanks
- Flower boxes
- Tanks for chemicals
- Water storage tanks
 - ...

FOR VARIOUS INDUSTRIES

- Construction sector
- Chemical industry
 - Horticulture
 - Agriculture
- Building services engineering
 - Food industry
 - ...



4. WELDING CONSTRUCTIONS FROM HDPE PIPING MATERIAL

With HDPE piping as a semi-manufactured product, DS Plastics has the possibility to put together well-nigh any construction, such as prefab parts and piping for the construction industry as well as water-tight solutions for floating elements and connecting parts in all shapes and sizes, combined with sheets or other pre-moulded material. We can also utilise our experience to seek out and carry out technically feasible solutions in any sector.

E.g. the maritime, general industrial, playground equipment, ventilation, agricultural sectors and many more.



5. TECHNIQUES

EXTRUSION WELDING

This technique is used to join thermoplastic parts together using an extruder that fills the seam with a plastic welding rod. Rotech has a team of experienced and skilled plastic welders



MIRROR WELDING

This technique is primarily used to join tubes together. Unlike extrusion welding, mirror welding does not use a welding rod, but a machine to melt the material. Rotech uses mirror welding to join tubes facing each other, but it's also the technique of choice for making lobster back ends, T-pieces and other custom parts.



6. REPAIRS & TANK CONNECTIONS



COUPLINGS:

Ø 110, Ø 125, Ø 160 & Ø 200 mm.



FLANGE COUPLING:

Ø 110, Ø 125, Ø 160 & Ø 200 mm

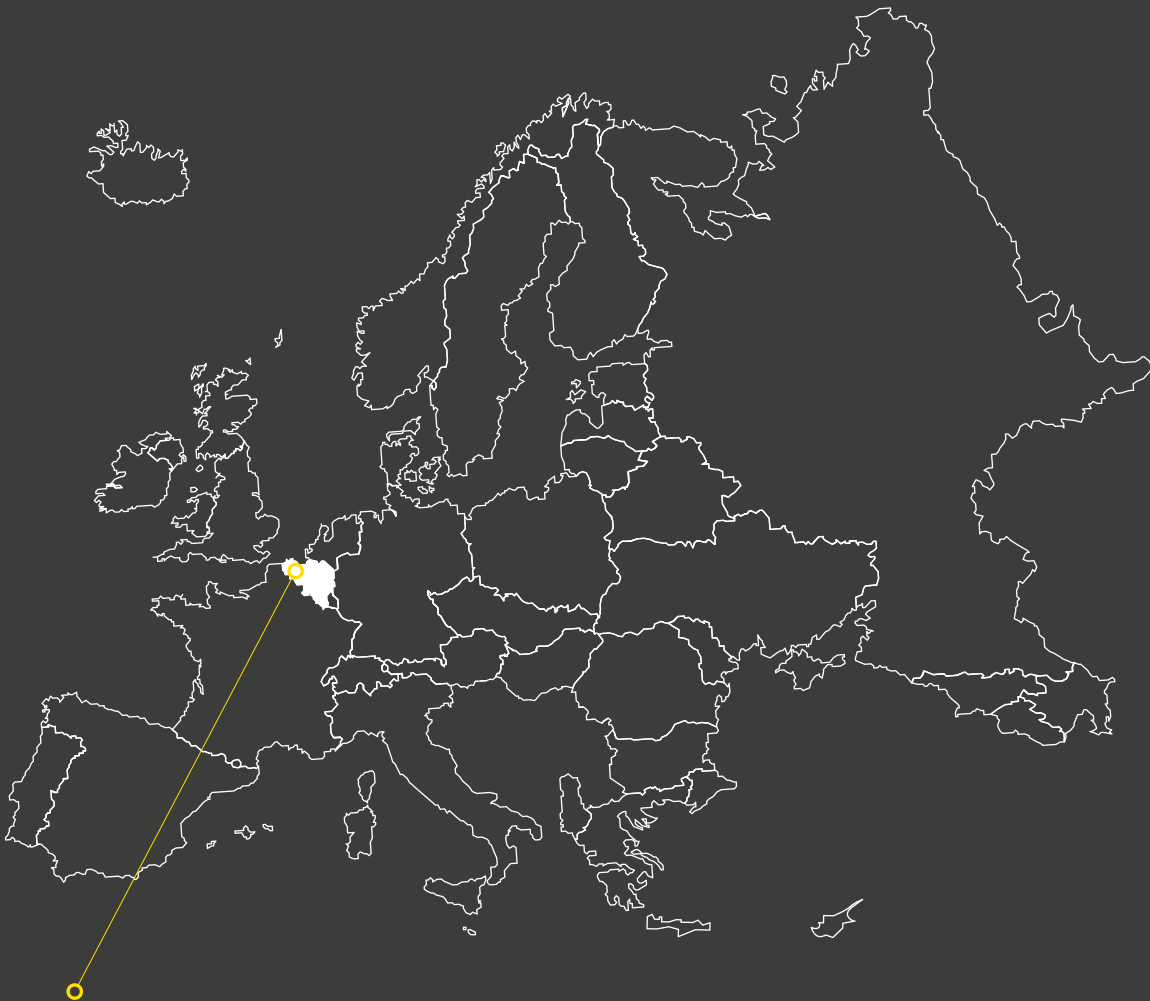


COUNTER FLANGE:

1" & 2"

- Coupling bend 90° 50mm*2"
- Coupling T-piece 50mm*2"
- Coupling straight 50mm*2"





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