

# CULTURE

has no weight

METALFORM™



MF GRAVITY

**METALFORM™**

**Metalform is a leader in manufacturing high quality steel and wrought iron products throughout Europe. We are a company with great pride in our products, with highly skilled fabricators and blacksmiths within modern production facilities. For over 20 years we have delivered steel and iron products of the highest quality to our clients all over Europe.**

Metalform produces a complete range of architectural products in steel and wrought iron including windows, doors, partitions, gates, fences, railings, balconies and many other products for your homes and businesses.



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We offer nine different systems to select the most appropriate opening technology, solving the delicate balance between glass and frame.

The profiles might have strong and sharp lines, or very subtle ones with refined mouldings; inexhaustible design variations to find the right relationship between the surfaces of frames, facades and interiors.

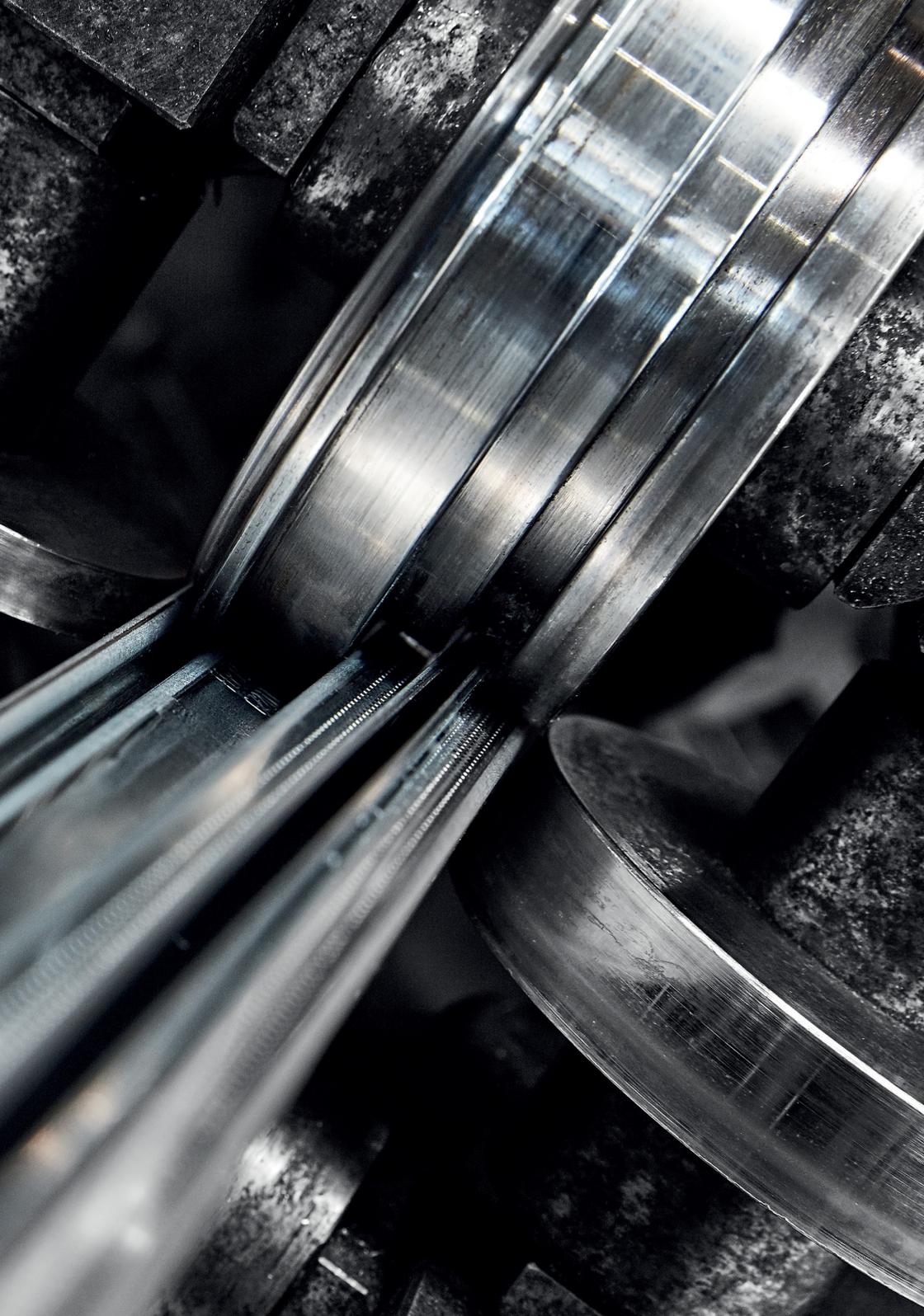


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In addition to our refined design, our profiles present a unique material richness in the world of windows and doors, as they are made of precious, solid and durable materials of extraordinary expressive capacities thanks to their natural surfaces:

the elegance of brass (natural or patinated), the strength of stainless steel (natural or blackened), the warmth of CorTen, the versatility of galvanised steel.





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# MF GRAVITY

is born

in order to lift and slide a door or window of great size and weight, we have adopted an elaborate system equipped with electric motors.

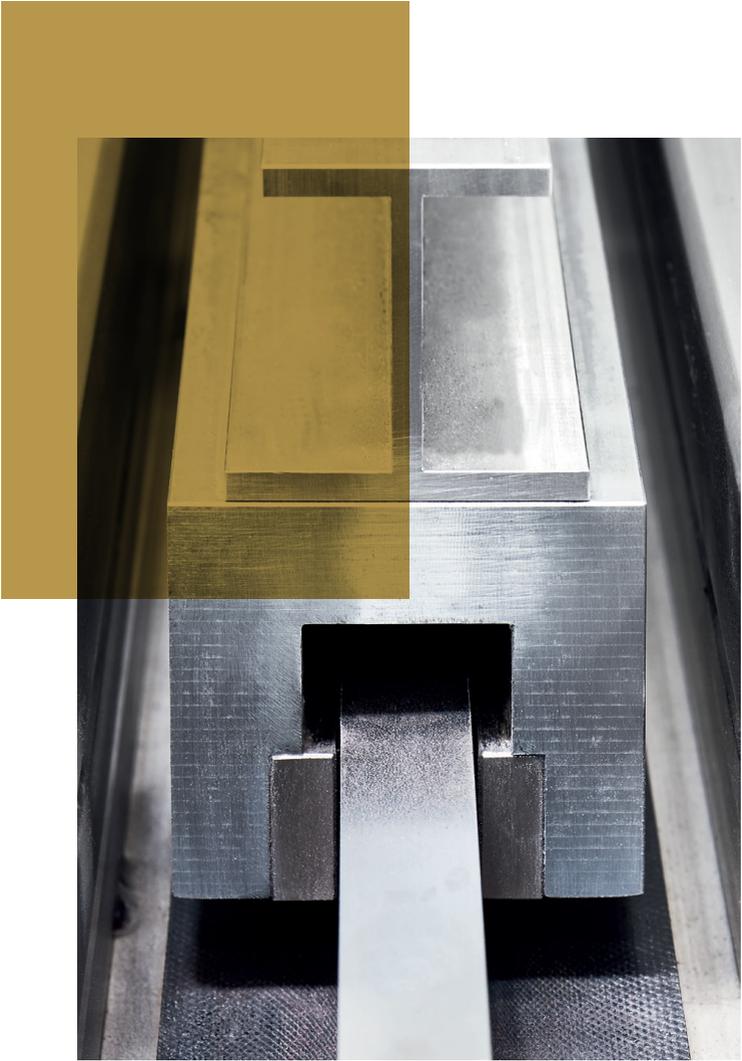
our system operates manually, without electricity, freeing the frame from its weight, so that it can be moved as if it were in the absence of gravity.



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how do we achieve this?

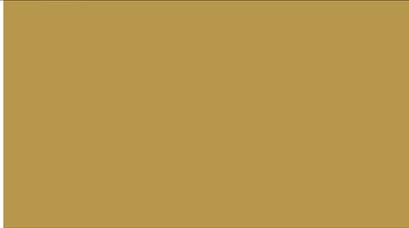
our system uses magnetic levitation to free the door or window from its weight and make it float in the air, sliding without friction.

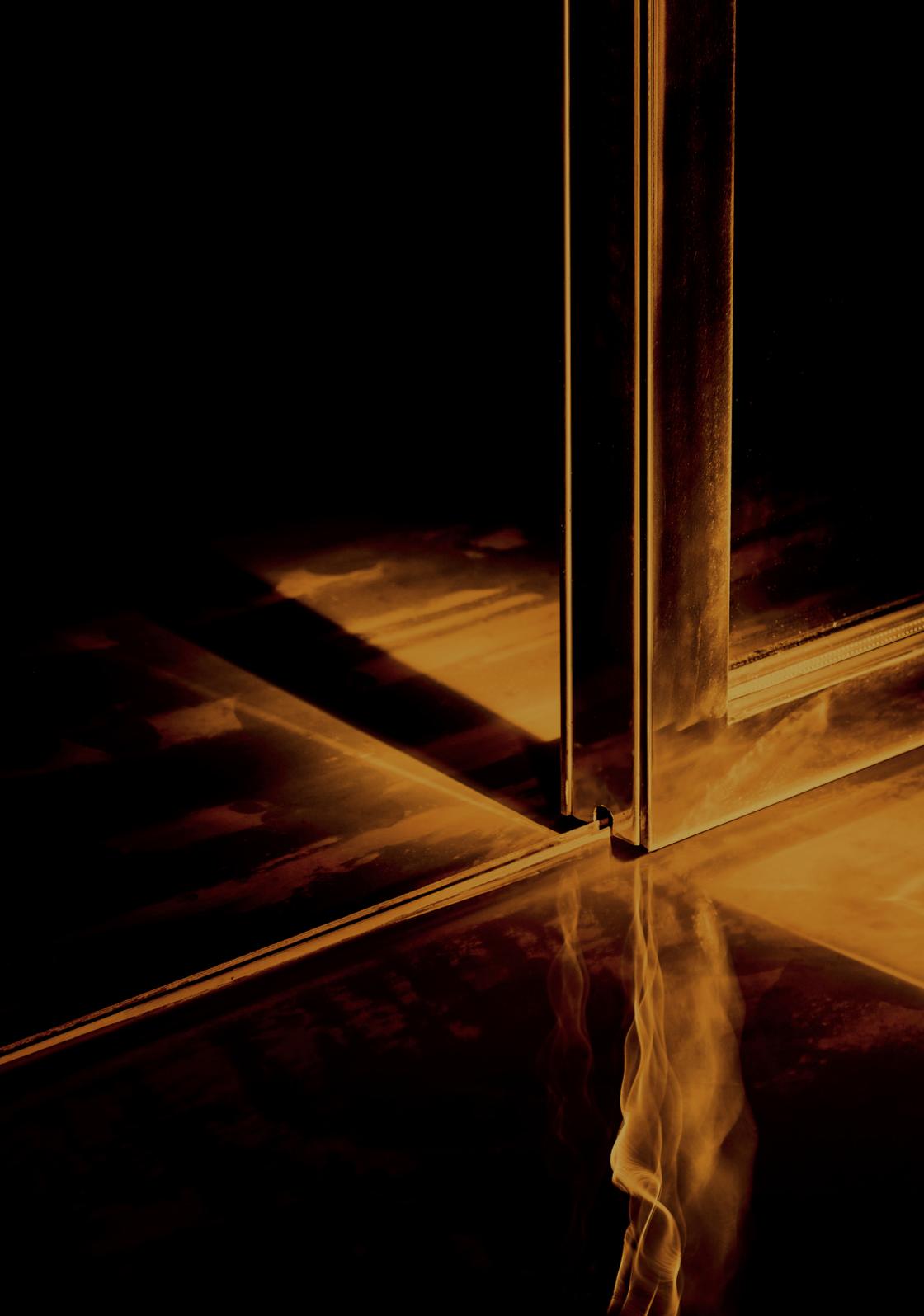


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just as a ship floats in the water, the Metal Form Gravity lift-and-slide door or window flows in the air. Freed from its weight it flows effortlessly, gradually slowing by its own weight. The natural force of the magnets allows the system to move with minimal manual effort.

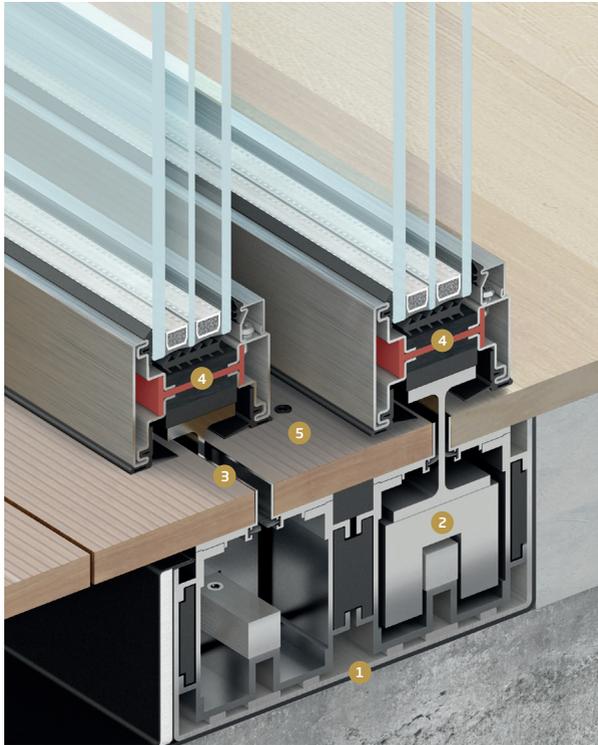
Without noise, without electricity.







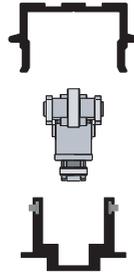
# MF GRAVITY



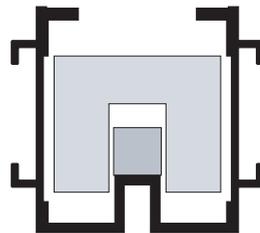
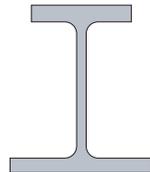
- ① work group
- ② magnetic levitation skid
- ③ sliding loop-hole
- ④ windows/shutters
- ⑤ flush capping profile, continuity between inside and outside

# MF GRAVITY

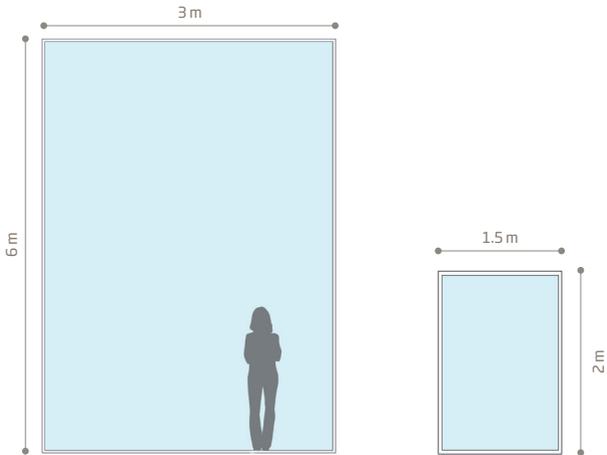
lowering and closing unit



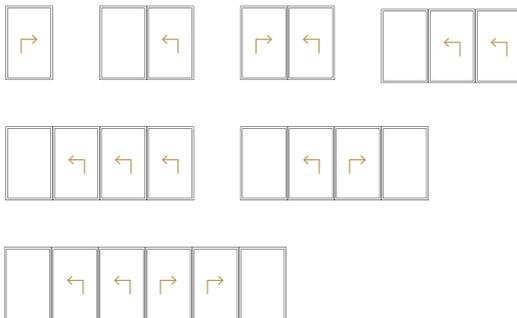
levitating and sliding unit



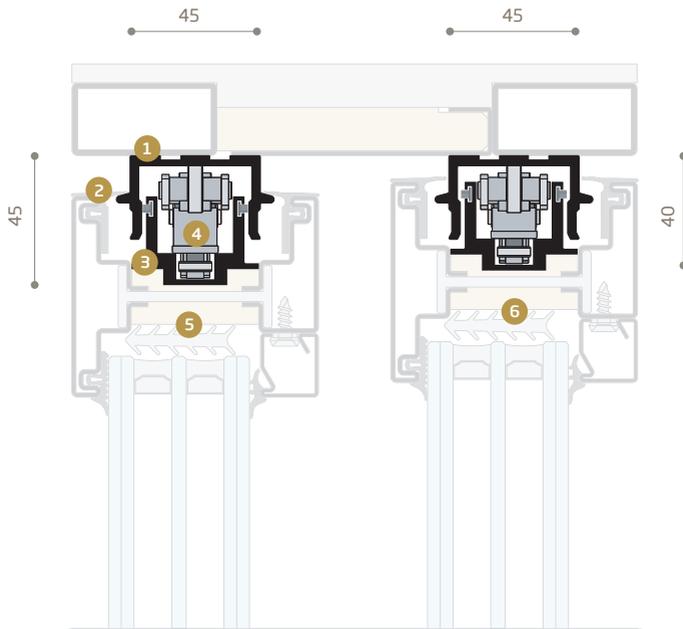
# dimensions



# configurations

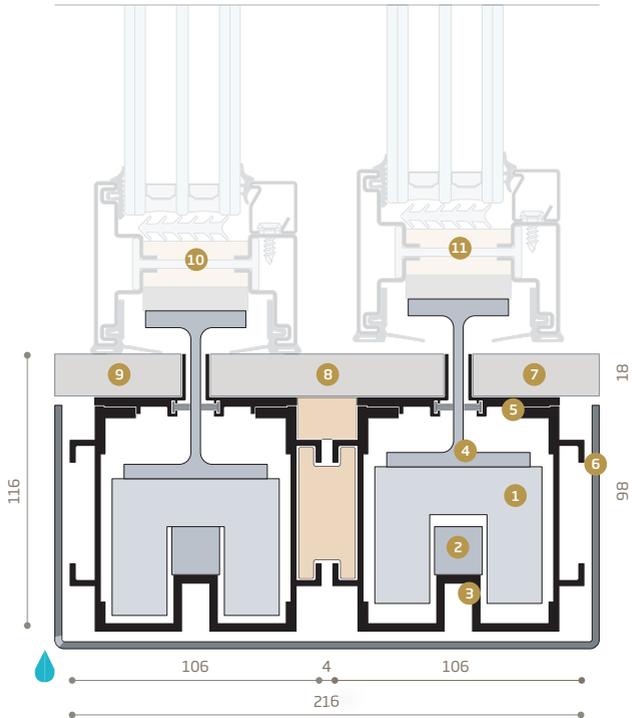


# upper node



- 1 thermally insulated polyamide guide
- 2 double seal gasket
- 3 continuous alignment guide with brush-holder
- 4 lowering and closing mechanism
- 5 lowered sash frame - closure
- 6 lifted sash frame - opening

# lower node



- ① magnetic levitation runner
- ② ferromagnetic stainless-steel rail
- ③ alignment modular profile
- ④ connecting beam between runner and frame
- ⑤ finishing profiles with brush-holder
- ⑥ containment and laying box
- ⑦ internal floor
- ⑧ removable capping profile for access and maintenance
- ⑨ external floor
- ⑩ lowered sash frame - closure
- ⑪ lifted sash frame - opening

## FAQ

Does the system need electricity to work?

No, the magnetic field is passive, i.e. made by permanent magnets.

Can passive magnetism have negative effects on health?

No, the magnetic field generated by the system, embedded into the floor, is confined to the runners area; it has no negative effect on health, ref. Legislative Decree 159/2016.

Is the sash restraint system safe?

Yes, the restraint system prevents the leaf from tilting out of its sliding plane, even in the event of any misuse.

Does the system remain operational and safe in the event of flooding?

Yes, the system remains functional and safe, since the magnetic field is not affected by the presence of water.

Are air-watertightness, wind load resistance, acoustics and thermal insulation performance similar to standard systems?

Yes, the system is designed to have the same performance of traditional lift-and-slide systems.

Can the magnets be demagnetised?

No, they might only demagnetize up to a maximum of 5% in 20 years, with no side effects on the functioning of the system, to then stabilize for an indefinite period of time.

Can the magnetic field affect mobile phones, magnetic cards or any other objects sensitive to magnetism?

No, if electronic devices are placed nearby the runners, no negative effect occurs.

Does the sliding system require maintenance?

It is suggested to keep the running rail free from any accumulation of dirt, but it does not require lubrication.

How does magnetic levitation work?

The system of runners generates a passive magnetic field that balances the weight of the sash (magnetic spring effect) by keeping it lifted permanently.

How do I raise and lower the door or window?

By turning the handle. It is lowered by overcoming the magnetic thrust provided by the runners; the magnetic system remains always in operation, even when the sash is lowered.

What does it take to lift it and then slide it?

It depends on the weight of the sash; for example, if it weighted 700 kg, the effort to lift and lower it would be about 1 kg, while for sliding it, less than 1 kg.

**doors are  
meant to be  
opened**



**BESPOKE &** *Beautiful*

Let's talk



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[www.metalform.uk](http://www.metalform.uk)

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## Here to talk

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