Formwork and recess formers
Formwork and recess formers

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Applications

- Upstand
- Fratec® recess formers of any shape
- Joint sealing strips
- Box-out forms for slab apertures
- Shutter panel
- Floor-edge forms
- Box-out shutters
- Joint profile former

Visit www.maxfrank.com for more information.
Formwork elements for balconies and slabs

- Upstand
- Bridge shutter panel
- Fibre concrete shutter boards
- Shutter panel
- Floor-edge forms

Joint sealing strips and fibre cement boards

- Joint sealing strips
- Fibre cement boards

Box-out shutters and recess formers

- Box-out shutter
- Box-out form for slab apertures
- Pecafil® for box-outs
- Stremaform® formwork elements for recesses
- Fratec® recess formers of any shape

Formwork inserts

- Camfer strip “Round edge”
- Joint profile former
Formwork

Permanent formwork can be used for in-situ and precast concrete constructions. This type of formwork gives a high-quality blemish free exposed concrete surface finish. As traditional formwork removal is no longer required the use of permanent formwork can save time and money.

Upstand

MAX FRANK upstands for use in precast and insitu applications. Used for the production of visible surfaces such as balcony edges and for door and window openings in twin-wall constructions. The permanent edging formwork made of extruded fibre-reinforced concrete guarantees a perfect bond with in situ-concrete, is fire resistant to DIN 4102, has a high compressive strength and guarantees the required quality and durability of the exposed concrete. This product range has an NL-BSB certificate in conformity with the Dutch assessment guideline BRL5070.
**Upstand standard element (AKF)**

Upstand without a water drip former gives a smooth surface to the semi-finished concrete element. This type of permanent edging formwork is mainly used for staircases, slab openings and for permanently visible recesses in concrete (indoor use).

- width \( (w) = 25 \text{ mm} \)
- height \( (h) = 160, 180, 200, 220, 240, 250, 300 \text{ mm} \)

In combination with the drip profile made of plastic, the standard element is also ideally suited for outdoor use for balcony shuttering with weather drip.

**Upstand preassembled with one or two weather drip formers (AKZ)**

Due to the shape of the AKZ upstand, the profile is ideally suited for ceiling shuttering (single-sided sealing strip) and wall shuttering (double-sided sealing strip).

- with one weather drip former
- with two weather drip formers

For precast floor slabs and double walls.
Bridge shutter panel
Specially profiled forms with chamfers for use on bridge parapet sections which may require the passage of reinforcement or are in difficult to access locations. Use of this type of permanent formwork saves time and costs because expensive temporary formwork is no longer required.

Shutter panel
This type of shutter panel is used to form ceilings and to conceal formwork joints in in-situ concrete.
- Quick and easy installation
- Time saving, no application and stripping work

Standard shutter panel
An extruded fibre concrete formwork panel used to conceal construction joints on exposed wall locations and to fill the gap between temporary soffit formwork and walls.
- Time saving, no formwork erection and removal
- Concrete laitance cannot escape through poor quality formwork joints
- Good bonding with in-situ concrete
- Stable shape
Permanent floor-edge form

This permanent floor-edge form is a low-cost alternative to conventional floor-edge insulating systems. Its inner side is fitted with back anchors, thus creating an excellent bond with in-situ concrete.

- High-pressure resistant, cement based wood particle board
- Construction materials class B1 – low inflammability (DIN 4102-B1)

Fibre cement panels

These cement-bound, corrosion-resistant panels are made of fibre cement and are used as permanent formwork for T-girder structures in bridge construction. Panels are used between beam flanges and support the subsequent concrete pour.

Fibre cement panels consist of cement, pulp, polypropylene fibre, and minerals. Thanks to this composition, the fibre cement panel has extraordinary properties, such as its high strength and its low water absorption.

Joint sealing strips

A fibre cement formwork element with no ribbing used to fill the gap between temporary soffit formwork panels and gaps at walls without the need for complicated adjustment and cutting of shutter panels.

- Chamfered edges for optimum anchorage
- Good bonding with concrete
- Concrete coloured – light grey
Box-out shutters and recess formers

Box-outs of metal, cardboard or plastic that comply with national and international codes and standards. This extensive range of formwork component provides solutions for most box-out applications. By eliminating complex in-situ forming work, the box-outs offer cost and time savings compared to conventional timber formwork.

Metal box-out shutters

Metal box-out shutters made of interlocked sheet steel are used as permanent formwork or as recess formers. Upon customer’s request, MAX FRANK transports the box-outs to the construction site preassembled or unassembled. These metal box-out shutters used as permanent formwork provide excellent shear force transmission.

- The shutter profile fulfills the requirement for the highest category “Indented” according to DIN 1045-1 and/or DIN EN 1992-1-1
- No freight and storage problems
- Quick and easy assembly without additional fixings

Pre-assembled box-out shutters

Pre-assembled box-out shutters made of indented steel sheet are used as permanent formwork for smaller machine foundations.

- Completely assembled box-out shutters are supplied in appropriate dimensions specified by the project and supplied directly to the construction site.
- Minimum size available: from 200 x 200 mm.

Unassembled folding box-out shutters

Unassembled box-out shutters made of indented steel sheet may be used as recess formers and permanent formwork. They are just like the pre-assembled variant, but are advantageous regarding transportation and storage due to their low volume.

- Easy and quick assembly with the included self tapping screws using pre-drilled holes
- Due to shutter corners being pre-punched in the works, folding the shutter together is extremely simple
L-shaped galvanized sheet steel box-out shutters

Starting at dimensions of 70 x 70 cm, it is preferable to use L-shaped angular shutters made of indented steel sheet

- Cost-saving: simple and quick assembly without additional fixings
- Delivery to the construction site is unassembled in two separate L-shapes
- Very large sizes are possible

Factory made stiffening for box-out shutters

The box-out shutters consist of strong indented sheet metal. In most circumstances, due to their strength, bracing elements are not required.

If, however, particularly large-size recesses must be produced, we recommend additional stiffening of the box-out shutters – see chart below. The preassembled box-out shutters are stiffened and fitted with a base in our factory and they are transported to the construction site completely assembled.

Stiffening chart

Values given in the chart are approximate values only and depend on the actual at-site conditions and on the concreting speed.

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- Box-out shutter self-supporting
- Stiffen box-out shutter at site
Box-out forms for slab apertures

Using cardboard formwork boxes, slab openings can be easily constructed economically and efficiently.

- High-quality coated cardboard, pressed and perforated in one sheet
- Uncomplicated handling, storage, and disposal
- Different dimensions available
- Easy stripping by pulling the hand holds on the cover
- Concrete cannot enter the void
- Can be site-cut to reduce height, as required

Possible combinations:

![Possible combinations diagram]

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**Recess formers with Pecafil® universal formwork material**

Recess formers made from the versatile universal formwork material Pecafil® are pre-assembled in our factory and delivered to the construction site ready for installation.

If required, the Pecafil® panels can also be cut to length and bent on site. After in-situ assembly; placement, reinforcing, and concreting can be performed in a continuous sequence. Pecafil® consists of a special steel mesh coated with an environmentally friendly film.

The smooth, non-absorbent surface of the Pecafil® universal formwork material does not require any cleaning upon removal of the formwork and can be used up to five times, subject to proper handling.

**Stremaform® formwork elements for recesses**

Stremaform® recess formers can be used for penetrations through slabs, walls and ceilings requiring subsequent casting upon completion of the structure (e.g. pipe passages with large diameters).

Stremaform® recess formers can be used to form a multitude of different shapes and sizes. Optionally, the elements are also available with bracing, concrete cover panels, pour joint, seals, and wooden covers as fall-arrest protection.

**Fratec® special formwork for recesses**

Individually shaped formwork elements that allow for easy production of apertures in walls or slabs, wall openings, domes, round-shaped windows, recessed light wells, columns etc., both for precast and in-situ construction.

These lightweight formwork elements are delivered to site ready for installation. Elements are simply attached to the conventional formwork. Fratec elements can easily be removed after concrete curing without damaging the concrete.
Formwork inserts

Chamfer strip “Round edge”

This self-adhesive chamfer strip is used to produce a slightly rounded corner for exposed concrete. This geometry is in conformity with the accident preventive regulation “Schools” GUV-VS1. The soft rubber additionally seals the formwork joint.

Joint profile former

These plastic profiles are used as formwork liners to create textured joint surfaces. After formwork removal the resulting surface provides an excellent key for subsequent pours.

- Creates the optimum concrete surface for the absorption of shear forces in construction joints
- Can be used repeatedly
- The joint profile fulfills the requirements of the highest category “indented” according to DIN EN 1992-1-1
- With perforation for simpler adaption. Without perforation for multiple use.