

iNFORCE



K-FORM

2017



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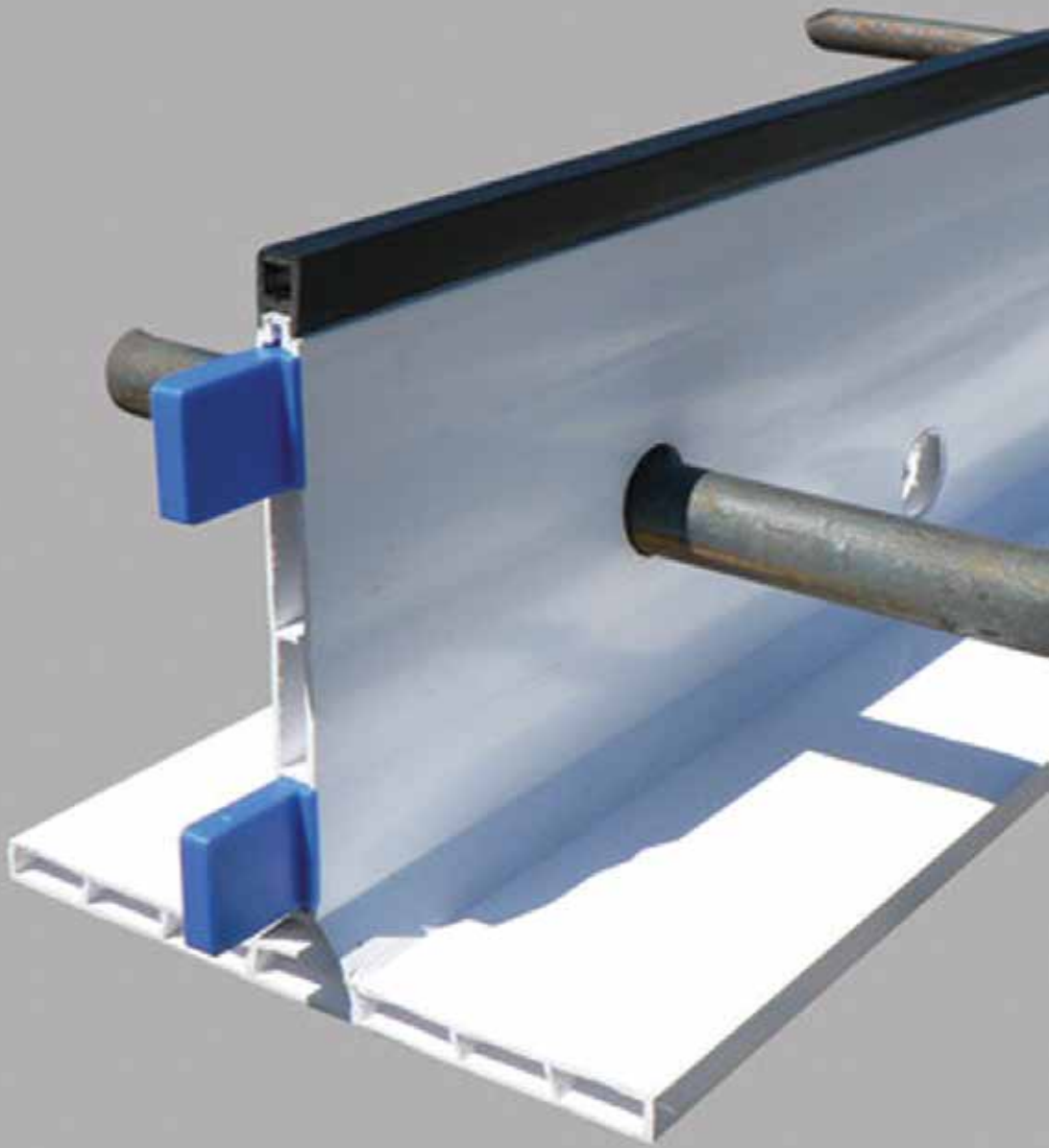
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WHAT IS K-FORM?

Proven by a decade of use in the United Kingdom, K-FORM is an all-in-one screed rail and concrete forming system. Simple to use, K-FORM saves time and labour costs by allowing you to pour more concrete per day and finish the job faster. K-FORM outperforms steel and wood formwork in most aspects of application, and can be used in many locations (such as fuel station forecourts) where steel or wood formwork cannot.

The K-FORM PVC form system provides the construction industry with an economical, efficient and environmentally friendly alternative to wood and steel forms. Made from recycled materials, K-FORM is lightweight, durable, and does not require removal after concrete pouring. It is easily cut to length on site, and has pre-drilled holes in the vertical face for installing dowel bars, and in the base for mortar anchoring.





BENEFITS OF USING K-FORM:

- Manufactured from lightweight, durable PVC
- Integral expansion joint and void cap
- Removable void cap/screed rail
- Pre-drilled holes for dowel placement
- Plate dowel option
- Available in 2.8m lengths
- Reduces production costs
- No special tools required
- One person can install
- Can anchor with wood or metal stakes
- Can be used with most screed methods
- Non-conductive
- Reduces the need for saw cuts
- No cleaning or removal, unlike traditional forming methods
- Fuel, oil, and chemical resistant
- Never rots or rusts
- Pour more concrete per week

THE SOLUTION TO CONCRETING ISSUES

ISSUE #1: UNCONTROLLED CRACKING

Dramatically reduce the risk of uncontrolled cracking by having an expansion joint in place before you even pour.

Having the expansion joint in place before any concrete is poured eliminates the issue of mis-timed cutting entirely. A 5mm hollow section within the K-Form allows the concrete to expand into that space, or the smooth plastic sides allows the concrete to shrink away without unnecessary resistance. The crack is also the depth of the K-Form.

OPPORTUNITY FOR YOUR COMPANY

De-risk those important pours, do larger pours and have greater confidence in placing difficult projects. Place concrete in hot or cold days that previously could mean expensive lay days.

ISSUE #2: INCORRECT LEVELS / POOLING

Place your concrete to the exact level - every time.

K-Form is set up and locked into a mortar piles making it an incredibly secure and stable form. The removeable top strip acts as a pre-set screed rail - always at the perfect level, giving the ability for even the most inexperienced placer to work without regular supervision. Gives you an option to remove the risk of comeback from clients by having them sign off the pre-set Kform before the pour has even started.

OPPORTUNITY FOR YOUR COMPANY

Gives you the ability to offer better solutions to clients - e.g. more intricate pours, ability to pour to finer fall levels over large areas.

ISSUE #3: TIME CONSTRAINTS / PENALTIES

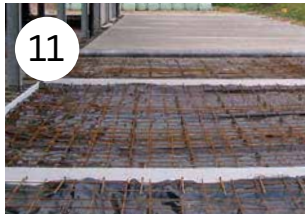
Place up to 4x faster with substantially less risk

Set up by paddling into mortar to the correct height - no more trying to stabilise steel forms by pinning into compacted sub-base. Pour continuously (mono-pours) without stripping and hit/miss pouring. No concrete cutting, simply pull the top-strip off to give a clean dry void for a filler (or leave the top strip in, saving both cutting and sealing costs).

OPPORTUNITY FOR YOUR COMPANY

Reduce the risk of time penalties. Tender for more jobs without increasing staff. Offer faster job completion times than competitors and sell the advantage to your clients of not needing to come back later to cut.



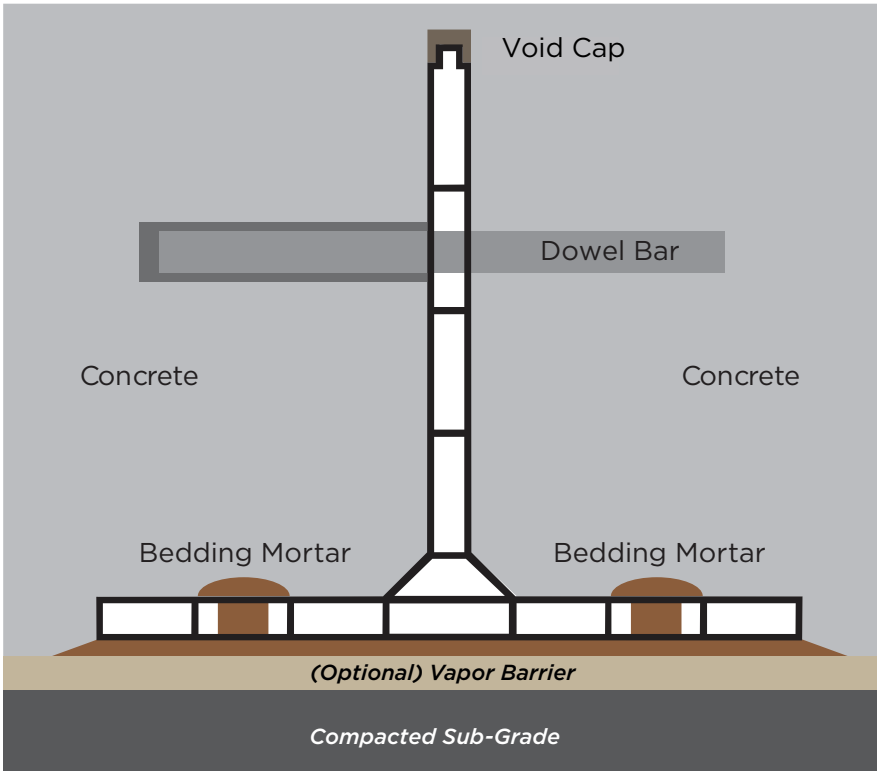


HOW K-FORM WORKS

K-FORM is ideal for concrete slabs of various thicknesses. The rail is simply laid on a lean mix or mortar bed to the required finished height:

1. Set up your string line.
2. Cut the first Void Cap in half, attach to the first rail and fit Joining Clips.
3. Place spots of bedding mortar on the sub-base at intervals of 800mm to correspond with holes in the base.
4. Place the rail on the bed and gently tap down with a rubber mallet until the top of the Void Cap is at the desired level.
5. Place bedding for the next rail as in Step 3.
6. Join the second rail to the first with the Joining Clips.
7. Fit the full length of the Void Cap across rails.
8. Tap down the rail as in Step 4.
9. Each 2.8m K-FORM rail has pre drilled 24mm holes for dowels at 300mm centres.
10. Once the bedding mortar has cured, you can start pouring concrete.
11. K-FORM rails stay in place, therefore adjoining bays can be poured one after the other.
12. Once the concrete has cured, the Void Cap can either be left in place or removed. If removing, the gap can subsequently be filled with a joint sealant - no diamond cutting required.

K-FORM CROSS SECTION



K-FORM DATA SHEET

General Data for PVC Material
Used In Manufacturing Of K-FORM Screed Rails

Property	Standard	Method	Unit	Value
Density (Dependent on color)	BS 2782	620A	g/cm ³	1.49
Vicat Softening Point	BS 2782	120A	°C	78
Tensile Strength @ Yield	BS 2782	320 A-F	Mpa	44

Compression Test Carried Out On K135 And K85

	K135	K85
Compression MM	Applied Force KN	Applied Force KN
1	1.76	1.07
2	1.97	1.46
3	2.54	1.68
4	3.94	2.19
5	4.88	2.67
6	6.21	3.41
7	7.48	3.92
8	8.35	4.75
9	10.59	6.01
10	19.83	11.79

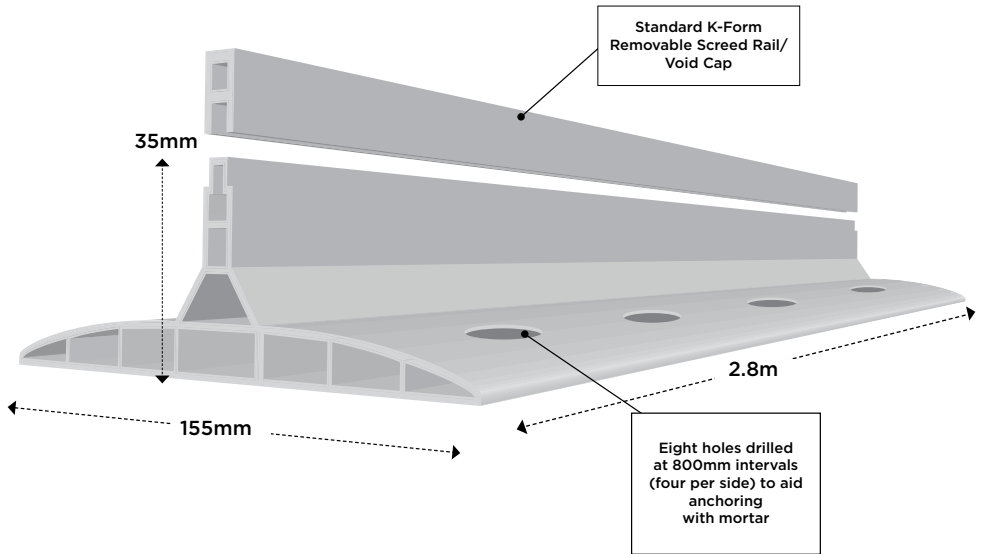
Additional Properties Of PVC	Test	Typical Value
Rockwell Hardness R Scale	ASTM D785 - 65	115 deg
Tensile Modulus 100s 1% Strain at 23°C		2800MN/m ²
Flammability (Oxygen Index)	BS 2782	45
Coefficient o Thermal Expansion		6 x 10 ⁻⁵ deg C
Thermal Conductivity 23°C		0.16W / mK
Volume Resistivity (ohm cm)	BS 2782	5 x 10 ¹⁴
Surface Resistivity (ohms)		1 x 10 ¹²



K-FORM

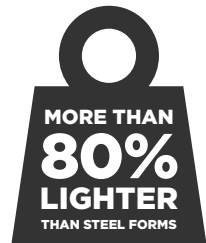
CONCRETE FORMWORK SYSTEMS

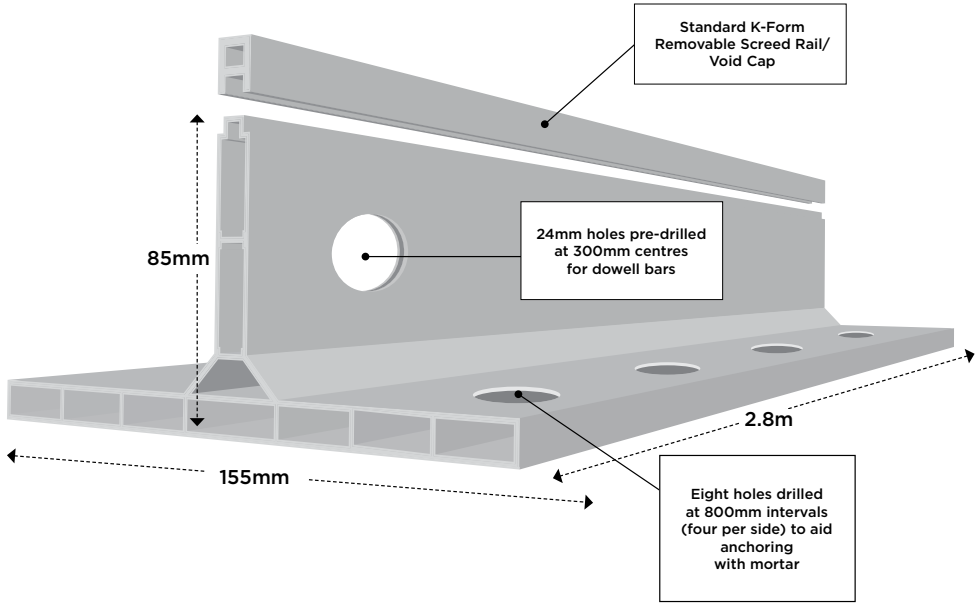
**PRODUCT
SPECIFICATIONS**



K35 SPECIFICATIONS

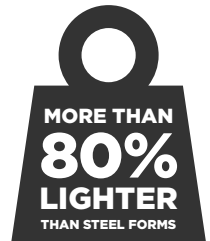
1. K35 is designed for pours of 50 - 100mm concrete slabs.
2. Perfect for vertical multi-deck pours.
3. Enables adjoining bays to be poured consecutively.
4. Pre-drilled holes in base for anchoring with mortar.
5. Fixing to steel deck possible with screws or shot nails.
6. The profile is made of durable PVC, with a built-in expansion joint.
7. Once concrete is poured, K-FORM is left in place; no need to remove and clean.
8. Separate Void Cap can be removed once concrete is set to allow joint sealing.



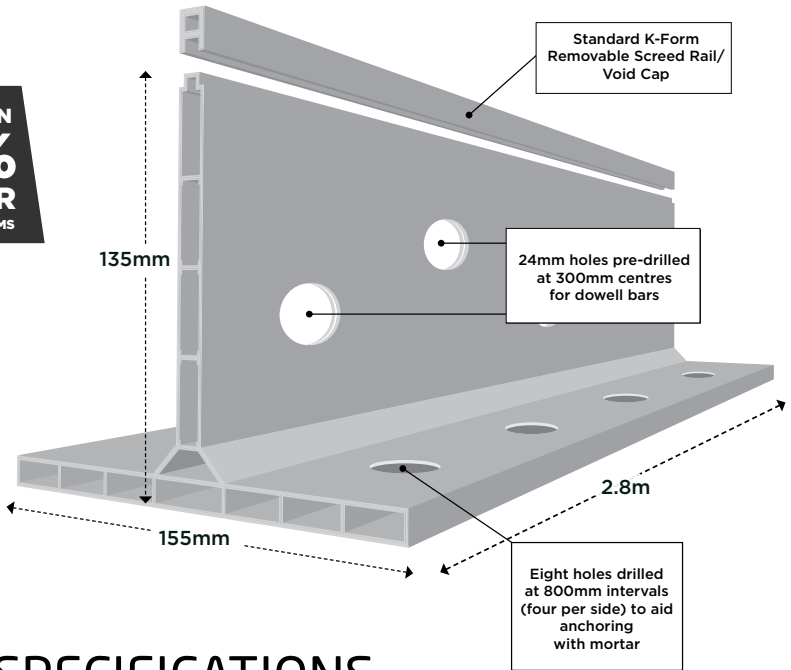


K85 SPECIFICATIONS

1. K85 is designed for pours of 100 - 140mm concrete slabs.
2. Ideal for use with pervious concrete.
3. Enables adjoining bays to be poured consecutively.
4. Pre-drilled holes in base for anchoring with mortar.
5. Pre-drilled holes in vertical face for locating dowel bars.
6. The profile is made of durable PVC, with a built-in expansion joint.
7. Once concrete is poured, K-FORM is left in place; no need to remove and clean.
8. Separate Void Cap can be removed once concrete is set to allow joint sealing.

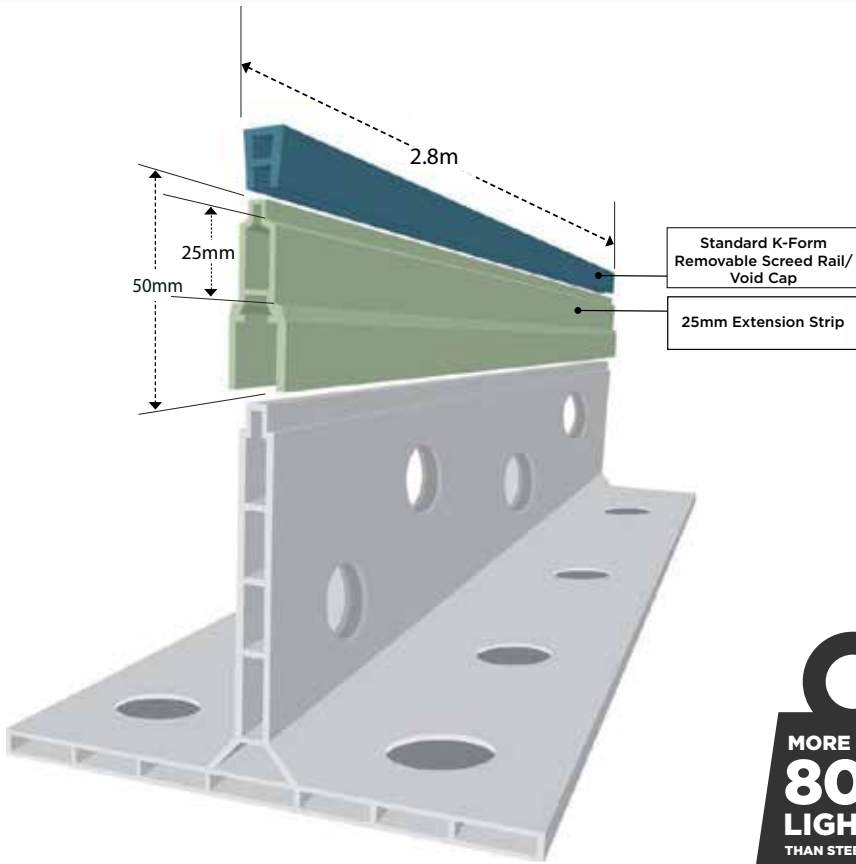


MORE THAN
80%
LIGHTER
THAN STEEL FORMS



K135 SPECIFICATIONS

1. K135 recommended for forming 150 - 225mm concrete slabs.
2. Ideal for use with pervious concrete.
3. K135 plus 25mm riser recommended for forming 200 - 250mm concrete slabs. Enables adjoining bays to be poured consecutively.
4. Pre-drilled holes in base for anchoring with mortar.
5. Pre-drilled holes in vertical face for locating dowel bars.
6. The profile is made of durable PVC and has a built-in expansion joint.
7. Once concrete is poured, K-FORM is left in place; no need to remove and clean.
8. Separate void cap can be removed once concrete is set to allow joint sealing.



**MORE THAN
80%
LIGHTER
THAN STEEL FORMS**

25mm EXTENSION STRIP

1. Extension strip enables the K-FORM system to increase height by 25mm
2. Integrates seamlessly with the K-FORM system.



DOWELS & SLEEVES



Round Dowel



Square Dowel



Plate Dowel

Dowels provide a mechanical connection between slabs without restricting horizontal joint movement. They increase load transfer efficiency by allowing the leave slab to assume some of the load before the load is actually over it. This reduces joint deflection and stress in the approach and leave slabs.

Plate Dowels have in many ways now replaced traditional round dowel bars in most commercial and industrial installations. To a point square dowel bars have also been superseded by plate dowels which have more surface area than the round or square bars, so greater loads can be carried per dowel because the bearing stresses between steel and concrete are reduced.

Round dowels are often a more cost effective option and used in lighter applications such as footpaths and light/medium duty pavements. CASTA has a range of dowel and sheath options including round, square and plate dowels.

Talk to us to discuss your requirements in view of meeting the engineered specifications of your project.



K-FORM

CONCRETE FORMWORK SYSTEMS

CASE STUDIES



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“THIS PRODUCT PERFORMS WHEN YOU’RE UNDER PRESSURE.”

CONTRAX, WYNYARD QUARTER, AUCKLAND

Apartments, hotels, offices, retail, parks. The development of Wynyard Quarter next to Auckland’s waterfront is one of New Zealand’s biggest development projects. Contrax is an Auckland based civil works and specialist streetscape company playing a part in this massive undertaking.

Their mission - to construct the roads and pathways that will allow pedestrians and vehicles to move around the area.

Being part of such a large project requires a high degree of precision - i.e. multiple parties are depending on Contrax to finish their schedule on time and without issue.

Step in K-Form.

Contrax have utilised the K-Form product across the full scope of their work in the Wynyard Quarter. And have done so for a number of very good reasons.

First K-Form significantly reduces the risk of cracking - which helps companies like Contrax avoid the costly and time consuming nightmare of having to re-pour.

And because K-Form is a product that stays in the ground, Contrax have not been slowed down by having to ‘hit and miss’ pour into wooden boxing. Plus the ease of setting up K-Form has saved valuable time.

“On a project like this you’re always under pressure and using K-Form has made a real difference. It’s faster, more reliable and the end product is superior. We’re going to keep using it.”

- Shayne Gibbins, Project Manager, Contrax.



"A PRODUCT THAT'S WORTH EVERY DOLLAR."

GASCOTT CONTRACTORS, BAY OF PLENTY

Gascott Contractors have been providing professional concreting services in the wider Bay of Plenty region for over 20 years. Big or small, they do everything from patios, paths and pool surrounds to residential subdivisions.

Like every concrete company, one of the challenges that Gascott have always faced is placing concrete that requires tight corners – an issue they regularly face in their subdivision work.

But Gascott have made life a lot easier for themselves by using Tuff-Form plastic boxing and K-Form formwork.

"Using Tuff-Form and K-Form has made perfect sense. Because it's easy to put down with pegs and shape accordingly, the finished result is better than using traditional wooden boxing and the process is far more efficient,"

"And because we can complete jobs faster and we can use it again and again, we get a far better return on investment when you compare it to wooden boxing that we'd throw away after using it a few times. The most recent example was a new go kart track we placed. Using Tuff-Form and K-Form we saved literally hundreds of man hours. On top of that Fieldwork delivered the products to site on time."

- Scott Abbott, Business Owner.



"A FASTER, MORE EFFICIENT WAY TO PLACE CONCRETE."

CHRISTCHURCH REBUILD - MARGARET MAHY FAMILY PARK JFC + CITY CARE ALLIANCE

The process of placing concrete has not changed a lot over the years. In most cases timber forms are boxed out in sections - concrete is poured into alternating sections, the concrete dries, the timber is stripped and then a fresh pour is done in the 'in-between' sections.

Having to pour, then sit through drying time, then dismantle the boxing, then pour again, is obviously a very time consuming process. And on top of that they would have to cut control joints into the concrete with a diamond saw - again adding time.

On this project JFC + City Care chose our K-Form product.

Because K-Form is made from uPVC. It's a lightweight cast in-place permanent screed rail, strong enough to handle all types of conventional mechanical screeds. It's fast and easy to put in place. Plus it provides control, construction and isolation joints.

In other words, you set up, pour and the K-Form simply stays in the ground.

On this Christchurch job, JFC + City Care used K-Form to set up the entire area and poured everything in one go - because K-Form stays in place, they didn't have to waste valuable project time with hit and miss pours.

On top of that, there was no need to diamond cut as the K-Form acts as a control joint already cast in place - and it comes with a removable top strip to provide a clean, dry void for filling with a sealant.

In summary, a big job done, faster, easier and with less risk.



THE K-FORM ADVANTAGE

Save Hours

No hit and miss pouring, no box stripping, faster to place, no diamond cutting.

Lower Risk

The risk of uncontrolled cracking was all but removed, which means less risk of jack hammers, re-placing and any costly time penalties.

Cost Savings

Labour, waste management, diamond cutting.

"Using the K-form system saved both time and money, and considering the tight time constraints, was a huge contributing factor in delivering the project on time. Fieldworks' service was exemplary, ensuring product was always available and delivered on time."

- Tony Munro JFC/City Care JV Concrete/Paving Manager

NOTES:





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