Benefits of Extruded Asphalt Kerb

• Extruded asphalt kerb is the most prolific type of machine laid drainage system in the UK
• It is proven over almost 4 decades to provide durable, reliable service with a life that frequently exceeds that of the pavement upon which it is laid
• Quality control is largely regulated by automated circuitry within the sophisticated asphalt kerbing machine
• Initial installation costs are extremely competitive with a basic asphalt kerb costing around 25% of the cost of a standard precast kerb
• Preparation and setting out is simple and effective requiring little third party input
• A minimal working environment is required. Normal operation requires only a standard 2-lane closure. Restricted width working is available within a single lane closure
• Construction is entirely free from manual handling, fully automated and not weather dependent
• Productivity is unsurpassed in any machine laid drainage system. Typically 400 linear metres of kerb per hour are extruded and, where lengths permit, a single gang can construct over 3,500 metres in a 10 hour working window

A proven, durable, cost effective and prolific kerbing system
A wholly mechanised construction process
Free from manual handling
Automated quality control
Unsurpassed productivity
Extremely competitive installation costs
Life expectancy beyond that of the surface course upon which it is constructed
Minimal third part involvement
Narrow working environment
From Cornwall to Scotland and from Anglesey to Dover the use of asphalt kerb is prolific.

From the Second Severn Crossing to Heathrow Airport, and from the M25 London Orbital motorway to Whinnets Pass in the Peak District asphalt kerb is the kissing pavement of choice.

Although principally constructed along our major motorways and trunk roads to provide surface water drainage and road edge protection, extruded asphalt kerb is often mistaken for concrete as its initially glossy black coating fades to grey over time.

Virtually maintenance-free, it is the kerb system of choice for the majority of our principal national Clients, Designers and Contractors.

As our highway networks get busier by the day and construction environments become increasingly demanding the benefits of asphalt kerb are more compelling than ever.

One company leads the way in extruded asphalt kerb production. Extrudakerb.

Fully compliant with BS EN5931:1980 – the code of practice for machine laid insitu edge details, extruded asphalt kerb has always been featured within the Manual of Contract Documents for Highway Works.
Across the UK, Extrudakerb utilises a vast database of proven asphalt kerb mix designs delivered by a rigorously monitored supply chain encompassing some of the world’s premier construction material supply companies. The asphalt kerb material, locally sourced using local aggregates, is blended to specific designs that not only comply with specification, but also to Extrudakerb’s own strict controls imposed to ensure consistent quality.

The kerb material is delivered in conventional insulated tipper lorries. Parked ahead of the kerbing machine, the lorries discharge into the receiving hopper of a specially modified telehandler with an insulated feed system. The telehandler conveys around 3 tonnes of kerb material – enough to construct around 150 metres of kerb, to the kerbing machine.

At the touch of a button, the kerb material is safely discharged from the feed machine into the receiving hopper of the kerb extrusion machine.

Insulated and covered delivery lorries, feeding machine hopper and extrusion machine hopper all play a part in ensuring that the kerb material temperature is maintained from source at the mixing plant to placement on site.

The extrusion process

At the heart of the company’s asphalt kerbing operation is an advanced and unique extrusion process.

The kerb material is compacted by a rotating auger and extruded at high pressures by the kerbing machine. It is the automated regulation of the extrusion pressures that ensures consistent production of uniform kerb sections. The high extrusion pressures achieved and automatically maintained ensure total compaction and fusion with the surface upon which the kerb is constructed. Extruded asphalt kerb formed by Extrudakerb’s unique construction process will remain bonded to the surface on which it is laid well beyond the design life of the surface itself. Such claims are backed up on the road network.

Extensively trained teams are dispatched from Denaby to work on sites throughout the UK. Kerbing machines are towed on integral trailers behind medium box vans fitted out with all the specialised equipment required. The feeding machines are transported on dedicated lorries, travelling in convoy with the crews and kerbing machines.

The extrusion team

At the heart of the company’s asphalt kerbing operation is an advanced and unique extrusion process.

The team supervisor arrives ahead of the crew and equipment. This allows adequate time for a full briefing with the principal contractor’s appointed site manager. Comprehensive methodology is provided, detailing required working space, mix design, together with safety and environmental controls.

The surface upon which the kerb is laid must be clean, free from loose material and regular. Setting out could not be simpler with only basic datum points being required at 30 metre intervals to indicate the required alignment of the kerb.

A string line is laid out on the pavement surface immediately adjacent to the required kerb line. A preparatory emulsion is then sprayed along the intended line of the kerb, again by equipment specially designed and manufactured in house. The emulsion acts to improve the adhesion achieved between the kerb and the surface upon which it is laid.

Within less than 30 minutes of arrival on site the extrusion machine and feeding system are ready to start work.

The high extrusion pressures achieved and automatically maintained ensure total compaction and fusion with the surface upon which the kerb is constructed

As with any hot rolled asphalt, hardening of the kerb material is dependent on the ambient temperature experienced immediately after laying. Although vulnerable to impact damage within the first hours of life, the kerb material hardens quickly and becomes extremely resilient to deformation within 12 hours. The kerb always retains a degree of elasticity throughout its life. Unlike a rigid concrete section, it requires no form of contraction or expansion joint.

Productivity is another great benefit of asphalt kerb. A single five-man team equipped with one kerb extrusion machine and feeder typically completes over 400 metres per hour where continuity permits.

Setting out could not be simpler with only basic datum points being required at 30 metre intervals to indicate the required alignment of the kerb.
Outfalls and Repair

Where the kerb provides surface water drainage, outfalls will need to be incorporated.

Again, associated advanced construction is simple. Grates are fully installed ahead of kerb construction. Where the grates are located immediately in front of the kerb, the extrusion process is unaffected as kerb is constructed past the grates.

Where the design features off-the-line outfalls then it is common to re-align the kerb locally around them. This localised realignment can be machine laid, where a swept detail is required, or manually laid using pre-laid kerb, cut and affixed on a hot poured bitumen adhesive.

The use of short sections of pre-laid kerb secured on a hot poured bitumen adhesive facilitates minor repairs. Pre-laid kerb is supplied by Extrudakerb together with comprehensive instructions allowing local independent labour to affect repair.

Kerb Profiles

There are over 80 different kerb sections currently available from stock.

However bespoke profiles can be ordered to suit individual project requirements. Guidance is available to Client’s desiring a bespoke kerb profile design.

Typically asphalt kerb sections are around 75mm in height and 150mm wide although to date Extrudakerb have successfully constructed kerbs varying in height between a minimum of 30mm and a maximum of 200mm and in width between a minimum of 100mm and a maximum of 500mm.
The company was founded in the 1960s by Arnie Charlesworth, who recognised that the country’s prolific road building industry offered a unique business opportunity.

Working initially from a garden shed, he designed and built the first of his extrusion machines. Demand grew quickly. However contractors quickly discovered that the operation proved more successful when Arnie was in attendance, so he was increasingly commissioned to supply, not just the machine, but also the kerb itself.

Since then, Extrudakerb has gone from strength to strength.

The company has always remained close to its engineering roots. And today, Extrudakerb’s extensive workshops and fabrication facilities at Denaby in South Yorkshire set the company apart from its competitors.

As both an equipment manufacturer and operator, Extrudakerb is able to quickly and effectively translate lessons learned in the field into machine improvements and innovative solutions to unusual customer demands.