Brushtec works closely with customers on their product development to offer innovative custom design solutions. Our OEM customers rely on us to design brushware and mould tools for optimal performance of their machines and can quote for prototypes or large production runs.
Our design and engineering department is equipped with the latest CAD/CAM software combined with CNC milling machines, lathes and EDM spark eroders. This equipment is used to produce and maintain the injection moulding tools, die cast tools and associated jigs. Where European tooling would otherwise be prohibitive in cost, we design in-house and source tooling manufacture from lower cost areas of the world, such as Asia.

**Injection Moulding**

Brushtec has invested heavily in the latest state-of-the-art moulding equipment including multi-station co-injection and structural foam moulding machines, the latest of which has a shot capacity up to 12kg. Several other conventional injection moulding machines from 65 tonnes to 850 tonnes complement the facilities at Brushtec to permit the moulding of smaller articles.

Structural foam moulding blends a nitrogen blowing agent with the polymer to reduce the moulding weight by up to 30% without compromising strength. This technology is ideal for lightweight, high impact, balanced and stress free industrial brush backs leading to a superior product.
Our latest robotic CNC brush manufacturing machinery, in conjunction with robot assembly and packaging cells, enables Brushtec to produce a full range of performance brushware, in volume and at a competitive price. All our brushes are manufactured using plastic backs and only quality monofilament, fibre, wire and bristles, from approved sources are used in the brush construction. Multiple material types may be blended in-house using specialist mixing machinery for improved brush performance.

Where possible, the environmental footprint of Brushtec has been minimised. All of the raw materials used in our brush backs are 100% post consumer recycled polymer and all internal waste created in the manufacturing process is recycled again to produce new brush backs.
Industrial and Commercial Brushware

Disk Brushes

All of our circular brushes are supplied on hygienic, impact resistant, plastic backs. Shower feed backs that allow water directly into the bristle area are available at no extra cost. Tooling is available to produce plastic disk brush backs up to 750mm (30”) diameter. The centre hole tooling is adjustable and can accommodate unique, quick-change, drive systems designed in partnership with our OEM customers. Common fill materials include nylon, polypropylene, polyester, abrasive grit nylon, natural fibre and wire.

PadStick® Pad Holder

Brushtec’s award-winning, patented design uses thousands of harpoon shaped hooks to instantly hold a cleaning pad firmly to the machine pad drive holder. This instant gripping power ensures the pad is held perfectly flat, helping to produce outstanding cleaning results. The PadStick’s® balanced design means it can be used with or without one of our centering pad clip holder assemblies on both high speed and low speed, single brush polishing machines. The PadStick’s® hooked face is used on ultra high speed, high speed, slow speed and orbital cleaning equipment.
We recommend soft bristle mixtures angled at between 35˚ to 55˚ flare angle to give the optimal performance. This is best achieved by the brush rotating slowly, using little or no down force. Common sizes vary from 160mm disks, giving up to a 400mm brush flare to 430mm disks producing up to 660mm brush flare. With regards to safety to the public, wire bristles should not be used in industrial or commercial side sweepers.

Industrial and Commercial Brushware

Side Brushes

Side sweep brushware for industrial and commercial applications are designed to pick up and sweep loose, fine dust and warehouse litter, without creating dust in the air. Debris is swept from beyond the outer sweeper body to under the chassis of the sweeper where it is collected by a vacuum assisted cylinder brush.

Usually constructed of PBT and PA monofilament mixtures, these are designed to give a good flick action in addition to long wear life on smooth flat indoor surfaces, crucially without damaging painted or ceramic surfaces. We are able to incorporate OEM corporate colours such as the ‘Yellow & Black’ version we produce for Kärcher.

Cylinder Brushes

Cylinder main brooms for industrial and municipal sweeping machines are constructed to the highest standards, using the best quality monofilament. One piece versions are designed for easy and fast changeover of the cylinder brush. These cylinder brooms rotate at high speeds and are made from a strong, lightweight and balanced polymer tube. The tufted row construction incorporates space for large debris to be thrown up into a hopper chamber by the sidewall of the tufted row. Two or three rows of tufts (double or triple row) are normally positioned radially next to each other to stiffen up and support the sidewall of the row. The ends of the bristles remove fine dust and loosen compacted soilage from the ground through a flicking action.

Only high quality monofilament is used, so it lasts longer and maintains a more consistent stiffness over its life. Bristle pattern can be controlled to produce brushes for specific applications, for example a chevron pattern for high speed outside litter picking, while the high density versions are used at slower speeds only to collect fine particles of debris.
Municipal Brushes

Side, Front and Gutter Brushes

In the age of fast food litter, the side brush is becoming an essential weapon to the municipal cleaning market. 97% of street debris is found within 1m (40") of the kerb so Brushtec has developed a wide range of innovative side brushes with careful attention to the brush body so that each row of tufts are angled towards the floor. This provides better support to the monofilaments and gives a firmer sweeping action and a higher brush performance.

The side brush has other benefits to the consumer as it increases the sweeping width, and therefore the efficiency of the machine. Many of the brush disks incorporate special features, for example a moulded outer raised lip designed to protect the drive assembly.

Municipal channel wire gutter brushes are used on truck mounted sweepers and are constructed using a recycled high impact moulded plastic disk with our patented black carbon cold rolled wire. Many of the wire holes incorporate Brushtec’s square holed disk construction. This combination of square holes and flat brush wire has proven to outperform competitors’ products in street sweeping.

Compact and Sub-Compact Brushware

Compact front brushes are manufactured to the highest standards and are designed to fit to the front of vacuum machines. The high tensile polypropylene versions are the most popular for general sweeping and litter picking in pedestrian areas. Polypropylene and wire mixed bristle versions are also available and are designed for sweeping wet leaves and heavier compacted debris in out-of-town locations.
Municipal Brushes

Wafer Ring Road Brush Segments

Designed to sweep debris from the centre of roads and manufactured to meet the industry’s highest standards, wafer ring brushes are made from either polypropylene monofilament or crimped steel wire for durability and high performance. Supplied in boxed kits so as to be assembled onto shafts on site to produce the under chassis cylinder sweeping brush. Available both as flat wafer brush rings or Zig-Zag convoluted brush rings. Some sizes are available as an all plastic ring. The range available is compatible with all European road sweepers.
Strip Brushes

Strip brushes are used for the sealing of passages and sliding doors to protect against dust, draughts, water, light, heat and noise. They are also used in industry as a cost effective brush to transport, guide and halt sensitive work pieces or cardboard boxes. Our brushes are available in many forms and with a wide variety of profiles. The fill material of strip brushes is mounted in either a metal U shaped extrusion that can be fitted into special holders or grooves, or alternatively punched into extruded plastic backs. The brush can be filled in virtually any synthetic material, soft natural fibre or soft wire.

Lath Brushes

No industry can work without lath brushes today. They are essential for stripping before the cleaning process. Serving as careful and noise-deadening support for CNC cutting and punching machines or simply as tools in the manufacturing processes. Other common uses include assembling into a mat to rest delicate work pieces on, such as glass or panel assembly. All are made to order to individual specifications.
Lath brushes are manufactured using the latest CNC, robotically operated, industrial brush making machines. Our highest quality, water-fed, lath brushes for window cleaning use PBT bristles to ensure a minimum wear rate. The moulded brush back are made from recycled materials, which ensures that overall, the brush is environmentally sound and pleasant to use.

Brushtec are leading the market supplying high quality lath brushes suitable for wet cleaning of windows, floors and other large areas. The injection moulded, polypropylene, brush back has undergone extensive design to minimise the weight, through the use of structural foam while retaining its strength and durability. Various options are available including water feed holes, trim options and varying bristle angle across the brush width and depth. When combined with a lightweight extension pole, as some of our OEM clients have implemented, our lath brushes become particularly suitable for manual window cleaning over an extended period of time.

Zig-Zag™ cylinders are based on a system of interlocking module cylinder cores that slide onto a suitable shaft, with tufts of filaments arranged in special patterns and densities. These Zig-Zag™ cylinder brushes feature trapezoidal interlocking teeth to produce a continuous brush face. This type of brush is extensively used in the vegetable and fruit processing industries, so as to help remove small debris and extensively polish the vegetable skin. Other industrial applications include, glass washing, mussel cleaning and conveyor belt cleaning.

The cow brush is an innovative technology designed for dairy farmers to help improve animal welfare by increasing blood circulation while keeping the cows clean, busy and calm. Cows are less likely to scratch themselves against interior walls, preventing accidents and reducing the risk of suffering from clinical mastitis. Additionally, increased animal performance is achieved through better feed intake and up to a 3.5% rise in milk production.

We have worked closely with local dairies and a leading university to perfect the bristle material, length and hardness for the optimum blood stimulation.