

Product Design Engineering Contest

Dust Cleaning Roller (DCR)



June 2019

Teknek

Teknek invented the contact-cleaning concept and our products continue to lead the field. Our hand-rollers are scientifically proven to provide the best cleaning performance in the world. Particle removal down to less than 1 micron right at the workstation.

We have been dedicated to solving customer contamination problems for over 30 years. Our business is entirely focused on researching, developing, producing and servicing contact cleaning equipment. We invented the technology and have through innovation and service managed to remain at the forefront of this sector.

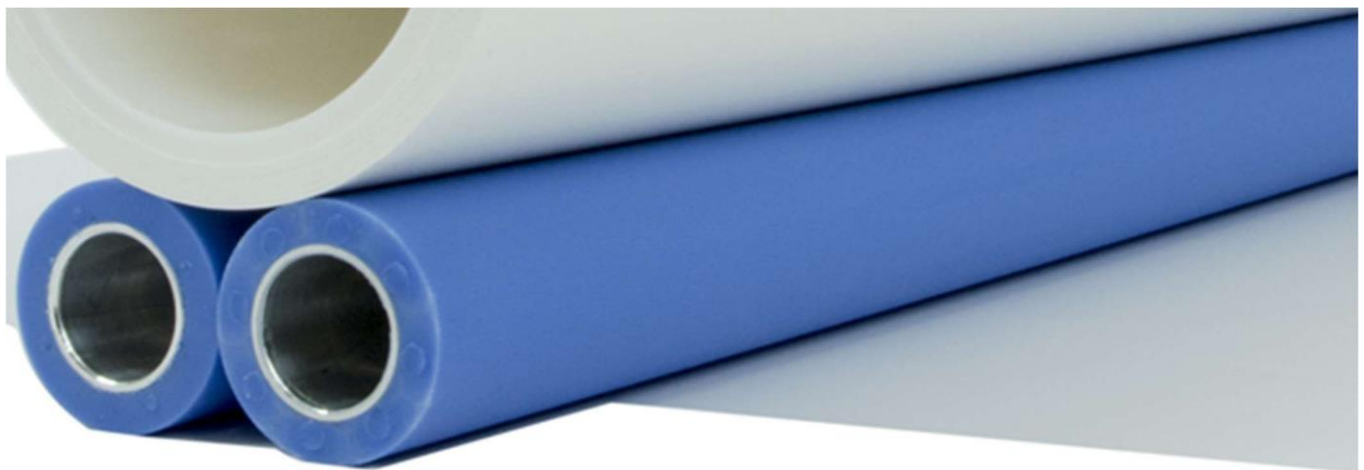
In principle, an elastomer cleaning roller contacts the surface to be cleaned. This roller picks up the particles of contamination and captures them on an adhesive roll. Permanently removing the particles ensures fewer defects in subsequent processes.

It is our technology that makes us stand out. Our cleaning rollers and adhesives have a unique structure and composition. These are the result of many years of research into the scientific principles behind the basic concept.

At our Glasgow headquarters, you'll find the only fully equipped in-house laboratory in the contact-cleaning business. Our production facility comes with an 800-sqm clean room. And we have our own production equipment for making cleaning rollers.

Rubber Rollers

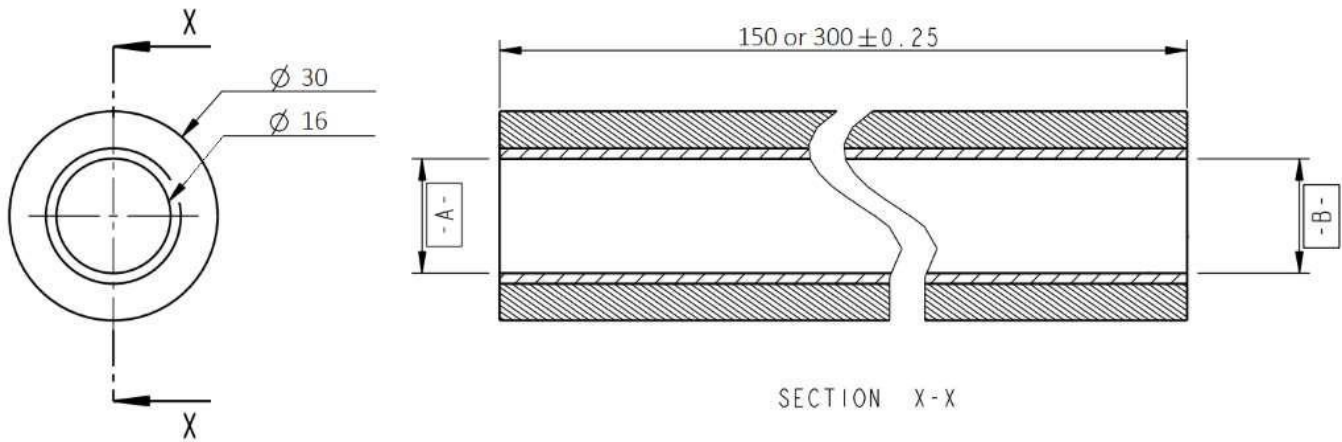
To manufacture each roller, our unique elastomer is coated onto an aluminum tube.



Product Design Engineering Contest

Dust Cleaning Roller (DCR)

June 2019



Current DCR

Your product proposal shall:

- Be capable of holding either a 150 or 300mm rubber roller.
- Have a low unit cost at 500off manufacturing quantities.
- Require minimum tooling and capital expenditure (with a maximum of £30k).
- Be fully conductive from the users hand through to the rubber roller surface.
- Roll freely and continuously under 100N for 500 hours.
- Be ergonomically designed.
- Allow quick and simple assembly without instruction i.e. poka-yoke.
- Allow quick, simple disassembly to change the rubber roller.
- Use modular, common parts and share design principles between the range of sizes.
- Use the minimum number of parts.
- Allow maximum usage of 'off the shelf' parts.
- Follow the values of the brand.
 - Attention to detail.
 - Precision.
 - Quality.
 - Cutting edge.
 - Environmentally sustainable.

Product Design Engineering Contest Dust Cleaning Roller (DCR)



June 2019

Submission requirements

All entrants must be sure that their entry is entirely their own work.

A brief report (max 1000 words) outlining the motivations, the general concept, design features and a description of the materials required. The pdf file of the report is to be presented in portrait orientation on A4 paper. The focus should be on the technical engineering solution - highlighting the material selection, product feasibility and its manufacturability.

Technical drawings and all the images and files that best represent the product solution. The presentation method is highly flexible and can include CAD models and/or images, hand-sketches, prototype images and/or video clips but should be compiled in a single PowerPoint presentation.

Who can enter?

Its free for anyone with creative design talent of any nationality.

NO ENTRY FEES!

Key dates

The contest will open on 1st June 2019 and close on 1st November 2019.

Prize

The prize will be in two parts:

Phase 1: The winning design £1,000

Phase 2: Once the winning design is in production £1,000

Official website and further information

If you would like to contact us or submit your proposals, please contact us at dcrdesign@teknek.com

Competition rules

The winning design will be chosen by Teknek using a process of Teknek's choice. By entering a design, you relinquish the rights to your work upon submission agreeing that all IP related to the Design belongs to Teknek.

Should your design be successful Teknek will credit the Designer publicly and allow the designer to use the Design for promotional purposes.