

# FLEXIBLE SHAFTS

## for dry tube cleaning

Goodway black flexible shafts are used to connect a cleaning brush or -tool to a rotary tube cleaning machine. Inside the black casing, a high-quality galvanized steel core is rotating to power the brush or tool. The shaft core is covered in special grease, which allows it to be used without water. Available in various lengths and only available with a threaded brush connection.

Black flexible shafts have a temperature tolerance of up to 149°C.



### Tube cleaning applications



(Exhaust) boilers

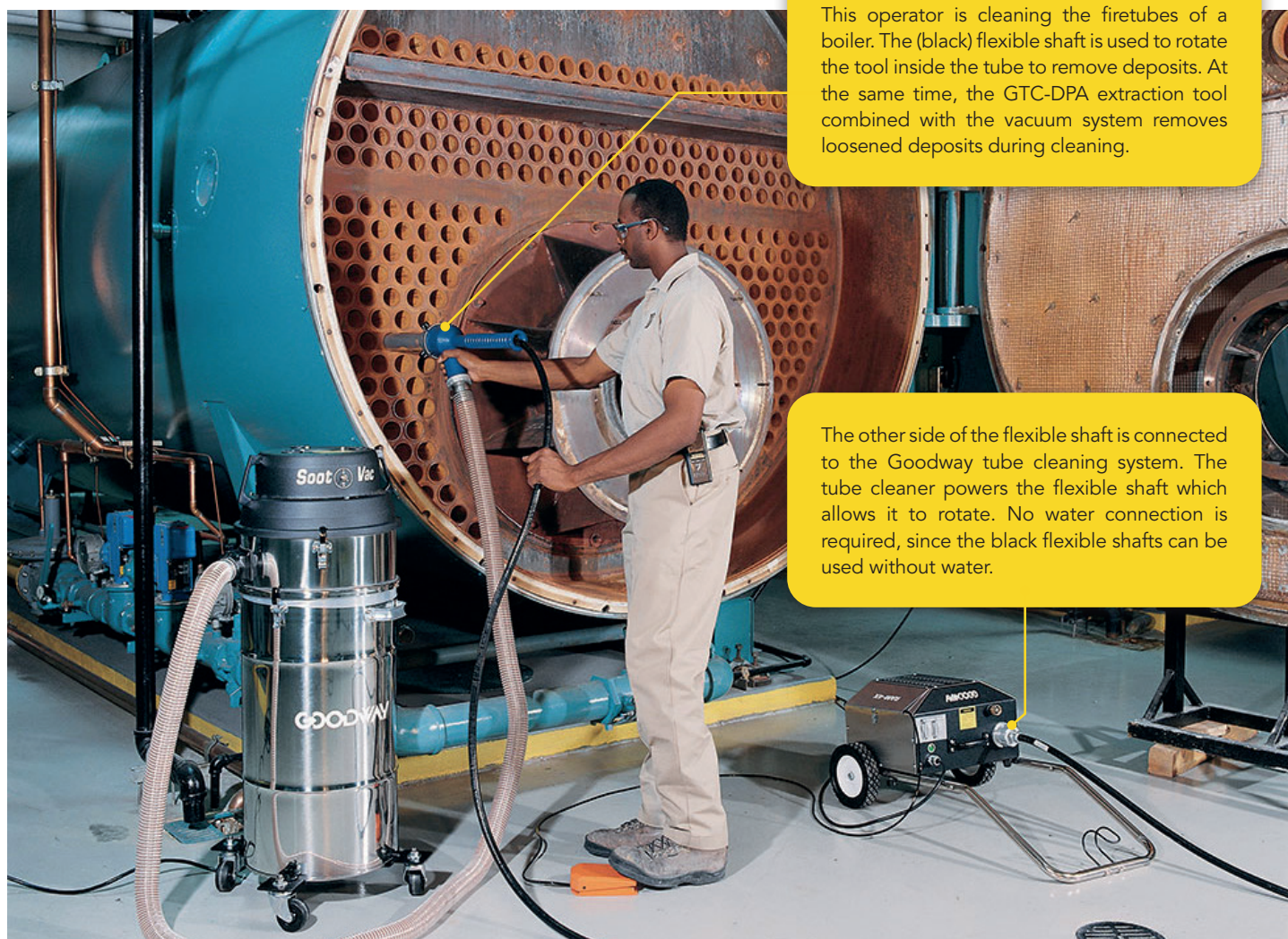


Tube heat exchangers

Use flexible shafts with brushes and tools to remove various deposits in tubes of heat exchangers, boilers, production- and vacuum piping and more.



This operator is cleaning the firetubes of a boiler. The (black) flexible shaft is used to rotate the tool inside the tube to remove deposits. At the same time, the GTC-DPA extraction tool combined with the vacuum system removes loosened deposits during cleaning.

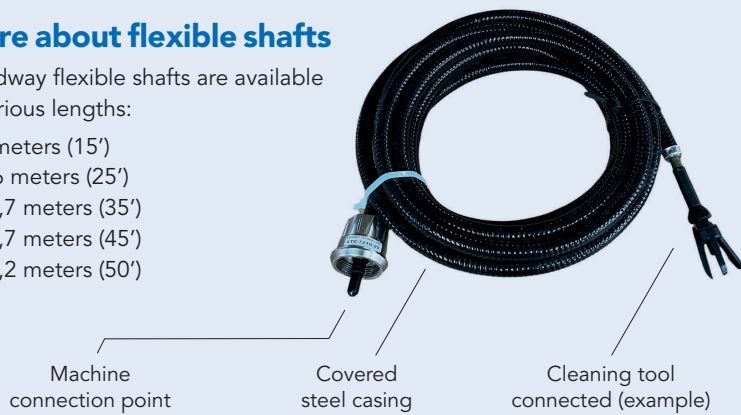


The other side of the flexible shaft is connected to the Goodway tube cleaning system. The tube cleaner powers the flexible shaft which allows it to rotate. No water connection is required, since the black flexible shafts can be used without water.

## More about flexible shafts

Goodway flexible shafts are available in various lengths:

- 5 meters (15')
- 7,6 meters (25')
- 10,7 meters (35')
- 13,7 meters (45')
- 15,2 meters (50')



### FLEXIBLE SHAFT DIMENSIONS

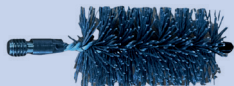
Shaft no.	Casing O.D.	Tool End Thread
GTC-704G	19,0 mm	1/2-12 female
GTC-721G	25,4 mm	1/2-12 female

### More specifications

- Black flexible shafts are temperature resistant up to 149°C.
- The outer casing does not rotate, so you can hold it during use.
- For nearly all dry tube cleaning applications, the GTC-721G type shaft is used. For smaller diameters or special applications, the thinner GTC-704G shaft type might be suitable.

Example: a "GTC-721G-35" shaft has an outer diameter of 25,4 millimeters and a length of 10,7 meters (35').

## Commonly used tube cleaning tools



Nylon abrasive brushes\*



Flex hub scrapers

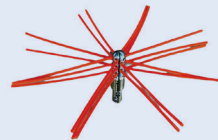


Buffing/drilling tools

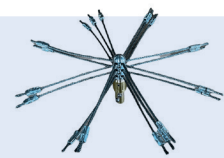


Flare brush

These threaded cleaning tools and brushes can be connected to the flexible shafts straight away.



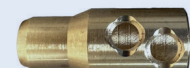
Spider brushes nylon\*



Spider brushes SS\*



GTC-DRY-C\*



GTC-DRY-M\*

Spider brushes have special double-lock fittings. To connect these brushes to the shaft, a special coupling is required. Either use the GTC-DRY-C which can be connected to the shaft by threading or order the GTC-DRY-M which is mechanically pressed onto the shaft by Goodway Benelux itself.

(Note: the GTC-DRY-C can be taken off to connect threaded tools and brushes, the GTC-DRY-M is permanently pressed onto the shaft and does not allow to connect threaded tools and brushes.)

\* **Note:** these products are manufactured only by Goodway Benelux BV and are not part of the Goodway Technologies (USA) product range.

## Reviews and testimonials



We use the Goodway Benelux AWT-100X tube cleaning system and GTC-721G flexible shafts for a yearly cleaning of our shell and tube heat exchangers on-site. The combination of the strong shafts and powerful AWT-100X tube cleaner ensures that the tubes can be cleaned very effectively without water.



Umicore NV - Belgium



We use the AWT-100X and RAM-4X tube cleaners of Goodway Benelux to provide boiler tube cleaning services at our customers. The combination of black flexible shafts, flex hub scrapers, and nylon abrasive brushes makes for good cleaning results, even if the deposits are harder.



Callens - Belgium

## Specifications flexible shafts

Use the flexible shafts in combination with any Goodway tube cleaning system, brush, and tool. Make sure to select the correct flexible shaft for the job. Contact Goodway Benelux for the correct combinations of shafts and brushes.

- Flexible shafts have a temperature tolerance of up to 149°C
- Galvanized steel core for optimal performance and lifetime
- With quick connect or threading brush fittings
- For tube I.D.'s 19,0 millimeter and up
- Use without water flush

### Goodway dry flexible shafts

Check out the dry Goodway flexible shafts here →

