

Instrument reprocessing – high cleaning power of deconex® 2-component cleaning systems

Cleaning experiments based on prEN ISO 15883-1 using a highly sensitive detection technique with radioactive labelling of blood.



Procedure

Haemostatic forceps with box-lock joints were each contaminated under defined conditions with 100 µL reactivated sheep's blood, dried and then subjected to the cleaning process to be tested. The blood was radioactively labelled with technetium 99m.

Results of the cleaning experiments

The bars show the total number of radioactive counts of two trays each with 20 haemostatic forceps (total of 40 haemostatic forceps) after cleaning.

The diamonds show the number of haemostatic forceps (from 40 cleaned) that gave more than 5 counts residual radioactivity.

5 counts were defined as the limit for the molecular cleanliness of a stainless steel surface, according to Schrimm H et al. (1994) Zentr Steril 2: 313-324.

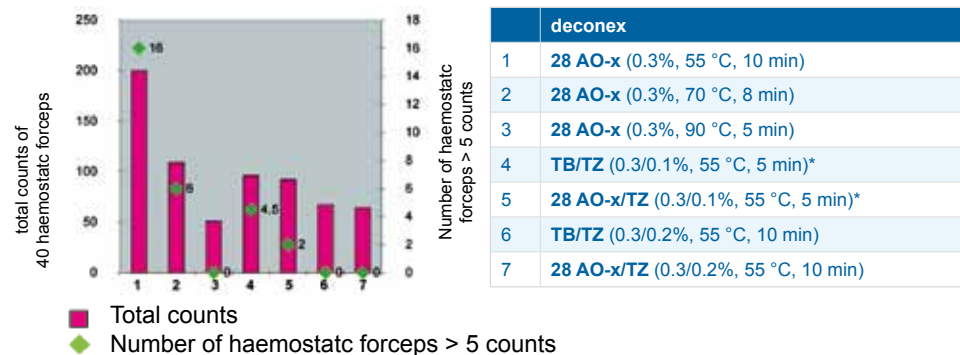
This criterion was fulfilled at 55 °C by

- deconex® 28 ALKA ONE-x/deconex® TWIN ZYME
- deconex® TWIN BASIC/deconex® TWIN ZYME

as well as at 90 °C by

- deconex® 28 ALKA ONE-x alone

Cleaning experiments – radionuclide method



Comments:

With the processes marked with an asterisk (*) 4 trays were cleaned, but the values were normalized to 2 trays.

The measurement of cleaning performance using the radioactive labelling of blood is more sensitive than all other methods for protein detection.