

# QuEChERS Columns For Multi-Mycotoxin Analysis

## 16 mycotoxins at one go!

The CrossTOX® columns by LCTech allow a high efficient sample clean-up of all regulated plus expected mycotoxins. At the same time, the columns improve the conventional dilute-and-shoot process via an QuEChERS based procedure:

- ✓ High purity of extracts due to special sorbents for high matrix binding; no separate filtration
- ✓ Significantly less internal standard required due to special affinity mechanism of the columns
- ✓ Less cleaning and maintenance of your LC-MS/MS system due to the high purity of the extracts
- ✓ Only one column for a wide range of matrices

## Catch them all

- Aflatoxins B1, B2, G1, G2
- Ochratoxin A
- Zearalenone
- Deoxynivalenol
- Fumonisin B1, B2
- T-2
- HT-2
- Nivalenol
- 3-Acetyl-DON
- 15-Acetyl-DON
- DON-3-Glc
- Sterigmatocystine



The CrossTOX® columns are suitable for both manual and automated processing. Please find in the following **your advantages compared to the conventional dilute-and-shoot** procedure:

	Dilute-and-Shoot	CrossTOX® Manual processing	CrossTOX® Automated processing with FREESTYLE
Extraction ▶	● 30 - 90 minutes	● Only 5 -10 minutes	● Only 5 -10 minutes
Internal standard ▶	● For all toxins needed	● Almost none	● Almost none
Dilution of extract ▶	● Necessary	● No	● No
Filtration ▶	● Physical	● Physical and chemical	● Physical and chemical
Dispensing ▶	● In vial	● In vial	● Direct injection LC-MS/MS or in vial
Matrix reduction ▶	● Low	● High	● High
LC-MS/MS maintenance ▶	● Regular / weekly	● Significant reduced downtime	● Significant reduced downtime
Process time / Man power ▶	● Heavy workload	● Simplified	● Automated process

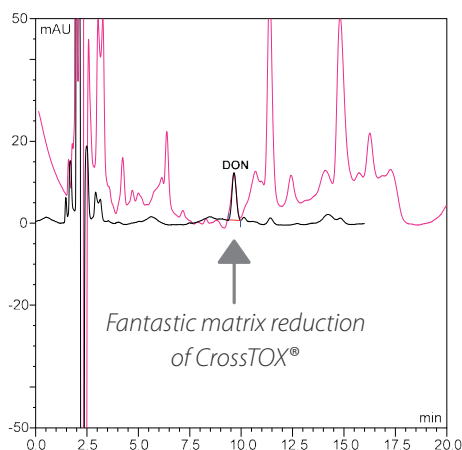
# Range of Applications

The range of applications for CrossTOX® is remarkably wide. With only one extraction protocol the columns can be used for all matrices commonly analyzed, e.g. cereals, nuts or dried fruits.

The UV-chromatogram shows the very high clean-up efficiency of CrossTOX®. The **pink** line represents a wheat sample cleaned via the conventional dilute-and-shoot procedure (syringe filtration). The **black** line represents clean-up via CrossTOX®.

This shows the substantial improvement using CrossTOX® column clean-up compared to dilute-and-shoot.

Recovery rates compliant to EN 401/2006

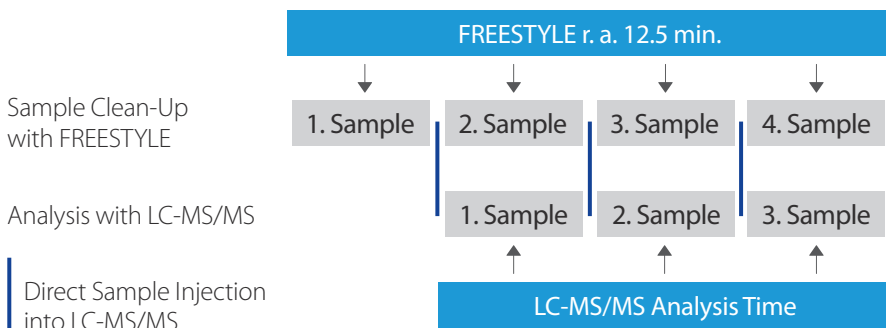


# Processing via FREESTYLE

For automated processing of the CrossTOX® columns the FREESTYLE system offers two options:

- from raw extract to cleaned sample or
- from raw extract to chromatogram (full automation)

In order to realize the highest possible degree of automation, the FREESTYLE SPE robotic system is simply upgraded with an HPLC Direct-Injection module for direct injection into your LC-MS/MS system. This enables the parallelization of clean-up and analysis for up to 120 samples/day and thus to an optimum utilization of your LC-MS/MS system.



## Ordering Information

P/N	Description	Pc. / Pck.
17900	CrossTOX® Clean-up Columns Manual processing	100 Pc. / Pck.
17901	CrossTOX® Clean-up Columns Automated processing	100 Pc. / Pck.



Robotic System FREESTYLE SPE + HPLC Direct-Injection-Module  
We are happy to send you a suitable configuration on request.



LC Tech GmbH  
Daimlerstr. 4  
84419 Obertaufkirchen  
Germany  
Tel. +49 8082 2717-0  
Fax +49 8082 2717-100  
info@LC Tech.de  
www.LC Tech.de