

Best Possible Monitoring and a Gain for Production

Optimized crimp force analysis – CFA+



The new CFA+ crimp force analysis is easy to understand and so simple to use. It helps the operator prevent setup errors and independently calculates optimum parameters to combine quality with a high production output. CFA+ is a reliable means of production monitoring. It saves time and money and is the ideal tool for quality-conscious users.

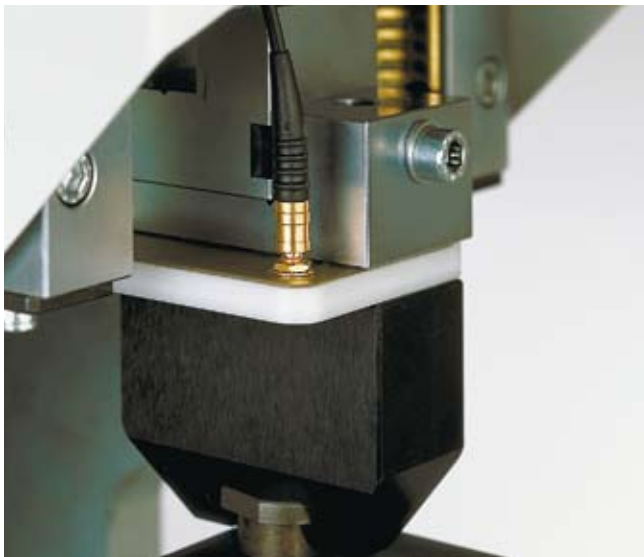
Beat Fuchs Product Manager

Komax now offers substantially improved crimp force analysis. The optimized functions offer the customers a host of advantages, including:

- > Automatic calculation of optimum setting parameters
- > Further reduction in rejection rate
- > Support to help avoid setup errors
- > Optimized evaluation of production
- > Functions with absolute reliability, also for tiny cross sections
- > Easy to understand and operate

Major gain for production

CFA+ crimp force analysis is based on the CFA monitoring that has been well-established in Komax presses for many years. The same piezo-ceramic is also in charge of recording the force curve. It is installed in all mci presses.



Piezo-ceramic in mci presses

In further refining the CFA+, Komax incorporated the newest requirements from the world of wire processing and the latest standards from auto makers.

For instance, limits in the monitoring of cut-off strand wire can be entered directly as a percent of the wire cross section.

New patented analysis of the crimp force curve

A new patented analysis algorithm is the feature that makes the CFA+ different from the original and allows it to analyze the crimping process in detail. Special attention was paid to the crimp-compression ratio, a key criterion for a good crimp connection.

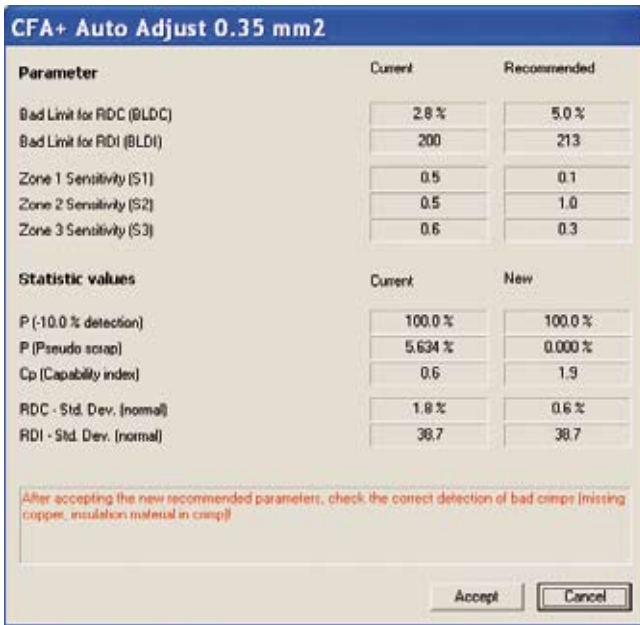
A crimp force curve has unique features known as crimp signatures. They are the central element applied to determine the following aspects of quality and production:

- > Use of an incorrect wire diameter
- > incorrect crimp geometry
- > Use of an old applicator requiring maintenance

Same easy work procedure in production as always

The work procedure for the operator in production does not change. As always, he has to verify a new article and record the reference crimp force curve. Now, however, this curve is automatically compared on the automatic crimping machine to the signatures calculated earlier. If the two match, the article is released for production.

In the event of a new article, the signatures are each recorded in advance by the process specialist on a self-defined master machine. A mostly automatic procedure then runs through the steps until the best possible settings are found. Extensive statistics directly indicate the process capability and distribution of the set-up process.



Optimization of the parameters

YOUR BENEFITS

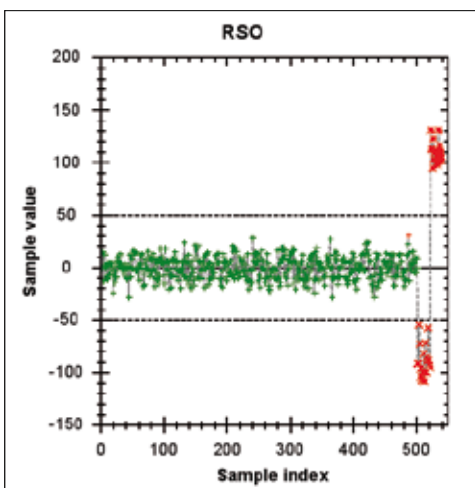
- > Assists with the determination of optimum setting parameters
- > Helps to detect setup errors
- > Reduction in the rejection rate
- > Optimum for small wire cross sections
- > Can switch on each machine between CFA and CFA+ without hardware adaption
- > Easy to understand and use thanks to reduced parameters and results

Small cross sections

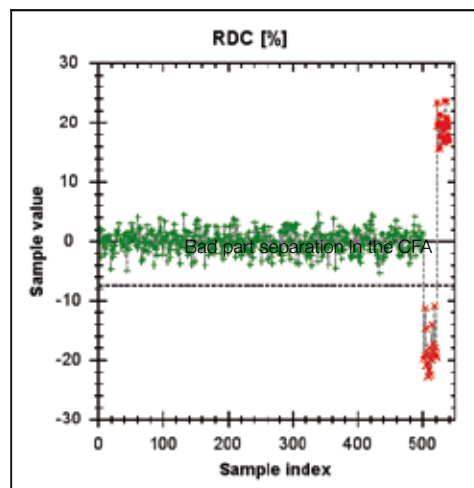
Good and bad parts are now even more effectively separated with the new patented analysis process and the support in determining the optimum parameters. Rejected parts are further reduced, even with small cross sections.

On the Komax automatic crimping machines, the customer can define for himself whether to produce with the conventional CFA or the new CFA+.

The CFA+ is introduced in successively. With TopWin 9.3, CFA+ is released for the mci 722 presses for the Alpha 355, Alpha 356 and Alpha 455 machines. At the start of 2010, CFA+ will also be available on the mci 712 and mci 721 presses on other machines.



Bad part separation in the CFA



Bad part separation in the CFA+