



Technical Product Sheet

RIFAST® C-FRAME WITH INNOVATIVE SERVO DIRECT DRIVE

Precision controlled servo direct drive enables for high repetitive accuracy and reduced cycle times

› THE RIFAST® SYSTEMS ADVANTAGE

Systems expertise from designing, manufacturing clinch fasteners functional elements and automation equipment to consultation and realization in serial production

With over 25 years of expertise as a full system provider RIFAST® is the partner for developing economical solutions for reliable integration of mechanically joined clinch fasteners. The systems approach of clinch fasteners through automation equipment for in-die and off-line operations guarantees the optimal joint connection. The mechanical joining with the RIFAST® staking die designed to the customer component ensures consistent performance values in addition to eliminating thermal influences and distortions observed during welding.

› THE RIFAST® C-FRAME WITH SERVO DIRECT DRIVE

Precision controlled, high repetitive accuracy, high operational speed and integrated process monitoring

The innovative RIFAST® servo direct drive was specifically developed to support the insertion of RIFAST® clinch fasteners, differentiating themselves through their performance parameters and compact design. In addition, they feature precise control allowing optimal joining of clinch fasteners.

Thanks to the standard and modular design there is a suitable C-Frame available for every application. Whether it's a full-automatic C-Frame for body frame construction in a robot cell, as a semi-automatic workstation, or as a flexible manual workstation. The new RIFAST® CSE product program always offers the right solution. The servo direct drives are available with up to 150 kN installation force capabilities and for the manual workstation we offer at 150 kN variation available with integrated safety system. Through remote diagnostic routers we can quickly diagnose the equipment remotely and consult on trouble shooting solutions.



Application examples
RIFAST® C-Frame

THE RIFAST® C-FRAME WITH SERVO DIRECT DRIVE ADVANTAGE

- Precise controlled servo direct drive → high repetitive accuracy
- Implementation of parameter database → quick, intuitive set-up
- Integrated process monitoring → easy documentation of joining parameters
- High operational speed → short cycle times
- Universal tool carrier → flexible usage for different customer applications and different RIFAST® clinch fasteners
- Oil-free operation as no hydraulic system is used
- Smaller design footprint achieved through compact servo direct drive
- QR code on the nameplate enables quick and easy access to technical documents for the C-frame on the RIBE server

TECHNICAL DATA

	CSE Manual	CSE Semi	CSE
			
Application	Universal manual workstation for prototype and small series production	Semi-automatic workstation for small series production	Full-automatic C-Frame for integration in a robot cell
Drive	150 kN drive with integrated safety system	150 kN drive with integrated safety system	Up to 150 kN drive without safety system
Operational speed	50 mm/s	50 mm/s	Up to 300 mm/s
Cycle time without handling	6 – 8 s	6 – 8 s	4 s
Tool carrier	<ul style="list-style-type: none"> • Easy replacement • For various CF1 	<ul style="list-style-type: none"> • With downholder function • For (1) CF1 • Convertible to other CF1 	<ul style="list-style-type: none"> • With downholder function • For (1) CF1
Feeding functional element	Manual	Automatic through feeding unit	Automatic through feeding unit
Component handling	Manual	Manual	Robot

CF1 = functional elements

By using RIFAST® automation equipment for the installation of RIFAST® clinch fasteners, the optimal connection with the customer parts can be achieved.