



Wire feeding systems for welding applications

**„The perfect
drive package!“**

- ▶ precise wire feeding
- ▶ modern drive concept
- ▶ fully digitalized process control
- ▶ detailed monitoring
- ▶ maximum production reliability



DINSE – System innovations.



Precise cone contact – for safe, sustained welding.

When performing stationary or mobile welding, every movement of the hand counts. This is where the original DINSE connector proves its value. Just plug it together, tighten with a quick twist of the wrist and the connection is perfect. DINSE connectors and sockets are simple, safe, rugged and long-lasting and they provide optimal supply of current.

The strengths of the DINSE system

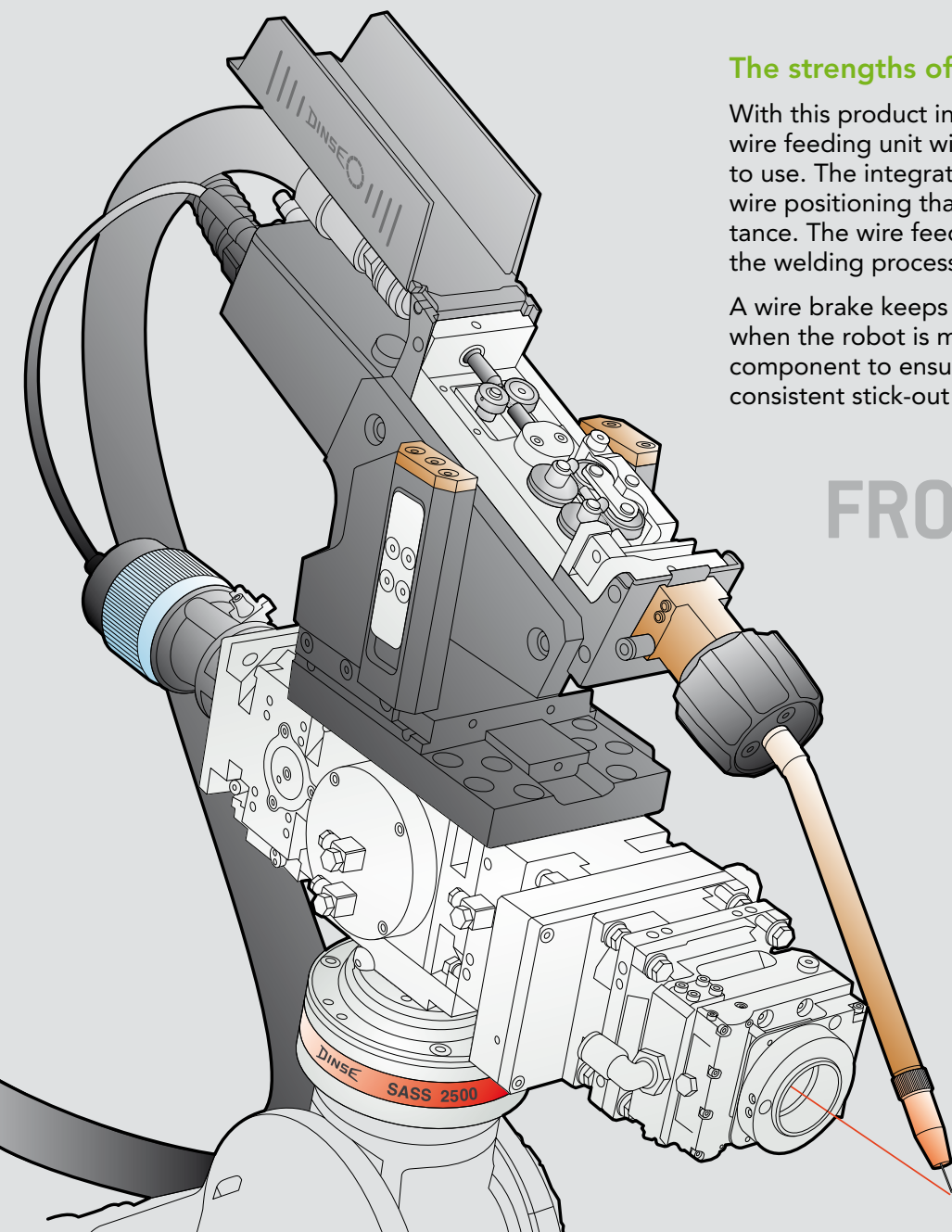
With this product innovation, DINSE delivers a lightweight wire feeding unit with a strong four roll drive that is easy to use. The integrated wire feeding sensor ensures precise wire positioning thanks to its exact measurement of distance. The wire feeding is permanently monitored during the welding process.

A wire brake keeps the welding wire mechanically stable when the robot is moving and serves as an additional component to ensure reliability. This guarantees a consistent stick-out in any position for touch sensing.

FRONTdrive

DIX FD 100 LS (WB) front drive

- ▶ Front drive, sensor and the optional wire brake in one compact unit
- ▶ the pressure system can be opened and closed without requiring readjustment afterwards
- ▶ minimized slipping of the drive roller
- ▶ simple wire threading
- ▶ constant, precise wire feed
- ▶ system can be used as a single drive
- ▶ expansion for PUSH-PUSH applications is possible



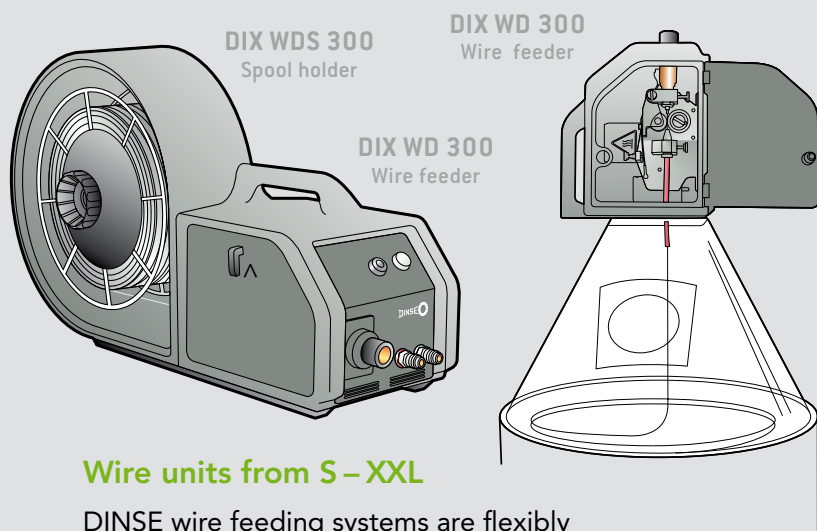
Front drive	V Wire	Encoder	Torque	Weight	Length	Width	Height
DIX FD 100 LS (WB)	0,3-24 m/min	1600 Impulses	1,2 Nm	1,8 kg	268 mm	56 mm	101 mm

* WB Wire brake, optional

DINSE wire feeding – The perfect interaction.



Different versions – one aim: perfect wire feeding. DINSE's PUSH-PUSH and SingleFeed systems offer the ideal solutions and can be combined perfectly with the innovative DINSE SupraFeed technology.



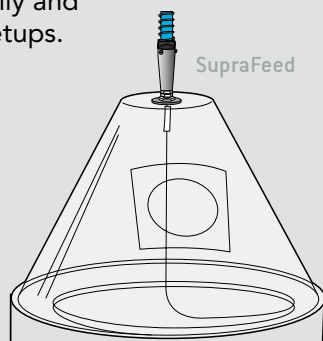
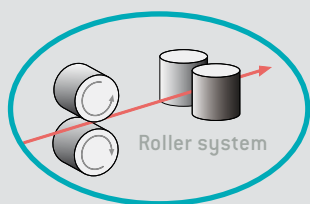
Wire units from S – XXL

DINSE wire feeding systems are flexibly adaptable to a variety of spool holders, large spools and wire drums.

Wire feeding with SupraFeed

With SupraFeed DINSE offers a new approach to low-friction feeding of welding wires. Instead of using liners, the filler material slides over the rolls. This opens up an entirely new dimension of uniform wire feeding – with a significantly reduced amount of maintenance required.

SupraFeed can be integrated easily and flexibly into a variety of system setups.

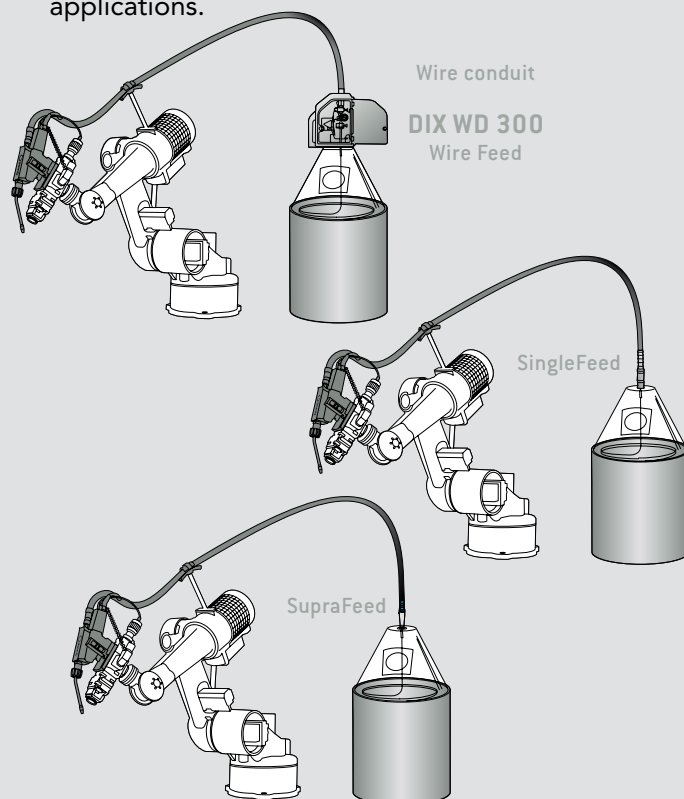


PUSH-PUSH

The technology for top performance

DINSE's PUSH-PUSH technology works with two fully decoupled drive units ensuring demand-actuated wire feeding to the FD 100 front drive. The speed controlled front-motor feeds the exact quantity of wire that is needed. The adjustable torque of the rear motor limits the feed force and prevents the filler wire from buckling in the torch set.

The DINSE wire feed can handle cold and hot wire. The single drive can also be modified for TIG applications.



Adapter-set	Connection set	Connection
DIX FD 100 AS-CW	FD 100 CS-CH	Wire conduit
DIX FD 100 AS	FD 100 CS-SF	SupraFeed direct



DINSE Laser – The system for sophisticated processes.

Complicated component geometries, welding seams in visible areas and unique stability requirements demand the highest quality welding. This is where DINSE systems prove their value. Whether with cold or hot wire: the use of filler wire for laser welding and soldering provides key technological advantages.

DIX FD 100 LS
Front drive

Connection set

Flexibility that meets the highest demands

- optimal material alloy
- prevention of hot cracks during aluminum welding
- reduced process temperatures
- excellent tolerance compatibility

Filler wire for perfect results

- processing of non-alloyed and low alloy steels
- welding of high alloy steels, nickel and aluminum alloys
- soldering of surface coated materials
- soldering mixed joints between different materials
- application soldering and plating with wear-resistant coatings

DIX WDS 300
Spool holder

DIX WD 300
Wire feeder

DIX FDE 100 L
Control unit

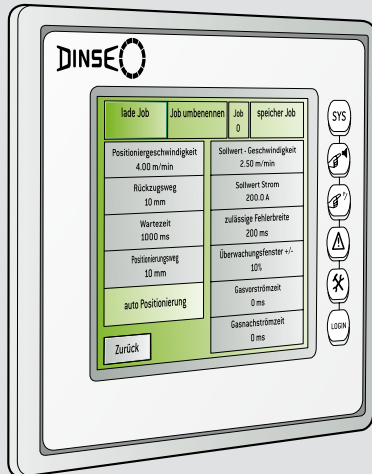
DINSE LASER System

- ▶ wire feeding
- ▶ front drive
- ▶ connection set
- ▶ PUSH-PUSH auxiliary drive
- ▶ control
- ▶ wire feed (drum, spool etc.)

DINSE control – Convenient operation and control.



The innovative control package featuring convenient touch-screen operation using the new color display regulates the entire hardware and software used in the DINSE system.
The expanded process monitoring documents all relevant data.



Convenient touchscreen operation

The microprocessor-based controls are even more intuitive and convenient to use thanks to the new color display. Optimized functions and a clear overview of all relevant data allow all production parameters to be programmed and processed easily.

Integrated diagnosis

Both the hardware and software are continuously monitored and compared to the target values by the DINSE diagnostic tool. This allows irregularities to be identified quickly and potential sources of error to be eliminated in advance.

Perfection in process control

- all parameters are freely programmable (e.g. exact volume of filler wire, gas flow time, tolerance window)
- monitoring of wire feed, gas and water with connectible sensors
- expanded process documentation of the output and consumption data for component monitoring
- absolute transparency thanks to continuous motor monitoring, warnings and error protocols that can be exported to an SD card
- external PC monitoring with freely selectable parameters can be used with an online display
- all standard port connections available



Controll unit	V Wire	U Connection	P _{power consumption}	Protection	Length	Width	Height
DIX FDE 100 L	0,3-24 m/min	230I115 V/50I60 Hz	160 VA	IP 23	600 mm	200 mm	400 mm

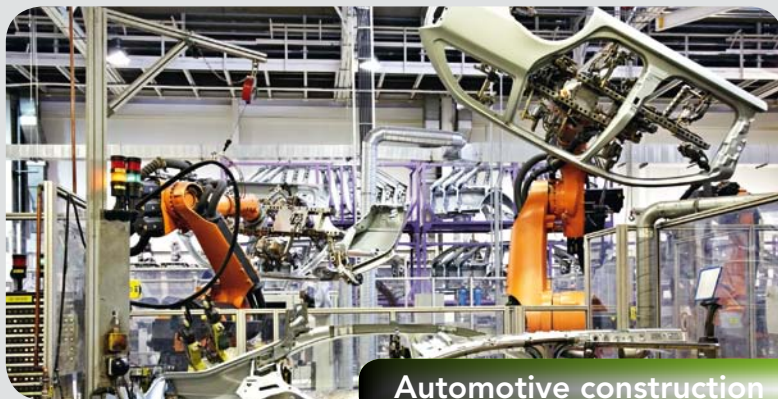


DINSE Technology applications – On water, land and in the air.

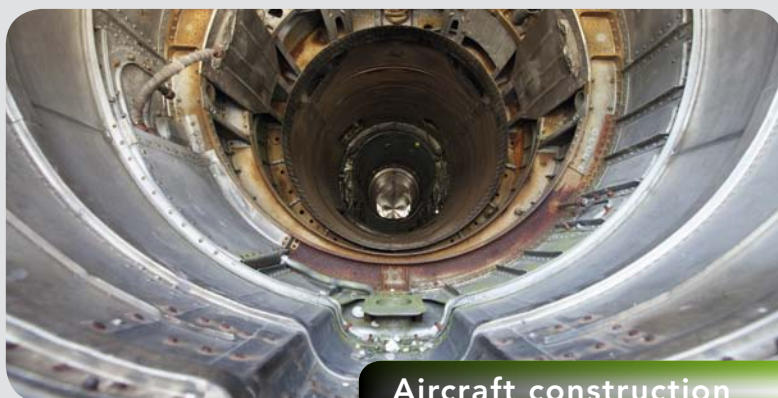
DINSE wire feeding systems offer a flexible concept for modern production processes for the welding and soldering of vehicle parts, for skin-stringer joints in airplane construction and for plating turbines in shipbuilding.



Shipbuilding



Automotive construction



Aircraft construction

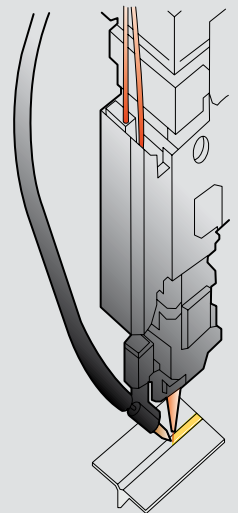
Tried, tested and proven in production

Whether for high stiffness in the chassis, clean seams in visible areas or for especially durable welding seams – DINSE technology meets the strictest requirements found in automated production.

- cold and hot wire applications
- welding and brazing
- TIG- and laser applications with filler wire
- coating with the aid of various beam sources
- rapid prototyping processes
- manufacturing of new alloys
- injection of smelts

A range of connection options

The DINSE wire feeding system offers modular, adaptable connections for a number of applications, e.g. compressed air, cold wire, hot wire with water supply and many others.



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