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

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.

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.

The perfect interaction.
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.

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.

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.

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DINSE – System innovations.
DINSE front drive – 
A new system for maximum precision.

Front drive, wire feed sensor and wire brake have been brought together in one single unit. An innovative four roller system provides even more precise wire feeding. The compact dimensions ensure a wide range of uses thanks to the ease of access to the components.

The strengths of the DINSE system
With this product innovation, DINSE delivers a lightweight, space-saving drive unit, with a strong four roller drive that is easy to use. The integrated wire feeding sensor ensures precise wire positioning thanks to its exact measurement of space. 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.

DINSE Laser – 
The system for sophisticated processes.

Complicated component geometries, welding seams in visible areas and unfair quality requirements demand the highest-quality welding. This is why DINSE employs the use of filler wire for laser welding and soldering providing key technological advantages.

Flexibility that meets the highest demands
- optimal material alloy
- prevention of hot cracks during aluminum welding
- reduced process temperatures
- excellent tolerance compatibility

DINSE control –
Convenient operation and control.

The innovative control package featuring convenient touchscreen operation using the new color display integrates the recording of parameters, monitoring, warnings and error protocols that can be exported to an SD card.

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.

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

DINSE LASER System

Control unit V Wire Encoder Torque Weight Length Width Height
DIX FDE 100 L 0,3-24 m/min 1600 Impulses 1,2 Nm 1,8 kg 260 mm 55 mm 101 mm

Filler wire for perfect results
- processing of non-alloyed and low-alloy steel
- 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 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
- constant, precise wire feed
- system can be used as a single drive
- expansion for PUSH-PUSH applications is possible
Wire feeding systems for welding applications

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The strengths of the DINSE system

With this product innovation, DINSE delivers a light-weight, 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.

Filler wire for perfect results

- Wire feed for laser welding and soldering provides key technological advantages.
- The system can be used as a single drive.
- Various filler wire types are possible.
- Optimized functions and a clear overview of all relevant data allow all production parameters to be programmed and processed easily.
- Integrated diagnosis

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.

Flexibility that meets the highest demands

- Optimal material alloy
- Prevention of hot cracks during aluminum welding
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Perfection in process control

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- All standard port connections available

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With this product innovation, DINSE delivers a lightweight, high-speed wire feeding unit with a strong four roller 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.

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 why use of filler wire for laser welding and soldering provides key technological advantages.

DINSE control –
Convenient operation and control.

The innovative control package featuring convenient touchscreen operation using the new color display optimizes functions and a clear overview of all relevant data allow all production parameters to be programmed and processed easily.

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.

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DINSE LASER System
- wire feeding
- front drive
- connection set
- PUSH-PUSH auxiliary drive
- control
- wire feed (drum, spool etc.)
- power source

DINSE Laser System
- wire feeding
- front drive
- connection set
- PUSH-PUSH auxiliary drive
- control
- wire feed (drum, spool etc.)
- power source

DINSE front drive
- front drive
- sensor
- connection set
- PUSH-PUSH auxiliary drive
- control
- wire feed (drum, spool etc.)
- power source

DINSE Laser
- front drive
- sensor
- connection set
- PUSH-PUSH auxiliary drive
- control
- wire feed (drum, spool etc.)
- power source

DINSE control
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- PUSH-PUSH auxiliary drive
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- wire feed (drum, spool etc.)
- power source
Wire feeding systems for welding applications

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.

Welded, 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.

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The technology for top performance

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