



DINSE

# FRONT DRIVE FOR HOLLOW WRIST ROBOTS



NO WIRE FEED  
HAS EVER BEEN SO  
COMPACT AND CLOSE  
TO THE ARC!

## DIX FD 300

SLIM DESIGN,  
POWERFUL WIRE  
FEEDING TECHNOLOGY  
& SOPHISTICATED  
DETAILS

- ▶ Compact design without interfering contours
- ▶ With integrated DINSE shock sensor and nozzle sensor
- ▶ Powerful 2-roller drive and precise wire guidance
- ▶ Ideal for soft wires
- ▶ Fast, uncomplicated setup and operation
- ▶ Low maintenance and cost saving



# THOUGHT THROUGH TO THE SMALLEST DETAILS

When developing the FD 300, we paid special attention to the details: These enable easy handling, minimize sources of error and save you valuable time in everyday production.

## ✓ SELF THREADING WIRE

The wire is threaded automatically by the FD 300. Tedious threading with the fingers is eliminated, as is an additional work step by opening the rollers.

## ✓ PERFECTLY ADJUSTABLE WIRE CONTACT PRESSURE

Depending on the wire, the contact pressure of the rollers can be freely adjusted with the built-in scale. Slipping or deformation of the wire is impossible.

## ✓ BUILT-IN O-RING BETWEEN DRIVE ROLLER AND GEAR WHEEL

Small but mighty: Thanks to the O-ring, the drive roller is held in place, e.g. when changing rollers, thus enabling simple and time-saving maintenance.

## ✓ PROFIL ROLLERS WITH TWO SPURS

Because there are two identical tracks on the reel, the profile reel cannot be installed the wrong way round. There is no need to mark which reel is currently in use.

## ✓ TOOL-FREE PROFILE ROLL CHANGE

No separate tool is needed to change the profile rollers - so the change is done in no time at all.

## ✓ REPRODUCIBLE FORCE AFTER PROFILE ROLLER CHANGE

Even when and after opening or changing the profile rollers, there is no need to readjust the force or contact pressure - the settings remain unchanged.

## ✓ BUILT IN LIGHTING

The built-in illumination in the housing makes maintenance possible even in low-light environments. When the illumination is working, the device is also ready for operation. This also allows the first possible causes of faults to be ruled out directly and service costs to be minimized.

## ✓ CUSTOMIZABLE LID IN DIFFERENT COLORS

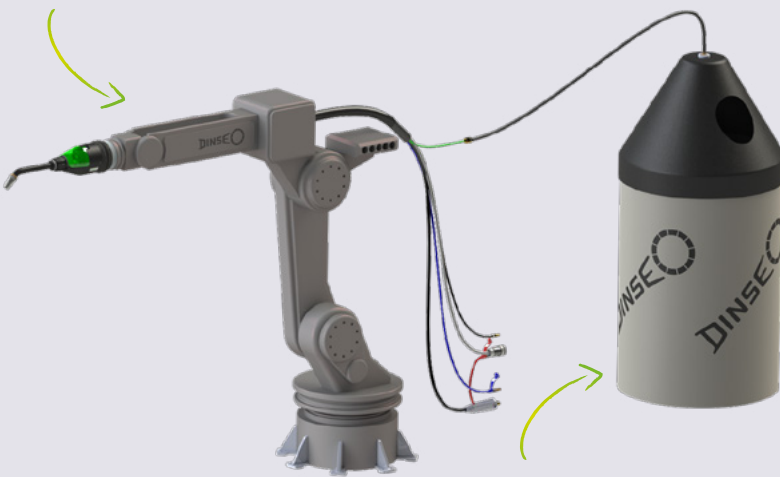
For example, match the color of the lid of the FD 300 to your company logo.

# WIRE FEEDING CONCEPTS

## SINGLE-FEED SYSTEM

SIMPLE, PERFECTLY THOUGHT-THROUGH, COST-REDUCED AND USER-OPTIMIZED

PRECISE WIRE FEEDING  
UP TO 10 METER POSSIBLE



NO SPACE FOR AN  
ADDITIONAL WIRE  
FEEDER NECESSARY

This saves you space and costs  
and is ideal for e.g. portal  
applications.

\* an analog speed setpoint is necessary or the integration of the drive into the control of the welding machine is necessary

IDEAL FOR CONVEYING  
FROM THE WIRE BARREL

No further drive is required.

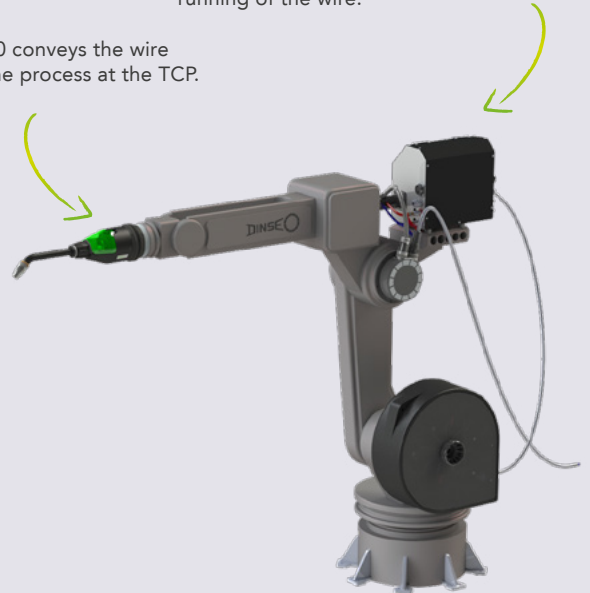
## PUSH-PUSH TECHNOLOGY

PERFECTLY MATCHED -  
FOR DISTANCES UP TO 40 METERS

NO WELDING DEFECTS DUE TO  
PILING UP OF THE WIRE

The novel control concept ensures perfect  
running of the wire.

The FD300 conveys the wire  
close to the process at the TCP.



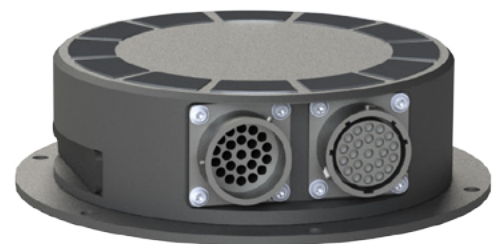
IMMEDIATE START OF  
THE WELDING PROCESS -  
WITHOUT DELAYS

The control minimizes the time offset of the  
wire movement between the drive and the  
operating point is minimized.

## INTEGRATION MADE EASY

### CONTROL BOX DIX FDE 300 FOR THE OPTIMAL CONNECTION

With the Control box, DINSE offers you easy  
integration: Either via the robot or the welding  
machine. The FD 300 can also be integrated into  
your existing automated welding system in no time at  
all.



You would like to work with a push-pull process in your wire feeding?  
Your DINSE expert will be happy to help you with that.

# TECHNICAL DATA

Welding method	MIG/MAG welding and brazing
Wire feed speed	0,4 - 25,0 m/min
Wire diameter	0,8 / 1,0 / 1,2 / 1,6 mm (other diameters on request)
Maximum motor current consumption	2,28 A
Maximum supply voltage	24 VDC
Protection class	IP 20
Noise level	< 70 dB(A)
Dimensions (without wires)	( $\varnothing$ x L) 98 mm x 180 mm
Weight (actuator + approx. 20cm trimmings)	approx. 1.82 kg (varies with trim length)
Ambient temperature - during operation	- 10 °C - + 40 °C / 14 °F - 104 °F
Ambient temperature - during transport and storage	- 10 °C - + 55 °C / 14 °F - 131 °F
Drive ratio	16,7: 1
Rated power	45 W
Torsional moment	20.0 Nm
Stall torque	11.5 Nm
Rotatability	260° clockwise - 260° counterclockwise
Safety shutdown: deflection, max	7° degrees
Safety shutdown: Reset accuracy	+/- 0.03 mm
<b>Parameters for liquid-cooled robot and automatic welding sets according to DIN EN 60974-7</b>	
Minimum water flow	1.1 l/min (0.29 gal./min)
Pump pressure (back pressure)	max. 6 bar (87 Psi max.)
Water temperature maximum	55° C (131° F)
Cooling medium	demineralized (deionized) water We recommend our DINSE cooling liquid DIX CM liquid 10



All suitable spare and wear parts can be found in our product catalogue AUTOMATION.

## Your DINSE Partner:



DINSE is your dependable partner for the entire welding process. Contact us and schedule an appointment for consultation today. Together with you we will find the best solution for your application.



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