



MIG/MAG

ROBOTIC

TIG





## The highest quality and reliability – for any process.

Robotic and automated welding requires system components that guarantee maximum availability, lasting durability and optimal reproducibility.

DINSE offers you fully developed welding and brazing tools that set the standard for quality. For all of the procedures that you currently use in your operations.

### Efficient

For MIG/MAG applications, both a liquid cooling system and the DINSE gas cooling system are available. This system concentrically feeds the shield gas to the contact tip and draws off large amounts of heat from the welding torch.

Both systems operate using a separate shield gas feed. This prevents any loss of gas.

### Long-lasting

The coolant from the DINSE double-circuit liquid cooling system flows through the torch head along its entire length in concentrically arranged longitudinal ducts. The contact tip and gas nozzle are cooled in parallel.

### High precision

Pluggable contact tips for DINSE MIG/MAG welding and brazing ensure maximum precision. The exact positioning of these tips always on the same spot ensures the highest degree of reproducibility.

The trapezoidal threads of the gas nozzle are resistant to dirt and provide ideal heat transfer.

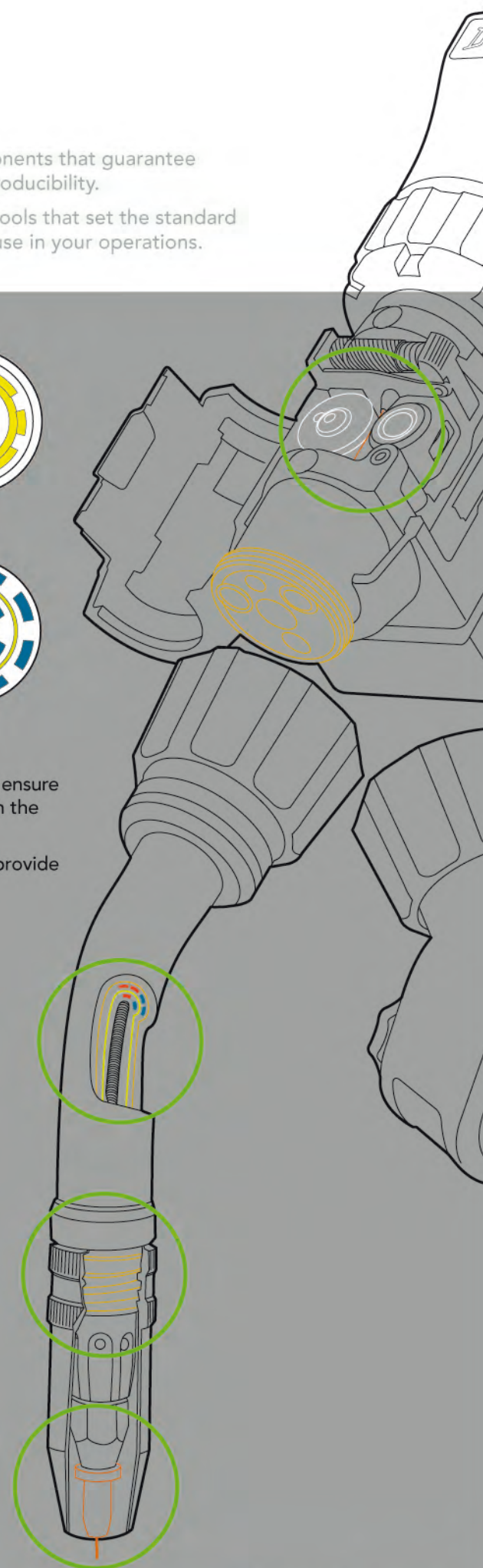
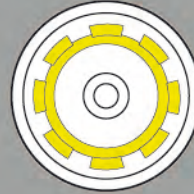


**Fast. Rugged. Economical.**

# DINSE MIG/MAG

Due to their well engineered and proven design, DINSE MIG/MAG technologies for gas or liquid-cooled joining guarantee maximum productivity and outstanding stability.

These strong points have stood the test of time for years, both in automobile and railway vehicle construction and in ship building, machine building, systems engineering and bridge construction.





## Compatibility and cost effectiveness – for MIG/MAG and TIG.



With DINSE, all of the components are precisely matched to each other and there is a diverse range of consumables to choose from. A switch in processes between MIG/MAG and TIG only requires that you change the torch head. All of the other components are the same! This considerably reduces your need for storage space.

### Safe

With a deflection range of 20°, the DINSE shock sensor provides excellent crash protection.

The rapid switch-off in the event of a collision and the precise, automatic return to the TCP ensure absolutely trouble-free operation.

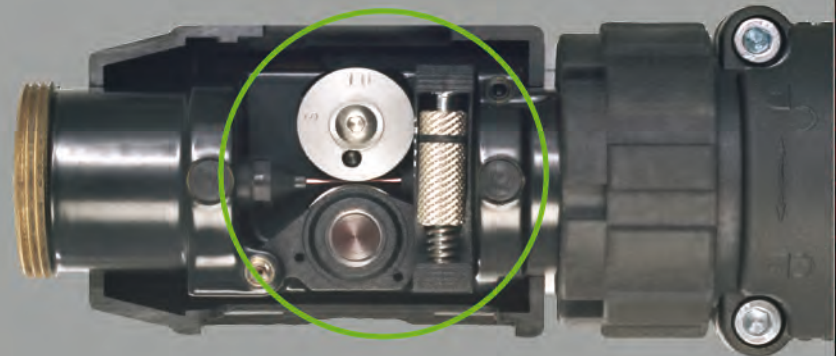
### 100% duty cycle

DINSE system components can endure maximum duty cycle. This allows you to work continuously at full output in both the MIG/MAG and TIG processes.

### A powerful drive

For working over long distances, use PUSH-PUSH or PUSH-PULL wire feed for problem-free continuous operation, especially when using wires that are thin or susceptible to kinking.

The powerful drive is integrated directly into the welding torch.



Clean. Accurate. Reliable.

# DINSE TIG

DINSE TIG welding and brazing with filler wire allows spatter-free working with high production output.

This allows precise welding to be carried out without finishing work in aircraft and turbine construction, in the chemical industry, in the production of vehicle exhaust systems and containers, and especially in the food industry.



# DINSE MIG/MAG – maximum flexibility.

DINSE offers a wide range of torch heads for MIG/MAG welding and brazing. The standardized interface of these torch heads allows them to be changed quickly with reliable reproducibility of the TCP.

Depending on the application, the material and the design, you can weld using gas or liquid cooling, with round wire or with the DINSE flat wire technology.

## Three angles for any component geometry

Each of the DINSE MIG/MAG torch heads is available in angles of 0° (0), 22° (2) and 45° (4), allowing you to flexibly adapt to changing tasks.

Depending on the requirement, component accessibility can be selectively improved.



## DINSE checking jig with aligning module

Exact adjustment of the DINSE torch heads.



### DIX JM 100

The inner and outer parts of the torch head can be re-aligned separately using the aligning module.

### DIX PV 100

Precise checking jig for checking TCP position. Testing the torch head for parallelism and center of contact tip.

## High performance technology for TANDEM welding

This DINSE innovation in welding technology combines high performance with maximum production safety.

Looking to the future with minimal effort in setting parameters.

- o precise fusion power
- o high welding speed
- o clean weld seam surface
- o optimal component accessibility
- o stable wire feeding



## MIG/MAG torch heads

2 variants – 3 angles each



0°  
22°

DIX MET 39(4)  
CO<sub>2</sub>: 350 A  
MIX: 300 A



0°  
22°  
45°

DIX MET 35(4)  
CO<sub>2</sub>: 350 A  
MIX: 300 A



4 variants – 3 angles each



0°  
22°

DIX METZ 59(4)  
CO<sub>2</sub>: 400 A  
MIX: 350 A



0°  
22°  
45°

DIX METZ 52(4)  
CO<sub>2</sub>: 350 A  
MIX: 300 A



0°  
22°

DIX METZ 54(4)  
CO<sub>2</sub>: 450 A  
MIX: 400 A



0°  
22°  
45°

DIX METZ 56(4)  
CO<sub>2</sub>: 550 A  
MIX: 500 A



 **100%** duty cycle






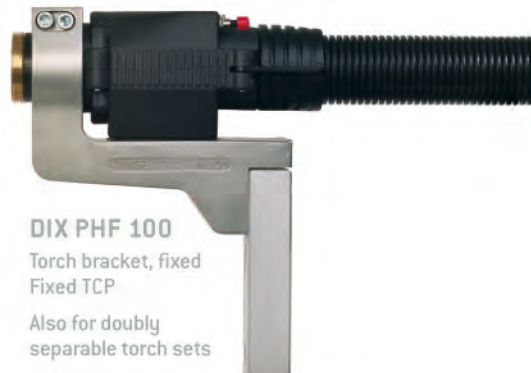







# DINSE torch sets – proven system.

With DINSE, all individual parts are precisely matched and can be changed quickly and easily. This means that, depending on the requirement, you can use DINSE torch sets in MIG/MAG or TIG procedures and with an optional PUSH-PUSH or PUSH-PULL drive.

Rugged insulation and cover hoses on both sides contribute to reliable, flexible handling and reduce the load on the torch sets. The cast aluminum torch brackets for all prevalent TCPs combine a high degree of physical rigidity with minimal weight.

## Torch sets, torch brackets and shock sensors

<p>Head can be changed quickly</p>  <p>Torch sets can be changed quickly</p>	 <p>DIX MEPTT(Z) 310(600)</p>	<p>Torch sets can be changed quickly</p>  <p>Head can be changed quickly</p>
<p>Head can be changed quickly</p>  <p>DIX PHF 100 Torch bracket, fixed Fixed TCP Also for doubly separable torch sets</p>	 <p>DIX MET(Z) 310(600)</p>	<p>Head can be changed quickly</p>  <p>DIX PHF 110 Torch bracket, fixed Fixed TCP</p>
<p>Head can be changed quickly</p>  <p>Torch sets can be changed quickly</p> <p>DIX PHW 100 Torch bracket, adjustable Flexible TCP setting Also for singly separable torch sets</p>	 <p>DIX METT(Z) 310(600) doubly separable DIX MEK 300/600 Torch body</p>	<p>Torch sets can be changed quickly</p>  <p>Head can be changed quickly</p> <p>DIX PHF 110 Torch bracket, fixed Fixed TCP</p>



# DINSE TIG – intelligent technology.

The TIG generation designed by DINSE represents spatter-free welding at the highest level. Whether there is a cold-wire set or not, and whether the torch head is on the robot axis or at an angle to it, DINSE TIG robotic and automated welding is characterized by its ease of handling and the best component accessibility.

The standardized torch head interface guarantees optimal interchangeability without risk of upsetting the TCP.



## TIG torch heads

2 variants – 2 angles each

Torch head on the robot axis



Torch head at an angle to the robot axis, 30° or 60°

Torch head on the robot axis



Torch head at an angle to the robot axis, 30° or 60°

### DIX EL 400

Adjustment gauge for pre-adjusting the electrodes for quick replacement of wearing parts.



Narrow, extended gas nozzle with special cold-wire set for improved accessibility for unusually difficult component geometries.

## PLASMA welding and brazing

DINSE offers complete sets of PLASMA equipment for working with high-alloy steels, nickel alloys and surface-coated materials.

- o constricted electric arc with little beam divergence
- o 100% successful ignition by means of a pilot electric arc
- o savings in terms of material due to the small weld pool and reduced heat influence
- o no corrosion of the electrodes and long service life



**100%** duty cycle





## DINSE components – perfect interaction.

With its wire feeders and spool housings, in combination with the modular, matched torch heads, welding torch sets, torch brackets and shock sensors, DINSE offers system equipment that has been thoroughly engineered down to the last detail.

With precision accessories for changing, testing and cleaning the welding and brazing tools, DINSE solutions ensure rational production processes and production safety for robotic and automated welding.



DIX WAS 100

### Tool storage system

Whether you want to replace wearing parts or change tools in order to change production processes, you can do so without stopping production.

- faster process switching and tool change
- easier replacement of wearing parts
- pneumatic clamping system independent of robot
- guaranteed system availability
- high degree of flexibility



DIX PRS 600

### Torch cleaning station

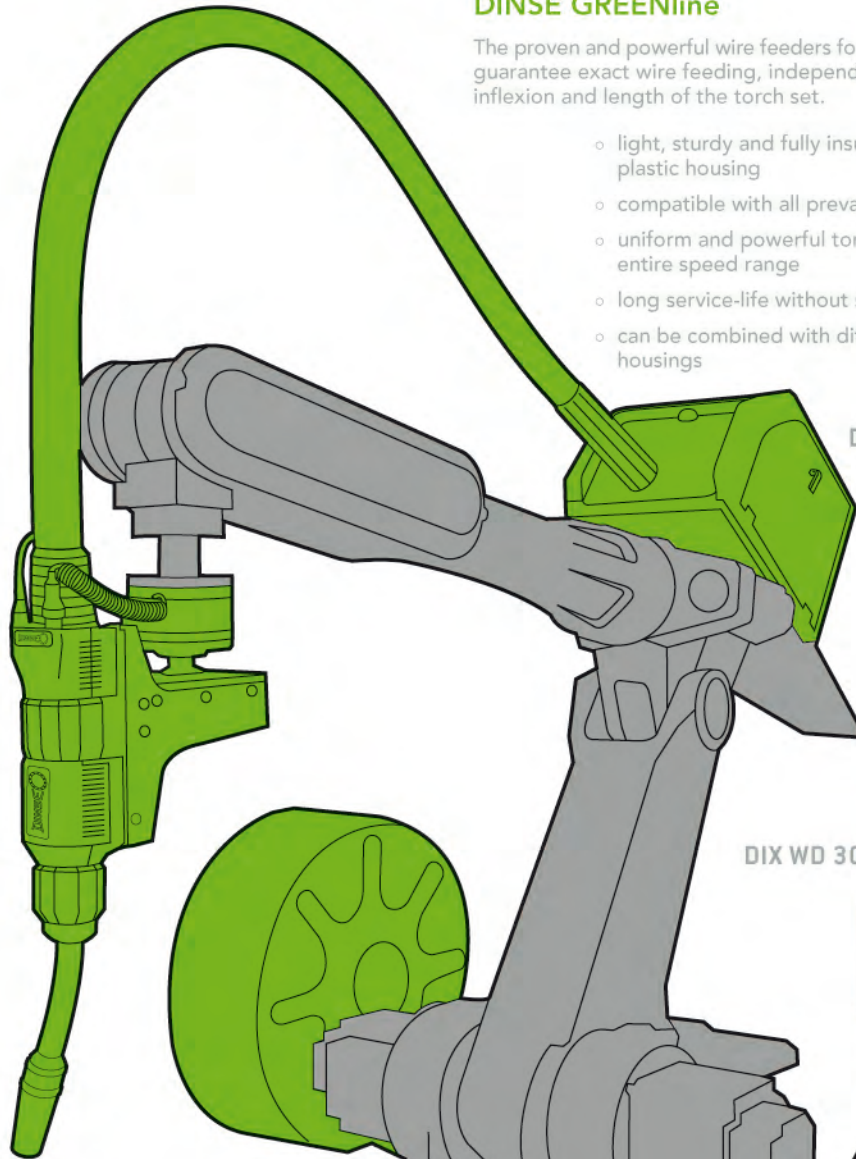
No work stoppage is required for quick and thorough cleaning of weld spatter inside the gas nozzle.

- automatic cleaning process
- longer service-life of wearing parts
- higher availability of the robot
- time-optimized integration into the work process

### DINSE GREENline

The proven and powerful wire feeders for the highest demands guarantee exact wire feeding, independently of torsion, inflexion and length of the torch set.

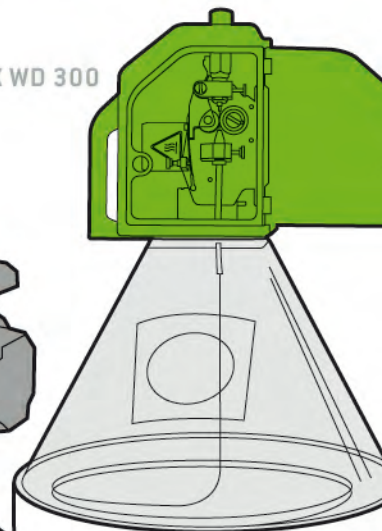
- light, sturdy and fully insulated through plastic housing
- compatible with all prevalent power sources
- uniform and powerful torque across the entire speed range
- long service-life without servicing intervals
- can be combined with different spool housings



DIX WD 660

DIX WDS 300

DIX WD 300



The PUSH drive ensures constant wire feed over long distances.

Depending on the requirement, the DIX WD 300 can be installed on large spools or bulk wire packs.





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MIG/MAG

AUTOMATIC

DINSE Inc. · 121 W. Trade St., Suite 2850 · Charlotte, NC 28202 · Ph: (517) 416-5294 · Fax: (888) 896-4871 · info@dinse-us.com · www.dinse-us.com

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TIG

Robotic 08/2011  
Subject to change



SOLDADURA — WELDING — SOLDADURA — WELDING — SOLDADURA