

# FRONIUS WELDING TORCHES

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**WE HAVE THREE DIVISIONS  
AND ONE PASSION:  
SHIFTING THE LIMITS.**

# TIG MANUAL WELDING TORCH

- / Ergonomic design
- / Jobmaster-function
- / Up/Down-function
- / Flexible torch body
- / A and P wear part system
- / Flexible hose pack
- / Leather protection hose
- / 4m and 8m hose pack length
- / Easy to handle connection system



# TIG JOBMASTER GAS- AND WATER COOLED

- / Integrated remote control
- / Digitale display
- / Job-recall 
- / Optional remote parameter 
- / Display „activated cap shaping“
- / Thermal overload protection
- / No contamination due to sealed switches



# TIG JOBMASTER, THE INTELLIGENT TORCH

## Optional remote parameters

- / bAL ... Balance
- / Spt ... Spot welding time
- / ACF ... AC-frequency
- / tAC ... Track welding function
- / I-G ... Low pulse current
- / dcY ... Duty Cycle
- / F-P ... Pulse frequency
- / ....



## UP/DOWN - FUNCTION

- / With this function you have the welding process under control
- / Stepless control of the active parameter
- / Arc and melting bath always in view
- / Faulty operation is avoided by separation bar
- / No contamination due to sealed switches



# SEPARATION BAR AT UP/DOWN



/ Faulty operation is avoided

# OPERATING ELEMENTS



Jobmaster



Up/Down



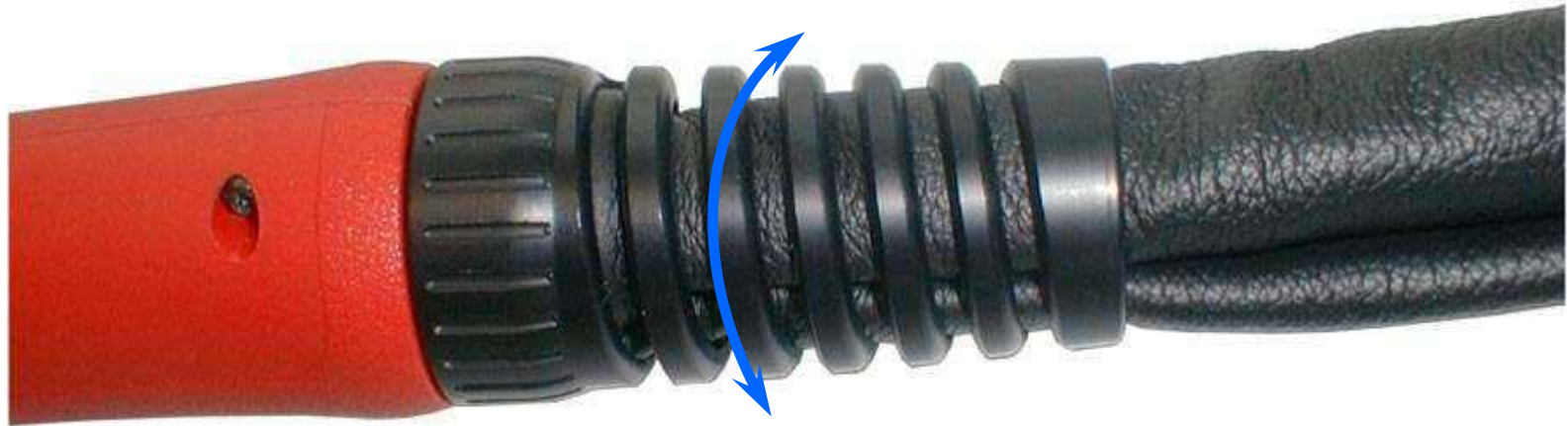
Standard

# HF-PROTECTION

- / Overlapping bar at handle and plastic half shells at connector
- / Silicone hose covers current cable
- / Wall thickness 2mm



## IMPROVED HOSE PACK



- / Turnable protection hose (favourable for torch oscillation)
- / Flexible leather protection hose 0,75m available
- / UV-, ozone- and temperature resistant protection hose
- / High voltage resistant EPDM rubber protection hose without tissue (6000V)

## IMPROVED HOSE PACK



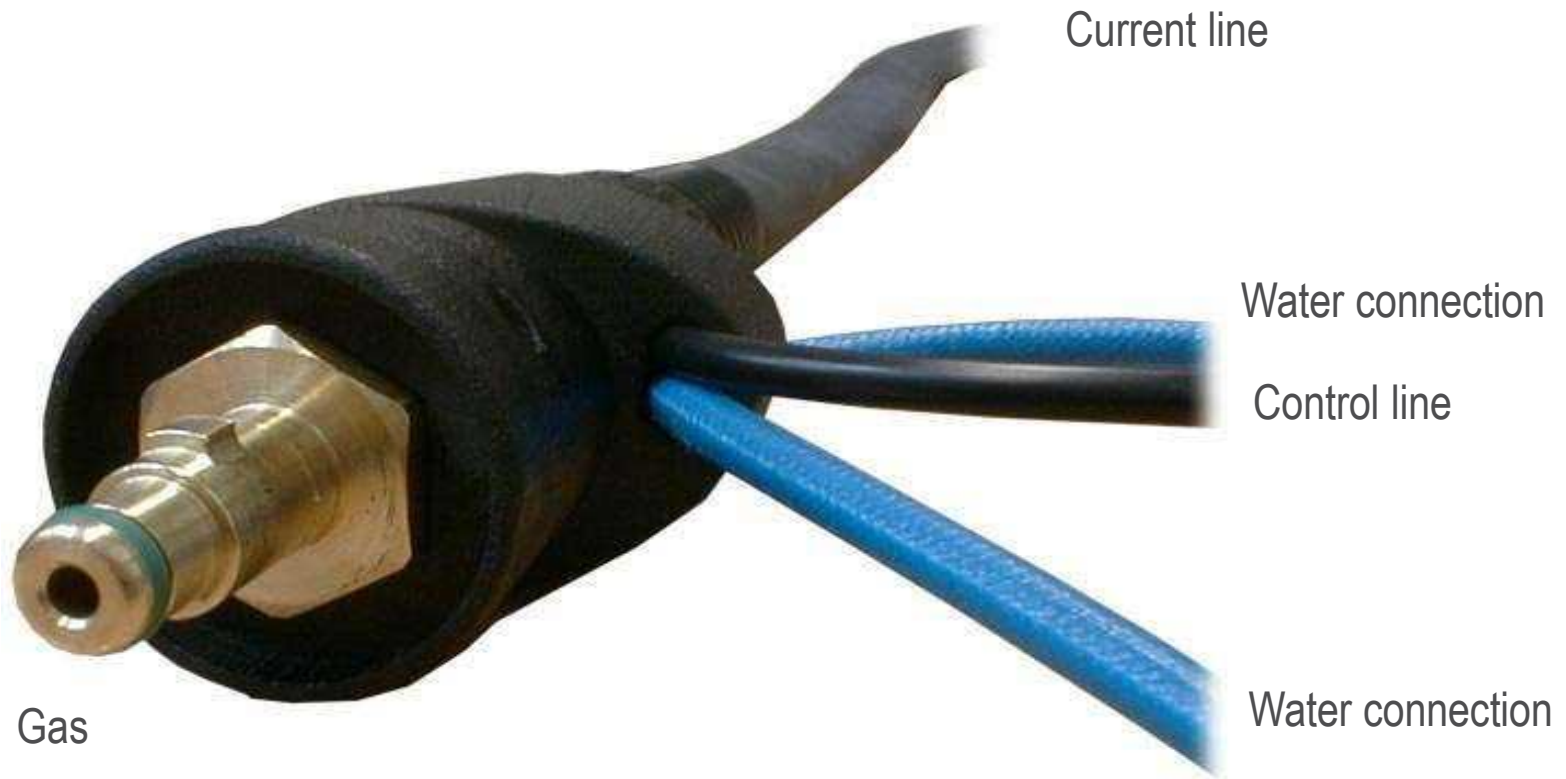
- / Plugable control line
- / Integrated strain relief for control line connector
- / Flexible hose components
- / Freely movable hose pack components in the area of crack protection
- / Protection hose clamped (former glued)

# TURNSTOP FOR PROTECTION HOSE



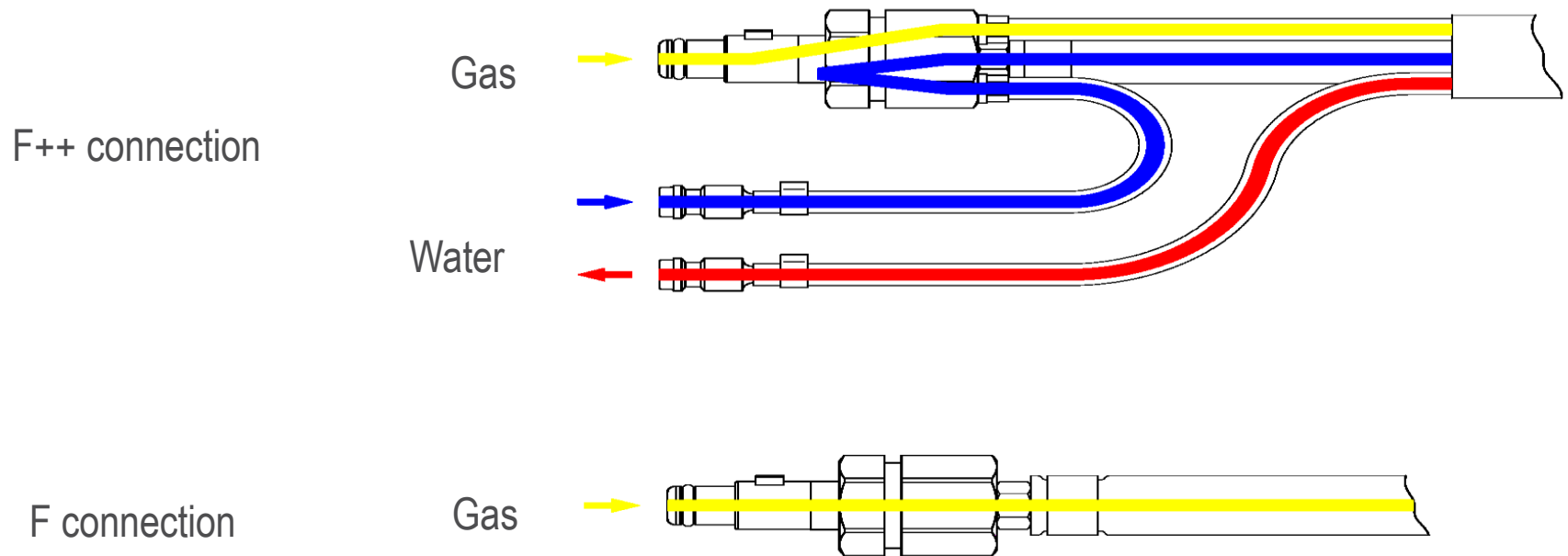
- / +/- 90° move area
- / Strain relief inside the handle is similar to a ball-and-socket joint

# TORCH CONNECTION SYSTEM F++



- / Gas- and water supply separated (pores)
- / Easy and quick torch exchange (without tools)

# GAS- AND WATER GUIDE INTO F++ / F CONNECTION

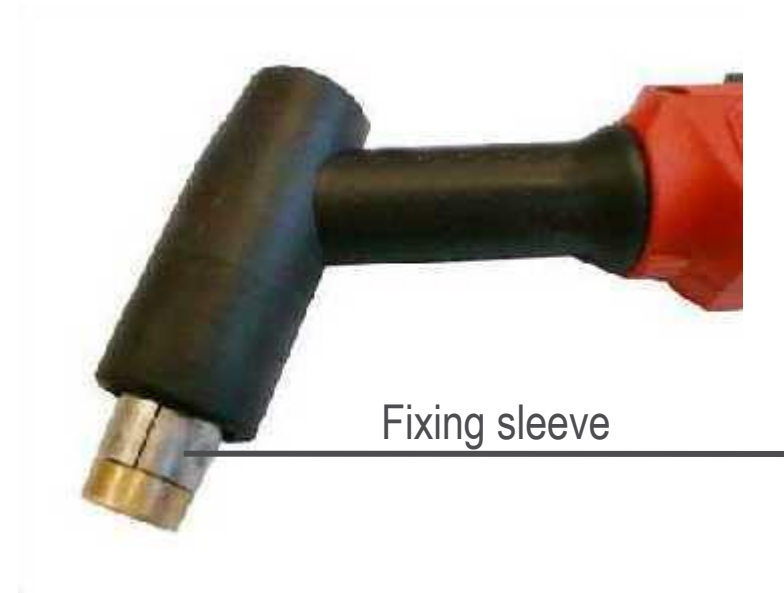


# IMPROVED TORCH BODY

- / Fixing sleeve
- / Flexible torch body
- / Gas- and water cooling
- / Changeable rubber sleeve for TTG2200A/TTW4000A
- / Long, flexible current-watercable connection

## TTG1600 AND TTG2200 WITH FIXING SLEEVE

- / Permanent fixed seat of the gas nozzle at different temperatures
- / Splitting of the gasnozzle is impossible
- / Gasnozzle can be easily unscrewed



## FLEXIBLE TORCH BODY (F VERSION)

- / Best accessibility at welding in exigences
- / High flexibility
- / Fivefold number of bending cycles with gascooled version by new construction



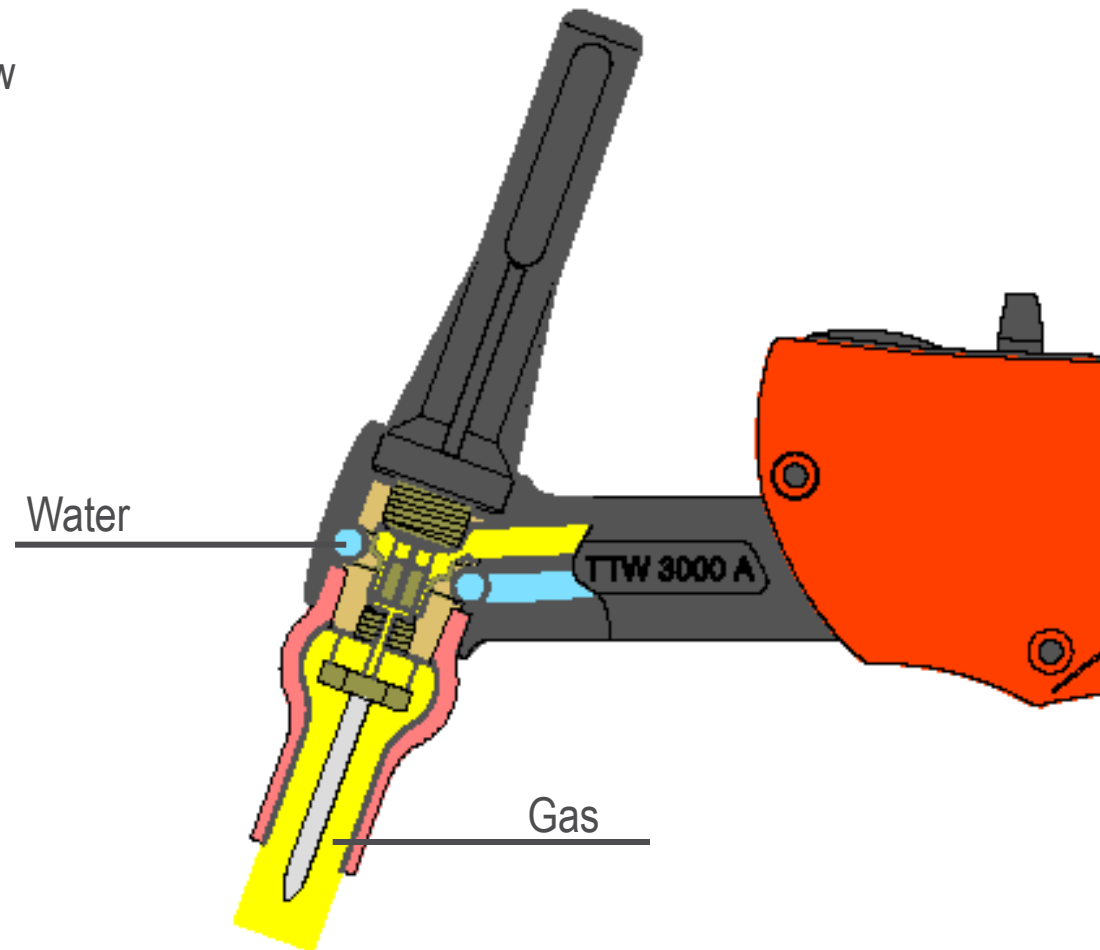
# PIVOTED TORCH BODY

- / 90° pivoted
- / Optimal angle adjustable
- / Anti-twist-device



# GAS- AND WATER COOLING

- / Best cooling due to high water flow
- / Long service life of wearing parts
- / Stable welding process



# CHANGEABLE RUBBER SLEEVE FOR TTG2200A/TTW4000A

- / Easy exchange after wear
- / The complete torch body does not have to be exchanged
- / Cost saving



# TECHNICAL DATA GASCOOLED TIG TORCHES

according to EN 60974-7

Torch	Welding current at		Duty cycle	Electrode Æ mm
	AC	DC		
Gas cooled				
PL10	60A	80A	35%	1,0 - 2,4
TTG1600A, TTG1600P	120A	160A	35%	1,0 - 3,2
TTG1600A WKZ	120A	160A	15%	1,0 - 3,2
TTG1600A POT		160A	35%	1,0 - 3,2
TTG2200A, TTG2200P	180A	220A	35%	1,0 - 4,0
TTG2600A	220A	260A	35%	1,6 - 6,4

# TECHNICAL DATA WATERCOOLED TIG TORCHES

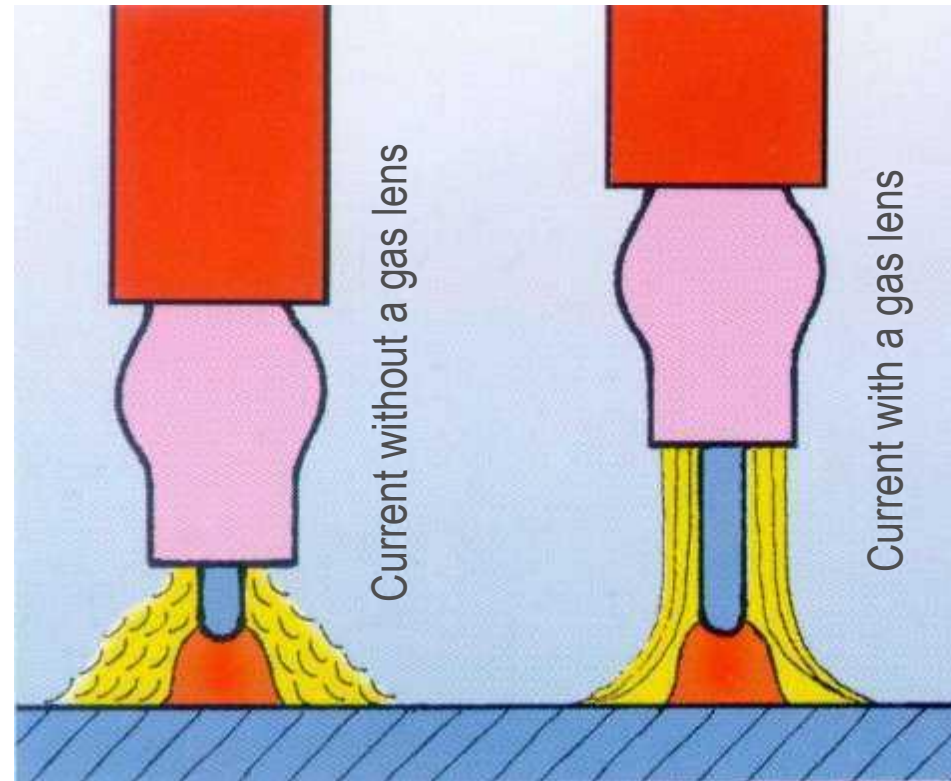
Torch	Welding current at		Duty Cycle	Electrode Æ mm
	AC	DC		
Water cooled				
PW18	140A	180A	60%	1,0 - 2,4
TTW2500A, TTW2500P, WKZ	180A	250A	40%	1,0 - 3,2
TTW3000A, TTW3000P, KD intern	250A	300A	60%	1,0 - 3,2
TTW4000A, TTW4000P	350A	400A	60%	1,0 - 4,0
TTW4000 Fume Ex, KD intern	350A	400A	60%	1,0 - 4,0
TTW5000A, TTW5500P	400A	500A	60%	1,6 - 6,4

# OPTIONS

- / Gas lens
- / P-System (screwed gas nozzle)
- / Fabric reinforced protection hose
- / Special length of hose pack 1,0 – 16,0m
- / Cold wire feeding for TTG2200 and TTW4000
- / Adapter for „old“ power sources with Z-connection
- / Extension hose pack

# GAS LENS

- / Better gas protection
- / Turbulence-free gas flow
- / Highest quality of welding joint
- / Gas savings of 1-2 l/min
- / Little oxidation at high alloyed materials



# GAS NOZZLES FOR SPOT WELDING



42,0001,1409 Gas nozzle for spot welding kon  $\varnothing 22/\varnothing 25,5 \times 33$



42,0001,1408 Gas nozzle for spot welding  $\varnothing 22/\varnothing 25,5 \times 42$



42,0001,1410 Gas nozzle for spot welding  $\varnothing 22/\varnothing 25,5 \times 33$

# COLD WIRE FEEDINGS



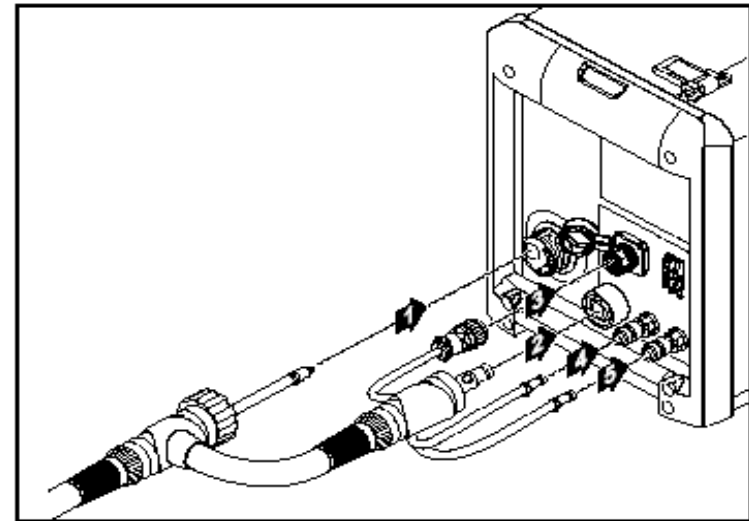
TTG 2200 A / TTW 4000 A  
TTG 2200 P / TTW 4000 P



TTG 1600 P / TTW 3000 P

# TIG MANUAL WELDING TORCH

## TTW 4000 KD F++/JM/LE/4M



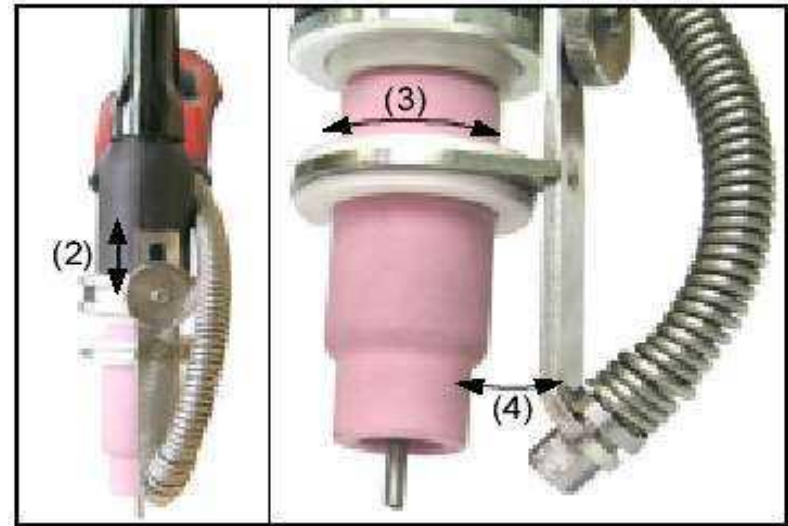
- / Compact construction with integrated wire feeding and internal wire feeding hose
- / Easy exchange of wire guide inner liners due to an internal wire feeding hose
- / Ability to fit wire guide either side → suitable use for left and right handers
- / Connectors TIG F++ and MIG/MAG F for KD 4000 D-11 and KD 7000 D-11

# TIG MANUAL WELDING TORCH

## TTW 4000 KD F++/JM/LE/4M



Jobmaster function



- / Jobmaster function, with external parameter (1) to control the wire feeding speed, standard equipment
- / Continuously variable wire guide setting in height (2), direction (3) and angle of filler wire feed to device (4)

# ADAPTER FOR POWER SOURCES WITH F-CONNECTION



Water cooled



Gas cooled

## EXTENSION HOSE PACK

- / F++ connection
- / Plastic half shells with fabric hose connection
- / Wide dimensioned PVC-hoses for current water cable and water return



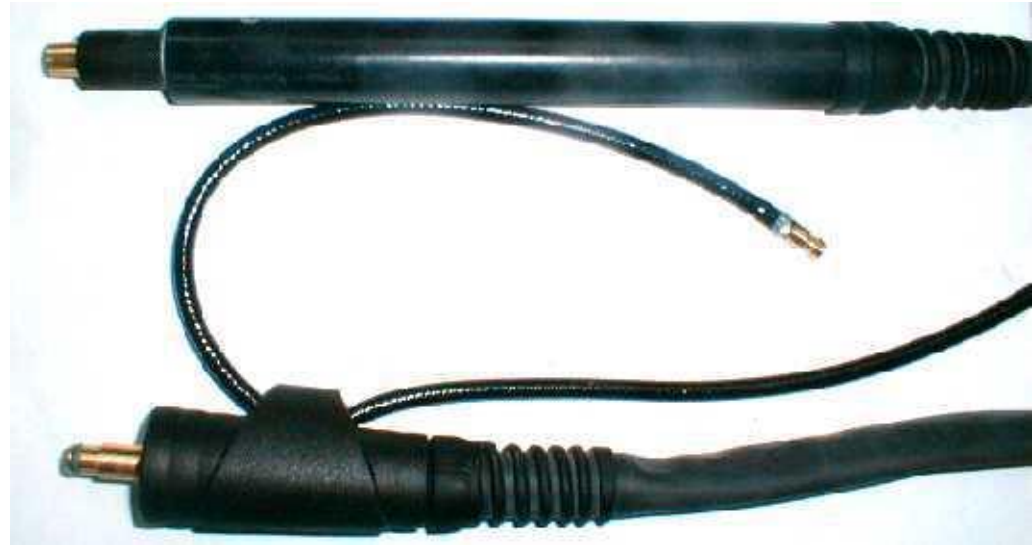
## TCS-TORCH (TIG-COMFORT-STOP)

- / DC welding torch with handle tube without switch
- / Application for TPS Duo TIG or for TIG power source with remote control unit



# AUTOMATIC WELDING TORCH

- / F++ connection
- / Automatic tube with  $\varnothing$  32mm suitable for all robot cold wire feedings
- / Protection hose connection same as for TIG-manual torch
- / Wide dimensioned PVC-hoses for current water cable and water return



# TECHNICAL DATA

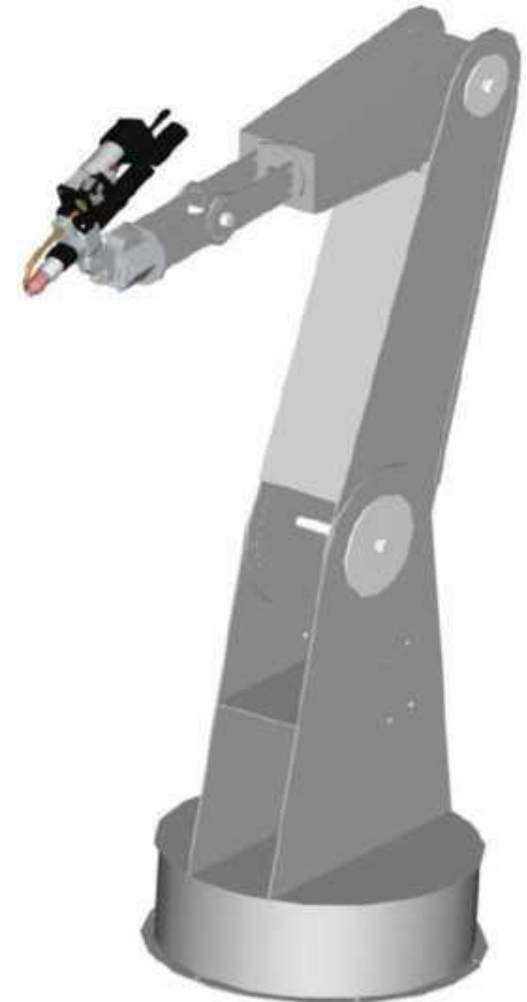
## WIG MANUAL TORCHES

According to EN 60974-7

Torch	Welding current at		Duty Cycle	Electrode Æ mm
	AC	DC		
TTG2200-M	180A	220A	35%	1,0 - 4,0
TTW4000-M	350A	400A	60%	1,0 - 4,0

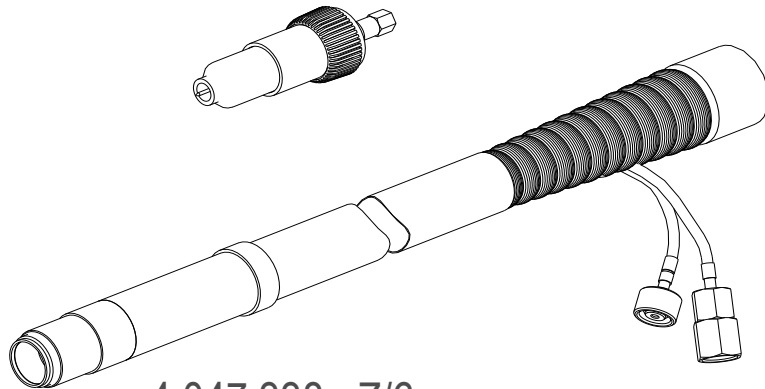
# TIG ROBOT TORCH

- / Modular construction
- / Changeable torch head
- / Pre-adjusting device for electrodes
- / Cold wire feeder Push and Pull



# TIG ROBOT TORCH TTW4000

34,0350,2020



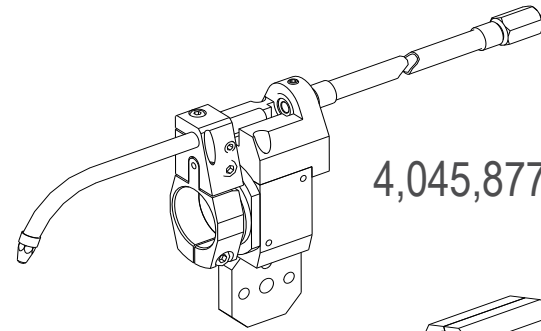
4,047,338...Z/6m

4,047,339...Z/8m

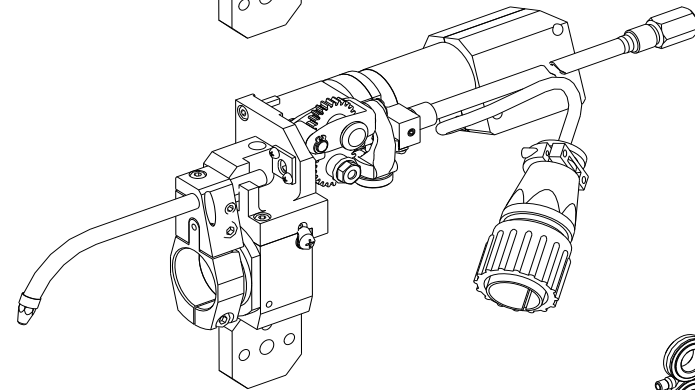
4,047,372...F++/6m

4,047,373...F++/8m

4,045,877



4,045,878

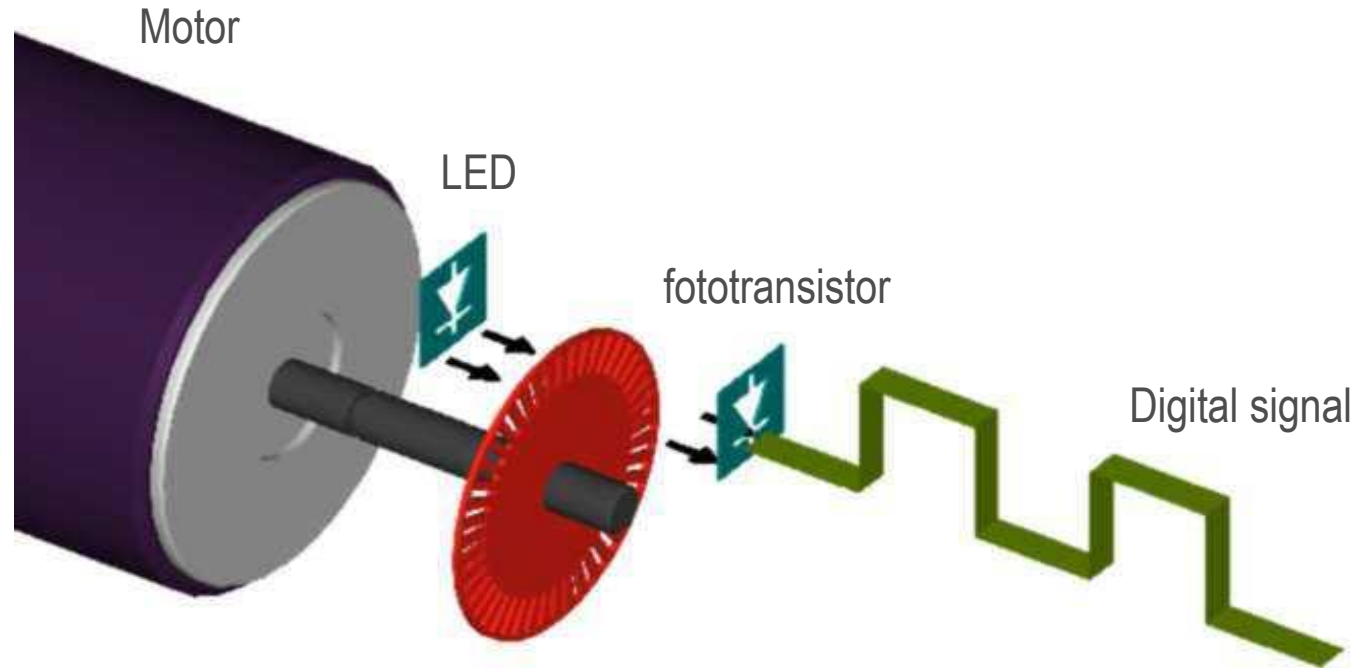


# COLD WIRE FEEDER PULL



- / Three different motors (0-5m/min, 0-11m/min and 0-22m/min)
- / High performance driving device
- / Digital transmitter
- / Cold wire feeder 3x90° mountable
- / Wire feeding tube pivoted

# DIGITAL TRANSMITTER



- / Precisely controlled speed
- / No tolerances of components
- / No temperature effects
- / Steady wire transport

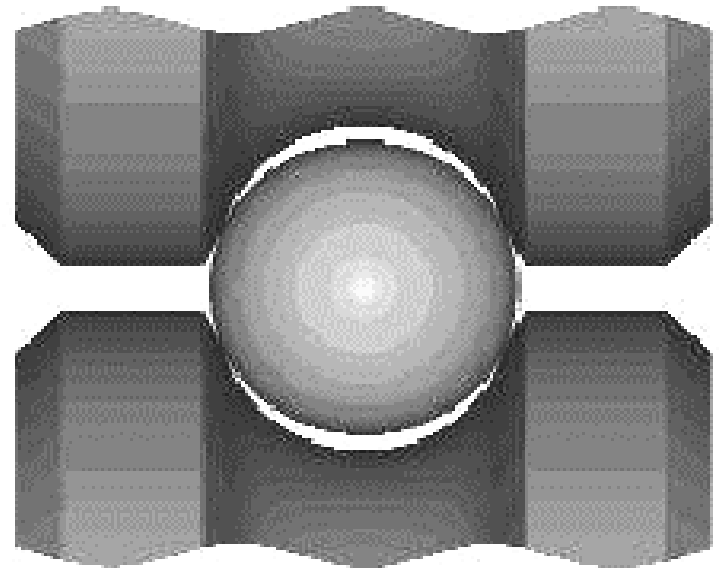
# DRIVING ROLLS

- / Driving and pressure roll toothed
- / Roll diameter 23mm
- / Driving roll with two grooves
- / Combination grooves – driving roll

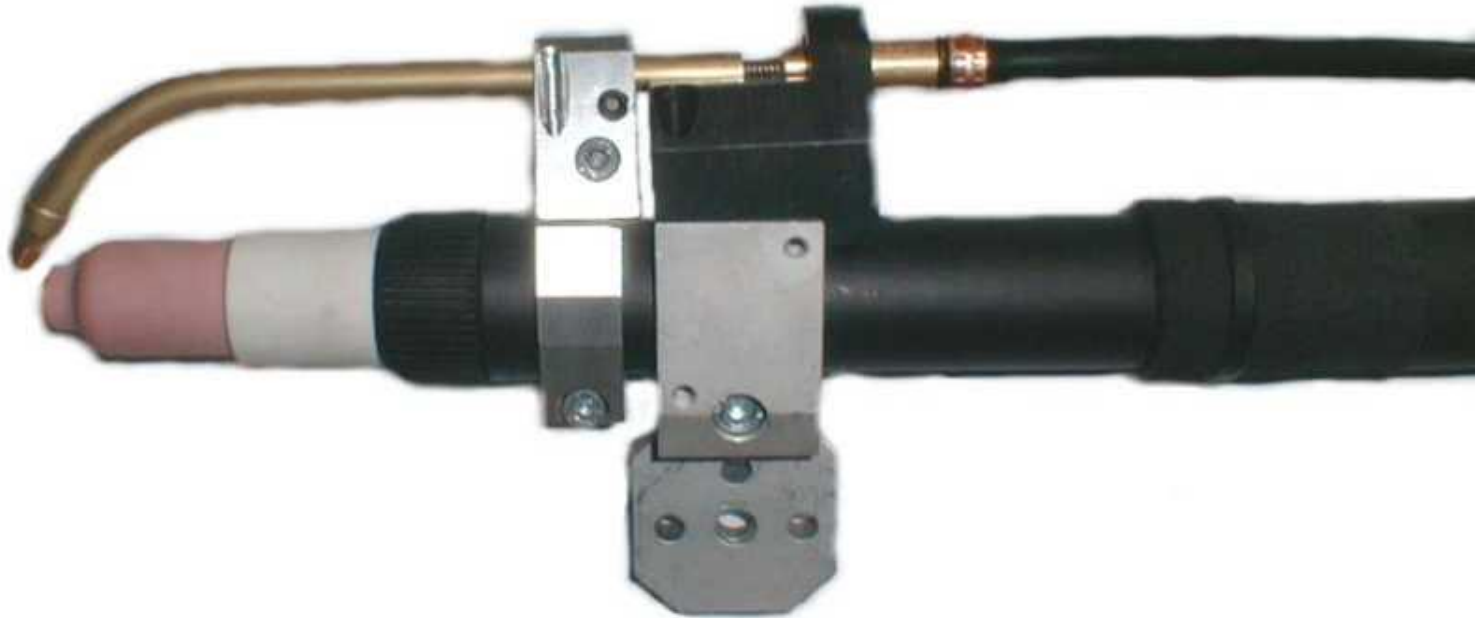


# COMBINATION GROOVE

- / Combination of semi-circular groove and combination groove
- / 4 pressure points
- / 30% improved power transmission
- / Suitable for all wire materials



# COLD WIRE FEEDER PUSH



- / Up to a maximum wire feeder hose length of 3m
- / Cold wire feeder 3x90° mountable
- / Wire feeding tube pivoted

# WITHOUT COLD WIRE FEEDER



/ Applicable without cold wire feeder

# CHANGEABLE TORCH HEAD



- / In each case only one gas lens for all electrode diameters
- / Pre-adjustable electrode
- / Precise electrode position

## ROBOT HOSE PACK

- / Connection for robot torch body
- / F++ central connector
- / Plastic half shells with corrugated hose connection
- / High flexible, wide dimensioned rubber hoses for current water cable and water return



# TECHNICAL DATAS ACCORDING TO EN 60974-7

	Welding current with		Dutycycle	Electrode Æ mm
	AC	DC		
Watercooled				
Robacta TTW4000	400A	400A	60%	1,0 - 4,0
Robacta TTW4500	450A	450A	60%	1,0 – 4,0

# OPTIONS

- / Electrode pre-adjusting device
- / Holding clamps

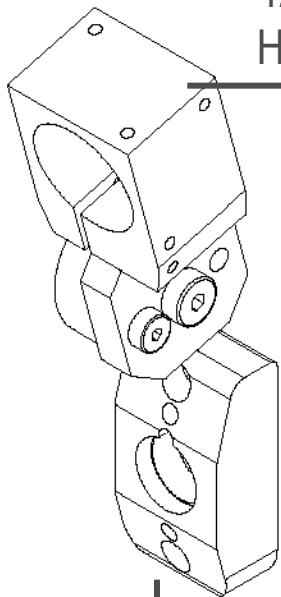
# PRE-ADJUSTING DEVICE FOR ELECTRODES



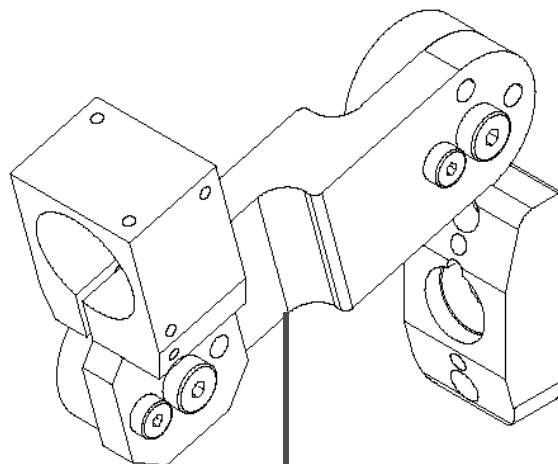
/ To adjust the electrode

# HOLDING CLAMPS TIG ROBOT WELDING TORCH

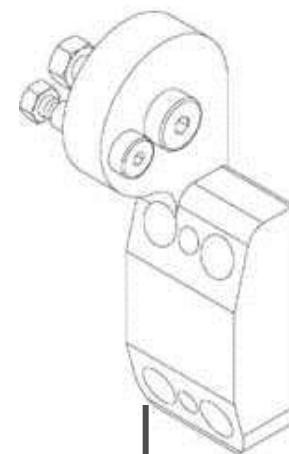
42,0201,0135  
Holding clamp TIG RO KD



42,0201,1644  
Holding clamp mounting Binzel  
CAT,  
Dinse DIX SASS



42,0201,1651 120mm  
42,0201,1652 140mm  
42,0201,1525 160mm  
Extension



42,0201,1526  
Mounting  
Motoman

# ROBACTA TTW4500 ROBOT WELDING TORCH

- / 330 A AC / 450 A DC at 60% Duty cycle
- / Electrode: 1,6 – 4,8mm
- / Length 6m / 8m
- / Robot compatible collet → precise TCP
- / Modular configuration KD, HD, Drive
- / Same TCP as Robacta PTW 1500



/ Battery Charging Systems / Welding Technology / Solar Electronics



**SHIFTING THE LIMITS**