



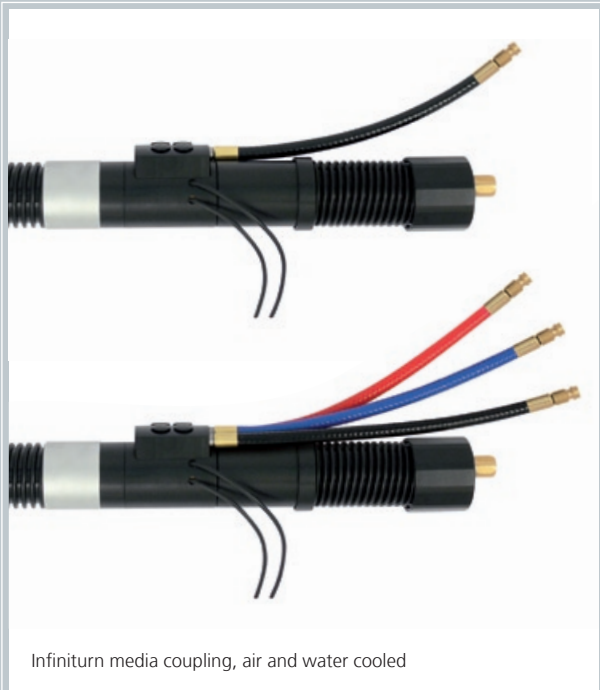
RoboMIG TBi Infiniturn

Welding torch system
for hollow wrist robots

Endless rotation

Air and water cooled versions

Reliable and powerful



Infiniturn media coupling, air and water cooled

Technical data

TBi Infiniturn welding torch system

Rating (depends on welding torch used)

- air cooled max. 400 A / 60 % duty cycle
- water cooled max. 550 A / 100 % duty cycle

Blow out function separate gas line,
max. 10 bar

Total weight approx. 4.2 kg

Connection Euro central connector,
other types available

KSC-1 Torch mount with safety-off mechanism

Repeatability ± 0.1 mm at the TCP of a
standard TBi RoboMIG torch

Max. deflection $\pm 8^\circ$



■ TBi RoboMIG welding torches



The TBi Infiturn system employs the well proven torch necks of the RM-series. Therefore different models, air and water cooled with a performance rating of up to 550 Amps at 100% duty cycle, are available.

Ordering information

For detailed information regarding torches and consumables please see the separate product literature.

Please note: The torch neck version for quick change adapter must be used.

■ Torch mount



KSC-1: with integrated safety-off mechanism

- Reliable shut-off function in case of a collision
- Integrated mounting flange for TBi RoboMIG torches
- Very high repeatability
- Automatic water shut-off valves (W-version)

FLC-1: without safety-off function

- Rigid connection between torch and robot
- Integrated mounting flange for TBi RoboMIG torches
- Automatic water shut-off valves (W-version)



Ordering information

Ordering information		Part no.
KSC-1G	for air cooled torches	536P101402
KSC-1W	for water cooled torches	536P101404
FLC-1G	for air cooled torches	536P101410
FLC-1W	for water cooled torches	536P101412

■ Adapter flanges



The adapter must always be ordered in addition to the torch mount.

- Interface between the torch mount and the robot
- Electrical insulation between the torch mount and robot
- Available for all robot types

Ordering information

Ordering information		Part no.
ABB	ABB IRB1600iD	536P101124
Fanuc	ArcMate 100iC, ArcMate 120iC, M10 iA, M20 iA	536P101117
Kuka	KR 5 arc HW, KR 16 L8 arc HW	536P101123
	KR 16 arc HW	536P101132
Motoman	EA 1400N, EA 1900N, SSA 2000, MA 1400, MA 1800, MA 1900, VA 1400	536P101116
Reis	RV20-xxHW	536P101127

■ TBi Infiniturn cable assemblies



With modern hollow wrist robots, the cable assembly is installed completely inside the robot arm. Therefore, the outline of the robot can be much more compact. However, a completely new type of cable assembly is needed.

For this application, TBi has developed a media coupling which is directly integrated into the cable assembly. By the freedom of endless rotation, the robot is not limited in its possibilities.

The TBi advantages

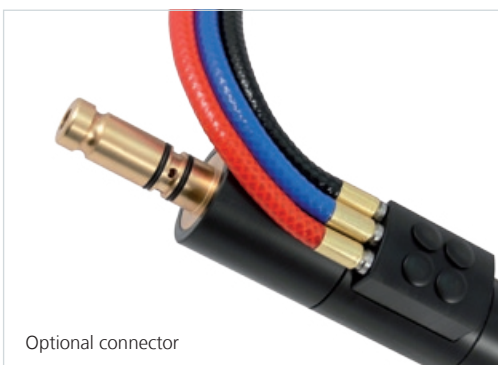
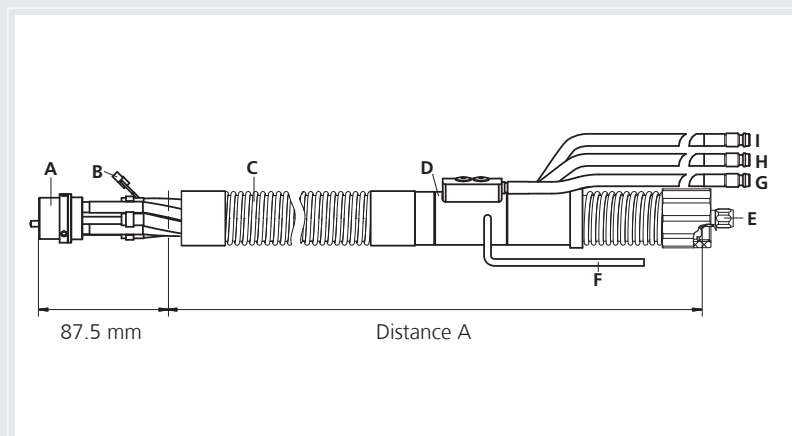
- Integrated media coupling
- Endless rotation
- Robust and reliable
- The rotating coupling is maintenance free

Standard features

- Euro central connector
- Blow out function
- Control line with open ends

Schematic

- A Interface to torch mount
- B Control cable plug
- C Heat resistant outer cover
- D Infiniturn media coupling
- E Euro central connector
- F Control cable
- G Blow out hose
- H Water in (water cooled version only)
- I Water return (water cooled version only)



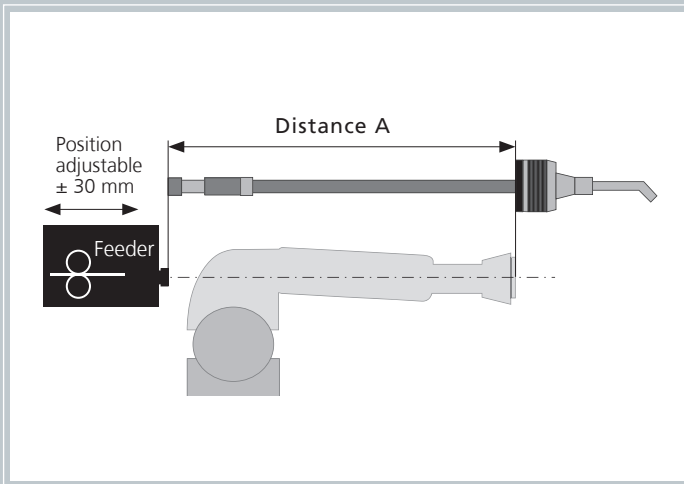
Optional connector

All common machine side connectors are available.

Ordering information for standard version		Part no.
for KSC-1	water cooled, Euro connector	672P100___*
	air cooled, Euro connector	662P200___*
for FLC-1	water cooled (w/o control cable), Euro con.	672P190___*
	air cooled (w/o control cable), Euro con.	662P290___*

* At the blank, please insert the distance A in centimeters, e.g. 098 for A=98 cm.

Technical information



The TBi Infiturn robot torch system is a modular system for modern hollow wrist welding robots. It can be adapted perfectly to the application by choosing the right components. The heart of the system is the robust cable assembly with the integrated TBi Infiturn media coupling. This newly developed component guarantees uninterrupted supply of power, water and gas to the torch.

Please note:

For optimum performance of the system, the correct length of the cable assembly must be exactly determined. When ordering, we need you to indicate the distance A according to the adjoining drawing.

We recommend the use of the Euro central connector and of wire feeder cabinets which have been specifically developed for use with hollow wrist robots.

TBi High-End products *for automation*

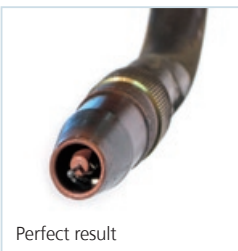
Torch cleaning stations



TBi JetStream



Spraying unit



Perfect result

Wire feeders



TBi PowerPull Box



Planetary drive head

Robot welding torches



Twin wire welding torches



Plasma welding torches