

coldArc⁺ XQ

ewm[®]
WE ARE WELDING

coldArc⁺ XQ

YOUR MIG/MAG PROCESS
FOR RELIABLE PROCESS STABILITY



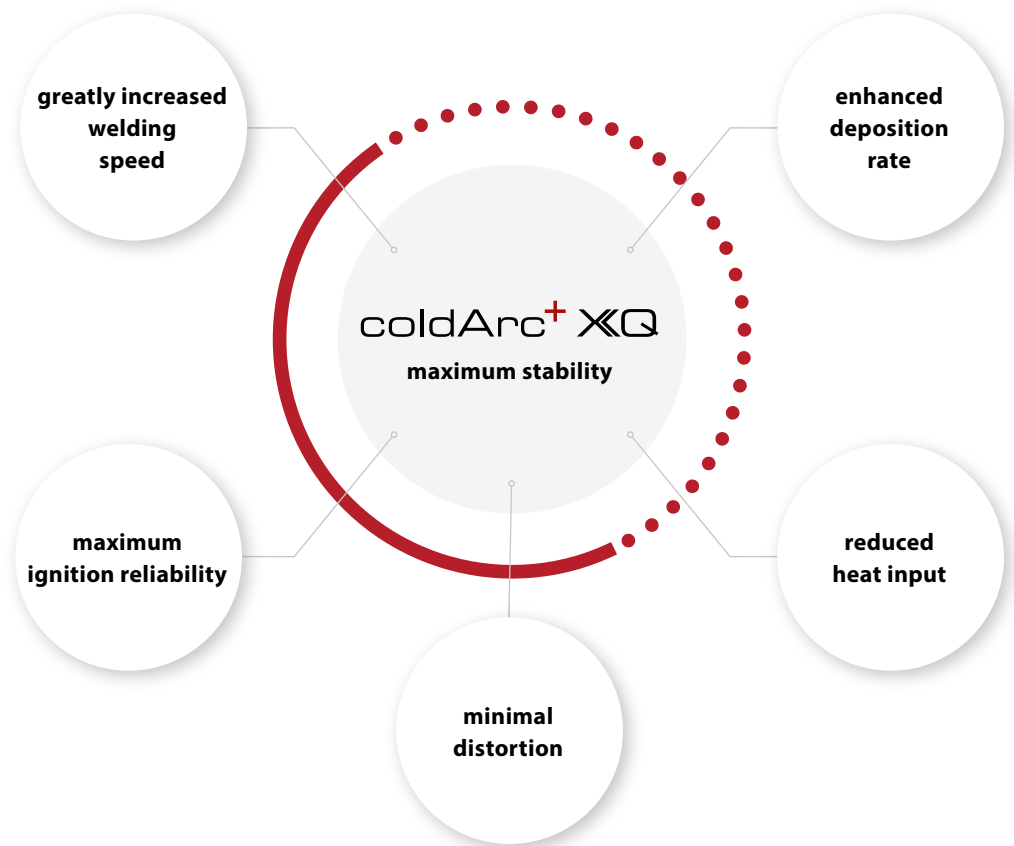
coldArc+ XQ

KEEP DROPLET TRANSFER UNDER COMPLETE CONTROL.

coldArc+ XQ is a welding process developed especially for automated welding. It involves placing the wire on the welding material in droplet form by controlling the welding voltage and welding current and actively moving the wire back and forth.

Appropriate active movement of the wire allows the physical limits of the short arc to be extended. As such, the high degree of process stability enables much higher welding speeds.

coldArc+ XQ is an efficient process which harbours many benefits through an interplay of various components.



THE BENEFITS.

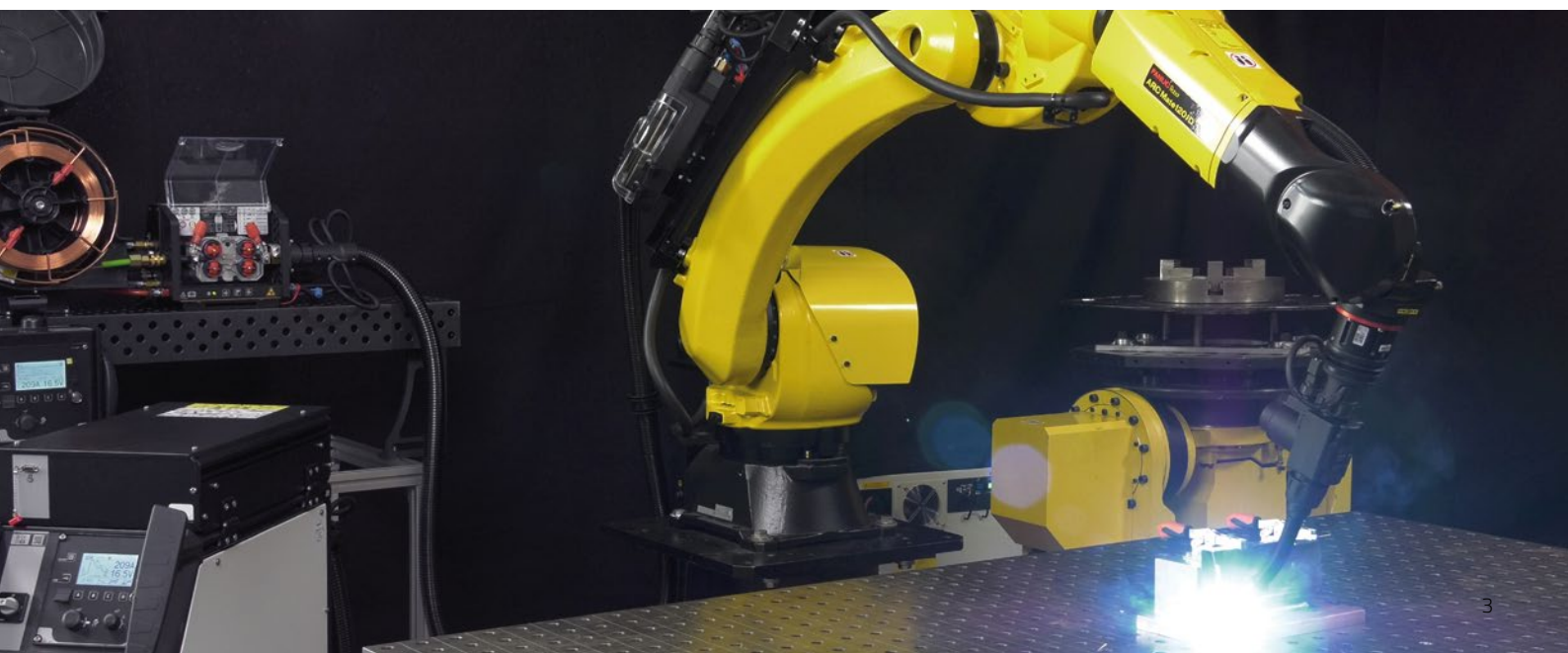
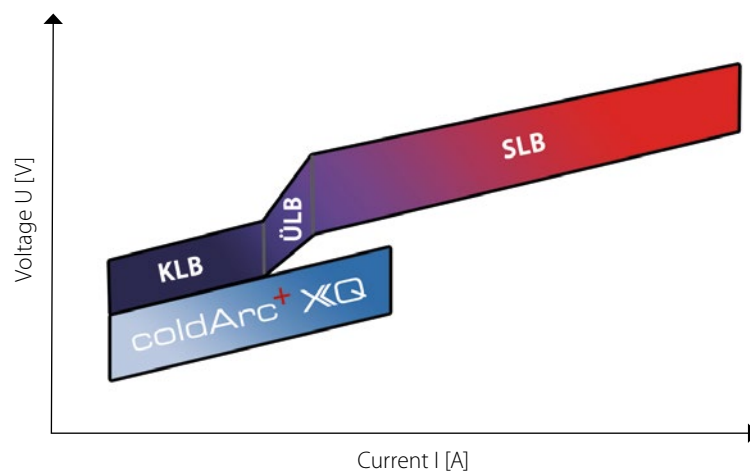
The **coldArc⁺ XQ** welding process combines the benefits of an energy-saving, digitally controlled short arc via the RCC module with dynamic wire movement. This results in maximum arc stability with minimal spatter, which in turn enables you to achieve much higher welding speeds while reducing heat input at the same time.

Here's how it works:

The RCC module can be used to generate a digitally controlled short arc which saves energy and produces minimal spatter. However, this is restricted to the physical limits of the short arc, so only a certain deposition rate is achievable. The increased wire feed speed gives rise to a transitional arc, which should be avoided.

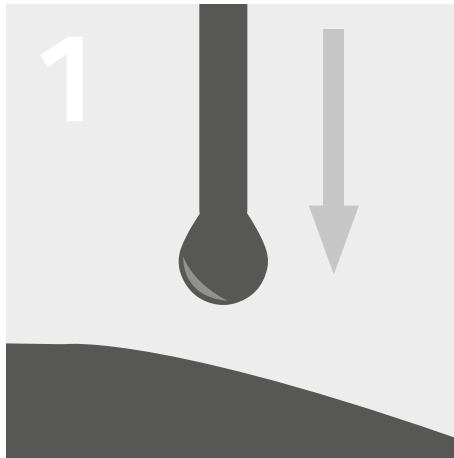
The active wire movement of **coldArc⁺ XQ** allows the range of the short arc to be significantly expanded. This means that a greater deposition rate can be achieved at higher welding speeds without increasing heat input. The energy per unit length and the heat input are reduced and result in low distortion, particularly when welding thin materials. This is especially worth noting with regard to CrNi materials.

The arc is also very stable. This stability not only minimises spatter but also significantly increases welding speed. What's more, the arc is not affected by changes to the stick-out and the welding torch orientation. Due to the precise wire movement, the extreme arc stability also results in high ignition reliability, and the arc length is readjusted with every droplet transfer in the welding process.

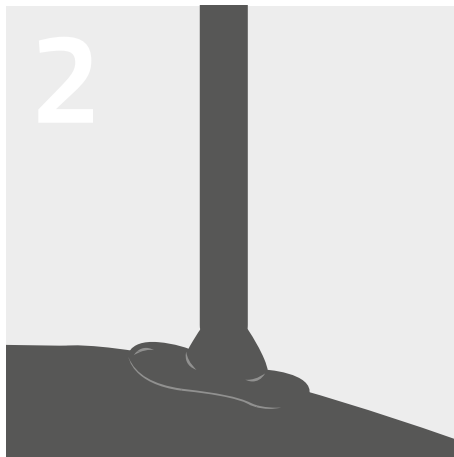


THE ACTIVE WIRE MOVEMENT.

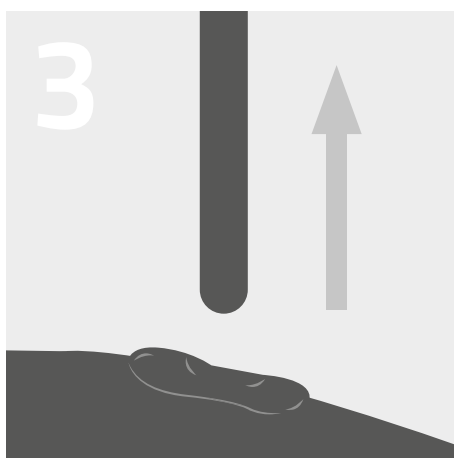
FAST, CONTROLLED, PRECISE.



The wire is moved towards the weld pool at high speed; meanwhile, the arc burns on the molten metal and produces a molten droplet.



As soon as the wire comes into contact with the molten metal, the molten droplet in the short circuit is transferred to the weld pool.



As a result of the active mechanical backward movement, the wire is drawn from the weld pool with high precision and the arc reignites.

The combination of the quick current reduction offered by the RCC module and the controlled mechanical wire movement allows spatter-free results with unbeatable process stability.

Repeat step 1 by moving the wire in the opposite direction.

The full wire movement is carried out individually for every single detached droplet.

THE COMPONENTS.

PERFECT HARMONY.

All components are powered by the Titan XQ R power source with integrated RCC module. In combination with the new **coldArc⁺ XQ** control, this creates a unique process.



The M drive Rob 5 wire feeder ensures a continuous wire supply with a coordinated average value.

The wire storage switches between the wire feeder and the robot welding torch and acts as a buffer between the components to offset the active wire movement.



Integrated into the special **coldArc⁺ XQ** robot welding torch is a highly dynamic motor which causes the wire to move back and forth in the high frequency range.



WE ARE WELDING

We're happy to help: sales@ewm-group.com

EWM is your partner for the best welding technology. With EWM, you'll weld more efficiently, more reliably and produce higher-quality results. EWM's innovative systems, high-performance welding procedures, digital technologies and services as well as expert consultation all support you in achieving perfect results from your welding tasks.



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