FAQ's MagicCleaner 150&300 – General

General

When can you send out the commercial presentations and leaflets, materials so that we can prepare our launch in the different countries?

The marketing material is available with the Start of communication on 14th February 2022.

Which are the main competitors and Fronius benefits against those?

- Cougartron
- Reuter
- TIG Brush
- WELDBRUSH

The competitor analysis is under construction and will be available in a few months.

Is the UKCA mark available for this product (new mark instead of CE) for UK?

The UCKA mark will be necessary by 2023 and will be then available for MagicCleaner 150/300.

How long will spare parts be available for the old system after discontinuation?

The existing spare parts for the MagicCleaner Stand Alone will be still available regarding our standard regulations.

When do you stop the actual MC?

The old MagicCleaner Stand Alone will be discontinued with 31st December 2022.

What kind of warranty will the new MagicCleaner have?

2 years standard warranty - 1st year material and working time, 2nd year just material.

With the optional product registration you have 3 years full warranty on material and working time.

Is the interactive user manual available online?

Yes, the well-known online operating manual will be also available for the new MagicCleaner 150/300 and can be found on www.fronius.com/magiccleaner.

Are there also service and support training courses?

The MagicCleaner will be implemented to existing TIG courses were also a live demo is possible.

Machine

Cleaning power setting 1-2-3 what is the recommendation per setting?

With increasing cleaning power, higher cleaning speeds are possible - the more cleaning liquid is also required.

Further it also depends on the pollution of the material to be cleaned.

On the MC300 you have level 1-4, because of the higher output cleaning power.

What is the power range (amperage) of the units?

- MagicCleaner 150 has 15A output current and 450W output power
- MagicCleaner 300 has 30A output current and 900W output power

The MC 150 uses gravity to dispense fluid what if you were cleaning above head height?

The torch of MC 150 doesn’t work by gravity, it’s a manual pump and works even overhead.

Is the power cable bare wires or is there a standard plug for MV machines?

There is - like already available on our single-phase welding machine an "np" version of the power cable where you have a cable with open leads to connect any plug.

Are the MagicCleaners based on existing Fronius products like TP 150/180 or has it its own components inside (I mean: pc-boards, diodes)?

Just based on the housing TP150 & iWave 190-230i - the components inside are completely new.

Will it be possible to make a firmware update for MC 150/300?

There is no possibility to make a firmware update or either establish a connection to the machine.

One thing regarding the MagicCleaner 300 was not clear, is there a compressor built in or does the unit have a compressed air connection?

The MC 300 has a compressed air connection at the rear, a pressure reducer is built in - the maximum inlet pressure is 6 bar.

What about the required working pressure for the MagicCleaner 300?

For cleaning and polishing with the blow-out torch, a compressed air supply with the following specifications is required:

- Compressed air supply 6 bar by means of pressure limiter and compressed air filter
- Compressed air quality according to ISO 8573-1:2001, class 7 4 3, instrument air
- Solid particle concentration ≤ 10 mg/m3
- Pressure dew point steam ≤ + 3°C

– Oil concentration ≤ 1 mg/m3

The MC 300 the torch is fixed, if there is a defect here, can the customer change the package himself or does he need a technician?

The torch itself can be fully repaired; all spare & wear parts are available.

Should the hose package ever need to be completely replaced - a technician is basically necessary, as the unit must be opened.

How do I mount the small cleaning torch on the MC300?

On the connection panel in the front – in the middle – the connection for the smaller cleaning torch is located.

Processes

How does the printing/marking work?

The printing process is like the actual MagicCleaner.

On each machine there is a separate printing mode with special printing liquids (black & white).

There is also a separate cleaning torch with wear parts available - to avoid mixing the printing liquids with the other cleaning liquids.

How long does the container, with the liquid, last for MC 300?

This depends on the material/surface which needs to be cleaned and what cleaning power is set.

The higher the cleaning power, the more cleaning liquid is needed.

Is the Magic Cleaner capable for cleaning aluminum?

Basically yes, as you know there are many different alloys and cleaning effect is also depending by “age” of material. More aged material, more intense will be the natural oxide and cleaning action will be consequently different.

So, it depends on the specific aluminum alloy and must be tested before. Basically, you can use the Cleaning blue liquid because it's not that aggressive as the Cleaning/Polishing red Liquid.

Why AC for cleaning?

The AC current acts as cathode or anode alternatingly.

The cathodic polarization produces a “mechanical effect” of detachment and rupture of the oxides layer.

The Anodic polarization in combination with electrolyte dissolve the oxides without remove base material from the surface and passive the underlying metal surface (stainless steel).

Therefore, the combination of the two effects, cathodic and anodic, turns out to be the best combination for electrochemical pickling.

Using the DC, a unidirectional current flow is generated between the anode (base material) and the cathode (torch).

This flow through the behavior of the electrolyte acts on the crests present on the surface.

While polishing, the crests at a microscopic level are dissolved, thus reducing surface irregularities, and increasing resistance to corrosion.

In some markets customers know very little about electrochemical cleaning and use mainly mechanical grinding. Will there be some documentation about the customer benefits using electrochemical cleaning?

With a cleaning method like grinding, you damage the surface of the material - difference to electrochemical cleaning is that you clean and initial also passivate the material surface and therefore prevent the material for a long term against corrosion. Additional customer values can be found in the brochures or in the product presentation.

Do you have different colors for printing?

Yes, there is black and white printing available - different liquids. The printing sample can be used for either black or white printing.

Why does the MC150 have its own brush mode and the MC300 does not?

On the MC150 is just one brush available - therefore there is a setting with lower voltage - to reduce mistakes in case of misuse.

In case of the MC300 there are less problems with the brushes, and it is easier to use.

Power setting - recommendations are included in MC300 operating manual not included in MC150 operating manual.

Because of the reduced power of the MC150 the range of settings are very low - therefore the customer will not feel too many differences and can also make less mistakes.

Do we have a document which describes the occurrence of possible corrosion due to the welding of CrNi steel?

Basic information is available in the product presentation and folder.

What about the cleaning speed from old to new equipment?

In terms of output power, the cleaning speed of the MagicCleaner 150 will be slightly lower than the previous MagicCleaner Stand alone. The MagicCleaner 300 can achieve a faster cleaning speed due to its higher output power.

Apart from TIG process, can the Magic Cleaner be also used on GMAW or MMAW process?

Yes, it can be also used for other processes - GMAW, STICK but there you have a higher effort to get the job done - therefore it is mainly used for TIG applications.

How is the cleaning performance and results of MIG/MAG welding seams?

In general, it needs more effort to clean MMA or GMAW welds compared to a TIG weld.

On the MagicCleaner 150/300 you might need to increase the cleaning power to establish a good cleaning performance, but it might take longer compared to clean a TIG weld.

Where can you admire all these possibilities live (or video)?

There will be product videos available - where it is shown what cleaning processes can be used and what their performance is.

When I switch from cleaning to polishing - Do I have to change the electrode/brush due to the different liquids?

Depends on the used liquids - the red one can be used for cleaning and polishing - the blue one just for cleaning.

For printing are different liquids and wear parts necessary.

So, it is also recommended to change wear parts if you are going to use another liquid - or you flush the torch with the changed liquid.

Which print foils are available and how can they be ordered?

We distinguish between 2 types of print foils:

a) Disposable print foil (42,0411,8023): Can be printed individually by the customer using a mechanical typewriter or a dot matrix printer.
Printed individually by the customer. Suitable for max. 5 prints. Standard size 65x180mm.

b) Reusable print foils: These foils are supplied ready-made with the logo requested by the customer. We only need a suitable template from the customer (more details can be found on the order form for print foil. LINK) in which the customer specifies the exact design of the logo. Currently 4 standard sizes are available. When ordering a reusable print foil for the first time, tooling costs must be charged, which are not applicable for repeat orders of the same foil.
For more information, please see the price list.

Torch

Why do we need compressed air, for and what is the maximum pressure bar?

The compressed air is necessary to blow away the fume created during the cleaning process of the MagicCleaner 300.

For cleaning and polishing with the blow-off torch, a compressed air supply with the following specifications is required:

- 6 bar compressed air supply with pressure relief valve and compressed air filter
- Compressed air quality according to ISO 8573-1:2001, class 7 4 3, instrument air
- Solid particle concentration ≤ 10 mg/m3

- Pressure dew point steam ≤ + 3°C
- Oil concentration ≤ 1 mg/m3

Will there be different torch lengths available?

In case of the MagicCleaner 300 the cleaning torch is fix mounted and there is no different torch length available.

In case of the MagicCleaner 150 the power cable for the torch can be changed and there are different lengths available.

Standard is 2 m, but we also have 4 m and 6m.

Wear Parts

Is there a recommended wear part kit available?

With the machine delivery you will get few samples of electrodes, brushes and pads - see also the scope of supply in the product presentation.

There is a recommendation sheet available for wear parts to be used as demo equipment.

This sheet will be communicated and be available on SharePoint (LINK)

Is there any data available for how long the electrodes, brushes, felt pads, liquids are usable from past experience in Europe? i.e. electrodes are rated for x meters, 1L of liquid is good for x meters, etc.

As anticipated, it is not easy as it depends on the conditions of use, quality of the welds and the ability of the operator, here are some indications that we have collected in the field.

Graphite inserts	120 - 150 hours
Tungsten inserts	250 hours we recommend removing the pad and wash the insert at the end of the day to grant max. lifetime
Brushes	8 - 12 hours

Why couldn't you use the same tools for both devices?

Because of the positioning of the MagicCleaner variants itself - the MC150 is for small applications and where cleaning is not necessary that often.
The MC300 has a higher performance and therefore also needs a different tool/cleaning torch with different usability to establish a different positioning for the MC300 and customers who need to clean bigger parts or longer weld seams.

Liquids

What about the powder, which we were using on the old MagicCleaner?

You can still use it, but our recommendations are the new liquids für Cleaning/Polishing/Printing.

What happens when different cleaning liquids are mixed in the tank?

Basically nothing - just avoid mixing liquids so that the cleaning result is not affected.

What steps are necessary before switching to another liquid?

Depending on the application, wear parts may also need to be replaced.
It is important - similar to gas purging in a welding application - to get the old liquid out of the system until the new one comes out at the front of the cleaning torch.

Are there "tougher" requirements with handling the new red liquid?

The corresponding safety data sheets are available for download on the website.

Can I use the old liquids for the new devices, and/or can I use the new liquids for the old devices?

With the old MagicCleaner Stand Alone, all liquids can be used with the exception of Printing white 0.1L.
With the new MagicCleaner 150 and MagicCleaner 300, only the new liquids and the electrolyte powder can be used.

What precautions must be taken regarding the safety of cleaning fluid? e.g., shipping, storage, use, disposal

You can find the detailed information in the SDS on our website.

With the old MagicCleaner, the neutralizer was not necessary - what exactly is it used for now?

First, there is no difference between the old and the new MagicCleaner in terms of cleaning process. The neutralizer is used at the end of the process for the final cleaning of the surface to prevent stains and neutralize the acid.

With the existing MagicCleaner was cleaned with normal water after the cleaning process, which led to red rusting of the components after 3 months.

Our suggestion is to use the Neutralizer to remove the residues of the cleaning liquid.