Flat bed machines with DA direct drive
Which machine classes from the M-TYPE dispose of an integrated DA direct drive?

- Similar to the "First of M-TYPE" the flat bed machines are in the focus initially.
- Machines of class 867 fitted with a DA direct drive have a special identification in the subclass designation. The letter "M" means that this machine is equipped with a motor integrated in the sewing head ex factory.
- Example: 867-190342-M
- At present the following subclasses of the 867 are offered with an integrated DA direct drive in the price list:
  - 867-190122-M
  - 867-190125-M
  - 867-190142-M
  - 867-190145-M
  - 867-190322-M
  - 867-190342-M
  - 867-190425-M
  - 867-190445-M
- Further subclasses of the 867 with integrated direct drive will be made available by Dürkopp Adler AG continuously.
- Of course, in future the offer will not be limited to flat bed machines only. In the near future also post bed and cylinder arm machines from the M-TYPE will be available with DA direct drive.
The brushless direct current motor of the DA direct drive is **completely integrated in the sewing head** and drives the upper shaft of the machine without additional transmission elements.

- This **maintenance-free design** allows a very smooth running with low vibration and maximum energy efficiency.
- The torque of the motor has been increased by approx. 25% in comparison with a conventional drive and enables a significantly **higher needle penetration force** when processing extreme materials.
- The integrated sewing motor disposes of a high dynamics during the acceleration and braking phases as well as of an excellent positioning speed and positioning accuracy.
- The synchronizer of the DA direct drive is integrated in the motor. An external synchronizer is not required.

Is it possible to retrofit a machine class 867 with an integrated DA direct drive?

- No. A subsequent installation of the integrated DA direct drive is not provided.
**CONTROL**

**With which control class 867-M is operated?**

- Class 867-M is operated with a control developed by Dürkopp Adler.
- The concept of this control is laid out for the individual use on a multitude of Dürkopp Adler sewing machines.
- This control is named "DAC classic" (Dürkopp Adler Control - upgraded version "classic") and supports all machine functions specific for the M-TYPE CLASSIC.
What advantages does the control "DAC classic" offer?

- Precisely adapted parameters guarantee **optimum functionality combined with maximum ease of use** for every machine class.
- When the machine is put into operation, these machine-specific parameters are transferred to the control directly from the machine identification memory (machine ID) of the respective machine. The manual input of basic parameters or a manual selection of the machine class are completely avoided. The advantage is obvious: **PLUG and PLAY**.
- A clearly arranged structure of parameters classified according to functions allows a user-friendly setting of application-specific values with the help of the control panel.
- **Trouble-free data transfer** (parameter or software updates) by means of a DA memory dongle.
MACHINE ID

What is the function of the "machine ID" and where is this component installed?

- The **machine ID** is a memory module (EEPROM) placed directly on the power supply board behind the motor cover of class 867-M. Here **all parameters specific for this machine subclass** are stored ex factory. This memory module is connected to the control via a serial cable in order to guarantee a data exchange in both directions.

- When the machine is put into operation, the storage contents of the **machine ID** are compared with the storage contents of the control in which case the machine ID has the higher priority.

- If the control does not show any machine-specific information after the start-up or if the information available on the control deviates from the machine ID, this is recognized by the control. In this case the data of the machine ID are automatically transferred to the control, and the machine is ready for operation without any further measures.

- The same applies after the exchange of a "DAC classic" control: connect the new control, switch the machine on and continue production.

- In case parameters are changed on the control during the sewing operation, they are transferred to the machine ID in parallel. After this procedure the machine ID and the control are at the same information level again.
MEMORY DONGLE

What is the function of the DA memory dongle?

- With the Dürkopp Adler memory dongle (9835 901005) control files can be transferred.
- The transfer can be made in both directions, either from the memory dongle to the control (loading) or from the control to the memory dongle (saving).
- The control files contain sewing data (parameter settings) or programmed seam sections.
- Furthermore, firmware updates can be transferred by means of the memory dongle.

Why is a memory dongle used and not a USB stick?

- Not all customary USB sticks are supported by industrial control systems as standard. Contrary to a PC operating system no driver software for USB sticks, which could be individually loaded according to the memory medium, is available on the controls. For this reason it is provided to use a DA memory dongle with serial port.
MEMORY DONGLE

Can a DA memory dongle be used for a PC without serial port?

- For this purpose Dürkopp Adler offers a corresponding "dongle connector" (9850 001211).
- With this adapter data can be transferred via the USB interface of the PC to the DA memory dongle.
- The function "data transfer via loader cable" is not available.
- The required loader program named "Dongle Copy" can be downloaded free of charge under "www.duerkopp-adler.com". This software is compatible with the common Windows® operating systems (XP®, WIN7® and WIN8®).
CONTROL PANEL

Is an external control panel necessary for easy operation?

- Yes, all entries of the DAC classic control are made via the **intuitive user interface** of the control panel "OP1000".

- This control panel belongs to the **standard scope of delivery** of the DA direct drive and does not have to be ordered separately.
CONTROL PANEL

Which functions does the control panel "OP1000" offer?

- With the control panel "OP1000" all standard functions can be set without any problems. Via symbol keys it is possible to preselect e.g. single or double bartacking at the seam beginning or at the seam end. The corresponding number of stitches in the bartack sections can be adjusted as desired via plus/minus keys.
- Functions like thread trimmer on/off, needle stop position within/outside of the material as well as automatic sewing foot lift after thread trimming can be preselected at the touch of a button.
- Simple seam programs (e.g. attaching of labels or pockets) can be programmed quickly and easily.
- The maximum sewing speed can be preselected directly on the control panel interface.
- The OP1000 disposes of an LCD display showing the most important supplementary information as e.g. number of bartack stitches, sewing speed, error codes etc.
- Via a defined key combination you get into the "technician level" of the control program. Here the parameter settings are clearly displayed and can be changed, if required.
- The above-mentioned descriptions are only a minor part of the technical possibilities. Further information can be taken from the operating instructions of the "DAC classic" control.
POWER SUPPLY UNIT FOR DIMMABLE SEWING LIGHT

Where is the power supply unit for the sewing lights of the machines with DA direct drive?

- The power supply unit of CLASSIC machines with DA direct drive is ergonomically integrated in the motor cover. Fastening under the table top is not provided any more.

What are the connection options of the integrated power supply unit?

- The integrated power supply unit is supplied with power by the control. When the control is switched off, the power supply of the unit can be established via an additional main switch at the front of the control.

- **Two independent outputs** can be switched and dimmed:
  - Primary voltage 230 V, secondary 24 V.
  - Output 1: 1x 1.8 Watt for integrated 10-LED sewing light (9880 867102).
  - Output 2: 1x 3 Watt for optionally one 1-LED sewing light (3 Watt), an integrated 2-LED sewing light (9880 888101) or max. three individual 1 Watt LEDs (e.g. bobbin lighting) connected in series.
POWER SUPPLY UNIT FOR DIMMABLE SEWING LIGHT

What are the operating options of the integrated power supply unit?

- The integrated power supply unit disposes of 3 ergonomically arranged operating elements.
  One button each for the two outputs (integrated LED sewing light and additional lamp) as well as a potentiometer for the dimming function of both outputs.

How are the outputs of the integrated power supply unit dimmed?

- Keep the button of the desired output pressed until the connected LED sewing light starts flashing. Set the desired brightness with the potentiometer. Actuate the button of the corresponding output once again to save the setting.