

— **ARS** Aircraft Refueling System

— Compact Refueling system for the
refueling of helicopters and airplanes



Requirements for refueling helicopters and light aircraft become ever more demanding. ARS Aircraft Refueling Systems by M+F provide highest performance and usability for

- Self Service capability
- control by flow computer system
- compact design
- proven design for heavy duty operation
- connectability to central computer system
- easy operation

The refueling systems of the ARS series were designed to meet exactly these requirements and have been proven in many airfields. They are equipped with flow computer **MF**X_100, printer and further electronic control technology.



ARS _ Aircraft Refueling System

— The refueling system in detail

Cabinet closed



Cabinet opened for operation



Cabinet opened for service



- ARS Aircraft Refueling System is a compact metering system for the refueling of helicopters and light aircraft. It is designed to be installed in a fixed location.
- Its housing serves as a weather protection and can be opened partially for operation as well as entirely for servicing.
- The system provides refueling without any air enclosures in the fuel. The **MF_X100** Flow Computer controls all necessary functions in order to guarantee a flawless aircraft refueling, including the control of pump and valves.
- The Flow Computer **MF_X100** can also be installed on a separate post with a large digital display for distant read-out. A protocol printer is available for printing delivery notes. Also for self service operation, the system can be connected by radio communication, by wire or by Chip Card to an administrative computer system in a control room.

ARS Aircraft Refueling System

— Flow Computer MFX_100



- The Flow Computer **MFX_100** processes all signals that are necessary for fuel delivery of aircraft.
 - It checks the completely filled meter run before every refueling and then releases the start function. Also, the flow rate can be set and selected by parameters in the **MFX_100**.
 - On the display, the flow computer shows all required data like delivered volume, flow rate, gross and net volume, status of loading process control and so on.
 - On an optional printer, this data can be printed out along with delivery note no., date, time, density, volume and product temperature as well as further text lines as specified by the operator.
 - A remote display unit can be installed if there is demand for a further read-out. Also, there are standard communication options to connect the system to a remote administrative system by radio, cable or Chip Disk.
- (see also leaflet Flow Computer **MFX_100**)

— Specifications

Flow rates

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The diameter of the meter run depends on the required flow rate.

The ranges are as follows:

1. DN 40 20 to 200 l/min
(for type MF Pit Stop 2)
2. DN 50 40 to 400 l/min
(for type MF Pit Stop 4)
3. DN 50. 80 to 800 l/min
(for type MF Pit Stop 8)

The volume meter sends its data by a dual pulse transmitter to the **MF**X_100 flow computer .

Approvals

The refueling system can be used with all liquids that are approved for refueling of aircraft, helicopters and other flight devices. It is used as a full hose delivery system.

A sight glass is installed right behind the meter to check for air or gas insertions during the loading.

PTB-approval no.

1.32 - 99025640

approval sign

5.118
99.02

System design

The system consists of:

- pump set
- filter-monitor with built in switch
- back pressure valve
- temperature probe PT_100
- volume meter with integrated dual pulse transmitter
- sight glass
- shut off valve for hose delivery
- shut off valve for pressure loading (only in version for pressure loading)
- hose drum with delivery hose and pistol
- flow computer **MF**X_100
- control system
- housing

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