

AMT *Twin*



Figure 1 - AMT *Twin*

Introduction

The AMT *Twin* has been designed for the semi-automatic filling of open dewar vessels and pressure build dewar vessels with liquid nitrogen.

Description

The required vessel will be connected to the unit. After connecting the vessel and giving the start command, the unit will start its filling cycle. When the vessel has been filled, the unit will stop by itself. This saves out waiting time for the operator.

The unit exists of a microprocessor controlled base unit which is assembled in a stainless steel cabinet. The buttons for starting, stopping and emergency stop are mounted on the front panel of this cabinet.

Underneath the cabinet the pipes and valves for the filling unit are assembled. Depending on the execution of the AMT *Twin* the filling hoses or lances are mounted on the sides of the unit. When the filling point is executed for pressureless filling, a hose combined with a lance will be put into the dewar vessel. If the filling point is executed for pressure filling, a filling hose and a de-gassing hose will be connected to the vessel.



Figure 2 - Lay-out of a AMT *Twin*

The AMT *Twin* uses solenoid valves which are suitable for cryogenic fluids. The maximum working pressure is 3,5 bar. The unit stops the filling process by measuring the temperature of gas getting out of the vessel. Next to this a timer guards the filling time. If the maximum filling time is exceeded (f.e. leakage), the system will stop the filling process.

If required the filling station can be modified to customer specifications (f.e. pressure operated valves, higher working pressure).

Specifications

Possible executions	: 1x pressureless filling 1x pressure filling 2x pressureless filling 2x pressure filling 1x pressureless filling en 1x pressure filling
Auto Stop	: By temperature measurement
Valve type	: Asco solenoid 3/8"
Power supply	: 1x 230 VAC, 50 Hz, 2 A + PE
Medium	: Liquid Nitrogen
Pressure	: Max. 3,5 bar
Build	: - Stainless steel cabinet - Non insulated filling hose DN-10 (JIC 3/4" UNF) - Optional vacuum insulated hoses
Safety	: - Executed with safety block valve - Emergency stop - Possibility to integrate in oxygen monitoring system - Timer controlled maximum filling time - CE marked