



Hy-Fill 350 Hy-Fill 700

Hy-Fill Hydrogen Dispenser

Composition of the supply

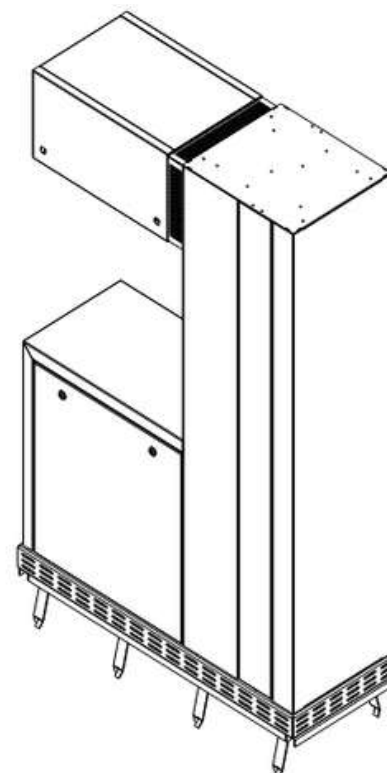


Hy-Fill 350-IR
Hy-Fill 350
Hy-Fill 700-IR

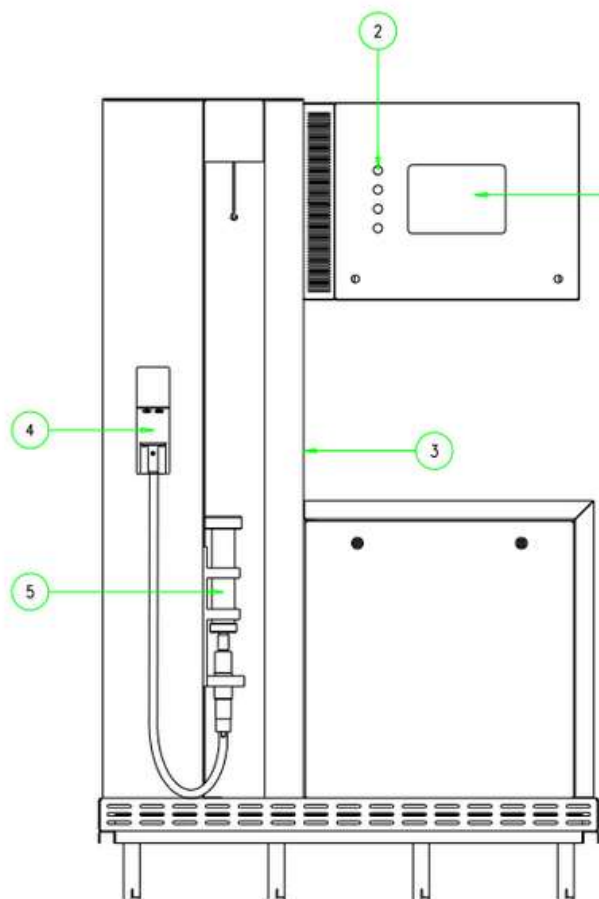
Installation – Start Up – Dispenser Testing Service

The compressed hydrogen gas supply station is made up of a distribution column connected to the hydrogen gas storage and distribution system.

The function of the system is the supply of hydrogen gas for vehicles prepared, tested and approved for the use of this fuel.



Column	Main body in metal carpentry
System	System controlled by a PLC for system safety
Supply	The supply takes place via a special approved nozzle designed for the supply of compressed hydrogen in the gaseous state.
System Security	For safety there is a BREAKAWAY valve, in case of possible breakage damage to the dispensing gun
Monitoring display	In the upper part there is a display for monitoring the quantity dispensed, the price per unit of measurement and the total cost of the quantity of gas dispensed.
Classification of the substance	Product classified as dangerous pursuant to current legislation. Classification according to Dir. 67/ 548 / EEC: F+; R12 Num. in Attachment 1 Dir 67/548 and subsequent amendments. 001-001-00-9



Description Dispensing station

Toyota SAE J2601 protocol

The Dispenser complies with the CEP/Toyota protocol for refueling at pressures up to 350 bar.

In reference to SAE J2601, refueling is permitted up to 40°C ambient temperature and at higher speeds.

In order to fully comply with this protocol, the Dispenser must be powered at pressures above 350 bar, 400 bar recommended.

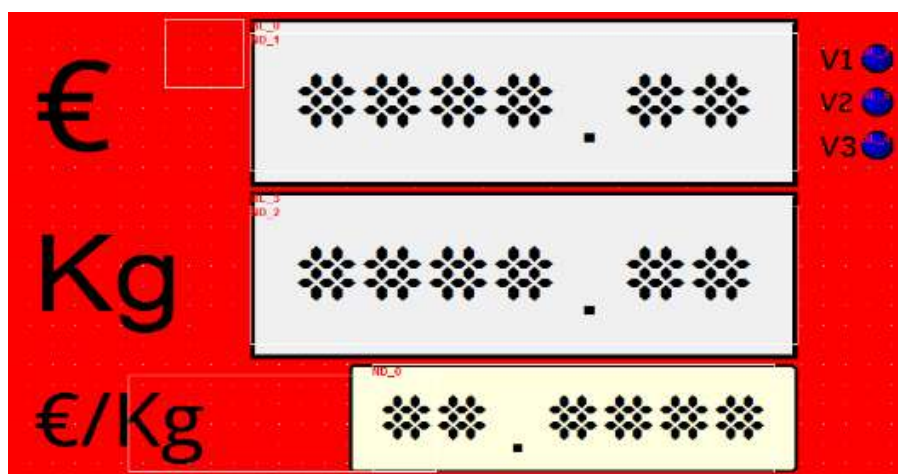
LCD control panel	1
Functional lights Switch and rogation and emergency button	2
Gauge Display of the gun operating pressure	3
Dispensing nozzle TK16H2	4
Safety valve TSA 2H2	5



Control Panel Viewer



The LCD panel performs both the control and display functions of the delivery and programming



Amount Disbursed €

Weight of the product dispensed Kg

Unit cost of the product €/Kg

V1=3.1= low pressure branch solenoid valve.
Low hydrogen pressure adjustment towards the gun **V1**

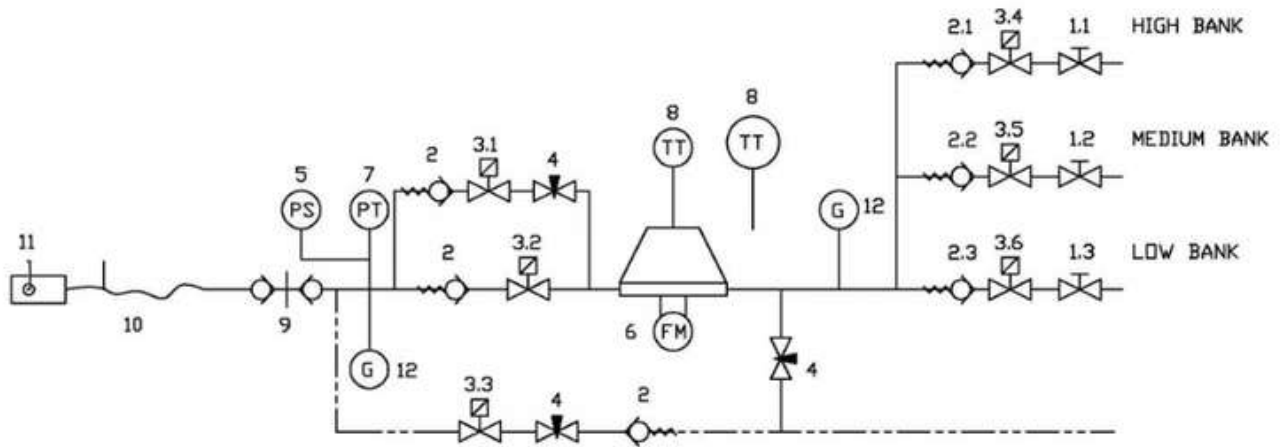
V2=3.2= high pressure branch solenoid valve
High hydrogen pressure adjustment towards gun **V2**

V3=3.3= machine exhaust branch solenoid valve
Hydrogen pressure discharge opening at the end of the cycle **V3**

Functional diagram



Distribution System diagram



1	Manual Valve
2	Check Valve
3	Solenoid Valve
4	Needle Valve
5	Pressure Switch
6	Flow Meter
7	Pressure Transducer
8	Temperature Transducer
9	Breakaway
10	Hose
11	Nozzle
12	Gauge

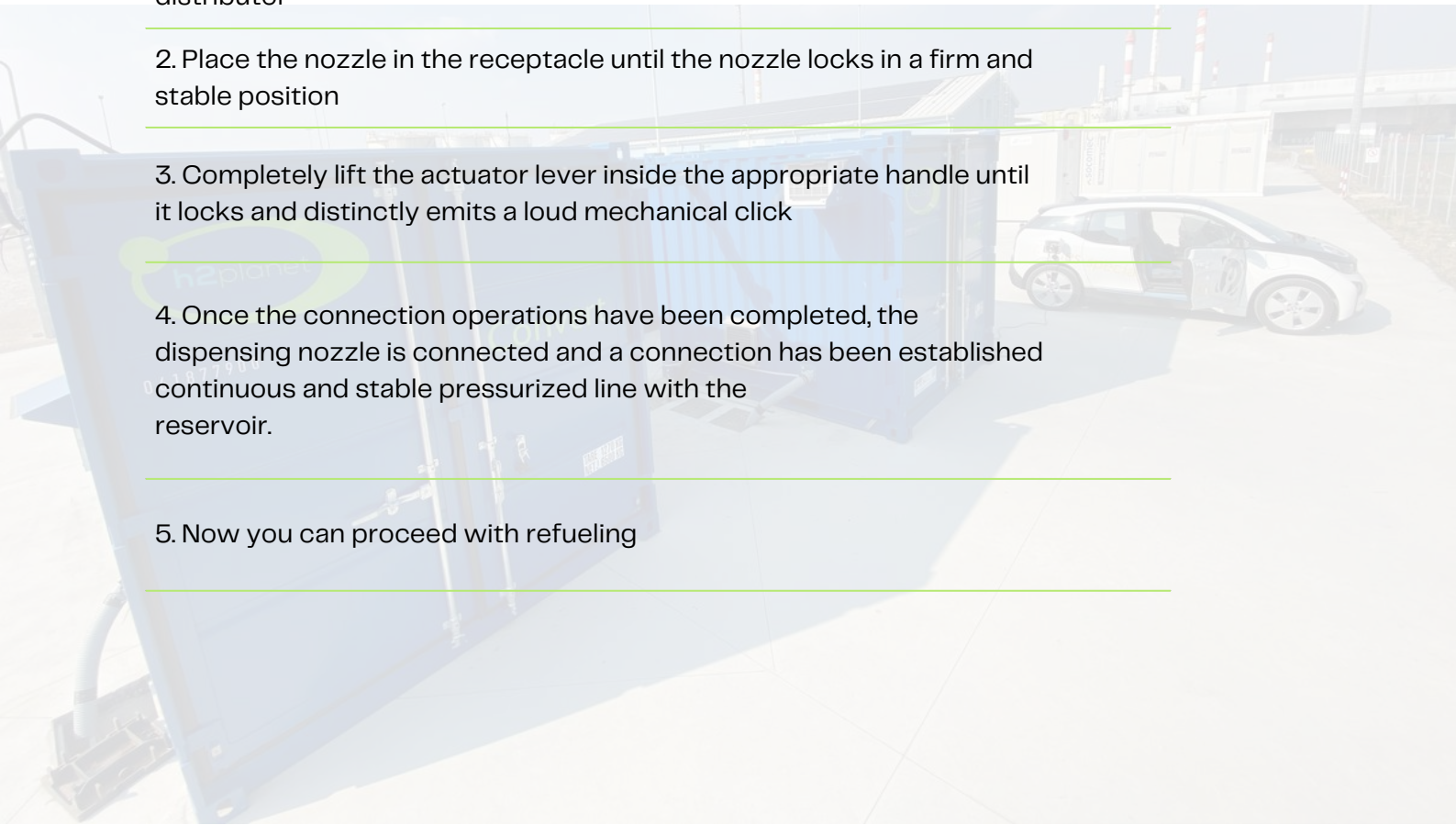
Delivery Mode

RIF. MANUAL TK16 H2



Connection operations

1. Unhook and lift the refueling nozzle from the specific seat of the distributor
2. Place the nozzle in the receptacle until the nozzle locks in a firm and stable position
3. Completely lift the actuator lever inside the appropriate handle until it locks and distinctly emits a loud mechanical click
4. Once the connection operations have been completed, the dispensing nozzle is connected and a connection has been established continuous and stable pressurized line with the reservoir.
5. Now you can proceed with refueling



Delivery Mode

RIF. MANUAL TK16 H2



Disconnection operations

1. After the end of refueling and depressurization of the refueling nozzle, unclip the filler cap following the distributor's instructions.

2. Release the mechanical lock of the actuator lever on the grip handle following the direction shown from the arrow.



Separation and safety joint

RIF. Manual TSA H2

Usage of H35 T amb Protocol from Toyota/CEP



Using the SAE J2601(2010) D35 table provides you with the possibility to fuel a passenger car vehicle with a tank size of up to 10 kg at ambient temperature.

The ramp rate is however very slow and therefore fuelling time can be quite long. 20 minutes or longer is not an exception.

Using the Toyota/CEP protocol, the fuelling time can be reduced considerably.

Continuous monitoring of the IR signal is however necessary to perform safely and the initial tank temperature will need to be taken into account before fuelling the vehicle.