Complete set for H_2-refueling

with MAWP 96.25 MPa acc. to ISO 17268 and ISO 19880

NEW

ORIGINAL WEH® QUALITY since 1973

WEH® - We Engineer Hightech

Safe and easy H_2 refueling
with the WEH® Complete set

The new WEH® Complete set for hydrogen refueling consists of the fueling nozzle TK20-S1 H_2 70 MPa ENR, the breakaway coupling TSA30-S1 H_2 70 MPa and a high-quality hose set.

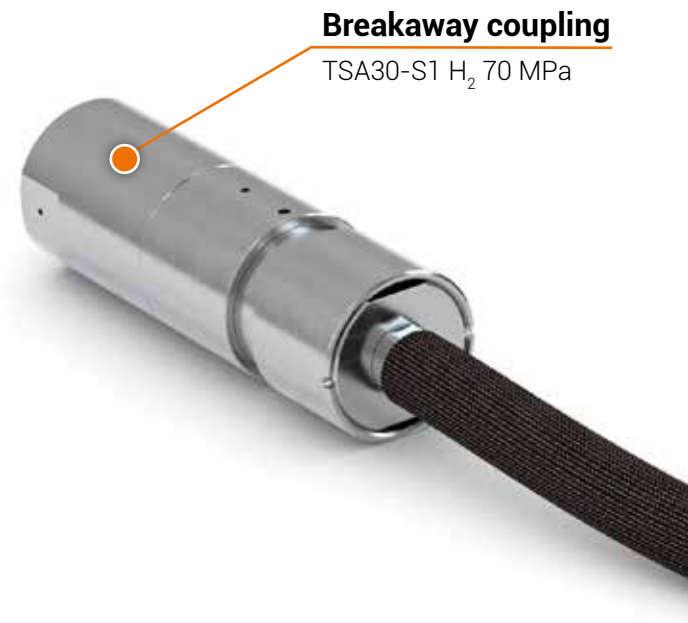
The WEH® TK20-S1 H_2 70 MPa ENR Fueling nozzle was developed for **fast filling of road vehicles with compressed, gaseous hydrogen** (CGH_2). Thanks to the **larger nominal width**, refueling in medium flow with 90 g/s is possible. It is **compatible with pressure stage H70 according to ISO 17268**, designed for a maximum operating pressure of 96.25 MPa (= MAWP acc. to ISO 19880-1:2020) and has the same **tried and tested features as the already well-known TK17-Series**. The fueling nozzles are additionally equipped with a purging line that allows purging with nitrogen during and after refueling process. This can prevent the ingress of moisture and the formation of ice crystals during filling with precooled hydrogen. The locking mechanism offers **optimum safety**. The fueling nozzle remains connected to the receptacle until the locking mechanism is released by the operator. Ideal for self-service operation at hydrogen filling stations.

The WEH® Breakaway coupling TSA30-S1 H_2 70 MPa provides additional safety. In the event of **unexpected tensile forces it separates the connection between the dispenser and hose in a controlled manner.** Both sides are sealed pressure-tight directly after breakaway and therefore damage to the vehicle and the dispenser can be prevented. In the event of a breakaway, the **base unit can be reused** - no factory servicing is necessary. Only the receptacle insert needs to be replaced or serviced. The **integrated filter (5 micron) ensures clean filtered hydrogen and thus prevents damage caused by dirt ingress**.

This breakaway coupling is also suitable for pre-cooled hydrogen and was developed and tested acc. to ISO 19880-3:2018.

The hose set for connecting the fueling nozzle and the breakaway coupling includes a filling hose with a maximum operating pressure of 96.25 MPa, data cable, purging line and braided protection hose as cover. The filling hose has a nominal bore of 4.5 mm and is designed for a media temperature range from -40 °C to +85 °C and meeting the requirements of ISO 19880-5:2019.

This complete set offers a **reliable, safe and efficient solution** for hydrogen refueling of road vehicles.



Your benefits:

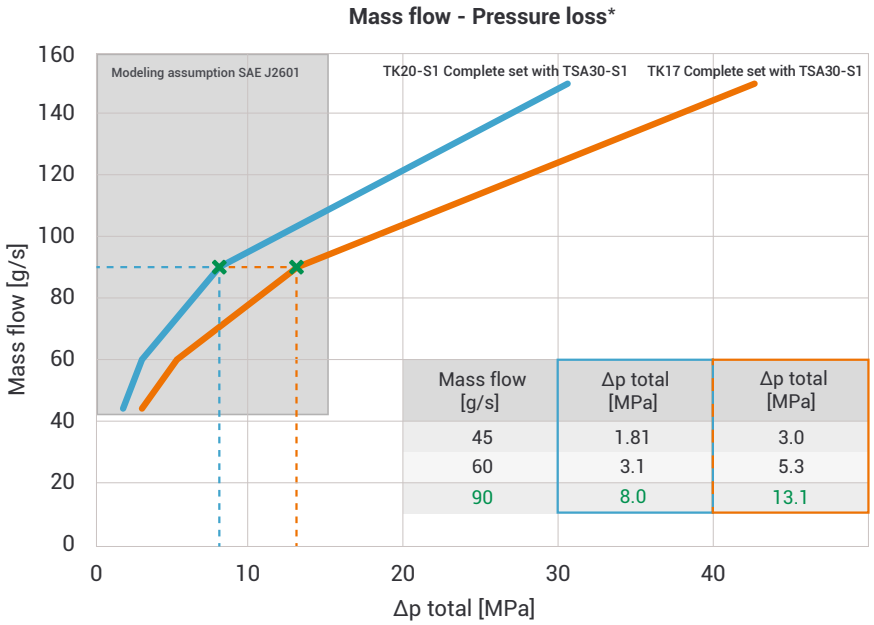
- Highest safety: Max. **operating pressure 96.25 MPa**
- Very high flow rate: Allows fast refueling with **medium flow of 90 g/s**
- Easy operation: Comfortable single-handed operation
- WEH® Anti-Freeze-Technology: Integrated purging line for nitrogen purging prevents freezing

TECHNICAL DATA

1. Application:	Fueling system for hydrogen fast filling of road vehicles
2. Pressure range:	PN = 70 MPa PS = 96.25 MPa
3. Flow rate complete set:	90 g/s at ΔP - 8 MPa
4. Temperature range:	-40 °C up to +85 °C
5. Conformity:	Validated based on ISO 17268:2025 and ISO 19880-3:2018

TOP VALUES FOR REFUELING

The TK20-S1 H_2 Complete set sets new standards: Thanks to improved flow characteristics, it offers a 40 % lower pressure drop at a flow rate of 90 g/s.



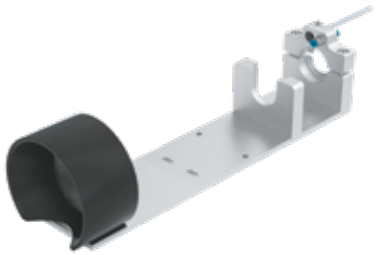
Mass flow [g/s]	Δp total [MPa]	Δp total [MPa]
45	1.81	3.0
60	3.1	5.3
90	8.0	13.1

*Values may vary depending on the test setup (e.g. hose length, receptacle).

ACCESSORIES

Mounting for safe attachment of the fueling nozzle and breakaway coupling to the dispenser.

Dispenser mounting
for TK20-S1 H_2 70 MPa



Dispenser mounting
for TSA30-S1 H_2 70 MPa

Contact
More questions? – Great! Don't hesitate to contact our experts.

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