



Visualisation of the 40 ft HC reference design at 200 bar. Side wall, roof and doors are not shown.

3 codes

AD 2000, EN 13445 or ASME Section VIII
Division 2, as you choose

P355NH

seamless storage tubes of fine-grain steel to
EN 10216-3, with inspection certificate

On site

prepared for periodic examination, for example
by acoustic emission testing

Usable mass by pressure class

Reference design values for the unit size in the second column, filled at 15 °C. WOLF calculates what a unit delivers into your trailers at their filling temperature. Assembled at the works: the 40 ft HC unit at 300 bar and the 20 ft unit in every pressure class; all other unit sizes on request, values overleaf.

Filling pressure of the class at 15 °C [bar]	Largest shop-built unit	Stored mass [kg]	Total mass [t]	Usable down to 200 bar [kg]	down to 300 bar [kg]	down to 400 bar [kg]
300	40 ft HC	412	71.4	121	0	0
350	20 ft	161	34.4	61	19	0
400	20 ft	199	40.9	88	41	0
450	20 ft	221	46.3	108	61	19
500	20 ft	203	45.3	107	67	32
550	20 ft	225	54.4	126	85	48

The residual pressures are examples. When a trailer is filled by pressure equalisation, the residual pressure is the trailer's final pressure; for the high-pressure bank of a cascade it is above the vehicle's final pressure and is set by the station. With a compressor you can withdraw more and also fill 500 bar trailers. In the 20 ft unit, the 500 bar class holds less than the 450 bar class; down to a residual pressure of 300 or 400 bar, more is usable at 500 bar.

Dimensions per frame

Parameter	20 ft	40 ft HC	45 ft HC
Length × width [m]	6.06 × 2.44	12.19 × 2.44	13.72 × 2.44
Footprint [m ²]	14.8	29.7	33.4
Height above frame base with stacks [m]	about 4.3	about 4.6	about 4.6
Bearing pressure by pressure class [t/m ²]	2.1 to 3.7	2.4 to 4.4	2.4 to 4.4

The standard version up to 200 bar has its own data sheet.

Your enquiry

For a quotation, send the following to sales.hydrogen@rjwolf.de: application, daily quantity and peak hour, trailer pressure or vehicle tank pressure, trailer fills or refuellings per day, pressure upstream of the compressor, installation site with available area and lowest ambient temperature, and design code. WOLF sizes the tubes from these data; an independent third party verifies all calculations. You also receive the number and pressure class of the units with their usable mass, the number of load cycles for your operation and a project data sheet for your unit size.

Jochen Althaus

Telephone +49 2739 8970-25 · sales.hydrogen@rjwolf.de

Robert Josef Wolf GmbH & Co. KG, Dortmunder Straße 2, 57234 Wilnsdorf, Germany

PR-H2TS-2026-10-H-DB-EN

Enquiry by email



Reference unit sizes by pressure class

In each row the unit is filled to its class pressure at 15 °C. All values apply to the reference designs; for your project, WOLF sizes the diameter, wall, length and number of the tubes. All calculations are based on your data for pressure, load cycles, fill quantity, temperature and installation site and are verified by an independent third party. With your quotation you receive the values optimised for your project, including the maximum allowable pressure, the design temperature, the temperature-dependent fill limit and the resulting maximum quantity that counts towards the permitting thresholds.

Filling pressure of the class at 15 °C [bar]	Frame	Water capacity [m³]	Stored mass [kg]	Usable down to 200 bar [kg]	Total mass [t]	Bearing pressure [t/m²]	Delivery
300	20 ft	7.1	151	44	31.0	2.1	shop-built
300	40 ft HC	19.5	412	121	71.4	2.4	shop-built
300	45 ft HC	22.2	469	138	80.9	2.4	on request
350	20 ft	6.7	161	61	34.4	2.3	shop-built
350	40 ft HC	18.3	440	166	82.7	2.8	on request
350	45 ft HC	20.8	500	189	93.8	2.8	on request
400	20 ft	7.5	199	88	40.9	2.8	shop-built
400	40 ft HC	18.8	501	220	96.6	3.3	on request
400	45 ft HC	21.3	569	250	109.6	3.3	on request
450	20 ft	7.5	221	108	46.3	3.1	shop-built
450	40 ft HC	18.4	538	263	109.8	3.7	on request
450	45 ft HC	20.9	611	299	124.6	3.7	on request
500	20 ft	6.4	203	107	45.3	3.1	shop-built
500	40 ft HC	17.2	544	287	117.2	3.9	on request
500	45 ft HC	19.5	618	326	133.0	4.0	on request
550	20 ft	6.6	225	126	54.4	3.7	shop-built
550	40 ft HC	16.2	551	308	131.0	4.4	on request
550	45 ft HC	18.4	626	350	148.7	4.4	on request

'On request': units above 85 t, as well as the 45 ft HC unit at 300 bar and the 40 ft HC unit at 350 bar, whose total mass may prove to exceed 85 t in the detailed design. WOLF agrees the transport route and the delivery arrangements with you.

The lifting weight is given in the project data sheet for your unit size, the lifting points in the dimension drawing. As an option, two units can be stacked.

Scope of supply and interfaces

Interface	WOLF supplies	Operator provides
Filling and withdrawal per unit	Tie-in panel with separate filling and withdrawal connections; nominal size and type of connection (A)	Piping to compressor and valve panel, connection at the tie-in panel; safe isolation from the field manifold
Withdrawal mass flow per unit	Value in g/s and permissible withdrawal at the lowest ambient temperature (A)	Delivery profile with trailer fills and refuellings, peak hour
Gas quality and cleanliness	Information on the delivery condition of the tubes, purging procedure (A)	Nitrogen for purging, gas analysis to ISO 14687 at the delivery point
Pressure limitation and venting	Safety valves, vent lines, upper stack sections	Filling control of the compressor to the fill limit stated by WOLF, pressure limitation below the set pressure of the safety valves
Signals and emergency shutdown	Signal list with valve positions, pressures, temperatures and gas detection (A); contact for the facility emergency shutdown	Facility control system, connection to a permanently staffed location; shutdown of the feed on a gas alarm at the unit
Foundation, documents and examinations	Dimension drawing with support loads, EU declaration of conformity, operating manual in the language of the country of installation, planning and permitting data, draft examination scheme; unit prepared for examination on site, for example by acoustic emission testing	Foundation, impact protection, risk assessment, explosion protection document, examination intervals, permit applications

(A) project-specific value; you receive it with your quotation.

The illustration is a visualisation of the reference design at 200 bar. Materials, quantities and masses of the reference designs are given to AD 2000. Permitting and installation details use German examples; local regulations apply. The offer and order confirmation are binding. Subject to technical changes.