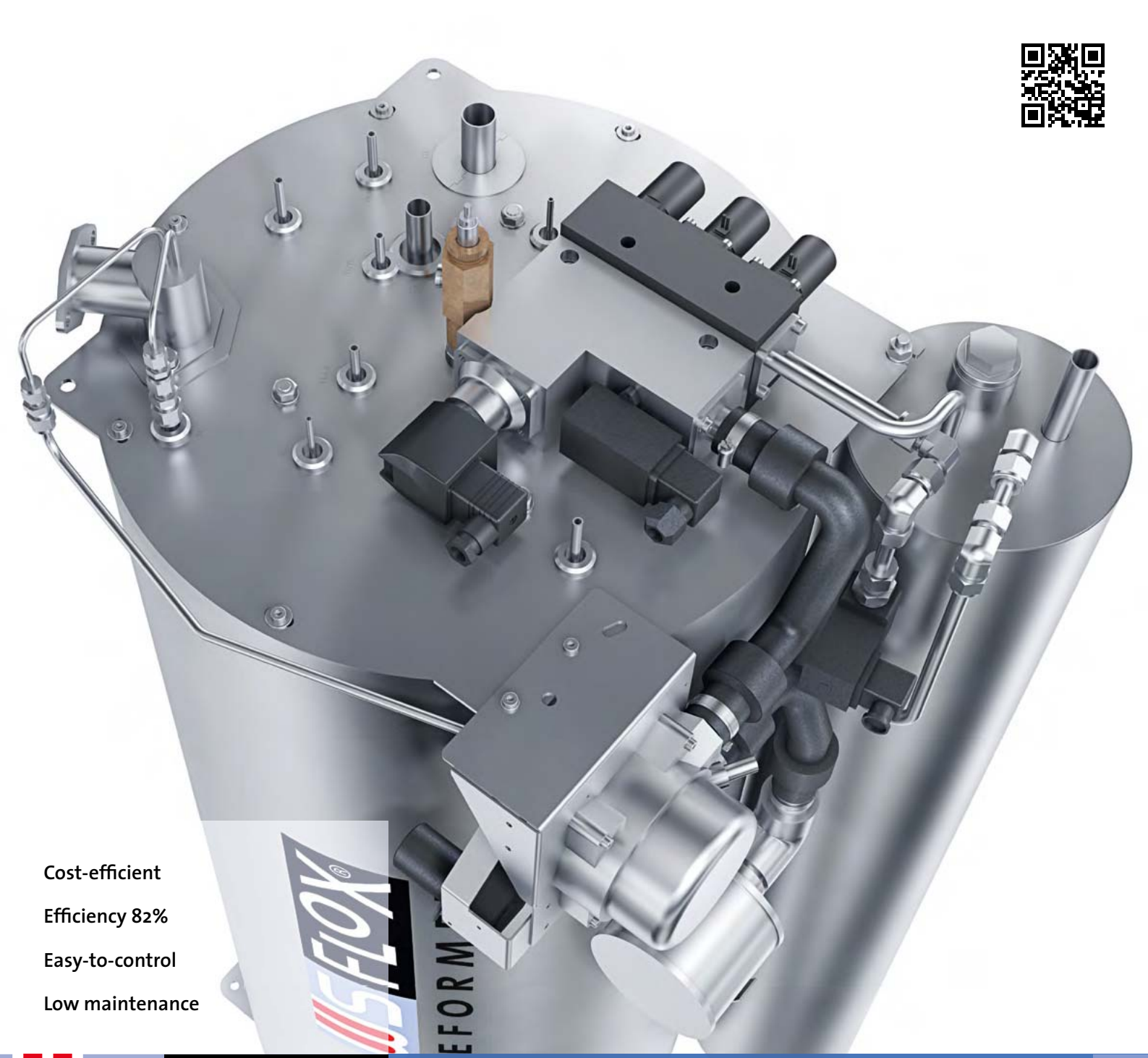


Cost-efficient

Efficiency 82%

Easy-to-control

Low maintenance

WS FLOX® FPM C10

REFORMER

Reformers for 10 kW CHP in industry and small enterprises

The FLOX® Reformer product line comprises not only unique technical features. WS Reformer is also dedicated to excellent collaborative development. We share our broad competence in manufacturing, duration tests and thousands of hours operational time in PEM fuel cell systems with our customers during project planning, system integration and after-sales service.

The FPM C10 opens the CHP market for PEM fuel cells. Along with a back-up power system or in combination with renewable energies fuel cells are going to be a more and more interesting option for many applications.

Up-scale of the proven FLOX® Reformer technology reveals further reduction of specific cost at high efficiency and paves the way to fuel-cell systems in the 50kW class.

TECHNICAL DATA*		
FUEL PROCESSING MODULE	**LOW-TEMPERATURE PEM FUEL CELL**	**HIGH-TEMPERATURE PEM FUEL CELL**
Hydrogen capacity	12.0 Nm³/h (425 scfh)	15.0 Nm³/h (530 scfh)
Total mounting space	580 x 450 x 1,200 mm (LxWxH)	
Weight	140 kg	
Fuels	Natural gas (@ 20 mbar), LPG, Methanol, DME	
Electric power demand	< 140 W	< 160 W
REFORMER		
Type	FLOX® Multifuel Reformer C10	
Size	1,100 mm (height) x 450 mm (diameter)	
Efficiency	82 %**	
Reformate quality	78 % Hydrogen, < 10 ppm CO, < 2% CH4 150 mbar (2,2 psi), 200 °C	78 % Hydrogen, < 0,5 % CO, < 2% CH4 150 mbar (2,2 psi), 200 °C
Load range	1:3	1:3
Load following	30 - 100 % in 120 sec.	30 - 100 % in 120 sec.
Life time	> 15,000 h (designed for 80,000 h)	
BALANCE-OF-PLANT (BOP)		
Desulfurisation	Exchange intervall appr. 5,000 h***	
Water supply	Water pump 24 VDC / 0-10 V	
Burner air supply	Air blower, 24 VDC / 0-10 V Solenoid valves, 1 x 24 VDC, < 10 Watt Interface: burner control / system controller	
Fuel / feed supply	3 solenoid valves 24 VDC, < 10 Watt Interface: burner control / system controller	

* All technical data witout obligation. Status quo 04/2014.
Data is subject to change due to our continuous improvement efforts.

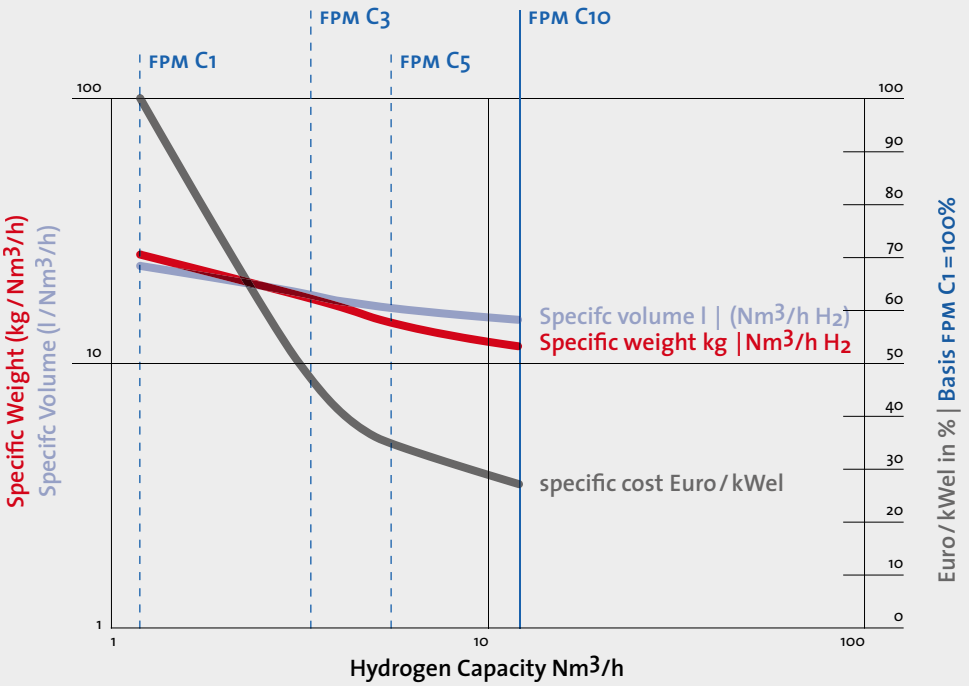
** Based on lower heating value: $LHV_{Hydrogen}$ / $LHV_{Feed+Fuel}$

*** Reference value for typical EU gas composition

Specific Cost

Compactness and specific weight determine the cost at serial production. Scalability of the technology is given from 1 Nm³/h to more than 30 Nm³/h hydrogen production.

With the FPM C10, WS Reformer offers a cost effective solution for 10 kW fuel cell systems even at small series.



WS FLOX® FPM C10
REFORMER

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