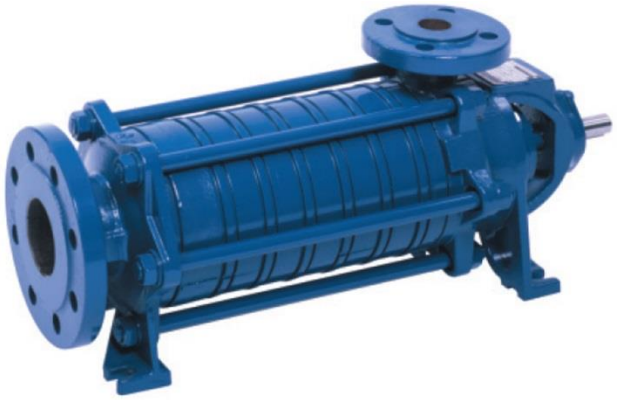
LPG – Side channel pumps
For handling gas along with the medium

FLOWSERVE
SIHI® Pumps

SC
Sizes 2001 … 2004

Technical data

Capacity:	max. 65 l/min
Differential pressure:	max. 14.5 bar
Speed:	max. 2900 1/min
Temperature:	max. 80 °C
Casing pressure:	PN 25
Shaft sealing:	Mechanical seal
Flange connections:	DIN 2501 / PN 25
Direction of rotation:	Anti-clockwise (when viewed form the drive end)



Application

The SIHI SC 2000 pump is a self-priming side channel pump capable of handling gas along with the medium and operates at a low noise level.

The SC 2000 is, due to its special design, very suitable for problem-free pumping of clean liquids at unfavourable suction side conditions. The SC 2000 can also be used for $NPSH_A$ of 0.4 – 0.65 m.

The SC 2000 is especially developed for:
- LPG-plants for the pumping of propane / butane
- Bottom off-loading

Design

Pumps of the series SC have a segmental type construction with open vane wheel impellers. The construction of the SC pump is a so-called centrifugal combined system.
This combination pump is suited with a centrifugal stage in serial connection before the side channel stages to obtain a more favourable NPSH.

The SC 2000 pump has 1 - 4 stages and is available in cast iron EN-GJL-250 or Nodular iron EN-GJS-400-18-LT.

The applied hydraulic components are from our Modular Side Channel system (interchangeability of parts).

Construction

Casing pressure
Maximum 25 bar from - 25 °C up to + 80 °C

Please observe
Technical rules and safety regulations.
Casing pressure = inlet pressure + delivery head at minimum pump capacity

Position of branches
Axial suction branch, discharge branch points radially upwards.

Flanges
The flanges correspond to DIN EN 1092-2 / PN 25.

Bearing
One grease lubricated ball bearing according to DIN 625 and one liquid surrounded sleeve bearing (design A). The ball bearing is greased for life

Direction of rotation
Anti-clockwise, when looking form the drive end.

Shaft sealing
The shaft is sealed with a mechanical seal suitable for LPG.

Casing seal
The casing is sealed by paper ring.

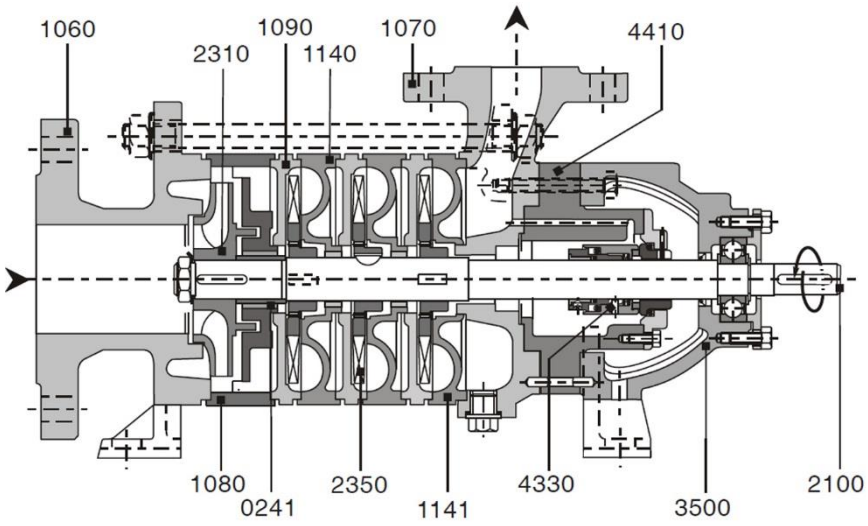
Drive
By electrical motor, type of construction IM B3, explosion proof.

SC

Material design

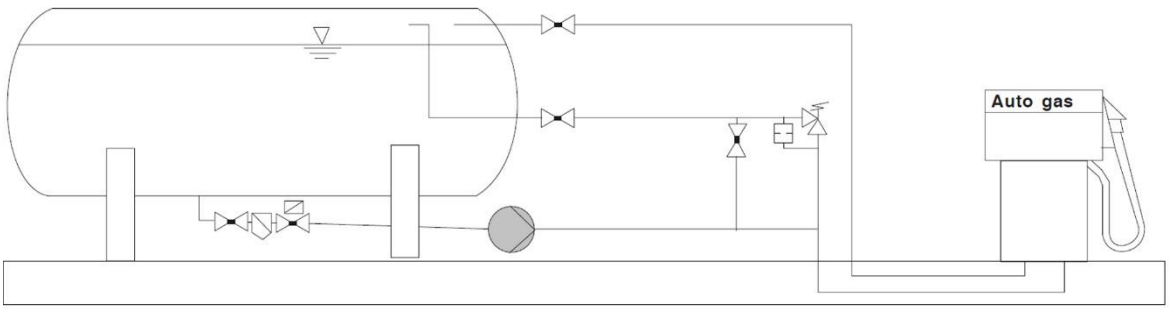
Pos.	Components	Material design	
		0A	1B
1060	Suction casing	EN-GJL-250	EN-GJS-400-18-LT
1070	Discharge casing	EN-GJL-250	EN-GJS-400-18-LT
1080 1090 1140 1141	Intermediate piece	EN-GJL-250	EN-GJS-400-18-LT
2100	Shaft	X 20 Cr 13	
2310	Impeller	EN-GJL-250	
2350	Vane wheel impeller	CuZn40Al2	
3500	Bearing housing	EN-GJL-250	
4410	Mechanical seal casing	EN-GJL-250	EN-GJS-400-18-LT
0241	Bearing bush	CY 10 C	

Sectional drawing and parts list



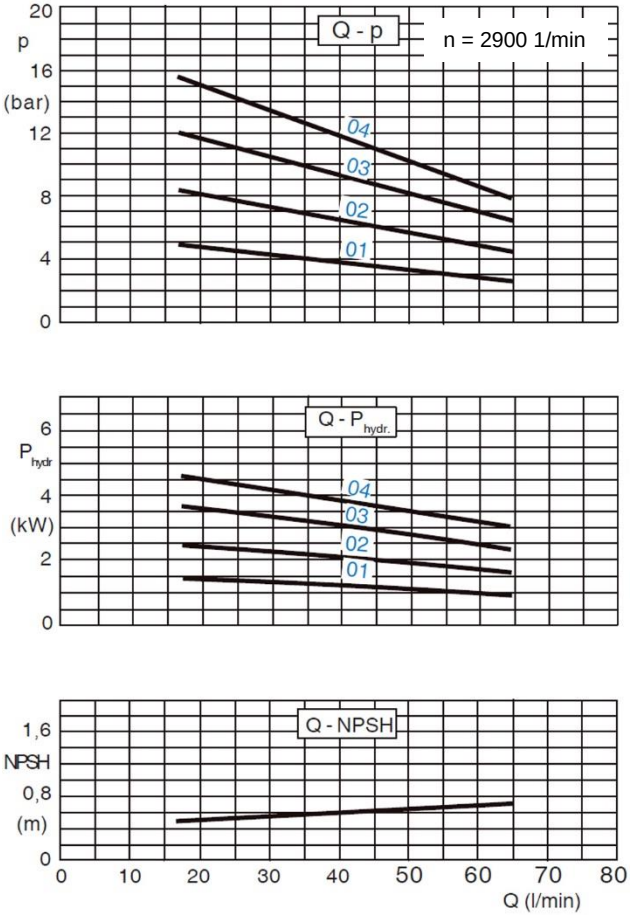
0241 Bearing bush
1060 Suction casing
1070 Discharge casing
1080 Intermediate piece
1090 Suction intermediate piece
1140 Discharge intermediate piece
1141 Discharge intermediate piece
2100 Shaft
2310 Impeller
2350 Vane wheel impeller
3500 Bearing housing
4330 Mechanical seal
4410 Mechanical seal casing

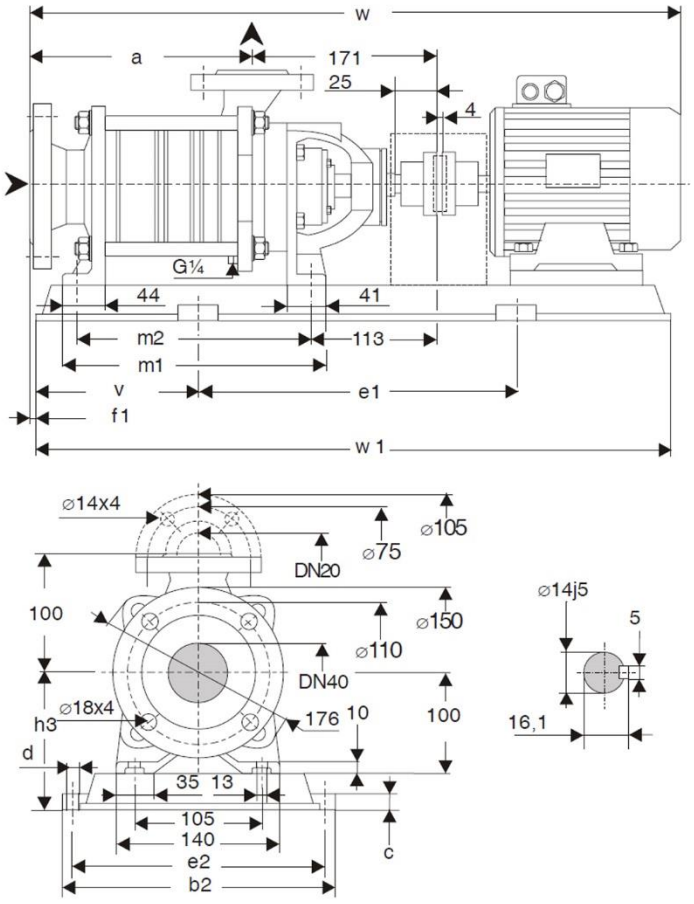
Installation scheme for car filling stations



Dimension chart, pump set drawing and performance curves

SC 2001 … 2004





Values are valid for propane with 0.52 kg/l.

Capacity ± 5% - Delivery head ± 5% - Power + 10%.

Pump size	Motor kW	Motor size	Base plate	Coupling BDS	Weight [kg] Pump	Weight [kg] Set	Dimensions [mm] a	b2	c	d	e1	e2	v	f1	h3	m1	m2	w*	w1
2001	1,5	90S	P241	76	20	60	229	330	25	19	480	290	115	-9	165	238	204	718	730
	2,2	90L		88		63												743	
2002	2,2	90L	P241	88	22	68	263	330	25	19	480	290	115	-9	165	272	238	777	730
	3,0	100L				81												820	
2003	3,0	100L	P272	88	24	91	297	360	25	19	540	320	130	-9	177	306	272	854	820
	4,0	112M				108												864	
2004	3,0	100L	P272	88	26	103	331	360	25	19	540	320	130	-9	165	340	306	888	820
	4,0	112M				111									177			898	
	5,5	132S	P303	103		131		390			600	350	150		197			955	920

* Dimensions depend upon the motor brand.
Pay attention to the positive suction head for boiling liquids. NPSH = required positive suction head for boiling point.

Correction for a different density

Medium	Propane, density 0.52 kg/l	**Butane, density 0.6 kg/l**
Pump	SC 2001	SC2001
Capacity	35 l/min	35 l/min
Differential pressure	4 bar	4 bar x (0.6/0.52) = **4.6 bar**
Power	1.25 kW	1.25 kW x (0.6/0.52) = **1.44 bar**

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