

# Side channel pumps

Self-priming, segmental type



SIHI® Pumps

## AOH

Sizes 1201 ... 3603

### Technical data

Capacity:	max. 7.5 m <sup>3</sup> /h
Delivery head:	max. 98 m
Speed:	max. 1800 1/min
Temperature:	max. 120 °C
Casing pressure:	PN 10
Shaft sealing:	Stuffing box
Flange connection:	British standard pipe thread (BSP) in counter flanges
Direction of rotation:	Clockwise (When seen from the drive end)



### Application

The SIHI AOH pump is a self-priming side channel pump capable of handling gas along with the medium and operates at a low noise level. The AOH is used when clear or turbid liquids without any abrasive particles are to be handled reliably and trouble-free.

The performance curve steepness admits a precise regulation of the pressure with a small change in capacity.

The AOH is used in domestic plants and agriculture for:

- Irrigation
- Drainage
- Sprinkling

The AOH is well known in domestic plants and agriculture for:

- Boosting pressure
- Cooling water
- Water circulation
- Boiler feeding
- Condensate
- Cleaning plants
- Ship yards

### Design

Pumps of the series AOH have a segmental type construction with open vane wheel impellers.

The program comprises 3 sizes with up to 4 stages for the size 1200 and up to 3 stages for the sizes 3100/3600. The performance curves of the AOH are identical for all material designs.

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

### Construction

#### Casing pressure

Maximum 10 bar from 0 °C up to + 120 °C

#### Please observe

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

#### Position of branches

Suction and delivery branch point radially upwards.

#### Flanges

The oval flanges correspond to SIHI standard PN 10. Counter flanges are provided with female pipe thread. They are supplied together with the pump including joints, screws and nuts.

#### Bearing

One grease lubricated ball bearing according to DIN 625 and one liquid surrounded sleeve bearing (design A). The first grease filling is done in the factory.

#### Direction of rotation

Clockwise, when looking at the pump from the drive end.  
Anti-clockwise is possible.

#### Shaft sealing

The shaft is sealed by a stuffing box.  
Mechanical seal design upon request.

## Material design

Pos.	Components	Material design			
		0A	0B	2H	3B
1060	Suction casing	EN-GJL-250		EN-GJL-250	GC-CuSn 12
1070	Discharge casing	EN-GJL-250		EN-GJL-250	GC-CuSn 12
1090 1140 1141	Intermediate piece	EN-GJL-250		G-SnBz 16	
2100	Shaft	X 20 Cr 13		X 5 CrNiMo 17 12 2	
2350	Vane wheel impeller	CuZn 40 Al 2	G-X 3 CrNiMoCu 26 6 3 3	G-CuSn chrome plated	
0241	Bearing bush	EK 2203			

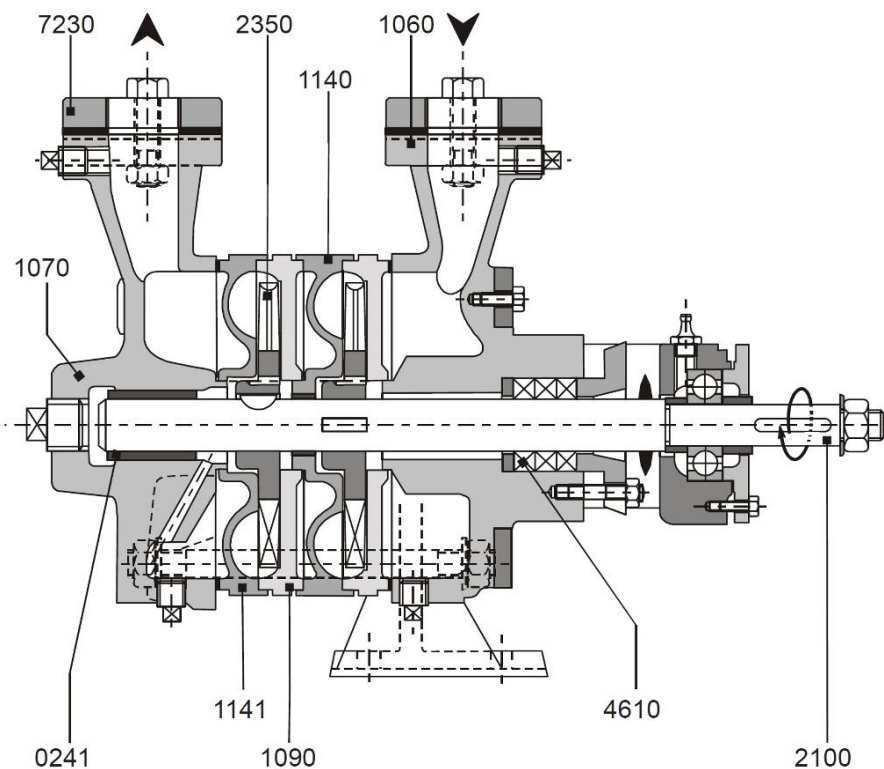
### Casing seal

The casing can be sealed with a liquid sealing compound or soft Teflon.

### Drive

By electrical motor, type of construction IM B3. Up to 1.1 kW – according to requirements – three phase A.C. or alternating current can be chosen.

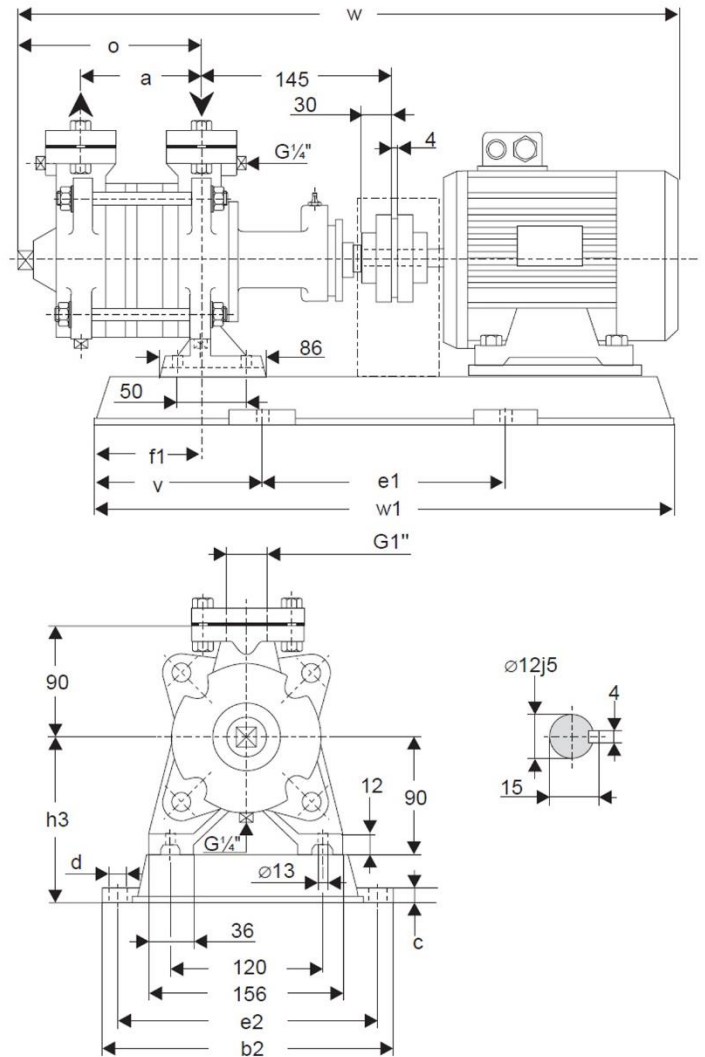
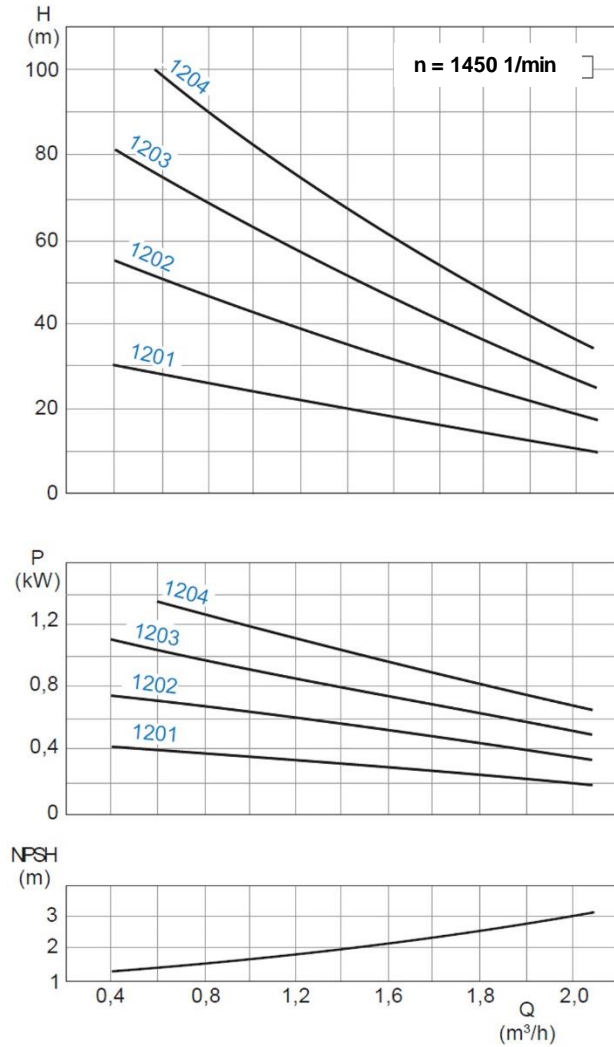
## Sectional drawing and parts list



0241	Bearing bush
1060	Suction casing
1070	Discharge casing
1090	Suction intermediate piece
1140	Discharge intermediate piece
1141	Discharge intermediate piece
2100	Shaft
2350	Vane wheel impeller
4610	Stuffing box
7230	Counter flange

Dimension chart, pumps drawing and performance curves

AOH 1200



Values are valid for water at 1 kg/dm<sup>3</sup> and Viscosity of 1 cSt.

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

For designs with a casing seal of soft Teflon, the tolerance for the delivery head is extended by 2%.

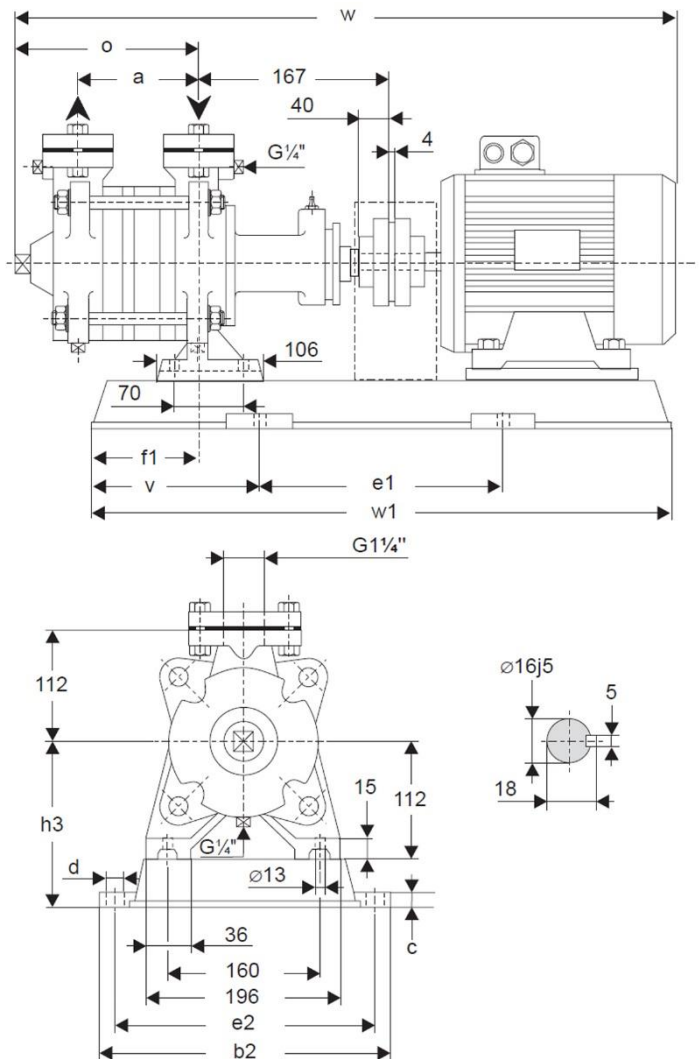
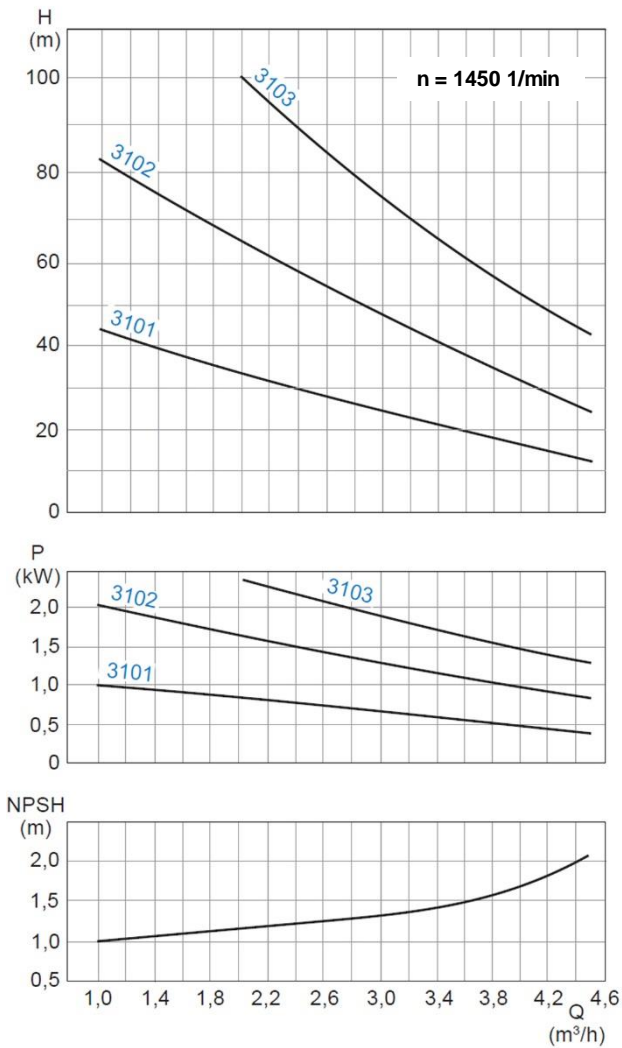
Pump size	Motor		Base plate	Coup-ling	Weight [kg]		Dimensions [mm]											
	kW	size			Pump	Set	a	b2	c	d	e1	e2	v	f1	h3	o	w*	w1
1201	0.37	71	P003	B80	9	26	78	262	20	15	270	230	100	108	125	118	506	470
	0.55	80				29											540	
1202	0.55	80	P003	B80	10	30	112	262	20	15	270	230	100	108	125	152	574	470
	0.75	80		B68		31												
1203	0.75	80	P003	B68	12	33	146	262	20	15	270	230	100	108	125	186	608	470
	1.1	90S	P006			39											312	
1204	1.1	90S	P006	B68	14	41	180	312	20	15	320	280	100	108	125	220	700	520
	1.5	90L				46												

\* Dimensions depend upon the motor brand.

The weight of the pump will be approximately 13% higher when using Bronze.

## Dimension chart, pumps drawing and performance curves

### AOH 3100



Values are valid for water at 1 kg/dm<sup>3</sup> and Viscosity of 1 cSt.

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

For designs with a casing seal of soft Teflon, the tolerance for the delivery head is extended by 2%.

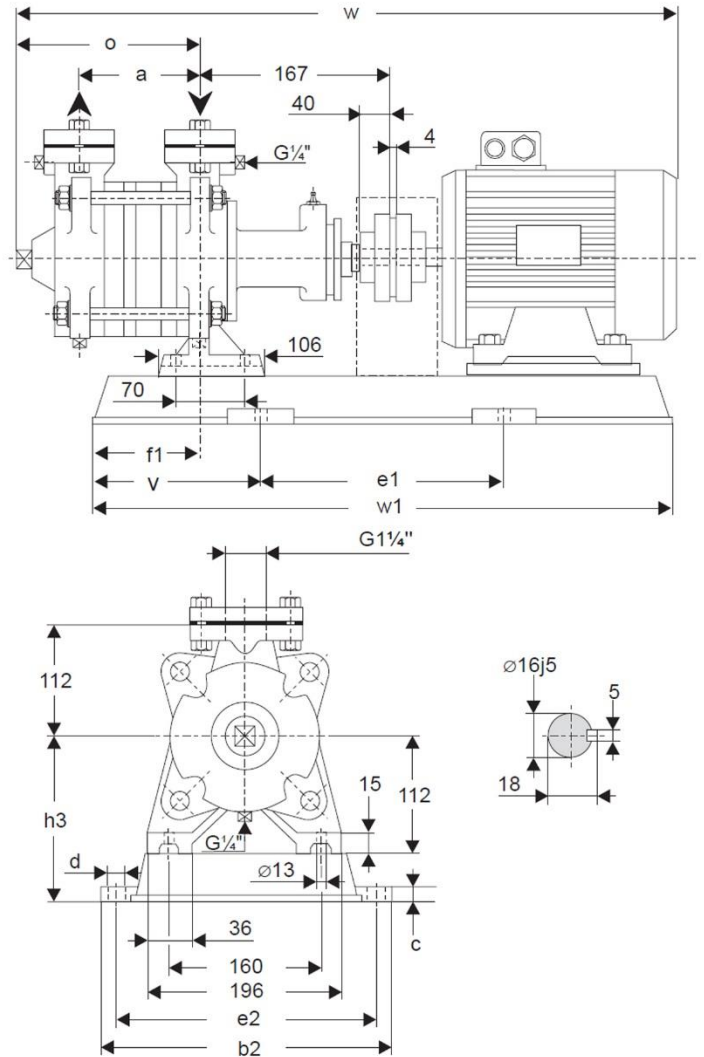
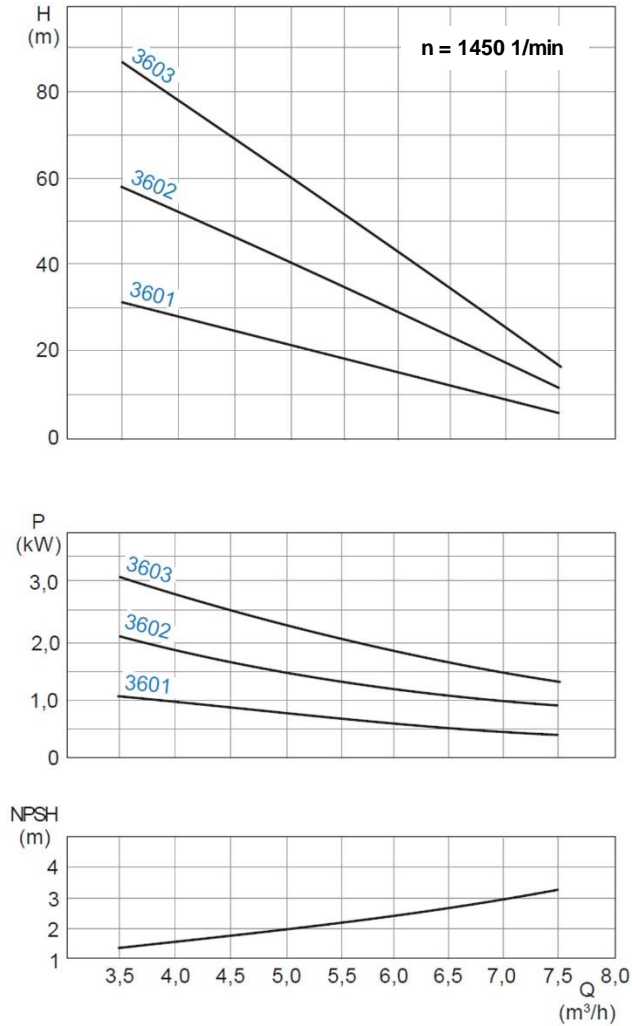
Pump size	Motor		Base plate	Coupling	Weight [kg]		Dimensions [mm]																	
	kW	size			Pump	Set	a	b2	c	d	e1	e2	v	f1	h3	o	w*	w1						
3101	0,75	80	P005	B68	13	34	83	282	20	15	270	250	100	60	147	140	584	470						
	1,1	90S	P006			41													312	320	280	642	520	
3102	1,1	90S	P006	B68	16	44	123	312	20	15	320	280	100	60	147	180	574	470						
	1,5	90L				47													317	350	285	110	723	570
	2,2	100L				P007													56	317	350	285	110	723
3103	2,2	100L	P007	B68	19	59	163	317	20	15	350	285	110	60	147	220	763	570						

\* Dimensions depend upon the motor brand.

The weight of the pump will be approximately 13% higher when using Bronze.

Dimension chart, pumps drawing and performance curves

AOH 3600



Values are valid for water at 1 kg/dm³ and Viscosity of 1 cSt.

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

For designs with a casing seal of soft Teflon, the tolerance for the delivery head is extended by 2%.

Pump size	Motor		Base plate	Coup-ling	Weight [kg]		Dimensions [mm]												
	kW	size			Pump	Set	a	b2	c	d	e1	e2	v	f1	h3	o	w*	w1	
3601	0,75	80	P005	B68	13	34	83	282	20	15	270	250	100	60	147	140	584	470	
	1,1	90S	P006			41													312
3602	1,5	90L	P006	B68	16	47	123	312	20	15	320	280	100	60	147	180	682	520	
	2,2	100L	P007			56													317
3603	2,2	100L	P007	B68	19	59	163	317	20	15	350	285	110	60	147	220	763	570	
	3,0	100L				60													
	4,0	112M				B80													78

\* Dimensions depend upon the motor brand.

The weight of the pump will be approximately 13% higher when using Bronze.

## General comments

Side channel pumps with the same hydraulic construction are manufactured in series as:

**AKH** Medium duty pump, PN 16

**AEH** High duty pump, PN 40, also available with magnetic coupling

**CEH** High duty pump, PN 40, also available with magnetic coupling

**CEB** Vertical tank mounted pump, PN 25 with magnetic coupling

Technical documentation about these pump series will be supplied on request.