

# Magnetically driven Centrifugal Pump ASV-MAX

increased capacity · higher degree of efficiency · improved dry-run capability

## Technical data

### Size

- ASV-MAX-440-0,37 - ASV-MAX-655-4,0

### Capacity

- up to 50 m<sup>3</sup>/h

### Head

- up to 35 m

### Media density

- up to 1,9 kg/dm<sup>3</sup>

### Media viscosity

- max. 160 mPas (cP)

### Operating temperature

- PP-GF up to +90°C
- ETFE-CF up to +90°C

### Nominal width pressure socket

- DN 40 up to DN 50

### Drive capacity

- 0,37 up to 4,0 kW

### Connection

- threaded flanges with slots for flanges acc. to DIN 2501

### Advantage

- leakage- and emission-free due to construction of shaft without sealings
- high degree of efficiency by rare-earth magnets with high energy density, no demagnetisation possible

### Application

- chemical plants
- water treatment
- galvanotechnics
- environmental technology
- processing technology

### Construction

- horizontal, single-stage, hermetically sealed centrifugal pump with magnetic coupling, dry running capable



## Utilisation

- for conveying of neutral, aggressive, crystallizing, ground water contaminating, toxic and/or explosive acids, alkalines or solution mixtures free of solids provided that the components getting in contact with the medium are resistant at operating temperature according to the ASV resistance guide

## Examinations

- DIN EN ISO 9906

## Performance data

- see characteristics

## Materials

- |                 |                                    |
|-----------------|------------------------------------|
| • casing        | PP-GF or ETFE-CF                   |
| • impeller      | PP-GF or ETFE-CF                   |
| • impeller axis | 995 oxide ceramics or SiC sintered |
| • bearing bush  | carbon or SiC sintered             |
| • axial bearing | carbon, ceramics or SiC sintered   |
| • O-rings       | EPDM, FPM or PTFE                  |

## Metallic components

- corrosion protection by multi coating with high grade 2C protection paint coat

## Motor voltage

- 230/400 V 50/60 Hz
- 400/690 V 50/60 Hz

## Protection

- IP 55

## Special execution

- self-priming up to 4 m in connection with an ASV self-priming container



Explosion protection (ATEX) on request

## Accessories

- ASV pump monitor
- self-priming container for self-priming

## Design

## General

ASV magnet pumps are horizontal, not self-priming and sealless centrifugal pumps. They are used as feed and process pumps. Pumped media and atmosphere are separated by the stationary rear cover.

The power transmission from the drive to the impeller is made via permanent magnets. These are outside and inside the rear cover (liquid-tight encapsulated) and actuated by their magnetic field.

The high coupling efficiency is realised by the non-conductive rear cover.

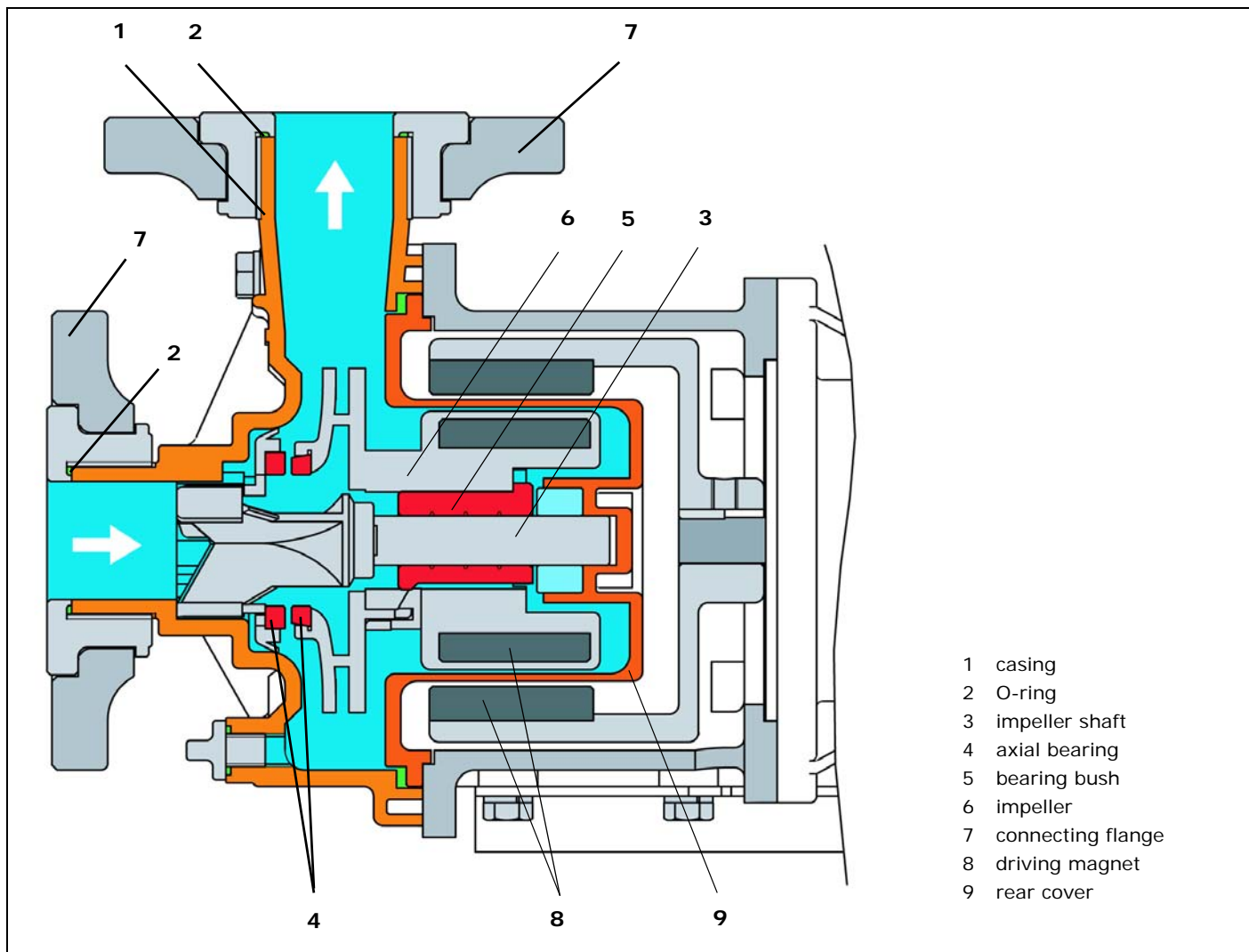
A shaft exit from impeller to the atmosphere or driving shaft is needless - the magnet pumps are hermetically tight, leakage free and of low maintenance.

The pumps are even applicable for media which may not get in contact with the atmosphere.

All components getting in contact with the medium are metal free. Thus excluding media oxidation.

The improved dry-run capability can only be realised with the combination of impeller shaft (3) in oxide ceramics or SiC sintered and bearing bush (5) in carbon.

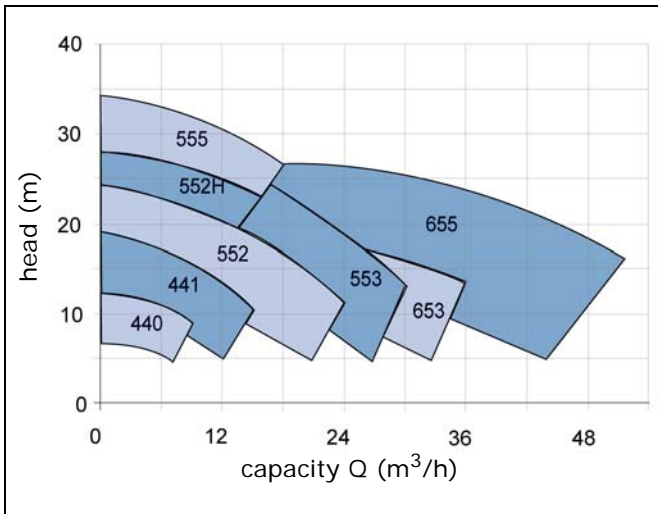
Dry-run is not permitted for other sliding bearing combinations.



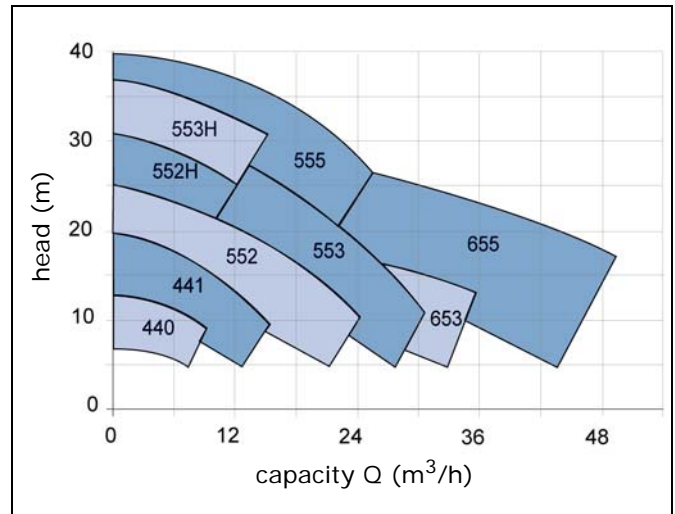
- 1 casing
- 2 O-ring
- 3 impeller shaft
- 4 axial bearing
- 5 bearing bush
- 6 impeller
- 7 connecting flange
- 8 driving magnet
- 9 rear cover

### Characteristic diagrams

ASV-MAX, 2900 rpm, 50 Hz

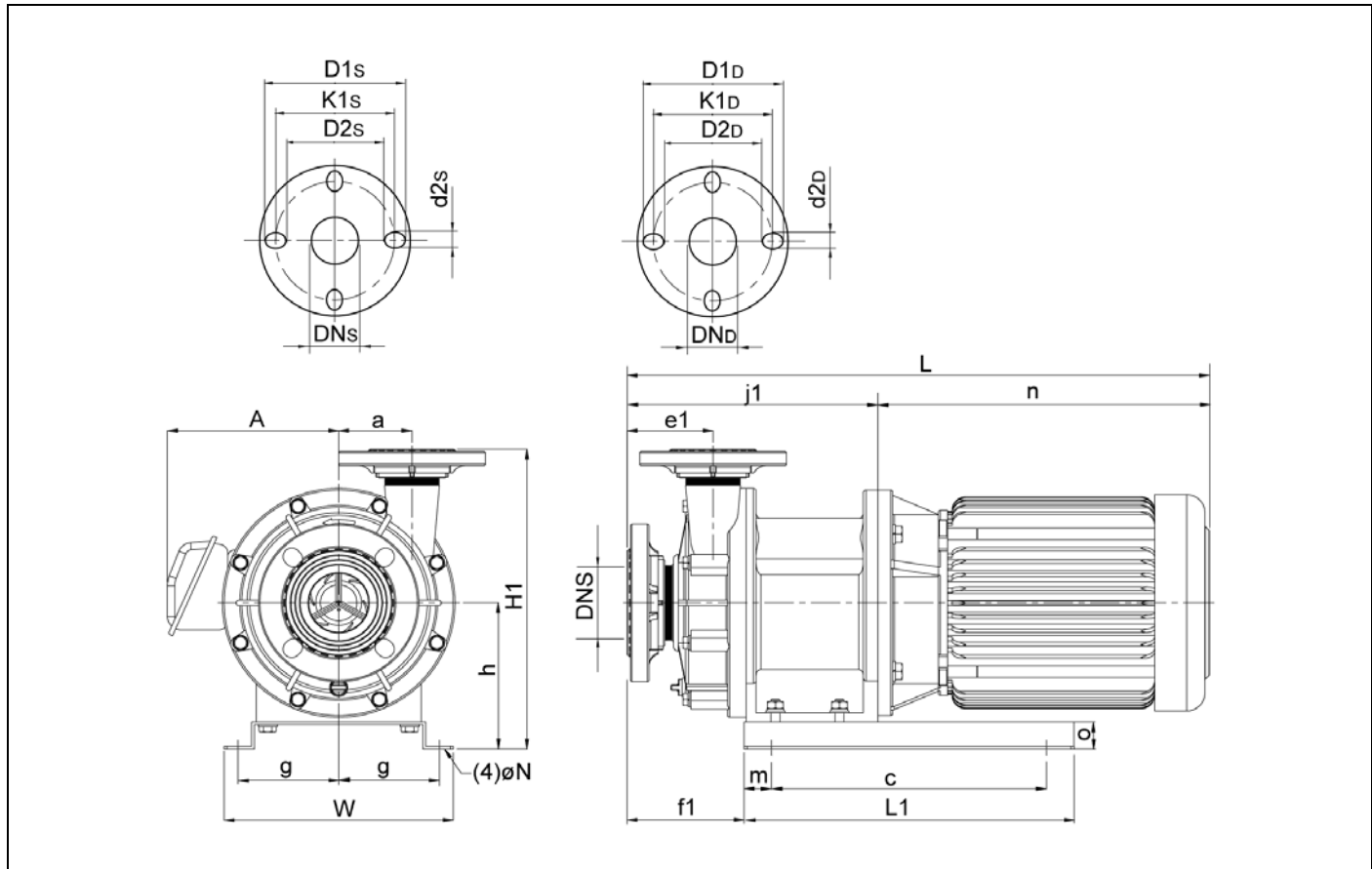


ASV-MAX, 3500 rpm, 60 Hz



weight (kg)				weight (kg)			
type	power	pump	motor	type	power	pump	motor
ASV-MAX-440	0,37 kW	7,0	13,0	ASV-MAX-543	2,2 kW	17,1	27,5
ASV-MAX-441	0,75 kW	12,2	18,0	ASV-MAX-543H	2,2 kW	19,1	27,5
ASV-MAX-552	1,5 kW	17,1	25,0	ASV-MAX-553H	2,2 kW	19,1	27,5
ASV-MAX-542	1,5 kW	17,1	25,0	ASV-MAX-653	2,2 kW	20,2	27,5
ASV-MAX-542H	1,5 kW	19,1	25,0	ASV-MAX-545	4,0 kW	20,5	48,0
ASV-MAX-552H	1,5 kW	19,1	25,0	ASV-MAX-555	4,0 kW	20,5	48,0
ASV-MAX-553	2,2 kW	17,1	27,5	ASV-MAX-655	4,0 kW	22,0	48,0

## Dimensions (mm)



type	power	$DN_s$	$DN_D$	$e1$	$A$	$W$	$2g$	$a$	$f1$	$H1$	$h$	$o$	$L$	$L1$	$m$
ASV-MAX-440	0,37kW	40	40	87,5	133	140	110	54	130,5	225,5	95	20	452	200	20
ASV-MAX-441	0,75kW	40	40	103,5	144	160	130	72	149,5	255,5	115	30	481	210	35
ASV-MAX-552	1,5kW	50	50	89,5	157	260	204	80	135,5	280,5	120	30	561	300	20
ASV-MAX-542	1,5kW	50	40	89,5	157	260	204	80	135,5	280,5	120	30	561	300	20
ASV-MAX-542H	1,5kW	50	40	89,5	157	260	204	80	135,5	280,5	120	30	561	300	20
ASV-MAX-552H	1,5kW	50	50	89,5	157	260	204	80	135,5	280,5	120	30	561	300	20
ASV-MAX-553	2,2kW	50	50	89,5	157	260	204	80	135,5	280,5	120	30	561	300	20
ASV-MAX-543	2,2kW	50	40	89,5	157	260	204	80	135,5	280,5	120	30	561	300	20
ASV-MAX-543H	2,2kW	50	40	89,5	157	260	204	80	135,5	280,5	120	30	561	300	20
ASV-MAX-553H	2,2kW	50	50	89,5	157	260	204	80	135,5	280,5	120	30	561	300	20
ASV-MAX-653	2,2kW	65	50	94,0	157	250	220	80	128,0	322,5	162	30	561	360	30
ASV-MAX-545	4,0kW	50	40	89,5	189	250	220	80	116,5	322,5	162	30	583	360	30
ASV-MAX-555	4,0kW	50	50	89,5	189	250	220	80	116,5	322,5	162	30	583	360	30
ASV-MAX-655	4,0kW	65	50	94,0	189	250	220	80	128,0	322,5	162	30	589	360	30

type	power	c	N	j1	n	suction side					pressure side				
						$DN_s$	$D1s$	$D2s$	$k1s$	$d2s$	$DN_D$	$D1D$	$D2D$	$k1D$	$d2D$
ASV-MAX-440	0,37kW	98	12	222,5	230	40	127	81	104,0	18	40	127	81	104,0	18
ASV-MAX-441	0,75kW	130	12	251,0	230	40	127	81	104,0	18	40	127	81	104,0	18
ASV-MAX-552	1,5kW	200	14	253,0	308	50	144	95	119,5	19	50	144	95	119,5	19
ASV-MAX-542	1,5kW	200	14	253,0	308	50	144	95	119,5	19	40	127	81	104,0	18
ASV-MAX-542H	1,5kW	200	14	253,0	308	50	144	95	119,5	19	40	127	81	104,0	18
ASV-MAX-552H	1,5kW	200	14	253,0	308	50	144	95	119,5	19	50	144	95	119,5	19
ASV-MAX-553	2,2kW	200	14	253,0	308	50	144	95	119,5	19	50	144	95	119,5	19
ASV-MAX-543	2,2kW	200	14	253,0	308	50	144	95	119,5	19	40	127	81	104,0	18
ASV-MAX-543H	2,2kW	200	14	253,0	308	50	144	95	119,5	19	40	127	81	104,0	18
ASV-MAX-553H	2,2kW	200	14	253,0	308	50	144	95	119,5	19	50	144	95	119,5	19
ASV-MAX-653	2,2kW	300	14	259,0	308	65	164	120	142,0	19	50	144	95	119,5	19
ASV-MAX-545	4,0kW	300	14	263,0	320	50	144	95	119,5	19	40	127	81	104,0	18
ASV-MAX-555	4,0kW	300	14	263,0	320	50	144	95	119,5	19	50	144	95	119,5	19
ASV-MAX-655	4,0kW	300	14	269,0	320	65	164	120	142,0	19	50	144	95	119,5	19

Subject to technical modifications