ASV Stübbe GmbH & Co. KG • Hollwieser Straße 5 • D-32602 Vlotho • Fon +49 (0) 57 33 - 7 99-0 • Fax +49 (0) 57 33 - 7 99-2 00 • www.asv-stuebbe.de • contact@asv-stuebbe.de

Thermoplastic centrifugal pump Type SHB

Technical data	
Flow rate Q	up to 37.9 m^3/h (2900 rpm)
Head H	up to 29 m (2900 rpm)
Operating temperatures	PP max. 80°C
	PE-HD max. 60°C
	PVDF max. 110°C
Connections	DN 25 to DN 40
Motor output	up to 4.0 kW

Design:

- Horizontal, single-stage pump with single flow spiral casing.
- Close coupled design.

Size:

- 25 – 125 to 40 – 125

Technical design:

- Pump head directly flanged to the motor by means of a wafer flange fitting
- Housing and impeller made of PP, PE-HD or PVDF
- Stainless steel screws (1.4301)
- Closed or half-opened impeller
- Impeller mounting independent of the rotational direction, with fluid-tight encapsulation
- Stainless steel shaft to mount the pump impeller
- Thermoplastic shaft protection sleeve
- Mechanical seal, single or double acting
- Max. fluid viscosity: 160 mPas (cP)
- Corrosion protection by a 2C paint coat

Actuator:

- Three-phase motor acc. to IEC
- Voltage 230/400 V, 50/60 Hz
- Design IM B34/B35, depending on size
- Protection type IP 55
- Rotational speed n= 1450 rpm or 2900 rpm
- Fast pump installation into the pipeline system, alignment of pump and motor not required

Options / Accessories:

- ASV pump monitor
- Self-priming container for self-priming (Not self-priming as standard)
- Circulation

Application

- Chemical plants
- Water treatment
- Process engineering

Utilisation

- used to convey aggressive fluids, such as acids, alkalines, solutions

Testing:

- DIN EN ISO 9906

Performance data

- see characteristic curves

Structural design

The close coupled thermoplastic pump SHB from ASV is a single-stage, single flow pump in a spiral casing of horizontal design.

Pump head directly flanged to the motor by means of a wafer flange fitting; standardised motor (IEC standard).

The ASV close coupled motor pump can be easily integrated in the pipeline system.

The hydraulic system of the close coupled motor pump from ASV is manufactured from only a few solid thermoplastic components to ensure its high operating reliability. Corrosion - and wear - resistant plastics, such as polypropylene (PP), polyethylene (PE-HD) or polyvinylidene fluoride (PVDF) are used for this purpose.

Type of priming

Install the normal priming pump such that the medium to be conveyed flows towards it.

A self-priming feature can be added by installing an ASV self-priming container to the pump.

Detailed documentation about self-priming containers are available on request.

Impeller

- Closed radial impeller.
- The impeller is fitted to allow both rotational directions by means of an embedded metal hub and feather key connection between impeller and shaft.
- The impeller mounting is sealed by means of a plastic impeller hub cap with an O ring inserted.

Shaft

The especially bending resistant stainless steel pump shaft guarantees fault-free operation and creates optimum operating conditions for the mechanical seal.

The shaft designed either as a plug-type shaft or with a coupling, is connected to the pump drive motor.

Shaft protection sleeve

PP, PE-HD or PVDF, depending on the conveyed fluid.

Shaft sealing

- The shaft is sealed by a single or double mechanical seal.
- Circulation, flushing, quench or sealing liquid depending on the individual application.
- Sliding bearing material: silicon carbide against silicon carbide (SIC/SIC). O-rings and liner made of Viton (FPM) or Hypalon (CSM), metal components as standard made of stainless steel (V4A) or Hastelloy as an option. This combination is extremely reliable and covers a wide range of applications.
- Materials in different combinations are also available.

Painting

All metal components not made of stainless steel are corrosion protected by multiple coating with a high-quality 2C protection lacquer.

Screw connections

- stainless steel as standard (1.4301)

Pump configuration

Requirements for an efficient and correct pump selection

- filled in pump questionnaire
  (please ask for it, when needed)
- a resistance test
  (for this purpose, all components coming into contact with the fluid at operating temperature must be 'resistant' in conformity with the ASV resistance list)

Our sales employees will be pleased to assist you in finding the correct pump configuration.

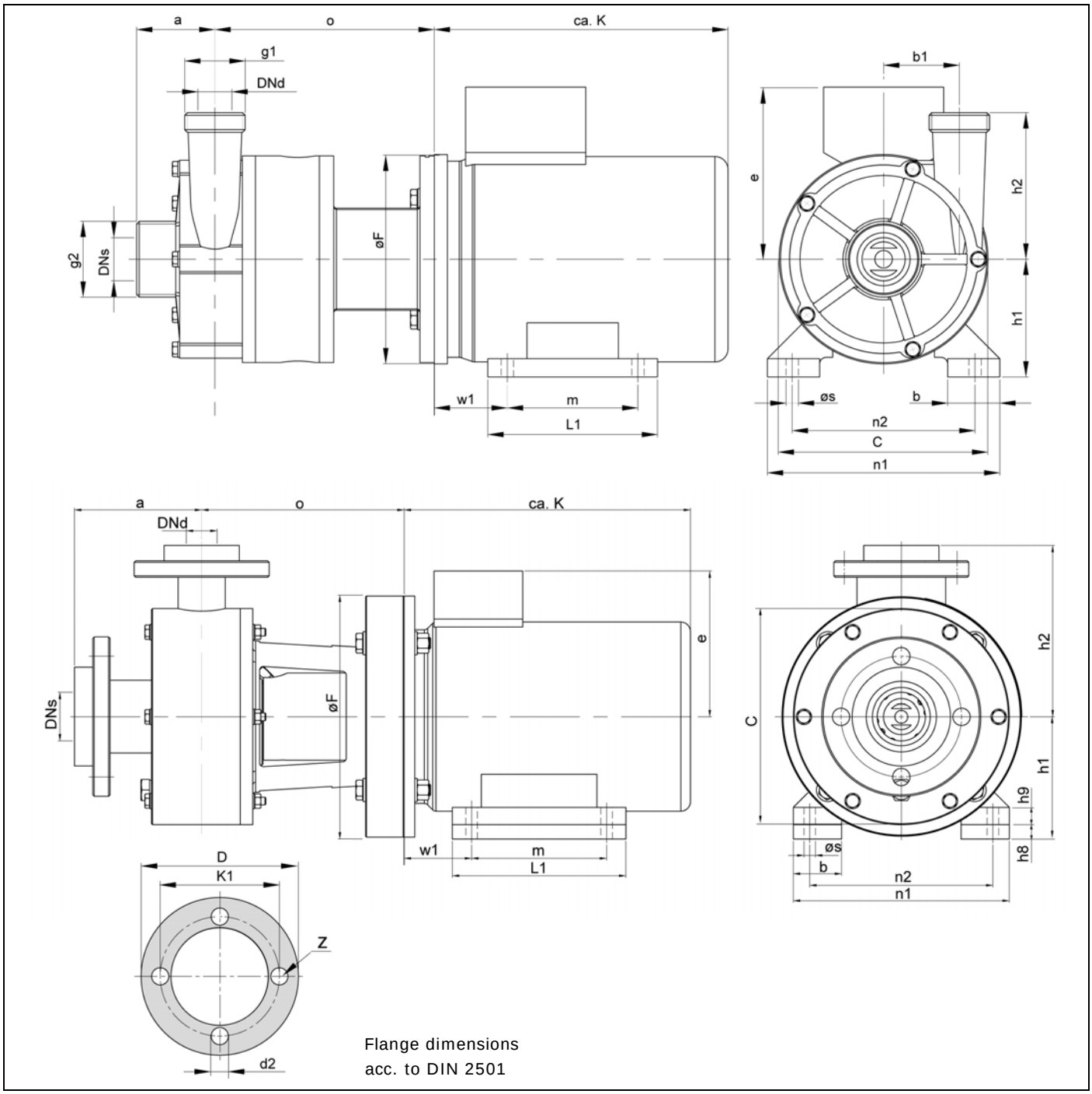
Operating instructions

NOTE

Please take the operating and maintenance manual into consideration for pump installation and operation!

ASV Stübbe GmbH & Co. KG • Hollwieser Straße 5 • D-32602 Vlotho • Fon +49 (0) 57 33 - 799-0 • Fax +49 (0) 57 33 - 799-200 • www.asv-stuebbe.de • contact@asv-stuebbe.de

Dimensions



Dimensions: Threaded socket

Type	Pressure connection		Suction connection		Dimensions (mm)						Weight[2]
KHB	DNd	g1	DNs	g2	a	b1	C	h1	h2	o	(kg)
25 - 125	25	1 1/2"	32	2"	60	58	160	71	112.0	168	4.7
32 - 125	32	2"	50	2 3/4"	97	0	224	127	153.5	210	12.6
40 - 125	40	2 1/4"	65	3 1/2"	97.5	0	224	127	154.0	212.5	12.4

[2] Weight without motor

Dimensions: Flange connection

Type	Pressure connection				Suction connection				Dimensions (mm)						Weight[2]
KHB	DNd	d2d	K1d	Zd	DNs	d2s	K1s	Zs	a	b1	c	h1	h2	o	(kg)
32 - 125	32	18	100	4	50	18	125	4	132.0	0	224	127	177.5	210	14.6
40 - 125	40	18	110	4	65	18	145	4	133.5	0	224	127	177.5	212.5	15.0

[2] Weight without motor

ASV Stübbe GmbH & Co. KG • Hollwieser Straße 5 • D-32602 Vlotho • Fon +49 (0) 57 33 - 7 99-0 • Fax +49 (0) 57 33 - 7 99-2 00 • www.asv-stuebbe.de • contact@asv-stuebbe.de

Motor data

Type	Motor output	Rotat. speed	Motor size	e	b	øF	h1	h8	h9	L1	m	n1
SHB	kW	rpm		mm	mm	mm	mm	mm	mm	mm	mm	mm
25 - 125	1,1	1450	90	120	40	160	90	-	14	265	130	100
25 - 125	1,1	2900	80	111	38	160	80	-	12	247	125	100
25 - 125	1,5	2900	90	120	40	160	90	-	14	265	130	100
32 - 125	1,1	1450	90	120	40	200	115	25	14	265	130	100
32 - 125	1,5	2900	90	120	40	200	115	25	14	265	130	100
32 - 125	2,2	2900	90	120	40	200	115	25	14	290	155	125
32 - 125	3,0	2900	100	127	45	250	127	27	15	325	175	140
32 - 125	4,0	2900	112	137	50	250	127	15	18	340	180	140
40 - 125	1,5	1450	90	120	40	200	115	25	14	290	155	125
40 - 125	1,5	2900	90	120	40	200	115	25	14	265	130	100
40 - 125	2,2	2900	90	120	40	200	115	25	14	290	155	125
40 - 125	3,0	2900	100	127	45	250	127	27	15	325	175	140
40 - 125	4,0	2900	112	137	50	250	127	15	18	340	180	140

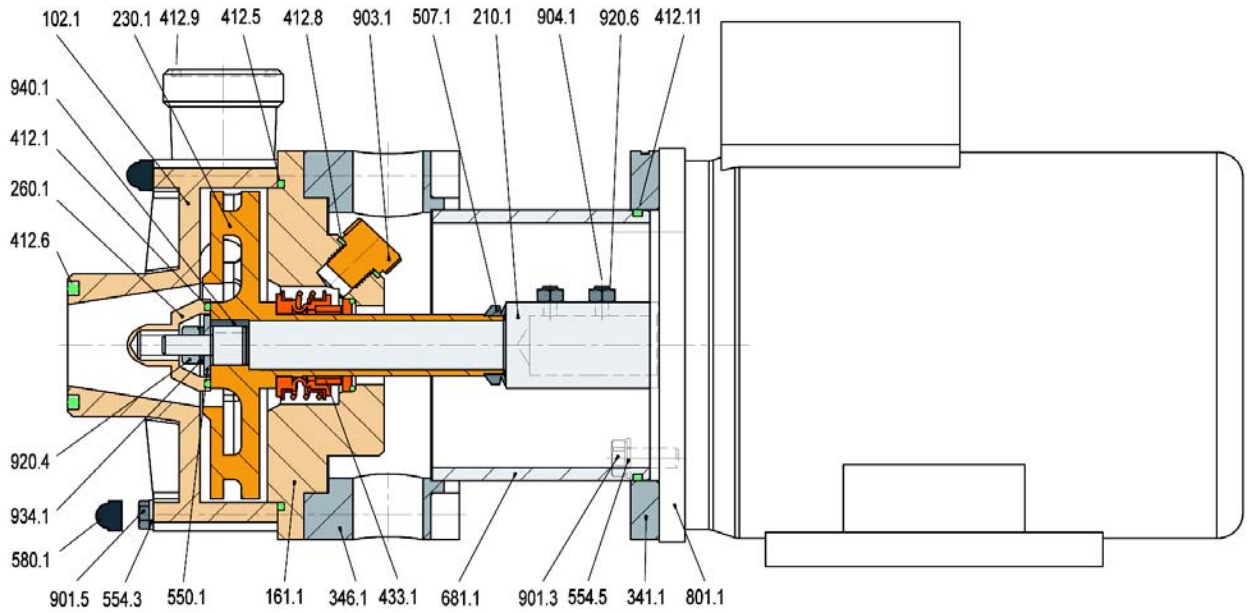
Type	Motor output	Rotat. speed	Motor size	n2	øs	w1	Motor Weight
SHB	kW	rpm		mm	mm	mm	kg
25 - 125	1,1	1450	90	178	140	10	56
25 - 125	1,1	2900	80	168	125	10	50
25 - 125	1,5	2900	90	178	140	10	56
32 - 125	1,1	1450	90	178	140	10	56
32 - 125	1,5	2900	90	178	140	10	56
32 - 125	2,2	2900	90	178	140	10	56
32 - 125	3,0	2900	100	192	160	12	63
32 - 125	4,0	2900	112	224	190	12	70
40 - 125	1,5	1450	90	178	140	10	56
40 - 125	1,5	2900	90	178	140	10	56
40 - 125	2,2	2900	90	178	140	10	56
40 - 125	3,0	2900	100	192	160	12	63
40 - 125	4,0	2900	112	224	190	12	70

ASV Stübbe GmbH & Co. KG • Hollwieser Straße 5 • D-32602 Vlotho • Fon +49 (0) 5733 - 799-0 • Fax +49 (0) 5733 - 799-200 • www.asv-stuebbe.de • contact@asv-stuebbe.de

ASV Stübbe GmbH & Co. KG • Hollwieser Straße 5 • D-32602 Vlotho • Fon +49 (0) 57 33 - 7 99-0 • Fax +49 (0) 57 33 - 7 99-2 00 • www.asv-stuebbe.de • contact@asv-stuebbe.de

Sectional drawing and spare parts desig.

SHB 25-125

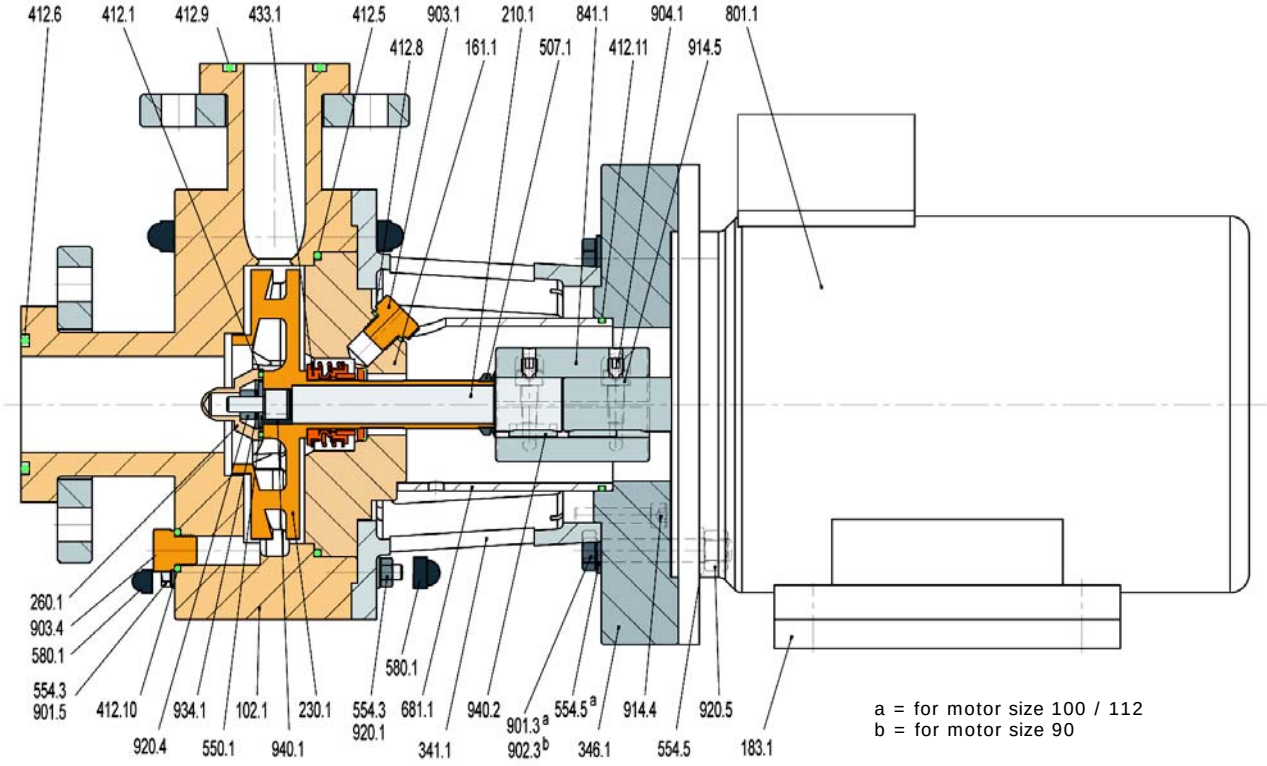


Part No.	Designation
102.1	Spiral casing
161.1	Casing cover
210.1	Shaft
230.1	Impeller
260.1	Impeller hub cap
341.1	Drive lantern
346.1	Intermediate flange
412.1	O-ring
412.5	O-ring
412.6	O-ring
412.8	O-ring
412.9	O-ring
412.11	O-ring
433.1	Mechanical seal
507.1	Liquid splash ring

Part No.	Designation
550.1	Disk
554.3	Washer
554.5	Washer
580.1	Protection cap
681.1	Coupling protection
801.1	Motor
901.3	Hexagon screw
901.5	Hexagon screw
903.1	Plug screw
904.1	Headless setscrew
920.4	Hexagon nut
920.6	Hexagon nut
934.1	Spring washer
940.1	Key

Sectional drawing and spare parts desig.

SHB 32-125 to 40 -125



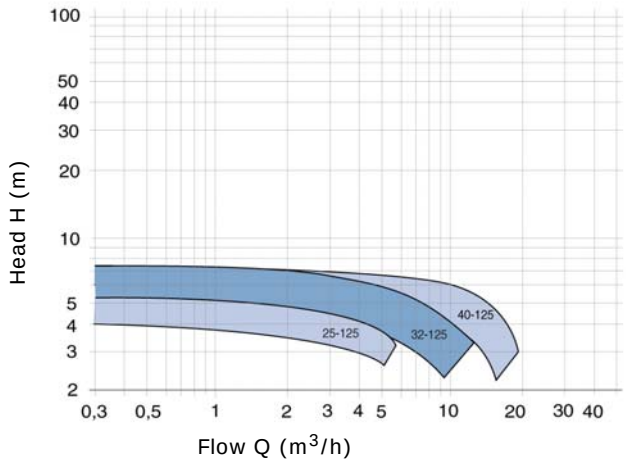
Part No.	Designation
102.1	Spiral casing
161.1	Casing cover
183.1	Support foot
210.1	Shaft
230.1	Impeller
260.1	Impeller hub cap
341.1	Drive lantern
346.1	Intermediate flange
412.1	O-ring
412.5	O-ring
412.6	O-ring
412.8	O-ring
412.9	O-ring
412.10	O-ring
412.11	O-ring
433.1	Mechanical seal
507.1	Liquid splash ring
550.1	Disk
554.3	Washer

Part No.	Designation
554.5	Washer
580.1	Protection cap
681.1	Coupling protection
801.1	Motor
841.1	Coupling
901.3	Hexagon screw
901.5	Hexagon screw
902.3	Stud bolt
903.1	Plug screw
903.4	Plug screw (option)
904.1	Headless setscrew
914.4	Cheese head screw
914.5	Cheese head screw
920.1	Hexagon nut
920.4	Hexagon nut
920.5	Hexagon nut
934.1	Spring washer
940.1	Key
940.2	Key

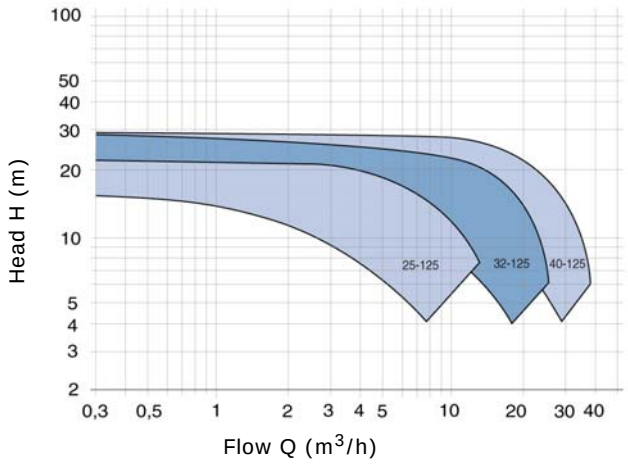
ASV Stübbe GmbH & Co. KG • Hollwieser Straße 5 • D-32602 Vlotho • Fon +49 (0) 5733 - 799-0 • Fax +49 (0) 5733 - 799-200 • www.asv-stuebbe.de • contact@asv-stuebbe.de

Characteristic curves

n=1450 rpm



n=2900 rpm



Subject to technical modifications

ASV Stübbe GmbH & Co. KG • Hollwieser Straße 5 • D-32602 Vlotho • Fon +49 (0) 57 33 - 7 99-0 • Fax +49 (0) 57 33 - 7 99-2 00 • www.asv-stuebbe.de • contact@asv-stuebbe.de

Notizen/notes

ASV Stübbe GmbH & Co. KG • Hollwieser Straße 5 • D-32602 Vlotho • Fon +49 (0) 57 33 - 7 99-0 • Fax +49 (0) 57 33 - 7 99-2 00 • www.asv-stuebbe.de • contact@asv-stuebbe.de