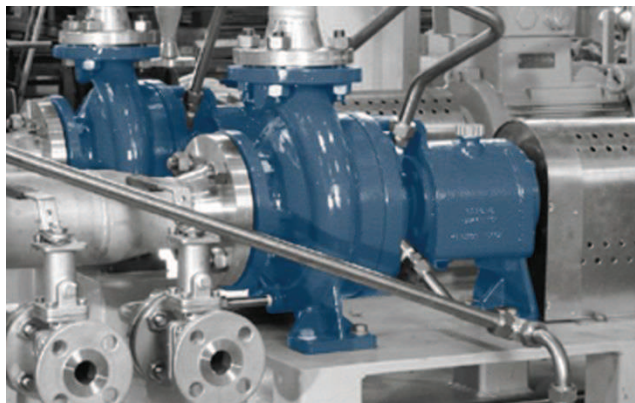


## Technical Data

Flow rate:	max. 650 m <sup>3</sup> /h
Head:	max. 150 m
Speed:	max. 3600 min <sup>-1</sup>
Materials:	Cast iron, cast steel, stainless steel, hastelloy, duplex
Temperature:	max. 350 °C
Casing pressure:	max. 25 bar
Shaft seal:	Mechanical seal or magnetic coupling
Dimensions of flanges:	according to DIN or ANSI (see flanges)
Direction of rotation:	clockwise, when viewed from drive end



## Applications

Pumps of the **SIHI<sup>ISOchem</sup>** range meet the requirements on custom-built solutions in the process industry, in the following areas:

- Chemical
- Pharmaceutical
- Petro-chemical
- Paper
- Plastic
- Food processing
- Plant engineering and construction

## Design

Chemical process pumps of the **SIHI<sup>ISOchem</sup>** are horizontal, single-stage volute casing pumps with dimensions to DIN EN ISO 2858 and meet the technical requirements of DIN EN ISO 5199.

It is a modular configuration of either bare shaft end or close-coupled design. Shaft sealing options are single or double-acting mechanical seals or magnetic couplings. The benefits are the interchangeability of the back pull-out assemblies and the reduction of spare parts cost.

## Construction

### Hydraulic

The hydraulic of the **SIHI<sup>ISOchem</sup>** is designed with closed impeller.

### Casing pressure

PN16 and PN25.

Maximal casing pressure = 25 bar.

Max. casing pressure = inlet pressure + delivery head at zero flow.

### Please note

The relevant technical regulations and safety rules must be observed.

### Flange location

Axial suction flange, discharge flange radially upwards.

### Flanges

According DIN EN 1092 or ANSI.

### Materials

Standard materials: Cast iron, cast steel, stainless steel, hastelloy, duplex.

Special materials on request.

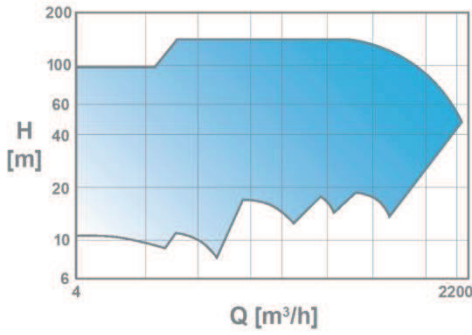
### Shaft sealing

Mechanical seals:

- Single-acting seals
- Double-acting seals
- Cartridge seals

Magnetic coupling:

- with or without heat barrier
- Internal strainer
- External partial flow
- Heating jackets



Chemical process pumps in the range **SIHI<sup>ISOchem</sup>** are horizontal, single-stage volute casing pumps with designs that fully meets technical requirements of DIN EN ISO 5199 and dimensions according DIN EN ISO 2858.

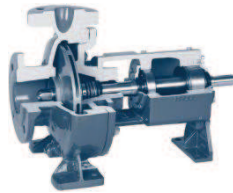
This modular process pumps consists of **hydraulics** with **closed** impellers. Due to the modular configuration, the pumps can be used in a **bare shaft** or **close-coupled** configuration.

**Hydraulics**

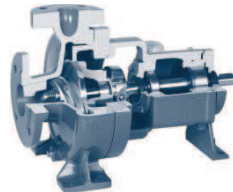


**Volute casing with closed impeller**  
 + Clean liquids  
 + Low NPSH values

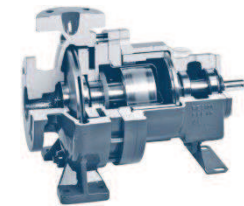
**Bare shaft design**



**CBS** with single-acting mechanical seal and lifetime lubricated ball bearings

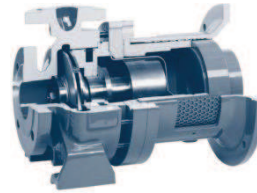


**CBS** with single or double-acting mechanical seal, shaft sleeve and oil lubricated ball bearings

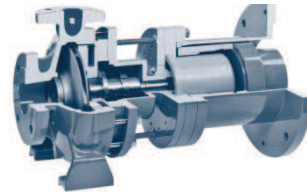


**CBM** with magnetic coupling according VDMA 24279

**Close-coupled design**



**CBE** with magnetic coupling according to VDMA 24279 for temperatures up to 300 °C



**CBE** with magnetic coupling and heat barrier according VDMA 24279 for temperatures up to 400 °C

**Benefits**

- + Low power consumption
- + Increased lifetime and longer maintenance intervals
- + Low installation cost
- + High level of availability and short supply times
- + Simple assembly and dismantling
- + Quick on-site servicing
- + Can be used where is a risk of explosion

## Execution with mechanical seal

### High efficiency

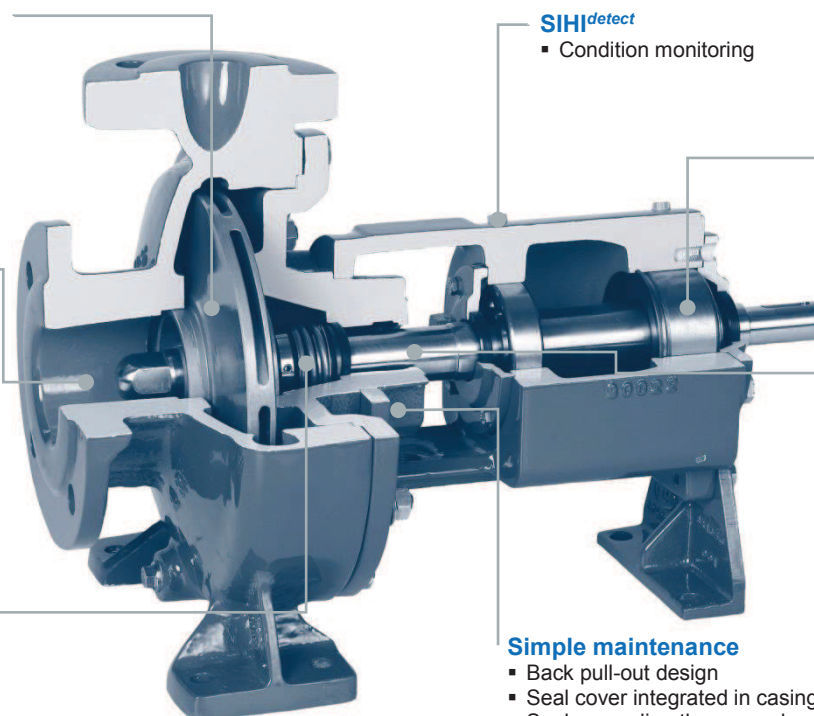
- Modern hydraulics
- High efficiencies
- Optimal velocities

### Low installation cost

- Low NPSH value

### Shaft seal options

- Single or double-acting mechanical seal
- Cartridge seal



### SIHI<sup>detect</sup>

- Condition monitoring

### High reliability

- Heavy duty thrust ball bearings / angular contact ball bearings
- Grease or oil lubrication

### Optimised maintenance cost

- Lower shaft deflection than required by ISO 5199
- Longer seal lifetime
- Longer lifetime of bearings
- High quality standard
- Labyrinth seal re-usable

### Simple maintenance

- Back pull-out design
- Seal cover integrated in casing cover
- Seal cover directly screwed onto volute casing
- Bearing bracket not subjected to pressure

## Execution with magnetic coupling

### High efficiency

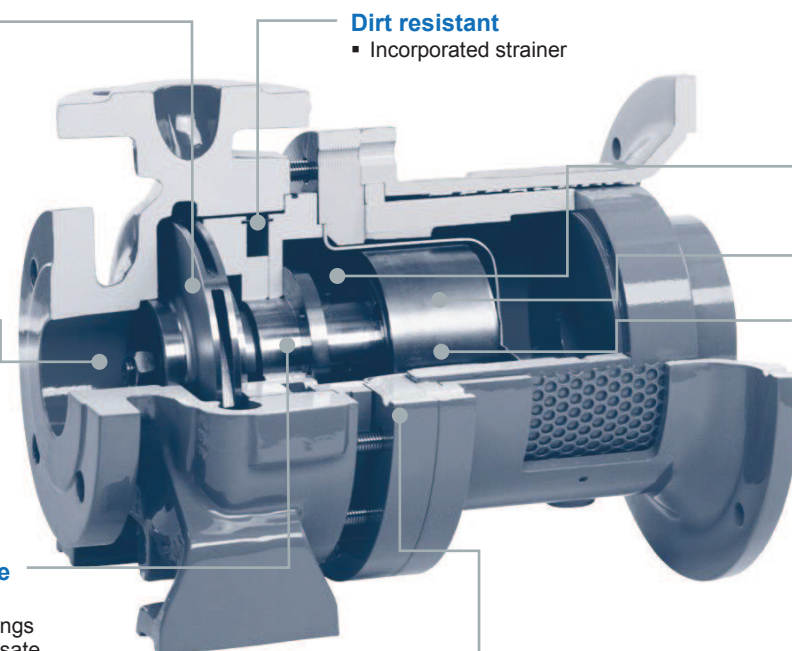
- Modern hydraulics
- High efficiencies
- Optimal velocities

### Low installation cost

- Low NPSH value

### Optimised maintenance cost due to robust sleeve bearings

- Silicon carbide sleeve bearings
- Patented design to compensate different thermal expansion



### Dirt resistant

- Incorporated strainer

### High reliability

- Constant partial flow via internal magnet (cooling flow)
- Constant partial flow via axial bearing (lubrication flow)
- Protection against damage for inner and outer magnets
- Samarium cobalt magnets
- Hastelloy C4 or ceramic isolation shroud

### Broad range of applications

- Heat barrier for temperatures up to 400 °C with uncooled ceramic isolation shrouds

## Operating limits

### Temperature / Power

Type	Lubrication	min. Temperature	max. Temperature	max. Power at 2900 min <sup>-1</sup>
CBS	grease	-40°C	+140°C	according to characteristic curve
	oil	-40°C	+350°C	
CBM	grease	-40°C	+180°C	65 kW
	oil	-40°C	+350°C	
CBE	Liquid handled	-40°C	+350°C*	90 kW

\* with thermal barrier up to 400 °C possible

### Speed

Size	max. Speed min <sup>-1</sup>	Size	max. Speed min <sup>-1</sup>	Size	max. Speed min <sup>-1</sup>
25125 40250 <sup>1)</sup>	3600	40315 <sup>2)</sup>	3000	80400	1800
25160 50160		50315 <sup>2)</sup>		100400	
25200 50200		65315 <sup>2)</sup>		125250	
32125 50250 <sup>1)</sup>		80250		125315	
32160 65160		80315 <sup>2)</sup>		125400	
32200 65200		100200		150250	
32250 <sup>1)</sup> 65250 <sup>1)</sup>		100250			
40125 80160		100315			
40160 80200					
40200					

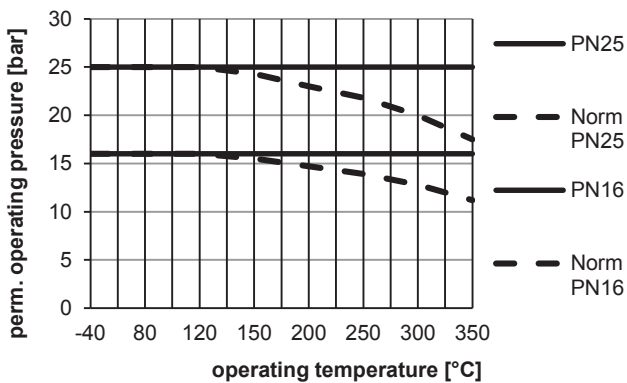
<sup>1)</sup> Except impeller material GG-25: n<sub>max</sub> = 2900 min<sup>-1</sup>

<sup>2)</sup> Except impeller material GG-25: n<sub>max</sub> = 1800 min<sup>-1</sup>

### Casing pressure

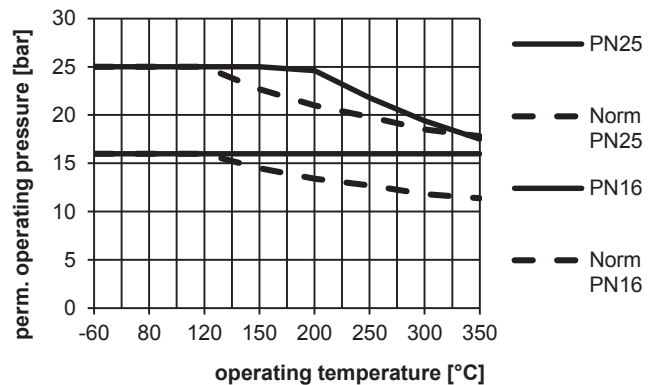
#### Pressure - Temperature limits

Casing material: Ductile iron, Cast steel  
Material design: 1B, 1E, 1R, 1U, 2B, 2E, 2U



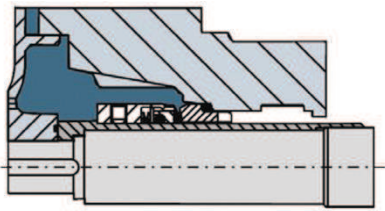
#### Pressure - Temperature limits

Casing material: Stainless steel, Hastelloy, Duplex  
Material design: 4B, 4K, 4L, 4R, 5G, 5H, 5K, 5L

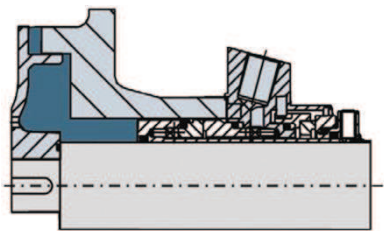


## Shaft sealing

### Mechanical seal designs

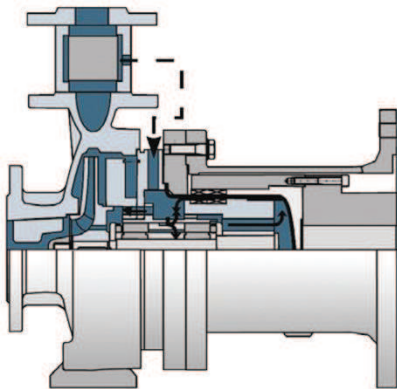


Single-acting mechanical seal

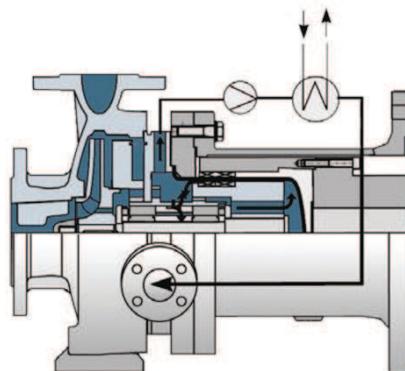


Mechanical seal, type Cartridge

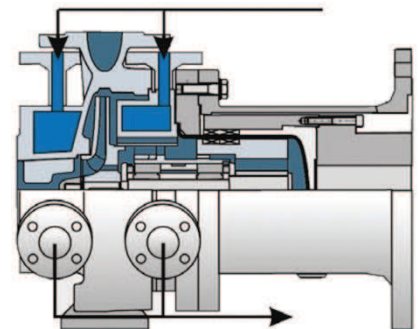
### Magnetic coupling designs



Internal strainer



External partial flow

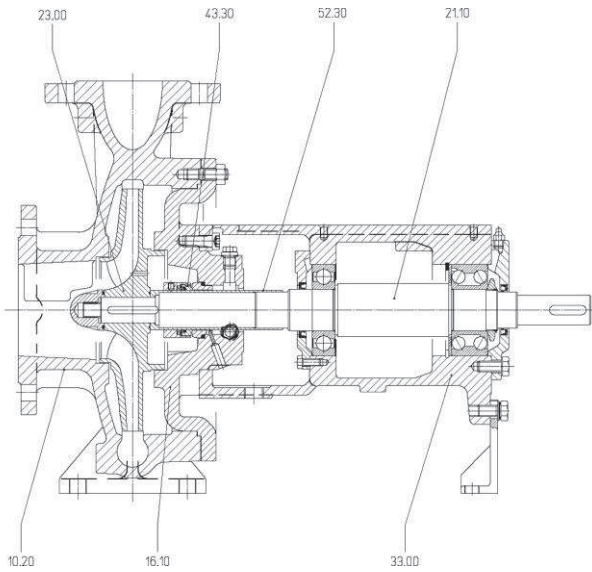


Heating jackets

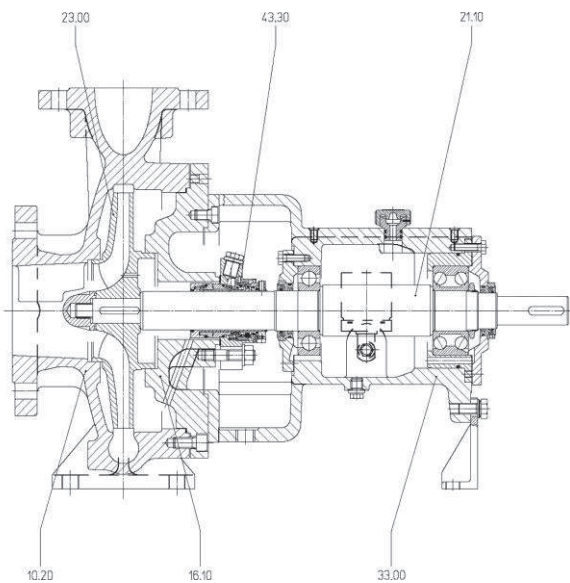
## Sectional drawing and materials of construction

### Bare shaft end design with mechanical seal

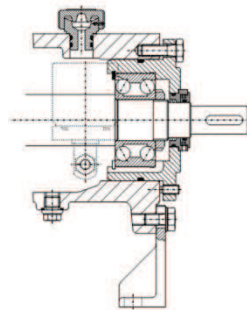
CBS with grease lubrication



CBS with oil lubrication



Design with external axial rotor adjustment



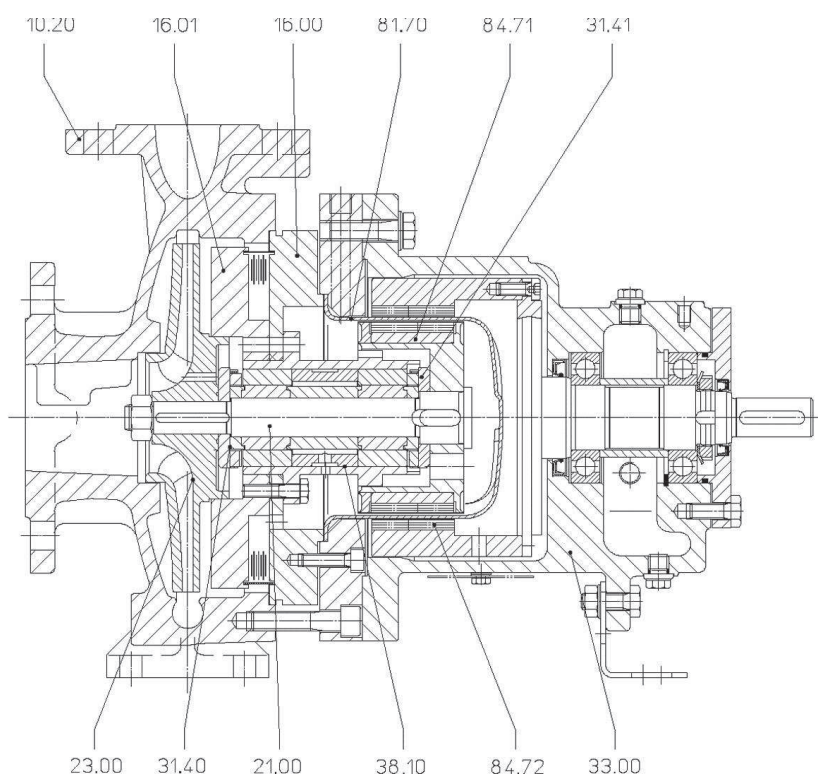
### Materials of construction CBS

Pos.	Design.	Materials											
		1B	1E	1R	1U	2B	2R	4B	4R	4K	4L	5K	5L
10.20	Volute casing	EN-JS 1025				1.4408		1.4408			1.4517		
16.10	Casing cover	EN-JS 1025 / GS-C25				1.4408 (BB55 1.0619)		1.4408			1.4517		
21.10	Shaft	CK 45 N		1.4571		CK 45 N 1.4571		CK 45 N 1.4571		CK 45 N 1.4571		CK 45 N 1.4462	
52.30	Shaft sleeve	1.4571		-		1.4571 -		1.4571 -		1.4571		1.4462 -	
23.00	Impeller	EN-JL 1040	1.4408	EN-JL 1040	1.4408	EN-JL 1040		1.4408		1.4517		1.4517	
33.00	Bearing bracket	EN-JL 1040											
43.30	Mechanical seal	various material combinations											

## Sectional drawing and materials of construction

### Bare shaft end design with magnetic drive

CBM up to 350 °C



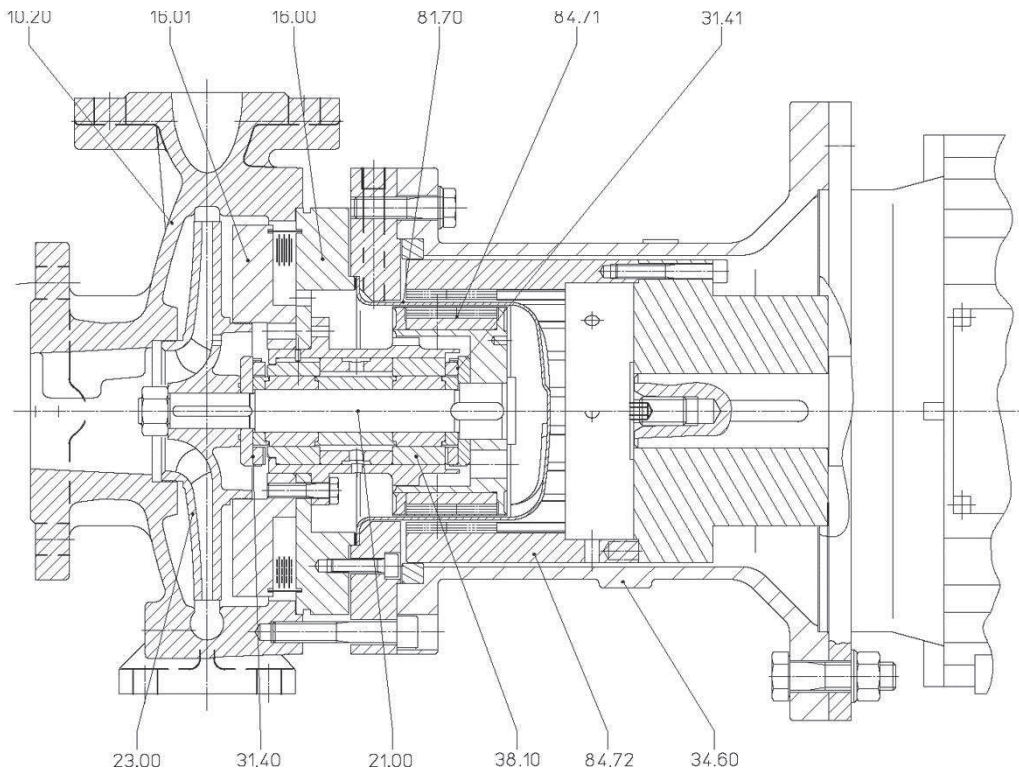
### Materials of construction CBM

Pos.	Designation	Material			
		1B	4B	5K	5G
10.20	Volute casing	EN-JS 1025	1.4408	1.4517	2.4686
16.00 16.01	Casing cover	EN-JS 1025	1.4408	1.4517	2.4686
21.00	Shaft	1.4462			2.4610
23.00	Impeller	EN-JL 1040	1.4408	1.4517	2.4686
31.40 31.41	Sleeve bearing	1.4571 / SSiC			2.4610 / SSiC
33.00	Bearing bracket	EN-JS 1025			
38.10	Bearing insert	1.4462 / SSiC			2.4610 / SSiC
81.70	Isolation shroud	2.4610			
84.71	Inner magnet	1.4571 / SmCo			2.4610 / SmCo
84.72	Outer magnet	1.0570 / SmCo			

## Sectional drawing and materials of construction

### Close-coupled design with magnetic drive

CBE up to 350 °C (for 400 °C on request)



### Materials of construction CBE

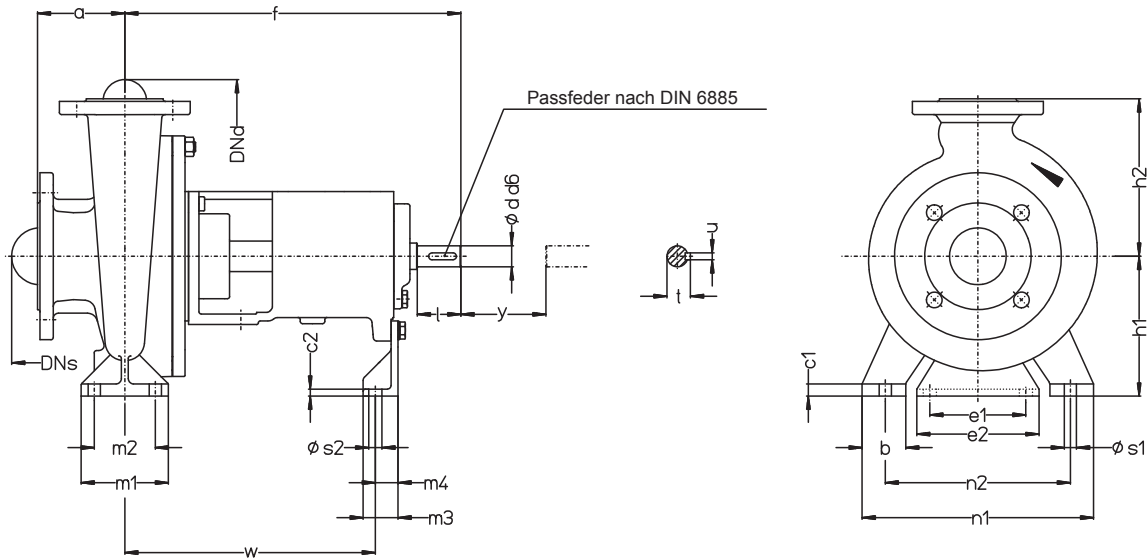
Pos.	Designation	Material				
		1B	1E	2B	4B	5L
10.20	Volute casing	EN-JS 1025		1.4408	1.4408	1.4517
16.00 16.01	Casing cover	1.0053		1.0053	1.4571	1.4539
21.00	Shaft	1.4462				
23.00	Impeller	EN-JL 1040	1.4408	EN-JL 1040	1.4408	1.4517
31.40 31.41	Sleeve bearing	1.4571 / SSiC				
34.60	Stool	EN-JS 1025				
38.10	Bearing insert	1.4462 / SSiC				
81.70	Isolation shroud	2.4610				
84.71	Inner magnet	1.4571 / SmCo				
84.72	Outer magnet	1.0553 / SmCo				



## Table of dimensions

### Bare shaft end design with mechanical seal

CBS bare shaft design to DIN EN ISO 2858



y = dimension for removal

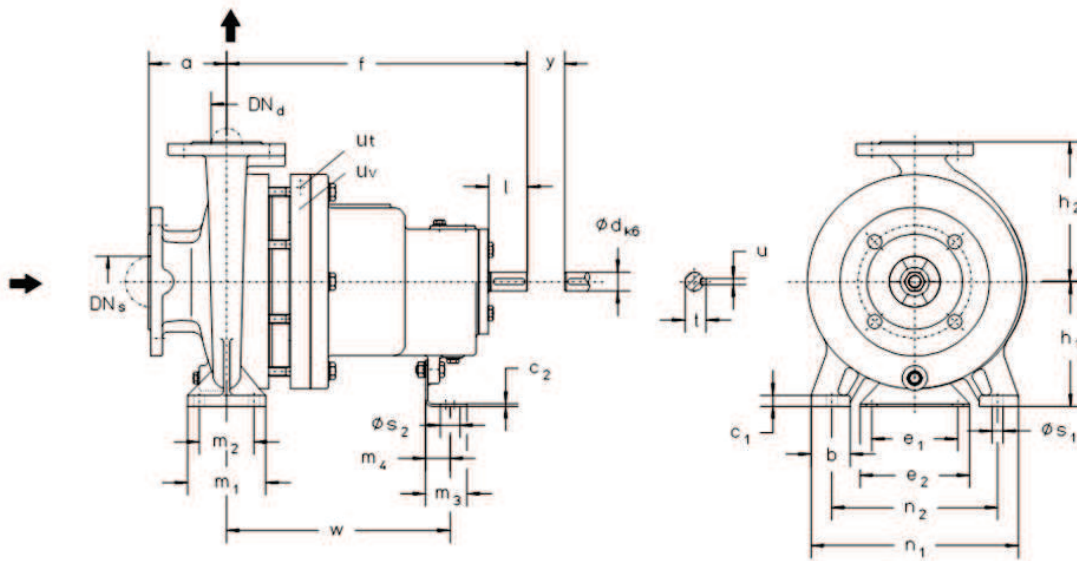
All dimensions in mm, tolerances to DIN EN 735

Size	Bearing bracket	Pump dimensions						Foot dimensions										Shaft end					Pump weight kg																								
		DN <sub>d</sub>	DN <sub>s</sub>	a	f	h <sub>1</sub>	h <sub>2</sub>	b	c <sub>1</sub>	c <sub>2</sub>	m <sub>1</sub>	m <sub>2</sub>	m <sub>3</sub>	m <sub>4</sub>	n <sub>1</sub>	n <sub>2</sub>	s <sub>1</sub>	s <sub>2</sub>	e <sub>1</sub>	e <sub>2</sub>	w	d		l	t	u	y																				
025125	35	25	40	80	385	112	140	50	14	100	70	140	190	140	14	15	110	140	370	32	80	35	10	140	37																						
025160						132	160																		55	38																					
025200						160	180																		60	60																					
032125		32	50			100	500																		112	140	65	125	95	320	250	370	32	80	35	10	91	285	24	50	27	8	93	38			
032160																									132	160																		44	44		
032200																									160	180																		53	53		
032250	45	40	65	100	500			180	225	65	125	95	320	250	370	32	80	35	10	91	285	24	50	27	8	93																		91			
040125	112							140	38																																			38			
040160	132							160	45																																			45			
040200	160					180	55	55																																							
040250	45					50	80	125	500																		180	225	65	125	95	320	250	370	32	80	35	10	93	285	24	50	27	8	93	93	
040315	200																										250	117																		117	
050160	35	50	80	100	385					180	200	50	100	70	265	212	285	24	50	27	8	54	285	24	50	27	8	54																		54	
050200										200	200																																			58	58
050250										180	225																																			96	96
050315										225	280																																			122	122
065160						45	65	100	100	500	160																		200	65	8	125	95	40	28	280	212	15	110	140	32	80	35	10	140	72	72
065200											180																		225																		83
065250	200	250	106	106																																											
065315	55	80	125	125	500						225	280	80	16	160	120	360	280	18	400	315	18	42	110	45	12	136	136	136																		
080160	180										225	82																	82																		
080200	225										250	92																	92																		
080250	225					280	113	113																																							
080315	250					315	147	147																																							
080400	55					100	140	530	280	280	355	80																	16	160	120	435	355	18	360	280	18	32	80	35	10	106	106	106			
100200	200	280	106	106																																											
100250	225	280	135	135																																											
100315	250	315	157	157																																											
100400	45	125	150	140	530					280			100	18	200	150	500	400	23	400	315	18	42	110	45	12	199	199																199			
125250										250	355																																	142	142		
125315						280		176	176																																						
125400						315	400	209	209																																						

## Table of dimensions

### Bare shaft end design with magnetic drive

CBM



Ut : Connection for temperature sensor G1/4

Uv : Connection for condition monitoring sensor SIHIdetect M8

x = dimension for removal

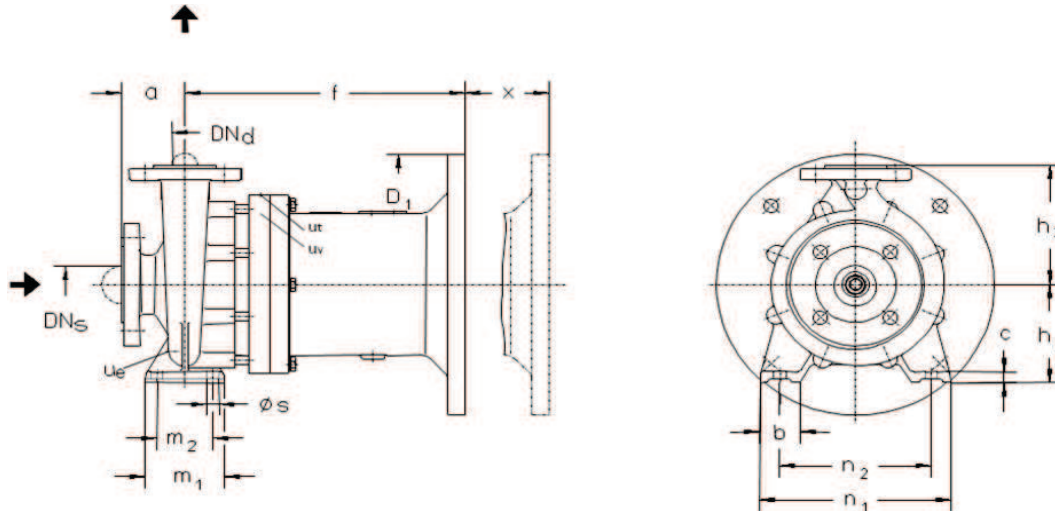
All dimensions in mm, tolerances to DIN EN 735

Size	Bearing bracket	Pump dimensions										Foot dimensions										Shaft end					Pump weight kg																															
		DN <sub>d</sub>	DN <sub>s</sub>	a	f	h <sub>1</sub>	h <sub>2</sub>	b	c <sub>1</sub>	c <sub>2</sub>	m <sub>1</sub>	m <sub>2</sub>	m <sub>3</sub>	m <sub>4</sub>	n <sub>1</sub>	n <sub>2</sub>	s <sub>1</sub>	s <sub>2</sub>	e <sub>1</sub>	e <sub>2</sub>	w	d	l	t	u	y																																
025125	35	25	40	80	385	112	140	50	14	3	100	70	53	190	140	14	14	110	140	370	32	80	35	10	140	47																																
025160						132	160																			57																																
025200						160	180																			76																																
032125						112	140																			41																																
032160						132	160																			57																																
032200						160	180																			76																																
032250	45	100	500	180	225	125	95	320	250	370	32	80	35	10	127																																											
040125	35	40	65	80	385	112	140	14	3	100	70	35	210	160	14	14	110	140	370	32	80	35	10	140	59																																	
040160				132	160	69																																																				
040200				160	180	79																																																				
040250	45	100	500	180	225	125	95	320	250	370	32	80	35	10	138																																											
040315	45	125	500	200	250	65	125	95	345	280	370	32	80	35	10	260																																										
050160	35	50	80	100	385	160	180	50	100	70	53	265	212	110	140	370	32	80	35	10	140	69																																				
050200				160	200	84																																																				
050250	45	50	80	125	500	180	225	65	125	95	320	250	345	280	14	14	110	140	370	32	80	35	10	140	167																																	
050315				225	280	280																																																				
065160				100	500	160	200	65																	125	95	280	212	370	32	80	35	10	75																								
065200				180	225	147																																																				
065250				200	250	256																																																				
065315				55	530	225	280	80																	16	8	160	120						40	28	400	315	18	15	295																		
080160	45	80	125	125	500	180	225	65	14	125	95	53	35	320	250	14	14	110	140	370	32	80	35	10	140	107																																
080200				180	250	195																																																				
080250				225	280	261																																																				
080315				55	530	250	315	16	3																	160	120	43	25	400	315	18	14	385	32	80	35	10	140	280																		
100160				140	515	200	280	80	20																															160	120	53	35	360	280	18	14	370	32	80	35	10	140	217				
100200				125	500	200	280	16	43																																													25	400	315	370	32
100250	225	280	262																																																							
125250	55	125	150	140	530	250	355	80		16	43	25	400	315	18	14	370	42	110	45	12	230																																				

## Table of dimensions

### Close-coupled design with magnetic drive

CBE up to 350°C (for 400 °C on request)



Ut : Connection for temperature sensor G1/4

Uv : Connection for condition monitoring sensor SIHIdetect M8

x = dimension for removal

All dimensions in mm, tolerances to DIN EN 735

Size	Motor size	Pump dimensions															Pump weight kg	
		DN <sub>d</sub>	DN <sub>s</sub>	a	b	c	f	h <sub>1</sub>	h <sub>2</sub>	m <sub>1</sub>	m <sub>2</sub>	n <sub>1</sub>	n <sub>2</sub>	s	x	D <sub>1</sub>		
025125	80M, 90S, 90L	25	40				262	112	140			190	140			200	42	
	100L, 112M						272									250		
	132S, 132M						300											
025160	80M, 90S, 90L						292									200	54	
	100L, 112M						302											250
	132S, 132M						322											300
025200	160M, 160L						352	350										
	90S, 90L						292	240	190			200	72					
	100L, 112M						302									250		
	132S, 132M						322									300		
	160M, 160L						352									350		
180M, 180L	352						350											
032125	80M, 90S, 90L	32	50	80	50	14	262	112	140	100	70	190	140	14	90	200	44	
	100L, 112M						272									250		
	132S, 132M						292									300		
	160M, 160L						322									350		
032160	80M, 90S, 90L						292									200	57	
	100L, 112M						302											250
	132S, 132M						322	300										
	160M, 160L						352	350										
	180M, 180L						352	350										
032200	100L, 112M						302	250	76									
	132S, 132M						322					300						
	160M, 160L						352					350						
	180M, 180L	352	350															
	200L	352	400															
032250	100L, 112M	302	250	127														
	132S, 132M	322			300													
	160M, 160L	352			350													
	180M, 180L	352			350													
	200L	352			400													
225S, 225M	382	450																

All dimensions in mm, tolerances to DIN EN 735

Size	Motor size	Pump dimensions															Pump weight kg														
		DN <sub>d</sub>	DN <sub>s</sub>	a	b	c	f	h <sub>1</sub>	h <sub>2</sub>	m <sub>1</sub>	m <sub>2</sub>	n <sub>1</sub>	n <sub>2</sub>	s	x	D <sub>1</sub>															
040125	80M, 90S, 90L	40	65	80	50	15	262	112	140	100	70	210	160	15	90	200	47														
	272						250																								
	292						300																								
	322						350																								
040160	90S, 90L					40	65	80	50			15	292			132	160	100	70	240	190	15	90	200	59						
	302												250																		
	322												300																		
	352												350																		
040200	100L, 112M			40	65					80	50	15	302	160	180	100	70			265	212			15	90	250	79				
	322												300																		
	352												350																		
	382												400																		
040250	100L, 112M							40	65			100	65	14	302			180	225	125	95	320	250			14	100	250	138		
	322														300																
	352														350																
	382														400																
040315	132S, 132M									40	65			125	65	14	402	200	250			125	95	345	280			14	130	300	260
	432																350														
	462																400														
	462																450														
050125	90S, 90L	50	80									100	50			14	262	132	160	100	70			240	190	14	90			200	47
	272																250														
	292																300														
	322																350														
050160	90S, 90L					50	80							100	50	14	292	132	160			100	70	240	190			14	90	200	69
	302																250														
	322																300														
	352																350														
050200	100L, 112M			50	80							100	50			14	302	160	180	100	70			265	212	14	90			250	84
	322																300														
	352																350														
	382																400														
050250	100L, 112M							50	80					125	65	14	302	180	225			125	95	320	250			14	100	250	167
	322																300														
	352																350														
	382																400														
050315	132S, 132M									50	80	125	65			14	402	225	280	125	95			345	280	14	130			300	280
	432																350														
	462																400														
	462																450														
050315	160M, 160L	50	80											125	65	14	432	225	280			125	95	345	280			14	130	350	280
	462																400														
	462																450														
	462																550														
050315	180M, 180L					50	80					125	65			14	462	225	280	125	95			345	280	14	130			660	280
	462																400														
	462																450														
	462																550														

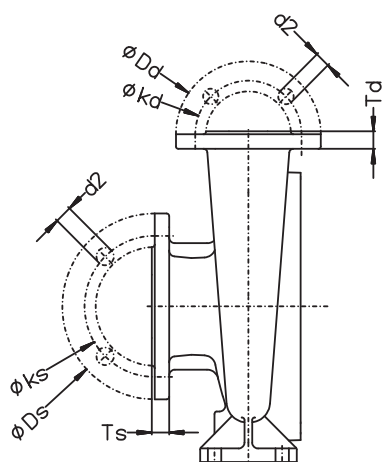
All dimensions in mm, tolerances to DIN EN 735

Size	Motor size	Pump dimensions															Pump weight kg
		DN <sub>d</sub>	DN <sub>s</sub>	a	b	c	f	h <sub>1</sub>	h <sub>2</sub>	m <sub>1</sub>	m <sub>2</sub>	n <sub>1</sub>	n <sub>2</sub>	s	x	D <sub>1</sub>	
065160	90S, 90L	65	100	100	65	14	292	160	200	125	95	280	212	14	90	200	75
	100L, 112M						302									250	
	132S, 132M						322									300	
	160M, 160L						352									350	
	180M, 180L															400	
	200L															450	
	550																
065200	100L, 112M	65	100	100	65	14	302	180	225	125	95	320	250	14	90	250	147
	132S, 132M						322									300	
	160M, 160L						352									350	
	180M, 180L															400	
	200L															450	
	225S, 225M															550	
	250M, 280S						382									550	
065250	132S, 132M	65	100	125	80	16	402	200	250	160	120	360	280	18	130	300	256
	160M, 160L						462									350	
	180M, 180L															400	
	200L															450	
	225S, 225M															550	
	250M, 280S, 280M						447									660	
	315S						477									660	
065315	132S, 132M	65	100	125	80	16	417	225	280	160	120	400	315	18	130	300	295
	160M, 160L						447									350	
	180M, 180L															400	
	200L															450	
	225S, 225M															550	
	250M, 280S, 280M						477									660	
	315S																
080160	100L, 112M	80	125	125	65	14	302	180	225	125	95	320	250	14	90	250	107
	132S, 132M						322									300	
	160M, 160L						352									350	
	180M, 180L															400	
	200L															450	
	225S, 225M															550	
	250M						382									550	
080200	132S, 132M	80	125	125	65	14	402	250	250	125	95	345	280	120	120	300	195
	160M, 160L						432									350	
	180M, 180L															400	
	200L															450	
	225S, 225M															550	
	250M, 280S, 280M						462									550	
080250	132S, 132M	80	125	125	80	16	402	225	280	160	120	400	315	18	130	300	261
	160M, 160L						432									350	
	180M, 180L															400	
	200L															450	
	225S, 225M															550	
	250M, 280S, 280M						462									660	
315S																	
100200	132S, 132M	125	100	125	80	16	402	200	200	160	1200	360	280	18	115	300	207
	160M, 160L						432									350	
	180M, 180L															400	
	200L															450	
	225S, 225M															550	
	250M, 280S, 280M						462									660	
315S, 315M																	
100250	132S, 132M	125	100	140	80	16	417	225	280	160	1200	400	315	18	130	300	274
	160M, 160L						447									350	
	180M, 180L															400	
	200L															450	
	225S, 225M															550	
	250M, 280S, 280M						477									660	
315S, 315M																	

All dimensions in mm, tolerances to DIN EN 735

Size	Motor size	Pump dimensions															Pump weight kg
		DN <sub>d</sub>	DN <sub>s</sub>	a	b	c	f	h <sub>1</sub>	h <sub>2</sub>	m <sub>1</sub>	m <sub>2</sub>	n <sub>1</sub>	n <sub>2</sub>	s	x	D <sub>1</sub>	
100315	160M, 160L	100	125	140	80	16	447	250	315	160	120	400	315	18	130	350	277
	180M, 180L															400	
	200L															450	
	225S, 225M															550	
	250M, 280S, 280M						660										
315S, 315M	477																
125250	160M, 160L	125	150	140	80	16	447	250	355	160	120	400	315	18	130	350	300
	180M, 180L															400	
	200L															450	
	225S, 225M															550	
	250M, 280S, 280M						660										
315S, 315M	477																
125315	160M, 160L	125	150	140	100	18	447	280	355	200	150	500	400	23	130	350	364
	180M, 180L															400	
	200L															450	
	225S, 225M															550	
	250M, 280S, 280M						660										
315S, 315M	477																
150250	160M, 160L	150	200	160	100	20	447	280	375	200	150	500	400	22	130	350	300
	180M, 180L															400	
	200L															450	
	225S, 225M															550	
	250M, 280S, 280M						660										
315S, 315M	477																

## Flange dimensions



Dimensions to DIN PN 16										
DN <sub>d</sub> DN <sub>s</sub>	25	32	40	50	65	80	100	125	150	200
k	85	100	110	125	145	160	180	210	240	295
d <sub>2</sub> x n	14 x 4	18 x 4	18 x 4	18 x 4	18 x 4	18 x 8	18 x 8	18 x 8	22 x 8	22 x 12
Dimensions to DIN PN 25										
DN <sub>d</sub> DN <sub>s</sub>	25	32	40	50	65	80	100	125	150	200
k	85	100	110	125	145	160	190	220	250	310
d <sub>2</sub> x n	14 x 4	18 x 4	18 x 4	18 x 4	18 x 8	18 x 8	22 x 8	26 x 8	26 x 8	26 x 12
Dimensions to ANSI 150 RF										
DN <sub>d</sub> DN <sub>s</sub>	25	32	40	50	65	80	100	125	150	200
	1" <sup>2)</sup>	1,5" <sup>1)</sup>	1,5"	2"	2,5"	3"	4"	5"	6"	8"
k	79,4	98,4	98,4	120,6	139,7	152,4	190,5	215,9	241,3	298,4
d <sub>2</sub> x n	16 x 4	16 x 4	16 x 4	20 x 4	20 x 4	20 x 4	20 x 8	23 x 8	23 x 8	23 x 8

<sup>1)</sup> Execution 1 1/4" for DN32 not possible

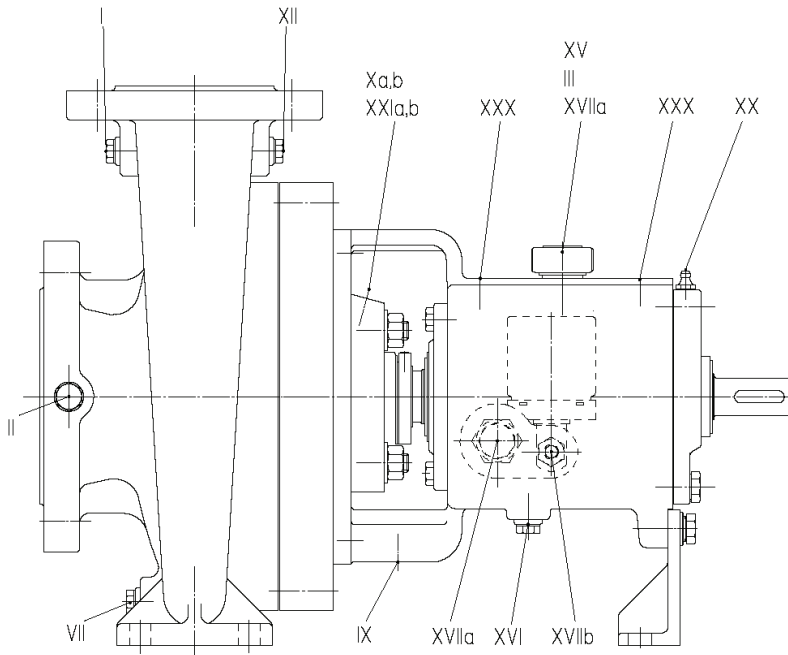
<sup>2)</sup> Execution 1" on suction side (DN40) with 4 x threads 1/2" – 13 UNC

All dimensions in mm, tolerances to EN 735

Size	DN <sub>d</sub>	DN <sub>s</sub>	SG iron PN16 / PN25				Stainless steel PN16 / PN25				SG iron ANSI 150 RF				Stainless steel ANSI 150 RF			
			Discharge nozzle		Suction nozzle		Discharge nozzle		Suction nozzle		Discharge nozzle		Suction nozzle		Discharge nozzle		Suction nozzle	
			D <sub>d</sub>	T <sub>d</sub>	D <sub>s</sub>	T <sub>s</sub>	D <sub>d</sub>	T <sub>d</sub>	D <sub>s</sub>	T <sub>s</sub>	D <sub>d</sub>	T <sub>d</sub>	D <sub>s</sub>	T <sub>s</sub>	D <sub>d</sub>	T <sub>d</sub>	D <sub>s</sub>	T <sub>s</sub>
025125	25	40	-	-	-	-	115	18	150	19	-	-	-	-	115	18	150	19
025160			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
025200			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
032125	32	50	140	20	165	22	140	18	165	20	140	18	165	20	140	18	165	20
032160			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
032200			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
032250			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
040125	40	65	-	-	-	-	-	22	185	-	-	-	-	-	-	-	-	
040160			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
040200			150	20	191	24	150	18	191	22	150	18	191	22	150	18	191	22
040250			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
040315			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
050160			50	80	165	22	200	26	165	20	200	24	165	20	200	24	165	20
050200	-	-			-	-	-	-	-	-	-	-	-	-	-	-	-	-
050250	-	-			-	-	-	-	-	-	-	-	-	-	-	-	-	-
050315	-	-			-	-	-	-	-	-	-	-	-	-	-	-	-	-
065160	65	100			191	24	235	28	191	22	235	24	191	22	235	25	191	22
065200			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
065250			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
065315			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
080160	80	125	200	26	270	30	200	24	270	26	200	24	270	27	200	24	270	26
080200			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
080250			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
080315			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
080400			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
100200	100	125	235	28	270	30	229	24	270	26	235	25	270	27	229	24	270	26
100250			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
100315			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
100400			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
125250	125	150	270	30	300	34	270	26	300	28	270	27	300	31	270	26	300	28
125315			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
125400			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
150250	150	200	300	34	360	34	300	29	360	32	300	31	360	31	300	29	360	32

## Connections

**CBS**



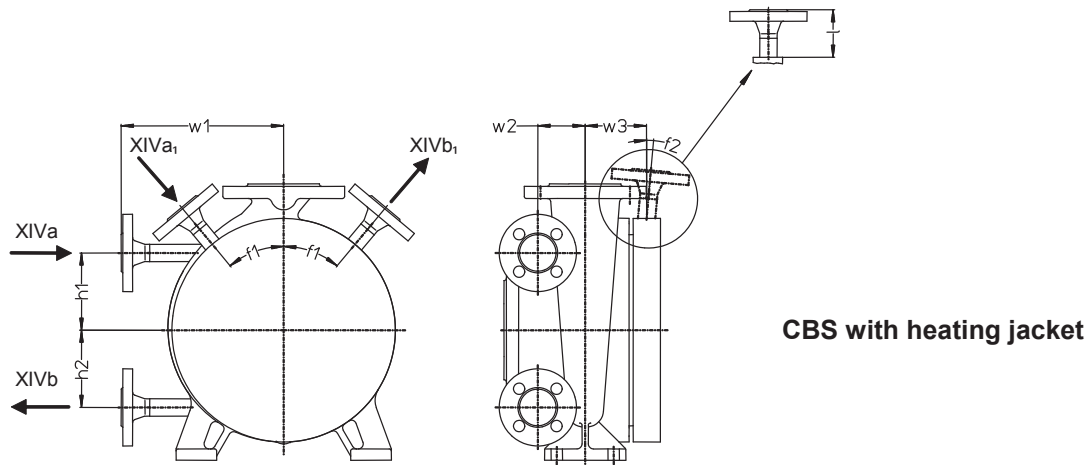
Pos.	Description	Execution	Connection
I	Pressure gauge	By request	G ¼ / G ½ <sup>1)</sup>
II	Vacuum and pressure gauge	By request	G ¼ / G ½ <sup>1)</sup>
III, XV	Vent, Oil filling	For oil lubrication	Ø 20
VII	Drain	By request	G ¼ / G ⅜ <sup>1)</sup>
IX	Drainage of leakage	By request	G ½
Xa, b	Sealing liquid, inlet/outlet	Execution mechanical seal	G ¼
XII	Circulation	Execution mechanical seal	G ¼
XVI	Oil drain	For oil lubrication	G ¼
XVIIa	Oil dip stick	Execution with oil dip stick or oil sight glass	Ø 20 G ½
XVIIb	Oil level controller	Execution with oil level controller	G ¼
XX	Grease lubrication	For grease lubrication	⅛"
XXIa,b <sup>2)</sup>	Quench, inlet/outlet	Execution mechanical seal	Dependent of mechanical seal
XXX	Shock pulse measurement	All executions	M8

<sup>1)</sup> Depending on size

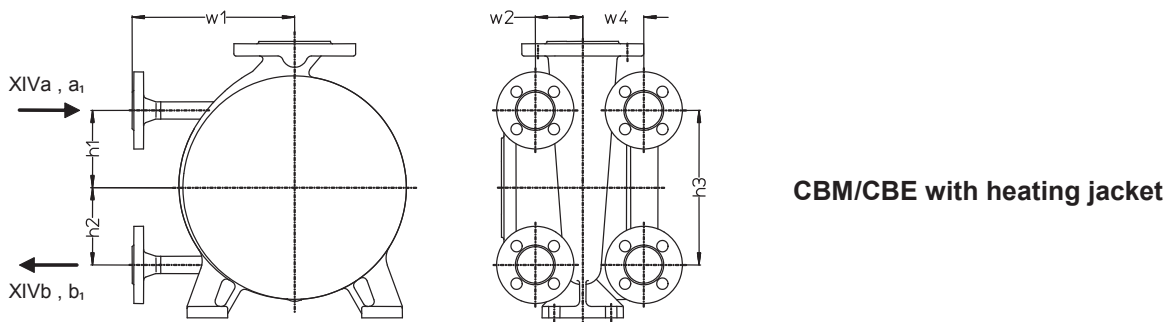
<sup>2)</sup> For elastomer bellow seals not executed by default



## Connections Heating agent supply



**CBS with heating jacket**



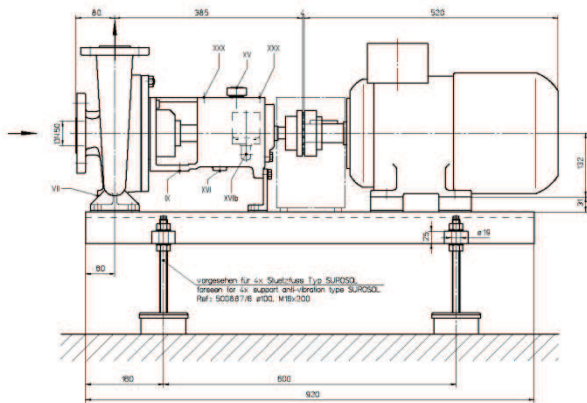
**CBM/CBE with heating jacket**

XIVa,a<sub>1</sub> = heating jacket connection - inlet  
 XIVb,b<sub>1</sub> = heating jacket connection - outlet

All dimension in mm or °, tolerances to EN 735

Size	Bearing bracket	Values of connections										
		h <sub>1</sub>	h <sub>2</sub>	h <sub>3</sub>	w <sub>1</sub>	w <sub>2</sub>	w <sub>3</sub>	w <sub>4</sub>	f <sub>1</sub>	f <sub>2</sub>	l	Flange
032125	35	70	70	-	160	45	71	-	55	0	75	DN15
032160		69.5	69.5	152	175	40	77	70		10		
032200		103	97	162	190	50	66	67		0		
032250	45	114.5	110.5	196	200	65	76	70	35	0		
040160	35	82	82	152	175	43	77	70	55	10		
040200		95	95	162	200	60	66	67		0		
040250	45	110	115	196	200	65	76	70	35	0		
040315		125	125	-		75	93	-		10		
050160		35	87	87		152	175	50		77		
050200	100		100	162	205	55	66	67	0			
050250	120		120	-	200	75	76	-	35	10		
050315	-		-	-	230	85	93	-	0			
065160	45		92	63	152	188	55	73	70	55	0	
065200			110	110	-	210	60	76	-		10	
065250			115	115	174	235	75	77	83		0	
080160			130	130	-	215	80	73	80		10	
080200			115	115	-	220	75	81	75		0	
100200			135	135	-	215	80	80	-		10	

## Foundation plans



Detailed foundation plans are available on request. These plans can also be supplied in different electronic formats, for example as 3D models (STEP, ...) with the main dimensions of all components.

For the configuration of a pump set the following accessories can be supplied:

- Base plates
- Couplings and coupling guards
- Motors
- Additional accessories

## Additional innovative solutions from SIHI

### SIHI<sup>detect</sup>



### Condition based monitoring

#### Detect wear before damage occurs

- + Cavitation and process turbulence
- + Simple to connect
- + LED display
- + Available Ex
- + All rotating machinery
- + DCS integration and continual monitoring

Noise and Vibration analysis allows this compact device to diagnose the (often hidden) symptoms of longer term damage even before vibration occurs.

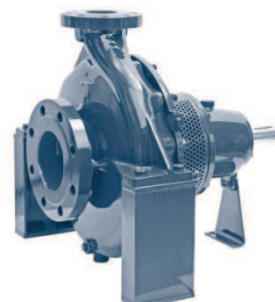
### SIHI/ISOchem



### CBT for larger flow rates

Flow rate:	max. 2200 m <sup>3</sup> /h
Head:	max. 160 m
Casing pressure:	max. 25 bar
Temperature:	max. 350 °C

### SIHI/ISOchem



### RBS for higher casing pressures

Flow rate:	max. 1200 m <sup>3</sup> /h
Head:	max. 150 m
Casing pressure:	max. 40 bar
Temperature:	max. 400 °C

**Sterling SIHI GmbH**

Lindenstr. 1, 25524 Itzehoe, Germany  
Tel. +49 (0) 4821 771-01      Telefax +49 (0) 4821 4821 771-274  
[www.sihi.com](http://www.sihi.com)