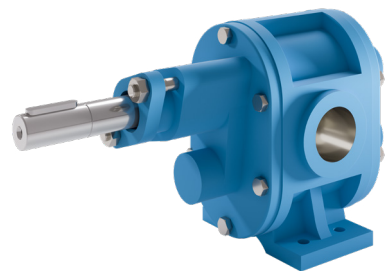


Gear pumps  
**BT, BTH**



**KRACHT**®  
FLUID TECHNOLOGY AND SYSTEMS

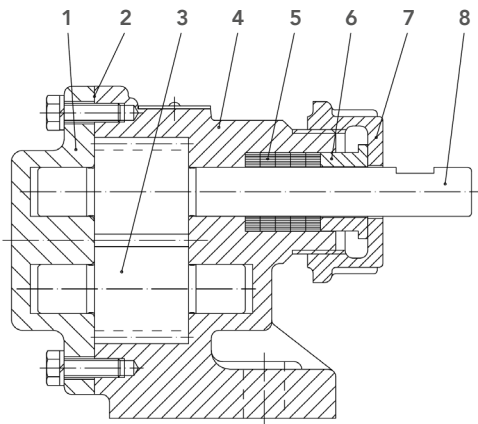
## Content

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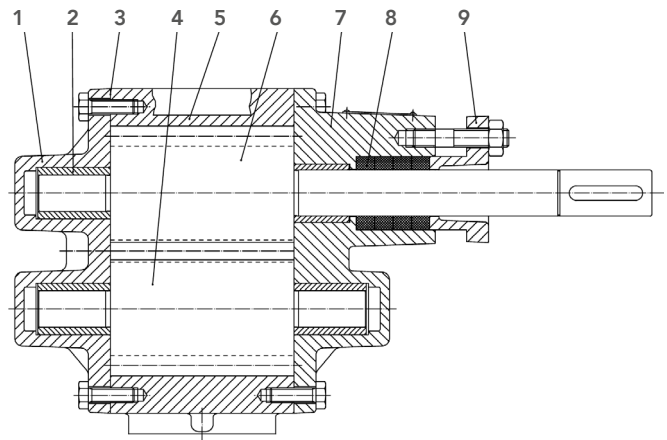
## Construction BT

### I BT 0 – without heating chamber



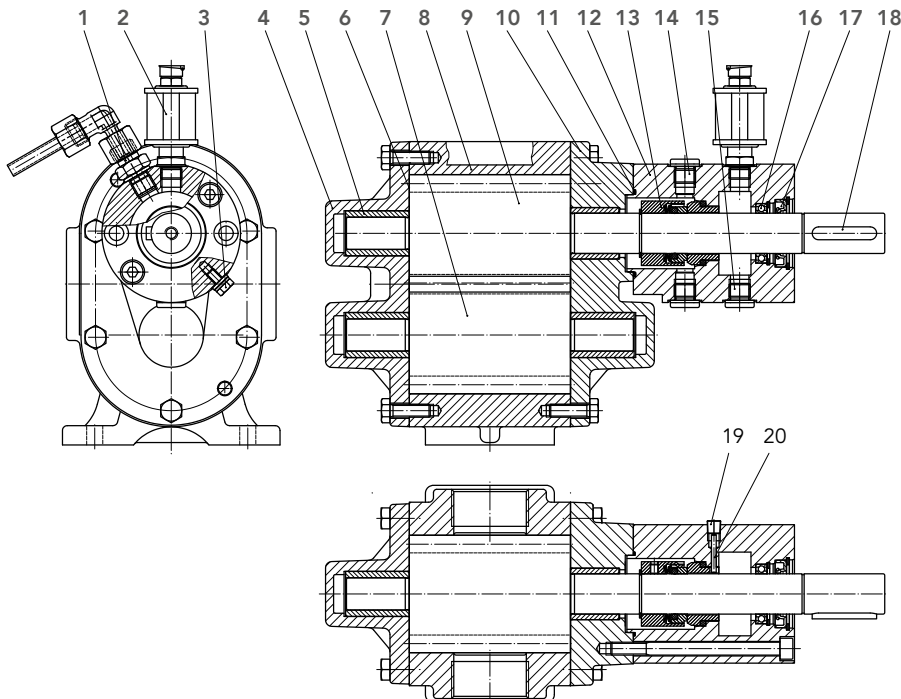
- 1 Housing cover
- 2 Liquid gasket
- 3 Driven shaft
- 4 Housing
- 5 Packing ring
- 6 Gland compression ring
- 7 Cap nut
- 8 Driving shaft

### I BT 1 ... 7 – without heating chamber



- 1 Housing cover
- 2 Plain bearing bush
- 3 Liquid gasket
- 4 Driven shaft
- 5 Housing
- 6 Driving shaft
- 7 Gland cap
- 8 Packing ring
- 9 Gland follower

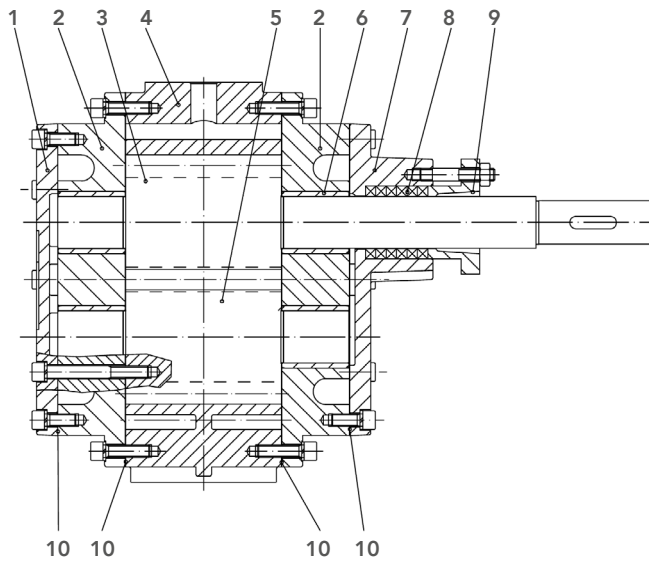
### I BT 3 ... 7 – without heating chamber / ATEX



- 1 Overflow
- 2 Container for the preliminary fluid
- 3 Earth connection
- 4 Housing cover
- 5 Plain bearing bush
- 6 Liquid gasket
- 7 Driven shaft
- 8 Housing
- 9 Driving shaft
- 10 Cover
- 11 O-ring
- 12 Seal retainer
- 13 Mechanical seal
- 14 Vent screw
- 15 Drain plug
- 16 Bearing
- 17 Rotary shaft seal
- 18 Parallel key
- 19 Screw plug
- 20 Antitwist protection

## Construction BTH

### I BTH – with heating chamber



- 1 Housing cover
- 2 Bearing cover
- 3 Driving shaft
- 4 Housing
- 5 Driven shaft
- 6 Plain bearing bush
- 7 Gland cap
- 8 Packing ring
- 9 Gland follower
- 10 Liquid gasket

## General

---

### I Description

Pumps series BT and BTH are low speed gear pumps for transferring medium and high viscosity fluids, provided they have certain minimum amount of lubricating property, do not contain any solids and are chemically compatible with the materials of construction.

The standard material of construction for housing, bearing cover and stuffing box cover is grey cast iron. The shafts and gears are manufactured from case hardening steel, hardened and ground. The shafts are carried in plain bearings manufactured in bronze, with an option of sintered iron.

The rotary shaft seal is a packed gland consisting of PTFE filled aramid yarn, and the static sealing between mating parts is by means of either, liquid sealant or gaskets. All sealing materials are asbestos free.

External axial loads are not permissible, restricted radial loads can be absorbed, dependant on their magnitude and direction.

Driving by flexible shaft coupling is preferred.

In the case of fluids which require elevated temperatures to flow i. e. bitumen, wax etc. the BTH series pump should be used. In this model the housing is double walled to provide a heating jacketed.

The pump transfer chamber is heated by circulating heat transfer fluid or steam through the jacket.

The standard range of models is complimented by a range of a special models described below.

The pump size BT 2 can be supplied in a corrosion and acid – resistant construction (stainless steel body and gear) with carbone plain bearings bushes; the operating pressure of this pump is limited to 5 bars.

BT 1 up to BT 4 pumps can be manufactured with bronze housing and with further combinations of stainless steel gears and shafts or bronze gears and stainless steel shafts.

For use on liquids with an abrasive nature and high corrosive effects like resins, certain paints and varnishes as well as glues a special construction, Code No. / 04, is recommended, which is available for pump sizes BT 1 up to BT 7.

In this model all pump parts which are in contact with the transferring fluid are protected from wear and corrosion by a chemically deposited Ni/SiC- dispersion layer. This treatment substantially extends the service life compared with that of a standard model when used in these types of fluid.

## Technical data

### I Characteristics

#### BT

Series	0	1	2	3	4	5	6	7
Nominal size in cm <sup>3</sup> /rev	6.9	32	43	91	197	254	352	494

#### BTH

Series	1/55	1/105	2/100	2/130	3/150
Nominal size in cm <sup>3</sup> /rev	97	186	393	510	1056

Fixing type	Foot mounting
Pipe connection	BT Whitworth-pipe thread BTH Whitworth-pipe thread, flange, flange with counterflange
Direction of rotation	BT Clockwise <b>and</b> anticlockwise BTH Clockwise <b>or</b> anticlockwise
Dimensions and weight	See pages 15 ... 19
Fitting position	Horizontal
Ambient temperature	-10 ... 60 °C

### I Hydraulic characteristics

Operating pressure Inlet port min	-0,4 bar
Operating pressure Outlet port max	BT 1 ... 7 8 bar BT 0 1 bar BT 2 stainless steel 5 bar Higher operating pressure on request
Pressure in the heating jacket max	10 bar
Media temperature	-10 ... 220 °C
Viscosity	76 ... 30 000 mm <sup>2</sup> /s Other viscosities on request
Required drive power	See technical data on pages 8 and 9
Speed	100 ... 750 1/min

### I Other Types

Pump with electric motor, coupling and coupling guard mounted on a common base plate.

### I Accessories

Flexible coupling





## Technical data BTH

### I Required drive power

		BTH 1/55				BTH 1/105				BTH 2/100				BTH 2/130				BTH 3/150				
n = 100 min <sup>-1</sup>	Discharge flow in l/min	9.5				17.0				38.0				50.0				100.0				
	Pressure in bar	2	4	6	8	2	4	6	8	2	4	6	8	2	4	6	8	2	4	6	8	
	Viscosity in mm <sup>2</sup> /s	76	0.07	0.15	0.15	0.22	0.15	0.22	0.30	0.37	0.30	0.44	0.60	0.66	0.37	0.52	0.66	0.88	0.88	1.18	1.47	1.84
		760	0.15	0.22	0.22	0.22	0.30	0.37	0.40	0.44	0.52	0.66	0.81	0.88	0.66	0.88	1.03	1.18	1.47	1.84	2.14	2.43
		3800	0.30	0.30	0.30	0.37	0.52	0.60	0.62	0.66	0.96	1.10	1.25	1.33	1.25	1.47	1.62	1.77	2.60	3.00	3.30	3.60
7600		0.30	0.37	0.37	0.44	0.60	0.66	0.74	0.81	1.18	1.33	1.47	1.55	1.55	1.77	1.90	2.10	3.20	3.60	3.80	4.20	
n = 200 min <sup>-1</sup>	Discharge flow in l/min	19.0				34.0				76.0				100.0				200.0				
	Pressure in bar	2	4	6	8	2	4	6	8	2	4	6	8	2	4	6	8	2	4	6	8	
	Viscosity in mm <sup>2</sup> /s	76	0.15	0.22	0.30	0.44	0.30	0.44	0.60	0.74	0.60	0.88	1.10	1.33	0.74	1.10	1.50	1.80	1.50	2.40	3.00	3.70
		760	0.30	0.37	0.44	0.52	0.52	0.66	0.81	0.88	1.03	1.33	1.62	1.84	1.30	1.80	2.10	2.40	2.90	3.70	4.30	4.90
		3800	0.52	0.60	0.66	0.74	0.96	1.10	1.25	1.33	1.84	2.14	2.43	2.65	2.40	2.90	3.20	3.50	5.10	6.00	6.50	7.10
7600		0.66	0.74	0.77	0.81	1.18	1.33	1.47	1.55	2.30	2.60	2.90	3.10	3.00	3.50	3.80	4.00	6.30	7.10	7.70	8.30	
n = 300 min <sup>-1</sup>	Discharge flow in l/min	28.5				51.0				114.0				150.0				300.0				
	Pressure in bar	2	4	6	8	2	4	6	8	2	4	6	8	2	4	6	8	2	4	6	8	
	Viscosity in mm <sup>2</sup> /s	76	0.22	0.37	0.44	0.52	0.37	0.60	0.81	0.96	0.74	1.18	1.55	1.90	1.00	1.60	2.10	2.40	2.20	3.30	4.20	5.10
		760	0.44	0.60	0.66	0.74	0.81	1.03	1.18	1.40	1.60	2.00	2.40	2.70	2.10	2.70	3.20	3.60	4.40	5.50	6.40	7.30
		3800	0.81	0.88	0.96	1.10	1.40	1.60	1.80	2.00	2.70	3.20	3.60	3.90	3.70	4.30	4.80	5.30	7.70	8.80	9.70	10.60
7600		0.96	1.10	1.18	1.25	1.80	2.00	2.20	2.40	3.60	4.00	4.30	4.70	4.70	5.30	5.80	6.20	9.40	10.70	11.60	12.40	
n = 400 min <sup>-1</sup>	Discharge flow in l/min	38.0				68.0				152.0				200.0				400.0				
	Pressure in bar	2	4	6	8	2	4	6	8	2	4	6	8	2	4	6	8	2	4	6	8	
	Viscosity in mm <sup>2</sup> /s	76	0.30	0.44	0.60	0.66	0.52	0.81	1.03	1.25	0.96	1.55	2.10	2.50	1.30	2.10	2.70	3.30	2.80	4.40	5.60	6.80
		760	0.60	0.74	0.88	0.96	1.10	1.40	1.60	1.80	2.10	2.70	3.20	3.70	2.80	3.60	4.20	4.70	5.80	7.40	8.60	9.70
		3800	1.25	1.40	1.55	1.70	2.40	2.60	2.90	3.10	4.70	5.30	5.80	6.20	6.10	6.90	7.60	8.10	10.20	11.80	13.00	14.10
n = 500 min <sup>-1</sup>		Discharge flow in l/min	47.5				85.0				190.0				250.0				500.0			
	Pressure in bar	2	4	6	8	2	4	6	8	2	4	6	8	2	4	6	8	2	4	6	8	
	Viscosity in mm <sup>2</sup> /s	76	0.37	0.60	0.74	0.88	0.66	1.03	1.33	1.60	1.20	1.90	2.60	3.20	1.60	2.60	3.40	4.10	3.50	5.50	7.00	7.70
		760	0.74	0.96	1.10	1.25	1.30	1.70	2.00	2.30	2.60	3.30	4.00	4.60	3.40	4.40	5.30	6.00	7.20	9.20	10.70	12.20
		3800	1.30	1.50	1.70	1.80	2.40	2.80	3.10	3.40	4.70	5.50	6.10	6.60	6.20	7.20	8.00	8.70	12.70	14.70	16.20	17.70
n = 600 min <sup>-1</sup>		Discharge flow in l/min	57.0				102.0				228.0				300.0				600.0			
	Pressure in bar	2	4	6	8	2	4	6	8	2	4	6	8	2	4	6	8	2	4	6	8	
	Viscosity in mm <sup>2</sup> /s	76	0.44	0.72	0.89	1.06	0.79	1.24	1.59	1.92	1.40	2.30	3.10	3.80	1.90	3.10	4.10	4.90	4.20	6.60	8.50	9.20
		760	0.90	1.18	1.35	1.52	1.60	2.10	2.40	2.70	3.20	4.10	4.90	5.60	4.30	5.50	6.50	7.30	9.00	11.40	13.30	14.00
		3000	1.40	1.70	1.90	2.00	2.50	3.00	3.30	3.70	5.30	6.20	7.00	7.70	7.00	8.20	9.20	10.00	14.40	16.80	18.70	19.40
n = 700 min <sup>-1</sup>		Discharge flow in l/min	66.5				119.0				266.0				350.0				700.0			
	Pressure in bar	2	4	6	8	2	4	6	8	2	4	6	8	2	4	6	8	2	4	6	8	
	Viscosity in mm <sup>2</sup> /s	76	0.52	0.84	1.04	1.23	0.92	1.45	1.86	2.23	1.70	2.60	3.60	4.50	2.20	3.60	4.80	5.80	4.90	7.70	9.90	10.70
		760	1.05	1.37	1.57	1.76	1.90	2.40	2.80	3.20	3.80	4.70	5.70	6.60	5.00	6.40	7.60	8.60	10.50	13.30	15.50	16.30
		2000	1.40	1.70	1.90	2.10	2.50	3.00	3.40	3.80	5.20	6.10	7.10	8.00	6.80	8.20	9.40	10.40	14.00	16.80	19.00	19.80

### Drive power required at high viscosities

See page 10

## Technical data

### I Drive power required at high viscosities

Viscosities above values specified in the tables on the pages 8 and 9 require a higher power input. In such cases the drive power of the pump  $P_{1Pu}$  can be determined by means of the viscosity factor  $f_v$  (see table on the right) as follows:

$$P_{1Pu} = P_{Tab\ 76} + f_v \cdot Q_{Tab}$$

#### Example

Specifications:

BT 4

$n = 200$  1/min

$v = 10\ 000$  mm<sup>2</sup>/s

$p = 8$  bar

$P_{Tab\ 76}$  0.6 kW (table value at 76 mm<sup>2</sup>/s)

$f_v$   $27 \times 10^{-3}$  kW min/l

$Q_{Tab}$  32 l/min

$P_{1Pu}$   $0.6\ kW + 27 \times 10^{-3}\ kW\ min/l \times 32\ l/min$   
= 1.46 kW

Kinematic viscosity $v$ in mm <sup>2</sup> /s	Speed $n_{max}$ in 1/min	Viscosity factor $f_v$ in 10 <sup>-3</sup> kW min/l
... 1 000	750	9.5
... 2 000	600	14.0
... 3 000	500	17.0
... 6 000	400	22.5
... 10 000	300	27.0
... 20 000	200	34.0
... 30 000	100	38.0

#### Note

Spread of output: +/- 5 % of table values Q. Viscosities below 76 mm<sup>2</sup>/s effect a decrease of output flow values, Q. The power output of driving motor must exceed the table values P by about 20 %.

Important: When determining the power input required always consider the max. operating viscosity (e.g. in the starting situation)!

## Type key BT

<b>BT</b>	<b>3</b>	<b>B</b>	<b>Z</b>	<b>0</b>	<b>B</b>	<b>K</b>	<b>51</b>	/	<b>04</b>
1	2	3	4	5	6	7	8		9

1 Product	
<b>BT</b>	Pump without heating jacket (cylindrical shaft end without step bearing, with packing and threaded pipe connection)
2 Series	
<b>0</b>	Displacement: 6.9 cm <sup>3</sup> /rev
<b>1</b>	Displacement: 32 cm <sup>3</sup> /rev
<b>2</b>	Displacement: 43 cm <sup>3</sup> /rev
<b>3</b>	Displacement: 91 cm <sup>3</sup> /rev
<b>4</b>	Displacement: 197 cm <sup>3</sup> /rev
<b>5</b>	Displacement: 254 cm <sup>3</sup> /rev
<b>6</b>	Displacement: 352 cm <sup>3</sup> /rev
<b>7</b>	Displacement: 494 cm <sup>3</sup> /rev
3 Direction of rotation	
<b>B</b>	Clockwise <b>and</b> anticlockwise, flow direction alternating
4 Pipe connection	
<b>Z</b>	Whitworth pipe thread
5 Design code	
<b>0</b>	Specified by KRACHT
6 Construction of housing and bearing	
<b>A</b>	EN-GJL-200 without bearing bush
<b>B</b>	EN-GJL-200 with bronze bearing bush
<b>C</b>	EN-GJL-200 with sintered iron bearing bushes
<b>U</b>	Bronze without bearing bush
<b>R</b>	Stainless steel with carbon bearing bush (material No.1.4308)
7 Construction of gear unit	
<b>C</b>	Steel shafts and gear unhardened
<b>K</b>	Steel shafts and gear hardened
<b>S</b>	Stainless steel shaft (material No. 1.4057), bronze gear
<b>T</b>	Stainless steel shafts and gear heat treated (material No. 1.4057)
8 Kind of sealing (packing)	
<b>51</b>	Arolan
9 Code-No. for special construction	
<b>04</b>	Wear and corrosion protected model

## I Available pump types

		7 Construction of gear unit			
		C	K	S	T
6 Construction of housing and bearing	A	BT 0	-	-	-
	B	-	BT 1 ... 7	-	-
	C	-	BT 1 ... 7	-	-
	U	-	-	BT 1 ... 4	BT 1 ... 4
	R	-	-	-	BT 2

## Type key BTH

<b>BTH</b>	<b>2/100</b>	<b>R</b>	<b>Z</b>	<b>0</b>	<b>B</b>	<b>K</b>	<b>51</b>	/	<b>04</b>
1	2	3	4	5	6	7	8		9

1 Product	
<b>BTH</b>	Pump with heating jacket (cylindrical shaft end without step bearing, with packing, threaded pipe- or flange connection)
2 Series	
<b>1/55</b>	Displacement: 97 cm <sup>3</sup> /rev
<b>1/105</b>	Displacement: 186 cm <sup>3</sup> /rev
<b>2/100</b>	Displacement: 393 cm <sup>3</sup> /rev
<b>2/130</b>	Displacement: 510 cm <sup>3</sup> /rev
<b>3/150</b>	Displacement: 1056 cm <sup>3</sup> /rev
3 Direction of rotation	
<b>R</b>	Clockwise
<b>L</b>	Anticlockwise
4 Pipe connection	
<b>Z</b>	Whitworth pipe thread
<b>F</b>	Flange
<b>G</b>	Flange with counter flange
5 Design code	
<b>0</b>	Specified by KRACHT
6 Construction of housing and bearing	
<b>B</b>	EN-GJL-200 with bronze bearing bush
<b>C</b>	EN-GJL-200 with sintered iron bearing bushes
7 Construction of gear unit	
<b>K</b>	Steel shafts and gear hardened (driving shaft one-piece)
<b>F</b>	Steel shafts and gear hardened (driving shaft two-piece)
8 Kind of sealing (packing)	
<b>51</b>	Arolan
9 Code-No. for special construction	
<b>04</b>	Wear and corrosion protected model



## I Available pump types

		7 Construction of gear unit	
		K	F
6 Construction of housing and bearing	B	BTH 1 / BTH 2	BTH 3
	C	BTH 1 / BTH 2	BTH 3

## BT - ATEX

### I General

Pumps of the series BT are also available in ATEX design. The pumps can be used as follows:

- a. In zone 2 (Gas-, category 3G)  
in explosion groups IIA and IIB and IIC
- b. In zone 1 (Gas-, category 2G)  
in explosion groups IIA and IIB and IIC

Qualification with regard to surface temperature is T4. For all gases, vapours, mists with an ignition temperature > 135 °C, the pumps are not an ignition source.

Permissible temperature: -20 ... 60 °C.

### I Type key

BT	4	B	Z	0	B	K	59	/	ATEX
1	2	3	4	5	6	7	8		9

1 Product	
BT	Pump without heating jacket
2 Series	
3	Displacement: 91 cm <sup>3</sup> /rev
4	Displacement: 197 cm <sup>3</sup> /rev
5	Displacement: 254 cm <sup>3</sup> /rev
6	Displacement: 352 cm <sup>3</sup> /rev
7	Displacement: 494 cm <sup>3</sup> /rev
3 Direction of rotation	
B	Clockwise <b>and</b> anticlockwise
4 Pipe connection	
Z	Whitworth pipe thread
5 Design code	
0	Specified by KRACHT
6 Construction of housing and bearing	
B	EN-GJL-200 with bronze bearing bush
7 Construction of gear unit	
K	Steel shafts and gear hardened
8 Sealing types	
59	Mechanical seal with liquid seal, shaft seal: FKM
76	Mechanical seal with liquid seal, shaft seal: PTFE
97	Double-acting mechanical seal with sealing liquid (available for series 4 ... 7)
9 Code for special construction	
ATEX	

### I Identification in accordance with EC directive RL 94/9/EG

Manufacturer:	Kracht GmbH 58791 Werdohl, Germany
Type designation:	BT ...
Job No., production date:	xxxxxx/xx-xxx xx.xx
Tech. File Ref. :	TFR: 07.01X
Ignition protection designation:	 II 2 G ck T4

The ATEX design BT pumps are equipped with a mechanical seal with a fluid receiver. In the area of the fluid receiver the BT-ATEX has a connection for a container for filling the receiver fluid. An overflow serves to monitor the amount which leaks from mechanical seal.

## BT - ATEX

### I General characteristics

Design	External gear pump
Serie	3 ... 7
Pipe connection	Whitworth pipe thread
Mounting position	Horizontal
Fixing type	Foot mounting
Direction of rotation	Clockwise <b>and</b> anticlockwise
Ambient temperature	-10 ... 40 °C



### I Hydraulic characteristics

Media temperature	-10 ... 60 °C
Speed	100 ... 750 1/min
Viscosity	76 ... 20 000 mm <sup>2</sup> /s
Operating pressure inlet port	-0,4 ... 8 bar
Operating pressure outlet port <span style="float: right;">max</span>	8 bar

### I Materials

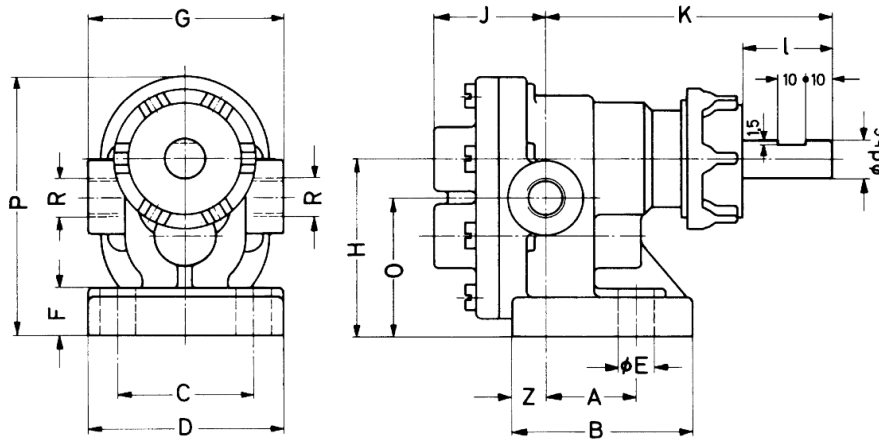
Housing, bearings, gears	See type key or type plate at pump
Mechanical sealing	SiC-SiC, FFKM, stainless steel
Other media-side seals	Loctite 510, FEP with FKM-core
Uni-oiler	Ms, Plexiglas
Type plate	Stainless steel
Notched nail	Al (Mg portion < 7,5 %)
Gasket ring screw-plugs	Cu
Other parts	St

### I Other information

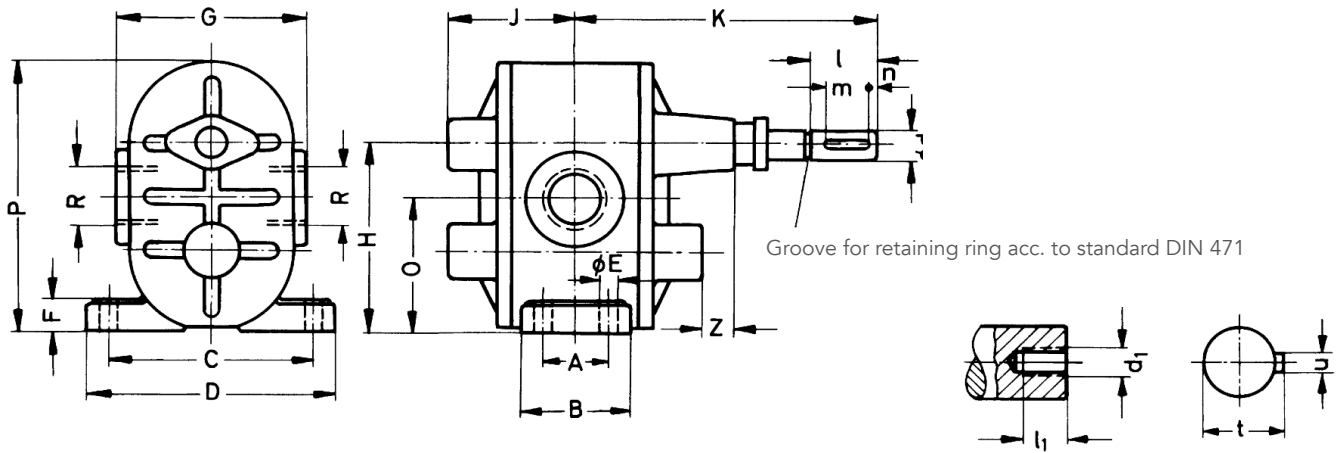
Filtering	Filter fineness 60 µm (if required, install a suction filter to prevent the pump from being jammed by foreign particles).
Permissible media	Inflammable and non-inflammable liquids without abrasive ingredients which are compatible with the materials of which the pump is made. The liquid must not be static charged. Flame point and minimum ignition temperature must be observed by the operator. Media-specific characteristics must be taken into consideration. The fluid must have a minimum amount of lubricity.
Axial and centrifugal forces on shaft end	Not allowed
	For certain operating conditions, the stated minimum and maximum values are not valid! Thus, for example, the maximum operating pressure is not permissible in conjunction with low rpm and minimum viscosity.
	Media-specific characteristics must be observed, e.g. in the case of emulsions and solutions containing water, the maximum operating temperature is 50 °C, the pump must be located beneath the level of the liquid.

## Dimensions and weight

### I BT 0



### I BT 1 ... 7



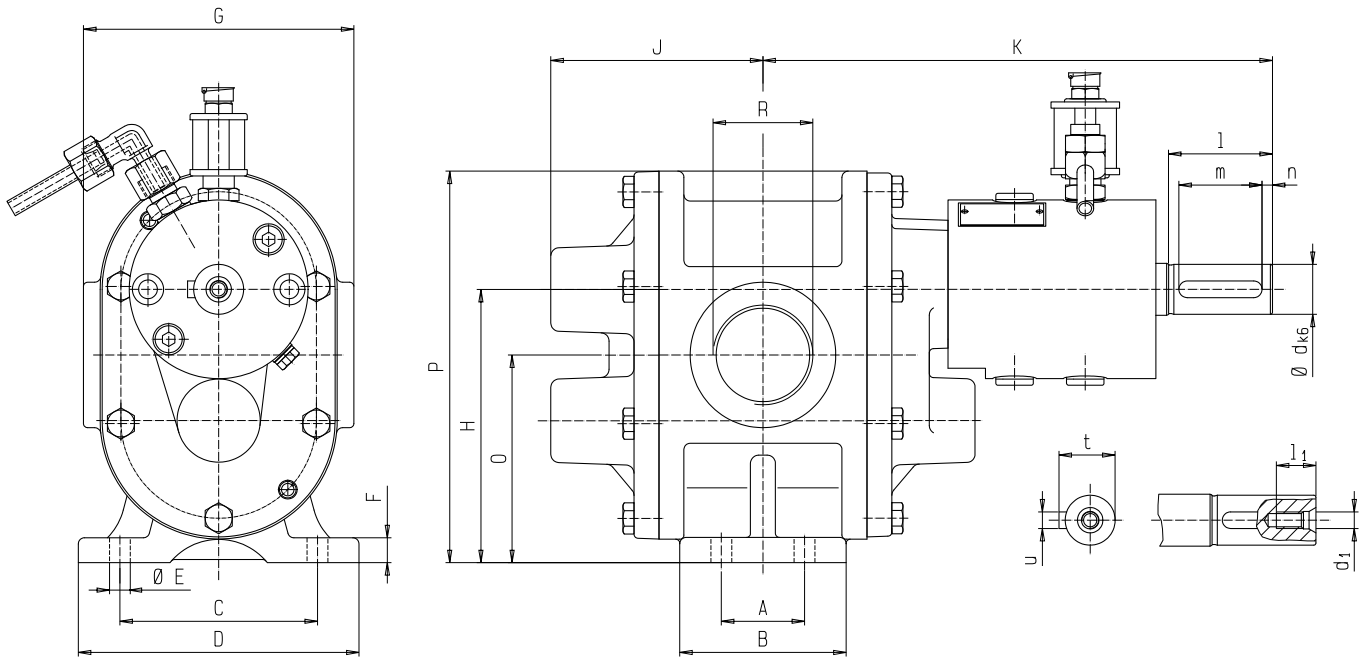
Inlet and outlet ports equally sized

Parallel key acc. to DIN 6885

Pump type	Dimensions																						Weight
	R	A	B	C	D	øE	F	G	H	O	J	K	P	ø d	l	m	n	u	t	d <sub>1</sub>	l <sub>1</sub>	Z	
BT 0	G ¼	30	60	45	65	11	15	65	60.0	47.0	38	95	88	13	22	-	-	-	-	-	-	11	2
BT 1	G ½	-	45	55	75	9	12	85	69.0	54.0	48	150	100	13	40	15	10	5	15.0	M6	15	20	3
BT 2	G ¾	35	55	65	90	10	12	90	88.5	71.0	65	165	125	15	45	25	5	5	17.0	M6	15	20	5
BT 3	G 1	40	65	85	105	10	12	100	111.0	88.5	70	190	155	18	50	30	5	6	20.5	M6	15	23	7
BT 4	G 1½	40	80	95	135	10	12	130	131.5	100.0	102	245	189	25	50	40	5	8	28.0	M8	20	28	15
BT 5	G 1½	35	75	140	180	14	20	150	145.0	103.0	98	250	213	25	50	40	5	8	28.0	M8	20	29	20
BT 6	G 2	35	75	185	225	14	28	175	175.0	126.0	106	245	252	25	50	40	5	8	28.0	M8	20	29	29
BT 7	G 2	60	100	185	225	14	28	240	175.0	126.0	123	260	252	25	50	40	5	8	28.0	M8	20	29	37

## Dimensions and weights

### I BT - ATEX



Inlet and outlet ports equally sized

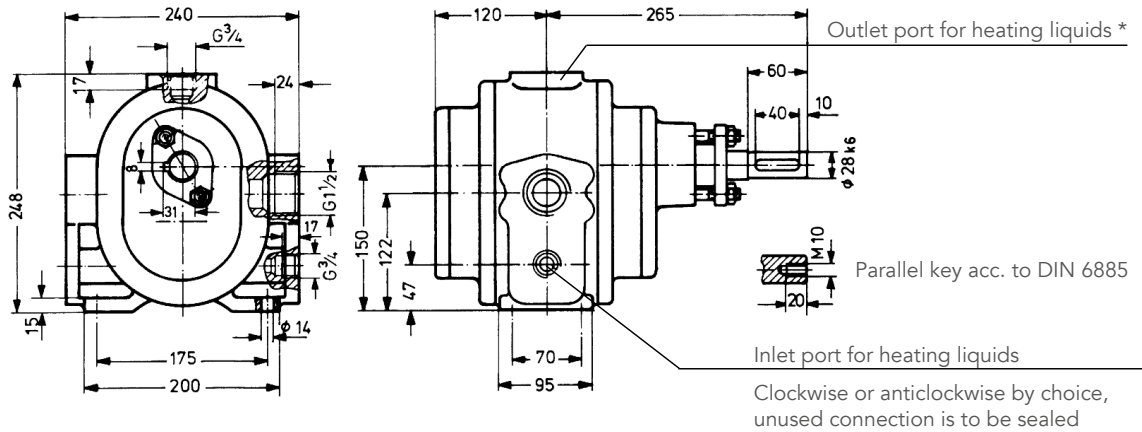
Pump type	Dimensions													Shaft end							Weight	
	R	A	B	C	D	Ø E	F	G	H	O	J	K	P	Ø d	l	m	n	u	t	d <sub>1</sub>		l <sub>1</sub>
BT 4	G 2	40	80	95	135	10	12	130	131.5	100	102	245	189	24	50	40	5	8	27	M8	19	18.5
BT 6	G 2	35	75	185	225	14	28	175	175.0	126	106	245	252	24	50	40	5	8	27	M8	19	33.0

Dimensions / weights of sizes 3, 5 and 7 on request.

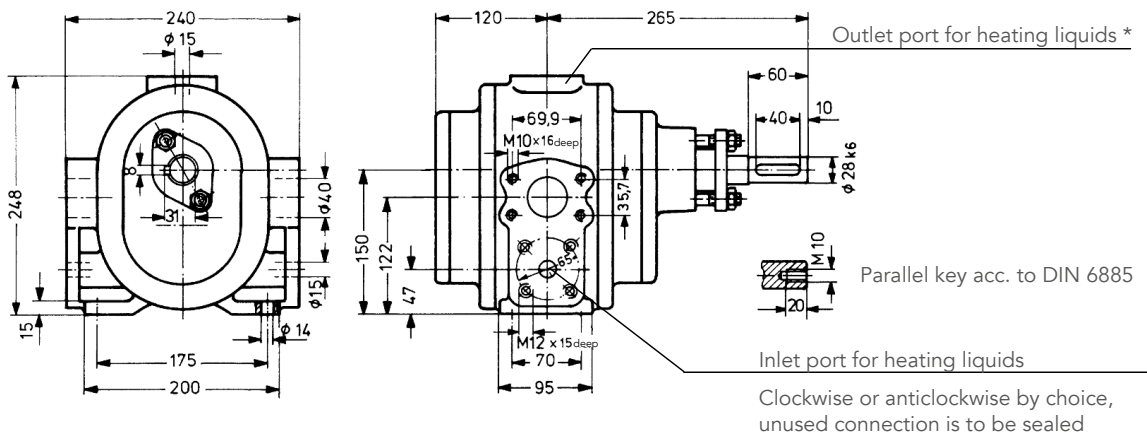


## Dimensions and weights

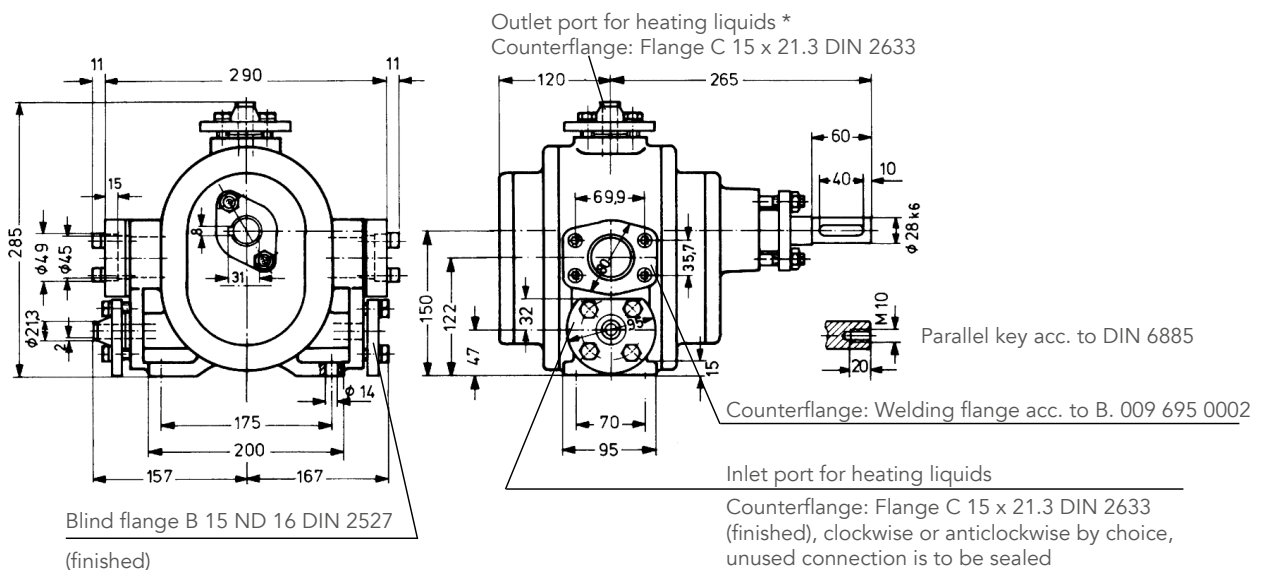
### I BTH 1 – Pipe connection whitworth pipe thread (Z)



### I BTH 1 – Pipe connection flange (F)



### I BTH 1 – Pipe connection flange with counter flange (G)

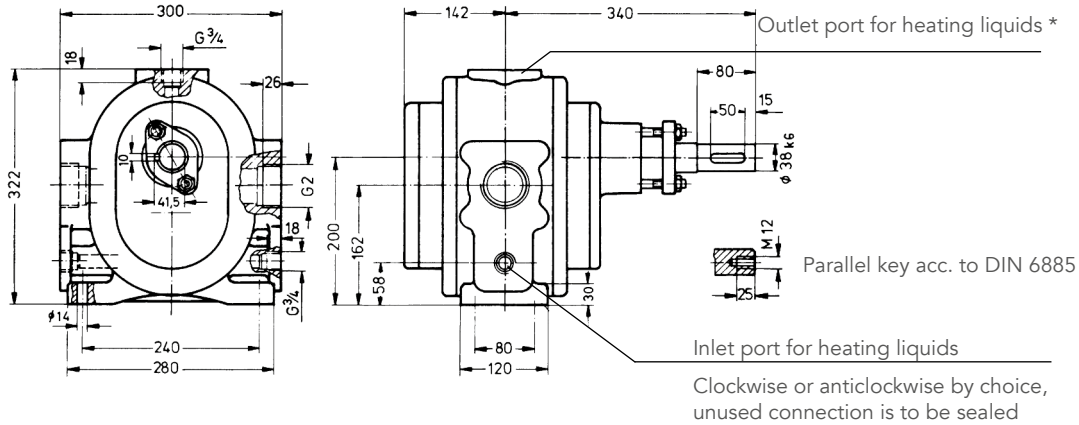


\* Hole pattern dimensionally identical to inlet port for heating liquids

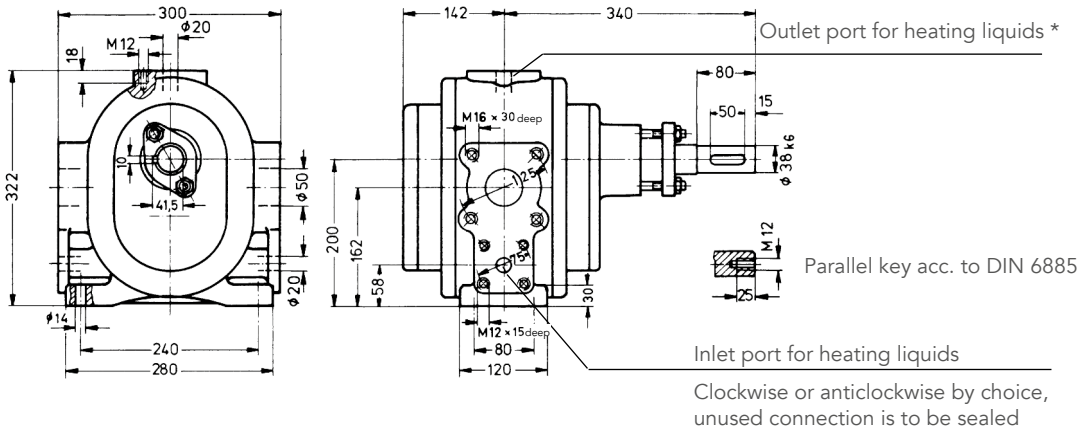
Pipe connection	Z	F	G
BTH 1/55	45 kg	45 kg	48 kg
BTH 1/105	46 kg	46 kg	49 kg

## Dimensions and weights

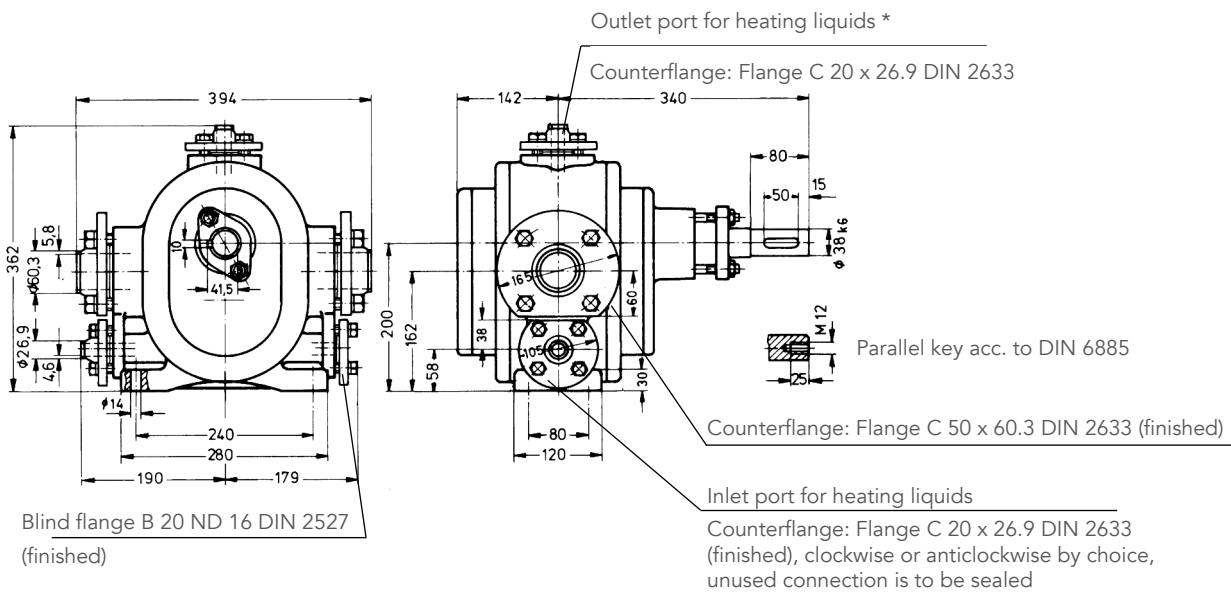
### I BTH 2 – Pipe connection whitworth pipe thread (Z)



### I BTH 2 – Pipe connection flange (F)



### I BTH 2 – Pipe connection flange with counter flange (G)



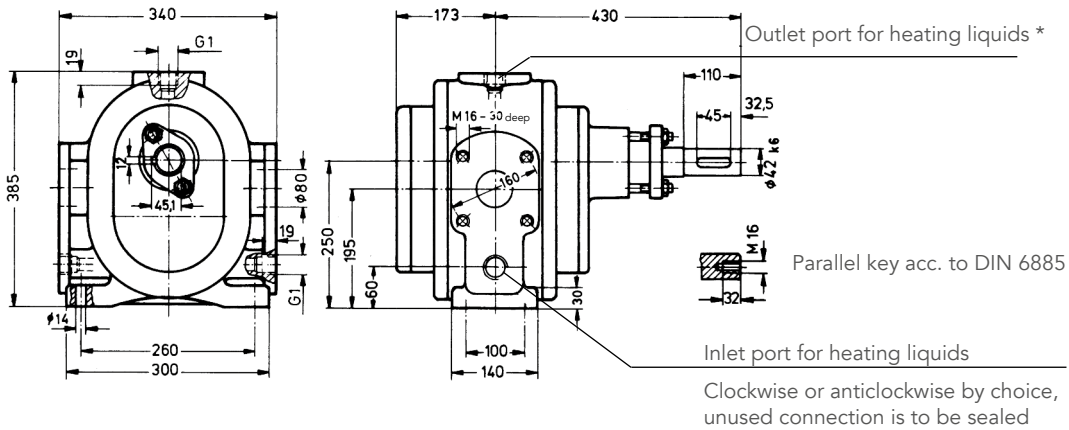
\* Hole pattern dimensionally identical to inlet port for heating liquids

Pipe connection	Z	F	G
BTH 2/100	84 kg	84 kg	93 kg
BTH 2/130	85 kg	85 kg	94 kg

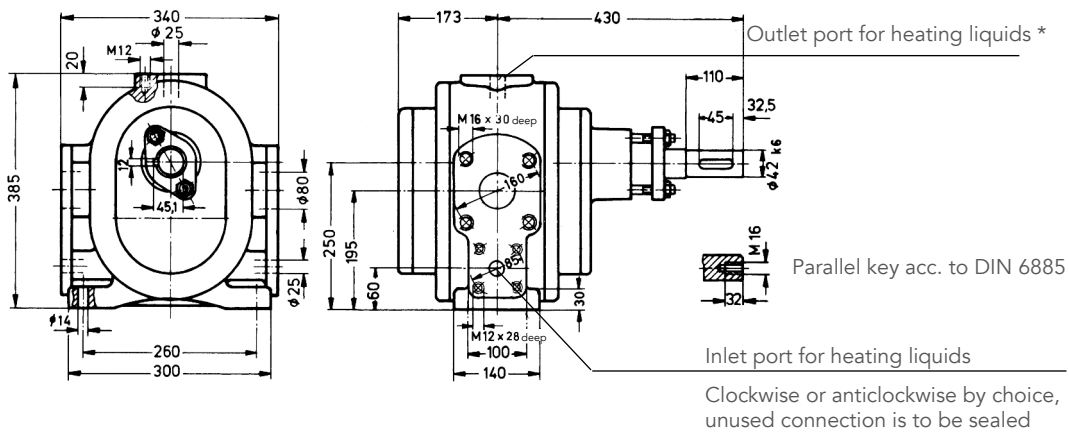
Dimensions in mm

## Dimensions and weights

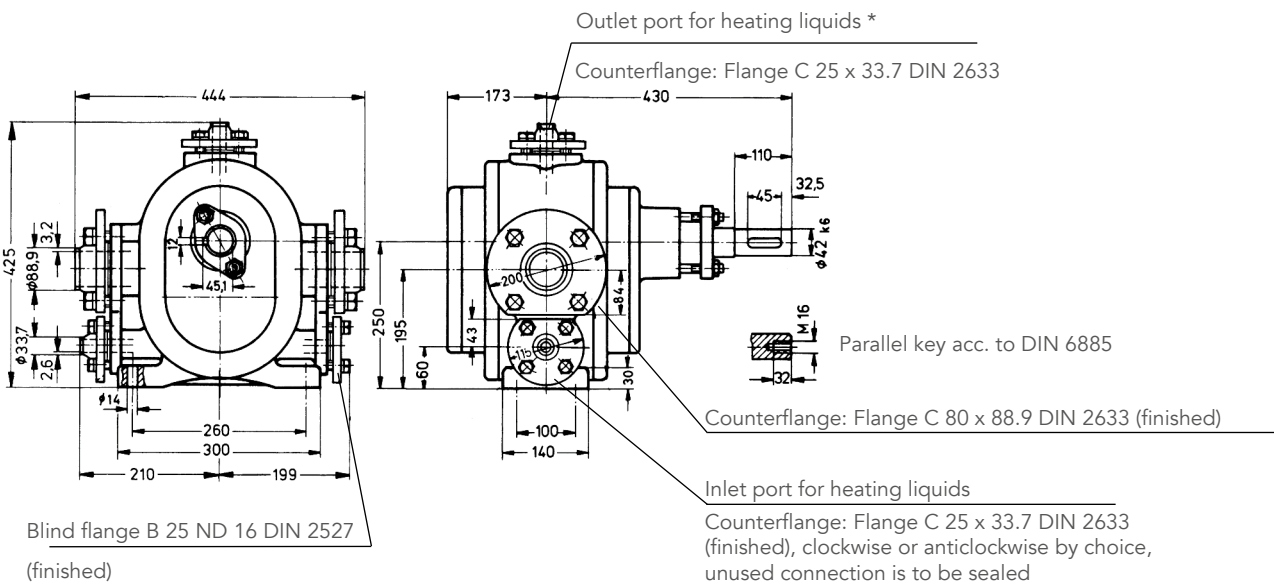
### I BTH 3 – Pipe connection whitworth pipe thread (Z)



### I BTH 3 – Pipe connection flange (F)



### I BTH 3 – Pipe connection flange with counter flange (G)



\* Hole pattern dimensionally identical to inlet port for heating liquids

Pipe connection	Z	F	G
BTH 3/150	142 kg	142 kg	155 kg

**KRACHT**<sup>®</sup>

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