

## Through drive

The A10VSO pump can be supplied with through drive in accordance with the type code on page 3.

The through drive version is designated by the code numbers (KB2–K57).

If no other pumps are fitted by the manufacturer, the simple type designation is sufficient.

in this case, the delivery package comprises:

Hub, fixing screws, seal and, if necessary, an adaptor flange.

### Combination pump

By building on further pumps it is possible to obtain independent circuits:

1. If the combination pump consists of **2 A10VSO** and if these are to be **supplied assembled** then the two order codes should be linked by means of a „+“ sign.

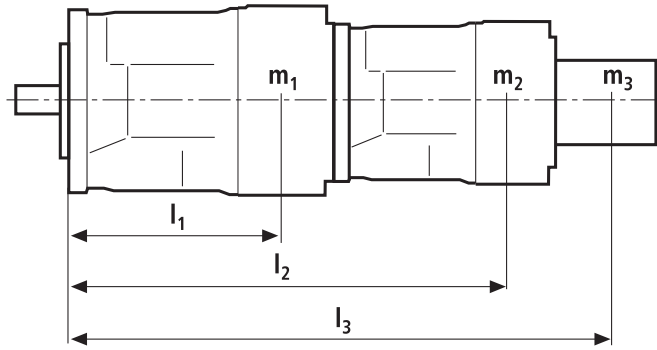
Ordering example:

A10VSO 71 DR/31 L–PPA12KB3 +

A10VSO 28 DR/31 L–PSA12N00

2. If a **gear or radial piston pump** is to be built on at the factory, please consult us.

### Permissible moment of inertia



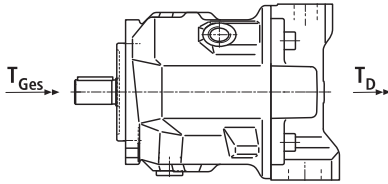
$m_1, m_2, m_3$  [kg] Pump mass

$l_1, l_2, l_3$  [mm] Distance to center of gravity

$$T_m = (m_1 \cdot l_1 + m_2 \cdot l_2 + m_3 \cdot l_3) \cdot \frac{1}{102} \text{ [Nm]}$$

Size		28	45	71	100	140
Permissible moment of inertia $T_m$	Nm	880	1370	2160	3000	4500
Permissible moment of inertia $T_m$	Nm	88	137	216	300	450
at dynamic mass acceleration $10g \cong 98.1 \text{ m/sec}^2$						
Mass	$m_1$ kg	15	21	33	45	60
To center of gravity	$l_1$ mm	110	130	150	160	160

### Maximum permissible input and through drive torque



The split in torque between pump 1 and 2 is optional. The max. permissible input torque  $T_{tot}$  as well as the max. permissible through-drive torque  $T_D$  may not be exceeded.

Size		28	45	71	100	140
Max. permissible input torque at pump 1 with shaft "P"	$T_{tot}$ Nm	137	200	439	857	1206
Max. permissible through-drive torque	$T_D$ Nm	137	200	439	778	1206
	$T_{D \text{ keyed shaft}}$ Nm	112	179	283	398	557

Size		28	45	71	100	140
Max. permissible input torque at pump 1 with shaft "S"	$T_{tot}$ Nm	198	319	626	1104	1620
Max. permissible through-drive torque	$T_D$ Nm	160	319	492	778	1266
	$T_{D \text{ keyed shaft}}$ Nm	112	179	283	398	557

Size		28	45	71	100	140
Max. permissible input torque at pump 1 with shaft "R"	$T_{tot}$ Nm	225	400	644	–	–
Max. permissible through-drive torque	$T_D$ Nm	176	365	548	–	–
	$T_{D \text{ keyed shaft}}$ Nm	112	179	283	–	–

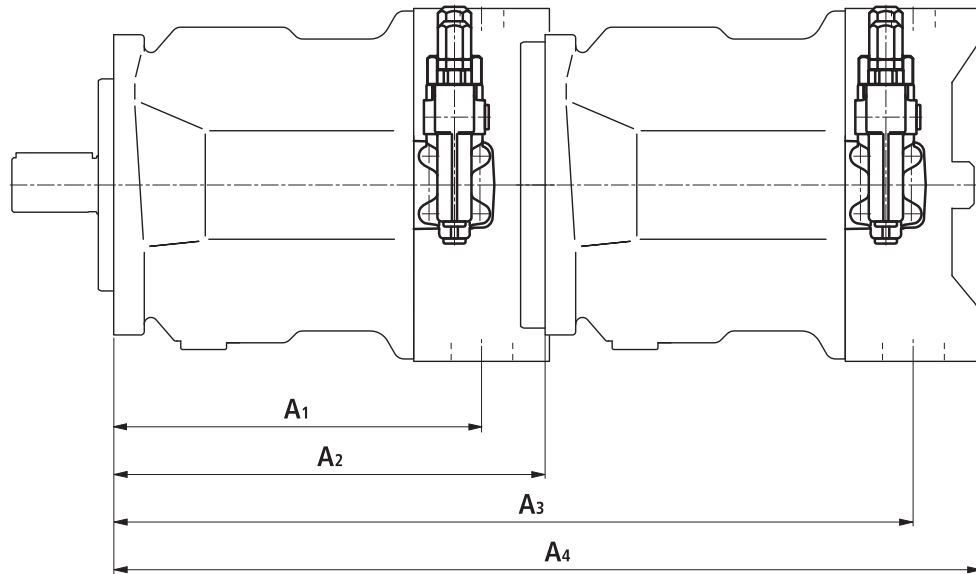
$T_{tot}$  = Max. permissible input torque at pump 1

$T_D$  = Max. permissible through-drive torque at through-drive to splined shaft

$T_{D \text{ keyed shaft}}$  = Max. permissible through-drive torque at through-drive to keyed shaft

# Unit Dimensions: Combination Pumps

A10VSO + A10VSO



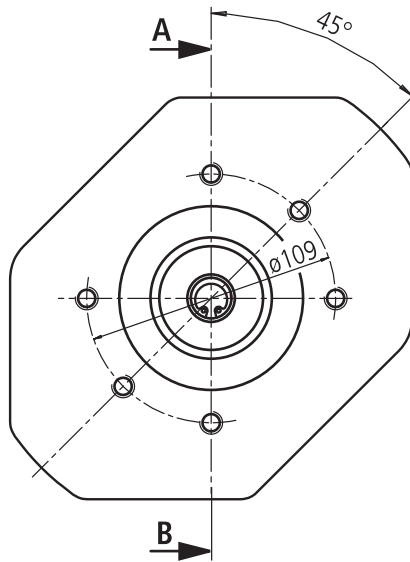
main p. built-on p.	A10VSO 28				A10VSO 45				A10VSO 71				A10VSO 100				A10VSO 140			
	A <sub>1</sub>	A <sub>2</sub>	A <sub>3</sub>	A <sub>4</sub>	A <sub>1</sub>	A <sub>2</sub>	A <sub>3</sub>	A <sub>4</sub>	A <sub>1</sub>	A <sub>2</sub>	A <sub>3</sub>	A <sub>4</sub>	A <sub>1</sub>	A <sub>2</sub>	A <sub>3</sub>	A <sub>4</sub>	A <sub>1</sub>	A <sub>2</sub>	A <sub>3</sub>	A <sub>4</sub>
<b>A10VSO 18</b>	164	204	349	399	184	229	374	424	217	267	412	462	275	338	483	533	275	350	495	545
<b>A10VSO 28</b>	164	204	368,5	410	184	229	393,5	435	217	267	431,5	473	275	338	502,5	544	275	350	514	556
<b>A10VSO 45</b>	–	–	–	–	184	229	413	453	217	267	451	491	275	338	522	562	275	350	534	574
<b>A10VSO 71</b>	–	–	–	–	–	–	–	–	217	267	484	524	275	338	555	595	275	350	567	609
<b>A10VSO 100*</b>	–	–	–	–	–	–	–	–	–	–	–	–	275	338	613	664	275	350	625	679
<b>A10VSO 140*</b>	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	275	350	625	688

\* Values with through drive KB6 or KB7 (splined shaft)

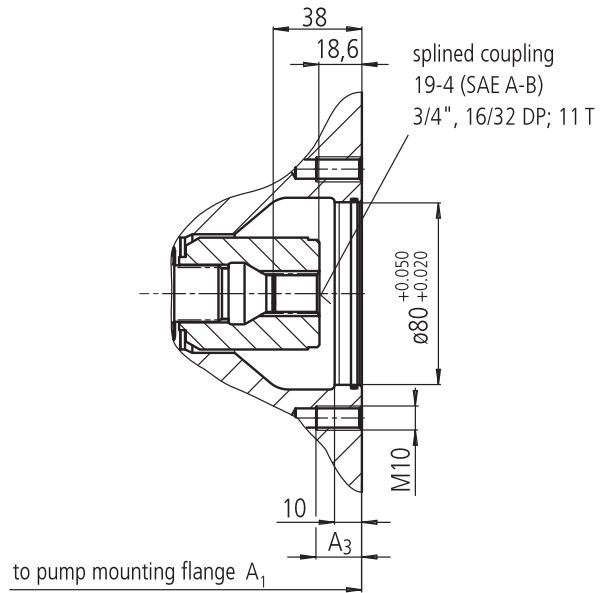
## Unit Dimensions Through Drives KB2 and K51

**Flange ISO 80, 2-hole** for built-on A10VSO 10 (splined shaft S, mounting flange A,) or A10VSO 18 (splined shaft S or R, mounting flange A,)

Order code **KB2**



section A - B

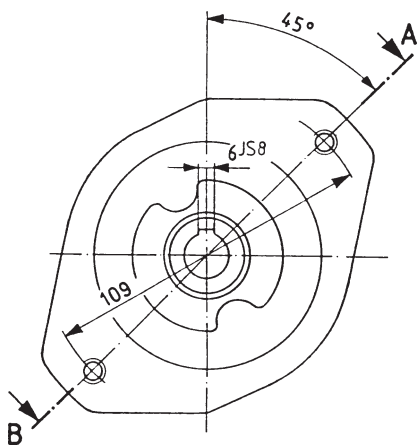


Size main pump	$A_1$	$A_3$
18 (see RD 92712)	182	14,5
28	204	16
45	229	16
71	267	20

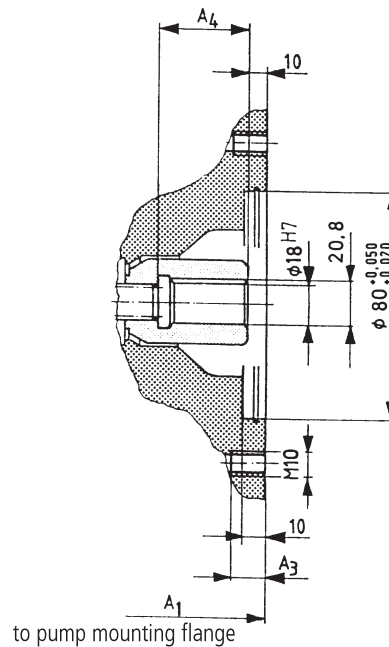
**For operation with HF-fluids** please consider RE-data sheet of built-on pump.

**Flange ISO 80, 2-hole** for built-on A10VSO 10 (shaft P, flange A,) or A10VSO 18 (shaft P, flange A,)

Order code **K51\***



section A - B



Size main pump	$A_1$	$A_3$	$A_4$
18	182	14,5	33
28	204	16	37
45	229	16	43
71	267	20	51
100	338	20	55
140	350	20	67

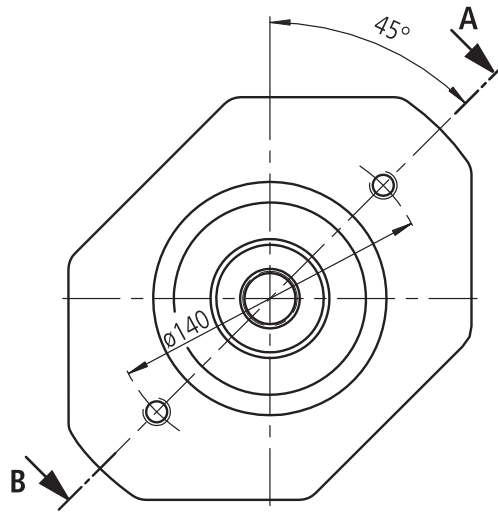
**For operation with HF-fluids** please consider RE-data sheet of built-on pump.

\*not for new applications, only permitted with reduced through drive torques,

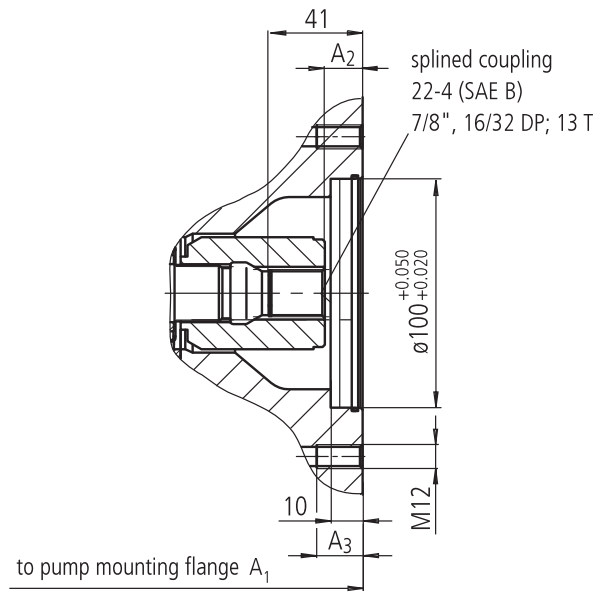
# Unit Dimensions Through Drives KB3 and K25

**Flange ISO 100, 2-hole** for built-on A10VSO 28 (splined shaft S or R);

Order code **KB3**



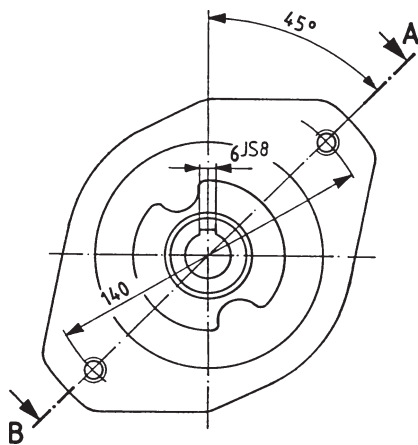
section A - B



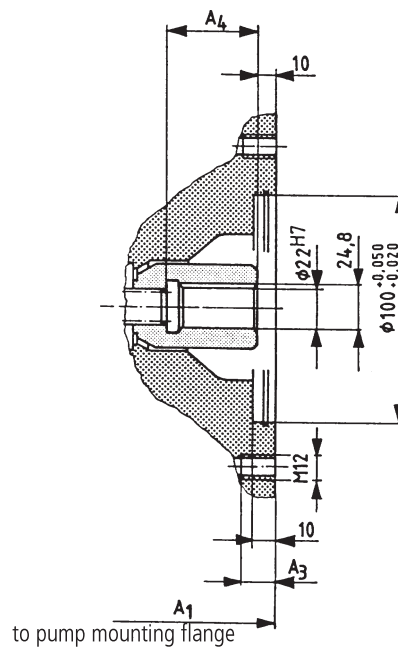
Size main pump	A <sub>1</sub>	A <sub>2</sub>	A <sub>3</sub>
28	204	19,2	14
71	267	16,5	18
100	338	17,6	18
140	350	18,2	24

**Flange ISO 100, 2-hole** for built-on A10VSO 28 (keyed shaft P)

Order code **K25\***



section A - B

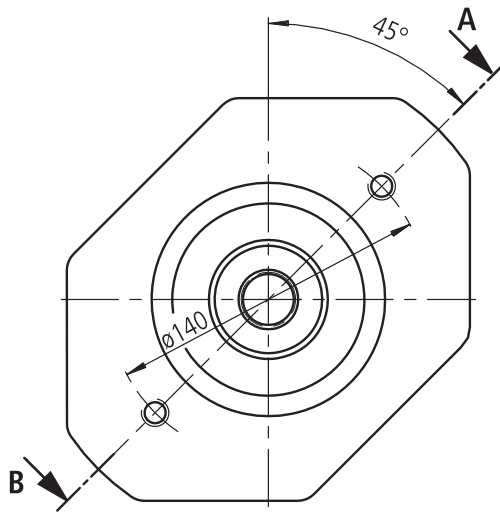


Size main pump	A <sub>1</sub>	A <sub>3</sub>	A <sub>4</sub>
28	204	14	37
45	229	14	43
71	267	23	51
100	338	20	55
140	350	24	62

\*not for new applications, only permitted with reduced through drive torques,

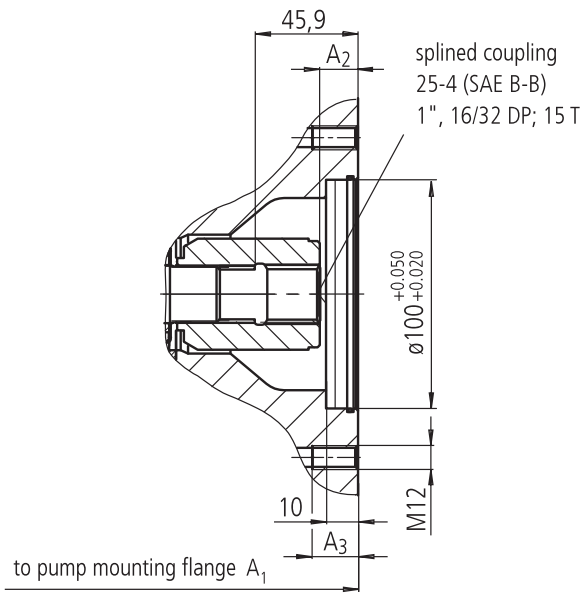
# Unit Dimensions Through Drives KB4 and K26

**Flange ISO 100, 2-hole** for built-on A10VSO 45 (splined S or R);  
order code **KB4**

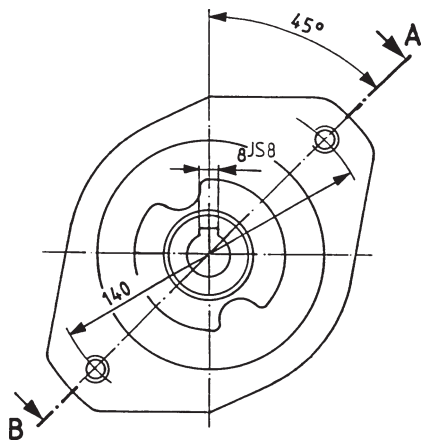


Size main pump	A <sub>1</sub>	A <sub>2</sub>	A <sub>3</sub>
45	229	17,2	14
71	267	17,2	18
100	338	18,2	20
140	350	18,2	24

section A - B

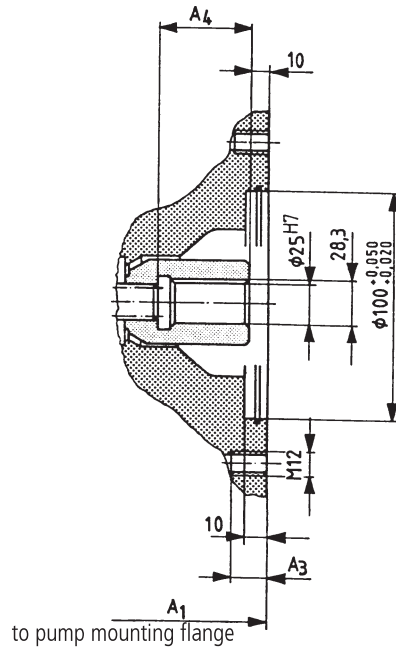


**Flange ISO 100, 2-hole** for built-on A10VSO 45 (keyed shaft P)  
order code **K26\***



Size main pump	A <sub>1</sub>	A <sub>3</sub>	A <sub>4</sub>
45	229	14	43
71	267	23	51
100	338	20	56
140	350	24	67

section A - B

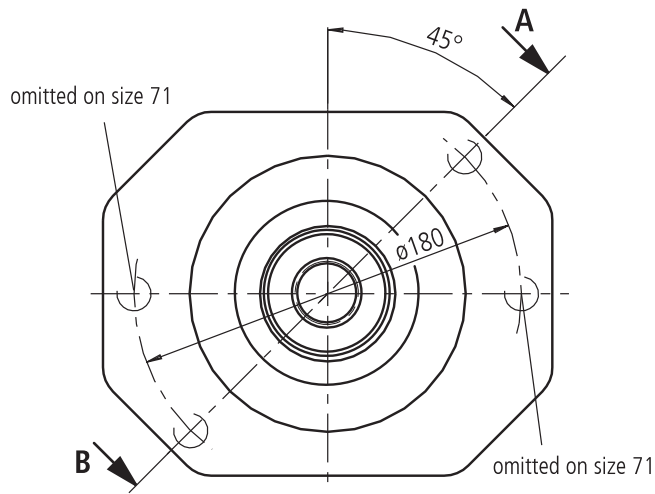


\*not for new applications, only permitted with reduced through drive torques,

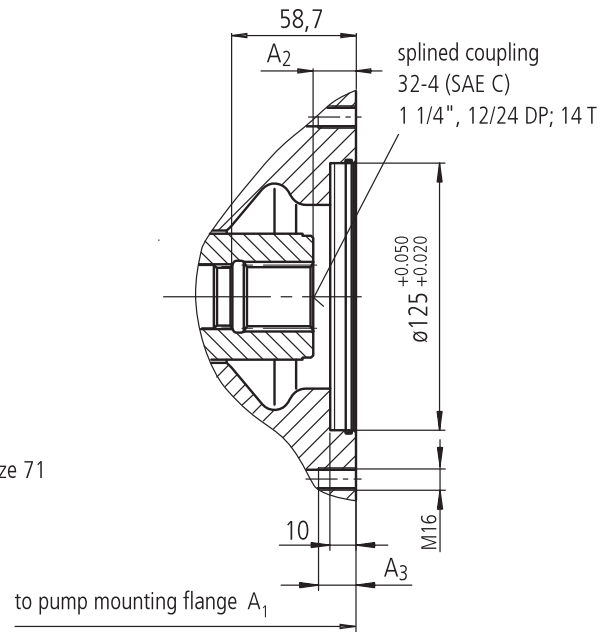
# Unit Dimensions Through Drives KB5 and K27

**Flange ISO 125, 2-hole** for built-on A10VSO 71 (splined shaft S or R);

Order code **KB5**



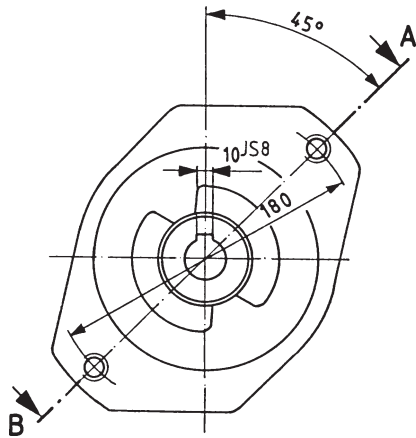
section A - B



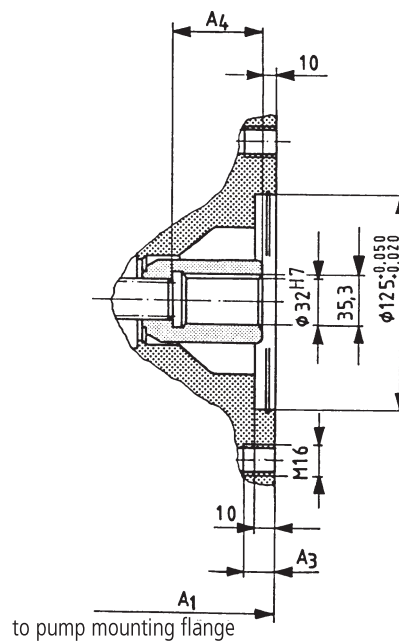
Size main pump	A <sub>1</sub>	A <sub>2</sub>	A <sub>3</sub>
71	267	20	18,5
100	338	20	25
140	350	21	32

**Flange ISO 100, 2-hole** for built-on A10VSO 71 (keyed shaft P)

order code **K27\***



section A - B



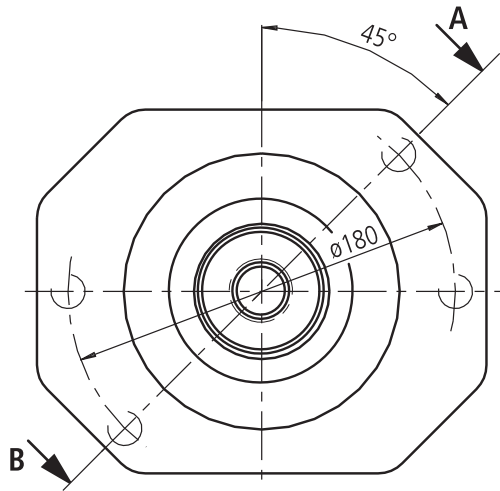
Size main pump	A <sub>1</sub>	A <sub>3</sub>	A <sub>4</sub>
71	267	18	51
100	338	20	54
140	350	24	63

\*not for new applications, only permitted with reduced through drive torques,

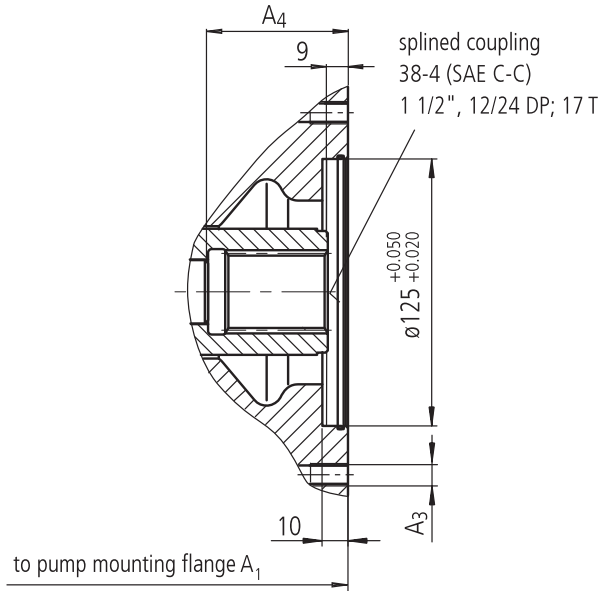
# Unit Dimensions Through Drives KB6 and K37

**Flange ISO 125, 2-hole** for built-on A10VSO 100 (splined shaft S);

Order code **KB6**



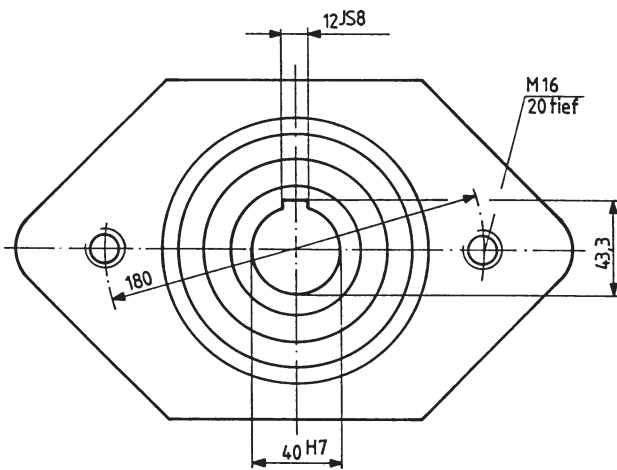
**section A - B**



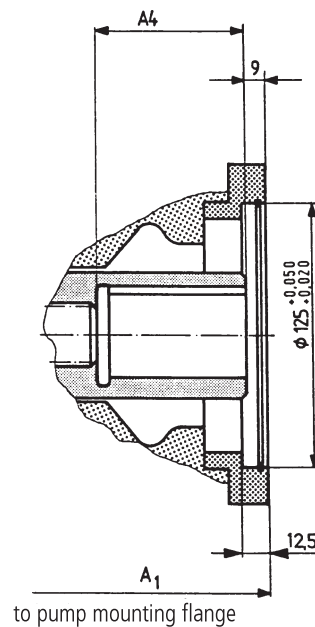
Size main pump	A <sub>1</sub>	A <sub>3</sub>	A <sub>4</sub>
100	338	M16; 25 deep	65
140	350	M16; 32 deep	77,3

**Flange ISO 125, 2-hole** for built-on A10VSO 100 (keyed shaft P)

Order code **K37\***



**section A - B**



Size main pump	A <sub>1</sub>	A <sub>4</sub>
100	356	71
140	368	80

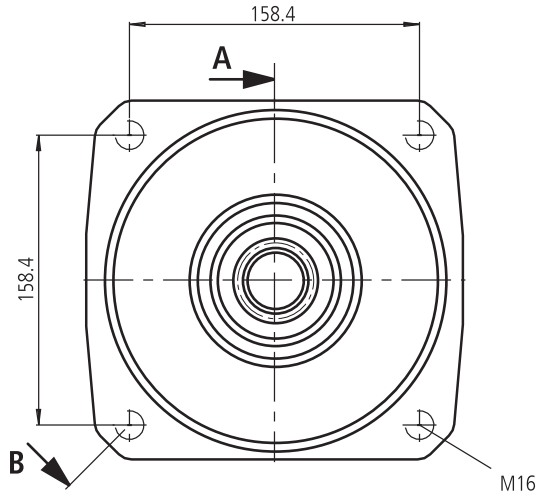
\*not for new applications, only permitted with reduced through drive torques,

# Unit Dimensions Through Drives KB7 and K59

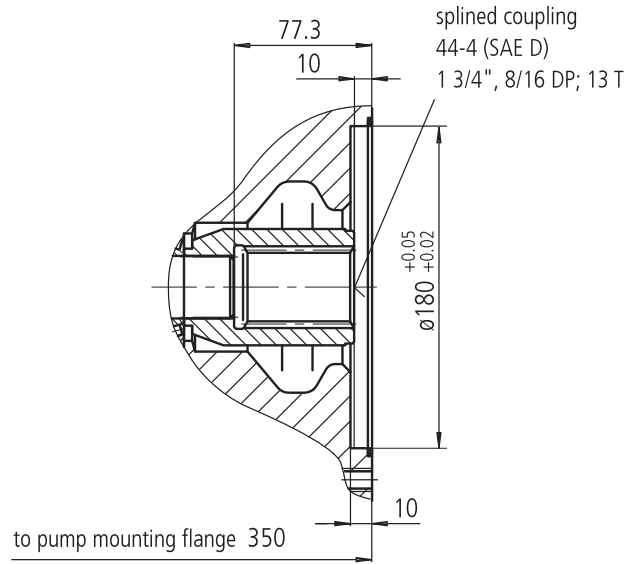
**Flange ISO 180, 4-hole** for built-on A10VSO 140 (splined shaft S);

Order code **KB7**

main pump NG 140



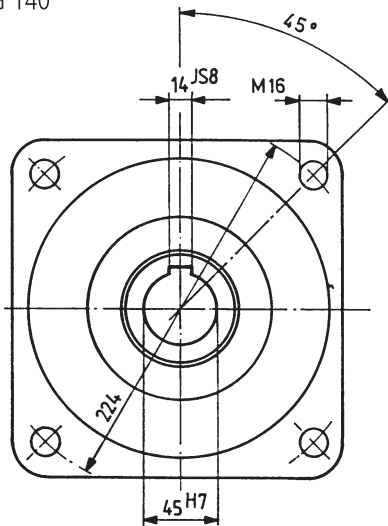
**section A - B**



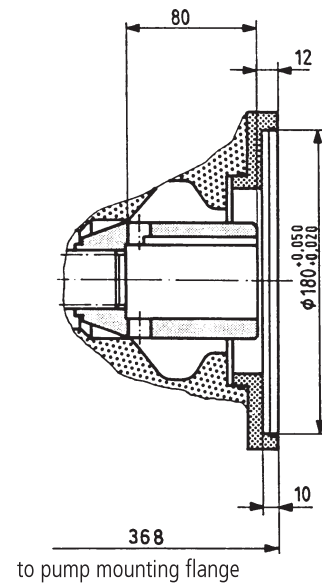
**Flange ISO 180, 4-hole** for built-on A10VSO 140 (keyed shaft P)

order code **K59\***

main pump NG 140



**section A - B**

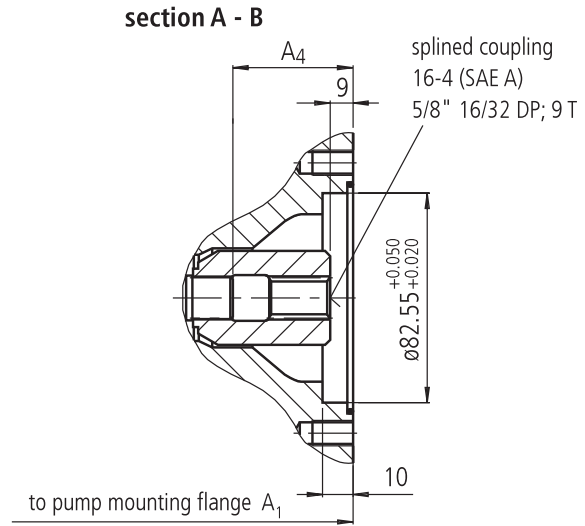
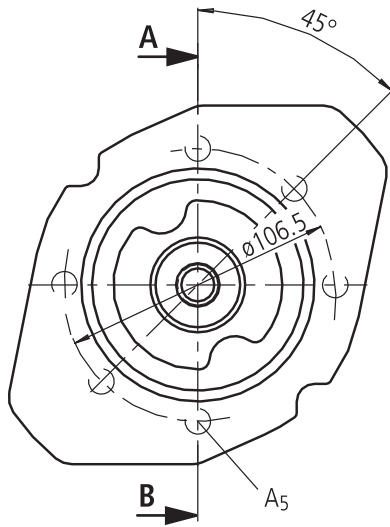


\*not for new applications, only permitted with reduced through drive torques,

## Unit Dimensions Through Drives K01 and K52

**Flange SAE 82-2 (SAE A, 2-hole)** for built-on external gear pump 1 PF2G2 or internal gear pump PGF2 (shaft J, flange U2,)

Order code **K01**

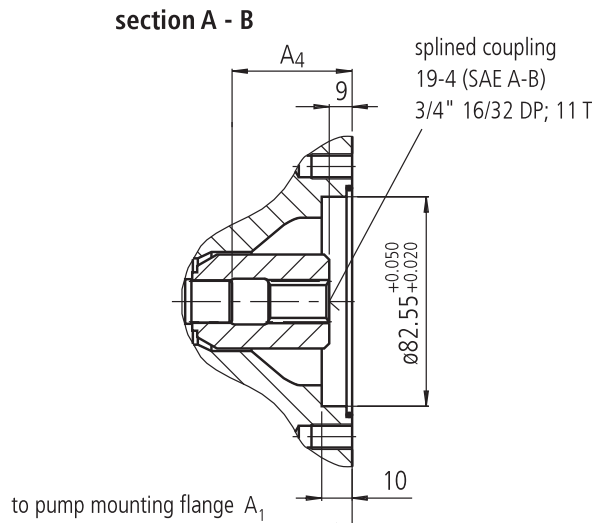
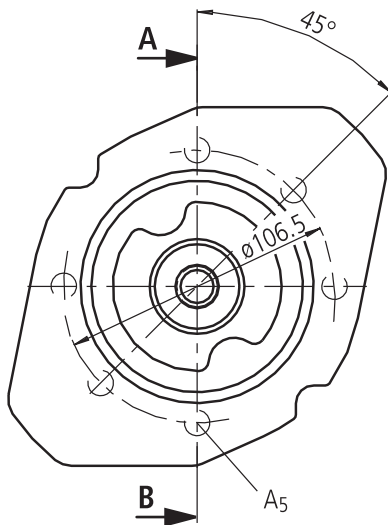


Size main pump	$A_1$	$A_4$	$A_5$
28	204	47	M10; 16 deep
45	229	53	M10; 16 deep
71	267	61	M10; 20 deep
100	338	65	M10; 20 deep
140	350	77	M10; 20 deep

**For operation with HF-fluids** please consider RE-data sheet of built-on pump.

**Flange SAE 82-2 (SAE A, 2-hole)** for built-on A10VSO 10 (shaft S, flange C, ) or A10VSO 18 (shaft S, flange C, )

Order code **K52**



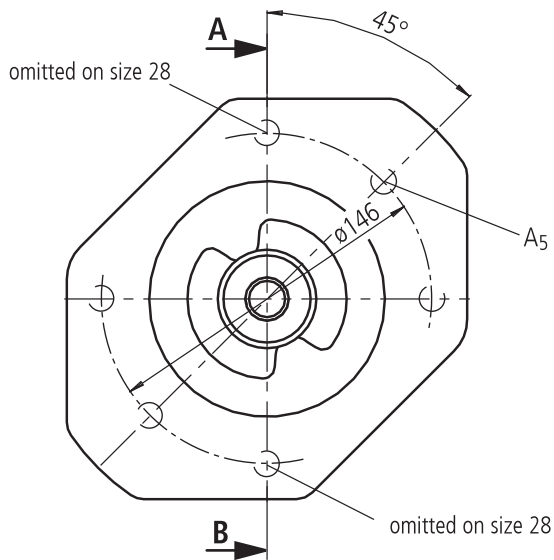
Size main pump	$A_1$	$A_4$	$A_5$
28	206	47,3	M10; 16 deep
45	229	53,4	M10; 16 deep
71	267	61,3	M10; 20 deep
100	338	65	M10; 20 deep
140	350	77	M10; 20 deep

**For operation with HF-fluids** please consider RE-data sheet of built-on pump.

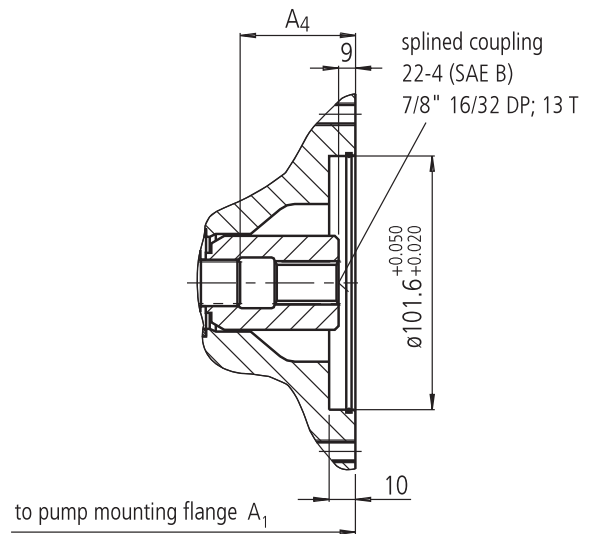
# Unit Dimensions Through Drives K02 and K68

**Flange SAE 101-2 (SAE B, 2-hole)** for built-on external gear pump 1PF2G3

Order code **K02**



**section A - B**

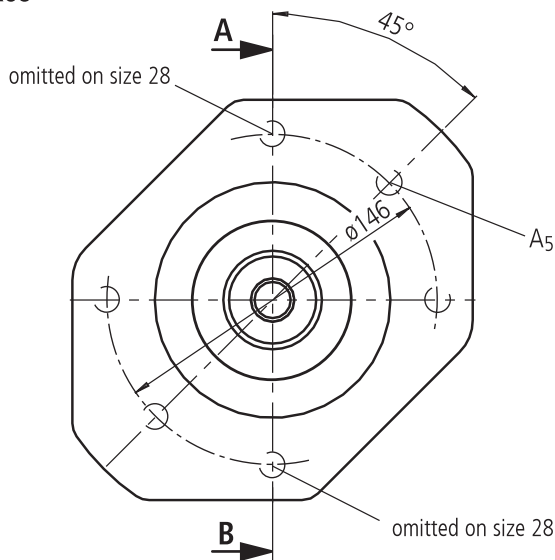


Size main pump	$A_1$	$A_4$	$A_5$
28	204	47	M12; 15 deep
45	229	53	M12; 18 deep
71	267	61	M12; 20 deep
100	338	65	M12; 20 deep
140	350	77	M12; 20 deep

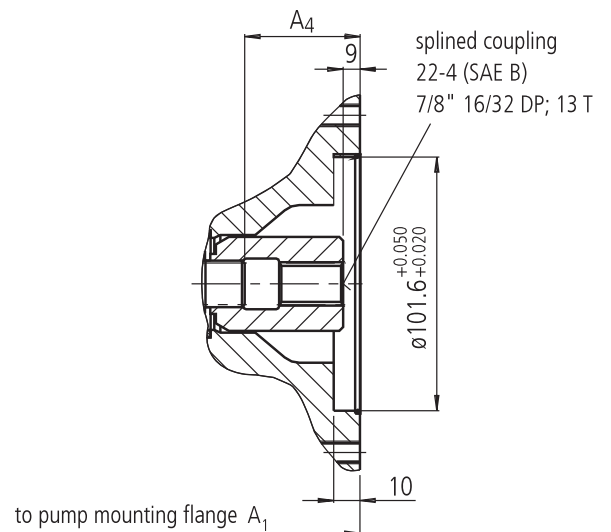
**For operation with HF-fluids** please consider RE-data sheet of built-on pump.

**Flange SAE 101-2 (SAE B, 2-hole)** for built-on A10VO 28 (shaft S,) or internal gear pump PGF3 (shaft J, flange U2,)

Order code **K68**



**section A - B**



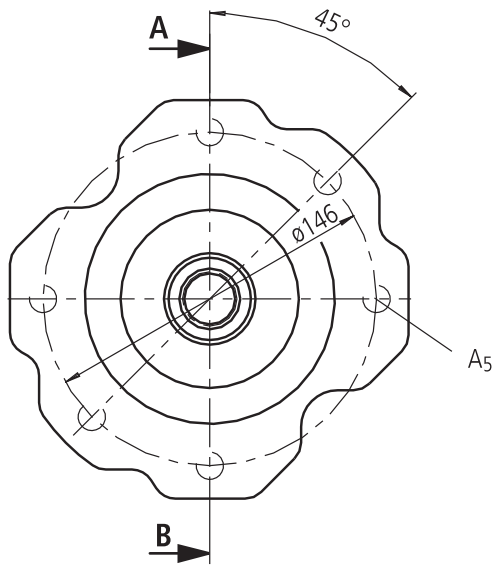
Size main pump	$A_1$	$A_4$	$A_5$
28	204	47	M12; 15 deep
45	229	53	M12; 18 deep
71	267	61	M12; 20 deep
100	338	65	M12; 20 deep
140	350	80,8	M12; 20 deep

**For operation with HF-fluids** please consider RE-data sheet of built-on pump.

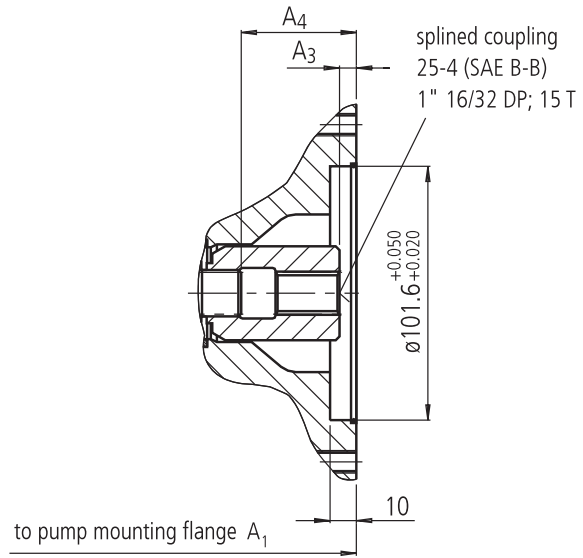
## Unit Dimensions Through Drives K04 and K07

**Flange SAE 101-2 (SAE B, 2-hole)** for built-on A10VO 45 (shaft S,) or internal gear pump PGH4 (shaft R, flange U2,)

Order code **K04**



section A - B

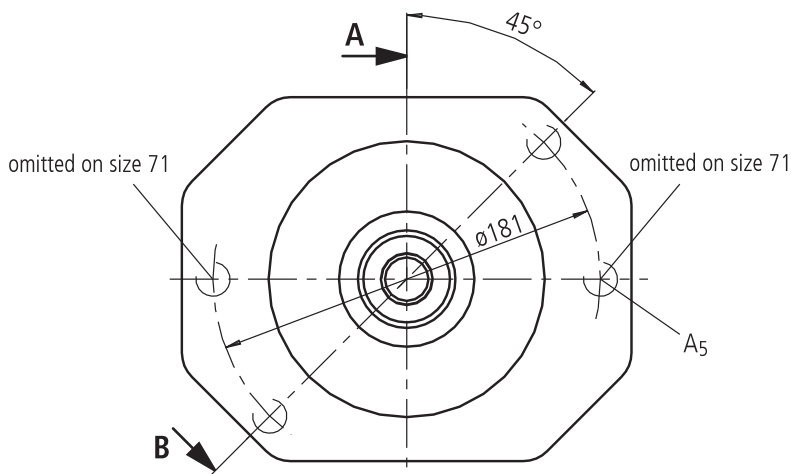


Size main pump	A <sub>1</sub>	A <sub>3</sub>	A <sub>4</sub>	A <sub>5</sub>
28	204	9	47	M12; 15 deep
45	229	9	53,4	M12; 18 deep
71	267	9	61,3	M12; 20 deep
100	338	10	65	M12; 20 deep
140	350	8	77,3	M12; 20 deep

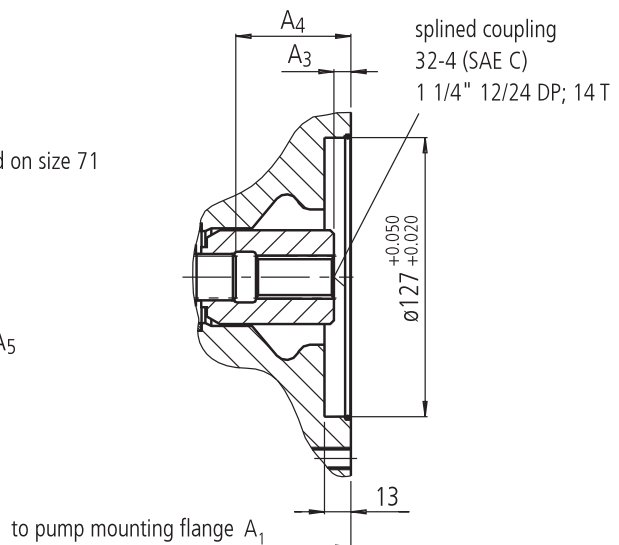
**For operation with HF-fluids** please consider RE-data sheet of built-on pump.

**Flange SAE 127-2 (SAE C)** for built-on A10VO 71 (shaft S,)

Order code **K07**



section A - B



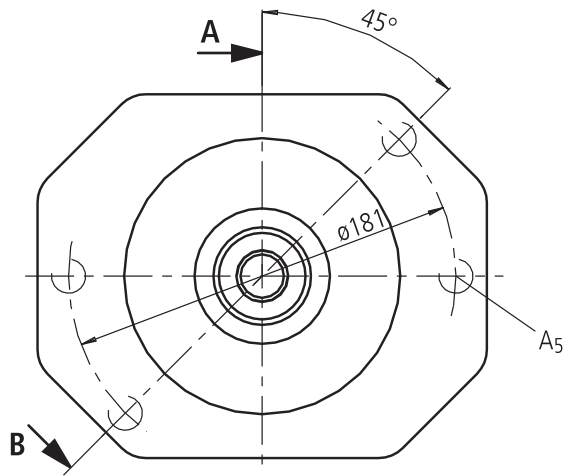
Size main pump	A <sub>1</sub>	A <sub>3</sub>	A <sub>4</sub>	A <sub>5</sub>
71	267	10	61,3	M16; 18 deep
100	339	9	65	M16; 20 deep

**For operation with HF-fluids** please consider RE-data sheet of built-on pump.

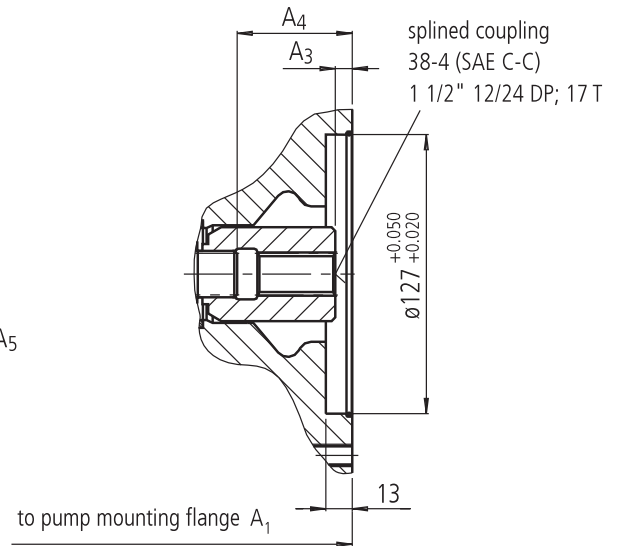
# Unit Dimensions Through Drives K24 and K17

**Flange SAE 127-2 (SAE C)** for built-on A10VO 100 (shaft S, ) or internal gear pump PGH5 (shaft R, flange U2,)

Order code **K24**



section A - B



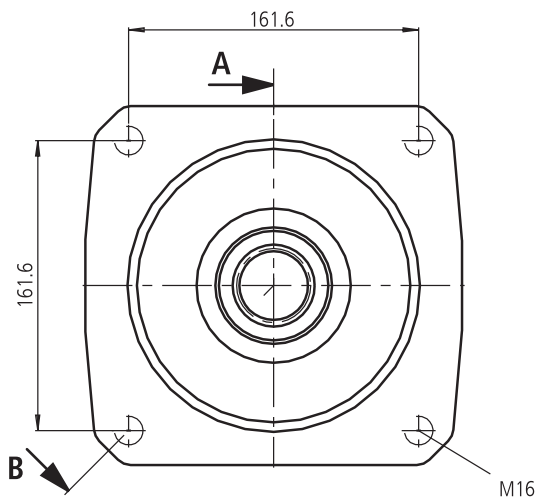
Size main pump	A <sub>1</sub>	A <sub>3</sub>	A <sub>4</sub>	A <sub>5</sub>
100	338	8	65	M16; 20 deep, right through
140	350	9	77,3	M16; 32 deep

**For operation with HF-fluids** please consider RE-data sheet of built-on pump.

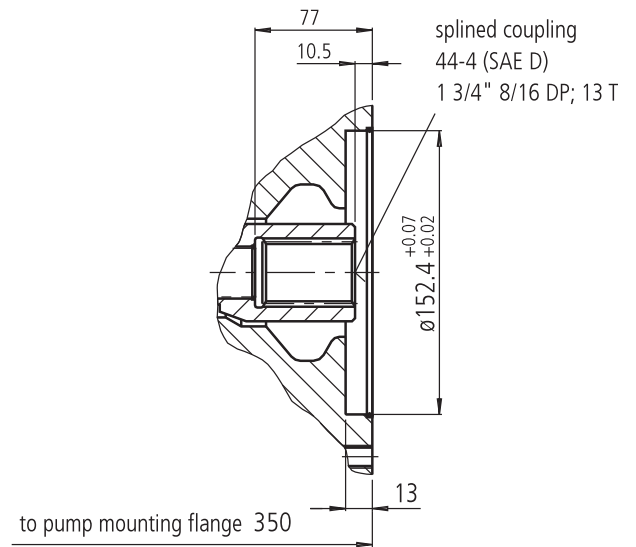
**Flange SAE 152-4 (SAE D)** for built-on A10VO 140 (shaft S, )

Order code **K17**

main pump size 140



Schnitt A - B

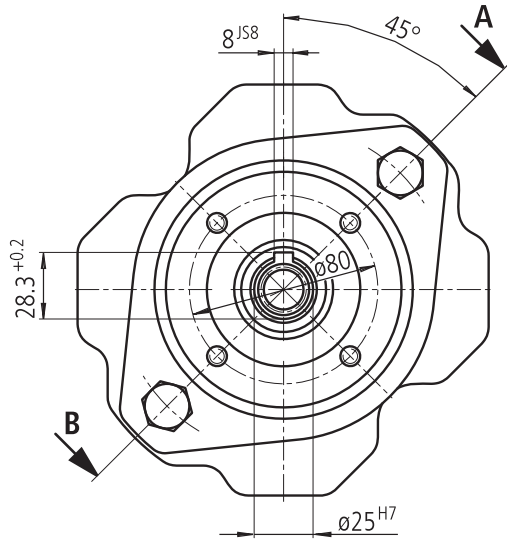


**For operation with HF-fluids** please consider RE-data sheet of built-on pump.

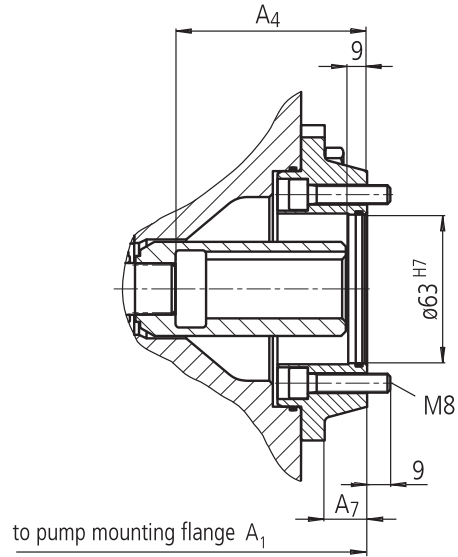
# Unit Dimensions Through Drive K57

Flange metric, 4-hole for built-on radial piston pump R4

Order code K57



section A - B



Size main pump	$A_1$	$A_4$	$A_7$
28	233	47	8
45	258	71,5	8
71	283	68	8
100	354	70,5	8
140	366	84	8

**For operation with HF-fluids** please consider RE-data sheet of built-on pump.