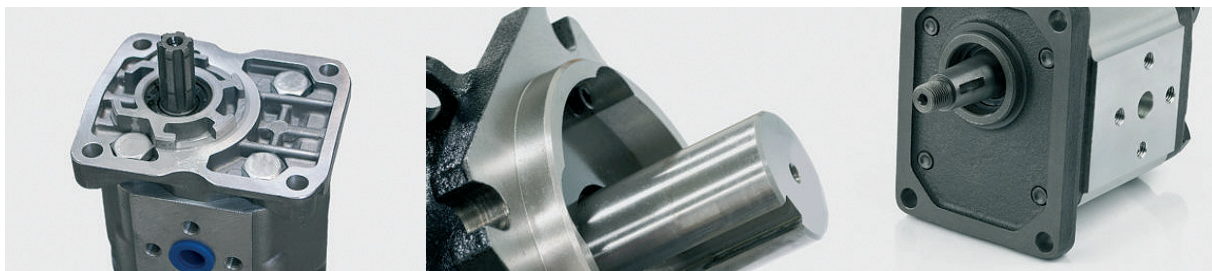




# Gear pumps

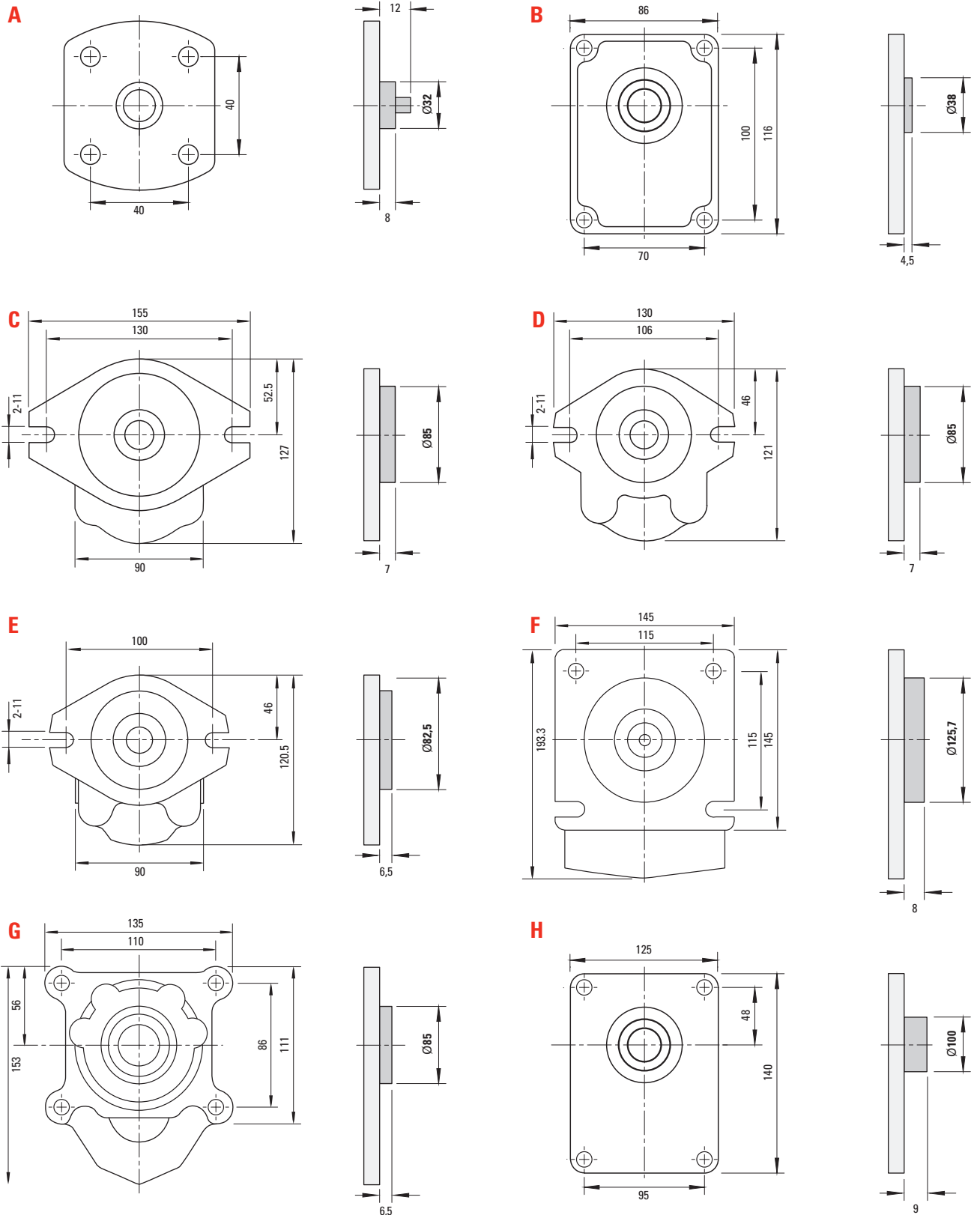


# GEAR PUMPS BASICS

We have a program consisting of 6 series starting at 0,63cc/rev up to 100cc/rev with displacements graded according the width of the gears. With a very wide configuration options we cover practically

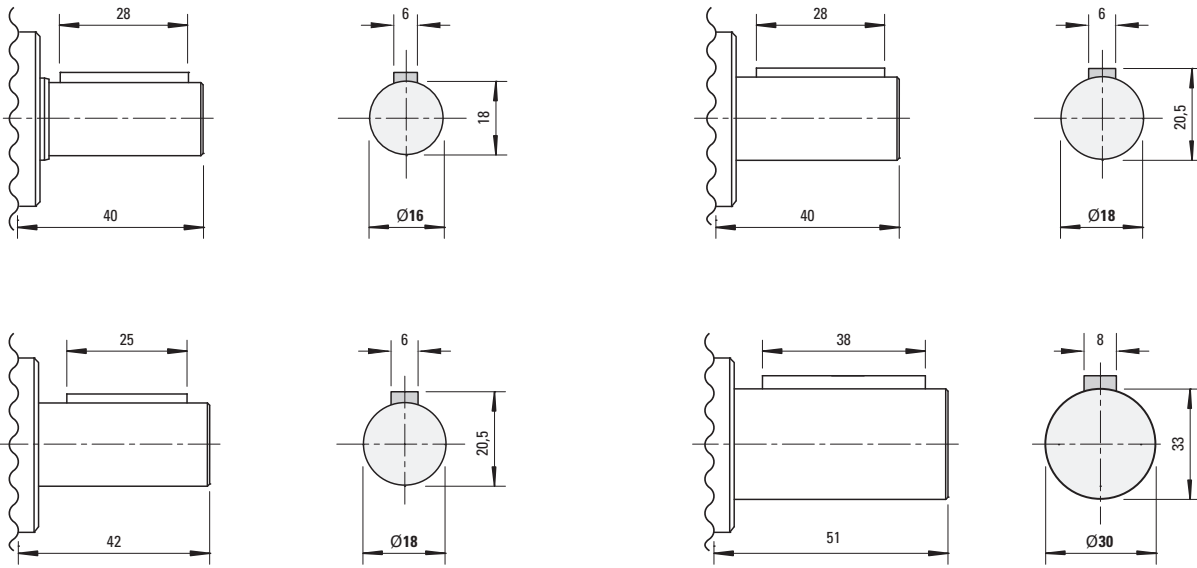
most of the needs in the field. The different configurations are obtained combining, the flow, the front flange, the driving shafts and connecting ports as well as the tandem.

## Flanges

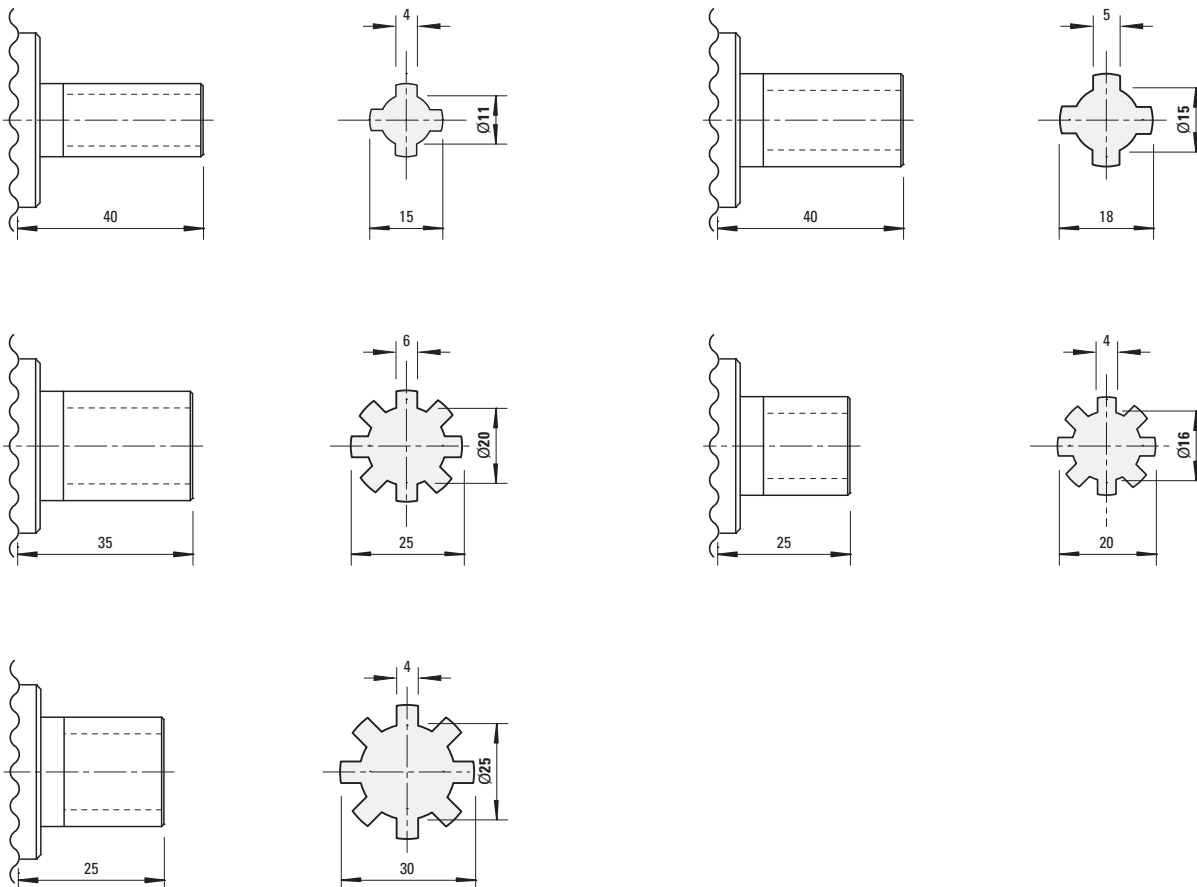


# Drive shafts

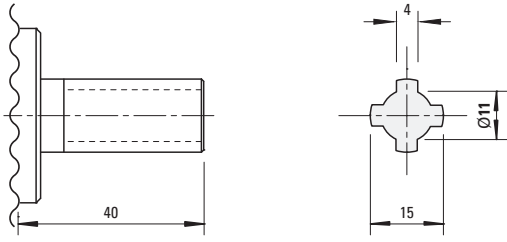
## Straight key shaft SAE J744 16-1 A



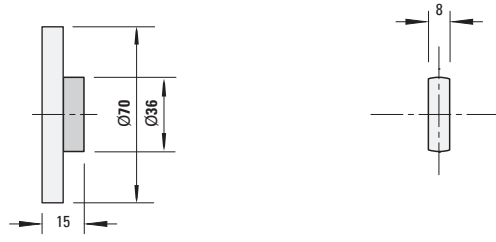
## Spline shafts



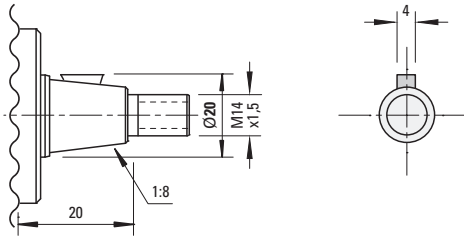
### Spline shafts



### Dihedral shaft



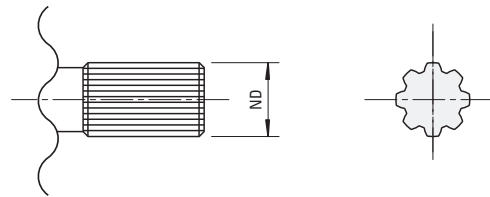
### Tapered shafts



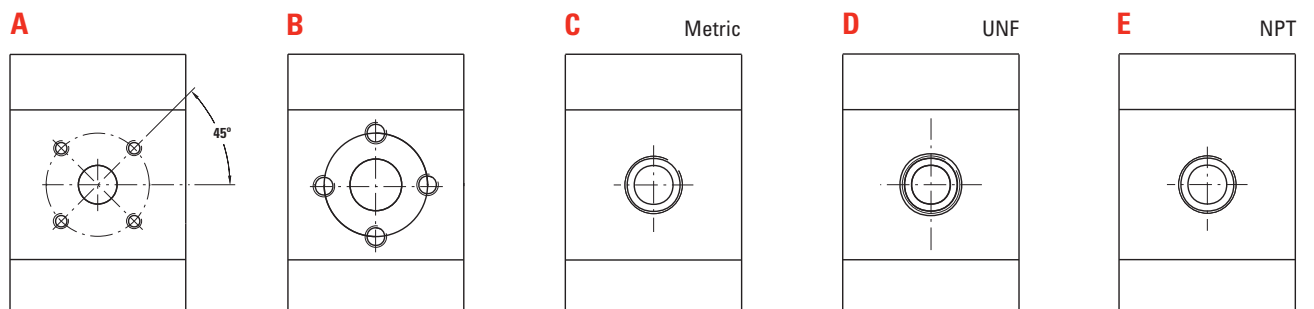
## Involute splines

### SAE splined shaft

	CODE	SPLINE	ND INCH	# SPLINES
<b>AA</b>	13-4	9T 20/40 DP	0,500	9
<b>A</b>	16-4	9T 16/32 DP	0,625	9
<b>AH</b>	19-4	11T 16/32 DP	0,750	11
<b>B</b>	22-4	13T 16/32 DP	0,875	13
<b>BB</b>	25-4	15T 16/32 DP	1,000	15
<b>C</b>	32-4	14T 12/24 DP	1,250	14
<b>CC</b>	38-4	17T 12/24 DP	1,500	17
<b>D &amp; E</b>	44-4	13T 8/16 DP	1,750	13



## Ports connections



## Thread ports

### ISO 228/1. Pipe thread

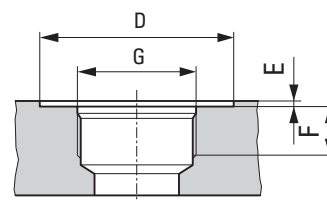
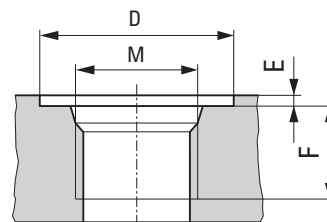
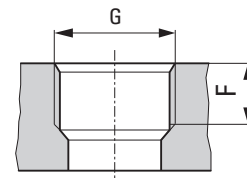
PRESSURE SIDE		SUCTION SIDE	
G	F	G	F
G1/2	16	G3/4	16
G3/4	16	G1	19

### ISO 6149. Metric with seal ring

PRESSURE SIDE				SUCTION SIDE			
M	D	E	F	M	D	E	F
M18x1.5	G 1/2	0.5	16	M18x1.5	29	0.5	16
M22x1.5	G 3/4	0.5	18	M27x2	40	0.5	19
				M33x2	46	0.5	22

### ISO 6149. Metric with seal ring

PRESSURE SIDE				SUCTION SIDE			
G	D	E	F	G	D	E	F
9/16-18 UNF-2B	25	0.5	13	9/16-18 UNF-2B	25	0.5	13
7/8-14 UNF-2B	35	0.5	16	7/8-14 UNF-2B	35	0.5	16
				1 1/16-12 UN-2B	45	0.5	19



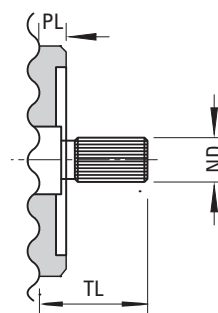
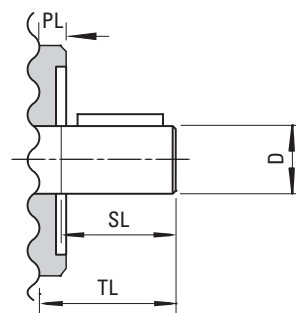
## Spline shaft

### SAE straight keyed shafts

SAE CODE	SHAFT DIAMETER	SHAFT LENGTH	TOTAL LENGTH	KEY WIDTH	PILOT LENGTH
	D	SL	TL		
AA	0.500	0.750	1.062	0.125	0.250
A	0.625	0.937	1.250	0.156	0.250
AH	0.750	0.937	1.250	0.187	0.250
B	0.875	1.312	1.625	0.250	0.375
BB	1.000	1.500	1.812	0.250	0.375
C	1.250	1.875	2.187	0.312	0.500
CC	1.500	2.125	2.437	0.375	0.500
D	1.750	2.625	2.937	0.437	0.500
E	1.750	2.625	2.937	0.437	0.625

### SAE SPLINED SHAFTS

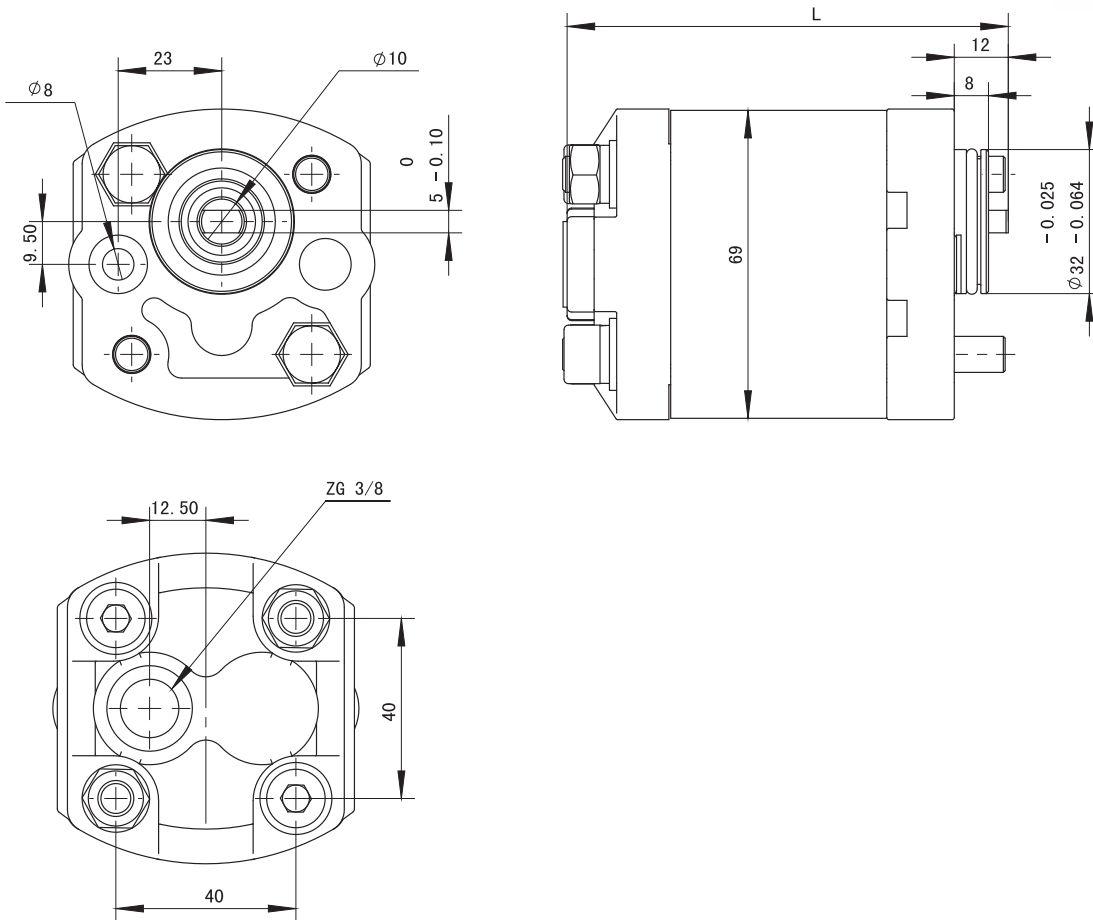
SAE CODE	NOMINAL DIAMETER	SPLINE DETAIL	TOTAL LENGTH
	ND		TL
AA	0.500	9T	1.062
A	0.625	9T	1.250
AH	0.750	11T	1.250
B	0.875	13T	1.625
BB	1.000	15T	1.812
C	1.250	14T	2.187
CC	1.500	17T	2.437
D	1.750	13T	2.937
E	1.750	13T	2.937



# TL-CBK-2

Aluminium flange-Aluminium body. 0,63 to 5,8 cc/rev

Aluminium body.  
 Casting flange and rear flanges.  
 DU Low friction bronze bearings.  
 Wide choice of flanges, drive shafts and ports.  
 Displacement from 0,63 to 5,8 cc/rev ( 0,12 to 0,35 cu inch/rev).  
 Rated speed of 2500 rev/min.  
 Continuous max. Pressure 200 bar.  
 Oil temperature -20 -80°C.  
 Volumetric efficiency > 90%.  
 Oil viscosity 20-43 mm<sup>2</sup>/s (cST).



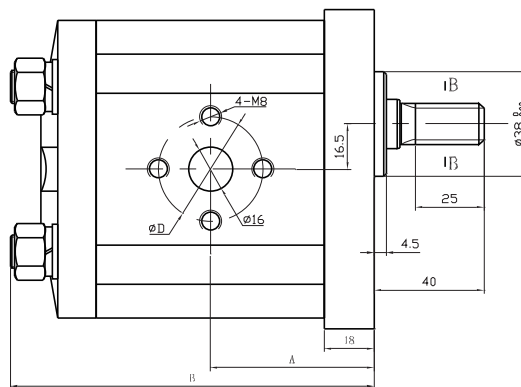
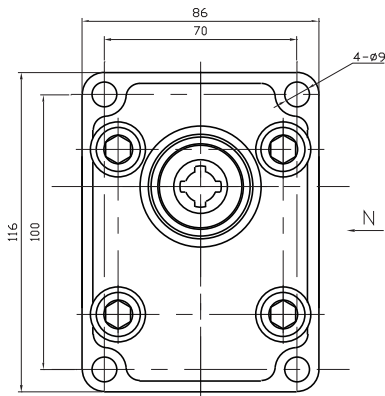
MODEL	FLOW*	DISPLACEMENT		PRESSURE		SPEED REVS/MIN		MAX	L mm
		cc/rev	inch <sup>3</sup> /rev	bar	psi	min	rated		
TL-CBK-2-0.63	1,26/0,33	0,63/0,04		200/2900	250/3626	1000	2500	3000	85,00
TL-CBK-2-0.75	1,5/0,40	0,75/0,05		200/2900	250/3626	1000	2500	3000	85,50
TL-CBK-2-1.10	2,2/0,58	1,1/0,07		200/2900	250/3626	1000	2500	3000	86,00
TL-CBK-2-1.30	2,6/0,69	1,3/0,08		200/2900	250/3626	1000	2500	3000	87,00
TL-CBK-2-1.60	3,2/0,85	1,6/0,10		200/2900	250/3626	1000	2500	3000	88,00
TL-CBK-2-2.10	4,2/1,11	2,1/0,13		200/2900	250/3626	1000	2500	3000	90,00
TL-CBK-2-2.60	5,2/1,37	2,6/0,16		200/2900	250/3626	1000	2500	3000	92,00
TL-CBK-2-3.20	6,4/1,69	3,2/0,20		200/2900	250/3626	1000	2500	3000	94,00
TL-CBK-2-3.80	7,6/2,00	3,8/0,23		200/2900	250/3626	1000	2500	3000	96,00
TL-CBK-2-4.20	8,4/2,22	4,2/0,26		200/2900	250/3626	1000	2500	3000	98,00
TL-CBK-2-4.80	9,6/2,54	4,8/0,29		200/2900	250/3626	1000	2500	3000	100,00
TL-CBK-2-5.80	11,6/3,06	5,8/0,35		200/2900	250/3626	1000	2500	3000	104,00

\* lit/min 2000 revs / US gpm 2000 revs

# TL-CBN-3

Casting flange-Aluminium body. 6 to 25 cc/rev

Aluminium body.  
Casting flange and rear flanges.  
Wide choice of flanges, drive shafts and ports.  
Displacement from 6 to 25 cc/rev (0,37 to 1,53 cu inch/rev).  
Rated speed of 2000 rev/min.  
Continuous max. Pressure 160 bar.  
Oil temperature -20 -80°C.  
Volumetric efficiency > 90%.  
Oil viscosity 20-43 mm<sup>2</sup>/s (cST).



MODEL	FLOW*	DISPLACEMENT		PRESSURE bar/psi		SPEED REVS/MIN		POWER kW
		cc/rev	inch <sup>3</sup> /rev	continuous	intermitent	rated	min	
TL-CBN-3-06	12/3,17	6/0,37		160/2320	200/2900	2000	1100	3,95
TL-CBN-3-08	16/4,23	8/0,49		160/2320	200/2900	2000	900	5,27
TL-CBN-3-10	20/5,28	10/0,61		160/2320	200/2900	2000	900	6,58
TL-CBN-3-12	24/6,34	12/0,73		160/2320	200/2900	2000	900	7,90
TL-CBN-3-14	28/7,40	14/0,85		160/2320	200/2900	2000	900	9,22
TL-CBN-3-16	32/8,45	16/0,98		160/2320	200/2900	2000	900	10,53
TL-CBN-3-20	40/10,57	20/1,22		160/2320	200/2900	2000	900	13,17
TL-CBN-3-25	50/13,21	25/1,53		160/2320	200/2900	2000	900	16,46

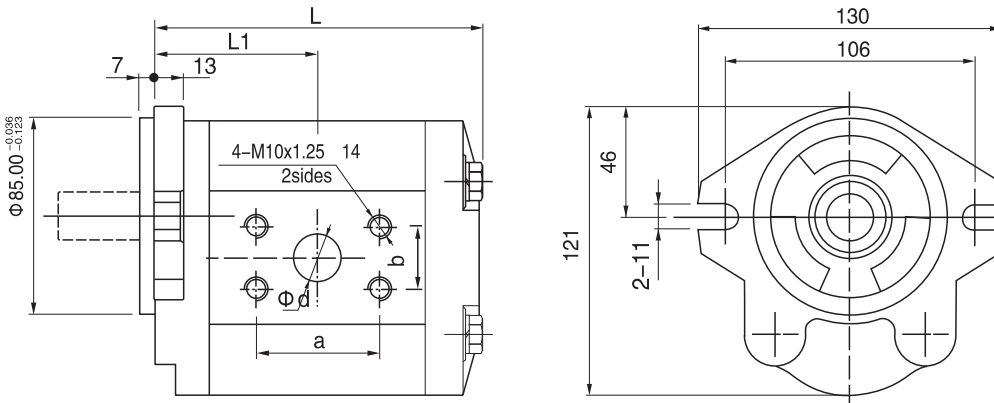
\* lit/min 2000 revs / US gpm 2000 revs

DIMENSIONS mm	A	B	C	D
TL-CBN-3-06	47	98	14	10
TL-CBN-3-08	48	101	14	10
TL-CBN-3-10	50	104	18	15
TL-CBN-3-12	52	108	18	15
TL-CBN-3-14	53	110	18	15
TL-CBN-3-16	54	123	18	15
TL-CBN-3-20	57	119	18	15
TL-CBN-3-25	61	127	18	15

# TL-CBT-F4

Casting flange-Aluminium body. 10 to 32 cc/rev

- Aluminium body.
- Casting flange and rear flanges.
- DU Low friction bronze bearings.
- Wide choice of flanges, drive shafts and ports.
- Displacement from 10 to 32 cc/rev (0,61 to 1,95 cu inch/rev).
- Rated speed of 2500 rev/min.
- Continuous max. Pressure 200 bar.
- Oil temperature -20 -80°C.
- Volumetric efficiency > 90%.
- Oil viscosity 20-43 mm<sup>2</sup>/s (cST).



MODEL	FLOW*	DISPLACEMENT		PRESSURE bar/psi		SPEED REVS/MIN			WEIGHT Kg
		cc/rev	inch <sup>3</sup> /rev	continuous	intermittent	min	rated	max	
TL-CBT-F4-10	20,00/5,28	10,0/0,61	200/2900	250/3626	800	2500	3000	3,10	
TL-CBT-F4-12.5	25,00/6,60	12,5/0,73	200/2900	250/3626	800	2500	3000	3,20	
TL-CBT-F4-12.6	28,00/7,40	14,0/0,85	200/2900	250/3626	800	2500	3000	3,30	
TL-CBT-F4-16	32,00/8,45	16,0/0,98	200/2900	250/3626	800	2500	3000	3,40	
TL-CBT-F4-19.2	38,40/10,14	19,2/1,17	200/2900	250/3626	600	2500	3000	3,50	
TL-CBT-F4-20	40,00/10,57	20,0/0,12	200/2900	250/3626	600	2500	3000	3,55	
TL-CBT-F4-23	46,00/12,15	23,0/1,40	200/2900	250/3626	600	2500	3000	3,60	
TL-CBT-F4-25	50,00/13,20	25,0/1,53	200/2900	250/3626	600	2500	3000	3,70	
TL-CBT-F4-26.5	53,00/14,00	26,5/1,62	200/2900	250/3626	600	2500	3000	3,75	
TL-CBT-F4-30	60,00/15,85	30,0/1,83	200/2900	250/3626	600	2500	3000	3,90	
TL-CBT-F4-32	64,00/16,91	32,0/1,95	200/2900	250/3626	600	2500	3000	4,00	

\* lit/min 2000 revs / US gpm 2000 revs

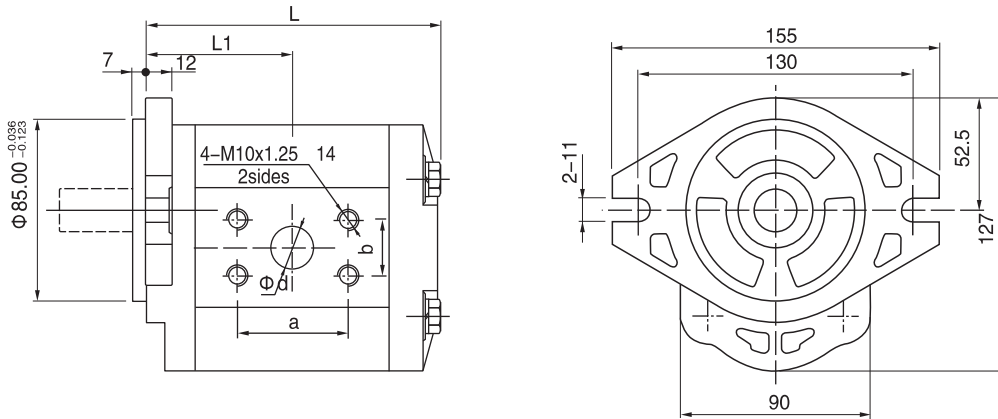
DIMENSIONS mm	L1 mm	L mm	PORTS	
			inlet	outlet
TL-CBT-F4-10	57,00	116,00	M22x1,5	M18x1,5
TL-CBT-F4-12.5	58,30	118,00	M22x1,5	M18x1,5
TL-CBT-F4-12.6	59,30	120,00	M22x1,5	M18x1,5
TL-CBT-F4-16	60,30	122,00	M22x1,5	M18x1,5
TL-CBT-F4-19.2	61,80	125,00	M33x2	M27x2
TL-CBT-F4-20	62,50	127,00	M33x2	M27x2
TL-CBT-F4-23	64,00	130,00	M33x2	M27x2
TL-CBT-F4-25	65,80	133,00	M33x2	M27x2
TL-CBT-F4-26.5	65,80	133,00	M33x2	M27x2
TL-CBT-F4-30	67,80	134,00	M33x2	M27x2
TL-CBT-F4-32	69,50	140,00	M33x2	M27x2



# TL-CBF-F4

Casting flange-Aluminium body. 10 to 50 cc/rev

- Aluminium body.
- Casting flange and rear flanges.
- DU Low friction bronze bearings.
- Wide choice of flanges, drive shafts and ports.
- Displacement from 10 to 50 cc/rev (0,61 to 3,05 cu inch/rev).
- Rated speed of 2500 rev/min.
- Continuous max. Pressure 200 bar.
- Oil temperature -20 -80°C.
- Volumetric efficiency > 90%.
- Oil viscosity 20 - 43 mm<sup>2</sup>/s (cST).



MODEL	FLOW*	DISPLACEMENT cc/rev inch <sup>3</sup> /rev	PRESSURE bar/psi		SPEED REVS/MIN			WEIGHT Kg
			continuous	intermitent	min	rated	max	
TL-CBF-F4-10	20,00/5,28	10,0/0,61	200/2900	250/3626	800	2500	3000	3,20
TL-CBF-F4-12.5	25,00/6,60	12,5/0,73	200/2900	250/3626	800	2500	3000	3,30
TL-CBF-F4-14	28,00/7,40	14,0/0,85	200/2900	250/3626	800	2500	3000	3,40
TL-CBF-F4-16	32,00/8,45	16,0/0,98	200/2900	250/3626	800	2500	3000	3,50
TL-CBF-F4-18	36,00/9,51	18,0/1,10	200/2900	250/3626	600	2500	3000	3,60
TL-CBF-F4-20	40,00/10,57	20,0/1,22	200/2900	250/3626	600	2500	3000	3,70
TL-CBF-F4-25	50,00/13,21	25,0/1,53	200/2900	250/3626	600	2500	3000	3,80
TL-CBF-F4-32	64,00/16,91	32,0/1,95	200/2900	250/3626	600	2500	3000	4,10
TL-CBF-F4-40	80,00/21,13	40,0/2,44	160/2320	200/2900	600	2500	3000	4,40
TL-CBF-F4-50	100,00/26,41	50,0/3,05	160/2320	200/2900	600	2500	3000	4,70

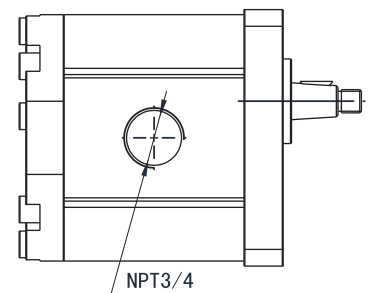
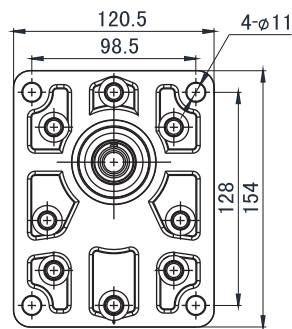
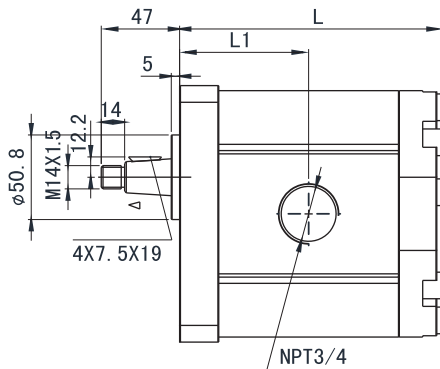
\* lit/min 2000 revs / US gpm 2000 revs

DIMENSIONS mm	L1 mm	L mm	PORTS	
			inlet	outlet
TL-CBF-F4-10	55,00	114,00	M22x1,5	M18x1,5
TL-CBF-F4-12.5	56,30	116,50	M22x1,5	M18x1,5
TL-CBF-F4-14	57,30	118,50	M22x1,5	M18x1,5
TL-CBF-F4-16	58,30	120,00	M27x2	M22x1,5
TL-CBF-F4-18	59,30	123,00	M27x2	M22x1,5
TL-CBF-F4-20	60,50	125,00	M27x2	M22x1,5
TL-CBF-F4-25	63,80	131,50	M33x2	M27x2
TL-CBF-F4-32	67,50	139,00	M33x2	M27x2
TL-CBF-F4-40	72,00	148,00	M33x2	M27x2
TL-CBF-F4-50	77,50	159,00	M33x2	M27x2

# TL-CBN-5

Aluminium flange-Aluminium body. 20 to 63 cc/rev

Aluminium body.  
 Casting flange and rear flanges.  
 Wide choice of flanges, drive shafts and ports.  
 Displacement from 20 to 63 cc/rev (1,22 to 3,84 cu inch/rev).  
 Rated speed of 2500 rev/min.  
 Continuous max. Pressure 200 bar.  
 Oil temperature -20 -80°C.  
 Volumetric efficiency > 90%.  
 Oil viscosity 20 - 43 mm<sup>2</sup>/s (cST).



MODEL	FLOW*	DISPLACEMENT		PRESSURE bar/psi		SPEED REVS/MIN	
		cc/rev	inch <sup>3</sup> /rev	continuous	intermittent	rated	max
TL-CBN-5-20	40/10,56	20/1,22	200/2900	250/3626	2500	3000	
TL-CBN-5-22	44/11,62	22/1,34	200/2900	250/3626	2500	3000	
TL-CBN-5-26	52/13,74	26/1,59	200/2900	250/3626	2500	3000	
TL-CBN-5-33	66/17,44	33/2,01	200/2900	250/3626	2500	3000	
TL-CBN-5-39	78/20,61	39/2,38	200/2900	250/3626	2500	3000	
TL-CBN-5-46	92/24,3	46/2,81	200/2900	250/3626	2500	3000	
TL-CBN-5-52	104/27,47	52/3,17	200/2900	250/3626	2500	3000	
TL-CBN-5-55	110/29,06	55/3,36	200/2900	250/3626	2500	3000	
TL-CBN-5-63	126/33,29	63/3,84	200/2900	250/3626	2500	3000	

\* lit/min 2000 revs / US gpm 2000 revs

DIMENSIONS mm	L1 mm	L mm
TL-CBN-3-20	58,50	119,00
TL-CBN-3-22	59,25	120,00
TL-CBN-3-26	61,00	123,50
TL-CBN-3-33	63,50	128,50
TL-CBN-3-39	65,50	132,50
TL-CBN-3-46	68,25	138,00
TL-CBN-3-52	70,00	141,50
TL-CBN-3-55	70,75	143,00
TL-CBN-3-63	74,00	149,50



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