



VNKV series motor adapt the advanced Geroler gear set designed with disc distribution flow and high pressure. The unit can be supplied the individual variant in operating multifunction in accordance with requirement of applications.

Characteristic features:

- * Advanced manufacturing devices for the Geroler gear set, which use low pressure of start-up, provide smooth and reliable operation and high efficiency.
- * The output shaft adapts in tapered roller bearings that permit high axial and radial forces. The case can offer capacities of high pressure and high torque in the wide of applications.
- * Advanced design in disc distribution flow, which can automatically compensate in operating with high volume efficiency and long life, provide smooth and reliable operation.

Main Specification							
Type		VNKV 315	VNKV 400	VNKV 500	VNKV 630	VNKV 800	VNKV 1000
Geometric displacement (cm ³ /rev.)		333	419	518	666	801	990
Max. speed (rpm)	cont.	510	500	400	320	250	200
	int.	630	600	480	380	300	240
Max. torque (N•m)	cont.	920	1180	1460	1660	1880	2015
	int.	1110	1410	1760	1940	2110	2280
	peak	1290	1640	2050	2210	2470	2400
Max. output (kW)	cont.	38.0	47.0	47.0	40.0	33.0	28.6
	int.	46.0	56.0	56.0	56.0	44.0	40.0
Max. pressure drop (MPa)	cont.	20	20	20	18	16	14
	int.	24	24	24	21	18	16
	peak	28	28	28	24	21	18
Max. flow (L/min)	cont.	160	200	200	200	200	200
	int.	200	240	240	240	240	240
Weight (kg)		31.8	32.6	33.5	34.9	36.5	38.6

- * Continuous pressure: Max. value of operating motor continuously.
- * Intermittent pressure: Max. value of operating motor in 6 seconds per minute.
- * Peak pressure: Max. value of operating motor in 0.6 second per minute.



VNKV 315 [333cm³/rev.]

		Pressure (MPa)						Max. cont.	Max. int.
		3.5	7	10	14	18	20		
Flow (L/min)	10	140	294	440	610	742	845	1000	
	20	153	314	466	636	787	895	1070	
	50	149	312	465	654	815	935	1112	
	75	143	304	458	642	816	940	1119	
	100	136	297	452	636	810	936	1108	
	125	123	286	442	626	799	921	1093	
	150	114	275	435	615	788	906	1078	
	Max.cont.	150	445	443	441	437	430	422	410
	160	107	268	430	608	780	895	1070	
	Max.int.	200	596	594	590	584	576	565	544

VNKV 400 [419cm³/rev.]

		Pressure (MPa)						Max. cont.	Max. int.
		3.5	7	10	14	18	20		
Flow (L/min)	10	183	385	568	776	968	1101	1292	
	20	196	398	590	815	1010	1152	1346	
	50	200	402	603	842	1040	1186	1430	
	75	195	394	596	838	1043	1188	1432	
	100	172	385	593	827	1036	1184	1425	
	125	167	374	583	816	1021	1177	1413	
	150	158	361	559	801	1008	1165	1390	
	Max.cont.	150	355	354	352	349	344	335	324
	175	143	346	553	784	989	1145	1377	
	Max.int.	200	475	473	469	463	455	448	439
240	82	301	506	740	943	1104	1332		
240	571	569	565	548	539	530	520		

VNKV 500 [518cm³/rev.]

		Pressure (MPa)						Max. cont.	Max. int.
		3.5	7	10	14	18	20		
Flow (L/min)	10	242	468	696	959	1190	1353	1607	
	20	245	501	738	1003	1232	1394	1658	
	50	240	500	758	1025	1270	1449	1743	
	75	233	498	752	1030	1288	1475	1766	
	100	228	491	748	1026	1289	1472	1760	
	125	220	483	742	1014	1280	1460	1745	
	150	201	465	723	1008	1250	1429	1736	
	175	182	446	711	997	1238	1406	1715	
	Max.cont.	200	384	383	381	378	374	366	354
	Max.int.	240	461	459	457	454	450	444	432

VNKV 630 [666cm³/rev.]

		Pressure (MPa)						Max. cont.	Max. int.
		3.5	6	9	12	15	18		
Flow (L/min)	10	280	522	812	1100	1268	1549	1784	
	20	288	552	839	1101	1315	1607	1864	
	50	289	555	868	1137	1364	1682	1956	
	75	270	548	863	1120	1352	1680	1964	
	100	264	538	856	1093	1350	1674	1965	
	125	251	516	837	1071	1336	1659	1950	
	150	240	495	817	1063	1330	1650	1928	
	175	210	485	796	1052	1300	1636	1908	
	Max.cont.	200	297	297	295	293	290	284	273
	Max.int.	240	358	357	355	351	346	340	332

Torque (N·m) 1340
Speed (rpm) 444

cont.
int.





VNKV 800 [801cm³/rev.]

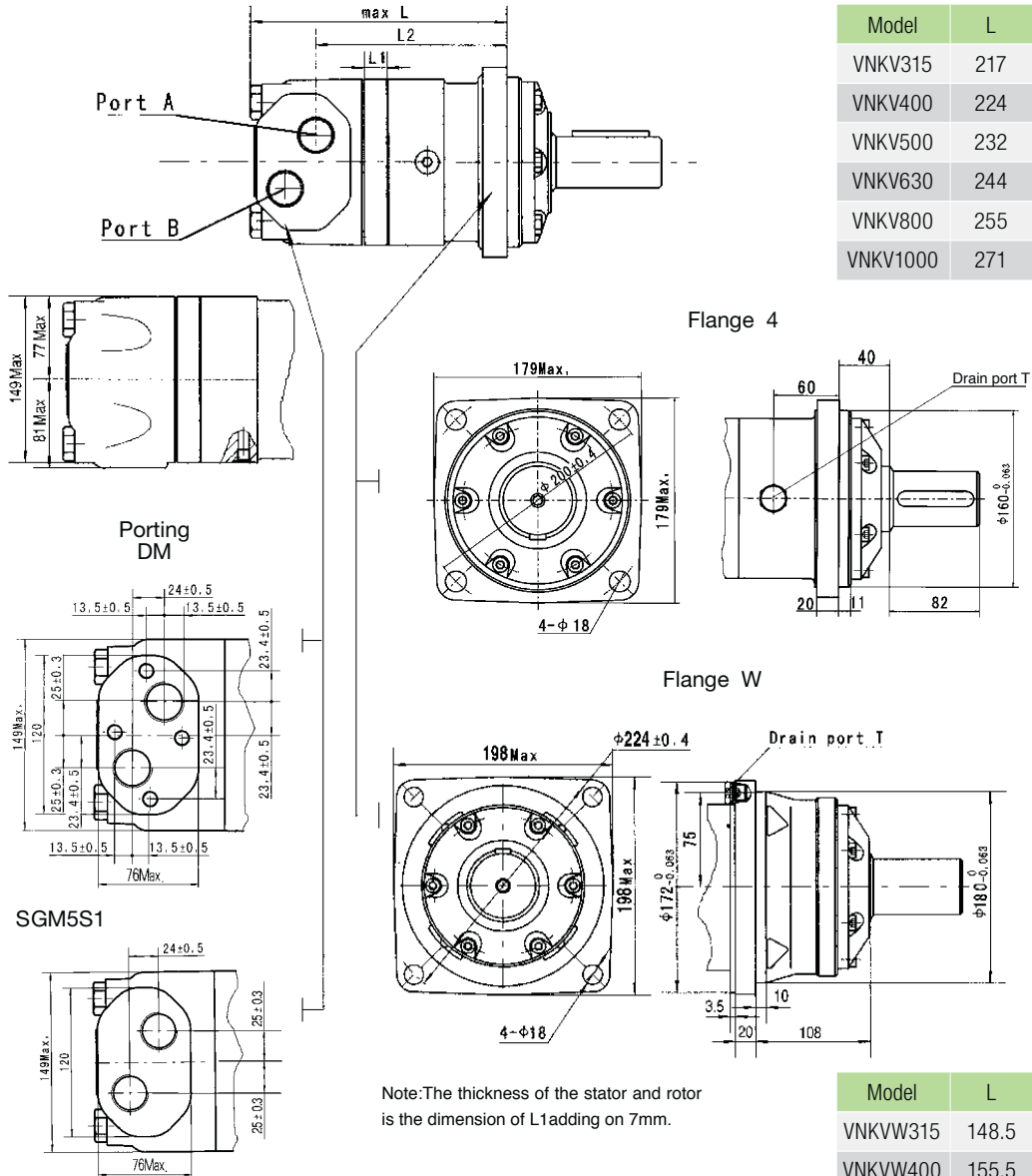
VNKV 1000 [990cm³/rev.]

		Pressure (MPa)						
		2.5	5	8	10	13	16	18
Flow (L/min)	10	278	565	830	1095	1405	1712	1915
		11	10	10	9	8	8	7
	20	282	571	845	1150	1456	1783	1994
		23	22	22	21	20	18	16
	50	288	582	856	1162	1463	1790	2001
		60	59	57	56	54	52	48
	75	269	580	855	1165	1465	1786	1993
		91	90	89	87	84	81	77
	100	251	566	840	1140	1448	1767	1985
		122	121	120	118	115	111	105
	125	242	535	824	1118	1427	1739	1976
		153	152	150	147	143	139	133
	150	236	526	808	1102	1401	1714	1959
		185	183	181	178	174	169	163
175	215	504	793	1079	1377	1698	1936	
	216	214	212	209	206	203	196	
Max.cont.	200	197	468	765	1063	1362	1681	1913
	247	245	243	240	237	232	225	
Max.int.	240	118	388	713	1020	1318	1637	1838
	297	296	295	293	288	283	277	

		Pressure (MPa)					
		2.5	5	7	10	14	16
Flow (L/min)	10	312	640	971	1400	1978	2259
		9	9	9	8	7	6
	20	320	648	978	1410	1980	2270
		28	27	26	25	23	21
	50	326	655	992	1422	2015	2280
		47	46	45	43	41	38
	75	318	642	987	1425	2003	2276
		72	71	70	68	66	63
	100	309	634	983	1418	1994	2243
		98	97	95	93	90	86
	125	303	624	975	1409	1988	2224
		123	122	120	117	114	110
	150	278	602	961	1368	1963	2208
		149	148	146	144	140	133
175	264	580	946	1338	1925	2159	
	174	172	170	166	162	155	
Max.cont.	200	230	556	912	1300	1891	2105
	199	196	193	190	185	178	
Max.int.	240	166	513	867	1267	1825	2034
	240	237	233	229	225	218	

Torque (N·m) 1825
Speed (rpm) 225

cont.
int.

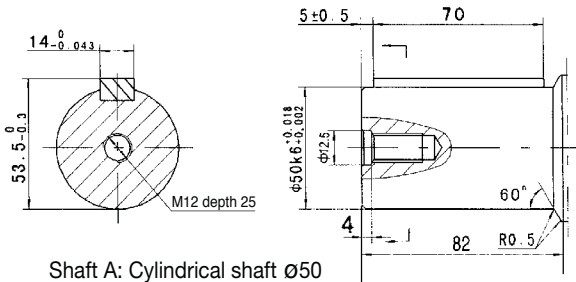


Note: The thickness of the stator and rotor is the dimension of L1 adding on 7mm.

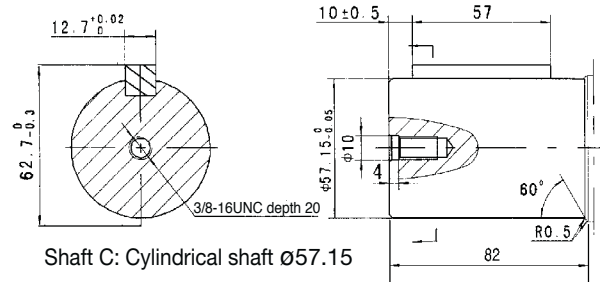
Model	L	L1	L2
VNKV315	217	20	161.5
VNKV400	224	27	168.5
VNKV500	232	35	176.5
VNKV630	244	47	188.5
VNKV800	255	58	199.5
VNKV1000	271	74	215.5

Model	L	L1	L2
VNKVW315	148.5	20	93.5
VNKVW400	155.5	27	100.5
VNKVW500	163.5	35	108.5
VNKVW630	175.5	47	120.5
VNKVW800	186.5	58	131.5
VNKVW1000	202.5	74	147.5

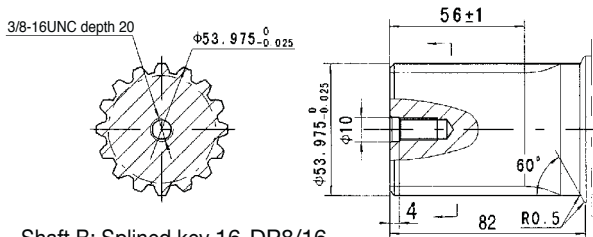
Content	Code					
	D (depth)	M (depth)	S (depth)	G (depth)	M5 (depth)	S1 (depth)
P(A,B)	G1 (18)	M33 x 2 (18)	1-5/16-12UN(18)	G1 (18)	M33 x 2 (18)	1-5/16-12UN(18)
T	G1/4 (12)	M14 x 1.5 (12)	9/16-18UNF(12)	G1/4 (12)	M14 x 1.5 (12)	7/16-20UNF(12)
C	4-M12 (10)	4-M12 (10)	--	--	--	--



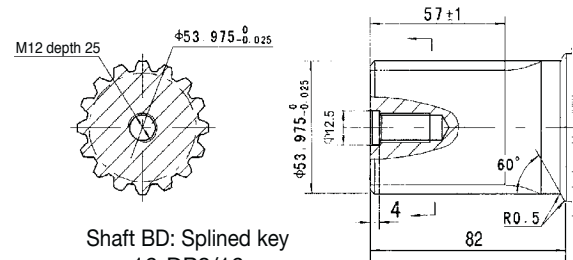
Shaft A: Cylindrical shaft $\varnothing 50$
Parallel key 14x9x70



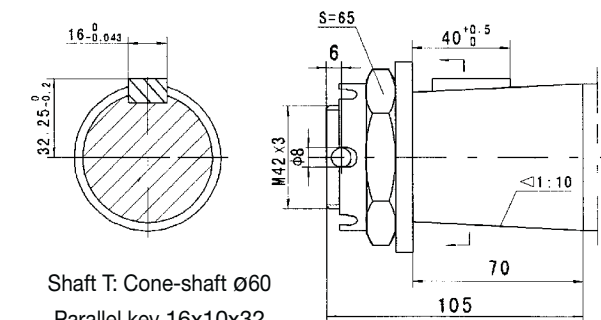
Shaft C: Cylindrical shaft $\varnothing 57.15$
Parallel key 12.7x12.7x57



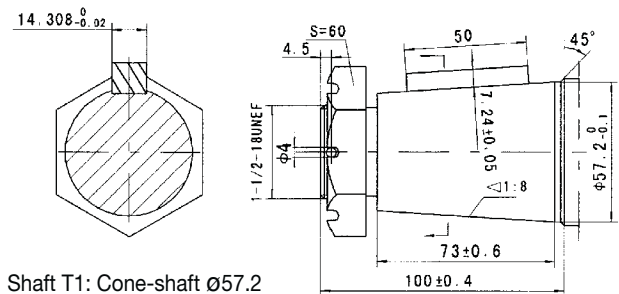
Shaft B: Splined key 16-DP8/16



Shaft BD: Splined key
16-DP8/16



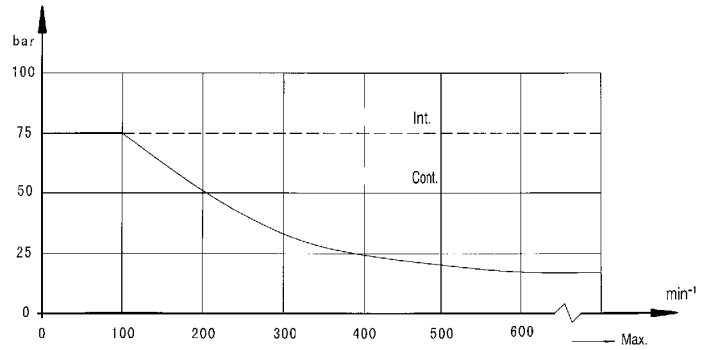
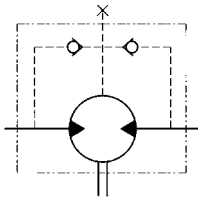
Shaft T: Cone-shaft $\varnothing 60$
Parallel key 16x10x32
Tightening torque: 750±50Nm



Shaft T1: Cone-shaft $\varnothing 57.2$
Parallel key 14.308x14.308x50
Tightening torque: 750±50Nm



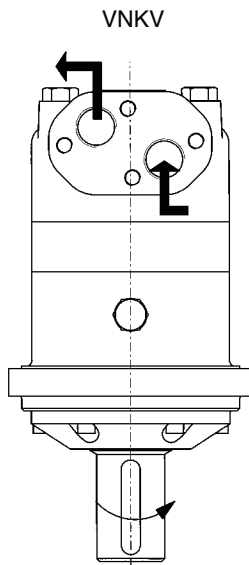
Permissible shaft seal pressure



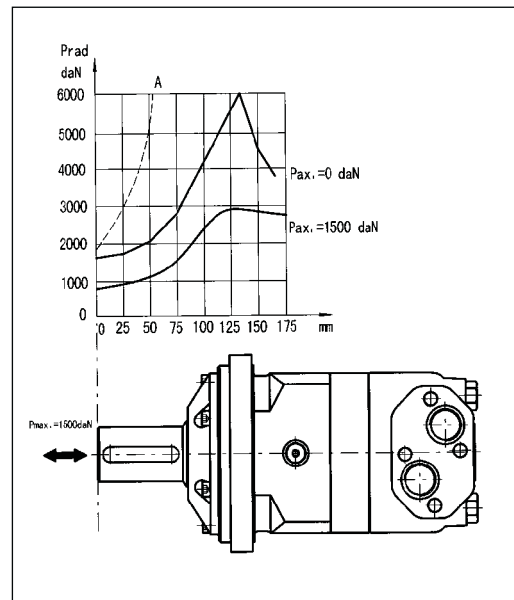
In applications without drain line, output shaft seal exceeds a bit of the pressure in the return line. When applications use the drain line, the pressure of output shaft seal equals the pressure in drain line.

Standard direction of shaft rotation: Standard

When facing shaft end of motor, shaft to rotate:
 Clockwise when port "A" is pressurized.
 Counter-clockwise port "B" is pressurized.



Axial and Radial forces



The output shaft runs in tapered bearings that permit high axial and radial forces, Curve "A" shows max radial shaft load, Any shaft loads exceeding the values quoted in the curve will involve a risk of breakage, The two other curves apply to a B10 bearing life of 3000 hours at 200 RPM.

VNKV	1	2	3	4	5	6	7	8
Pos.1	Code	Disp.	Flange, Pilot, Port	Output Shaft	Ports and Drain Port	Rotation Direc- tion	Paint	Unusually Function
		315		A Shaft Ø50 , parallel key 14×9×70 BD Shaft Ø53.975, splined key 16-DP8/16	D M			
		400	4 4-Ø18 Square-flangeØ200, pilot Ø160×11	B Shaft Ø53.975, splined key 16-DP8/16 C Shaft Ø57.15, parallel key	S	Omit	00 Omit	Omit F LS
	Omit	500		12.7×12.7×57.15	G	R	B S	
		630	4-Ø18 Wheel-flange Ø224, pilot Ø180×10	T Cone shaft Ø60, parallel key 16×10×32 T1 Cone shaft Ø57.2, parallel key 14.308×14.308×50.8	M5 S1			
		800						
		1000						

Note: When the table is used, please fill the code of left rows in dash area and give us, which the code information is consists of construction, displacement, mounting flange, output shaft and ports. If the specification is not in the table or you have specific requirements, please contact us.