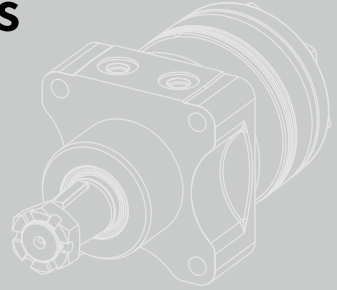


2.3



HCW/HCG/HCP series Orbital hydraulic motor

The HCW/HCG/HCP series orbital hydraulic motor, which boasts superior mass-to-power ratio, has been extensively used in all kinds of mobile and rotary conditions, particularly for low flow and large torque load starting conditions.



Contents

- HCW/HCG/HCP Overview 02
- HCW/HCG/HCP Advantages 02
- HCW/HCG/HCP Standard structure..... 03
- HCW/HCG/HCP Specification 04
- HCW/HCG/HCP Displacement performance 05-16
- HCW/HCG Installation size 17
- HCW/HCG Shaft end dimensions..... 17-20
- HCW/HCG Length and weight 21
- HCW/HCG Allowable shaft load/bearing curve ... 21-22
- HCW/HCG Hydraulic diagram 22
- HCW/HCG Rotation direction 22
- HCW/HCG Ordering information 23-24
- HCP Installation size 25
- HCP Shaft end dimensions 25-26
- HCP Length and weight 27
- HCP Allowable shaft load/bearing curve 27
- HCP Hydraulic diagram 28
- HCP Rotation direction 28
- HCP Ordering information 29



Overview

The HCW/HCG/HCP series orbital hydraulic motor, which boasts superior mass-to-power ratio, has been extensively used in all kinds of mobile and rotary conditions, particularly for lowflow and large torque load starting conditions.

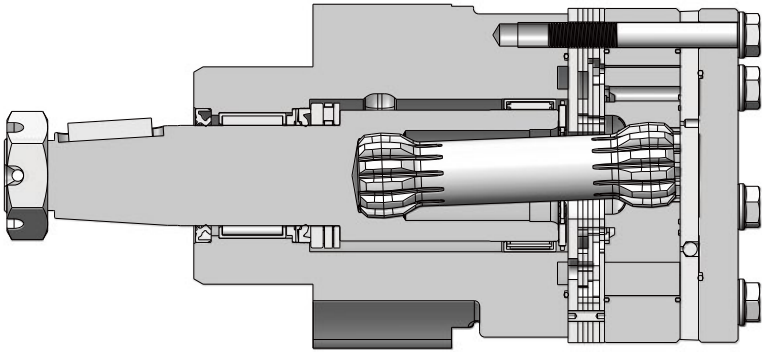
During the working process, the unique balance plate design bends to the rotor under the effect of oil pressure, greatly reducing the end clearance of the fixed rotor and realizing higher volume efficiency; when the oil pressure reaches the working pressure, the deflection and oil pressure of the balance plate will achieve a dynamic balance, allowing for easy, mechanically-efficient rotor operation. This perfect exchange of efficiency maximizes the steady performance of the system and enables the whole machine to consume less energy.

Advantages

- The optimized high-pressure combined seal design ensures excellent sealing performance and reliability.
- The needle roller bearing structure makes it bear axial and radial loads better.
- The unique balance plate design ensures stable operation at low speeds and high pressures.
- The full flow cooling treatment of its linkage mechanism prolongs its service life.
- The advanced flow distribution system design greatly improves efficiency and makes the motor more compact.
- A variety of flange connection sizes are provided, facilitating installation.

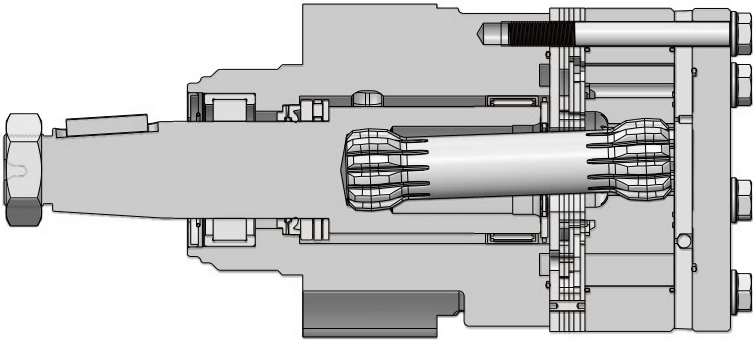
Standard structure

· HCW



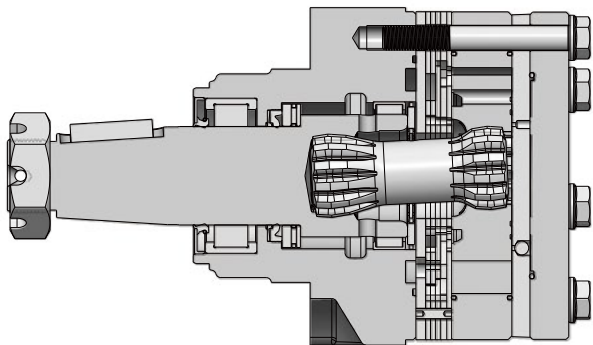
P-0001

· HCG



P-0079

· HCP



P-0101

02

Specification

Type	HCW	HCW	HCW	HCW	HCW	HCW	HCW	HCW	HCW	HCW	HCW	HCW	
	HCG	HCG	HCG	HCG	HCG	HCG	HCG	HCG	HCG	HCG	HCG	HCG	
	HCP	HCP	HCP	HCP	HCP	HCP	HCP	HCP	HCP	HCP	HCP	HCP	
	120	160	200	230	260	300	350	375	400	470	540	620	
Displacement (cm ³ /rev.)	116.8	157	198	225	253	291	328	363	400	451	542	618	
Max.speed (rpm)	Continuous	360	374	337	294	292	278	241	203	193	162	140	120
	Intermittent	488	466	409	358	349	316	269	241	228	196	170	142
Max.torque (Nm)	Continuous	337	480	559	658	726	827	929	1017	1098	1099	997	1014
	Intermittent	387	552	637	726	808	950	1061	1175	1249	1281	1251	1293
Max. differential pressure (bar)	Continuous	207	207	207	207	207	207	207	207	207	173	138	121
	Intermittent	241	241	241	241	241	241	241	241	241	207	173	155
	Peak	276	276	276	276	276	276	276	276	276	241	207	173
Max.flow (L/min)	Continuous	45	61	68	68	76	83	83	76	76	76	76	76
	Intermittent	61	76	83	83	91	95	95	91	91	91	91	91
Max.no-load starting pressure (bar)	7	8	8	10	10	10	10	10	10	10	12	12	14
Min.starting torque (Nm)	Max. Continuous different pressure	236	336	391	461	508	579	650	712	769	769	698	710
	Max. Intermittent different pressure	271	386	446	508	566	665	743	823	874	897	876	905

T - 0001

- Intermittent working condition: The working time should be less than 6 seconds per minute under the intermittent working condition.
- Peak differential pressure: At peak differential pressure, the operating time is less than 0.6 seconds per minute.
- It is not recommended for the motor to work at simultaneous maximum torque and maximum speed.
- The filtration standard of ISO 4406 cleaning standard 20/18/15 is recommended.
- High quality anti-wear hydraulic fluids are recommended.
- When the temperature is 50° , the minimum viscosity of the oil is recommended to be 20mm²/s.
- The recommended maximum operating temperature is 82°C .
- To assure best motor life, run motor 10-15 minutes in low speed high torque mode at approximately 50% of continuous pressure and 50% of continuous flow.

Displacement performance

		Pressure(bar)						Max.Cont	Max.Inter
		17	35	69	104	138	173	207	241
120		116.8 cm ³ /rev.							
		Torque(Nm), Speed(rpm)							
Flow (L/min)	2	18	52	96	139				
		14	14	10	7				
	4	23	53	111	163	226			
		25	24	25	21	14			
	8		55	120	178	228	272	303	344
			56	55	53	46	41	36	28
	15		53	115	187	244	378	337	361
			110	105	98	94	89	87	81
	23		51	114	186	237	277	336	359
			176	165	155	150	143	140	137
	30			111	168	224	281	326	386
				245	213	206	198	197	189
38			103	167	220	276	323	384	
			293	282	271	265	252	241	
Max.Cont 45			101	163	216	275	320	387	
			360	346	330	325	320	306	
53			89	156	210	269	336		
			413	414	400	393	367		
Max.Inter 61			85	147	210	273	326		
			488	477	456	448	426		

Overall Efficiency: 70-100% 40-69% 0-39%

T - 0002

Torque (Nm):273
 Speed (rpm):448

Displacement performance

		Pressure(bar)						Max.Cont	Max.Inter
		17	35	69	104	138	173	207	241
160									
157 cm ³ /rev.		Torque(Nm), Speed(rpm)							
Flow (L/min)	2	37	77	149	223	310	349		
		7	3	3	3	2	1		
	4	31	80	164	243	325	379	443	
		22	18	17	15	15	14	10	
	8	37	81	160	242	317	380	480	552
		46	44	40	39	38	36	31	29
	15	41	77	173	254	320	379	453	518
		94	92	88	85	81	80	78	74
	23		72	157	237	318	380	453	515
			139	133	133	128	123	123	117
	30		69	164	235	314	387	456	513
			188	182	178	175	172	167	163
	38		73	147	232	306	377	454	523
			233	228	227	219	221	212	208
45		67	143	225	303	368	441	499	
		279	278	271	269	263	256	249	
53			136	229	312	373	459	542	
			327	324	319	309	306	300	
Max.Cont 61			124	215	295	368	433	486	
			373	374	361	361	355	334	
68			108	200	284	362	420		
			419	418	417	407	402		
Max.Inter 76			105	190	278	350	454		
			466	460	460	454	444		

Overall Efficiency: 70-100% 40-69% 0-39%

T - 0003

Displacement performance

		Pressure(bar)						Max.Cont	Max.Inter	
		17	35	69	104	138	173	207	241	
200										
198 cm ³ /rev.		Torque(Nm), Speed(rpm)								
Flow (L/min)	2	39	91	133	294	375				
		6	4	4	4	3				
	4	43	85	200	276	373	441	525		
		16	13	12	11	10	8	5		
	8	44	94	196	300	375	462	540	615	
		34	32	30	28	28	26	21	19	
	15	40	95	197	307	402	479	545	630	
		73	70	68	65	61	60	56	52	
	23		84	192	285	391	464	555	637	
			113	110	108	105	101	101	91	
	30		80	188	287	403	460	545	631	
			148	145	143	137	136	132	126	
	38		69	182	277	402	459	536	616	
			188	183	177	173	171	161	197	
	45			162	260	364	451	537	618	
			218	213	212	208	200	196		
53			151	271	369	449	559	603		
			258	254	248	244	242	236		
61			136	254	337	436	523	600		
			298	293	286	278	272	271		
Max.Cont 68			124	231	340	418	511	594		
			337	329	328	322	312	303		
76			111	207	309	401	501			
			373	373	366	357	346			
Max.Inter 83				193	282	371	468			
				409	400	389	370			

Overall Efficiency: 70-100% 40-69% 0-39%

T - 0004

Displacement performance

		Pressure(bar)						Max.Cont	Max.Inter
		17	35	69	104	138	173	207	241
230		225 cm ³ /rev.							
		Torque(Nm), Speed(rpm)							
Flow (L/min)	2	43	91	184	292	373			
		6	4	3	1	1			
	4	51	105	223	315	416	491	565	
		14	14	11	11	9	7	4	
	8	55	108	217	335	436	527	615	715
		31	28	27	26	24	22	17	14
	15	46	111	211	329	439	542	658	726
		66	62	56	55	55	50	43	41
	23		107	214	338	427	535	627	722
			95	91	86	84	79	73	72
	30		92	210	318	427	524	639	717
			129	123	122	118	113	105	99
	38		82	198	314	438	528	617	707
			164	158	154	149	145	142	132
	45			193	297	425	514	604	691
			194	186	179	170	173	165	
53			180	295	388	498	591	684	
			226	218	214	209	208	164	
61			155	278	401	487	582	666	
			259	257	251	247	241	228	
Max.Cont 68			145	269	356	500	570	662	
			294	287	282	279	272	261	
76			127	238	253	452	574		
			324	320	316	309	302		
Max.Inter 83				216	344	460	553		
				358	353	344	340		

Overall Efficiency: 70-100% 40-69% 0-39%

T - 0005

Displacement performance

260 253 cm ³ /rev.		Pressure(bar)					Max.Cont	Max.Inter	
		17	35	69	104	138	173	207	241
		Torque(Nm), Speed(rpm)							
Flow (L/min)	2	51	114						
		4	2						
	4	55	116	244	365	482	578	352	
		11	11	12	9	9	7	6	
	8	57	113	144	365	490	598	708	
		29	27	25	23	22	21	18	
	15	53	117	266	370	492	597	703	805
		61	57	52	53	50	48	43	39
	23	47	127	244	369	504	595	726	806
		88	86	82	81	77	72	68	66
	30		98	232	353	481	595	698	799
			116	110	109	106	100	98	90
	38		86	234	344	474	588	689	800
			143	142	141	137	135	128	119
	45		82	222	345	474	570	677	808
			175	174	171	168	161	154	144
53		70	203	332	451	572	673	770	
		205	204	202	197	184	184	176	
61			185	301	454	555	656	754	
			230	229	223	218	215	207	
68			163	310	419	551	646	744	
			261	262	255	248	243	232	
Max.Cont 76			139	283	396	526	640	738	
			292	290	286	279	273	265	
83			138	263	378	513	618		
			323	317	318	311	301		
Max.Inter 91			86	230	366	501			
			349	348	347	343			

Overall Efficiency: 70-100% 40-69% 0-39%

T - 0006

Displacement performance

300

291 cm³/rev.

Pressure(bar)

Max.Cont

Max.Inter

17	35	69	104	138	173	207	241
----	----	----	-----	-----	-----	-----	-----

Torque(Nm), Speed(rpm)

Flow (L/min)	51	95					
	3	1					
2	64	146	302	434	510	626	
4	12	11	9	9	7	3	
8	62	158	309	438	572	680	767
	22	20	20	20	17	14	8
8	67	144	315	430	556	682	818
15	49	46	44	43	37	35	26
23	60	138	291	423	547	691	819
	77	73	73	68	66	58	48
30	47	127	307	389	572	697	827
	101	99	101	94	88	79	72
38		112	283	410	505	684	796
		126	125	122	117	107	100
45		94	260	390	475	643	784
		152	149	150	146	135	123
53		76	246	394	530	662	809
		175	176	178	173	164	151
61		64	223	368	506	632	799
		202	200	201	190	186	176
68			202	340	468	667	803
			226	226	223	212	198
76			174	328	477	609	743
			253	252	244	238	230
83			145	323	467	575	733
			278	278	270	263	255
91			121	282	433	558	702
			304	302	298	290	279
Max.Inter 95			106	261	433	554	708
			316	313	310	308	295

Overall Efficiency: 70-100% 40-69% 0-39%

T - 0007

Displacement performance

350 328 cm ³ /rev.		Pressure(bar)					Max.Cont	Max.Inter	
		17	35	69	104	138	173	207	241
		Torque(Nm), Speed(rpm)							
Flow (L/min)	2	64	133	272	399				
		4	3	3	2				
	4	65	134	297	436				
		11	9	9	7				
	8	68	145	313	461	599	742	856	
		20	20	20	17	17	15		
	15	72	152	314	471	631	773	889	993
		43	42	41	39	38	36	34	28
	23	62	148	314	474	631	767	925	1033
		64	62	61	60	58	53	51	46
	30	55	137	309	460	625	769	929	1053
		88	83	86	83	78	76	70	67
	38		114	298	433	602	743	912	1061
			109	108	110	103	98	95	86
	45		98	264	446	581	740	890	1046
			130	128	129	125	117	108	106
53		87	253	423	571	726	882	1032	
		153	152	151	148	142	134	121	
61		64	236	409	549	720	849	1012	
		174	174	172	170	163	154	147	
68			220	393	570	695	837	985	
			195	193	189	189	173	163	
76			207	376	516	686	836	975	
			216	217	217	216	196	188	
Max.Cont 83			181	351	551	686	815	959	
			241	238	235	234	223	216	
91			173	360	534	666			
			262	261	260	256			
Max.Inter 95				367	528	648			
				269	269	266			

Overall Efficiency: 70-100% 40-69% 0-39%

T - 0008

Displacement performance

		Pressure(bar)					Max.Cont	Max.Inter		
		17	35	69	104	138	173	207	241	
375		363 cm ³ /rev.							Torque(Nm), Speed(rpm)	
2	75									
	3									
4	85	164	325	492	643	758				
	7	7	7	6	5	4				
8	85	173	364	536	688	841	949			
	17	17	16	16	15	13	10			
15	75	161	363	539	701	862	985	1115		
	38	38	37	37	33	29	26	22		
23	68	155	355	531	698	867	1017	1175		
	60	59	57	56	53	49	42	39		
30	59	148	343	514	699	845	1012	1163		
	80	79	79	78	73	67	62	52		
38		132	325	498	685	835	1012	1155		
		99	99	98	94	88	80	73		
45		118	303	482	642	812	983	1145		
		120	120	119	115	106	97	95		
53		95	283	478	628	797	947	1125		
		141	141	139	135	130	122	107		
61		76	264	432	607	775	939	1094		
		160	160	160	154	153	142	132		
68			238	436	599	773	908	1085		
			182	181	178	169	163	154		
Max.Cont 76			212	386	562	740	876	1025		
			203	201	199	193	185	171		
83			176	372	532	699	843			
			221	220	219	215	207			
Max.Inter 91			143	323	514	665				
			241	241	240	231				

Overall Efficiency: 70-100% 40-69% 0-39%

T - 0009

Displacement performance

		Pressure(bar)					Max.Cont	Max.Inter	
		17	35	69	104	138	173	207	241
400		400 cm ³ /rev.							
		Torque(Nm), Speed(rpm)							
Flow (L/min)	2	73	167	336	497	647			
		5	4	4	3	3			
	4	85	184	367	532	703	865		
		8	8	8	9	9	8		
	8	96	196	381	551	716	907	1046	
		19	20	19	19	19	18	17	
	15	89	201	370	558	722	882	1083	
		37	36	38	36	36	35	31	26
	23	83	193	381	549	740	931	1098	
		56	56	56	57	55	54	52	49
	30	70	177	375	546	728	923	1075	
		75	74	71	73	72	69	68	66
	38	55	159	358	530	713	905	1080	
		92	95	92	93	91	88	86	85
	45	42	144	336	512	684	879	1077	
		110	112	111	111	109	105	101	100
53	19	121	321	492	665	864	1050		
	131	132	131	130	128	125	121	118	
61		89	290	470	651	842	1028		
		154	152	150	147	144	140	138	
68		61	262	447	623	804	975		
		173	171	168	166	162	158	164	
Max.Cont	76		30	230	419	594	784		
			193	191	188	185	182	177	187
Max.Inter	83			195	389	564	738		
				210	207	204	201	196	
				171	368	541	721		
	91			228	225	222	219	214	

Overall Efficiency: 70-100% 40-69% 0-39%

T - 0010

Displacement performance

470

451 cm³/rev.

Pressure(bar)					Max.Cont	Max.Inter
17	35	69	104	138	173	207

Torque(Nm), Speed(rpm)

Flow (L/min)	Torque(Nm), Speed(rpm)					
	93	185				
2	2	1				
4	98	204	409	610	815	
	8	6	5	5	4	
8	98	208	435	658	855	1025
	15	13	13	12	12	11
15	93	200	445	660	887	1067
	30	30	29	29	27	24
23	86	194	438	673	874	1073
	48	48	44	44	43	37
30	74	180	426	664	858	1099
	65	64	62	61	58	51
38	54	164	408	627	851	1068
	83	80	79	78	75	69
45		142	379	629	833	1069
		98	94	94	91	85
53		113	351	580	804	1015
		112	113	111	110	104
61		84	322	546	797	968
		131	129	128	124	122
68		56	274	525	738	958
		146	144	144	143	140
Max.Cont 76			235	479	705	918
			162	161	157	155
83			203	461	669	885
			180	179	176	172
Max.Inter 91			158	386	621	842
			196	195	191	185

Overall Efficiency: 70-100% 40-69% 0-39%

T - 0011

Displacement performance

540		Pressure(bar)				Max.Cont	Max.Inter
		17	35	69	104	138	173
542 cm ³ /rev.		Torque(Nm), Speed(rpm)					
Flow (L/min)	2	104	197				
		2	2				
	4	127	230	467	699	939	1150
		7	5	6	5	5	5
	8	134	239	500	754	976	1185
		13	12	11	11	10	10
	15	121	232	509	755	997	1223
		28	27	25	24	23	23
	23	99	225	505	783	993	1226
		43	42	40	40	38	35
	30	79	213	485	751	984	1251
		57	56	56	55	54	48
	38	59	189	454	727	958	1246
		70	69	68	68	66	64
	45		176	439	717	946	1204
			84	84	81	81	78
	53		140	418	681	952	1185
			99	97	95	94	93
61		108	384	669	900	1164	
		111	110	112	111	106	
68		83	357	612	870	1117	
		127	127	125	125	124	
Max.Cont	76		323	603	828	1109	
			140	139	137	134	
	83		299	538	792		
			156	154	152		
Max.Inter	91		216	492	751		
			170	169	169		

Overall Efficiency: 70-100% 40-69% 0-39%

T - 0012

Displacement performance

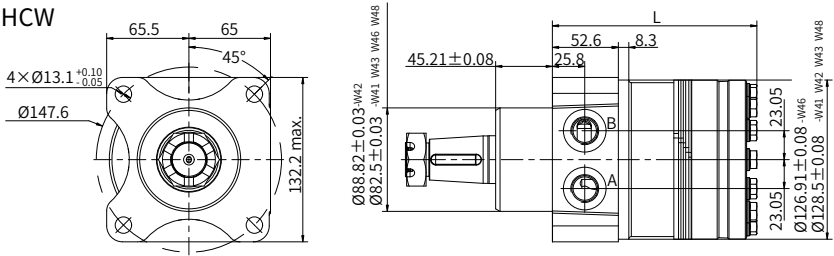
		Pressure(bar)				Max.Cont	Max.Inter
		17	35	69	104	121	155
620		618 cm ³ /rev.					
		Torque(Nm), Speed(rpm)					
Flow (L/min)	2	120 1	228 1				
	4	137 6	264 5	535 5	796 4	936 4	
	8	143 12	276 11	570 10	853 10	985 9	1256 7
	15	131 23	269 23	581 23	871 23	1009 22	1280 18
	23	112 36	261 36	575 34	883 34	1014 33	1285 29
	30	91 47	249 49	554 45	854 44	999 43	1293 42
	38	68 60	221 59	526 58	883 57	973 57	1269 53
	45		203 71	505 71	816 71	953 69	1240 65
	53		161 84	476 81	779 81	931 80	1226 79
	61		125 96	440 95	753 93	895 92	1187 90
	68		91 107	407 107	704 107	851 104	1148 105
	Max.Cont	76		359 120	675 118	816 118	1100 115
		83		329 132	615 132	759 130	
	Max.Inter	91		246 142	556 142	705 140	

Overall Efficiency: 70-100% 40-69% 0-39%

T - 0013

Installation size

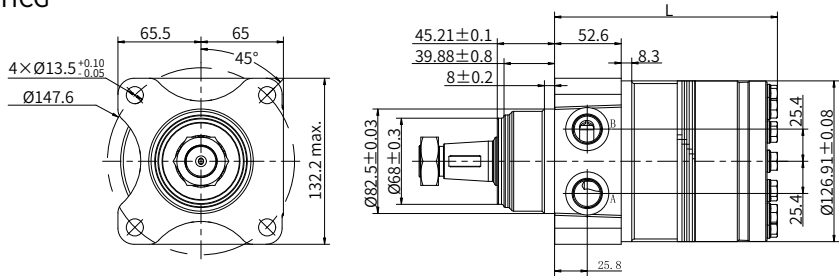
· HCW



P - 0002

Main Port A, B: W41 W42 7/8-14UNF W43 W46 G1/2 W48 9/16-18UNC

· HCG



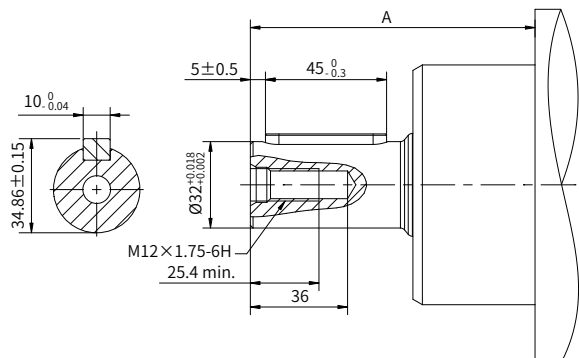
P - 0080

Main Port A, B: W45 7/8-14UNF W46 G1/2

Shaft end dimensions

S5

$\varnothing 32$ mm Straight
Parallel key $10 \times 8 \times 45$
Max. Torque: 1200Nm

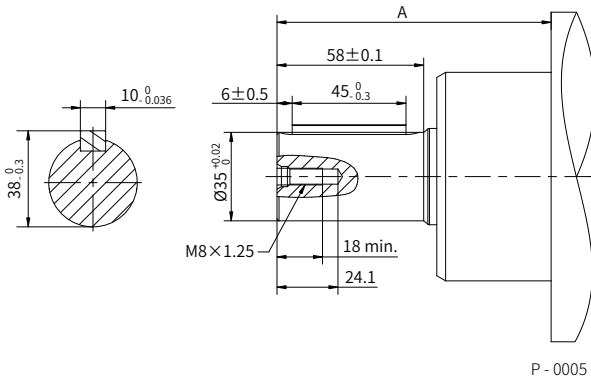


P - 0008

Shaft end dimensions

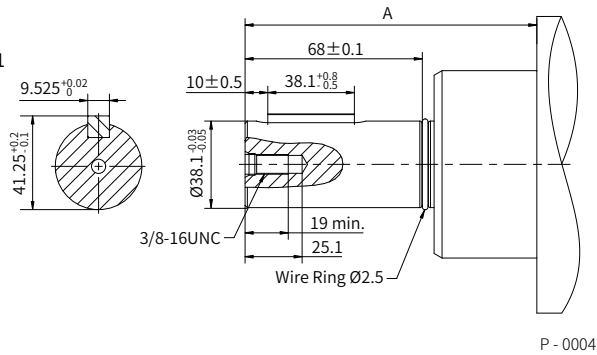
S7

Ø35mm Straight
Parallel key 10×8×45
Max. Torque: 1200Nm



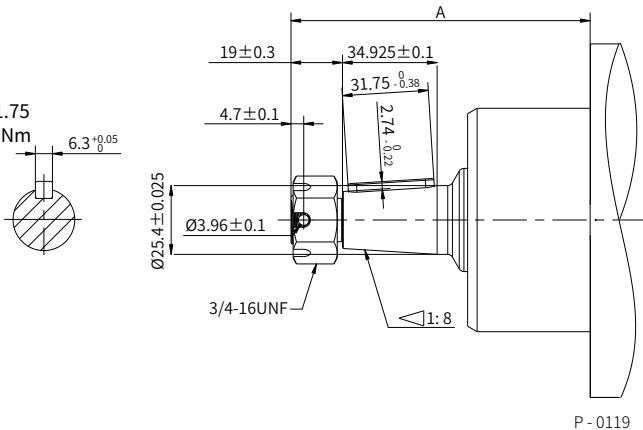
S4

Ø38.1mm Straight
Parallel key 9.525×9.525×38.1
Max. Torque: 1200Nm



T9

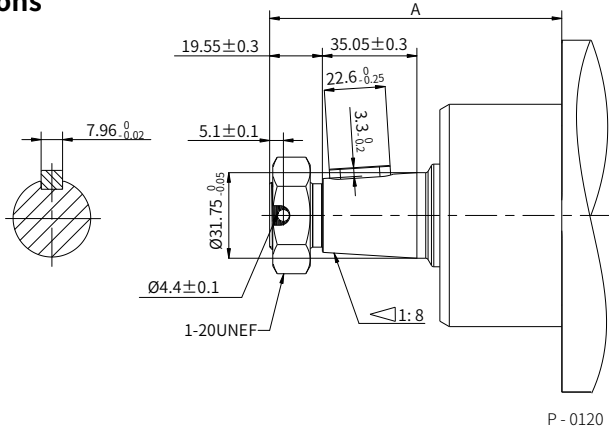
Ø25.4mm Tapered
Parallel key 6.35×6.35×31.75
Tightening torque 200 ± 10 Nm
Max. Torque: 655Nm



Shaft end dimensions

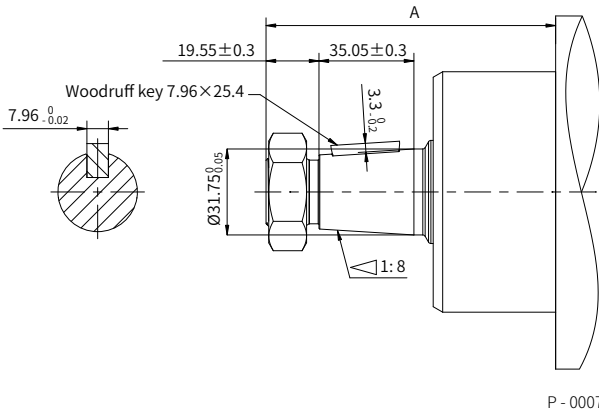
T2

Ø31.75mm Tapered
Parallel key 7.96 × 7 × 22.25
Tightening torque 380Nm
Max. Torque: 1200Nm



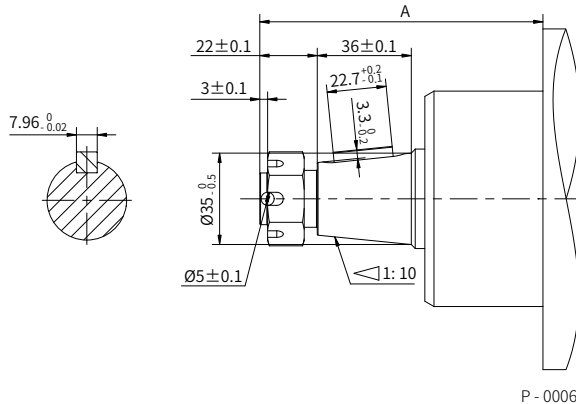
T1

Ø31.75mm Tapered
Woodruff key 7.96 × 25.4
Tightening torque 380Nm
Max. Torque: 1200Nm



T8

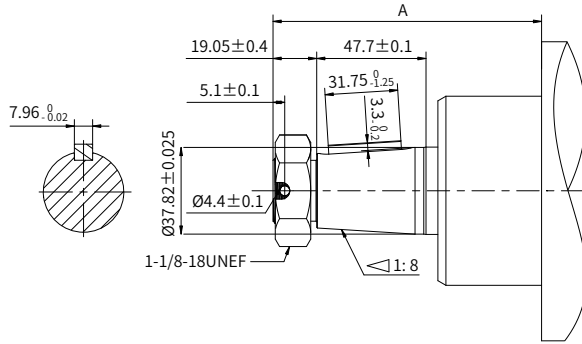
Ø35mm Straight
Parallel key 7.96 × 7.96 × 22.7
Tightening torque 325Nm
Max. Torque: 1200Nm



Shaft end dimensions

T7

Ø38.1mm Tapered
 Parallel key 7.96×7×31.75
 Tightening torque 410-540Nm
 Max. Torque: 1200Nm



P - 0003

Shaft depth	A mm
S5	105.2
S7	111.9
S4	129.9
T9	110.4
T2	108.2
T1	106.8
T8	111.9
T7	116.9

T - 0030

Note: Dimension A is the overall distance from the flange mounting surface to the end of the shaft, and the tolerance is ± 1.03 mm.

Length and weight

Displacement cm ³ /rev.	L mm	HCW/HCG
		Weight kg
120	151.3	14.3
160	154.5	14.6
200	158.0	15
230	160.4	15.2
260	162.9	15.5
300	166.2	15.7
350	169.4	16
375	172.5	16.3
400	175.7	16.6
470	180.1	17
540	188.1	17.7
620	194.7	18.4

T - 0015

Note: Dimensions L are the length from the flange mounting surface to the rear end of the motor, and the tolerance is $\pm 1.13\text{mm}$.

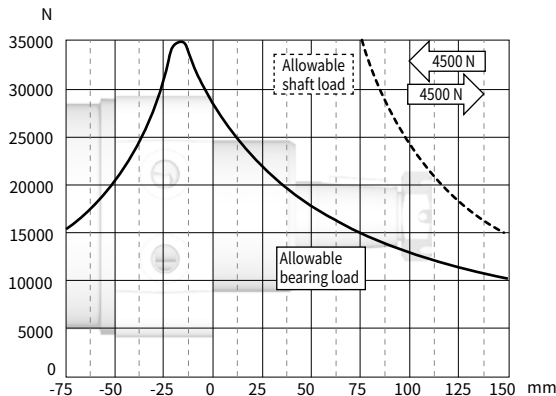
Allowable shaft load/bearing curve

As shown in the figure, when the axial load is 0, the radial allowable load of the output shaft is related to the distance from the flange mounting surface to the load action point.

The solid line shows the allowable radial load of the bearing. It is based on L_{10} bearing life 2000 hrs at 100 RPM with rated output torque.

The dash line shows max radial shaft load. Any shaft load exceeding the values quoted in the curve will involve a risk of failure.

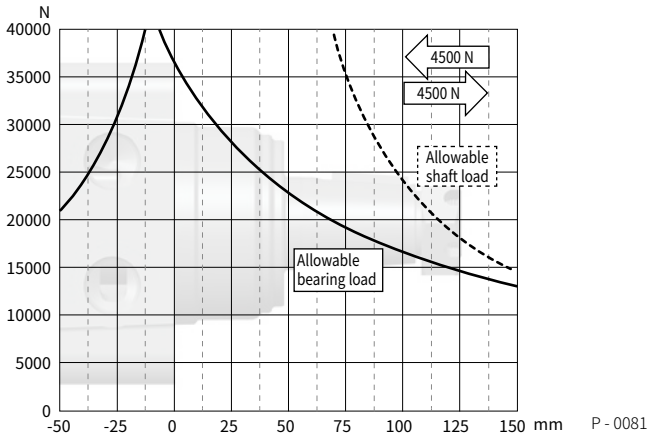
· HCW



P - 0009

Allowable shaft load/bearing curve

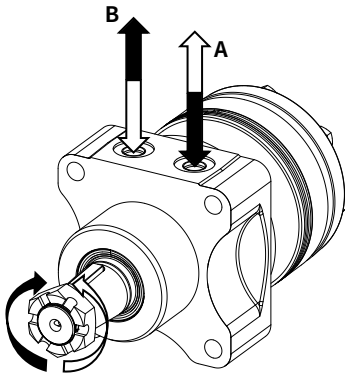
· HCG



P - 0081

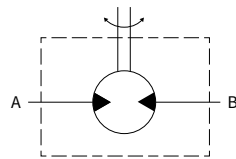
Rotation direction: CW

When facing the motor shaft extension direction, port A is high pressure oil, the output shaft rotates CW; Otherwise, it rotates CCW.



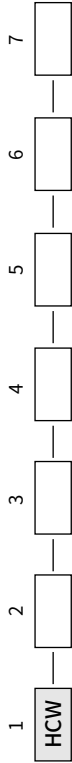
P - 0011

Hydraulic diagram



P - 0010

Ordering information

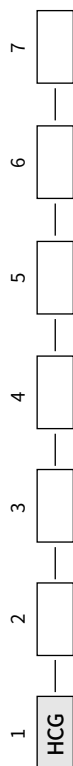


Pos.1	2	3	4	5	6	7
Series code	Displacement	Mount, Port	Output shaft	Rotation direction	Paint option	Special features
	120 160 200 230 260 300 350 375 400 470 540 620	W41 4×Ø13.1 Wheel mount Ø82.5 pilot, Port 7/8-14UNF, Rear pilot Ø128.5 W42 4×Ø13.1 Wheel mount Ø88.82 pilot, Port 7/8-14UNF, Rear pilot Ø128.5 W43 4×Ø13.1 Wheel mount Ø82.5 pilot, Port G1/2, Rear pilot Ø128.5 W46 4×Ø13.1 Wheel mount Ø82.5 pilot, Port G1/2, Rear pilot Ø126.91 W48 4×Ø13.1 Wheel mount Ø82.5 pilot, Port 9/16-18UNC, Rear pilot Ø128.5	S5 Ø32 Straight, Parallel key 10×8×45 S7 Ø35 Straight, Parallel key 10×8×45 S4 Ø38.1 Straight, Parallel key 9.525×9.525×38.1 T9 Ø25.4 Tapered, Parallel key 6.35×6.35×31.75 T2 Ø31.75 Tapered, Parallel key 7.96×7×22.25 T1 Ø31.75 Tapered, woodruff key 7.96×25.4 T8 Ø35 Tapered, Parallel key 7.96×7.96×22.7 T7 Ø38.1 Tapered, Parallel key 7.96×7×31.75	A R A CW CCW	No Paint Black Hengli blue	A F V S Standard Free running High temperature Low temperature

T - 0038

Note: When using the order information, the user can select the motor series, displacement, installation flange, port, shaft and other information. If the selected specification is not in the table or has special requirements, please contact us.

Ordering information



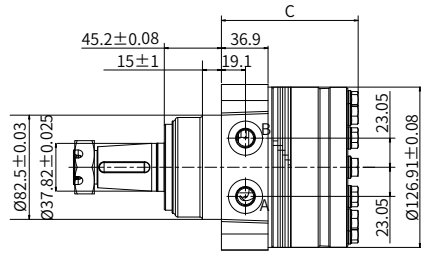
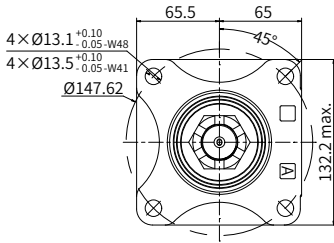
Pos.1	2	3	4	5	6	7
Series code	Displacement	Mount, Port	Output shaft	Rotation direction	Paint option	Special features
HCG	120	W45 4×Ø13.5 Wheel mount Ø82.5 pilot, Port 7/8-14UNF, Rear pilot Ø126.91 W46 4×Ø13.1 Wheel mount Ø82.5 pilot, Port G1/2, Rear pilot Ø126.91	S5 Ø32 Straight, Parallel key 10×8×45	A	No Paint	A Standard F Free running V High temperature S Low temperature
	160		S7 Ø35 Straight, Parallel key 10×8×45	R	Black	
	200		S4 Ø38.1 Straight, Parallel key 9.525×9.525×38.1	CW	Hengli blue	
	230		T9 Ø25.4 Tapered, Parallel key 6.35×6.35×31.75	CCW		
	260		T2 Ø31.75 Tapered, Parallel key 7.96×7×22.25			
	300		T1 Ø31.75 Tapered, woodruff key 7.96×25.4			
	350		T8 Ø35 Tapered, Parallel key 7.96×7.96×22.7			
	375		T7 Ø38.1 Tapered, Parallel key 7.96×7×31.75			
	400					
	470					
	540					
620						

T - 0087

Note: When using the order information, the user can select the motor series, displacement, installation flange, port, shaft and other information. If the selected specification is not in the table or has special requirements, please contact us.

Installation size

- HCP



P - 0102

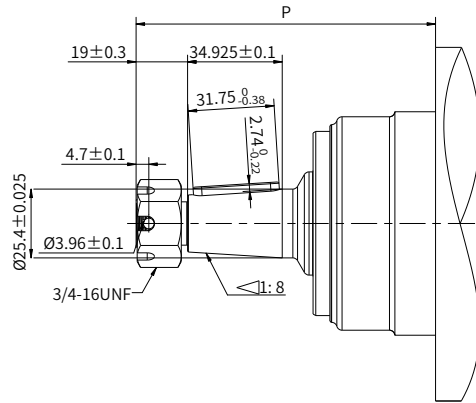
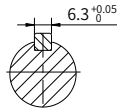
Main Port A, B: W41 7/8-14UNF

W48 9/16-18UNF

Shaft end dimensions

T9

$\varnothing 25.4$ mm Tapered
 Parallel key $6.35 \times 6.35 \times 31.75$
 Tightening torque: 200 ± 10 Nm
 Max. Torque: 655 Nm

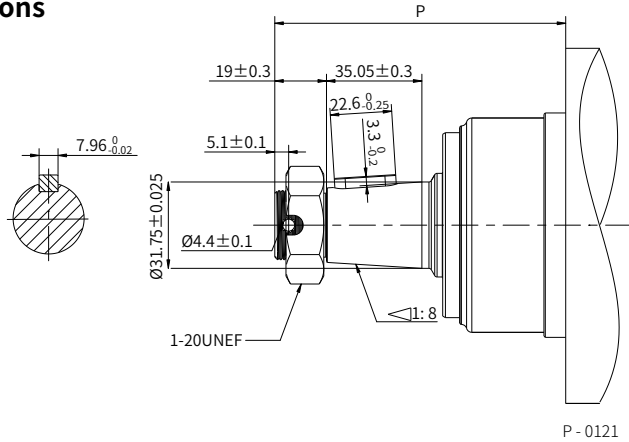


P - 0113

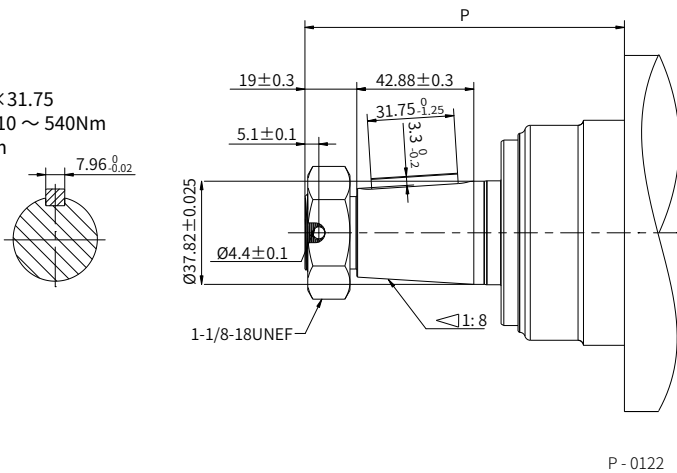
Shaft end dimensions

T2

Ø31.75mm Tapered
 Parallel key 7.96×7×22.25
 Tightening torque: 380Nm
 Max. Torque: 1200Nm


T7

Ø37.1mm Tapered
 Parallel key 7.96×7×31.75
 Tightening torque: 410 ~ 540Nm
 Max. Torque: 1200Nm



Shaft depth	P mm
T9	110.4
T2	106.9
T7	116.9

T - 0030

Note: Dimension P is the overall distance from the flange mounting surface to the end of the shaft, and the tolerance is ±1.03mm.

Length and weight

Displacement cm ³ /rev.	C mm	HCP
		Weight kg
160	103.8	10.2
200	108.2	11.2
230	111.5	11.4
260	114.7	11.7
300	119.9	11.9
350	113.6	12.2
375	116.7	12.5
400	119.9	12.8

T - 0111

Note: Dimensions C are the length from the flange mounting surface to the rear end of the motor, and the tolerance is $\pm 1.13\text{mm}$.

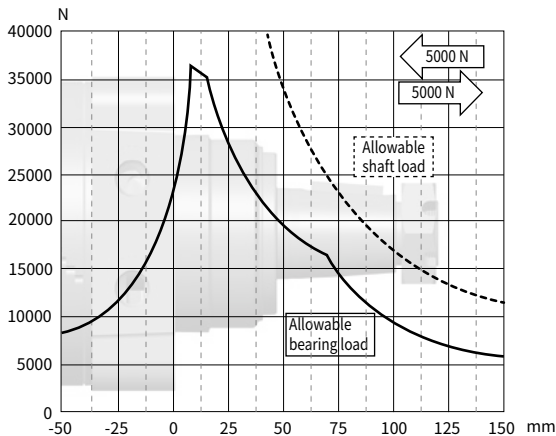
Allowable shaft load/bearing curve

As shown in the figure, when the axial load is 0, the radial allowable load of the output shaft is related to the distance from the flange mounting surface to the load action point.

The solid line shows the allowable radial load of the bearing. It is based on L_{10} bearing life 2000 hrs at 100 RPM with rated output torque.

The dash line shows max radial shaft load. Any shaft load exceeding the values quoted in the curve will involve a risk of failure.

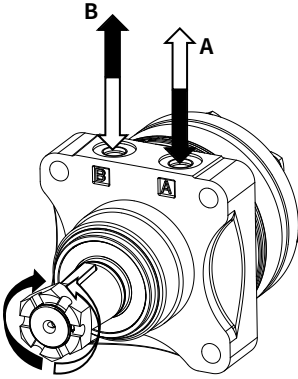
· HCP



P - 0111

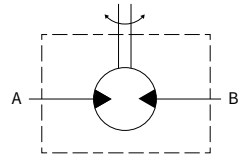
Rotation direction: CW

When facing the motor shaft extension direction, port A is high pressure oil, the output shaft rotates CW; Otherwise, it rotates CCW.



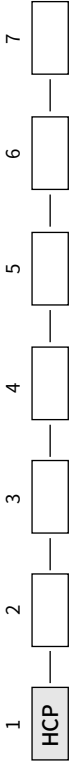
P - 00123

Hydraulic diagram



P - 0010

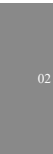
Ordering information



Pos.1	2	3	4	5	6	7
Series code	Displacement	Mount, Port	Output shaft	Rotation direction	Paint option	Special features
HCP	160	4×Ø13.5 Wheel mount Ø82.5 pilot, W41 Port 7/8-14UNF, Rear pilot Ø126.91	T9 Ø25.4 Tapered, Parallel key 6.35×6.35×31.75 T2 Ø31.75 Tapered, Parallel key 7.96×7×22.25 T7 Ø38.1 Tapered, Parallel key 7.96×7×31.75	A	No Paint Black Hengli blue	Standard Free running High temperature Low temperature
	200			CW		
	230			CCW		
	260			R		
300	4×Ø13.1 Wheel mount Ø82.5 pilot, W48 Port 9/16-18UNF, Rear pilot Ø126.91	T7 Ø38.1 Tapered, Parallel key 7.96×7×31.75	C	No Paint Black Hengli blue	Standard Free running High temperature Low temperature	
350			R			
375			C			
400						

T - 0108

Note: When using the order information, the user can select the motor series, displacement, installation flange, port, shaft and other information. If the selected specification is not in the table or has special requirements, please contact us.



02