

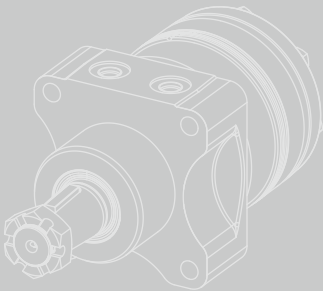
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HCW/HCG series

Orbital hydraulic motor

The HCW/HCG 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 Overview	02
HCW/HCG Advantages	02
HCW/HCG Standard structure	03
HCW/HCG Specification	04
HCW Ordering information	05-06
HCG Ordering information	07-08
HCW/HCG Displacement performance	09-21
HCW/HCG Installation size	22
HCW/HCG Shaft end dimensions	23-25
HCW/HCG Length and weight	26
HCW Allowable shaft load/bearing curve	26
HCG Allowable shaft load/bearing curve	27
HCW/HCG Hydraulic diagram	27
HCW/HCG Rotation direction	27



Overview

The HCW/HCG 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.

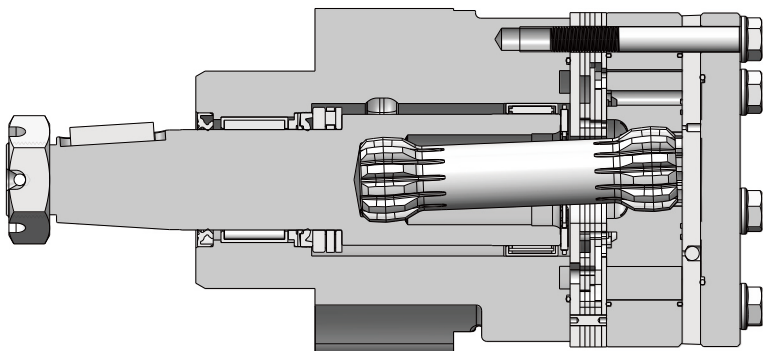
During the working process, the unique balance plate design bends to the rotor under the effect of oil pressure, greatly reducing the end clearance of the fixed rotor and realizing higher volume efficiency; when the oil pressure reaches the working pressure, the deflection and oil pressure of the balance 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 roller bearing structure bears 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

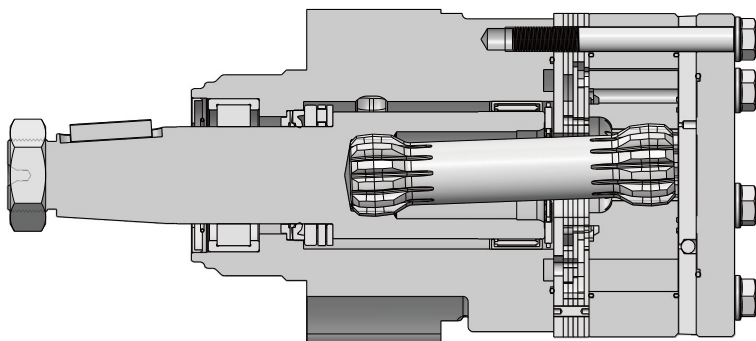
· HCW



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02

· HCG



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Specification

Type		HCW	HCW	HCW	HCW	HCW	HCW	HCW	HCW	HCW	HCW	HCW	HCW	HCW
		HCG	HCG	HCG	HCG	HCG	HCG	HCG	HCG	HCG	HCG	HCG	HCG	HCG
		120	160	200	230	260	300	350	375	400	470	540	620	750
Displacement (cm³/rev.)		116.8	157	198	225	253	291	328	363	400	451	542	618	727
Max.speed (rpm)	Continuous	371	389	349	305	303	288	259	213	194	171	141	125	107
	Intermittent	513	488	422	373	368	333	289	258	223	204	171	148	128
Max.torque (N·m)	Continuous	274	387	501	587	663	756	880	997	1083	1044	1032	1031	1055
	Intermittent	316	445	568	671	768	882	1011	1141	1221	1233	1293	1310	1233
Max. differential pressure (bar)	Continuous	207	207	207	207	207	207	207	207	207	173	138	121	104
	Intermittent	241	241	241	241	241	241	241	241	241	207	173	155	121
	Peak	276	276	276	276	276	276	276	276	276	241	207	173	138
Max.flow (L/min)	Continuous	45	61	68	68	76	83	83	76	76	76	76	76	76
	Intermittent	61	76	83	83	91	95	95	91	91	91	91	91	91
Max.no-load starting pressure (bar)		7	8	8	10	10	10	10	10	10	12	12	14	16
Min. starting torque (N·m)	Max. Continuous differential pressure	178	285	366	405	558	649	611	795	929	988	926	911	992
	Max. Intermittent differential pressure	203	318	351	503	616	714	724	941	1031	1087	1110	989	1113

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.
- High pressure shaft seal series: Max.permissible inlet pressure 300bar.

Ordering information

HCW	375	W41	S5	A	N	A
①	②	③	④	⑤	⑥	⑦

Orbital Hydraulic Series

①	Orbital Hydraulic Motor	HCW
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Type

②	Type	120	160	200	230	260	300	350	375	400	470	540	620	750
---	------	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

Mount, Port

③	4×Ø13.1 Wheel mount Ø82.5 pilot, port 7/8-14UNF, rear pilot Ø128.5	W41
	4×Ø13.1 Wheel mount Ø88.82 pilot, port 7/8-14UNF, rear pilot Ø128.5	W42
	4×Ø13.1 Wheel mount Ø82.5 pilot, port G1/2, rear pilot Ø128.5	W43
	4×Ø13.1 Wheel mount Ø82.5 pilot, port G1/2, rear pilot Ø126.91	W46
	4×Ø13.1 Wheel mount Ø82.5 pilot, port 9/16-18UNF, rear pilot Ø128.5	W48

Output Shaft

④	Ø32 Straight, parallel key 10×8×45	S5
	Ø35 Straight, parallel key 10×8×45	S7
	Ø38.1 Straight, parallel key 9.525×9.525×38.1	S4
	Φ25.4 Tapered, parallel key 6.35×6.35×31.75	T9
	Φ31.75 Tapered, parallel key 7.96×7×22.25	T2
	Ø31.75 Tapered, woodruff key 7.96×25.4	T1
	Ø35 Tapered, parallel key 7.96×7.96×22.7	T8
	Ø38.1 Tapered, parallel key 7.96×7×31.75	T7

Ordering information

Rotation Direction

⑤	CW	A
	CCW	R

Paint option

⑥	No Paint	N
	Black	B
	Hengli blue	C

Special features

⑦	Standard	●	A
	Free running	●	F
	High temperature	○	V
	Low temperature	○	S

T - 0038

Note: ● =Available; ○ =Available on request; 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

HCG	375	W45	S5	A	N	A
①	②	③	④	⑤	⑥	⑦

Orbital Hydraulic Series

①	Orbital Hydraulic Motor	HCG
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Type

②	Type	120	160	200	230	260	300	350	375	400	470	540	620	750
---	------	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

Mount, Port

③	4×Ø13.5 Wheel mount Ø82.5 pilot, port 7/8-14UNF, rear pilot Ø126.91	W45
	4×Ø13.5 Wheel mount Ø82.5 pilot, port G1/2, rear pilot Ø126.91	W43
	6×φ13.2 Magneto mount φ106.4, pilot φ82.5×2.9, port 7/8-14UNF	M01
	4×φ13.5 Magneto mount φ106.4, pilot φ82.5×2.7, port 7/8-14UNF	M02

Output Shaft

④	Ø32 Straight, parallel key 10×8×45	S5
	Ø35 Straight, parallel key 10×8×45	S7
	Ø38.1 Straight, parallel key 9.525×9.525×38.1	S4
	Φ25.4 Tapered, parallel key 6.35×6.35×31.75	T9
	Φ31.75 Tapered, parallel key 7.96×7×22.25	T2
	Ø31.75 Tapered, woodruff key 7.96×25.4	T1
	Ø35 Tapered, parallel key 7.96×7.96×22.7	T8
	Ø38.1 Tapered, parallel key 7.96×7×31.75	T7

Ordering information

Rotation Direction

⑤	CW	A
	CCW	R

Paint option

⑥	No Paint	N
	Black	B
	Hengli blue	C

Special features

⑦		W45/W43	M01/M02	S5/S7/T9/T2/T1/T8	S4/T7	Code
	Standard	●	●	●	●	A
	Free running	●	●	●	●	F
	High temperature	○	○	○	○	V
	Low temperature	○	○	○	○	S
	Ultra high pressure shaft seal	○	●	●		C

T - 0087

Note: ● =Available; ○ =Available on request; 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.

Displacement performance

		Pressure(bar)						Max.Cont	Max.Inter
120		17	35	69	104	138	173	207	241
116.8 cm ³ /rev.		Torque(N·m), Speed(rpm)							
Flow (L/min)	2	25 14	54 11	104 9	149 8				
	4	27 29	53 27	107 25	156 23	197 22			
	8		58 61	100 57	156 56	200 55	238 53	274 50	316 44
	15		53 118	112 114	164 118	206 112	218 114	247 103	279 100
	23		48 194	107 184	160 183	203 182	238 177	272 170	315 160
	30			101 246	157 244	200 241	233 234	266 226	309 219
	38			93 315	149 313	194 309	228 301	259 291	301 285
	45			86 371	143 370	191 370	226 360	251 352	293 342
	53			75 442	133 441	185 437	218 431	244 422	
	61			71 513	129 513	177 512	208 482	226 473	
Max.Cont									
Max.Inter									

Overall Efficiency: 70-100% 40-69% 0-39% T - 0002

Torque (N·m):208
Speed (rpm):482

Displacement performance

		Pressure(bar)						Max.Cont	Max.Inter
160		17	35	69	104	138	173	207	241
157 cm ³ /rev.		Torque(N · m), Speed(rpm)							
Flow (L/min)	2	32 10	68 9	141 9	204 8	245 7	298 7		
	4	34 21	69 19	142 20	210 19	261 18	311 17	366 15	
	8	35 46	66 45	136 44	207 44	270 42	319 40	378 40	436 37
	15	32 93	72 91	147 90	218 88	273 87	325 86	383 80	440 76
	23		67 142	146 141	221 138	282 137	333 134	387 130	425 125
	30		61 187	140 185	217 183	281 181	332 178	387 173	425 166
	38		52 240	130 237	210 235	277 233	329 227	386 222	445 214
	45		42 284	120 283	200 280	270 278	321 271	381 264	442 258
	53			106 336	186 333	259 329	311 322	372 316	433 308
	61			90 389	171 386	245 381	310 367	361 358	423 351
Max.Cont	68			74 433	155 421	230 420	300 415	356 408	
Max.Inter	76			54 488	137 484	212 482	284 477	341 467	

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

T - 0003

Displacement performance

		Pressure(bar)						Max.Cont	Max.Inter
200		17	35	69	104	138	173	207	241
198 cm ³ /rev.		Torque(N·m), Speed(rpm)							
Flow (L/min)	2	37	85	173	253	314			
		9	8	9	8	8			
	4	43	87	177	261	335	405	471	
		18	18	18	18	17	17	16	
	8	46	75	171	258	338	412	483	556
		40	38	38	38	37	36	35	34
	15	43	94	187	273	351	425	501	567
		80	77	72	70	68	68	66	65
	23		88	184	271	348	421	494	556
			112	113	113	112	110	108	105
	30		83	180	267	345	418	492	568
			152	149	149	148	145	143	137
	38		76	172	262	340	414	487	563
			193	188	189	188	185	182	177
	45			163	254	332	407	481	559
				226	225	224	222	217	212
Max.Cont	53			152	245	317	389	463	543
				266	265	263	262	256	250
	61			142	198	304	379	453	536
				306	308	305	303	297	289
Max.Inter	68			126	220	298	370	447	528
				349	345	340	333	329	324
	76			108	205	287	359	433	
				388	384	382	375	370	
Max.Inter	83			59	190	274	358	414	
				286	422	419	414	404	

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

T - 0004

Displacement performance

		Pressure(bar)						Max.Cont	Max.Inter
230		17	35	69	104	138	173	207	241
225 cm³/rev.		Torque(N·m), Speed(rpm)							
Flow (L/min)	2	46	103	202	291	364			
		8	7	7	6	6			
	4	39	98	204	304	390	476	542	
		16	15	15	14	14	12	11	
	8	45	81	191	302	394	490	572	653
		32	32	32	31	30	29	27	25
	15	48	108	218	322	416	502	587	671
		65	65	64	63	61	59	56	50
	23		102	214	321	414	500	583	667
			101	100	98	96	93	87	80
Max.Cont	30		93	207	316	412	498	583	669
			132	131	130	128	124	118	114
	38		81	195	307	405	493	577	666
			168	167	165	163	159	154	147
	45			163	276	393	488	573	663
				199	197	195	191	184	178
	53			165	262	382	479	560	653
				235	233	231	227	219	212
	61			144	260	364	463	544	636
				272	271	268	265	255	248
Max.Inter	68			125	241	346	448	529	620
				305	303	301	297	287	279
	76			99	216	324	427	509	
				342	340	337	334	324	
	83				196	301	406	468	
					373	370	367	359	

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

T - 0005

Displacement performance

		Pressure(bar)						Max.Cont	Max.Inter
260		17	35	69	104	138	173	207	241
253 cm ³ /rev.		Torque(N · m), Speed(rpm)							
Flow (L/min)	2	50	112						
		7	6						
	4	49	113	231	342	441	530	610	
		15	14	14	13	13	12	10	
	8	58	100	224	342	449	545	637	
		31	29	29	29	28	27	25	
	15	56	123	246	360	463	568	663	760
		63	60	59	53	57	51	47	43
	23	52	115	242	358	460	564	661	767
		89	89	87	87	85	69	76	70
	30		110	235	351	455	560	659	768
			117	116	115	114	111	106	95
	38		98	224	345	447	553	652	763
			150	148	147	145	142	137	129
	45		87	214	332	439	545	646	758
			180	176	176	173	169	163	155
Max.Cont	53		71	196	322	427	534	637	750
			211	208	208	205	201	194	186
	61			181	305	415	519	622	734
				242	241	239	233	226	217
	68			163	290	403	505	606	723
				273	269	265	258	252	244
	76			144	271	384	491	590	708
				303	301	298	293	283	279
	83			117	248	364	471	579	
				333	332	329	325	317	
Max.Inter	91			91	223	356	450		
				368	367	363	360		

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

T - 0006

Displacement performance

		Pressure(bar)						Max.Cont	Max.Inter
300		17	35	69	104	138	173	207	241
291 cm³/rev.		Torque(N·m), Speed(rpm)							
Flow (L/min)	2	49	110						
		6	6						
	4	39	122	264	393	513	612		
		11	12	13	12	12	11		
	8	55	112	253	391	511	631	746	859
		27	26	26	26	25	24	22	19
	15	64	139	280	405	543	645	756	864
		52	50	50	50	49	46	43	37
	23	57	132	275	408	523	640	754	882
		79	78	77	76	75	72	65	62
Max.Cont	30	50	124	267	397	515	635	754	878
		103	101	100	101	100	97	92	83
	38		113	256	390	512	627	747	873
			131	160	128	126	124	120	113
	45		101	245	380	500	618	737	863
			155	153	151	150	149	144	136
	53		83	228	365	488	605	722	849
			183	182	180	177	174	170	162
	61		64	208	348	471	589	706	832
			213	211	208	206	202	196	189
Max.Inter	68			189	330	454	571	686	815
				236	234	231	227	220	212
	76			181	308	434	549	664	795
				252	262	260	255	247	239
	83			142	286	411	526	640	
				288	287	284	279	269	
	91			152	271	373	512	640	
				278	301	316	293	288	
	95			88	265	363	499	635	
				333	320	310	303	295	

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

T - 0007

Displacement performance

		Pressure(bar)						Max.Cont	Max.Inter
350		17	35	69	104	138	173	207	241
328 cm³/rev.		Torque(N·m), Speed(rpm)							
Flow (L/min)	2	49	138	287	424				
		6	5	5	5				
	4	48	137	295	445				
		12	12	11	11				
	8	53	113	279	435	577	716	848	
		24	24	23	23	23	22	21	
	15	71	159	318	468	607	745	880	1011
		45	45	45	44	44	43	41	36
	23	62	151	313	463	602	743	873	1004
		70	70	69	69	67	66	64	61
	30	53	142	303	452	592	729	861	1006
		92	91	91	90	89	88	85	81
	38		127	289	440	578	718	852	991
			117	116	115	114	112	110	106
	45		111	274	427	568	705	843	981
			138	138	137	136	134	131	127
Max.Cont	53		90	254	407	547	687	824	964
			165	164	163	161	158	155	151
	61		64	230	389	529	667	807	951
			189	188	187	186	183	180	175
	68			206	367	507	651	786	925
				211	209	208	220	201	196
	76			171	338	482	620	757	897
				240	235	233	230	226	220
	83			146	311	457	593	708	842
				259	258	256	253	249	245
Max.Inter	91			104	281	442	575		
				284	283	281	276		
	95				261	420	548		
					289	288	286		

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

T - 0008

Displacement performance

		Pressure(bar)						Max.Cont	Max.Inter
375		17	35	69	104	138	173	207	241
363 cm ³ /rev.		Torque(N · m), Speed(rpm)							
Flow (L/min)	2	67							
		5							
	4	65	156	337	508	656	798		
		11	10	10	10	9	8		
	8	67	127	314	494	655	812	953	
		21	21	21	21	20	19	17	
	15	81	181	358	528	684	841	995	1116
		42	41	41	40	39	36	31	27
	23	72	171	353	526	683	840	997	1141
		64	63	63	62	60	58	51	40
Max.Cont	30	62	159	341	517	675	835	993	1136
		83	83	82	81	80	76	70	65
	38		117	319	497	656	815	973	1133
			105	105	104	102	100	93	84
	45		125	314	491	654	814	971	1132
			126	125	124	122	119	113	105
	53		104	291	471	638	794	952	1118
			148	148	146	145	141	135	128
	61		76	262	448	614	773	929	1098
			171	170	169	168	164	157	149
Max.Inter	68			238	421	593	749	907	1078
				191	190	188	183	177	168
	76			205	391	562	721	876	1049
				213	212	210	206	199	190
	83			188	361	536	698	838	
				234	233	231	235	223	
	91			128	293	486	647		
				258	257	256	253		

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

T - 0009

Displacement performance

		Pressure(bar)						Max.Cont	Max.Inter
400		17	35	69	104	138	173	207	241
400 cm ³ /rev.		Torque(N·m), Speed(rpm)							
Flow (L/min)	2	79	177	358	522	675			
		5	5	4	4	4			
	4	79	178	370	547	715	881		
		10	10	9	9	8	8		
	8	76	163	360	548	720	885	1049	
		21	18	18	17	17	16	14	
	15	87	192	377	556	714	863	1083	1219
		38	37	37	36	34	32	31	26
	23	80	187	376	556	728	897	1054	1195
		57	57	57	56	54	51	43	46
	30	71	174	368	549	722	895	1061	1221
		75	75	73	73	72	67	63	54
	38	54	157	352	536	709	883	1058	1220
		96	95	94	93	91	87	80	74
	45	36	140	337	522	695	871	1043	1212
		114	113	112	111	109	105	99	91
Max.Cont	53	18	117	314	500	677	853	1027	1202
		134	134	133	132	129	125	119	112
	61		89	289	477	653	830	1009	1185
			155	154	152	149	145	139	133
	68		60	261	454	629	807	981	1161
			174	173	171	168	164	157	149
	76		29	228	424	602	778	952	1133
			194	193	191	189	184	177	169
	83			194	392	573	752	864	
				212	210	207	202	196	
Max.Inter	91			181	358	509	671	835	
				207	223	222	219	214	

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

T - 0010

Displacement performance

		Pressure(bar)					Max.Cont	Max.Inter
470		17	35	69	104	138	173	207
451 cm³/rev.		Torque(N·m), Speed(rpm)						
Flow (L/min)	2	84	193					
		4	4					
	4	80	195	404	606	785		
		8	8	8	7	7		
	8	69	172	392	600	796	982	1135
		17	16	16	16	15	14	12
	15	93	213	430	631	812	1001	1190
		36	36	35	29	31	26	23
	23	81	199	424	642	844	1044	1214
		52	52	49	48	47	44	37
Max.Cont	30	69	186	411	629	827	1031	1233
		63	64	63	60	62	57	51
	38		154	379	597	800	1006	1206
			84	84	83	82	79	70
	45		125	353	571	773	978	1186
			103	99	98	96	93	87
	53		96	322	544	748	951	1164
			118	114	113	112	109	102
	61		73	267	492	699	906	1114
			134	136	134	134	131	126
Max.Inter	68		98	225	449	659	871	1077
			152	154	151	151	147	142
	76			220	395	609	820	1029
				171	169	168	165	162
	83			180	347	553	776	
				187	186	185	182	
	91			160	316	624	810	
				203	204	198	196	

Overall Efficiency: 70-100% 40-69% 0-39% T - 0011

Displacement performance

		Pressure(bar)				Max.Cont	Max.Inter
		17	35	69	104	138	173
540		Torque(N·m), Speed(rpm)					
542 cm³/rev.							
Flow (L/min)	2	103	235				
		3	3				
	4	99	239	500	739	964	1165
		7	6	6	6	5	4
	8	97	185	408	752	988	1215
		14	13	13	12	12	10
	15	116	264	534	790	1022	1253
		28	27	26	26	23	20
	23	100	244	519	787	1032	1293
		43	42	42	40	38	33
	30	77	222	496	766	1020	1263
		56	54	54	53	51	48
	38	51	189	465	739	989	1237
		66	70	69	67	66	63
Max.Cont	45		159	430	698	959	1042
			82	82	83	80	74
	53		114	390	663	920	1171
			99	97	96	94	90
Max.Inter	61		82	335	608	867	1113
			115	113	111	110	108
	68		139	293	573	830	1082
			127	125	121	122	119
Max.Cont	76			225	488	752	1013
				141	140	139	137
	83			148	428	709	
				155	153	151	
Max.Inter	91			266	549	789	
				171	164	168	

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

T - 0012

Displacement performance

		Pressure(bar)				Max.Cont	Max.Inter
620		17	35	69	104	121	155
618 cm ³ /rev.		Torque(N·m), Speed(rpm)					
Flow (L/min)	2	101	254				
		3	2				
	4	106	266	554	823	942	
		6	5	5	4	5	
	8	105	245	550	840	974	1240
		11	11	11	11	10	9
	15	129	292	594	884	1014	1285
		25	23	23	21	21	19
	23	113	279	590	887	1031	1310
		37	36	36	35	34	31
	30	90	253	565	858	1013	1299
		47	48	47	46	45	43
	38	57	218	532	835	982	1272
		59	60	61	60	58	56
	45		176	489	800	947	1233
Max.Cont			73	73	71	71	67
	53		166	437	747	901	1174
			86	85	85	83	83
	61		151	380	685	837	1128
			98	99	99	96	94
	68		143	325	635	775	1069
			109	112	111	110	107
	76			264	558	707	999
				125	121	125	121
	83			255	489	641	
Max.Inter				136	134	133	
	91			244	402	595	
				148	146	150	

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

T - 0013

Displacement performance

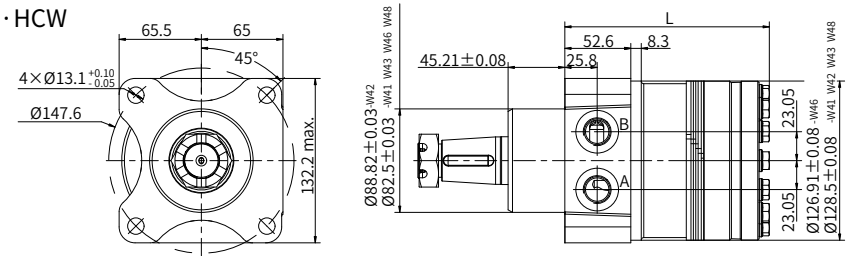
		Pressure(bar)			Max.Cont	Peak
750		17	35	69	104	138
727 cm ³ /rev.		Torque(N·m), Speed(rpm)				
Flow (L/min)	2	158	340			
		3	2			
	4	144	333	678	1015	1316
		5	5	5	5	4
	8	143	290	647	989	1303
		11	11	10	10	9
	15	146	343	703	1055	1312
		20	20	20	19	18
	23	101	301	679	1042	1299
		31	31	31	30	28
	30	90	253	626	999	1280
		42	41	41	40	38
	38	40	181	553	927	1219
		50	52	52	51	49
	45	32	180	463	840	1134
		62	62	62	61	59
Max.Cont	53		101	341	723	1027
			74	74	73	71
	61		50	388	584	792
			86	85	84	84
Max.Inter	68		42	298	597	746
			95	95	95	94
	76		36	190	578	666
			107	107	106	106
	83			85	471	
				117	117	
	91			80	332	
				128	128	

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

T - 0175

Installation size

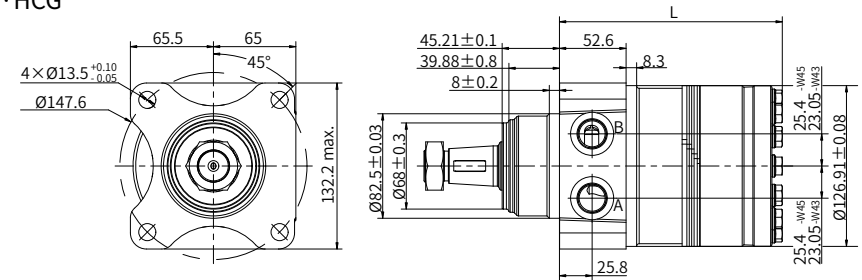
· HCW



P - 0002

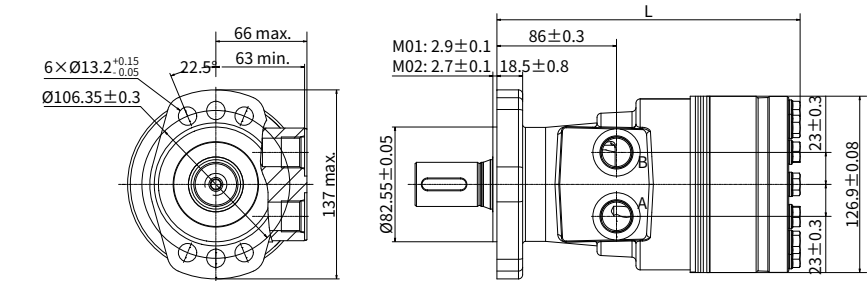
Main Port A, B: W41 W42 7/8-14UNF W43 W46 G1/2 W48 9/16-18UNF

· HCG



P - 0080

Main Port A, B: W45 7/8-14UNF W43 G1/2



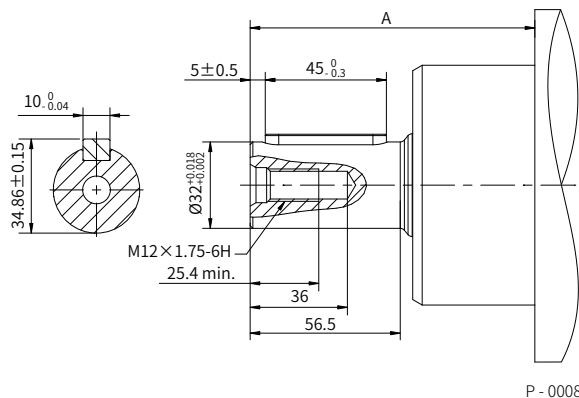
P - 0188

Main Port A, B: M01 M02 7/8-14UNF

Shaft end dimensions

S5

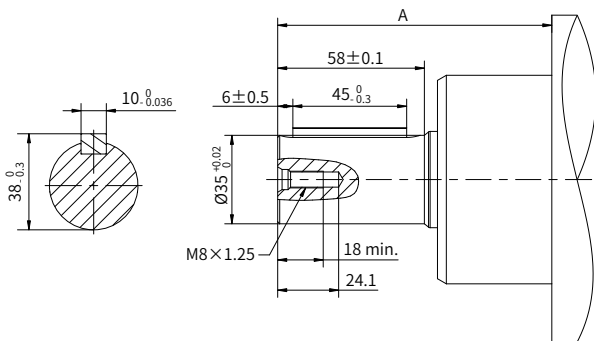
Ø32mm Straight
Parallel key 10×8×45
Max. Torque: 1200N·m



P - 0008

S7

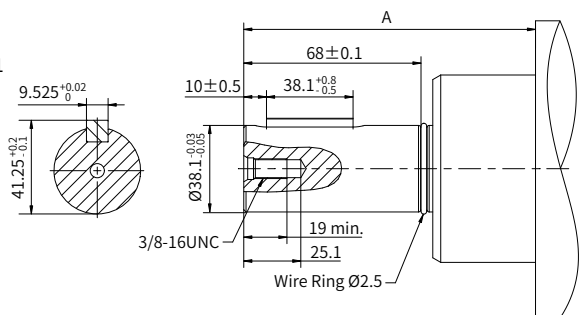
Ø35mm Straight
Parallel key 10×8×45
Max. Torque: 1200N·m



P - 0005

S4

Ø38.1mm Straight
Parallel key 9.525×9.525×38.1
Max. Torque: 1200N·m



P - 0004

Shaft end dimensions

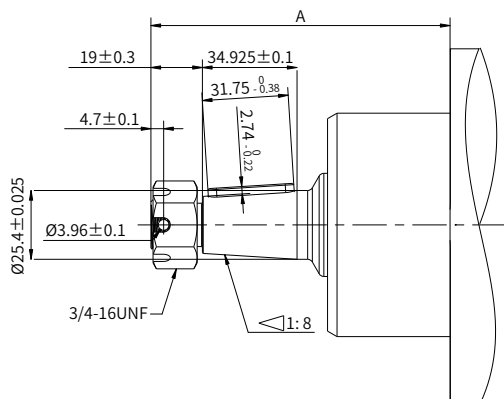
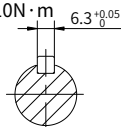
T9

Ø25.4mm Tapered

Parallel key 6.35×6.35×31.75

Tightening torque 200±10N·m

Max. Torque: 655N·m



P - 0119

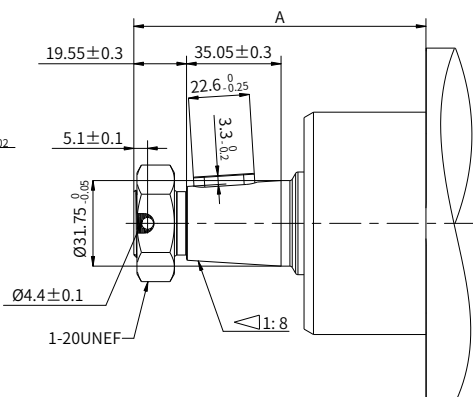
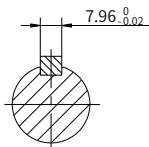
T2

Ø31.75mm Tapered

Parallel key 7.96×7×22.25

Tightening torque 380N·m

Max. Torque: 1200N·m



P - 0120

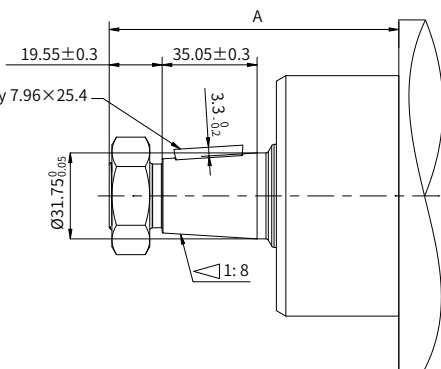
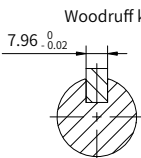
T1

Ø31.75mm Tapered

Woodruff key 7.96×25.4

Tightening torque 380N·m

Max. Torque: 1200N·m

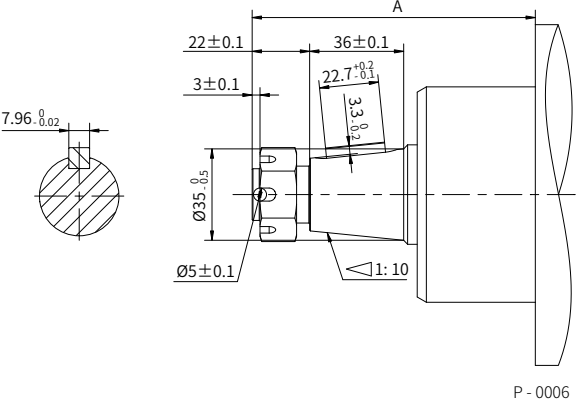


P - 0007

Shaft end dimensions

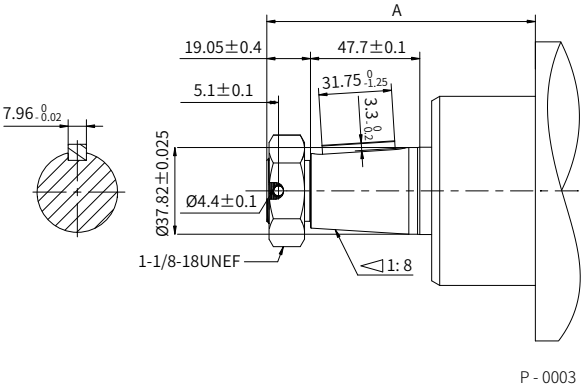
T8

Ø35mm Straight
Parallel key 7.96×7.96×22.7
Tightening torque 325N·m
Max. Torque: 1200N·m



T7

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



Shaft depth	A mm
S5	105.2
S7	111.9
S4	117.4
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 ±1.03mm.

Length and weight

Type	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
750	204.3	18.9

T - 0015

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

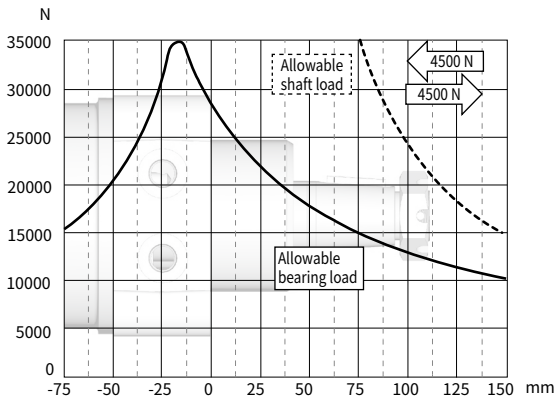
Allowable shaft load/bearing curve

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.

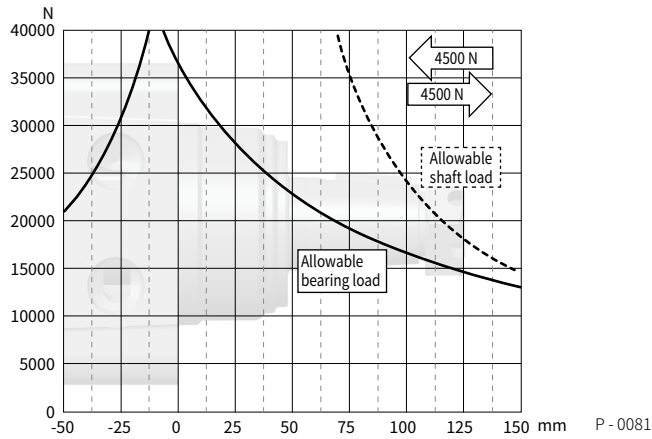
· HCW



P - 0009

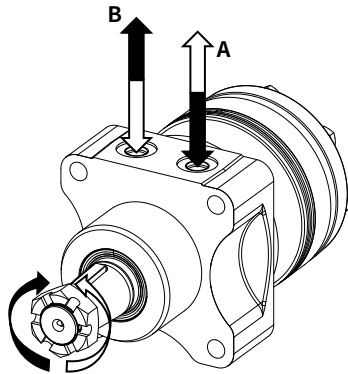
Allowable shaft load/bearing curve

· HCG



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.



Hydraulic diagram

