

## Düşük Hızlı Yüksek Torklu Hidrolik Motorlar, W11 ve W61 Serileri

### Low Speed High Torque Hydraulic Motors, W11-W61 Series



#### W11 - W61 Serisi Orbit Hidrolik Motorlar / W11-W61 Series Orbit Hydraulic Motor

Oil Distributor	Series	Displacement cc/r [in <sup>3</sup> /r]	Max. Pressure MPa [PSI]	Speed Rpm	Max. Torque Nm [lbf-in]
Spool Valve	W11	50-400 [3.1-24.4]	14 [2030]	145-858	521 [4611]
	W21	50-500 [3.1-30.5]	17 [2465]	110-863	500 [4425]
	W31	100-400 [6.1-24.4]	16 [2320]	121-540	660 [5841]
	W41	245-800 [15.0-48.8]	15 [2175]	106-390	1380 [12214]
Disc Valve	W51	80-500 [4.9-30.5]	28 [4060]	142-856	860 [7612]
	W61	195-985 [11.9-60.1]	31 [4495]	155-865	1877 [16613]

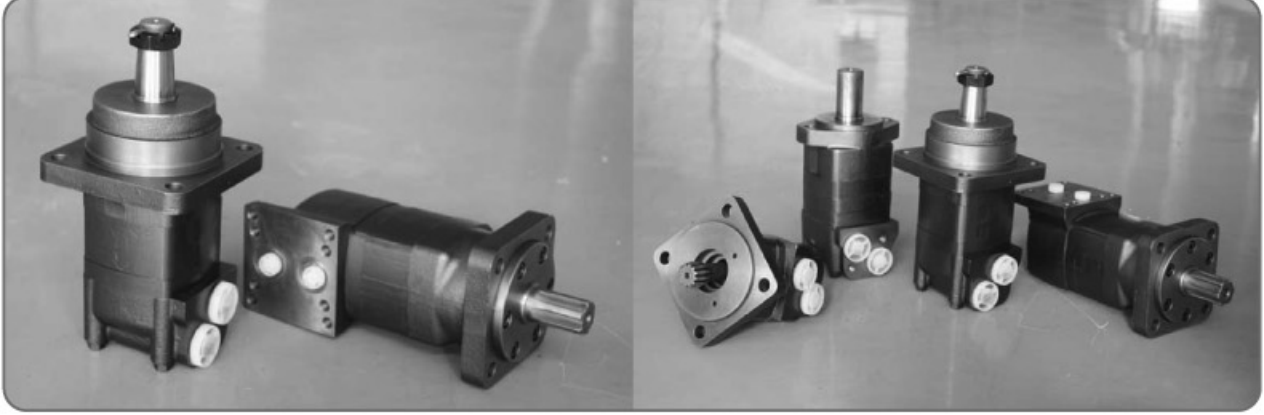
#### Model Correspondance to Other Brands

WINMAN	Sauer Danfoss	Eaton Charlynn	Parker	M+S	SAM
W11	OMP	H Series	OMP	MP / MLHP	BG, BH
W21	OMR	S Series	TC; TB; TE; TH	MR / MLHR	BR, BS, AR
W31	OMH	--	--	--	--
W41	--	--	TF; TL; TG	MH / MLHH	--
W51	OMS	2000 Series	OMS	MS / MLHS	HR
W61	OMT;OMV	6000 Series	OMT	MT / MLHT; MV / MLHV	HT

## Düşük Hızlı Yüksek Torklu Hidrolik Motorlar, W51 Serisi

### Low Speed High Torque Hydraulic Motor, W51 Series

#### W51 Serisi Hidrolik Motor / W51 Series Hydraulic Motor



#### Tanım ve Özellikler

**W51** Serisi orbital hidrolik motorlar en gelişmiş disk valf sayesinde yüksek verimlilik, sorumluluk ve güvenlik çalışma sa larlar. Yaygın olarak kullanılan bu ürün geniş bir kullanım yelpazesine sahiptir. İnşaat makineleri, tarım makineleri, madencilik ekipmanları, kaldırma vinçler, nakliyat, makine imalatı vb. gruplar aşa ıdaki özelliklere sahiptir.

- Geroler tipi elemanı ile yüksek tork, düşük hız disk valfli motorlar.
- Kompakt boyut ve küçük hacimli, do rudan çalışma bileşenleriyle ekstra sürücü ve mekanik ba lantılar gerektirmez türlü şekilde adaptasyonlar sa lar.
- Geniş hız veya tork ile ilgili istekleriniz cevaplanabilir.
- Milinin dönme vasıtasıyla kolayca pozitif ve negatif yönde ayarlanabilmektedir.
- Basit bir hidrolik kontrollü vana ile her iki dönme yönünde aynı tork çıkışı elde edilebilir.
- Kontrollü vana ile her iki dönme yönünde aynı tork çıkışı elde edilebilir.
- Geniş hız kapsamında, 50 ile 800 devir içinde stabil iş sa lanabilir.
- Maks. sürekli çalışma basıncı 200 bara, aralımlı basınç ile 310 bar ulaşır. Yüksek basınçlı hidrolik sistemlerdeki gereksinimleri karşılayacak mil dönme hızlarına sahiptir.
- Yön kolay ve sorunsuz edilebilir.
- Paralel olarak veya hidrolik sistemler içinde seri ba lantılı olarak kullanılan olabilir. A ır hizmet uygulamaları için uygundur.
- Yüksek verimli ve ekonomiktir.
- Çeşitli ba lantı şekilleri flanş seçenekleri, çıkış mili ve ya ı giri ş çıkışları mevcuttur.

#### Description and Features

**W51** Series orbital hydraulic motors are the most advanced disc valve orbital hydraulic motors, with high working efficiency, liability and safety. It has a wide range of product models, which are widely used in construction machinery, agricultural machinery, mining equipments, lifting cranes, transportations, machinery manufacturing and military industries etc. They have the following product features:

- High Torque Low Speed disc valve motors with Geroler type element.
- Compact size and small volume, could drive the working components directly and need not the extra mechanical joint that needed by the system, which provide wide adaptions to the kinds of applications.
- Wide range of displacement, could satisfy wide requests on speeds or torques,
- The rotation of shaft could be easily adjusted between positive and negative directions through a simple hydraulic controlled valve connected with the ports and same torque outputs of both directions could be get for both directions of rotation.
- Broad speed scope, could work stably within 50-800RPM.
- The Max. continious working pressure reaches 20Mpa, and Max. intermittent pressure reaches 31Mpa, which highly satisfying the steadily progressed requirements from hydraulic systems.
- Direction of shaft rotation and speed can be controlled easily and smoothly.
- Could be used in parallel or in series connection in the hydraulic systems.
- High efficiency and economical, suitable for heavy duty applications.
- A variety of connection dims. options of flange, output shaft and oil port.

## Düşük Hızlı Yüksek Torklu Hidrolik Motorlar, W51 Serisi

### Low Speed High Torque Hydraulic Motor, W51 Series

#### Özellikler / Specifications

Deplasman Displacement cm <sup>3</sup> /r [in <sup>3</sup> /r]		80 [4.9]	100 [6.1]	125 [7.6]	160 [9.8]	195 [11.9]	245 [15.0]	305 [18.6]	395 [24.1]	500 [30.5]
Akış Flow LPM [GPM]	Cont.	75 [16]	75 [16]	75 [16]	75 [16]	75 [16]	75 [16]	75 [16]	75 [16]	75 [16]
	Int.	85 [19]	95 [21]	95 [21]	115 [25]	115 [25]	115 [25]	115 [25]	130 [29]	130 [29]
Max. Hız Max. Speed (RPM)	Cont.	850	675	552	430	345	287	231	178	142
	Int.	956	855	700	660	529	423	347	308	246
Basınç Pressure ^Bar [ ^PSI]	Cont.	175 [2538]	175 [2538]	175 [2538]	175 [2538]	175 [2538]	175 [2538]	150 [2175]	150 [2175]	120 [1740]
	Int.	280 [4060]	280 [4060]	280 [4060]	250 [3625]	250 [3625]	250 [3625]	210 [3045]	175 [2538]	150 [2175]
Tork Torque Nm [lbf-in]	Cont.	178 [1575]	223 [1974]	278 [2461]	356 [3151]	445 [3939]	557 [4930]	580 [5133]	715 [6328]	720 [6373]
	Int.	285 [2522]	356 [3151]	445 [3939]	509 [4505]	636 [5629]	755 [6682]	763 [6753]	840 [7435]	860 [7612]

#### Not:

- Hidromotor aralıklı olarak pik basınçta çıkış de eridir. Hidromotor sürekli belirtilen basınçlarda çalışabilir.
- Motorda yüksek basınç ve maksimum hız altında çalışma olmamalıdır.
- Çalışma süresi pik basınçta normal sürenin %10'unu geçmemelidir.
- Önerilen hidrolik ya ı, viskozite 37-73 cSt, temizlik ISO18/13 olmalıdır.
- Maksimum çalışma sıcaklığı 80 °C'dir.
- Maksimum çalışma basıncı %40 altında bir saat tam kapasite ile çalışması tavsiye edilir.
- İzin verilen maksimum geri basıncı 100 bar, ancak önerilen geri basınç olmamalıdır. Sızıntı hattına 50 bar kapasiteli boru gerekmektedir.

#### Note:

- Intermittent means the entrance of the maximum pressure; continuous working pressure means the differential pressure.
- Motor should not work under the highest pressure and the maximum speed.
- The running time should not exceed 10% under intermittent working conditions.
- Recommending N68 anti-wear hydraulic oil, viscosity 37-73cSt, cleanliness ISO18/13.
- The Maximum working temperature is 80°E.
- One hour running time under 40% of maximum working pressure is recommended before full capacity working.
- The maximum allowable back pressure is 10MPa, but the recommended back pressure should not exceed 5MPa.a leaking pipes is needed when exceeding.

## Düşük Hızlı Yüksek Torklu Hidrolik Motorlar, W51 Serisi

### Low Speed High Torque Hydraulic Motor, W51 Series

#### Performans Bilgileri / Performance Data

 Sürekli

 Aralıklı

 Continuous

 Intermittent

#### W51-80 80ml/r

		$\Delta P$ (Mpa)							
		3.5	7	10	14	17	21	24	28
Flow (LPM)	4	35	75	103	145	176	208	220	245
	8	35	75	105	152	180	216	236	257
	16	35	75	105	150	186	217	249	265
	24	35	75	105	152	188	222	256	289
	32	35	75	103	155	190	230	265	287
	45	30	70	101	149	186	228	262	282
	60	30	70	97	147	183	229	258	278
	75	25	65	95	146	179	221	242	269
	85	22	60	90	140	172	218	225	238
		956	948	926	905	893	885	852	801

#### W51-100 100ml/r

		$\Delta P$ (Mpa)							
		3.5	7	10	14	17	21	24	28
Flow (LPM)	4	45	89	130	175	208	246		
	8	46	90	135	180	215	251	278	
	16	46	93	140	185	220	269	295	318
	24	46	93	140	188	231	270	305	356
	32	42	93	142	186	233	278	310	372
	45	40	90	141	190	228	285	340	389
	61	35	90	138	185	230	290	330	369
	75	35	85	136	178	228	280	315	356
	85	32	80	130	176	225	275	307	
	95	24	75	122	169	225	268	310	
	920	918	901	887	869	842	808		

#### W51-125 125ml/r

		$\Delta P$ (Mpa)							
		3.5	7	10	14	17	21	24	28
Flow (LPM)	4	55	115	172	221	280	325	360	
	8	57	115	172	221	285	326	362	412
	16	56	116	174	235	295	345	379	446
	24	58	118	180	238	302	352	402	486
	32	55	120	180	240	312	361	408	508
	45	50	115	175	236	310	360	406	502
	60	45	113	173	240	300	360	420	470
	75	42	110	170	230	290	345	410	460
	85	40	105	160	230	300	355	415	
	95	32	90	155	220	285	350	400	
	730	727	725	723	720	718	715		

#### W51-160 160ml/r

		$\Delta P$ (Mpa)							
		3.5	7	10	14	17	21	24	
Flow (LPM)	4	65	131	191	260	318	384	428	
	8	70	135	196	265	335	404	460	
	16	70	140	208	286	360	440	502	
	24	74	145	216	293	372	450	521	
	32	74	150	220	300	373	459	526	
	45	70	150	221	305	380	458	530	
	60	65	145	210	300	375	455		
	75	60	135	205	300	375			
	85	55	130	200	290	370			
	95	50	128	200	290	265			
115	35	120	190	280					
	698	680	670	660					



## Düşük Hızlı Yüksek Torklu Hidrolik Motorlar, W51 Serisi

### Low Speed High Torque Hydraulic Motor, W51 Series

#### Performans Bilgileri / Performance Data

		W51-200 200ml/r						
		$\Delta P$ (Mpa)						
		3.5	7	10	14	17	21	24
Flow (LPM)	4	79	160	198	305	370	440	
		16	14	12	7	5	2	
	8	86	165	245	325	420	522	570
		37	35	34	27	24	20	13
	16	90	175	256	345	438	523	596
		78	76	75	68	66	60	53
	24	91	180	268	360	448	542	610
		116	114	113	105	103	98	90
	32	91	185	270	371	460	550	620
		160	156	154	150	146	136	130
	45	91	186	280	376	466	550	
		226	222	219	215	209	202	
60	80	186	271	375	465	550		
	304	300	293	286	280	272		
75	75	176	268	370	460			
	382	376	370	361	350			
85	68	168	260	360	458			
	425	420	412	408	400			
95	60	160	256	355	445			
	482	476	470	459	449			
115	44	145	235	330				
	578	570	564	549				

		W51-250 250ml/r						
		$\Delta P$ (Mpa)						
		3.5	7	10	14	17	21	24
Flow (LPM)	4	105	210	312	410	524	630	
		13	11	10	6	4	3	
	8	109	215	320	425	545	650	740
		29	27	25	21	19	15	12
	16	115	225	336	450	565	676	765
		63	57	57	52	51	49	46
	24	115	230	342	465	580	690	780
		94	90	87	81	77	72	66
	32	115	235	356	475	600	706	
		129	125	121	115	112	105	
	45	110	235	356	480	600		
		183	180	176	170	165		
60	95	230	350	470	580			
	240	236	234	230	220			
75	90	215	336	465				
	303	300	296	290				
85	80	210	325	455				
	340	336	330	320				
95	75	200	320	445				
	385	378	375	365				
115	60	185	305	428				
	463	458	456	448				

		W51-305 305ml/r						
		$\Delta P$ (Mpa)						
		3.5	7	10	14	17	21	
Flow (LPM)	4	135	260	386	500	610		
		12	10	9	6	1		
	8	135	270	390	520	640	768	
		25	23	21	19	15	11	
	16	140	280	410	545	675	815	
		52	50	48	44	40	34	
	24	145	290	420	560	700	732	
		77	75	72	66	60	56	
	32	145	295	428	575	710		
		104	102	100	91	85		
	45	140	295	425	580	720		
		147	144	142	133	124		
60	125	281	423	570				
	195	190	185	176				
75	110	265	408	560				
	243	236	232	220				
85	104	258	382	540				
	275	271	265	260				
95	95	250	359	502				
	307	300	296	290				
115	75	228	342					
	366	361	358					

		W51-400 400ml/r						
		$\Delta P$ (Mpa)						
		3.5	7	10	14	17		
Flow (LPM)	4	175	350	496	665	820		
		9	8	7	6	4		
	8	180	360	510	695	830		
		19	18	17	14	11		
	16	190	375	542	730	866		
		39	37	36	34	29		
	24	190	385	550	750	880		
		58	56	54	50	46		
	32	190	390	560	765			
		80	78	74	70			
	45	190	390	560	755			
		113	112	108	102			
60	180	380	542					
	150	148	144					
75	165	370	532					
	188	186	180					
85	154	358	522					
	211	210	208					
95	140	340	512					
	238	236	232					
115	120	320	498					
	288	284	278					

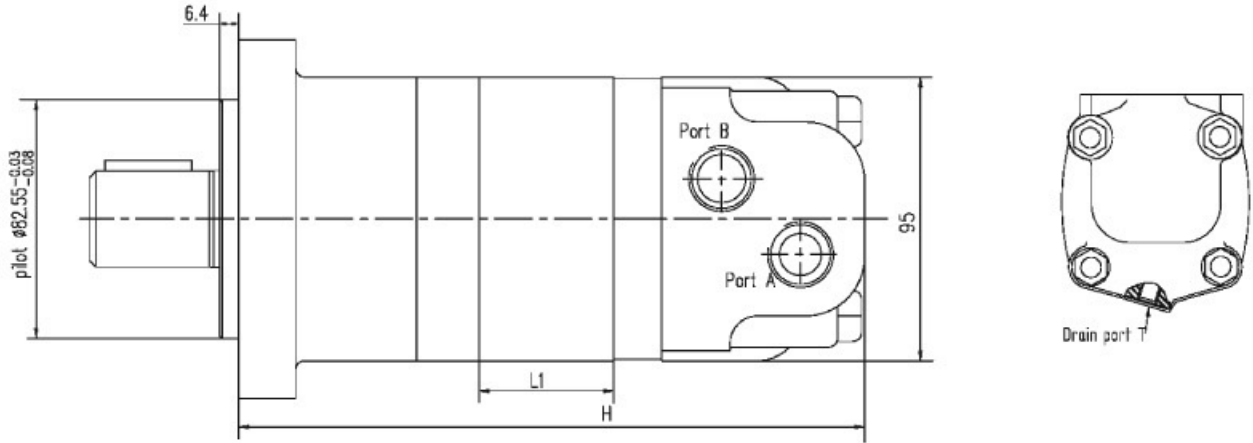
**Not:** Tüm testler hidrolik ya ve 50°C de yapılmıştır. Çalışma şartlarına göre de erler farklılık gösterebilir.

**Note:** All the data are tested at 50°C with N68 anti-wear hydraulic oil. Actual data may vary slightly from unit to unit in production.

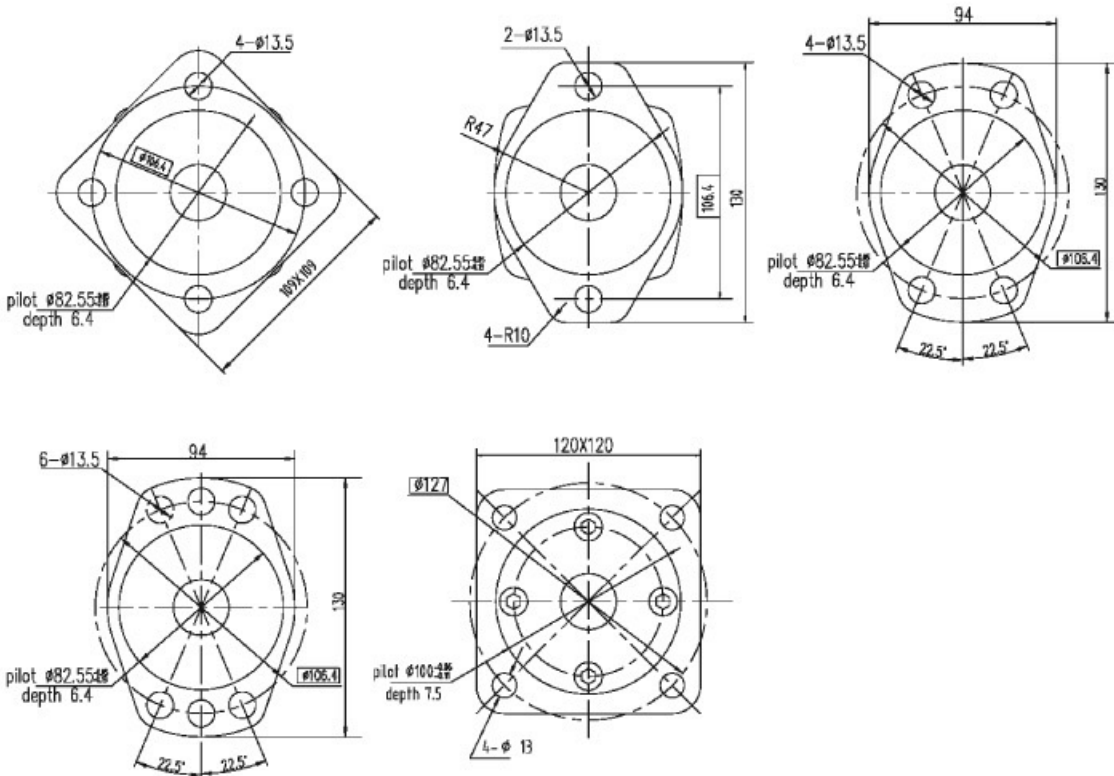
## Düşük Hızlı Yüksek Torklu Hidrolik Motorlar, W51 Serisi

### Low Speed High Torque Hydraulic Motor, W51 Series

#### Ölçü ve Montaj Bilgileri / Dimensions and Mounting Data



Mounting flange

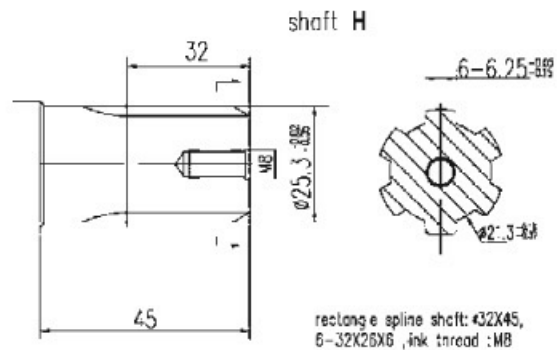
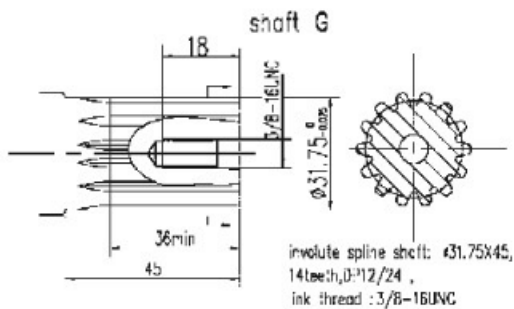
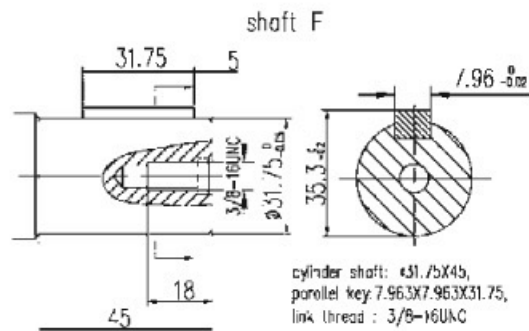
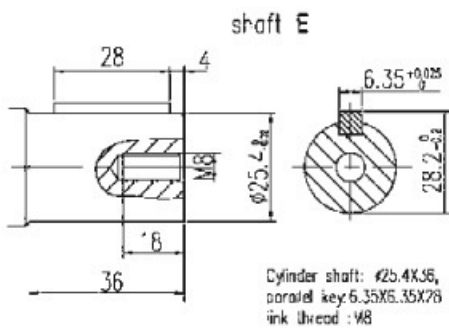
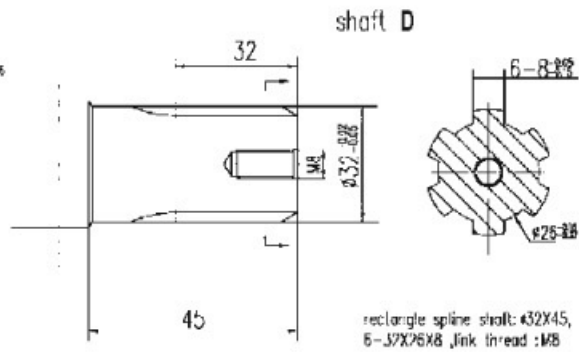
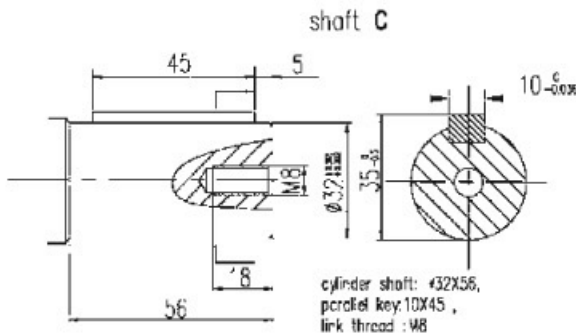
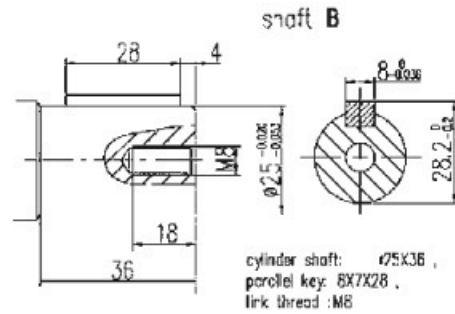
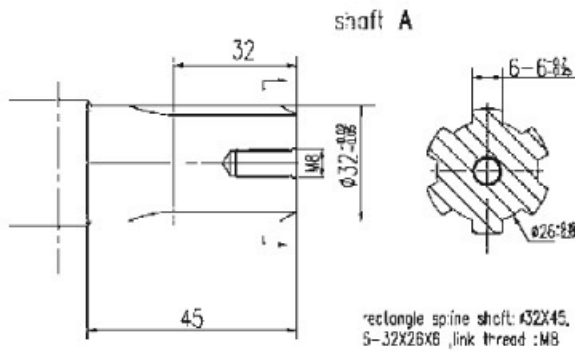


Dis(ml/r)	80	100	125	160	195	245	305	395	500
H	185	190	196	201	203	212	224	240	257

# Düşük Hızlı Yüksek Torklu Hidrolik Motorlar, W51 Serisi

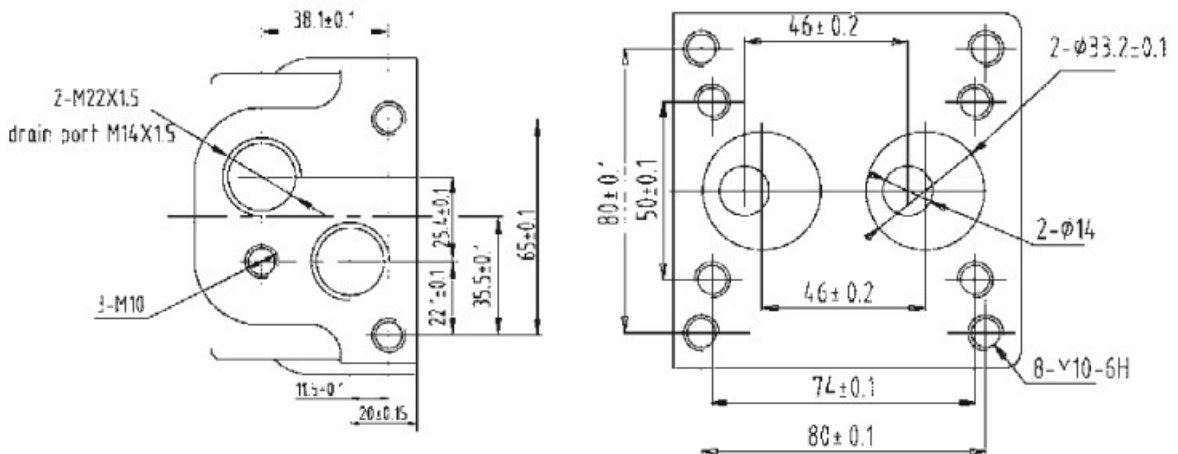
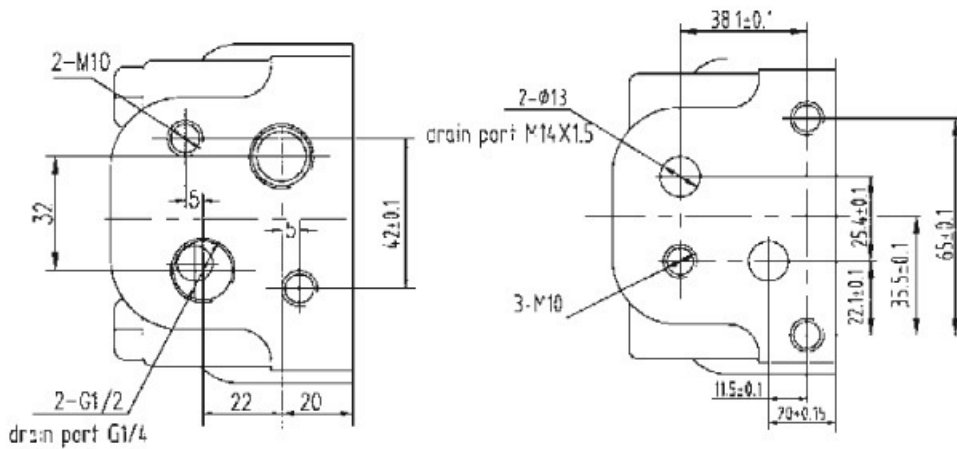
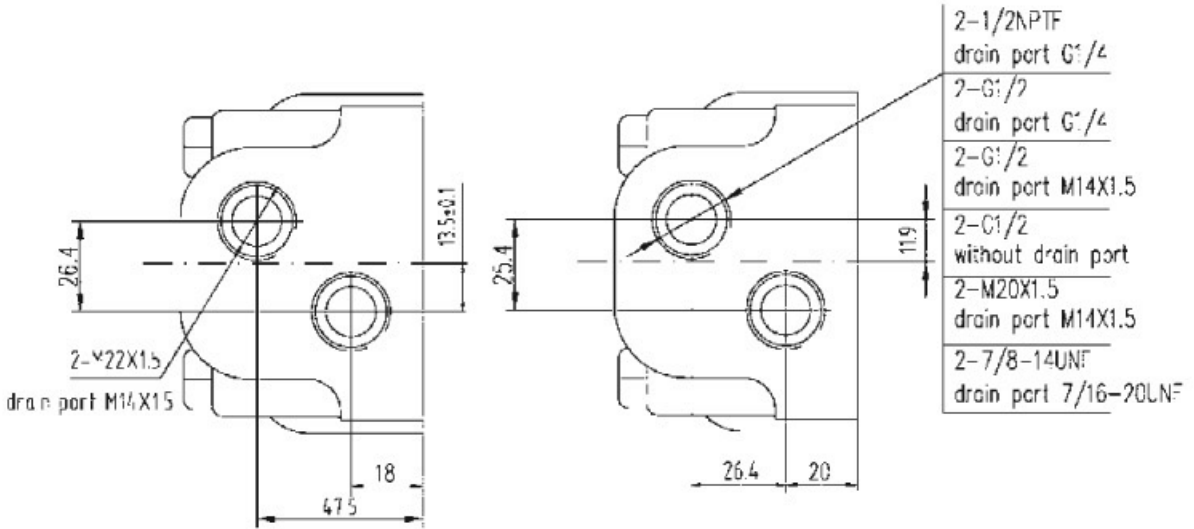
## Low Speed High Torque Hydraulic Motor, W51 Series

### Şaft / Shaft



**Düşük Hızlı Yüksek Torklu Hidrolik Motorlar, W51 Serisi**  
**Low Speed High Torque Hydraulic Motor, W51 Series**

**Port / Port**





## Düşük Hızlı Yüksek Torklu Hidrolik Motorlar, W51 Serisi

### Low Speed High Torque Hydraulic Motor, W51 Series

#### Opsiyonel Ölçüler Kod Numaraları / Code Numbers for Optional Dimensions

Feature			Displacement/No.								
Flange	Shaft	Oil Port	80	100	125	160	195	245	305	395	500
Square-flange 109X109 Pilot $\Phi$ 82.55	6D-30X26X6 ;shaft thread:M8	M22X1.5 without drain port	51 - 10 11	-101 2	-101 3	-101 4	-101 5	-101 6	-101 7	-101 8	-101 9
Rhomb-flange Pilot $\Phi$ 82.55	6D-30X26X6 ;shaft thread:M8	M22X1.5 without drain port	51 - 10 21	-102 2	-102 3	-102 4	-102 5	-102 6	-102 7	-102 8	-102 9
Square-flange 109X109 Pilot $\Phi$ 82.55	6D-30X26X6 Shaft extension 52.5	G1/2 Drain port G1/4	51 - 10 31	-103 2	-103 3	-103 4	-103 5	-103 6	-103 7	-103 8	-103 9
Rhomb-flange Pilot $\Phi$ 82.55	6D-30X26X6 Shaft extension 52.5	M22X1.5 M14X1.5	51 - 10 41	-104 2	-104 3	-104 4	-104 5	-104 6	-104 7	-104 8	-104 9
Square-flange 109X109 Pilot $\Phi$ 82.55	6D-30X26X6 Shaft extension 66.5	M22X1.5 M14X1.5	51 - 10 51	-105 2	-105 3	-105 4	-105 5	-105 6	-105 7	-105 8	-105 9
Rhomb-flange Pilot $\Phi$ 82.55	6D-30X26X6 Shaft extension 66.5	M22X1.5 M14X1.5	51 - 10 61	-106 2	-106 3	-106 4	-106 5	-106 6	-106 7	-106 8	-106 9
Square-flange 109X109 Pilot $\Phi$ 82.55	Straight shaft 25.4,key width 8	M22X1.5 M14X1.5	51 - 01 01	-010 2	-010 3	-010 4	-010 5	-010 6	-010 7	-010 8	-010 9
Square-flange 109X109 Pilot $\Phi$ 82.55	Straight shaft 25,key width 8	M22X1.5 M14X1.5	51 - 01 11	-011 2	-011 3	-011 4	-011 5	-011 6	-011 7	-011 8	-011 9
Rhomb-flange Pilot $\Phi$ 82.55	Straight shaft 32,key width10	M22X1.5 M14X1.5	51 - 01 21	-012 2	-012 3	-012 4	-012 5	-012 6	-012 7	-012 8	-012 9
Square-flange 109X109 Pilot $\Phi$ 82.55	Straight shaft 32,key width10	M22X1.5 without drain port	151-01 31	-013 2	-013 3	-013 4	-013 5	-013 6	-013 7	-013 8	-013 9
Rhomb-flange $\Phi$ 82.55	Straight shaft 25,key width 8	G1/2 Drain port G1/4	51 - 01 41	-014 2	-014 3	-014 4	-014 5	-014 6	-014 7	-014 8	-014 9
Square-flange 109X109 Pilot $\Phi$ 82.55	Straight shaft 1.25,key width 7.963	G1/2 Drain port G1/4	51 - 01 51	-015 2	-015 3	-015 4	-015 5	-015 6	-015 7	-015 8	-015 9
Rhomb-flange Pilot $\Phi$ 82.55	Straight shaft 1.25,key width 7.963	G1/2 Drain port G1/4	51 - 01 61	-016 2	-016 3	-016 4	-016 5	-016 6	-016 7	-016 8	-016 9
Square-flange 109X109 Pilot $\Phi$ 82.55	Straight shaft 25.4,key width 6.35	G1/2 Drain port G1/4	51 - 02 11	-021 2	-021 3	-021 4	-021 5	-021 6	-021 7	-021 8	-021 9
Rhomb-flange Pilot $\Phi$ 82.55	Straight shaft 30,key width 8	M22X1.5 without drain port	51 - 02 21	-022 2	-022 3	-022 4	-022 5	-022 6	-022 7	-022 8	-022 9
Square-flange 109X109 Pilot $\Phi$ 82.55	Straight shaft 30,key width 8	G1/2 Drain port G1/4	51 - 02 11	-023 2	-023 3	-023 4	-023 5	-023 6	-023 7	-023 8	-023 9