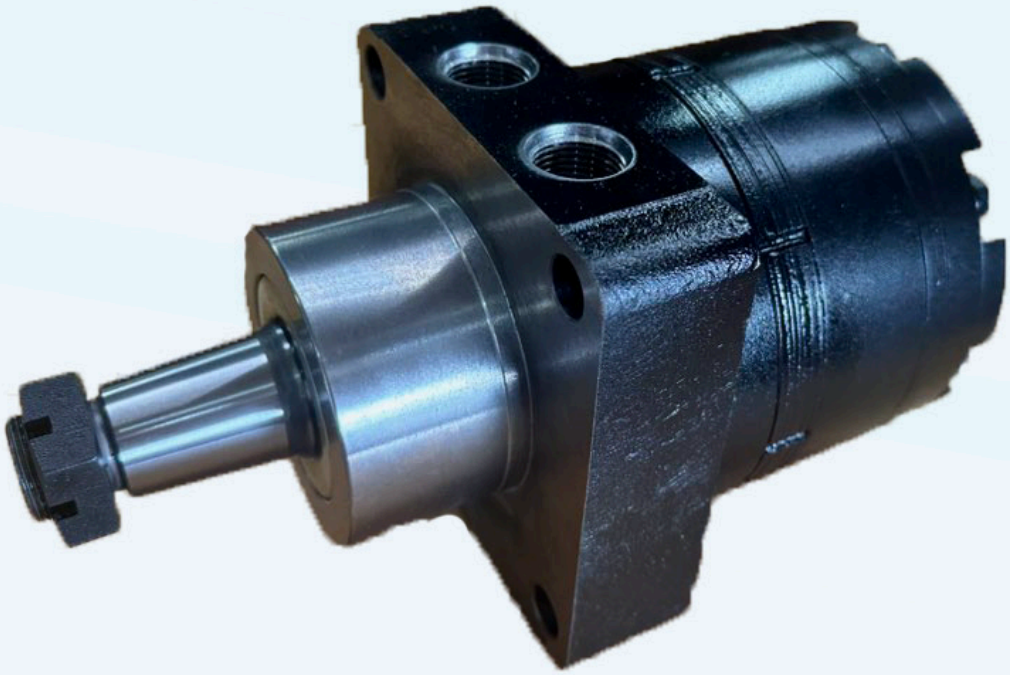
FluiDyne™
FLUID POWER

FM50/FM51 Hydraulic Motor

- Rolling Geroter Set
- Low Speed-High Torque
- Compact
- ISO 9001:2000
- 18 Month Warranty



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The FM50/51 gerotor hydraulic motors are a compact, highly efficient, low speed high torque design which can be used in either parallel or series systems. The FM50/51 motors have rolling geroter set and spool valve flow distribution.These low weight advanced construction design motors are manufactured in accordance with the requirements of the ISO 9001:2000 quality system.

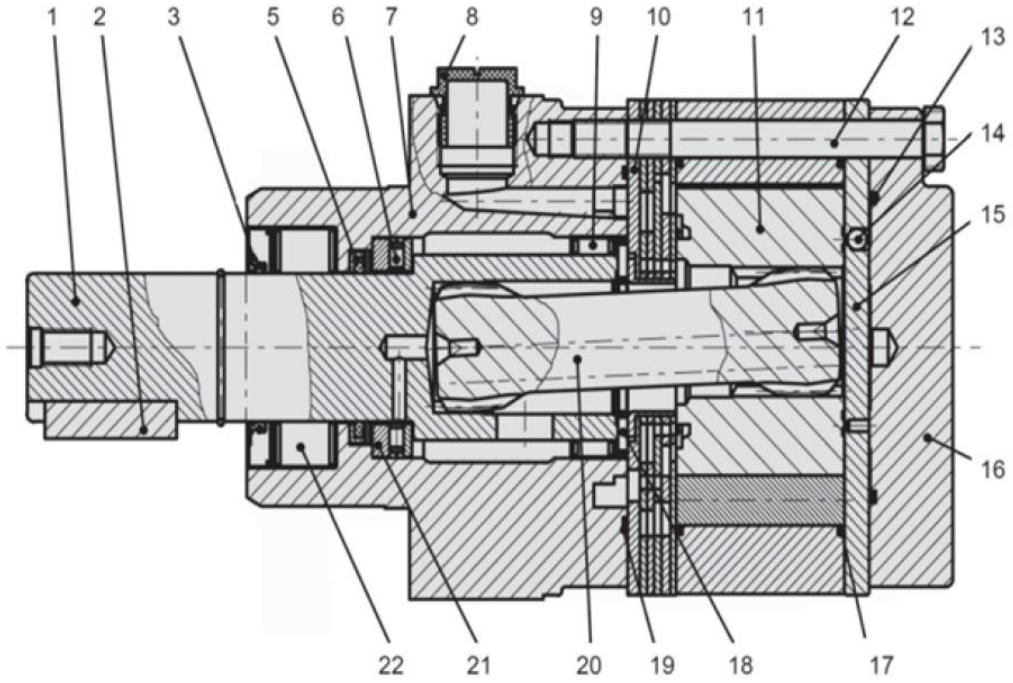

Diagram Key

1. Shaft
2. Key
3. Dust Seal*
4. O-Ring*
5. Shaft Seal*
6. Bearing
7. Housing
8. Port
9. Bearing
10. Timing Plate
11. Displacement Ring
12. Bolt
13. O-Ring*
14. Check Valve
15. Backing Plate
16. Rear Cover
17. O-Ring*
18. Bearing
19. O-Ring*
20. Drive Shaft (Dog Bone)
21. Spacer
22. Shaft Bearing
* Included in Seal Kit

Technical Specifications

Displacement		125	160	200	230	250	300	350	375	475	540	750
Max Speed *RPM*	Cont.	336	350	330	290	290	250	215	200	150	140	100
	Int.	*450*	*440*	*425*	*365*	*350*	*315*	*265*	*240*	*180*	*170*	*120*
Max Torque *lbf-in*	Cont.	3089	4160	4709	5532	6196	7169	8010	8762	9824	8674	9293
	Int.	*3611*	*4850*	*5328*	*6284*	*6992*	*8231*	*9161*	*10090*	*10692*	*10975*	*10444*
Max Pressure *PSI*	Cont.	2973	2973	2973	2973	2973	2973	2973	2973	2538	2030	1523
	Int.	*3480*	*3480*	*3480*	*3480*	*3480*	*3480*	*3480*	*3480*	*2755*	*2537.5*	*1740*

Continuous (Cont.) = maximum of continuous operation. Intermittent (Int.) = maximum operating range for 6 seconds per minute.

Model Crossover

FluiDyne	Eaton Charlynn	Danfoss	Ross TRW	White Cross	Bosch Rexroth	Parker	Young Powertech	Dynamic
FM50/51	Delta, 184	OMR, OMEW	MP, ME, MF, MJ	500	HW, MLHW	TJ, TF, TL, TG	YME2	BMER

FluiDyne™ FLUID POWER

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Model Code Breakdown

FM50 4WH 01K 250 S B N F

Series FM5
- **FM50** - CCW Rotation
- **FM51** - CW Rotation

Mounts
- **MAG** - *4 Bolt Magneto / 2 Bolt SAE*
- **4WH** - 4 Bolt Wheel

Shafts
- **01K** - 1" Keyed
- **06B** - 6B Splined
- **14K** - 1-1/4" Keyed
- **14P** - 1-1/4" Tapered
- **14T** - 1-1/4" -14T Splined
- **32K** - 32mm Keyed - ***not available at this time***

Displacements cc

125	**350**
160	**375**
200	**475**
230	**540**
250	**750**
300	

Ports
- **S** - 7/8"-14 SAE ORB
- **G** - G 1/2 BSP

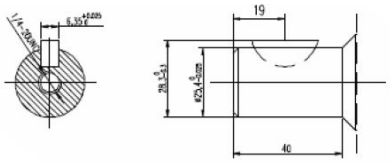
Paint
- **B** - Black
- **W** - White
- **Y** - Yellow
- **O** - None
- **U** - Blue

Seals
- **N** - Buna (Nilrile)
- **V** - Viton

Options
- **F** - Free Turning
(Special Order. Factory Lead Time)

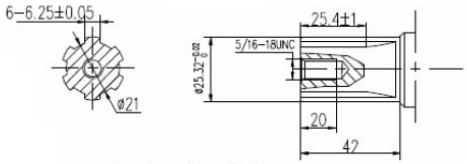
Shaft Options

01K



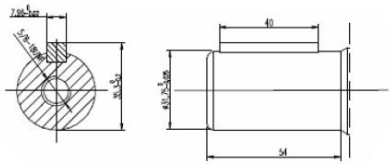
cylinder shaft : ø25.4X39
woodruff key: ø25.4X6.35 ,
link thread : 1/4–20UNC

06B



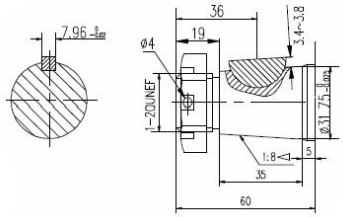
rectangle spline shaft:
ø25.3X42, 6–25.3X21X6.25
link thread : 5/16–18UNC

14K



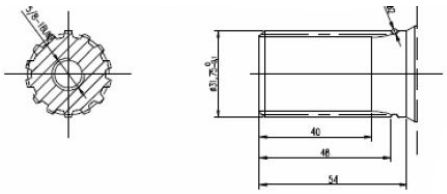
cylinder shaft : ø31.75X54
parallel key : 7.96X7.96X40
link thread : 5/8–18UNF

14P



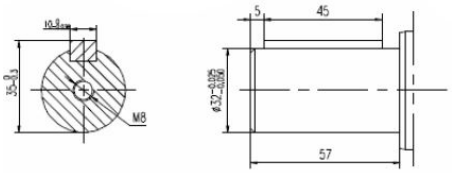
cone shaft: ø31.75,
woodruff key: ø25.4X7.96 ,
link thread : 1–20UNEF
,taper1: 8

14T



involute spline shaft: ø31.75X54,
14 teeth, DP12/24 ,
link thread : 5/8–18UNF

32K



cylinder shaft : ø32X57
parallel key : 10X8X45
link thread : M8

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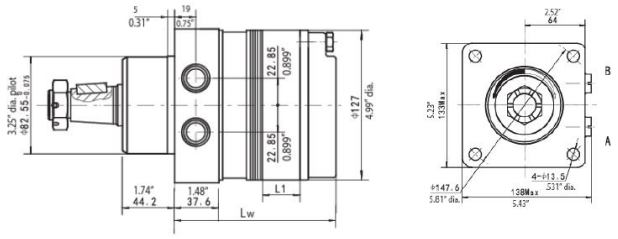
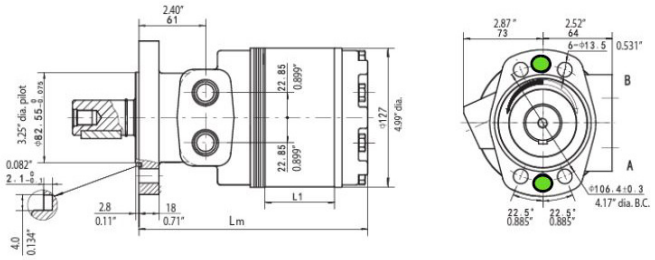
Mounting / Porting Options

4WH (4-Bolt Wheel)

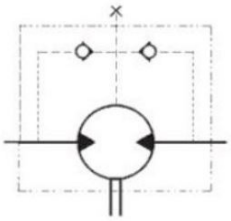


MAG (4-Bolt Magneto and 2-Bolt SAE)



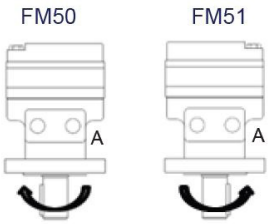
Displacement		125	160	200	230	250	300	350	375	475	540	750
Wheel Mount	L_w	97	101	104	106	109	112	117	119	128	134	152
	L_1	*10*	*14*	*17*	*19*	*22*	*25*	*30*	*32*	*41*	*47*	*62*
Magneto Mount	L_M	154	158	161	163	166	170	174	176	185	191	209
	L_1	*10*	*14*	*17*	*19*	*22*	*25*	*30*	*32*	*41*	*47*	*62*

Shaft Seal



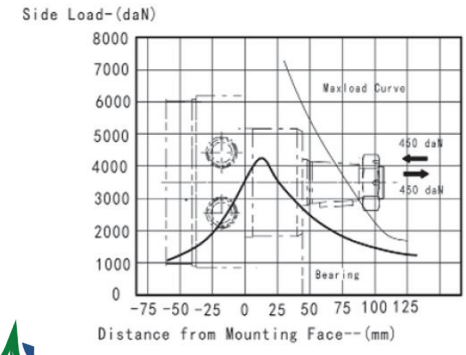
This motor is not equipped with a motor drain line, the pressure exerted on the shaft seal is marginally in excess of the return line pressure.

Shaft Rotation



Standard rotation is viewed from the shaft end.
FM50 Series Port A pressurized = CCW rotation
FM51 Series Port A pressurized = CW rotation

Radial Force



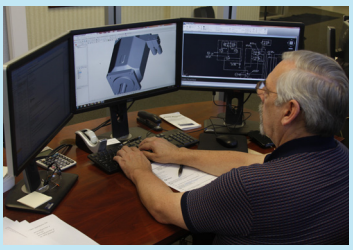
FluiDyne™ FLUID POWER

Powered by Customer Service

FluiDyne supports the distributors providing local knowledge and assistance to fluid power customers.

Our people provide extensive support:

- Engineering Expertise
- Decoding special part numbers
- Identification of parts within units
- Advice on component repair and assembly
- Component failure analysis
- 18 month warranty
- New application component selection
- Same day shipment



Reman Units & Parts Available for Racine, Oilgear, Bosch, Continental and More!

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NATIONAL FLUID POWER ASSOCIATION NFPA MEMBER

QMS INTERNATIONAL ISO 9001:2015 REGISTERED FIRM

05/2023