



MP
Series

www.57382299.com



White Hydraulics Products

A White Hydraulics product is defined as products manufactured and/or sold by White Hydraulics Inc. Hopkinsville, Kentucky USA and/or White Hydraulics GmbH Ratingen, Germany.

Important Information

Before selecting or using a White Hydraulics product, it is important that all information concerning the product warranty, limitation of liability and responsibility of the customer be reviewed. This information is located below. Please direct any questions regarding this information to your White Hydraulics representative.

Disclaimer

This catalog provides product options for further investigation by customers having technical expertise with respect to the use of such products. It is the responsibility of the customer to thoroughly analyze all aspects of the customer's application and to review the information concerning the product in the current product catalog. Due to the diversity of possible applications, the customer is solely responsible for making the final selection of the product(s) to be used and to assure that all performance, safety and warning requirements of the application are met. The customer is further responsible for all testing to verify acceptable life and performance of White Hydraulics' products under actual operating conditions.

White Hydraulics has made all reasonable efforts to present accurate information in this catalog and shall not be responsible for any incorrect information which may result from unintentional oversight. Due to continuous product improvement, the product specifications as stated in this catalog are subject to change by White Hydraulics at any time without notice. The customer should consult a sales representative of White Hydraulics for detailed information and to determine any changes in the information in this catalog.

IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS DESCRIBED HEREIN CAN RESULT IN DEATH, PERSONAL INJURY AND/OR PROPERTY DAMAGE. WHITE HYDRAULICS, INC.'S SOLE RESPONSIBILITY WITH RESPECT TO ITS PRODUCTS IS SET FORTH IN THE WARRANTY/LIMITATION OF LIABILITY POLICY STATE HEREIN.

Warranty

White Hydraulics products are sold subject to a limited warranty and a limitation of remedies policy, both of which constitute part of any and all agreements to purchase White Hydraulics' products. White Hydraulics makes no other warranties or promises other than those specifically noted in its written policies, and no White Hydraulics employee or agent has the power to alter those policies other than in writing.

© Copyright White Hydraulics, Inc. 2001 - All Rights Reserved

This catalog and/or any portion thereof protected by the copyright hereon may not be reproduced in any form whatsoever without written permission of its Copyright Owner.

•Features



Big Power, Little Package

The MP series provides big power in a small package. These compact units are very versatile and can be used in numerous applications where space is limited yet still generating power enough to get the job done. The MP motor offers up to a maximum torque of 60 daNm. Industry standard housings and shafts allows the MP to be interchangeable with competitive motors.

- ① Favorable power-to-weight ratio.
- ② Very smooth running, even at low speeds.
- ③ Constant output torque over a wide speed range.
- ④ High starting torque.
- ⑤ Wide speed range.

Specifications

Code	Displacement (cc)		Max Speed (min ⁻¹)			Max Flow (LPM)		Max Torque (daNm)				Pressure (Bar)			
	Min. ⁽⁵⁾	Cont.	Inter. ⁽³⁾	Cont.	Inter. ⁽³⁾	Cont.	Inter. ⁽³⁾	Peak ⁽⁴⁾	min.Start	Cont.	Inter. ⁽³⁾	Peak ⁽⁴⁾	No Load		
														Cont.	Inter. ⁽³⁾
050	50,9	10	1000	1200	50	60	9	10,5	14	7	140	175	225	10	
080	78,7	10	810	960	65	75	14	17,5	22	12	140	175	225	10	
100	98,9	10	650	770	65	75	18	21,5	27	15	140	175	225	10	
125	123,6	10	520	600	65	75	22,5	27,5	37	19	140	175	225	10	
160	158,5	10	400	480	65	75	29	35,5	43	26	140	175	225	8	
200 ⁽¹⁾	197,8	10	325	385	65	75	29,5	42,5	54	27	120	175	225	8	
200 ⁽²⁾	197,8	10	325	385	65	75	28	42,5	54	25,5	115	140	225	8	
250 ⁽¹⁾	247,2	10	250	320	65	75	32,5	43,5	55	30	105	140	180	6	
250 ⁽²⁾	247,2	10	250	320	65	75	29,5	41	48	27,5	95	125	160	6	
320 ⁽¹⁾	316,9	10	210	245	65	75	30	46,5	60	27,5	75	125	160	6	
320 ⁽²⁾	316,9	10	210	245	65	75	28	39	60	27	70	100	160	6	

(1) 32mm Straight (2) 1" Straight, 25mm Straight, 6-b Spline, and 1:10 Tapered (3) Intermittent operation rating applies to 6 sec. of every minute (4) Peak load rating applies to 0.6 sec of every minute (5) You can expect rough running conditions when speed falls below the minimum

Code	Displacement (in.3/r)		Max Speed (RPM)			Max Flow (GPM)		Max Torque (lb-in)				Pressure (PSI)			
	Min. ⁽⁵⁾	Cont.	Inter. ⁽³⁾	Cont.	Inter. ⁽³⁾	Cont.	Inter. ⁽³⁾	Peak ⁽⁴⁾	min.Start	Cont.	Inter. ⁽³⁾	Peak ⁽⁴⁾	No Load		
														Cont.	Inter. ⁽³⁾
050	3.1	10	1000	1200	13	16	797	929	1239	620	2030	2540	3265	145	
080	4.8	10	810	960	17	20	1239	1549	1947	1062	2030	2540	3265	145	
100	6.0	10	650	770	17	20	1593	1903	2390	1328	2030	2540	3265	145	
125	7.6	10	520	600	17	20	1991	2434	3275	1682	2030	2540	3265	145	
160	9.7	10	400	480	17	20	2567	3142	3806	2301	2030	2540	3265	115	
200 ⁽¹⁾	12.1	10	325	385	17	20	2611	3762	4780	2390	1740	2540	3265	115	
200 ⁽²⁾	12.1	10	325	385	17	20	2478	3762	4780	2257	1670	2030	3265	115	
250 ⁽¹⁾	15.1	10	250	320	17	20	2877	3850	4868	2655	1520	2030	2610	85	
250 ⁽²⁾	15.1	10	250	320	17	20	2611	3629	4284	2434	1380	1815	2320	85	
320 ⁽¹⁾	19.3	10	210	245	17	20	2655	4116	5311	2434	1090	1815	2320	85	
320 ⁽²⁾	19.3	10	210	245	17	20	2478	3452	5311	2390	1015	1450	2320	85	

MP Series



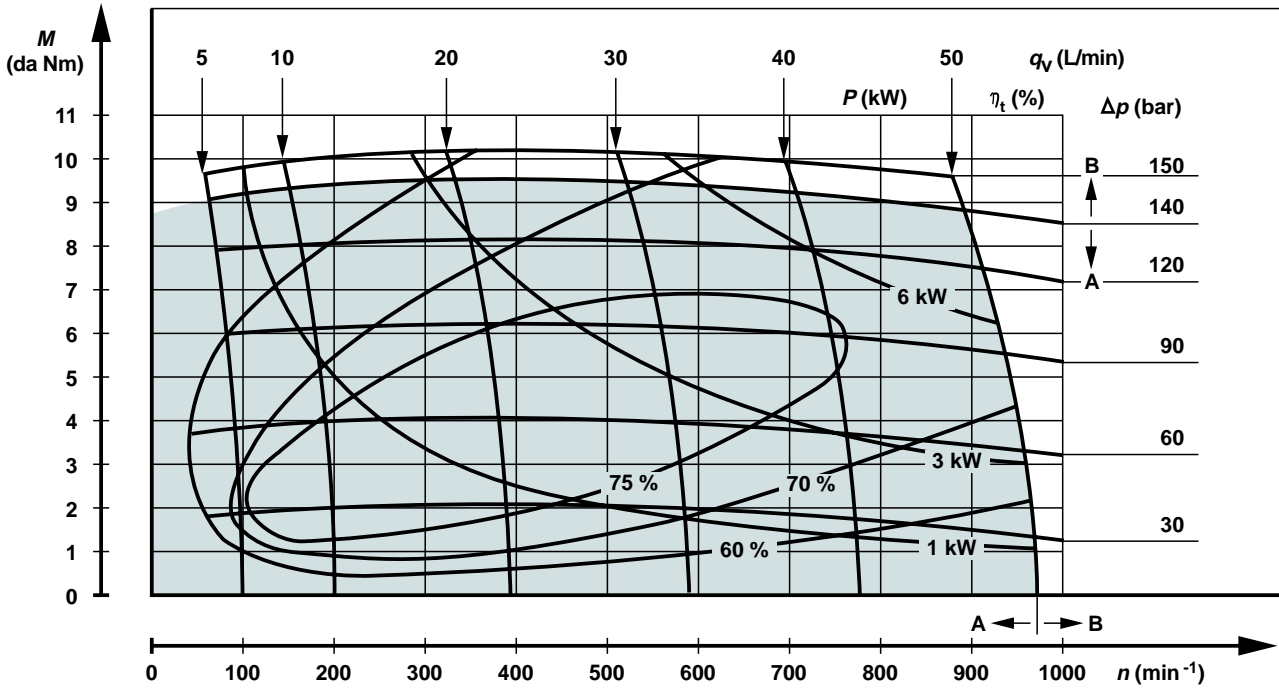
•Performance/ Operating Curves

Performance data was generated with a back flow pressure of 5-10 bar, using a mineral oil-based hydraulic oil with a viscosity of 35cSt at 50°C.

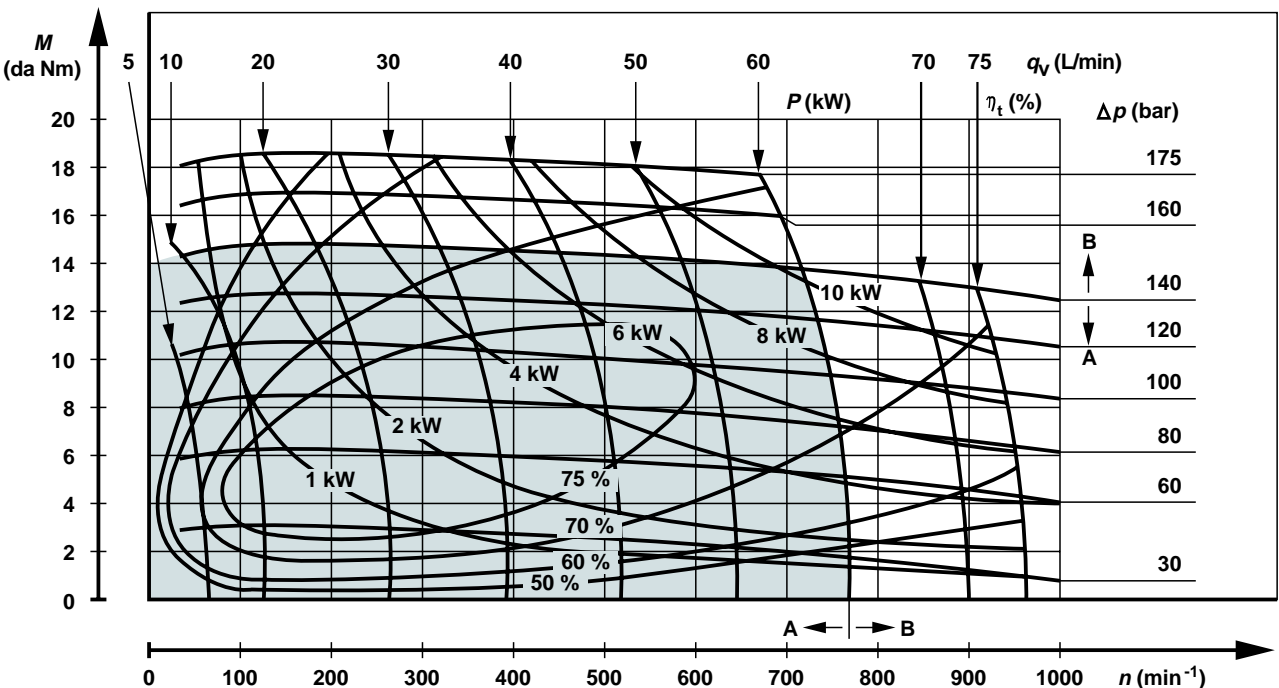
- A: Continuous Operation
- B: Intermittent operation rating applies to 6 sec. of every minute

DO NOT operate at intermittent pressure and intermittent flow conditions simultaneously. Flow fluctuations at intermittent pressure are not recommended

050 50.9 cc



080 78.7 cc



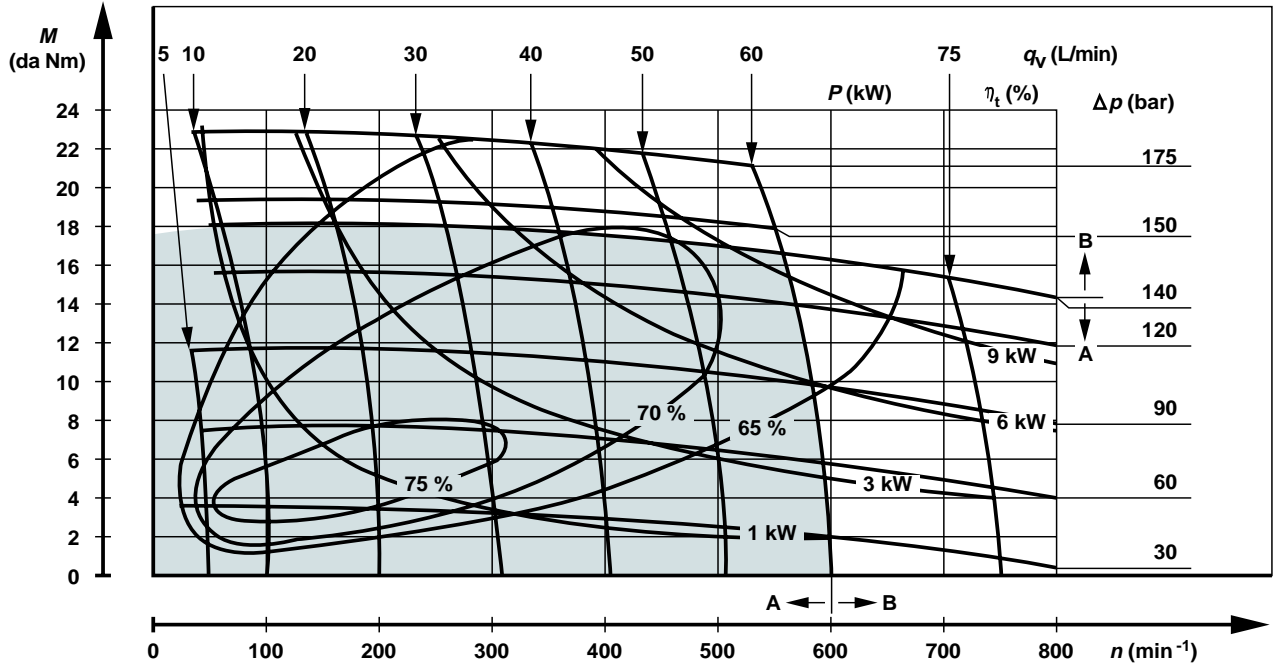
•Performance/ Operating Curves

Performance data was generated with a back flow pressure of 5-10 bar, using a mineral oil-based hydraulic oil with a viscosity of 35cSt at 50°C.

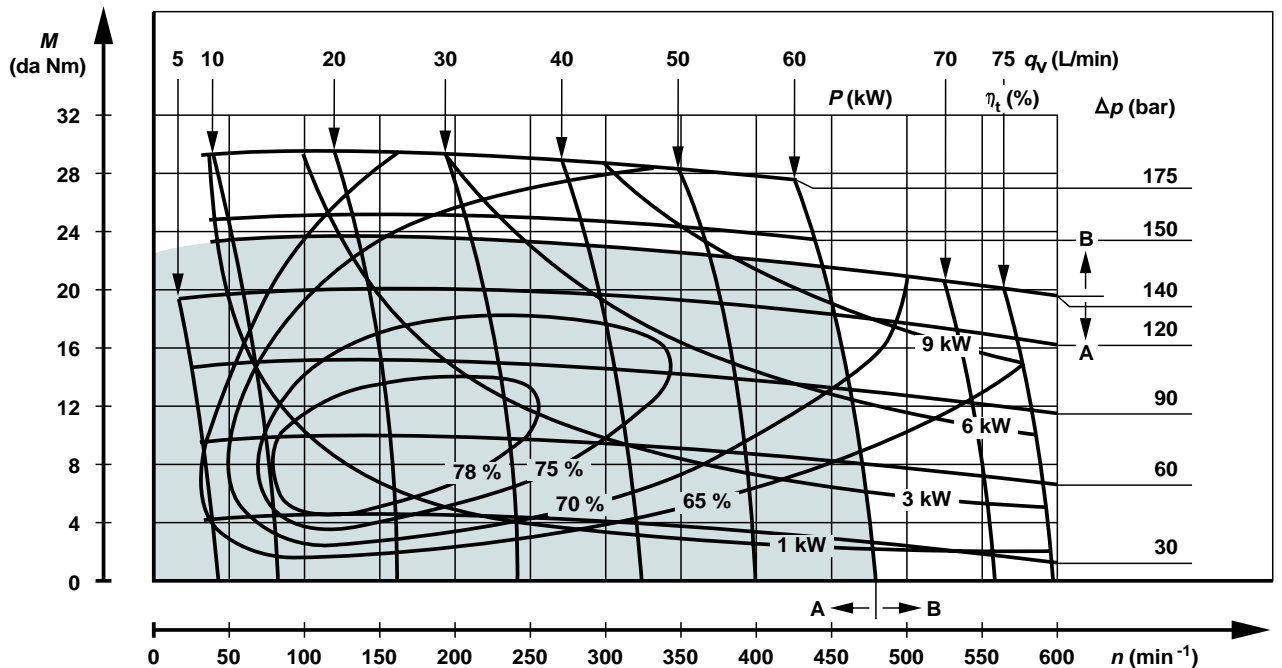
- A: Continuous Operation
- B: Intermittent operation rating applies to 6 sec. of every minute

DO NOT operate at intermittent pressure and intermittent flow conditions simultaneously. Flow fluctuations at intermittent pressure are not recommended

100 98.9 cc



125 123.6 cc



MP Series



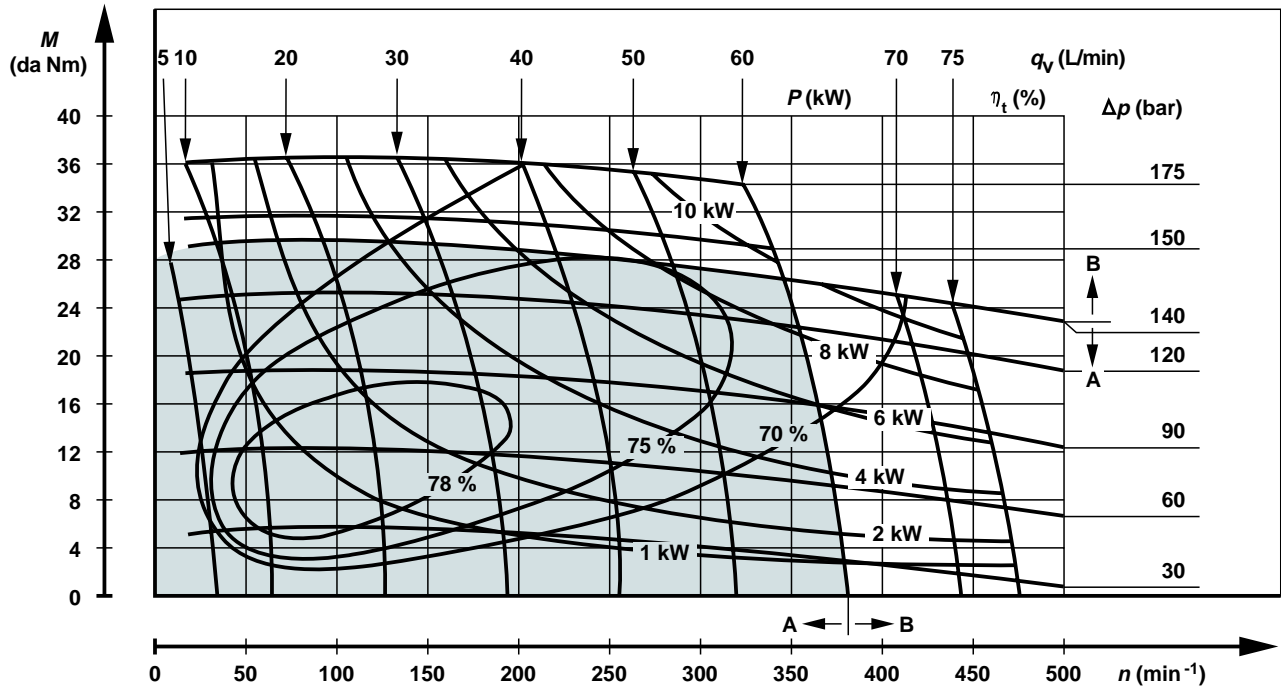
•Performance/ Operating Curves

Performance data was generated with a back flow pressure of 5-10 bar, using a mineral oil-based hydraulic oil with a viscosity of 35cSt at 50°C.

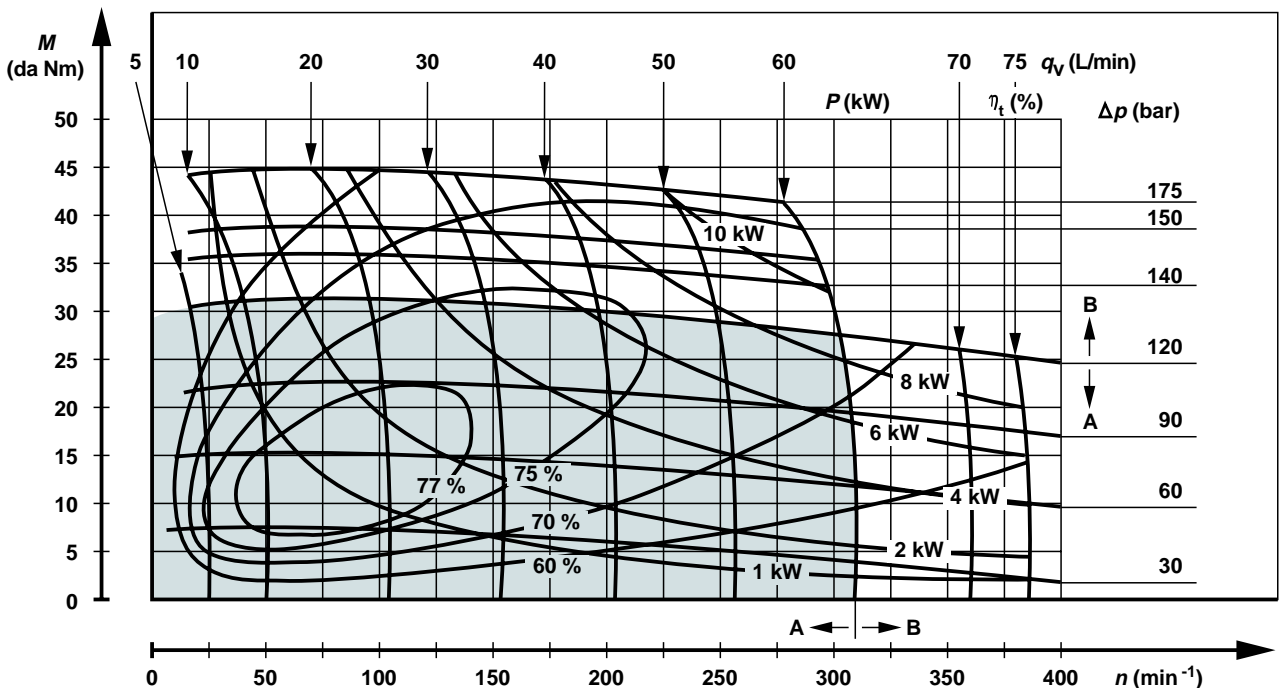
160 158.5 cc

A: Continuous Operation
B: Intermittent operation rating applies to 6 sec. of every minute

DO NOT operate at intermittent pressure and intermittent flow conditions simultaneously. Flow fluctuations at intermittent pressure are not recommended



200 197.8 cc



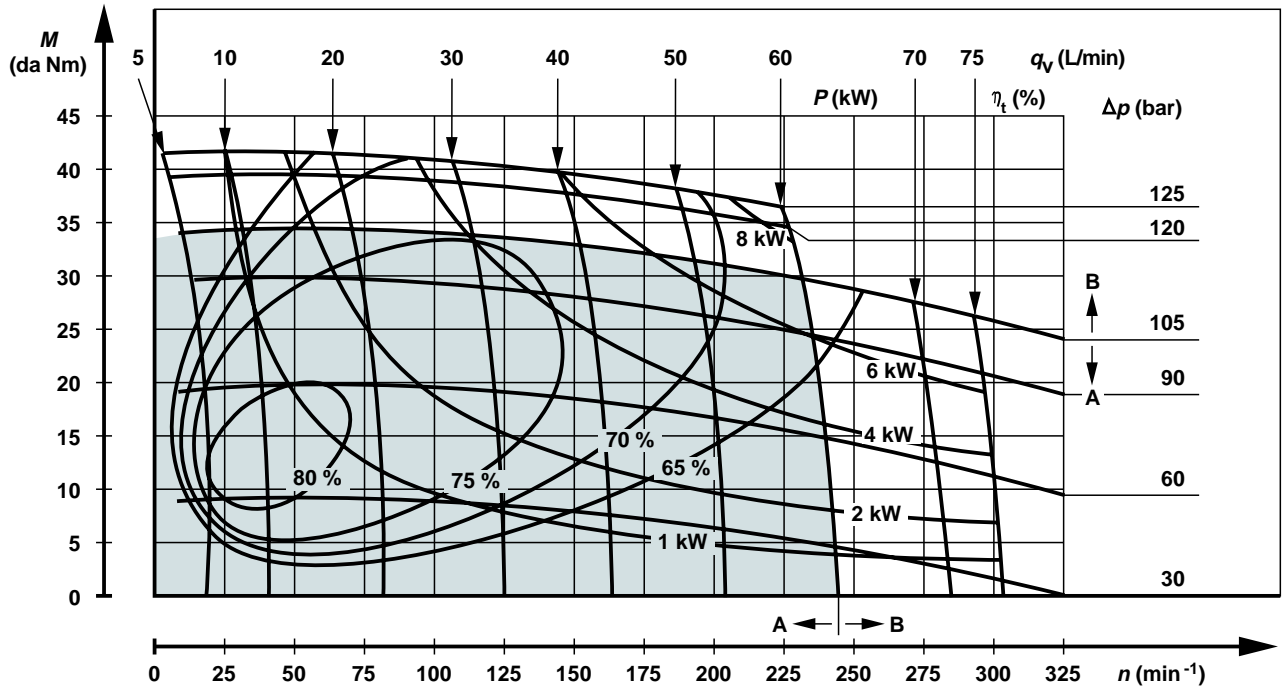
•Performance/ Operating Curves

Performance data was generated with a back flow pressure of 5-10 bar, using a mineral oil-based hydraulic oil with a viscosity of 35cSt at 50°C.

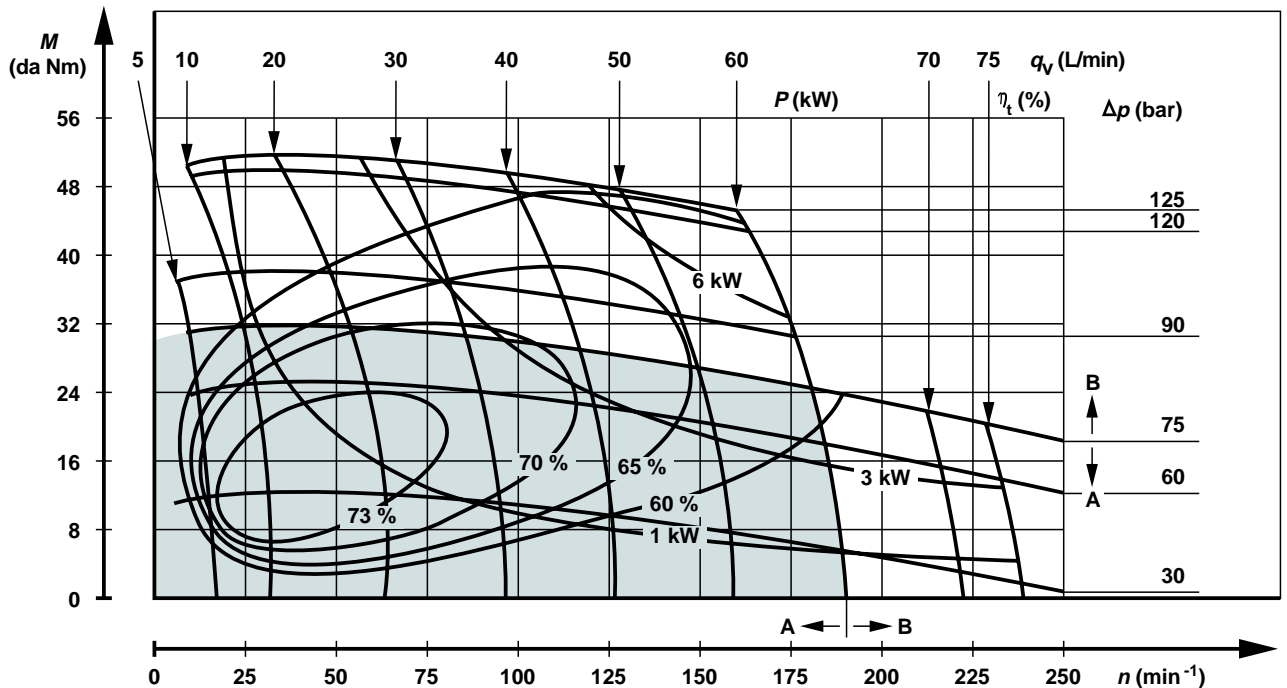
- A: Continuous Operation
- B: Intermittent operation rating applies to 6 sec. of every minute

DO NOT operate at intermittent pressure and intermittent flow conditions simultaneously. Flow fluctuations at intermittent pressure are not recommended

250 247.2 cc



320 316.9 cc



MP Series



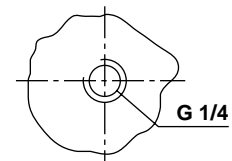
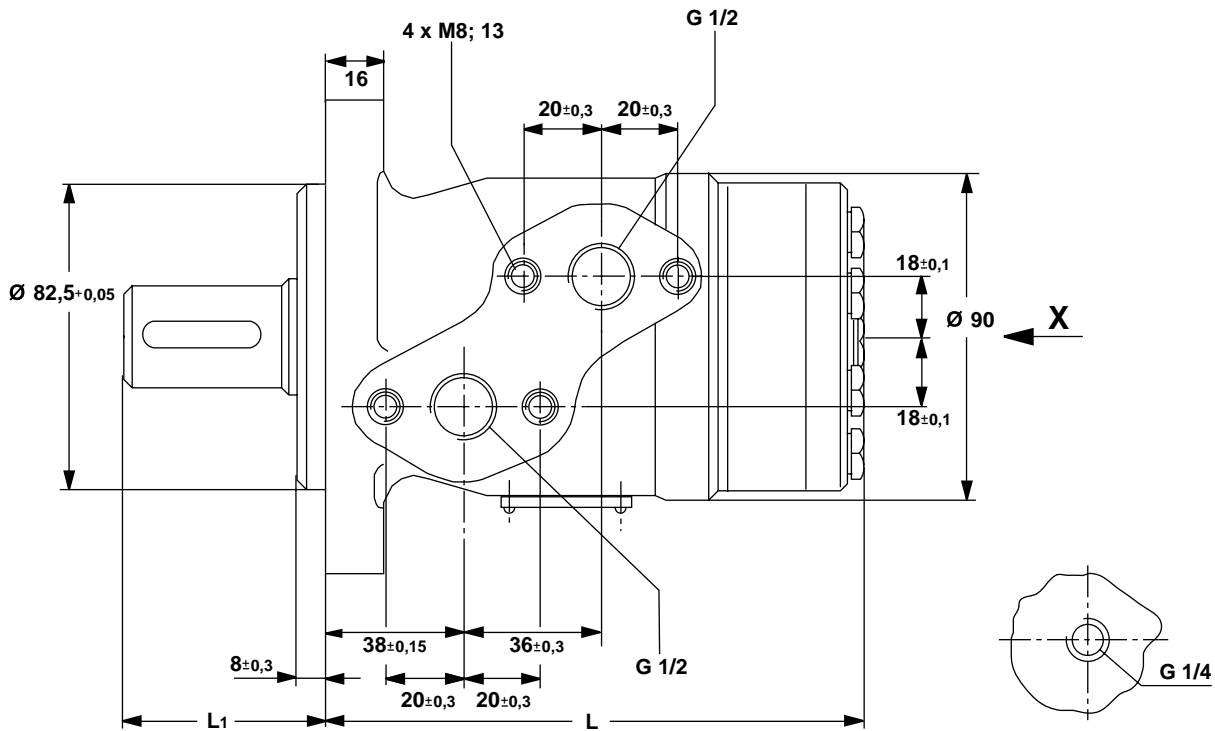
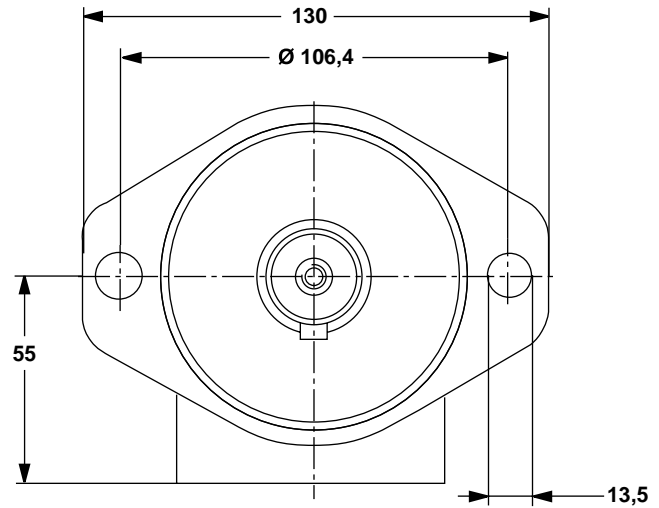
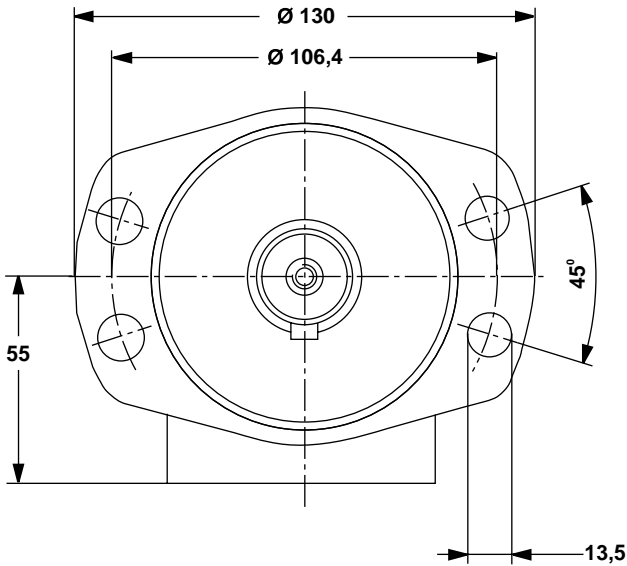
•Housings

A34 4-Bolt M22x1,5 with M14x1,5 Drain

A33 4-Bolt 1/2" BSP.F with 1/4" Drain

A14 2-Bolt M22x1,5 with M14x1,5 Drain

A13 2-Bolt 1/2" BSP.F with 1/4" Drain

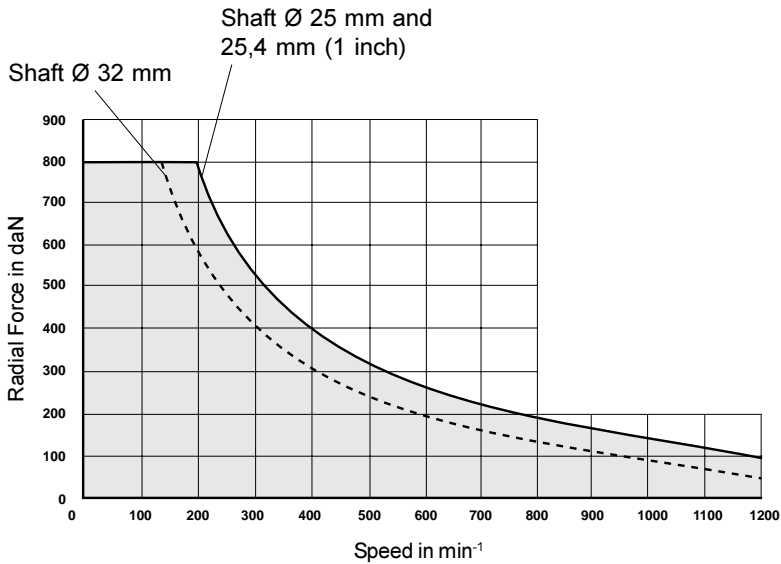


X detail

• Technical

Length and Weight Tables

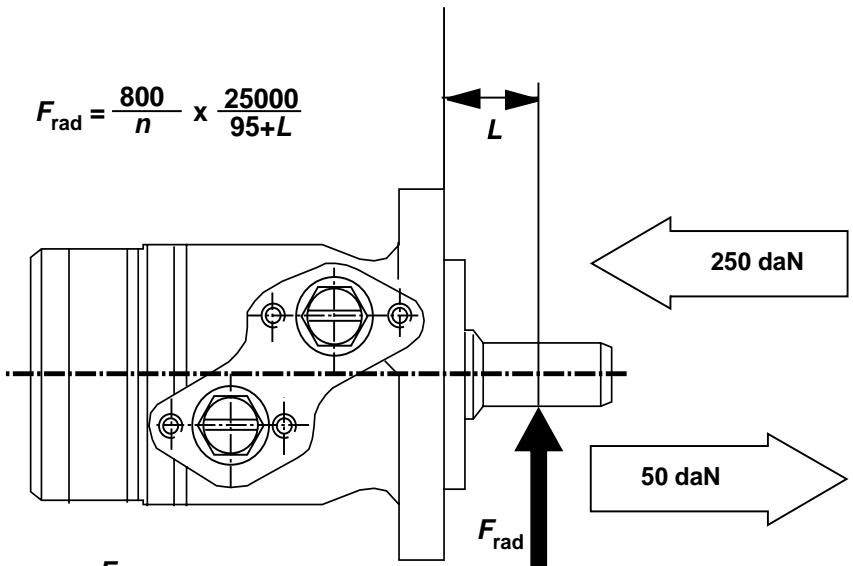
Shaft Load



Permissible Shaft Load: The allowed radial shaft load depends on the speed, the distance between the point of application of force and the mounting flange, and on the shaft design. The curve represents the relationship between F_{rad} and n when $L = 30$ and $n \geq 200$.

Thrust Load

$$F_{rad} = \frac{800}{n} \times \frac{25000}{95+L}$$



- F_{rad} = radial Force (daN)
- L = distance (mm)
- n = speed (min^{-1})

SAE "A" Flange

Disp. Code	Dim. L (mm)	Weight (kg)
050	134	5,4
080	138	5,6
100	141	5,8
125	144	5,9
160	149	6,2
200	155	6,5
250	161	6,8
320	171	7,4

Disp. Code	Dim. L (in)	Weight (lbs)
050	5.29	11.9
080	5.44	12.3
100	5.55	12.8
125	5.65	13.0
160	5.87	13.7
200	6.10	14.3
250	6.34	15.0
320	6.73	16.3

Shaft Lengths

Shaft Code	Dim L ₁ (mm)
21	68
12	55
06	68
04	55
11	55

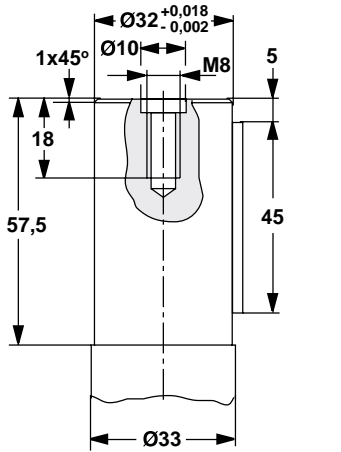
Shaft Code	Dim L ₁ (in)
21	2.68
12	2.16
06	2.68
04	2.16
11	2.16

MP Series



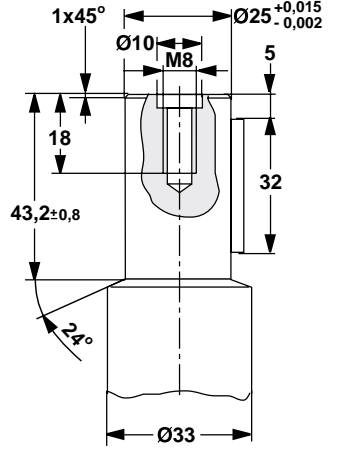
•Shafts

21 32mm Straight



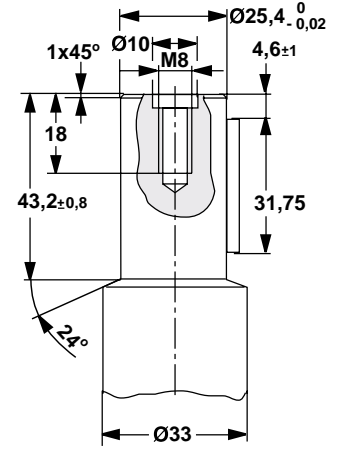
Parallel key A10x8x45; DIN 6885

12 25mm Straight



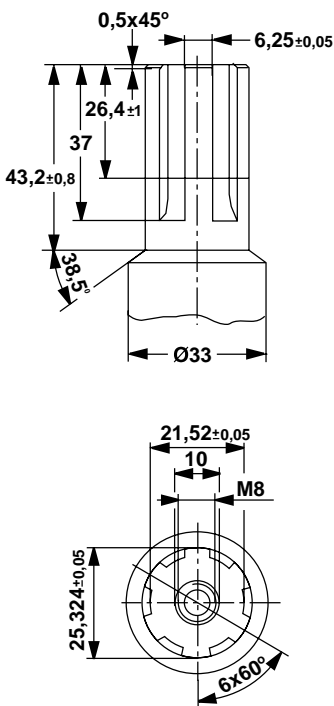
Parallel key A8x7x32; DIN 6885

11 1" Straight

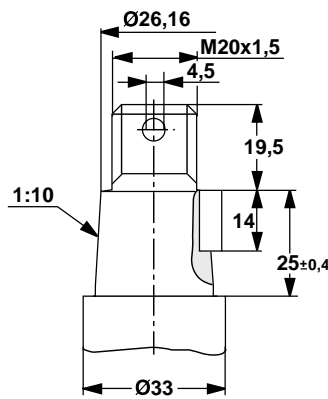


Parallel key 1/4x1/4x1 1/4 Inch
B. S. 46

04 6-B Spline

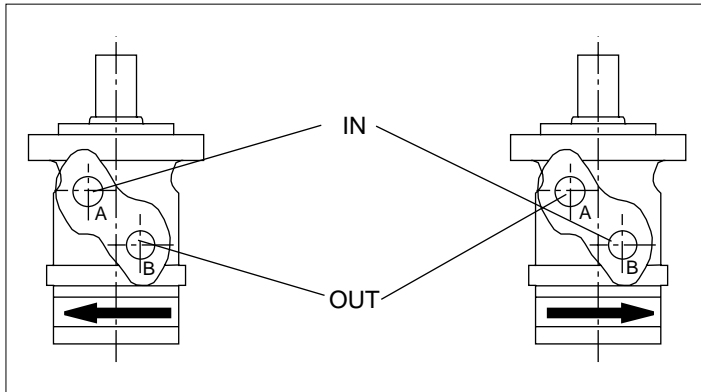


06 1:10 Tapered



Parallel key B5x5x14; DIN 6885

•Rotation Selection



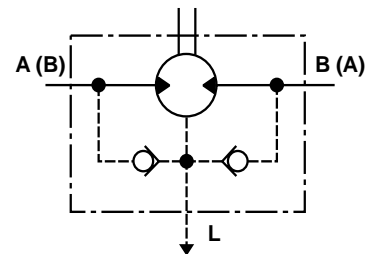
The MP has built-in check valves. The pressure on the shaft seal is identical to the output pressure.

Max. return pressure without drain line or/ Max. pressure in drain line

min ⁻¹	Cont. (bar)
0 - 100 min ⁻¹	75
100 - 300 min ⁻¹	50
300 - 1000 min ⁻¹	25

Max. return pressure with drain line

Continuous	160 bar
Intermittent	175 bar
Peak	225 bar



L = optional drain line

•Ordering Information

SERIES 150

DISPLACEMENT

Code	Displacements
050	51 cc 3.1 in ³ /r
080	79 cc 4.8 in ³ /r
100	99 cc 6.0 in ³ /r
125	124 cc 7.6 in ³ /r
160	159 cc 9.7 in ³ /r
200	198 cc 12.1 in ³ /r
250	247 cc 15.1 in ³ /r
320	317 cc 19.3 in ³ /r

HOUSING

Code	Housings
A13	2-Bolt 1/2" BSP.F with 1/4" Drain
A14	2-Bolt M22x1,5 with M14x1,5 Drain
A33	4-Bolt 1/2" BSP.F with 1/4" Drain
A34	4-Bolt M22x1,5 with M14x1,5 Drain

SHAFT

Code	Shafts
04	6B Splined
06	1:10 Tapered
11	1" Straight
12	25mm Straight
21	32mm Straight

OPTIONS

MISCELLANEOUS

Code	Options
AA	Standard

PAINT

Code	Options
A	Dark Metallic Gray

CAVITY

Code	Options
A	None

ADD ONS

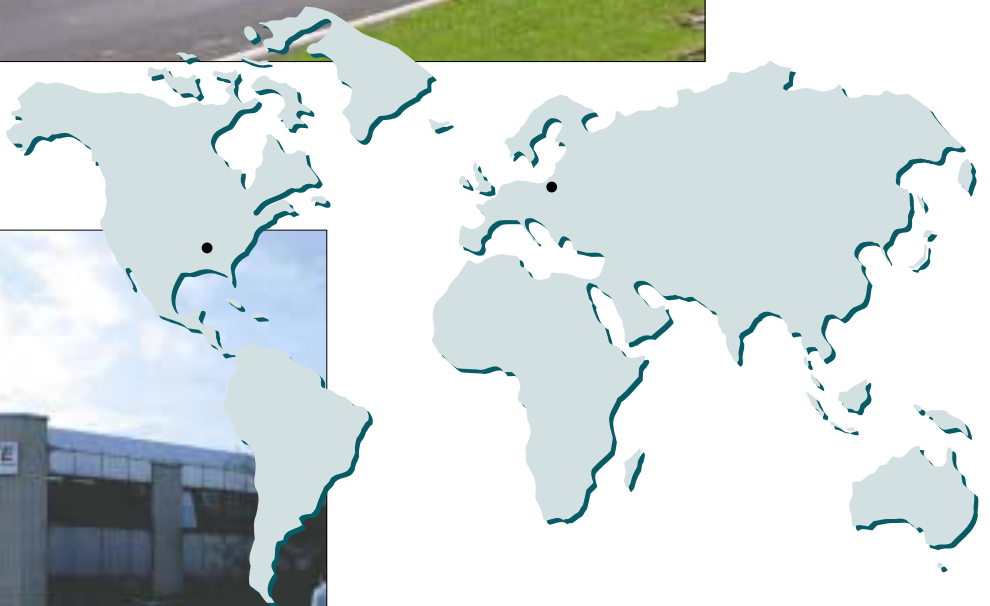
Code	Options
A	None



**White Hydraulics, Inc.
World Headquarters**



White Hydraulics GmbH



White Hydraulics, Inc.

P.O. Box 1127
Hopkinsville, KY. USA 42241-1127
Phone: (270) 885-1110
Fax: (270) 886-8462
Email: info@whitehydraulics.com



White Hydraulics GmbH

Christinenstraße 4 D-40880
Ratingen, Germany
Telefon: 49 (0) 2102-1237770
Telefax: 49 (0) 2102-1237779
Email: white_hydraulics_gmbh@t-online.de



www.57382299.com