



# MT SERIES

## HYDRAULIC MOTOR

### HIGH TORQUE - LOW SPEED



TYPE		MT SERIES							
MOTOR SIZE		130	160	200	250	300	400	500	
DISPLACEMENT	cm <sup>3</sup>	142	161	201	250	330	411	524	
	in <sup>3</sup>	8.6	9.8	12.3	15.2	20.2	25.1	32.0	
MAX. SPEED	rpm cont.	725	625	625	500	380	300	240	
	rpm int.	825	780	750	600	460	360	285	
MAX. TORQUE	Nm cont.	375	470	590	730	950	1080	1220	
	lbf.in cont.	3320	4160	5220	6460	8410	9560	10800	
	Nm int.	470	560	710	880	1140	1260	1370	
	lbf.in int.	4160	4960	6280	7790	10090	11150	12130	
MAX. PRESSURE DROP	bar cont.	200	200	200	200	200	180	160	
	psi int.	2900	2900	2900	2900	2900	2610	2320	
	bar int.	240	240	240	240	240	210	180	
	psi int.	3480	3480	3480	3480	3480	3050	2610	
MAX. OIL FLOW	lpm cont.	102	100	125	125	125	125	125	
	gpm cont.	22.5	22.0	27.5	27.5	27.5	27.5	75.5	
	lpm int.	116	125	151	149.4	152.0	148.0	151.0	
	gpm int.	25.6	27.6	33.3	33.0	33.5	32.5	33.0	
WEIGHT	MTAP	kg	21.5	22.0	22.5	23.0	24.0	25.0	26.0
	MTWP	kg	23.0	23.5	24.0	24.5	25.5	26.5	27.5
	MTS	kg	14.3	14.8	15.3	15.8	16.8	17.8	18.8
	MTSS	kg	9.3	9.8	10.3	10.8	11.8	12.8	13.8

Maximum inlet pressure 4350 psi - 300 bar  
 High pressure shaft seal drain line not required for most applications.

Maximum pressure drop and speed must not be reached simultaneously.  
 Intermittent operation may occur for 10% max. of every minute.

At speeds lower than 10 rpm please consult our Technical Department.  
 Mineral based hydraulic fluids with anti-wear additives are recommended with a viscosity of 35 mm<sup>2</sup>/s at a temperature of 50 C.

Minimum recommended oil viscosity 13 mm<sup>2</sup>/s at operating temperature.  
 Recommended oil cleanliness ISO 19/14 with a nominal filtration of 25 micron or better.

Where non-flammable fluids are to be used it is advisable to consult our Technical Department.

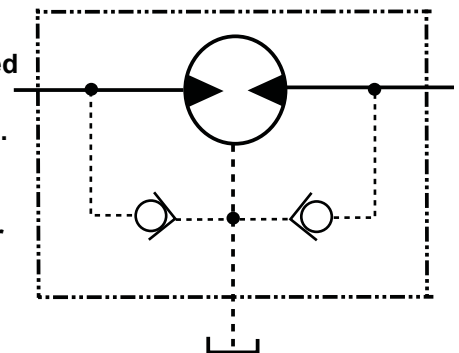
Ambient temperature should be between -30°C and +90°C.

Normal operating temperature should be between +30°C and +60°C.

Maximum operating temperature +85°C.

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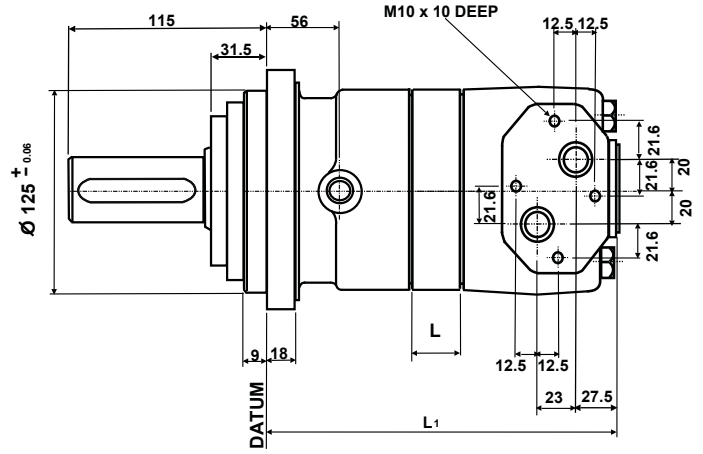
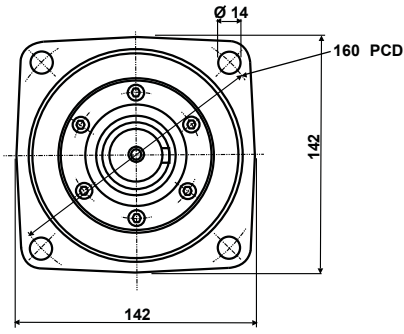
#### SYMBOL



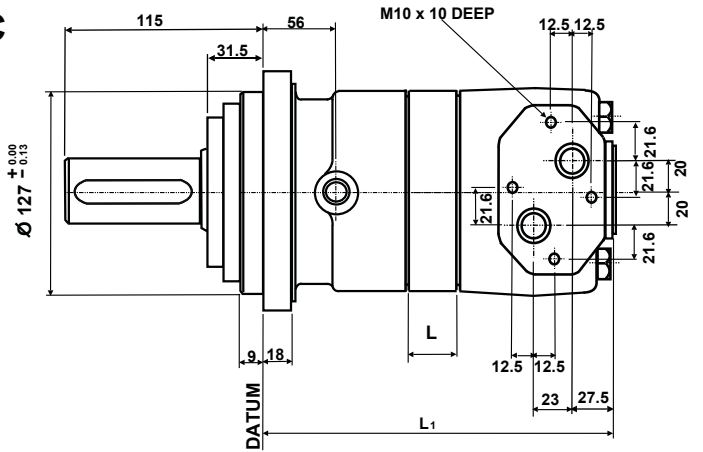
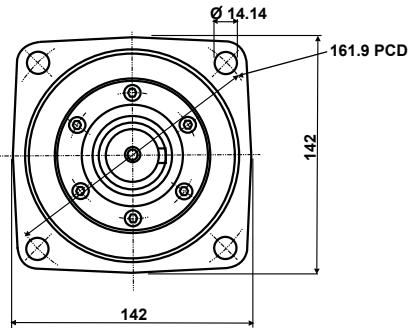
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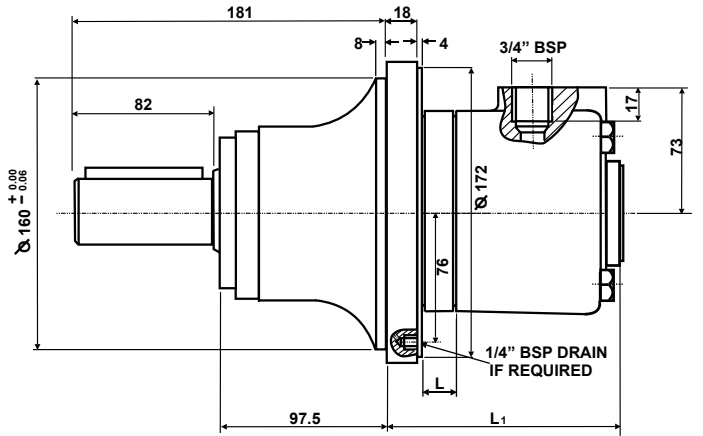
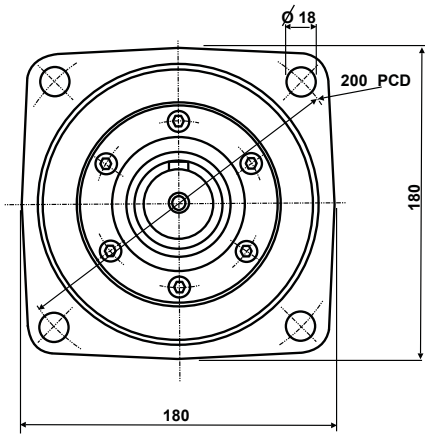
## MTAP



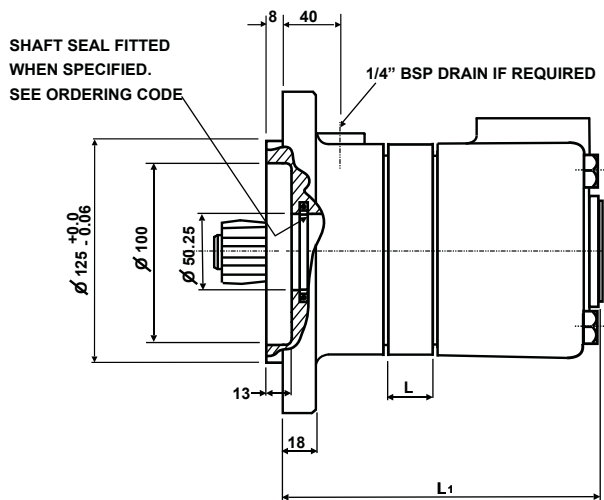
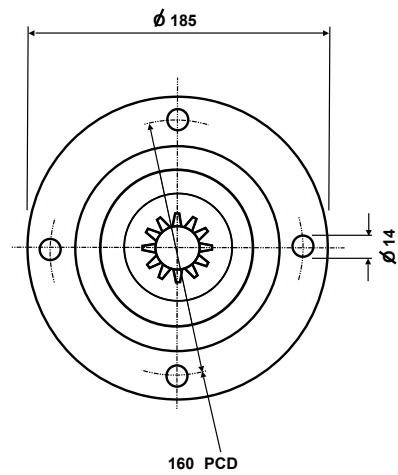
## MTAPC



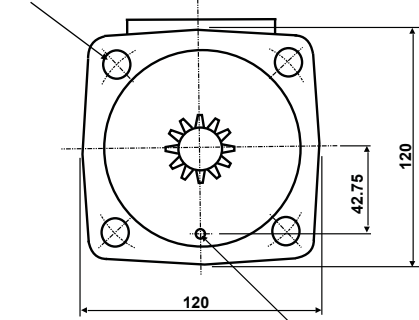
## MTWP



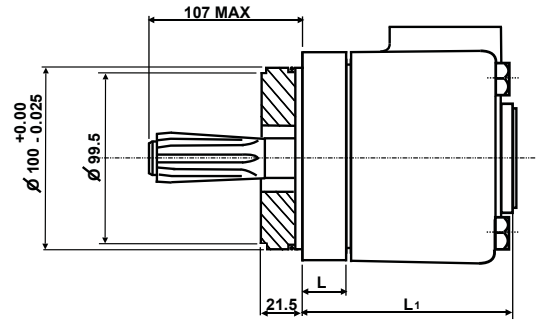
## MTS



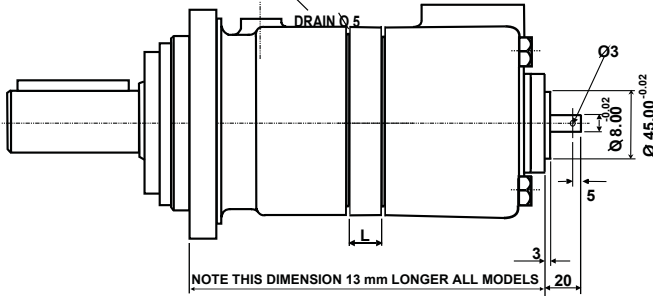
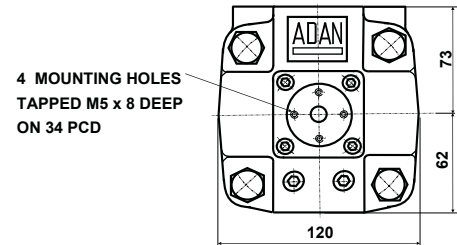
4 MOUNTING BOLTS M14  
EQUI-SPACED ON 122 PCD



## MTSS

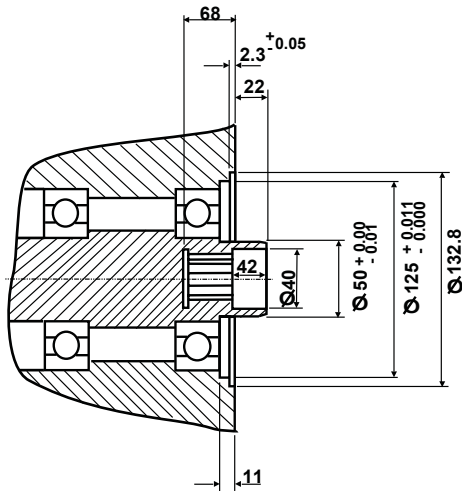


## TA

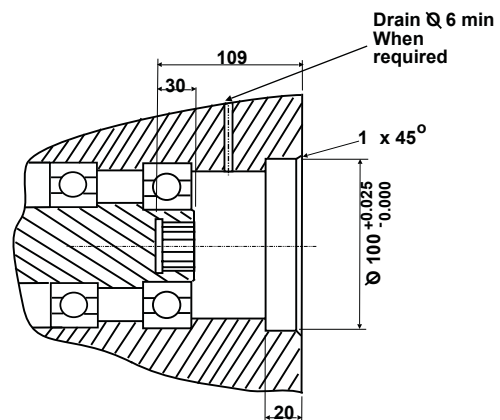


Motor size	Dimn.	130	160	200	250	300	400	500
ALL TYPES	L	10.6	13	18	24	34	44	57.9
MTAP	L <sub>1</sub>	185.1	187.5	192.5	198.5	208.5	218.5	232.4
MTWP	L <sub>1</sub>	119.1	121.5	126.5	132.5	142.5	152.5	166.4
MTS	L <sub>1</sub>	158.1	160.5	165.5	171.5	181.5	191.5	205.4
MTSS	L <sub>1</sub>	96.1	98.5	103.5	109.5	119.5	129.5	143.4

### MATING DIMENSIONS MTS



### MATING DIMENSIONS MTSS



### INTERNAL SPLINE DATA

FILLET ROOT SIDE FIT, 16 TEETH, 12/24 DP, 30° PRESSURE ANGLE,  
PITCH DIA. 33.87, MAJOR DIA. 38.4/38.8, MINOR DIA. 32.15/32.19,  
FILLET RAD. 0.5, MEASUREMENT BETWEEN 4.833/4.836 DIA. PINS 26.9/27.0

### IMPORTANT

When using MTS or MTSS motors a drain line is required if the pressure in the return line exceeds the permissible pressure of the seal fitted to the attached component.

The drain line if fitted should be run to tank in such a way that there is no risk of the motor or component being drained of oil when at rest.

### MATING COMPONENT MATERIAL

CASE HARDENING STEEL  
TREATED TO 58/60 ROCKWELL 'C'  
0.7 mm CASE DEPTH.

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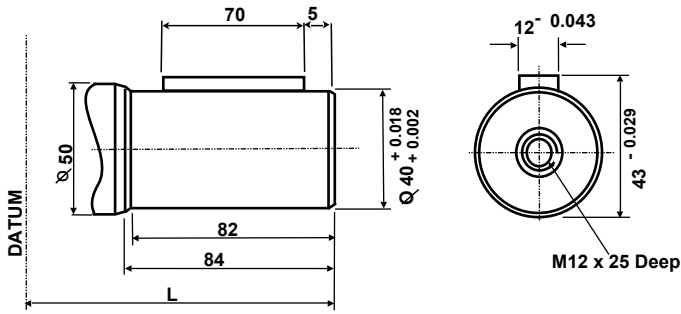
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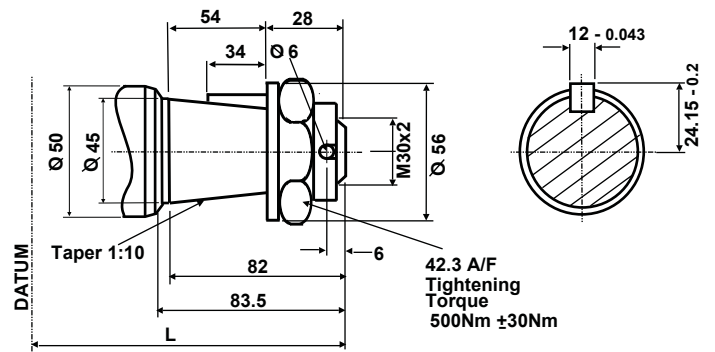
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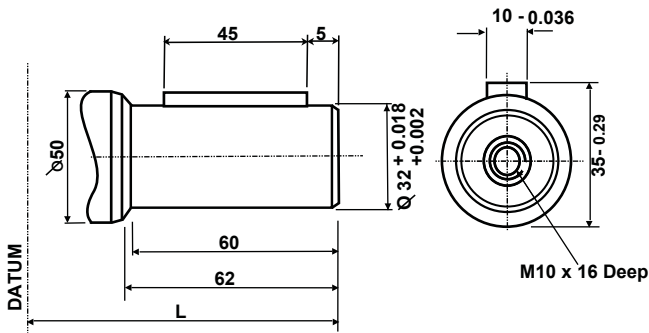
Standard 40mm Shaft - P



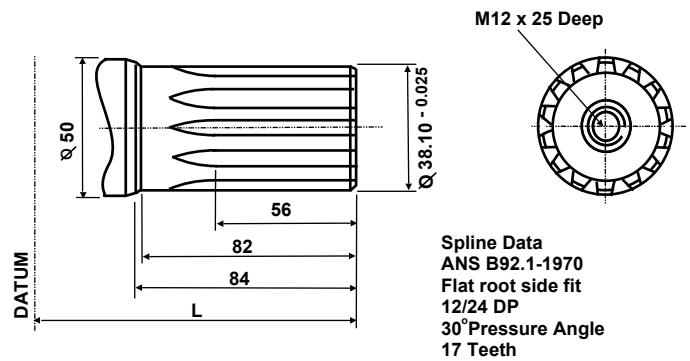
Tapered Shaft-T



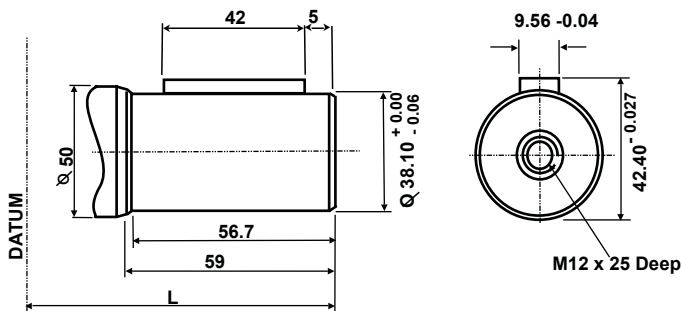
Metric 32mm Shaft - M



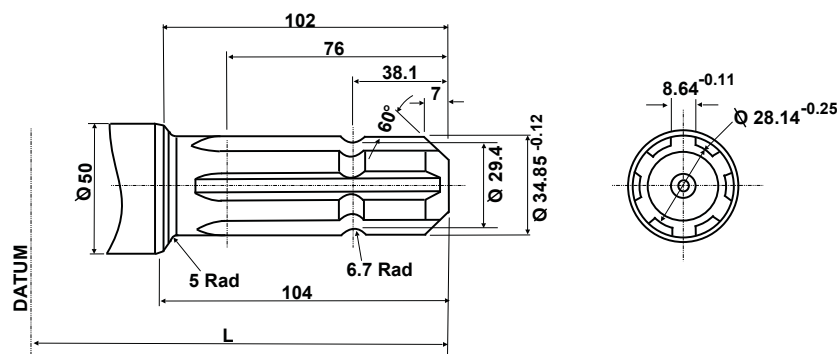
Splined Shaft - S



1.5 Dia. Shaft - U



PTO Shaft - D



Special shafts can be supplied in most cases  
Please consult our Technical Department about your requirements.

Dim.	MOTOR TYPE	SHAFT TYPE					
		P	T	M	S	D	U
L	MTAP	115.0	115.0	93.0	115.0	135.0	90.0
	MTWP	181.0	181.0	159.0	181.0	201.0	144.0

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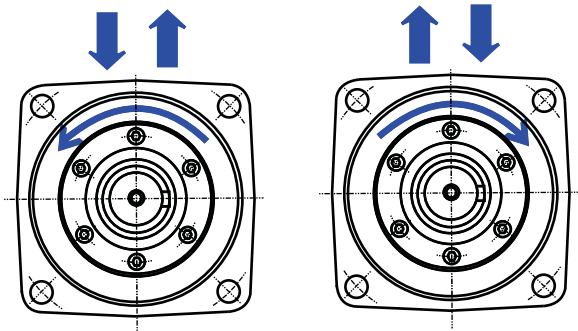
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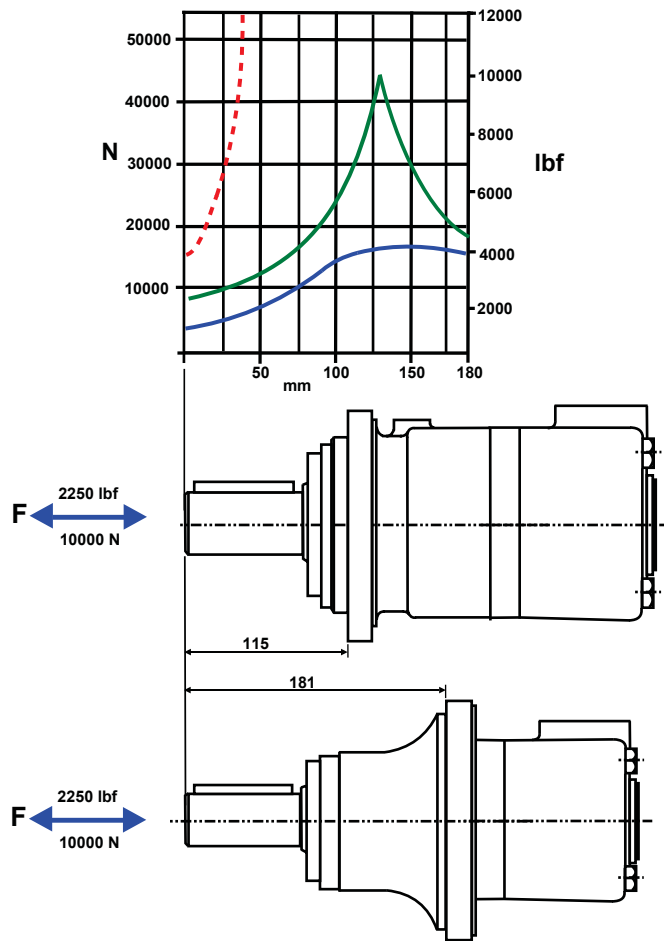
SHAFT ROTATION



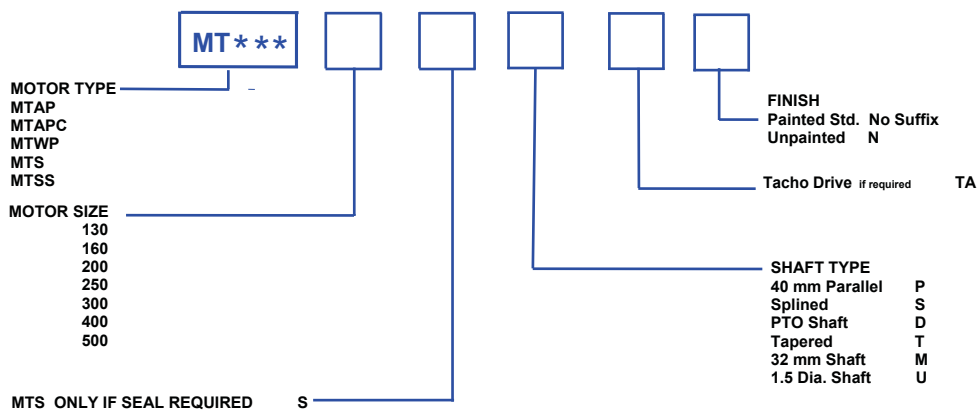
- Radial load if  $F = 0\text{ N}$
- Radial load if  $F = 10000\text{ N}$
- Absolute max. Radial load

The curves in Green and Blue are based on a B10 bearing life of 3000 hours at 200 rpm

SHAFT LOADING



ORDERING CODE



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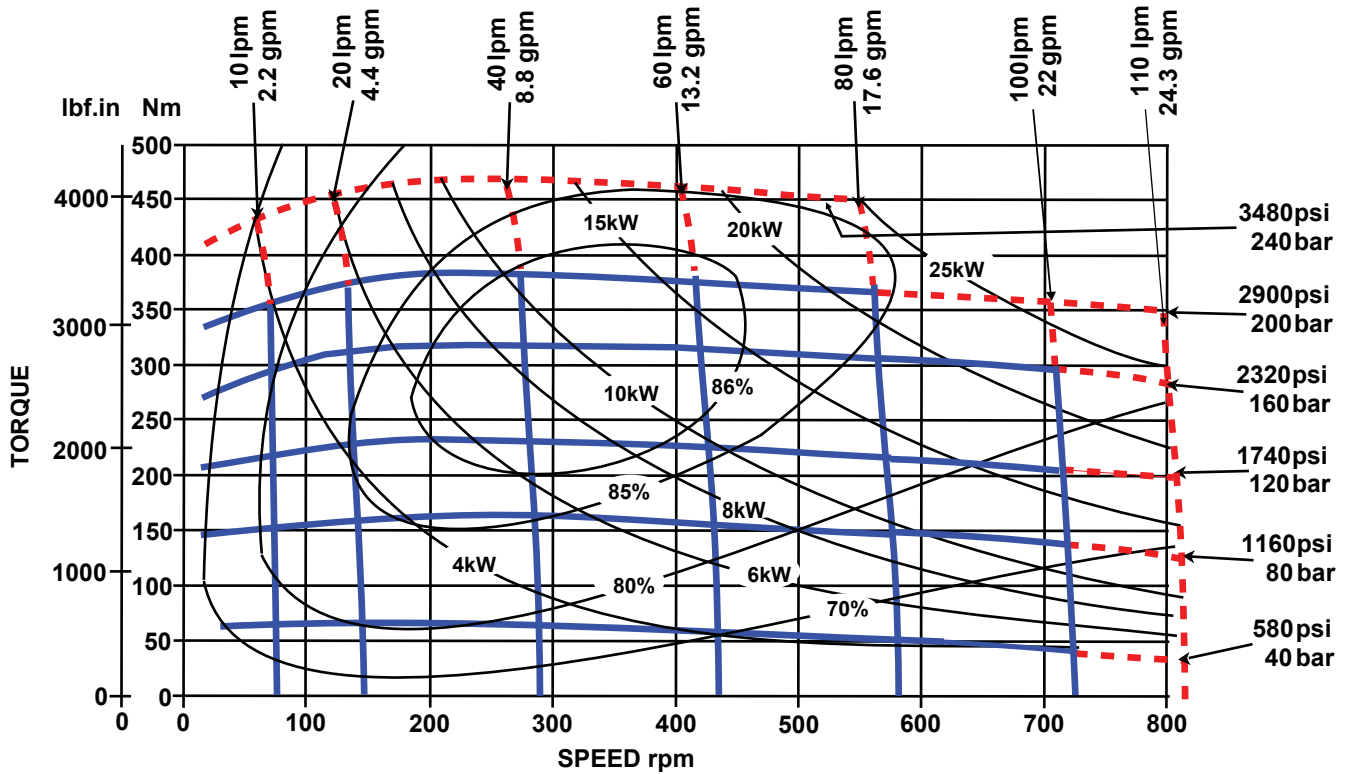


# PERFORMANCE GRAPHS 130 & 160 cc MT SERIES

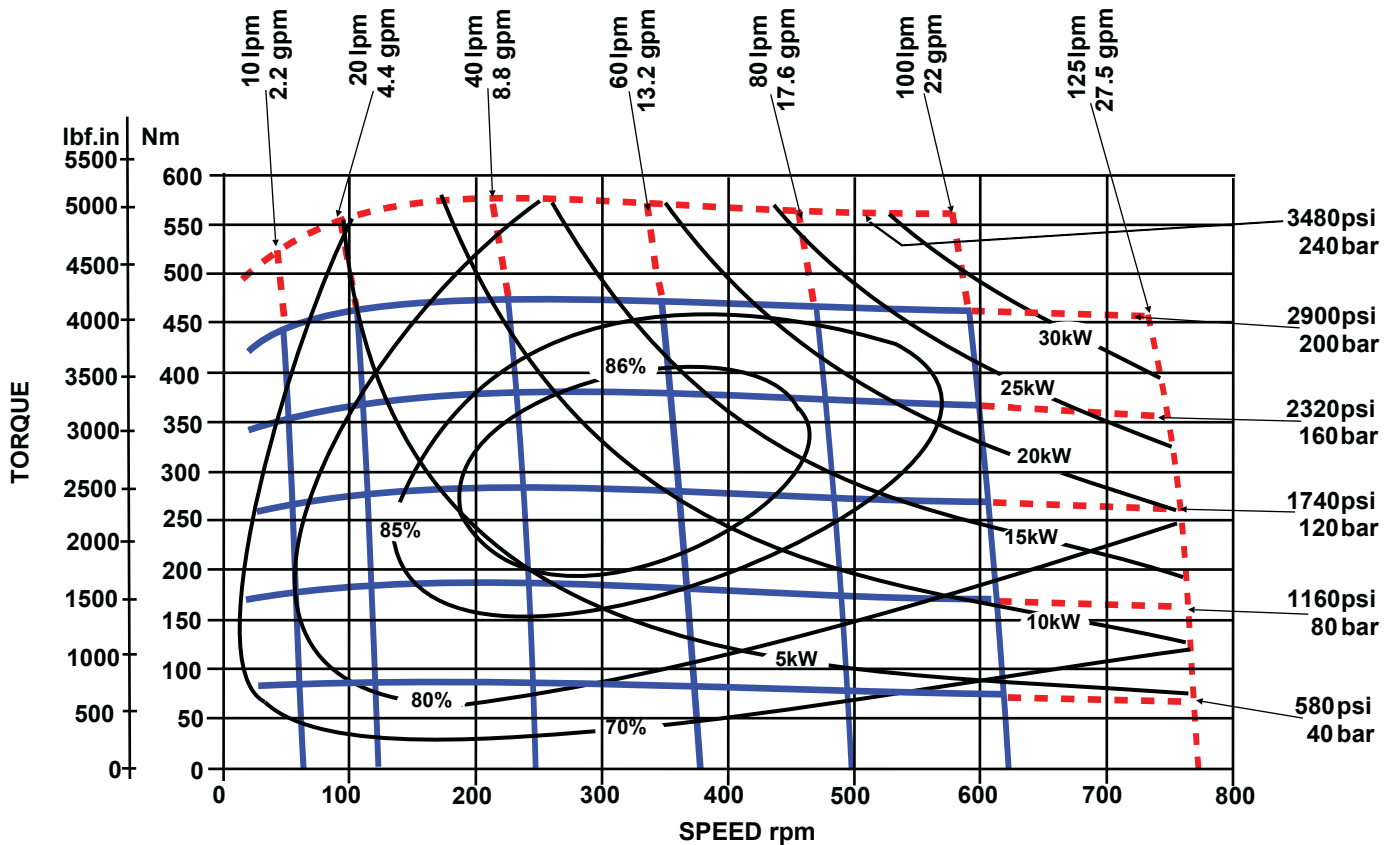
Solid blue lines represent continuous operation. Dotted red lines represent intermittent operation permissible for 10% of every minute.

Maximum pressure drop and maximum speed must not occur simultaneously.

## MTAP 130



## MTAP 160

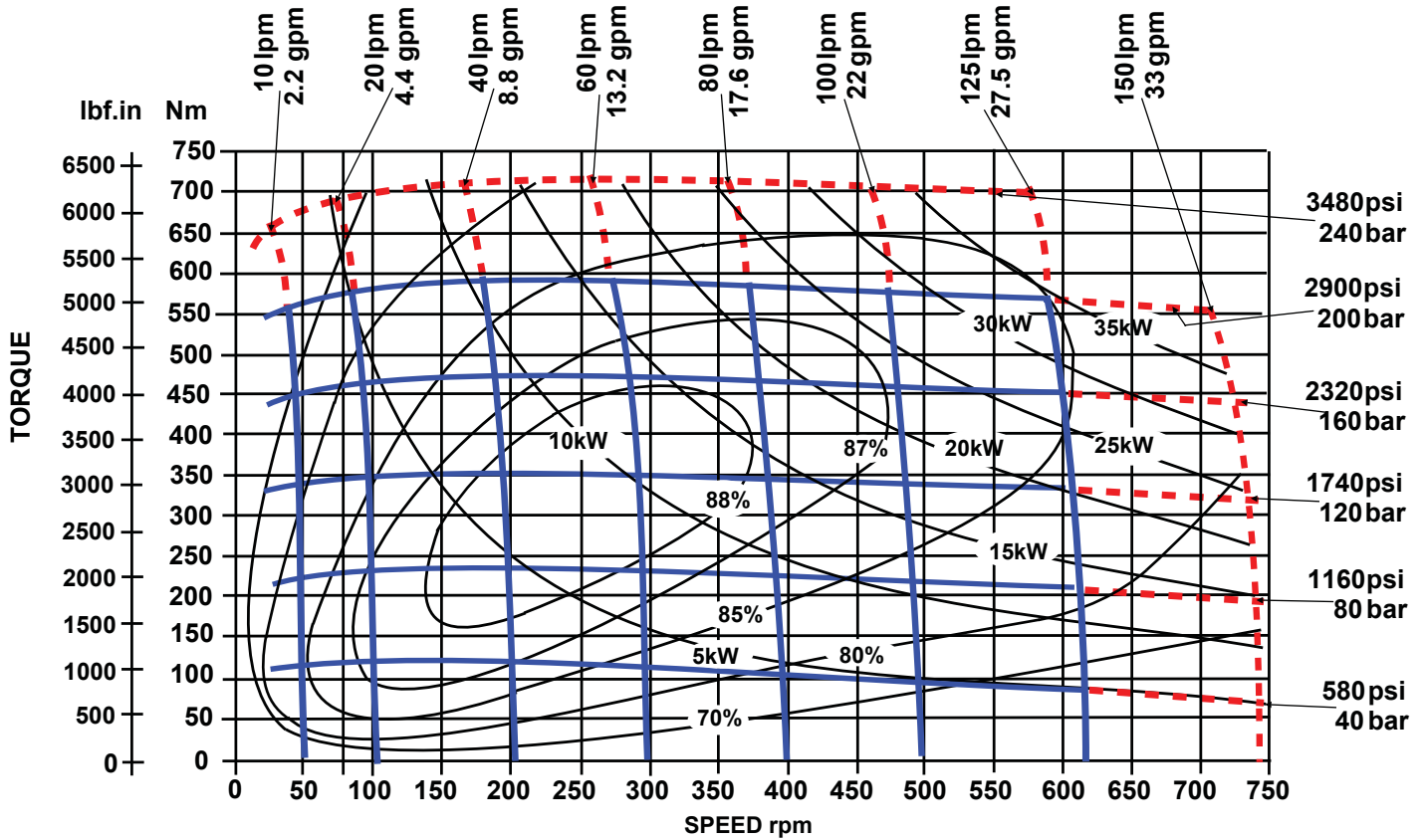


# PERFORMANCE GRAPHS 200 & 250 cc MT SERIES

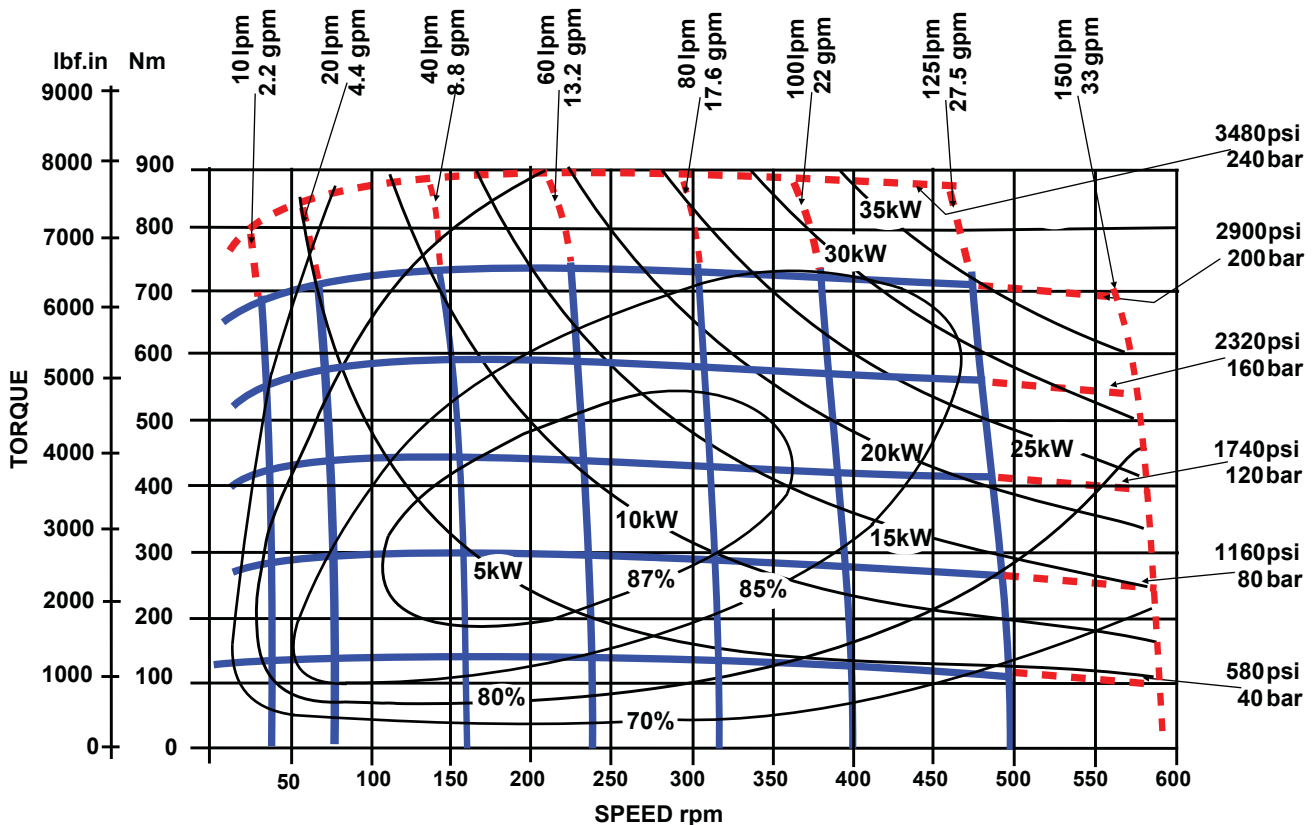
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## MTAP 200



## MTAP 250

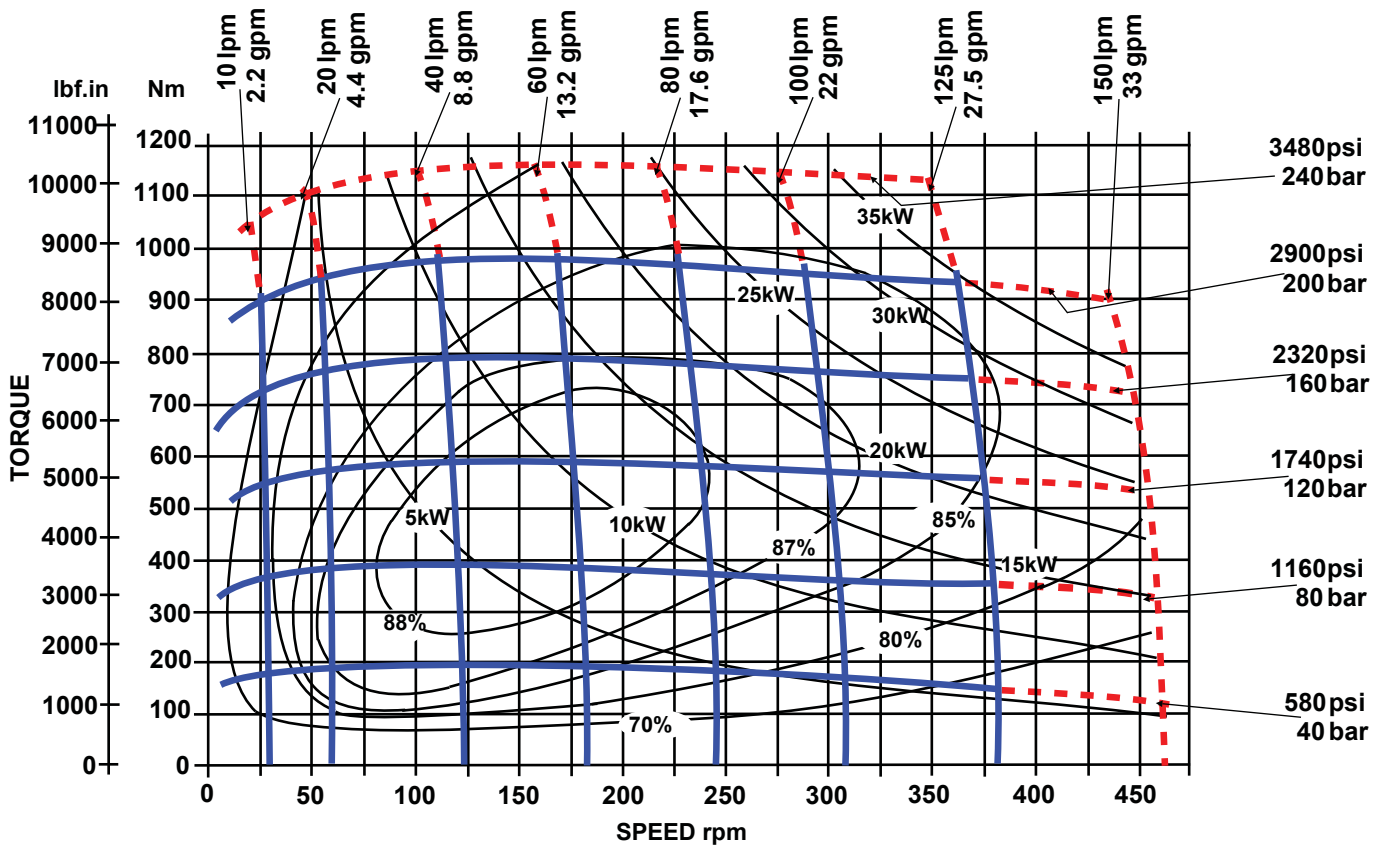


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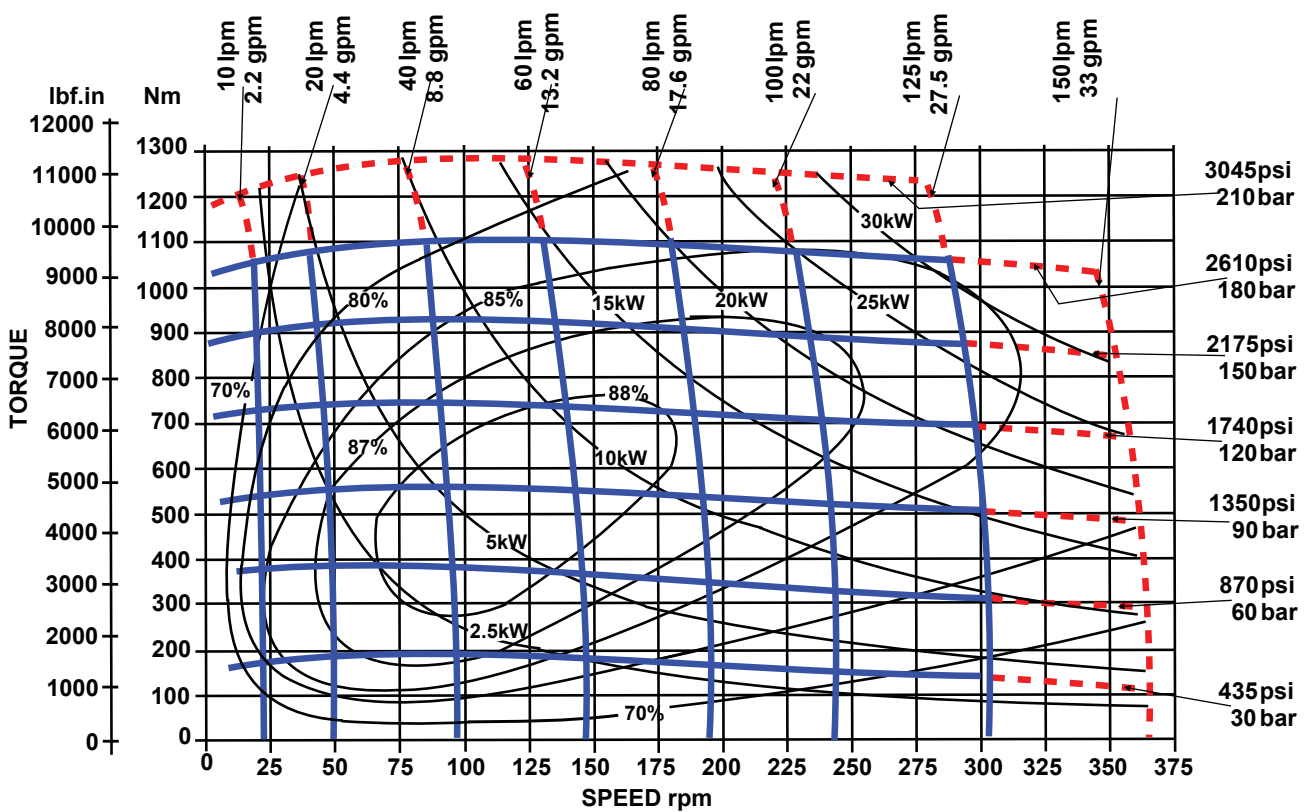
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### MTAP 300



### MTAP 400



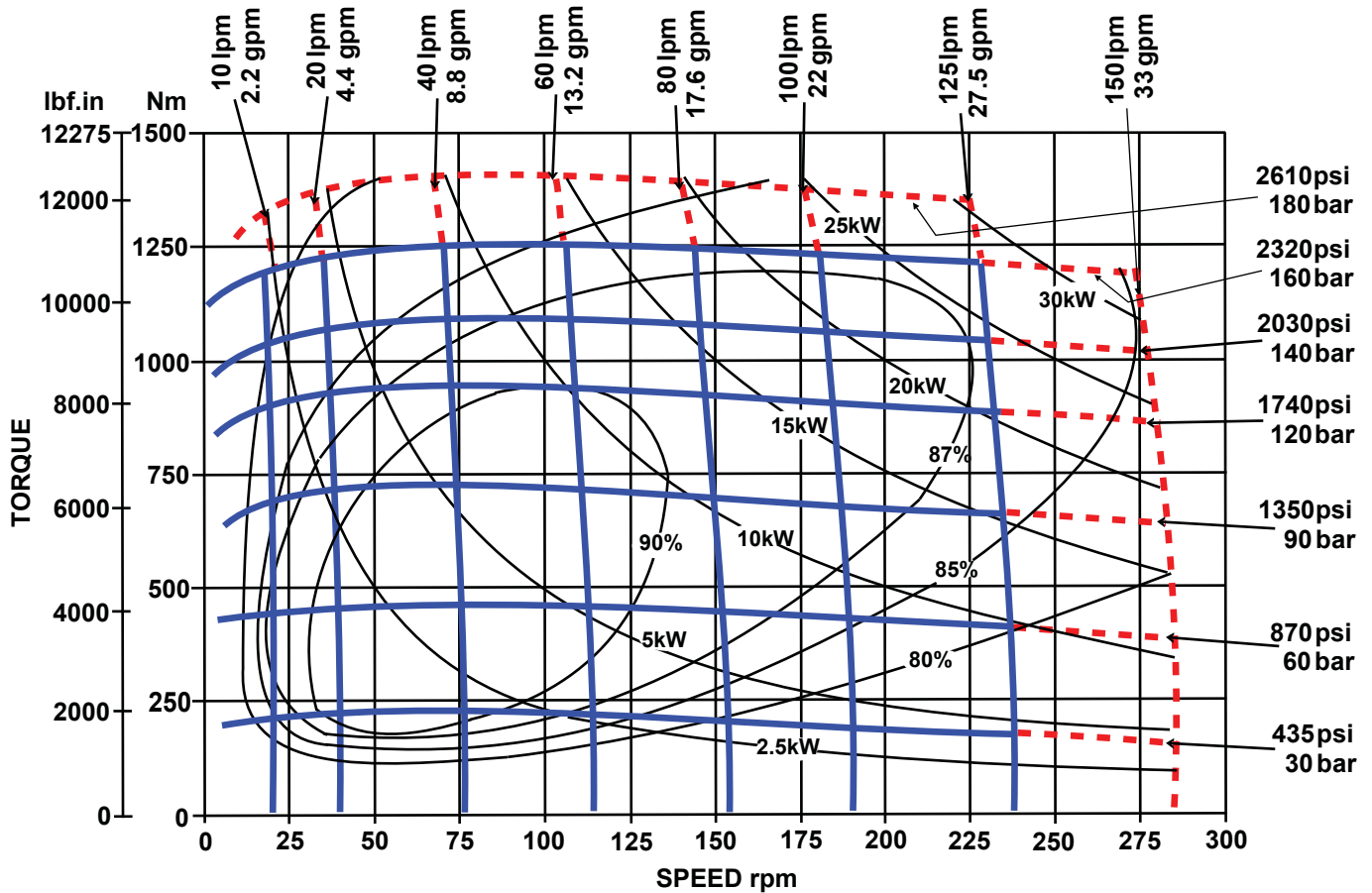


# PERFORMANCE GRAPHS 500 cc MT SERIES

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Maximum pressure drop and maximum speed must not occur simultaneously.

## MTAP 500



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