

MTH PUMPS

Reliably serving the fire protection industry for over 50 years

High Head, Low Flow Regenerative Turbine

Jockey Pumps

Sprinkler System Jockey Pump Operation

Automatic fire pump systems normally utilize two pumps. One is the main fire pump which delivers large volumes of water to the fire standpipe system in case of fire. The other is a low flow, high head jockey pump (also known as a pressure maintenance pump), which keeps the system pressurized during normal non-fire conditions. Since the activation of the large flow main fire pump is triggered by a system pressure drop, it is very important to maintain system pressure since even normal plumbing leaks allow the system pressure to bleed down over a period of time. When the system pressure drops to a preset level, the jockey pump turns on and charges the system back to normal pressure. The jockey pump can be selected to provide approximately 1% of the flow rate of the main fire pump, usually at a pressure 5 PSI above that of the main fire pump. In case of fire, sprinkler heads open and fire hose connections are utilized causing a rapid system pressure drop over and above what the jockey pump is capable of supplying. When the lower pressure limit of the main fire pump is reached, it starts up and provides the needed high flow for fire suppression. The majority of the MTH regenerative turbine standard product line may be used in fire system jockey pump service, depending upon the system size.

Instructions

- Jockey pump selection is based on fire pump boost pressure rating.
- Select pump model based on main fire pump flow rate and rated system pressure.



T51 Series



T41 Series



140 • 180 Series



150 • 160 • 170 Series

- Just a few pump models can cover a large range of pressure requirements by matching motor HP to system pressure.
- Mounting and piping dimensions are similar for most pressure and 56C frame motor horsepower ratings.
- Simple and rugged single stage design makes the T41 and T51 Series Jockey Pump compact, easy to install and economical to service.
- Steep performance curve builds pressure rapidly and minimizes running time.
- Uniform flow over wide pressure range.
- Other models and sizes available for higher flow and pressure requirements.

Standard Materials

PART	BRONZE FITTED
Motor Bracket	Cast Iron - ASTM A48
Cover	Cast Iron - ASTM A48
Impeller	Bronze - ASTM B62
Sleeve	Bronze - ASTM B16
"O" Rings	Buna N
Seals	Buna/Ceramic
Seats	Buna/Carbon

Limitations

Discharge Pressure	300 PSI
Seal Pressure*	200 PSI
Suction Pressure (Min.)	26" Hg Vac.
Speed	3600 RPM

*Suction Pressure Plus a Percentage of Differential Pressure



Manufacturing MTH Pumps in the USA for over 50 years, specializing in high-pressure pumps.



MTH PUMPS

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Jockey Pumps

Jockey Pump Selection Chart

MAIN PUMP RATING IN GPM	JOCKEY PUMP GPM	JOCKEY PUMP SYSTEM PRESSURE (psi)*																						
		50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	
25	1	T41B 1/3	T41B 1/3	T41B 1/3	T41B 1/3	T41B 1/3	T41B 1/3	T41B 1/3	T41B 1/3	T41B 1/3	T41B 1/3	T41B 1/3	T41B 1/3	T41B 1/3	T41C 3/4	T41C 3/4	T51B 3/4	T51B 3/4	T51B 3/4	T51B 3/4	T51B 3/4	T51B 3/4	T51B 3/4	
50	1	T41B 1/3	T41B 1/3	T41B 1/3	T41B 1/3	T41B 1/3	T41B 1/3	T41B 1/3	T41B 1/3	T41B 1/3	T41B 1/3	T41B 1/3	T41B 1/3	T41B 1/3	T41C 3/4	T41C 3/4	T51B 3/4	T51B 3/4	T51B 3/4	T51B 3/4	T51B 3/4	T51B 3/4	T51B 3/4	
100	1	T41B 1/3	T41B 1/3	T41B 1/3	T41B 1/3	T41B 1/3	T41B 1/3	T41B 1/3	T41B 1/3	T41B 1/3	T41B 1/3	T41B 1/3	T41B 1/3	T41B 1/3	T41C 3/4	T41C 3/4	T51B 3/4	T51B 3/4	T51B 3/4	T51B 3/4	T51B 3/4	T51B 3/4	T51B 3/4	
150	1.5	T41B 1/3	T41B 1/3	T41B 1/3	T41B 1/3	T41B 1/3	T41B 1/3	T41B 1/3	T41B 1/3	T41B 1/3	T41B 1/3	T41B 1/3	T41B 1/3	T41B 1/3	T41C 3/4	T41C 3/4	T51B 3/4	T51B 3/4	T51B 3/4	T51B 3/4	T51B 3/4	T51B 3/4	T51B 3/4	
200	2	T41B 1/3	T41B 1/3	T41B 1/3	T41B 1/3	T41B 1/3	T41B 1/3	T41B 1/3	T41B 1/3	T41B 1/3	T41B 1/3	T41B 1/3	T41B 1/3	T41B 1/3	T41C 1/2	T41C 3/4	T51B 3/4	T51B 1	T51C 1	T51C 1	T51C 1	T51C 1	T51C 1	
250	2.5	T41B 1/3	T41B 1/3	T41B 1/3	T41B 1/3	T41B 1/3	T41B 1/3	T41B 1/2	T41C 1/2	T41C 1/2	T41C 1/2	T41C 1/2	T41C 1/2	T41C 1/2	T41C 3/4	T41D 3/4	T51B 3/4	T51B 3/4	T51C 1	T51C 1	T51D 1	T51D 1	T51D 1	
300	3	T41B 1/3	T41B 1/3	T41D 1/3	T41D 1/3	T41D 1/2	T41D 1/2	T41D 1/2	T41D 1/2	T41E 1/2	T41E 3/4	T41E 3/4	T41E 1	T41E 1	T41E 1	T51D 1	T51D 1	T51D 1 1/2	T51D 1 1/2	T51D 1 1/2	T51D 1 1/2	T51D 1 1/2	T51D 1 1/2	
400	4	T41C 1/3	T41C 1/3	T41C 1/3	T41D 1/2	T41D 1/2	T41D 1/2	T41D 1/2	T41E 3/4	T41E 3/4	T41E 1	T41E 1	T41E 1	T41E 1	T41E 1 1/2	T51D 1	T51D 1	T51D 1	T51E 2	T51E 3	T51E 3	T51E 3	T51E 3	
450	4.5	T41D 1/3	T41D 1/3	T41D 1/3	T41D 1/3	T41E 1/2	T41E 1/2	T41E 1/2	T41E 3/4	T41E 3/4	T41E 3/4	T41E 1	T41E 1	T41E 1 1/2	T41E 1 1/2	T51D 1	T51D 1	T51E 2	T51E 2	T51E 3	T51E 3	T51E 3	T51E 3	
500	5	T41D 1/3	T41D 1/3	T41D 1/3	T41D 1/3	T41E 3/4	T41E 3/4	T41E 3/4	T41E 3/4	T41E 3/4	T41G 1	T41G 1	T41G 1 1/2	T41G 1 1/2	T41G 1 1/2	T51E 2	T51E 2	T51E 2	T51E 2	T51E 3	T51E 3	T51E 3	T51E 3	
750	7.5	T41E 1/3	T41G 1/2	T41G 1/2	T41G 3/4	T41G 3/4	T41J 1	T41J 1	T41J 1 1/2	T41J 1 1/2	T41J 1 1/2	T41J 1 1/2	T41J 1 1/2	T41L 2	T51E 1 1/2	T51E 1 1/2	T51G 3	T51G 3	T51G 3	T51G 3	T51G 3	T51G 3	T51G 3	
1000	10	T41J 3/4	T41J 3/4	T41J 3/4	T41J 3/4	T41J 1	T41L 1 1/2	T41L 1 1/2	T41M 2	T41M 2	T41M 2	T41M 2	T51G 2	T51J 3	T51J 3	T51J 3	T51J 3	T51J 3	T51J 3	T51J 3	T51L 5	T51L 5	T51L 5	
1250	12.5	T41L 3/4	T41M 1	T41M 1 1/2	T41M 1 1/2	T41M 1 1/2	T41M 1 1/2	T41M 2	T51J 2	T51J 3	T51J 3	T51J 3	T51L 5	T51L 5	T51L 5	T51L 5	T51L 5	T51M 5	T51M 5	T51M 5	T51M 5	T51M 5	T51M 7.5	
1500	15	T41L 3/4	T41M 1	T41M 1 1/2	T41M 1 1/2	T41P 2	T41P 2	T41P 3	T51L 3	T51L 3	T51L 3	T51L 3	T51L 5	T51M 5	T51M 5	T51M 5	T51M 5	T51M 5	T51M 5	T51M 5	T51R 7.5	T51R 10	T51R 10	
2000	20	T41P 1 1/2	T41P 1 1/2	T51M 3	T51M 3	T51M 3	T51M 3	T51M 3	T51M 3	T51M 3	T51P 3	T51P 3	T51P 5	T51P 5	T51P 5	T51R 5	T51R 7 1/2	T51R 7 1/2	T51R 7 1/2	T51R 7 1/2	T51R 7 1/2	T51R 10	T51R 10	
2500	25	T51P 3	T51P 3	T51P 3	T51P 3	T51P 5	T51P 5	T51R 5	T51R 5	T51R 5	T51R 5	T51R 5	T51R 7.5	T51R 7 1/2	T51R 7 1/2	T51R 7 1/2	T51R 7 1/2	T51R 7 1/2	T51R 7 1/2	Contact Factory for Higher Conditions				
3000	30	T51R 3	T51R 3	T51R 3	T51R 5	T51R 5	T51R 5	T51R 5	T51R 5	T51R 5	T51R 5	T51R 5	T51R 7.5	T51S 7 1/2										
3500	35	T51R 3	T51R 3	T51R 3	T51S 5	T51S 5	T51S 5	T51S 5	T51S 7.5	161G 10	161G 10	152L 10												
4000	40	T51S 5	T51S 5	T51S 5	T51S 5	T51S 5	151L 7 1/2	161G 10	161G 10	161G 10	161G 10	152L 10												

*Selections include motor service factors using ODP Motors. Contact factory for TEFC options.
 This chart is for reference only and may not comply with local codes and laws in all areas.