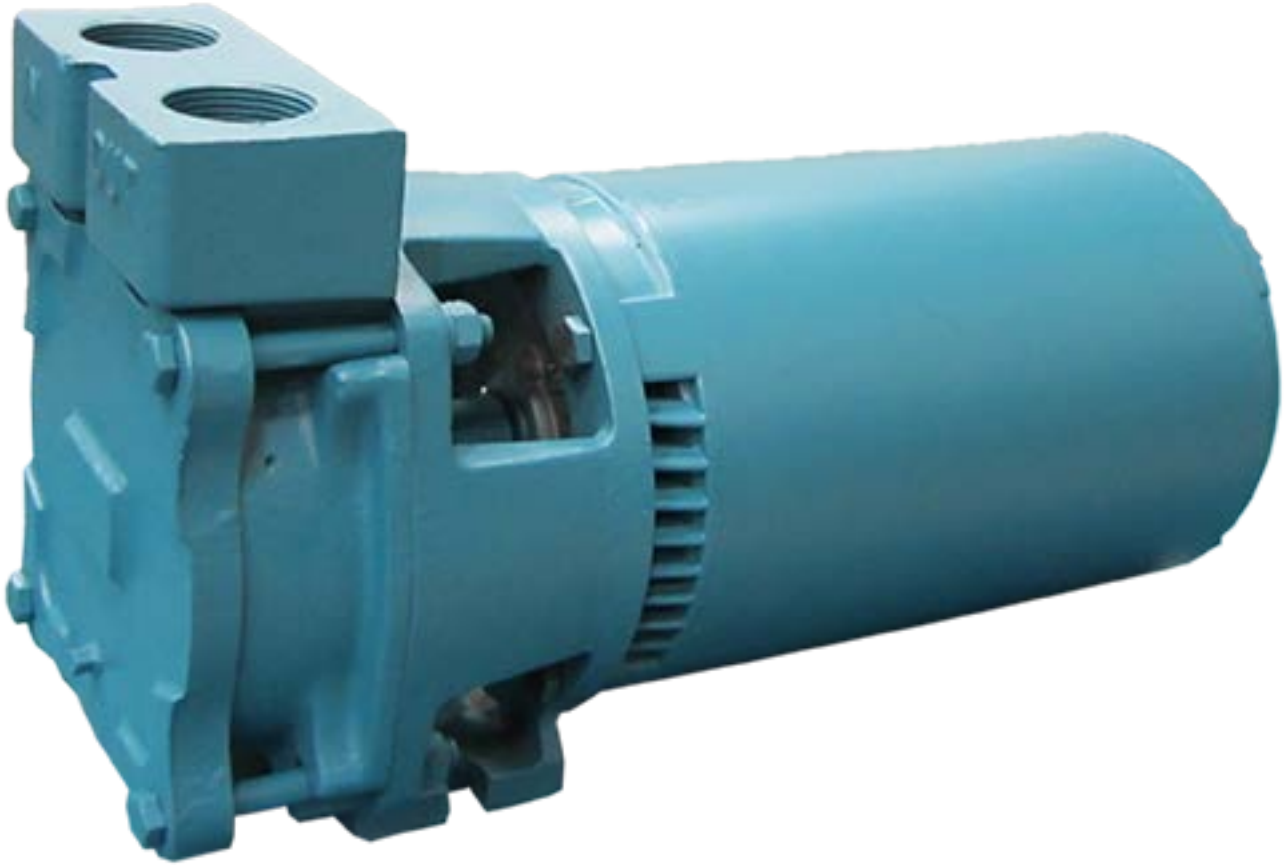
FORM 1465

PUMP SECTION

Regenerative Turbine Pumps, Type 6801 - Close Coupled



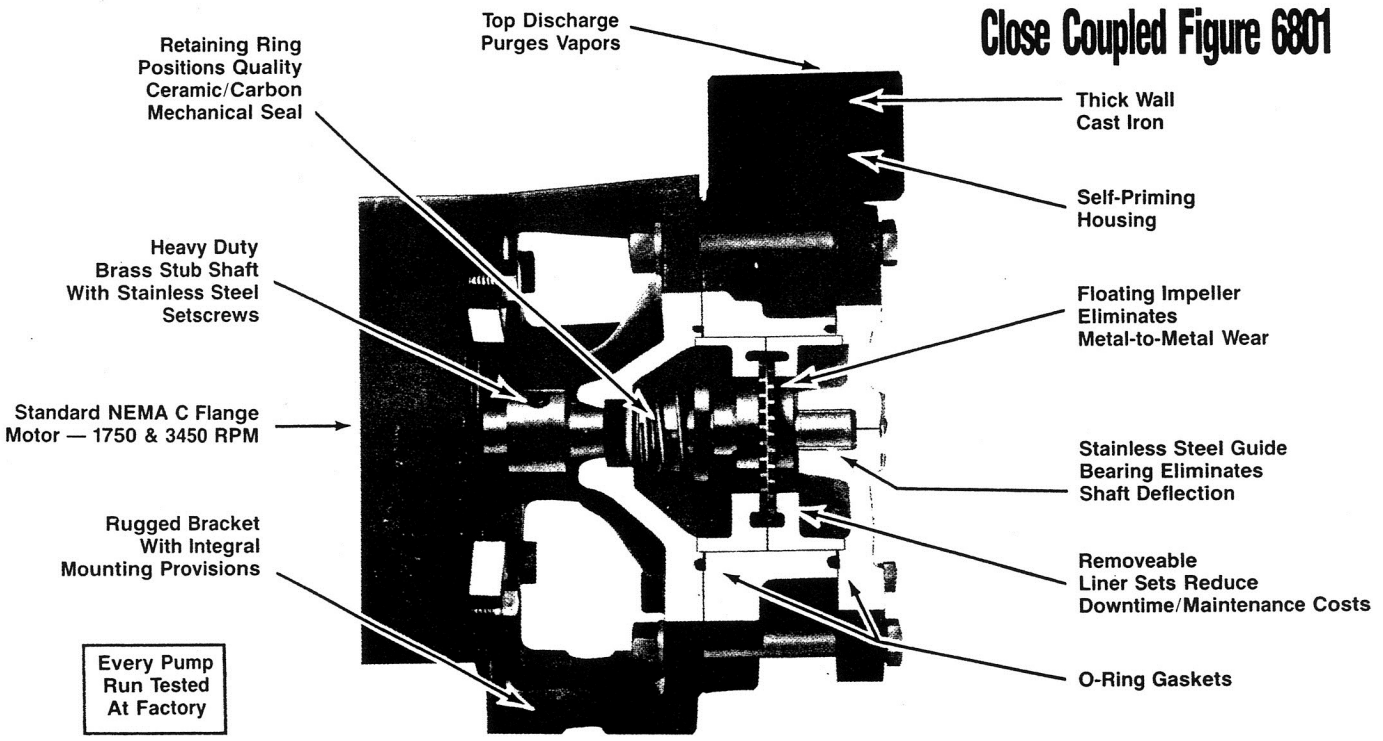
High Performance Pumps
Flows to 30 GPM, 290 PSI

APPLICATION

The MEPCO regenerative turbine can be used for a wide range of services and applications due to its excellent suction characteristics, ability to handle entrained vapors/gases, high temperature capability without internal binding, high pressure reserve and slower rotation assuring long life.

Typical applications found in boilerhouses, chemical plants, canneries, dairies, greenhouses, cement plants, distilleries, breweries, boats/ships and factories:

		Boiler feed	**Condensate return**	**Jockey Service**
Brine circulation	**Chemicals**	**Coolant pumping**	**Booster Service**	**Refrigeration**
Hot/volatile liquids	**Marine (potable water)**	**Water treatment**	**Refineries**	**Car Washes**
Petroleum pumping	**Caustic fluids**	**Viscous fluids**	**Sump service (clear water)**	



The MEPCO Model 6801 turbine pump meets the latest standards for high performance in a very small package.

- *MEPCO* , the original turbine pump, has led the industry for 55 years with the ultimate in design features, efficiency and durability. Regenerative turbines are ideally suited for applications where vaporous fluids are being handled at low flows and moderate to high pressures.
- *MEPCO* was first to offer the floating impeller which automatically centered between liner rings. This eliminated the guesswork of centering with adjusting nuts. Optimum performance is always delivered without worry of metal-to metal contact through a wide range of temperature.
- MEPCO Turbine pumps operate on steep H-G curves which allow the units to deliver near constant flow regardless of changes in pressure requirements. This is important to the system designer since he can rely on capacity with unpredictable pressure variations.
- The vertically split housing is designed so that maintenance can be performed without disturbing the system plumbing. Performance can be restored to "like new" by merely replacing the impeller and liner rings. Should your system H-G requirements change, this can normally be accomodated with a different set of liners and impeller; no change to the housing or plumbing...a savings directly measured in dollars for parts and down time.
- MEPCO turbine pumps thrive on vaporous fluid. Many liquids vaporize at room temperature. These, as well as hot water, steam/air and refrigerants are handled without vapor lock or NPSH problems. The pump's self-venting characteristics simply carry the bubbles/vapors along with the fluid to the discharge port without a hint of vapor lock.

FEATURES/DIMENSIONS

These turbine pumps excel on applications where higher suction lifts are required. Whether the liquid is at normal temperature or hot, the turbine pump will outlift the centrifugal type due to its air handling capability and close run ning internal clearances.

MAXIMUM OPERATING CONDITIONS

RPM -	1750, 3500
HORSEPOWER -	3
STD. SEAL TEMP. -	250°DEGREES FAHRENHEIT
OPT. SEAL TEMP.	300°F = EPT, 400°F = VITON
MAX. WORKING PRESS. -	290 PSI

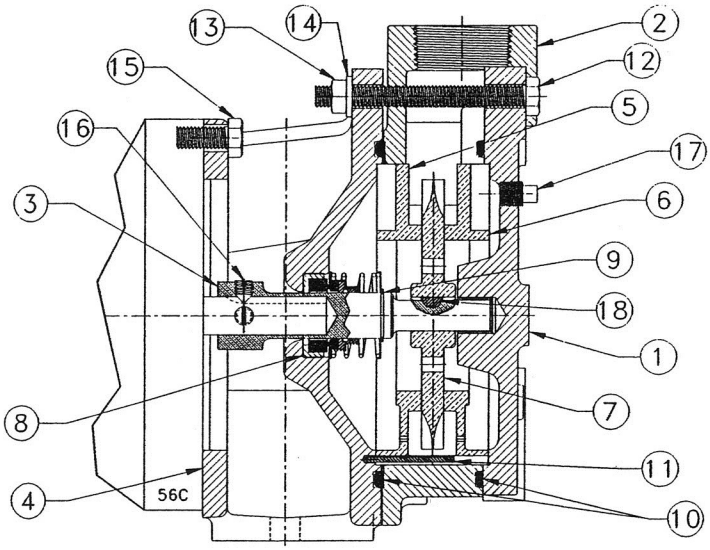
MEPCO pumps are capable of handling viscosities to 600 S.S.U. and temperatures to 210 degrees F max. When pumping viscous fluids, the following guideline should be considered:

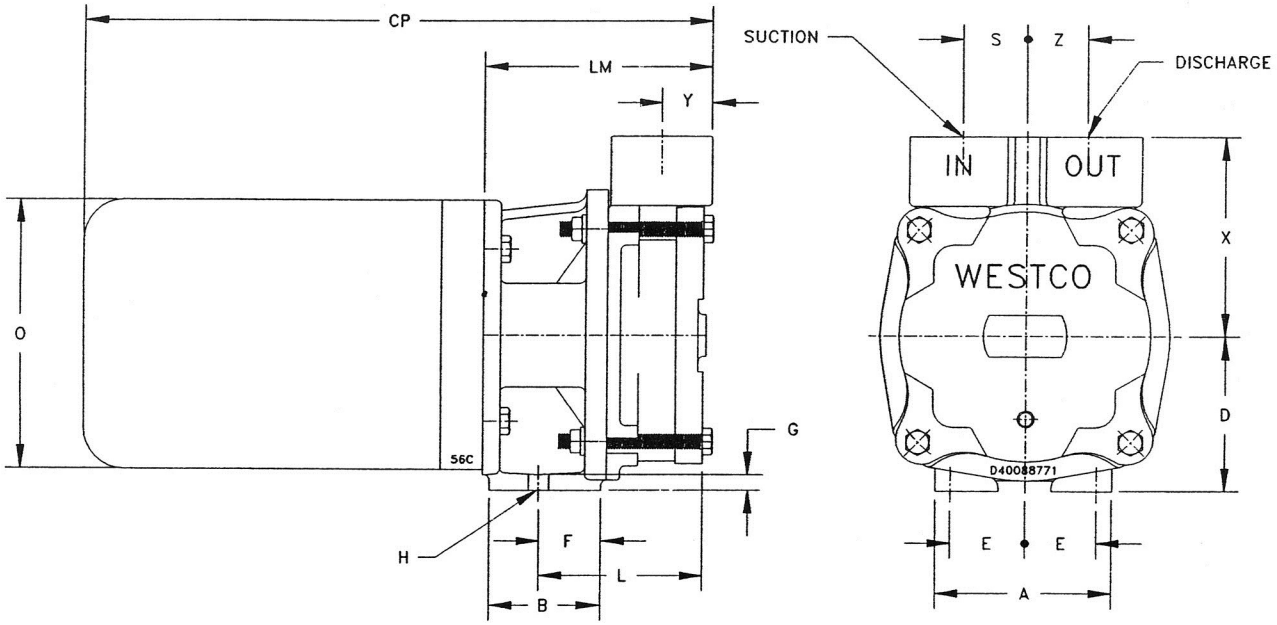
LIMITATIONS

S.S.U.	DECREASED CAPACITY	INCREASE HP
UP TO 200	0	0
201 TO 300	15%	25%
301 TO 400	25%	40%
401 TO 600	35%	50%

MATERIALS OF CONSTRUCTION

ITEM	DESCRIPTION	MATERIAL
1	COVER	CLASS 30 C. I.
2	CASING	CLASS 30 C. I.
3	SHAFT	BRASS
4	BRACKET	CLASS 30 C.I.
5	RING-CASING	BRASS
6	RING-COVER	BRASS
7	IMPELLER	BRASS
8	SEAL	BUNA-N
9	RET. RING	STEEL
10	O-RING	BUNA-N
11	PIN-DOWELL	STEEL
12	SCREW	STEEL
13	NUT-HEX	STEEL
14	WASHER	STEEL
15, 16	SCREWS	STEEL
17	PLUG-PIPE	BRASS
18	KEY-WOODRF	STEEL





A	B	CP	D	E	F	G	H	L	LM	O	S	X	Y	Z
4 1/2	2 11/16	15 1/4	3 3/4	1 3/4	1 1/2	3/8	1/2"	4	5 9/16	6 1/2	1 1/2	4 13/16	1 1/4	1 1/2

Principle of Operation

These regenerative turbine pumps acquired their name from the numerous "buckets" which are machined into the impeller's periphery. The companion parts, the liner rings, enclose the impeller and redirect the liquid particles to the buckets to perpetuate the regenerative pressure development.

Figure 1 depicts liquid entering the pump inlet where the flow is divided to both sides of the impeller. Liquid is immediately picked up by the "buckets" and pumped about the liner ring channel as shown in Figure 2. This pumping action is repeated on a given droplet many times as it is pumped toward the discharge port. Centrifugal forces and shearing action combine to add energy each time the droplet passes through a bucket. Pressure is developed progressively higher as liquid approaches the discharge. The flow is smooth, continuous and non-pulsating as the fluid from each side of the impeller rejoins at the discharge port at extremely high heads.

Figure 3 compares the performance of *MEPCO* pumps versus centrifugal for the low capacity, high head applications. Horsepower increases as the pressure increases, not capacity as in a centrifugal pump. And, of course, the steeper H-G curve offers less change in capacity with pressure demand variations.

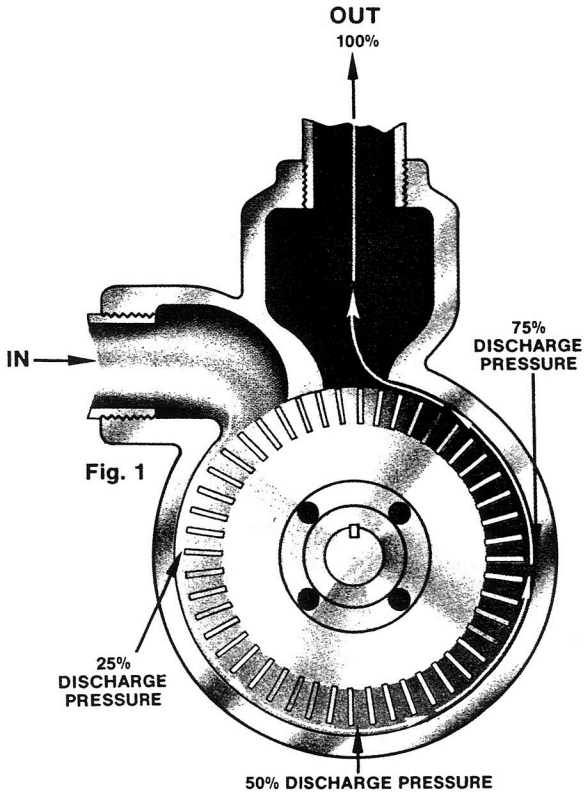


Fig. 1

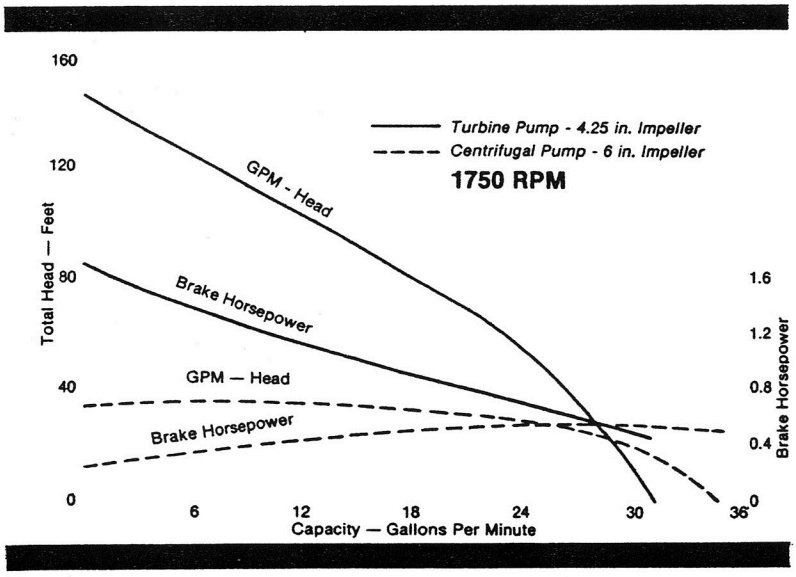


Fig. 3

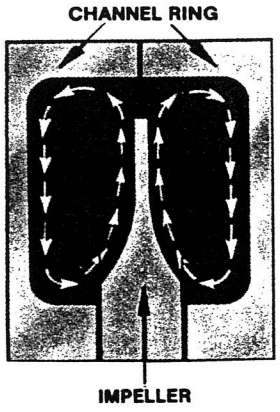


Fig. 2

SELECTION CURVES

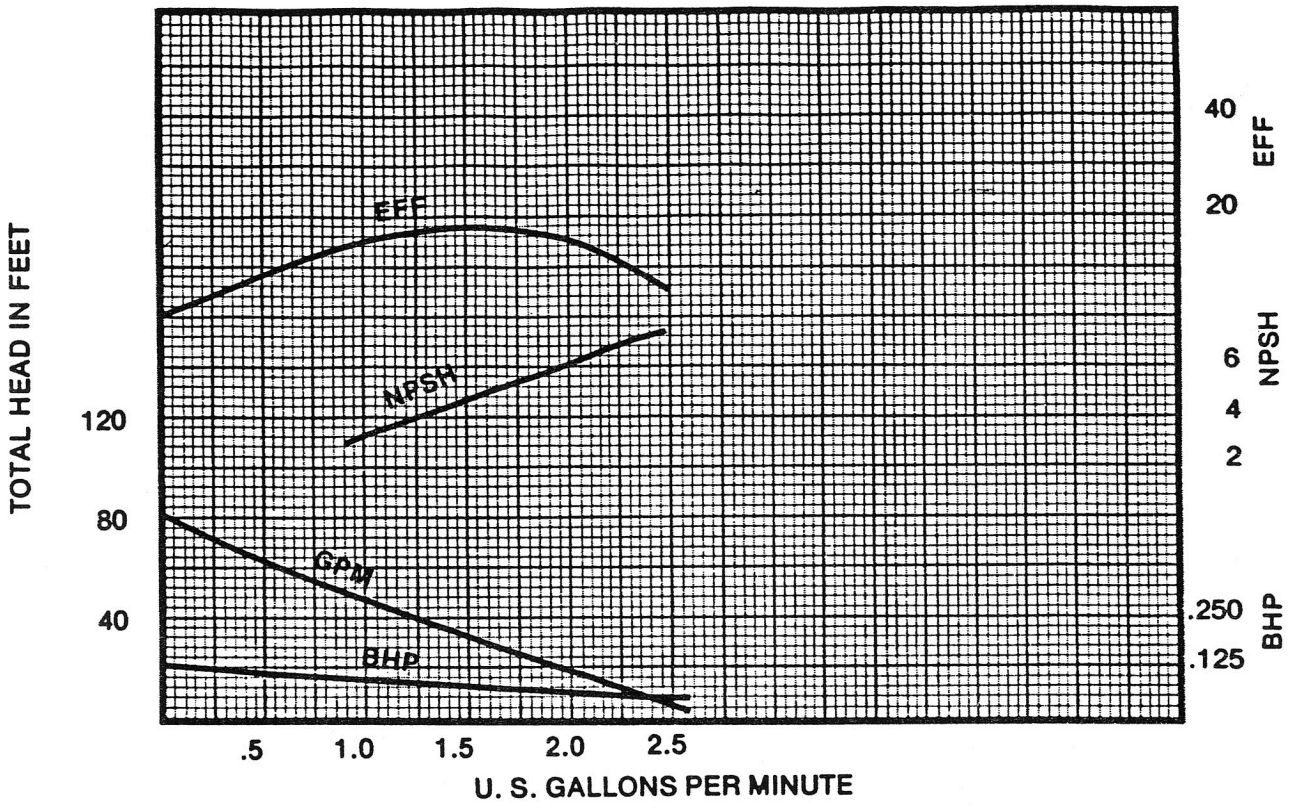
CURVE NO 1

FIGURE NO

6801

MODEL-4

1750 RPM



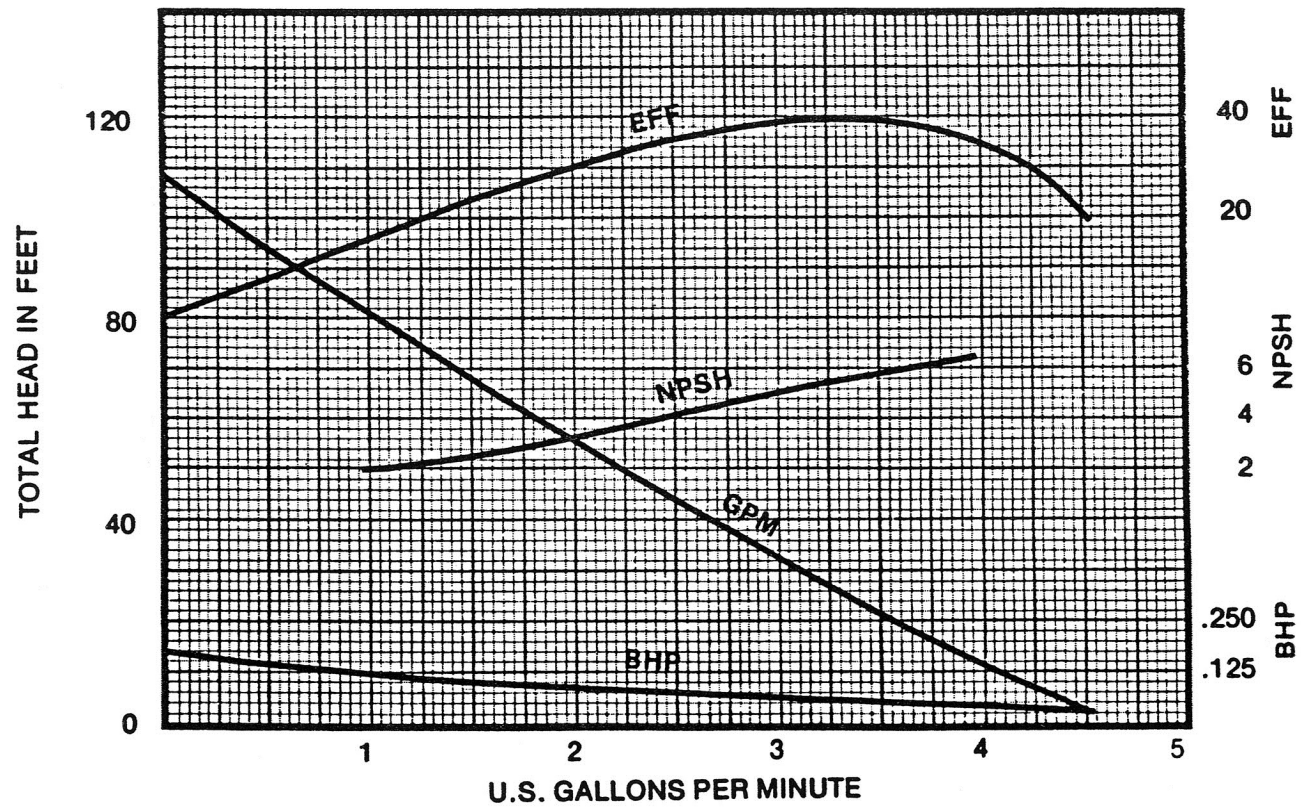
CURVE NO 2

FIGURE NO

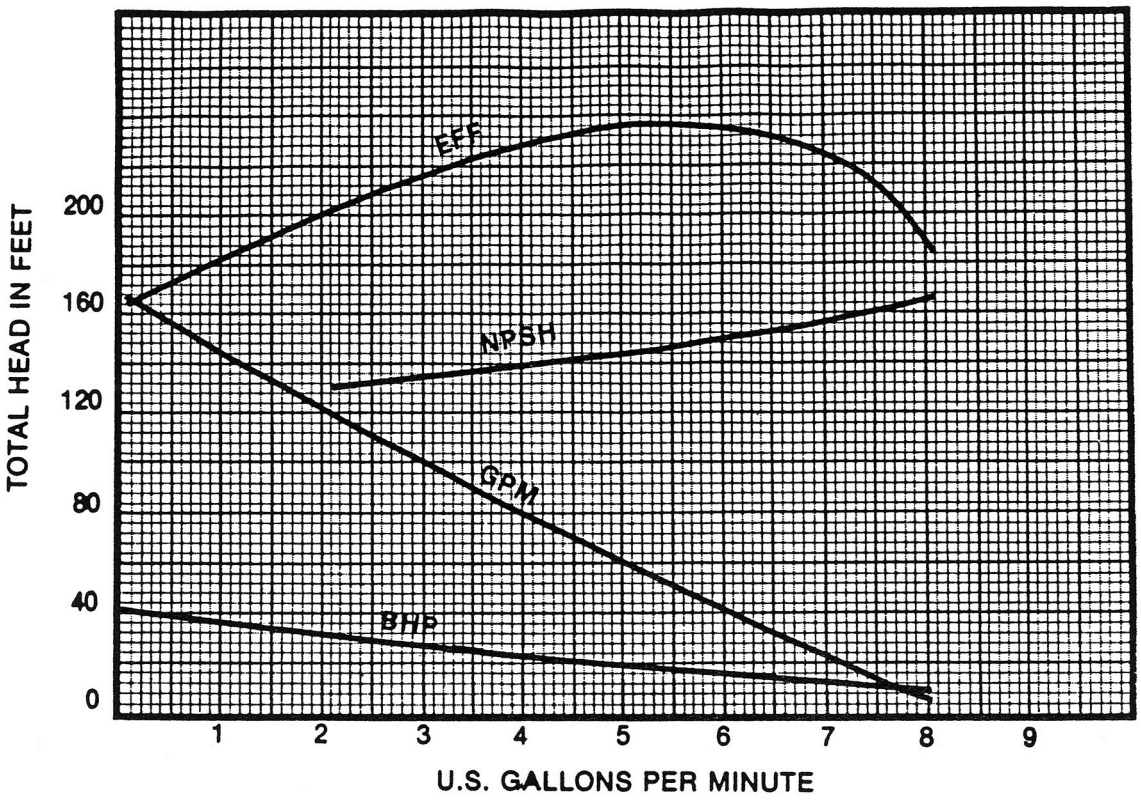
6801

MODEL-6

1750 RPM



SELECTION CURVES



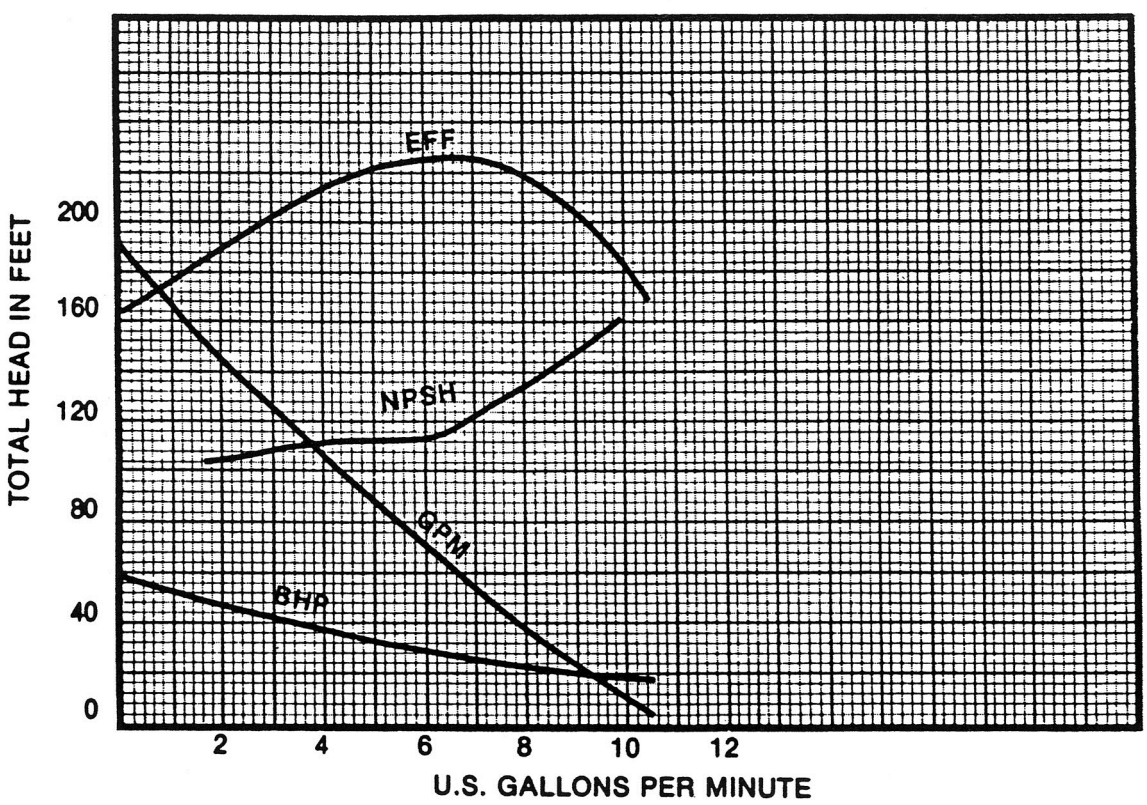
CURVE NO 3

FIGURE NO

6801

MODEL-8

1750 RPM



CURVE NO 4

FIGURE NO

6801

MODEL-8B

1750 RPM

SELECTION CURVES

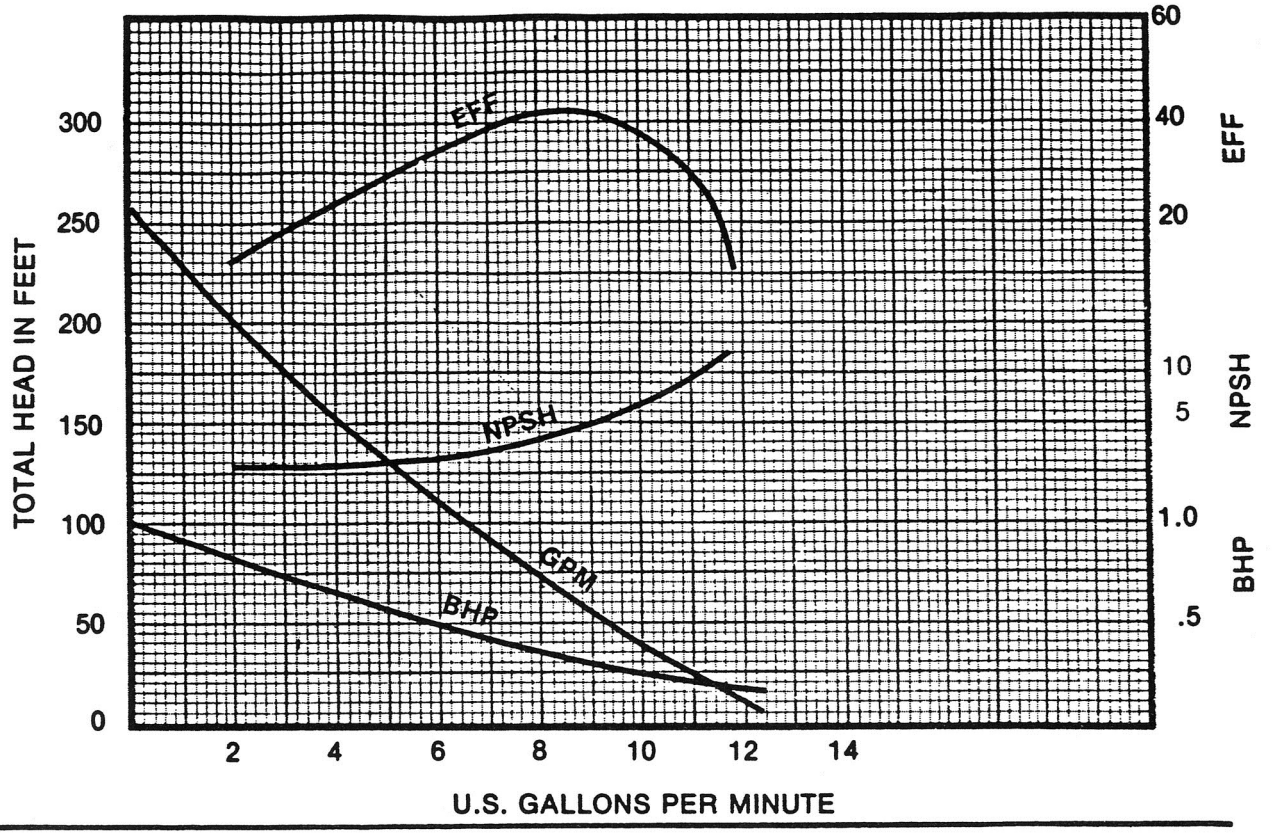
CURVE NO 5

FIGURE NO

6801

MODEL-9

1750 RPM



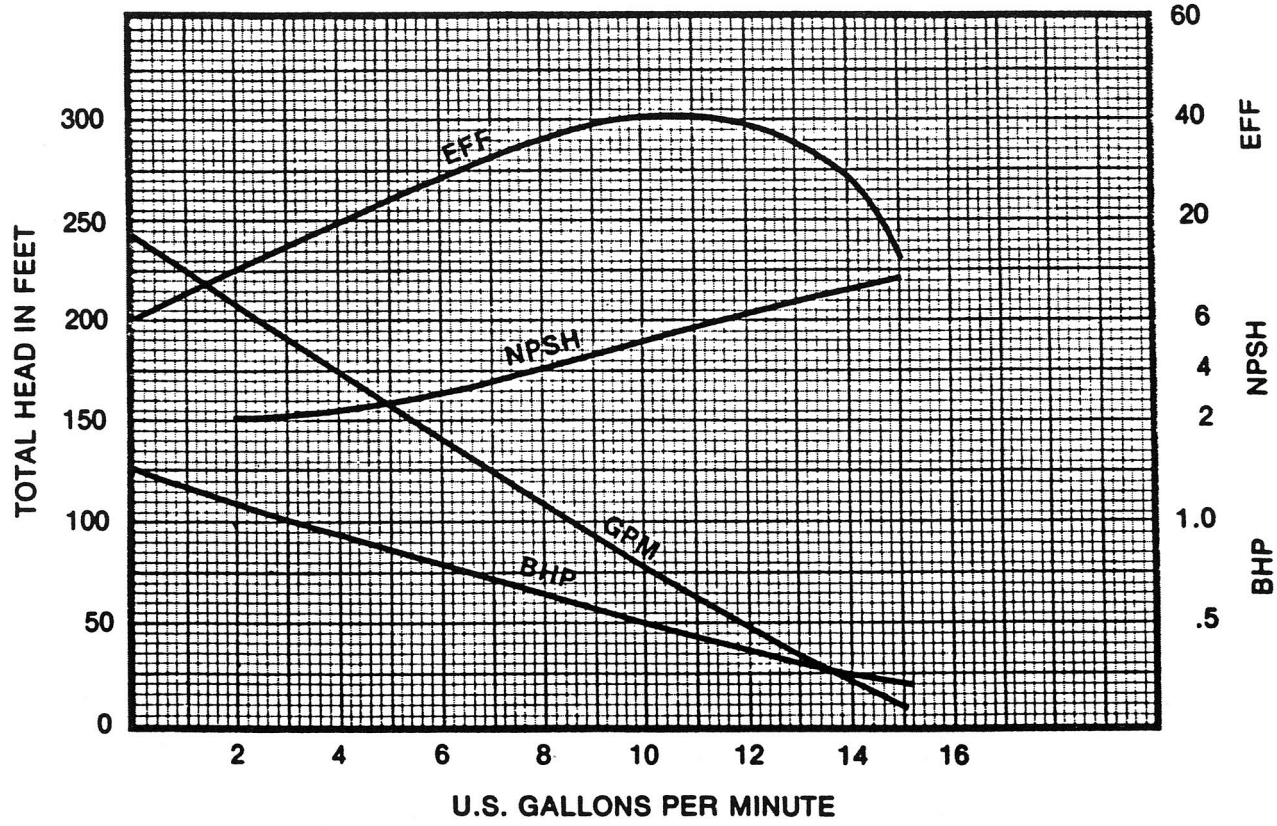
CURVE NO 6

FIGURE NO

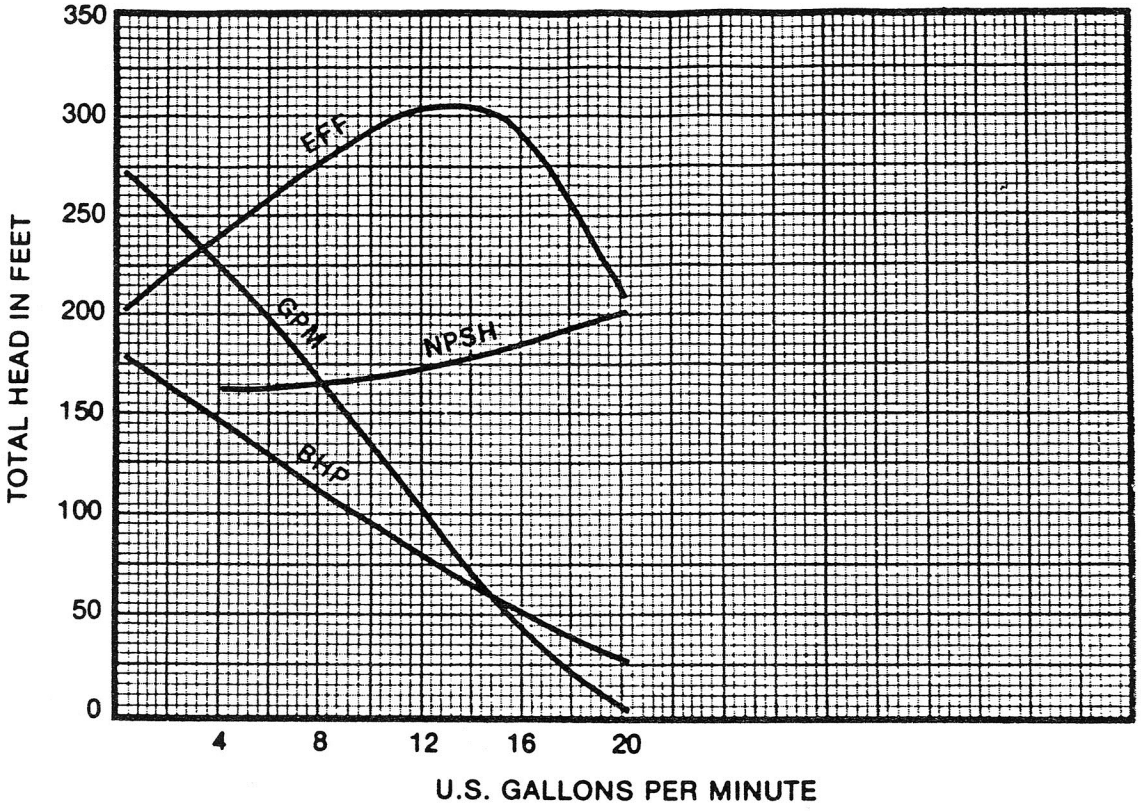
6801

MODEL-10

1750 RPM



SELECTION CURVES



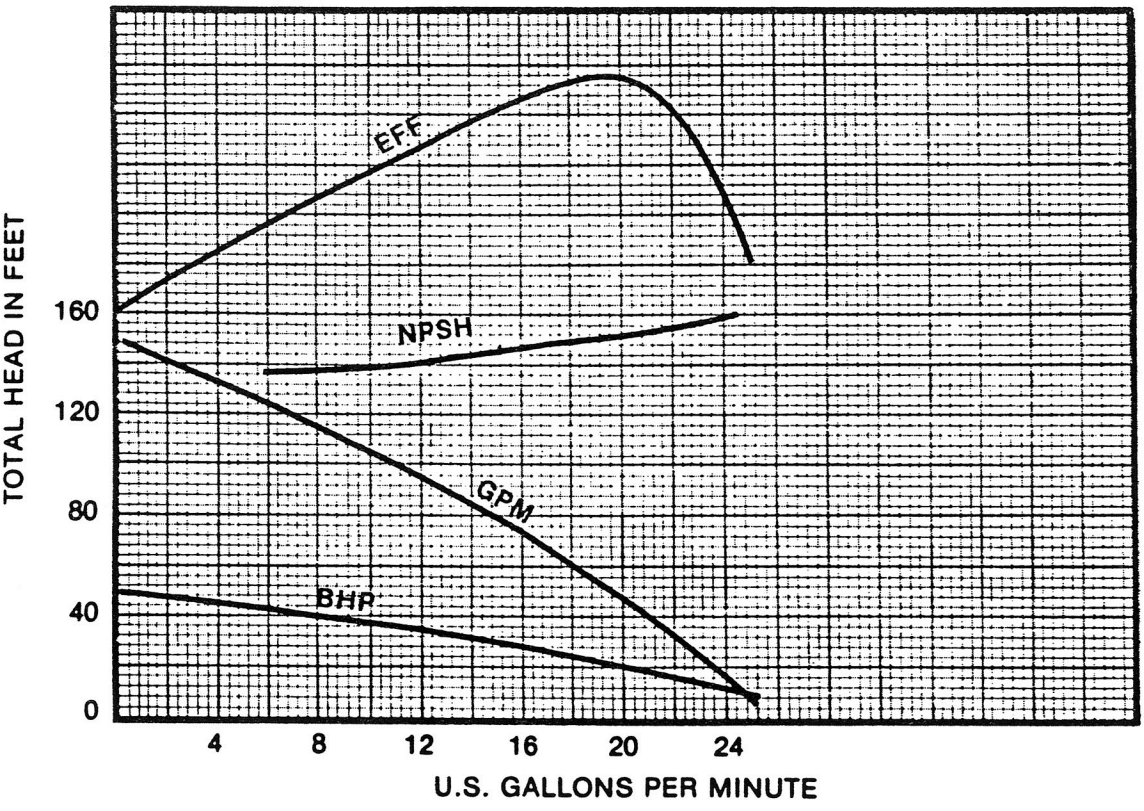
CURVE NO 7

FIGURE NO

6801

MODEL-11

1750 RPM



CURVE NO 8

FIGURE NO

6801

MODEL-12

1750 RPM

SELECTION CURVES

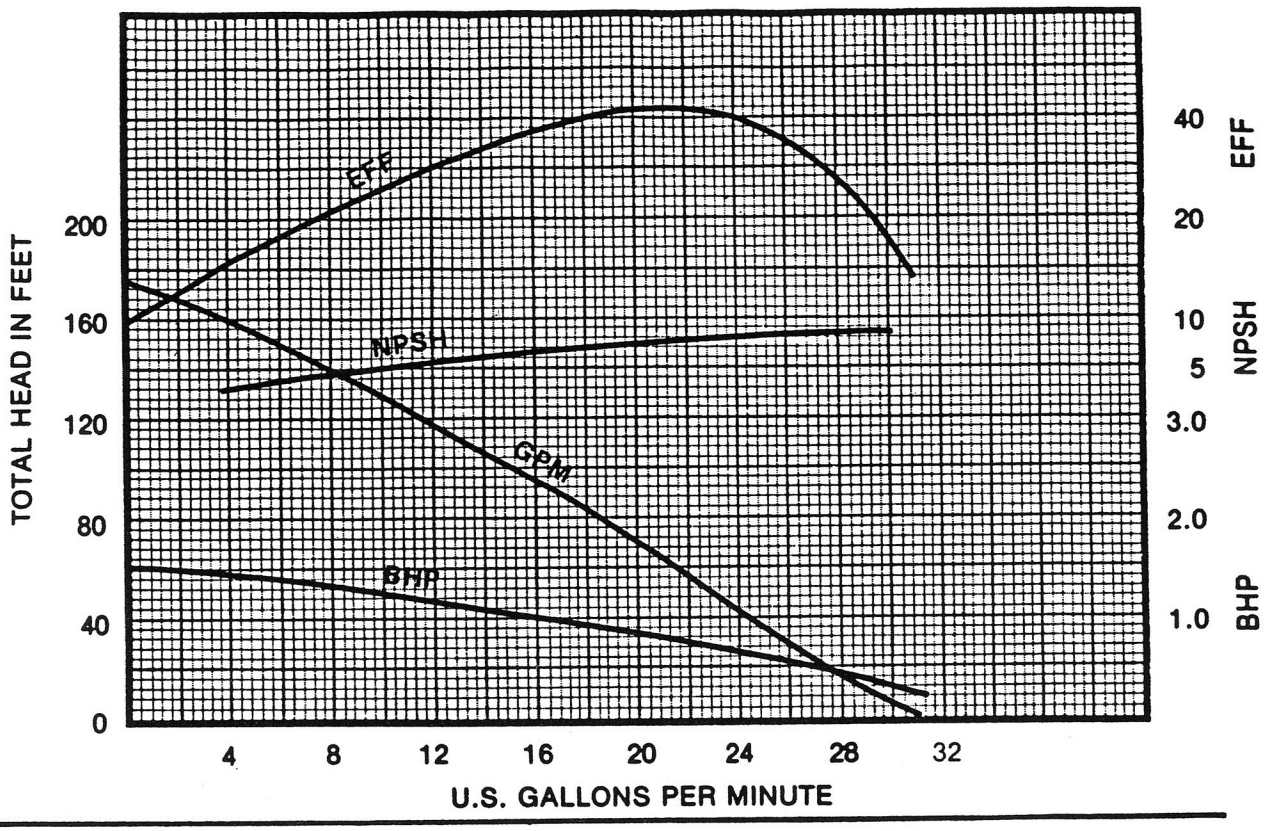
CURVE NO 9

FIGURE NO

6801

MODEL-13

1750 RPM



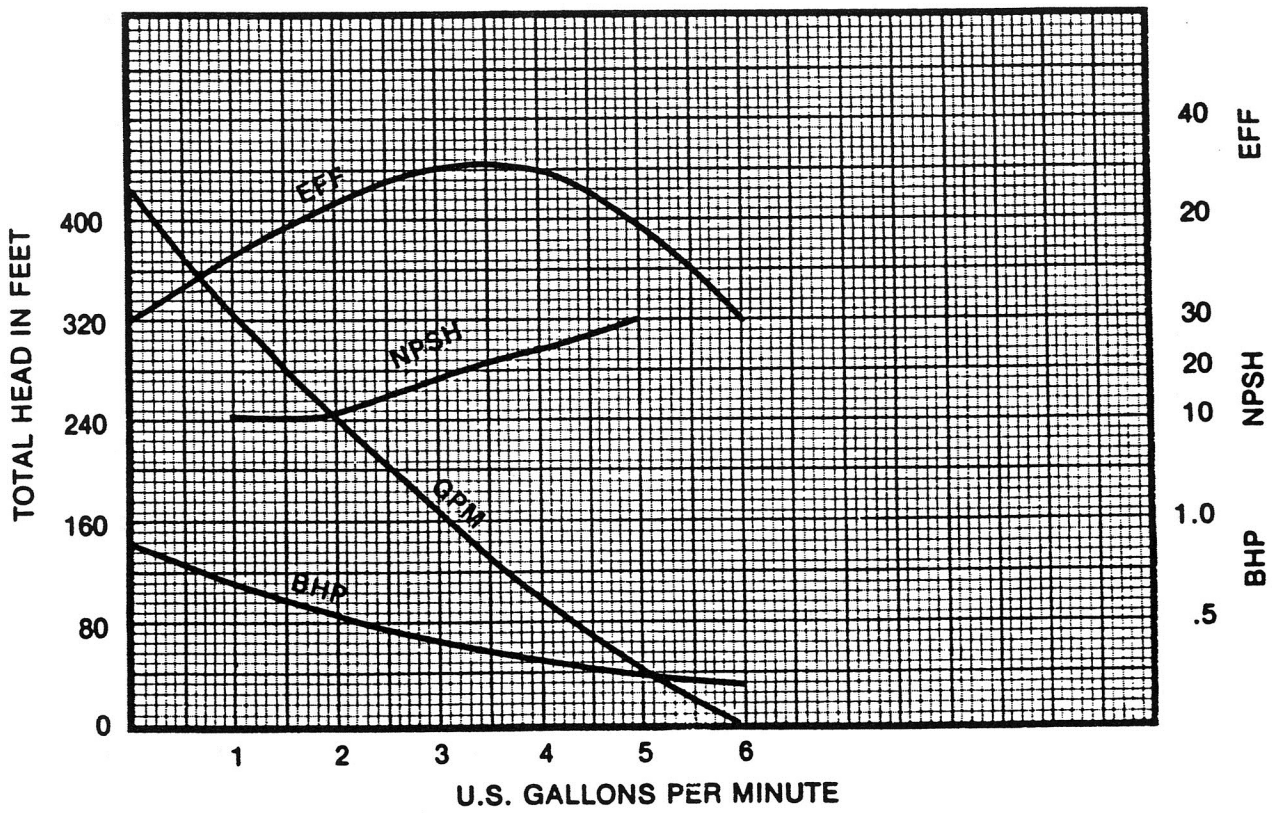
CURVE NO 10

FIGURE NO

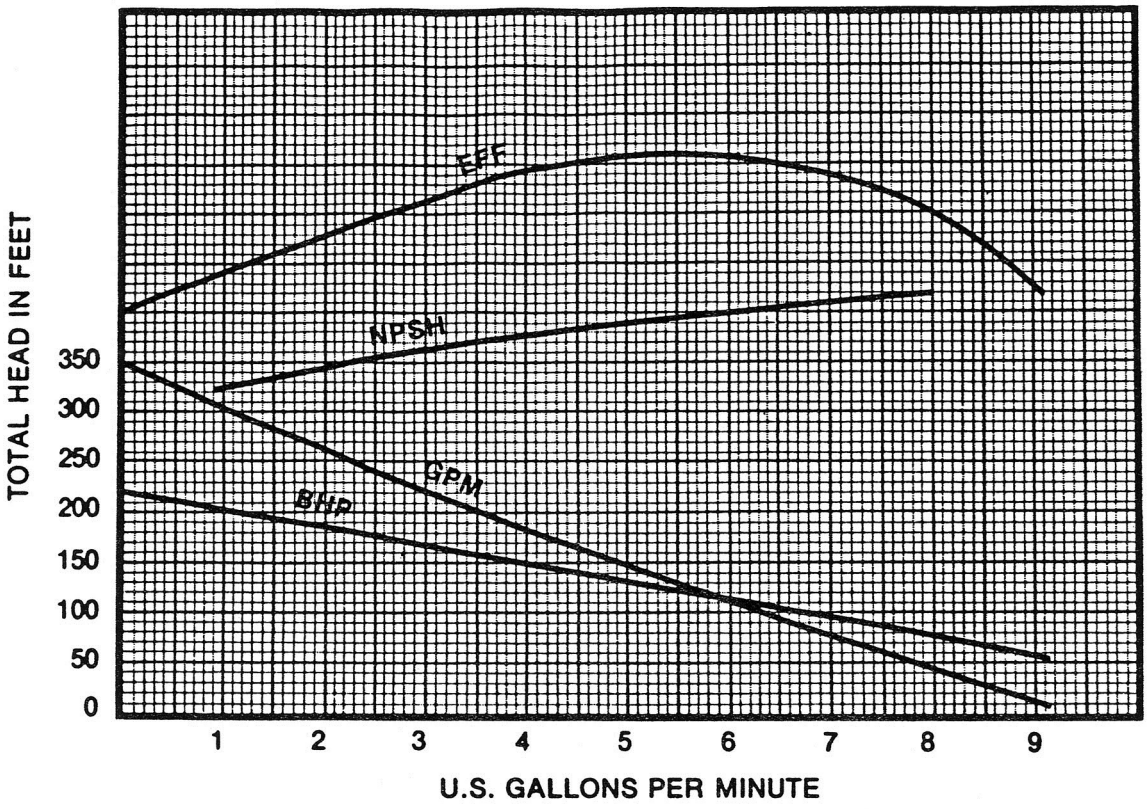
6801

MODEL-4

3450 RPM



SELECTION CURVES



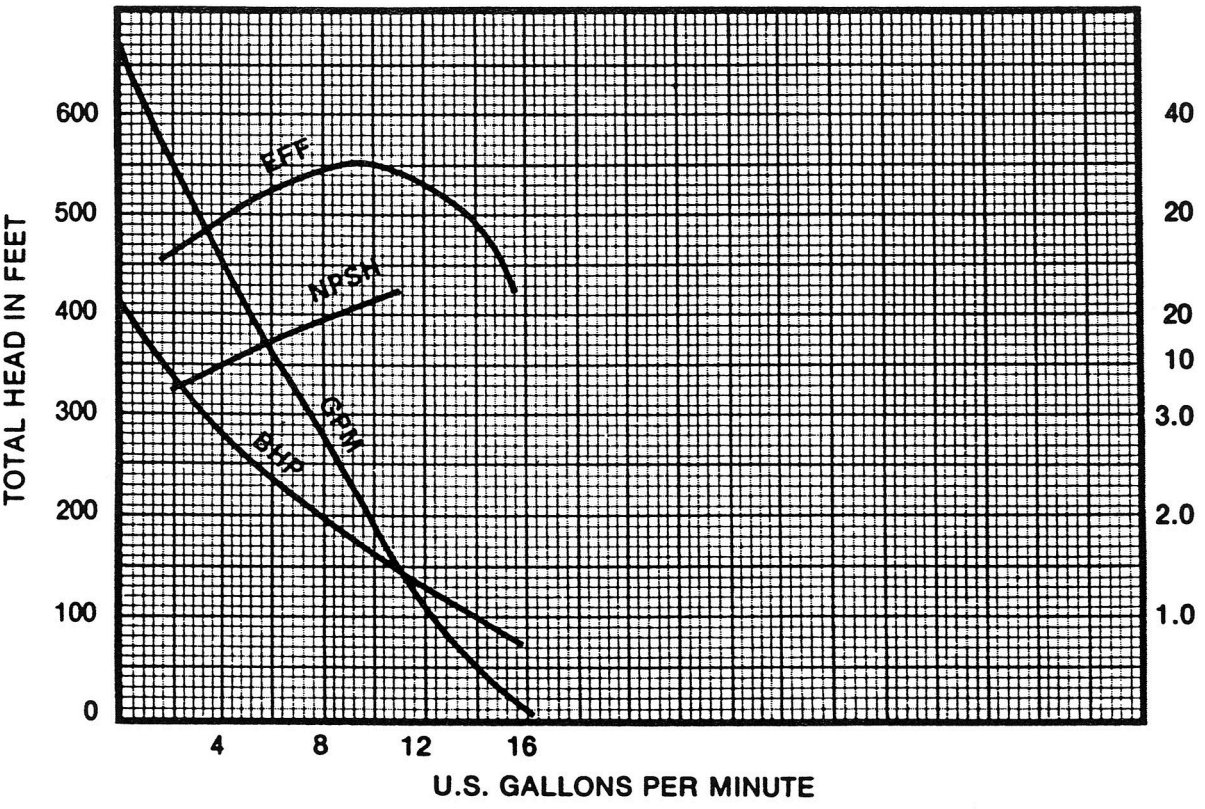
CURVE NO 11

FIGURE NO

6801

MODEL-6

3450 RPM



CURVE NO 12

FIGURE NO

6801

MODEL-8

3450 RPM

SELECTION CURVES

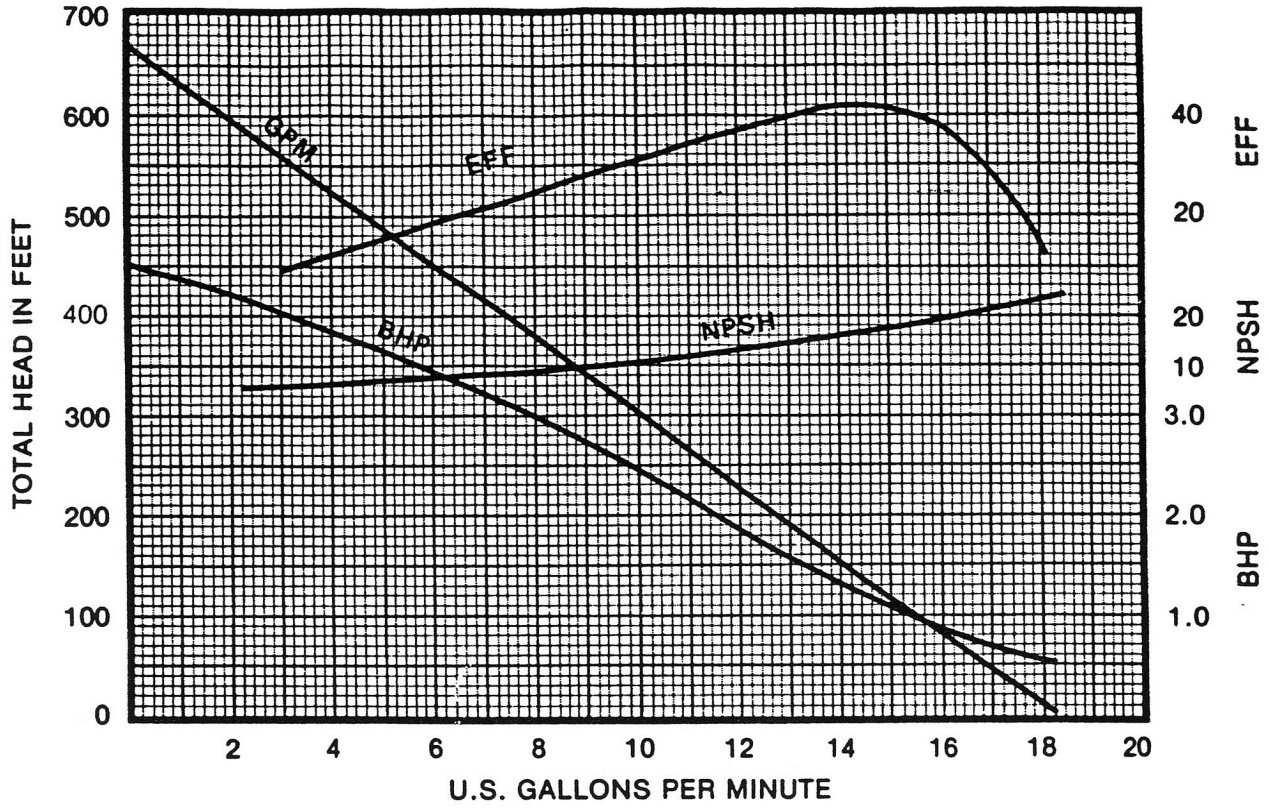
CURVE NO 13

FIGURE NO

6801

MODEL-8B

3450 RPM



TYPICAL SPECIFICATIONS

The contractor shall furnish (and install as shown on the plans) a MEPCO Regenerative Turbine type pump model _____size _____(Bronze Fitted) (All Iron) (All Bronze). Each pump shall have a capacity of _____GPM when operating at a total head of _____feet at the specified temperature, viscosity, specific gravity, and NPSH. The speed of the pump shall not exceed (1750) (3450) RPM. The pump is to be furnished with (mechanical seals).

The pump shall be of vertical split case design and the liner rings shall be replaceable without disturbing system plumbing. The suction and discharge connections shall be cast integral with the casing.

* *The impeller shall be hydraulically self-centering and no external adjustment shall be necessary.*

Each pump shall be tested at the head and capacity specified prior to shipment.

The pump shall be (Close) coupled to a _____ HP _____ phase _____cycle_____ voltage _____RPM, horizontal (drip proof) (totally enclosed) (explosion proof) motor. The motor shall be sized to prevent overloading at the highest head condition listed in the specifications.

**Excluding overhung impeller design.*

3695 44th Street SE, Grand Rapids, Michigan 49512
Phone 616.971.340 Fax 616.971.3421 www.mepcollc.com