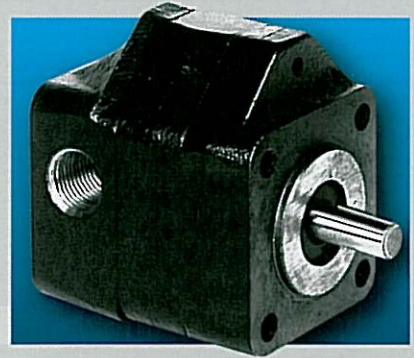


# **MTE** **MTE HYDRAULICS**

*Dependability, Performance, and Value*

**PUMPS**  
PUMPS



**MOTORS**  
MOTORS



**PROPORTIONATORS**  
PROPORTIONATORS



**POWER UNITS**  
POWER UNITS



# Worldwide leaders in the manufacturing of Hydraulic

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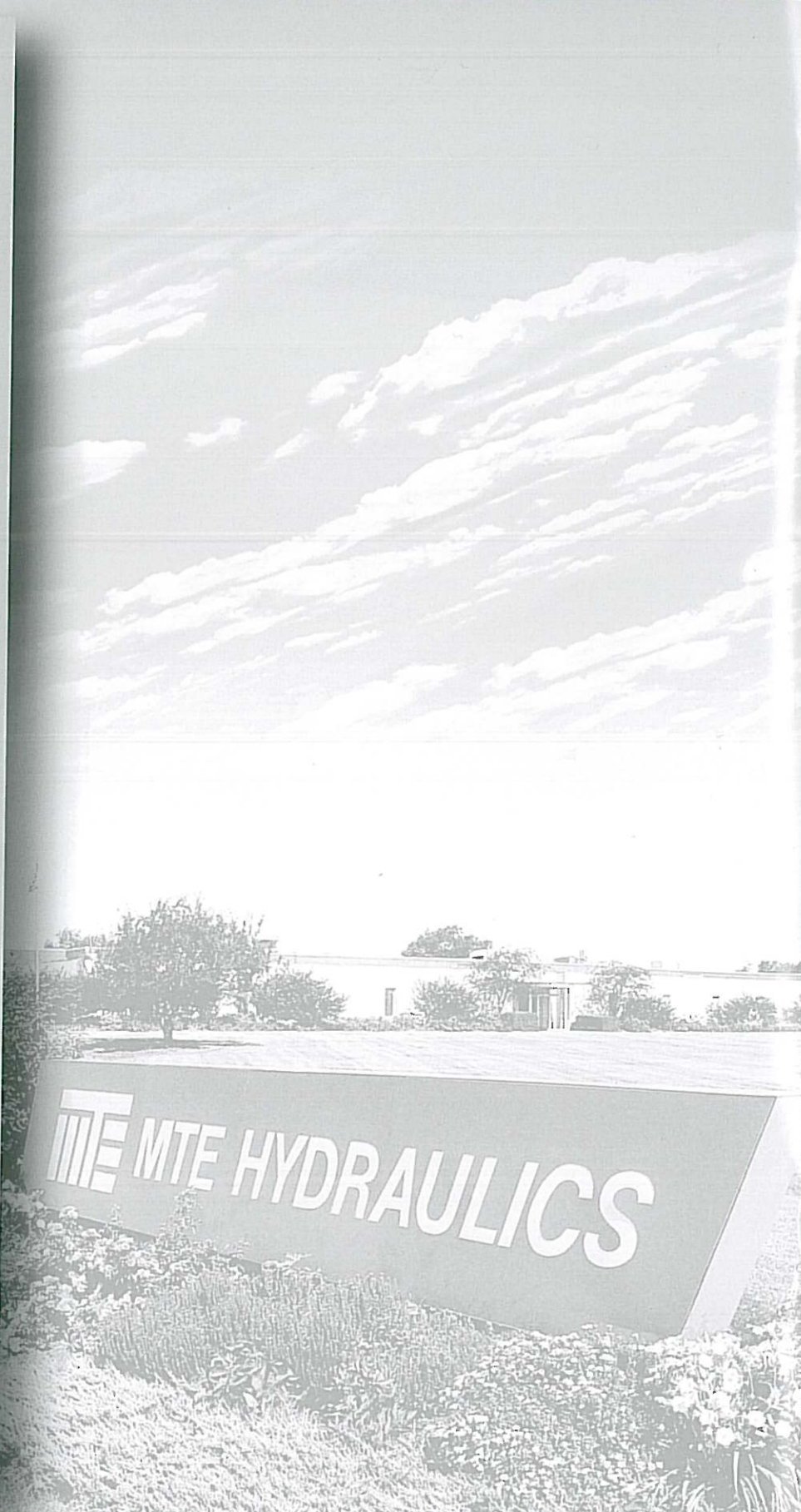
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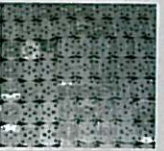
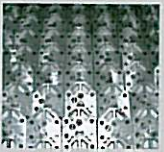
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# Pumps, Motors, Proportionators & Power Units



## **SPECIALISTS AT PROVIDING OEM SOLUTIONS**

Original equipment manufacturers who produce the smallest medical equipment, to those who produce the largest off-road machinery, count on MTE for quality hydraulic products at the right price. MTE is known worldwide for their expertise in the design and manufacture of dependable hydraulic pumps, motors, proportionators and power packages.

## **MANUFACTURING FLEXIBILITY THAT'S UNMATCHED**

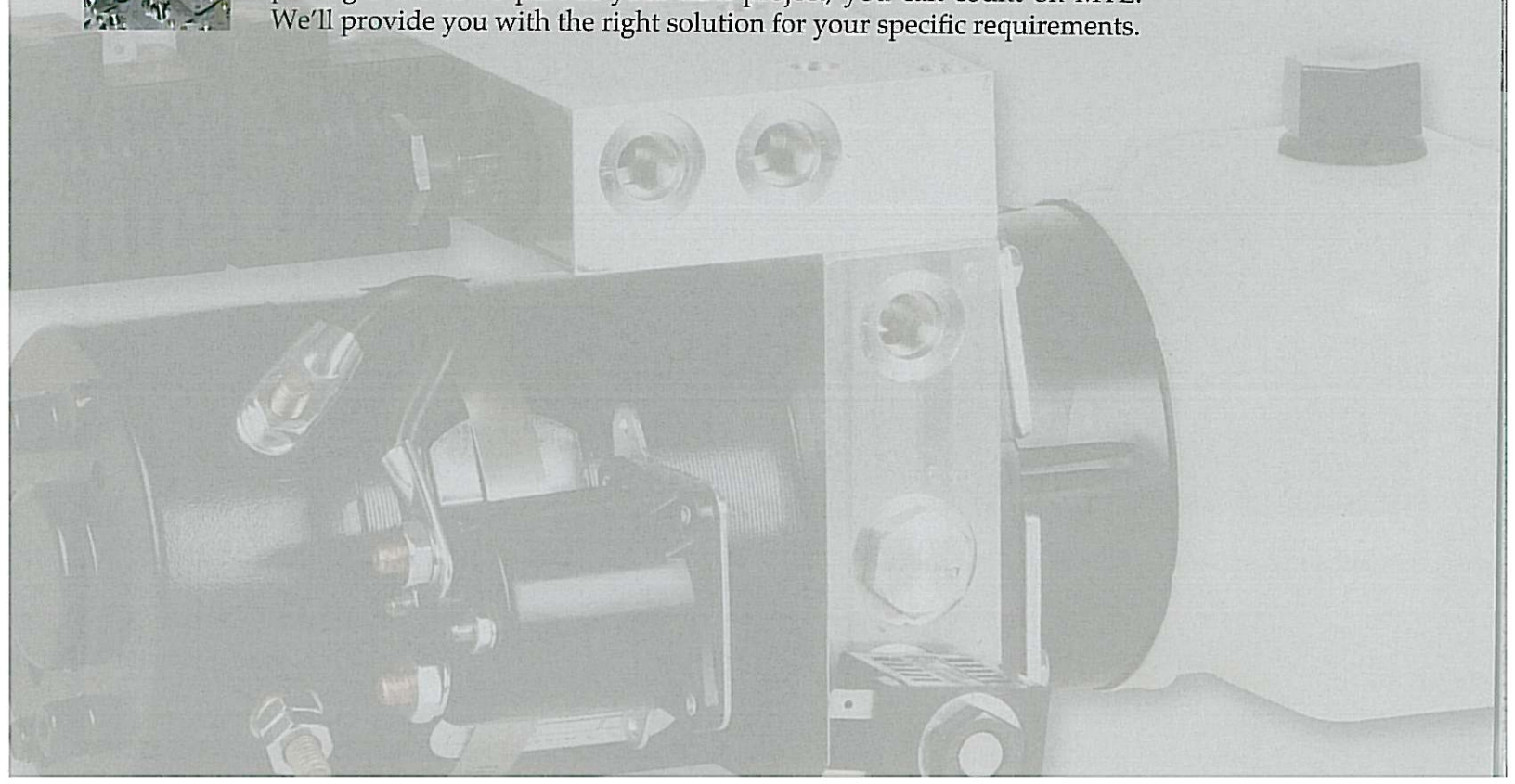
MTE combines decades of applied engineering skills with unique manufacturing capabilities to provide true value. Whether purchasing individual components or a complete package, a high level of reliability and performance is engineered into every product we market. Our products are designed using standard components that can be easily modified for your specific application, saving time and costs.

## **QUALITY & VALUE THAT ENHANCES YOUR PROJECT**

We use the latest technologies for high-precision inspection of all components. Post-production testing assures trouble-free operation and maximum durability. At MTE, we supply hydraulic products that enhance the quality and value of your products.

## **FROM BASIC PRODUCTS TO COMPLEX ASSEMBLIES**

If hydraulic gear pumps, motors, proportionators or complex power packages are to be part of your next project, you can count on MTE. We'll provide you with the right solution for your specific requirements.



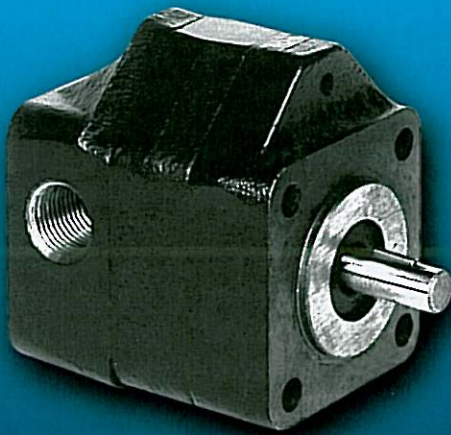
# HYDRAULIC PUMPS

## TYPICAL APPLICATIONS

MTE gear pumps are made in three series of models with displacements ranging from 0.5 GPM to 35 GPM. MTE pumps are designed to provide greater torque efficiencies – especially at high speeds and elevated pressures. Numerous shaft, bearing, mounting and seal options are available. Each model is designed to operate as either a single rotation or bi-rotational pump, depending on the application.

- ▶ MATERIAL HANDLING
- ▶ AGRICULTURAL EQUIPMENT
- ▶ CONSTRUCTION & MOBILE EQUIPMENT
- ▶ FLUID TRANSFER SYSTEMS

### 200 SERIES



### 300 SERIES



#### HYDRAULIC SCHEMATIC



### 400 SERIES



#### MTE Hydraulic Pump Specifications

MODEL NUMBER	DISPLACEMENT GALLONS/REV	DISPLACEMENT CU.IN./REV	AVG. SLIP GPM/100 PSI	PRESSURE MAX. PSI	SPEED MAX. RPM
100	0.000052	0.0120	0.004	3000	5000
101	0.000081	0.0186	0.004	3000	5000
102	0.000109	0.0252	0.005	3000	5000
103	0.000184	0.0425	0.005	3000	4500
105	0.000287	0.0664	0.007	2500	4000
C201	0.000290	0.0671	0.015	3500	5000
C202	0.000477	0.1102	0.017	3000	5000
C203	0.000652	0.1506	0.019	3000	5000
C204	0.000829	0.1916	0.020	2500	4000
C205	0.001089	0.2515	0.022	2200	4000
C207	0.001400	0.3234	0.025	1850	3600
C210	0.002074	0.4791	0.030	1250	2500
B304	0.001764	0.4075	0.040	2500	5000
B307	0.003019	0.6973	0.045	2350	4000
B310	0.004225	0.9760	0.055	1650	3500
B312	0.005281	1.2199	0.065	1400	2800
B315	0.006295	1.4541	0.075	1100	2400
A407	0.006748	1.5587	0.070	2500	4000
A409	0.008435	1.9484	0.080	2500	3500
A411	0.010121	2.3380	0.090	2450	3000
A415	0.013135	3.0341	0.110	1850	2300
A418	0.016868	3.8965	0.140	1450	1800
A421	0.019117	4.4160	0.180	1300	1750

All numbers given are nominal values and should be used for reference only.  
All product specifications are subject to change without prior notice.

# TWO-STAGE PUMPS

## TYPICAL APPLICATIONS

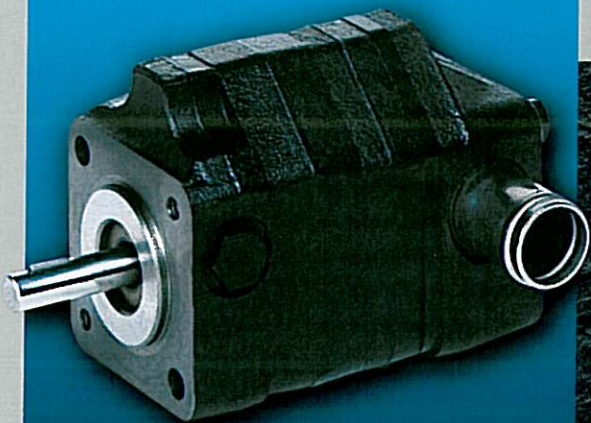
Two-stage hi-low pumps are available in our 200 and 300 series. These pumps feature an internal unloading valve that diverts high-volume flow at minimum pressure when high-pressure flow is required. The pumps are designed to direct couple to gas engines or AC electric motors that turn up to 3800 RPM for 200 series, and 3500 RPM for 300 series models. The unloading feature assures that a small, efficient motor can be utilized effectively. MTE two-stage pumps are available in a number of different pump combinations, as well as shaft and porting configurations.

▶ LOGSPLITTERS

▶ TRASH COMPACTORS

▶ PRESS APPLICATIONS

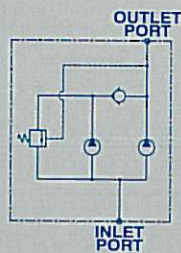
### 200 SERIES



### 300 SERIES



#### HYDRAULIC SCHEMATIC



### 200 SERIES



#### MTE Logsplitter (Hi-Lo) Pump Specifications

MODEL NUMBER	NOMINAL FLOW (GPM)	REQUIRED DRIVE HP	MAX. WORKING PRESSURE (PSI)	MAX. SPEED RPM	SHAFT DIAMETER (IN.)	SHAFT DIAMETER (IN.)	PORTS	
							INLET	OUTLET
20402	5	3	3000	3800	7/16	1/2	3/4" NPTF	1/2" NPTF
20702	7	4	3000	3800	7/16	1/2	3/4" NPTF	1/2" NPTF
21002	9	5	3000	3800	7/16	1/2	1" TUBE	1/2" NPTF
21004	11	6	3000	3800	7/16	1/2	1" TUBE	1/2" NPTF
21404	13	7	3000	3800		1/2	1" TUBE	1/2" NPTF
21704	16	8	3000	3800		1/2	1" TUBE	1/2" NPTF
30702	14	8	3500	3600	5/8		1" NPTF	3/4" NPTF
30902	17	10	3500	3600	5/8		1" NPTF	3/4" NPTF
31004	22	12	3200	3600	5/8		1-1/4" NPTF	3/4" NPTF

All numbers given are nominal values and should be used for reference only. All product specifications are subject to change without prior notice.

SHAFT EXTENSION ON ALL PUMPS = 1.5 IN.

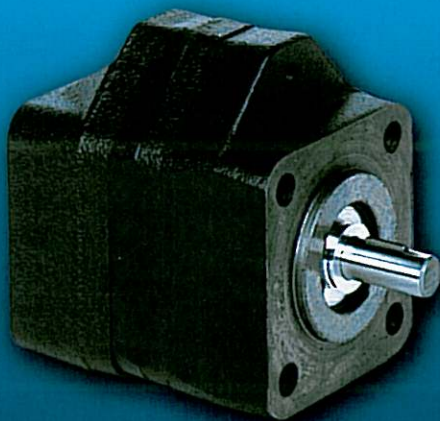
# HYDRAULIC MOTORS

## TYPICAL APPLICATIONS

MTE gear motors are made in three series of models with displacements ranging from 0.5 GPM to 35 GPM. Our unique gear tooth design and trapping reliefs provide quiet, smooth operation at high speeds and pressures. Our high pressure shaft seal will withstand continuous back pressures up to 200 PSI. Anti-friction needle bearings are standard for speeds ranging from 500 RPM to 4,000 RPM. Steel backed, leaded bronze bearings are utilized for higher speed applications. MTE motors are available in single or bi-rotational operation, with built-in check valves.

- ▶ DRIVES FOR SPRAYER PUMPS
- ▶ FANS
- ▶ COMPRESSORS
- ▶ MOWERS
- ▶ SPREADERS
- ▶ ROTARY BRUSHES

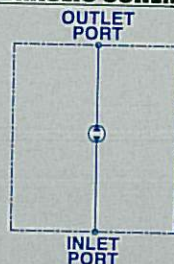
### 200 SERIES



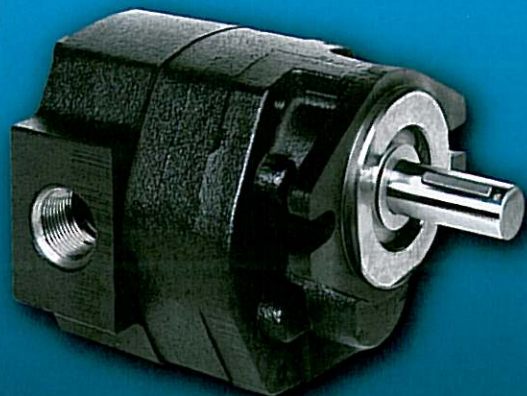
### 300 SERIES



#### HYDRAULIC SCHEMATIC



### 400 SERIES



#### MTE Hydraulic Motor Specifications

MODEL NUMBER	DISPLACEMENT GALLONS/REV	DISPLACEMENT CU.IN./REV	TORQUE IN/LBS/100PSI	AVG. SLIP GPM/100 PSI	PRESSURE MAX. PSI	SPEED MAX. RPM
C201M	0.000290	0.0671	1.07	0.023	1500	4000
C202M	0.000477	0.1102	1.75	0.025	1500	4000
C203M	0.000652	0.1506	2.34	0.028	1500	4000
C204M	0.000829	0.1916	3.05	0.030	1500	4000
C205M	0.001089	0.2515	4.00	0.033	1250	4000
C207M	0.001400	0.3234	5.15	0.038	1000	3000
C210M	0.002074	0.4791	7.63	0.045	750	3000
B304M	0.001764	0.4075	6.49	0.060	1500	3000
B307M	0.003019	0.6973	11.10	0.068	1250	3000
B310M	0.004225	0.9760	15.53	0.083	850	2500
B312M	0.005281	1.2199	19.42	0.098	700	2000
B315M	0.006295	1.4541	23.14	0.113	550	2000
A407M	0.006748	1.5587	24.81	0.110	1500	2500
A409M	0.008435	1.9484	31.01	0.120	1250	2500
A411M	0.010121	2.3380	37.21	0.140	1000	2000
A415M	0.013135	3.0341	48.29	0.170	750	1500
A418M	0.016868	3.8965	62.01	0.210	600	1500
A421M	0.019117	4.4160	70.28	0.270	500	1000

All numbers given are nominal values and should be used for reference only.  
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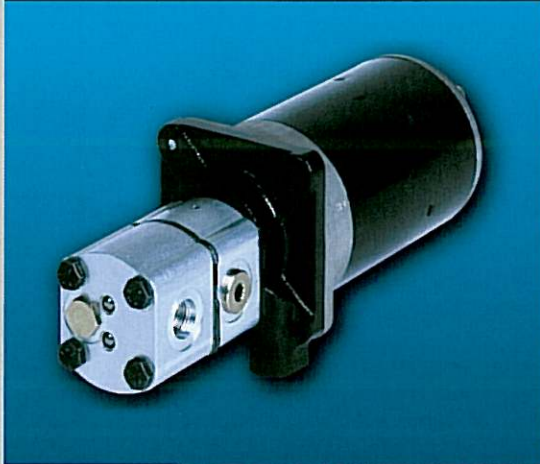
# PUMP / MOTOR UNITS

## TYPICAL APPLICATIONS

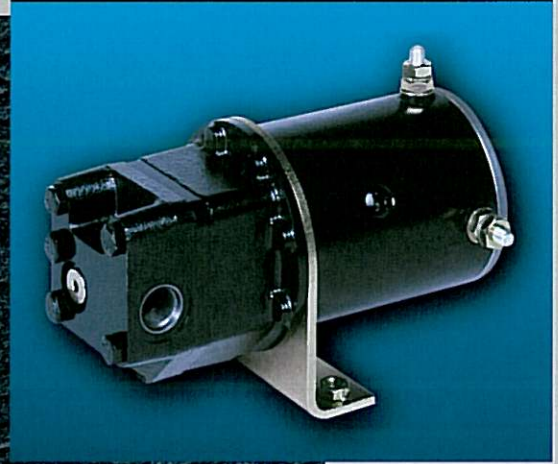
Pump/motor units are available in both our 100 and 200 series in a number of configurations where a complete self-contained hydraulic system is not required. Displacements available range from 0.1 GPM to 5 GPM. Single or multiple section gear pumps can be close-coupled to standard, heavy duty and permanent magnet 12 and 24 VDC motors, with or without start solenoids. Pumps can be built with integral relief, check and solenoid valves and can accept a variety of porting arrangements and sizes.

- ▶ AERIAL LIFTS
- ▶ CAB TILT
- ▶ AUXILIARY POWER UNIT FOR MOBILE EQUIPMENT
- ▶ PLATFORM LIFT
- ▶ SCISSOR LIFT

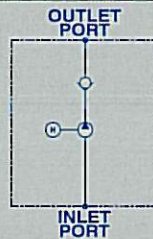
### 100 SERIES, 3-INCH MOTOR



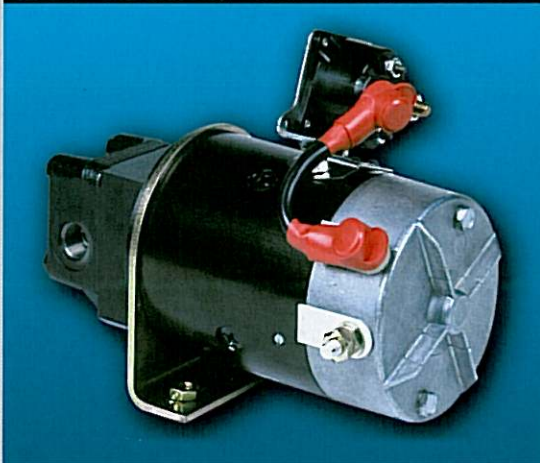
### 200 SERIES, 3.7-INCH MOTOR



#### HYDRAULIC SCHEMATIC



### 200 SERIES, 4.5-INCH MOTOR



### 200 SERIES, 5-INCH MOTOR



# LIFT/CHECK/DUMP AC POWER UNITS

## TYPICAL APPLICATIONS

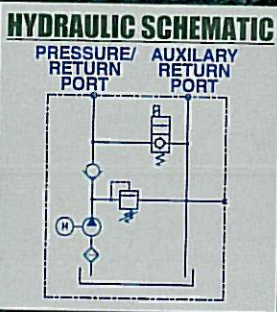
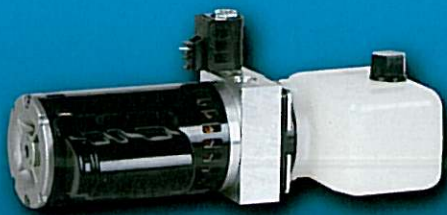
Lift, check, and dump units are the most commonly used power units. The displacements range from 0.1 GPM to 5 GPM. This type of unit is used in any application which requires pressure to lift, combined with the ability to hold the load and lower it on command. LCD circuits include integral 2-way, 2-position manual or solenoid actuated release valves, relief and check valves. In addition, a pressure compensating flow control valve can be inserted in the lowering valve cavity to control the lowering speed.

CARLIFT

SCISSOR LIFT

COMPACTORS

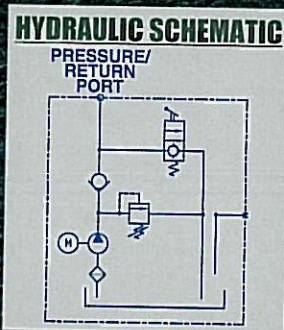
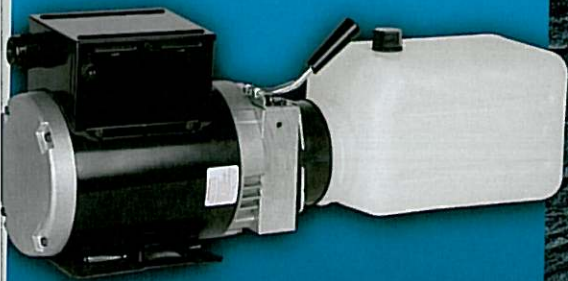
### 100 SERIES, 115 VAC



### 200 SERIES, 115/230 VAC



### 200 SERIES, 115/230 VAC



### 200 SERIES, 208-230 VAC



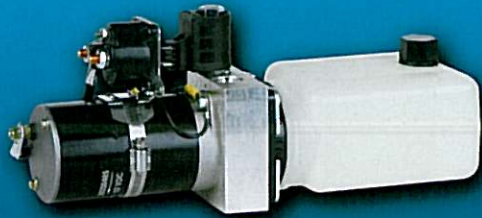


# LIFT/CHECK/DUMP DC POWER UNITS

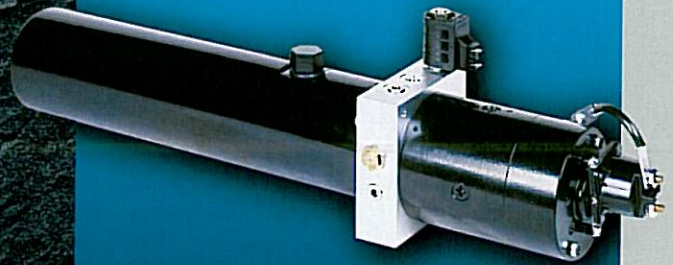
## TYPICAL APPLICATIONS

- ▶ TAILGATE
- ▶ RV LEVELING
- ▶ SCISSOR LIFT

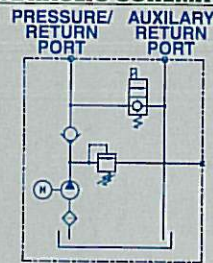
### 100 SERIES, 3-INCH MOTOR



### 200 SERIES, 4.5-INCH MOTOR



#### HYDRAULIC SCHEMATIC



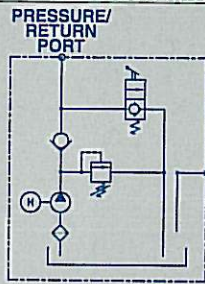
### 200 SERIES, 4.5-INCH MOTOR



### 200 SERIES, 4.5-INCH MOTOR



#### HYDRAULIC SCHEMATIC



# POWER UP / POWER DOWN POWER UNITS

## TYPICAL APPLICATIONS

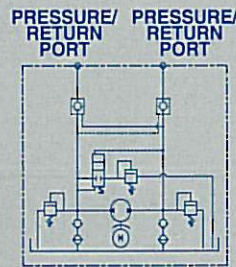
Power up / power down units are used to control double acting cylinders and bi-rotational hydraulic motors. The 200 series power units incorporate a 2P4W for switching and (1) or (2) 2P2W for holding pressure. The option for extra low pressure relief valve is available along with flow control in one direction. The bi-rotational 200 series unit incorporates individual relief valves, checks and lowering valves for each direction. This unit can be used for two separate single acting cylinders. Displacements range from 0.1 GPM to 4 GPM.

- ▶ BALE SPIKES
- ▶ DUMP TRAILERS
- ▶ AGRICULTURAL EQUIPMENT
- ▶ TRUCK GATES
- ▶ PRESSES
- ▶ PERSONNEL LIFTS
- ▶ LIFT EQUIPMENT

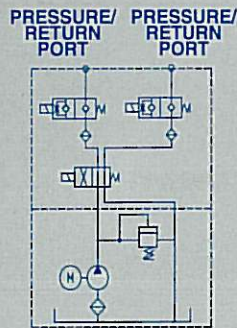
### 100 SERIES, 12 VDC



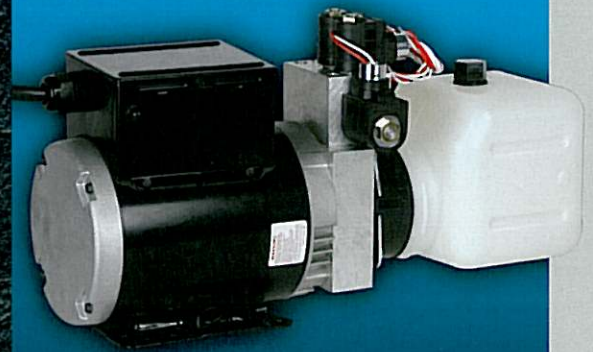
#### HYDRAULIC SCHEMATIC



#### HYDRAULIC SCHEMATIC



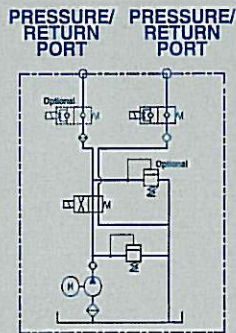
### 200 SERIES, 115 VAC



### 200 SERIES, 12 VDC



#### HYDRAULIC SCHEMATIC



# PRESSURE & RETURN UNITS

## TYPICAL APPLICATIONS

Pressure & return units are typically used where remote or complex valve or valve/manifold circuits are required. Displacements range from 0.1 GPM to 5 GPM. Normally the system relief valve and load drop check are included in the power unit. The power units shown have both SAE threaded ports and manifold mounting surfaces. Units can accommodate additional cartridge-type valve manifolds for more complex hydraulic circuits.

- ▶ MEDICAL & CHIROPRACTIC TABLES OR BEDS
- ▶ AGRICULTURAL EQUIPMENT
- ▶ LIFTING SYSTEMS
- ▶ MOBILE LIFTS

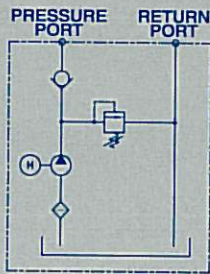
### 100 SERIES, 115 VAC



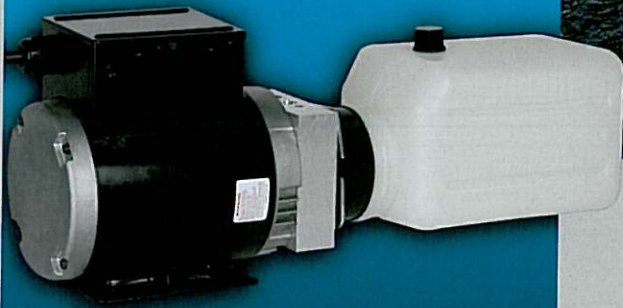
### 100 SERIES, 12 VDC



#### HYDRAULIC SCHEMATIC



### 200 SERIES, 115/230 VAC



### 200 SERIES, 12 VDC



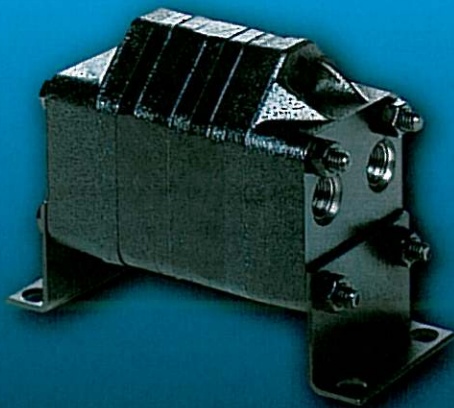
# PROPORTIONATORS

## TYPICAL APPLICATIONS

MTE proportionators divide flow from a single hydraulic source into two or more equal or proportionate circuits, in order to intensify or reduce the pressure of each. Three series are available to accept input up to 50 GPM per section and can also be assembled into multiple sections to satisfy your exact needs.

- ▶ CAR WASH SYSTEMS
- ▶ FUEL DISTRIBUTION SYSTEMS
- ▶ MULTIPLE-NOZZLE MACHINERY
- ▶ LUBRICATION SYSTEMS
- ▶ CYLINDER CONTROL & PRESSURE INTENSIFIERS

### 200 SERIES



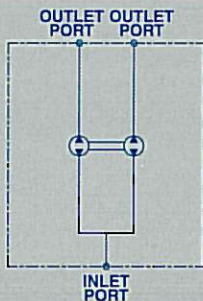
### 200 SERIES, WITH RELIEF



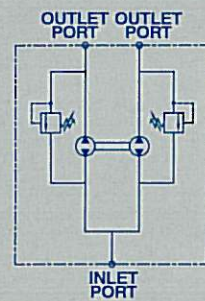
### 300 SERIES



#### HYDRAULIC SCHEMATIC



#### HYDRAULIC SCHEMATIC



### 400 SERIES



#### Proportionator Specifications

MODEL NUMBER	DISPLACEMENT GALLONS/REV	DISPLACEMENT CU.IN./REV	MAX INLET GPM PER SECTION	PRESSURE MAX. PSI	MAX PSI DIFFERENTIAL BETWEEN SECTIONS
P202	0.000477	0.1102	2.0	2000	2000
P207	0.001400	0.3234	5.0	1500	1500
P304	0.001764	0.4075	6.3	1500	1000
P307	0.003019	0.6973	10.5	1500	1000
P310	0.004225	0.9760	15.0	1500	1000
P312	0.005281	1.2199	18.5	1500	1000
P315	0.006295	1.4541	22.0	1500	1000
P411	0.010121	2.3380	30.0	1500	1000
P418	0.016868	3.8965	50.0	1500	1000

All numbers given are nominal values and should be used for reference only. All product specifications are subject to change without prior notice.

# GENERATOR UNITS

MTE "G" series hydraulically driven generators are available from 2 KW to 12 KW power ratings. These generators are direct driven by the MTE gear type 200 to 300 series hydraulic motor, with supply oil up to 30 GPM from the main PTO. The DC controller uses a feedback circuit to adjust the generator speed and maintain a constant frequency for proper accessory operation.

## FEATURES:

- Runs off PTO pump.
- Allows 120/240 VAC power on remote job sites.
- Eliminates transporting bulky gas generators.
- Smaller, quieter and cleaner to operate.
- Lighter than the competition.
- Valving available in 12VDC or 24VDC.
- (AVR) generators available.
- Push-to-reset circuit breakers.
- Various receptacles available.
- 120 or 240 volt, 1PH or 3PH, 50 or 60Hz.
- Other hydraulic circuitry designs available.

▶ **AERIAL LIFTS**

▶ **AGRICULTURAL EQUIPMENT**

▶ **CONSTRUCTION EQUIPMENT**

▶ **FIRE APPARATUS**

▶ **MARINE**

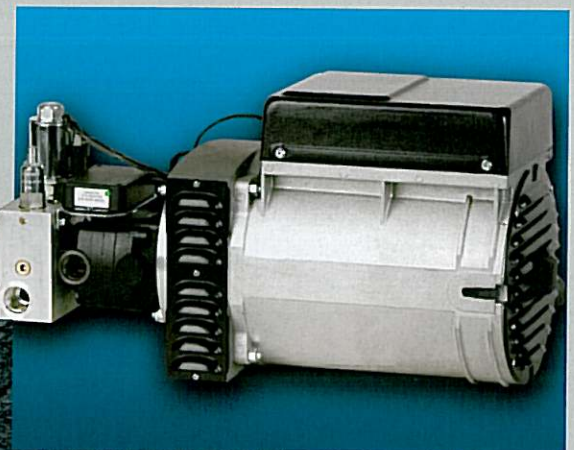
▶ **MILITARY EQUIPMENT**

▶ **MINING MACHINES**

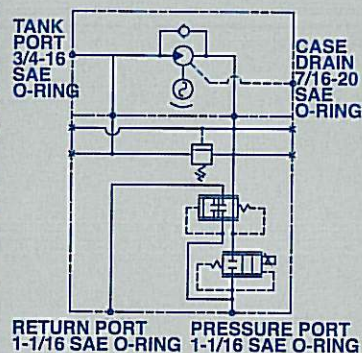
▶ **PLATFORM LIFTS**

▶ **SERVICE VEHICLES**

▶ **UTILITY EQUIPMENT**



## HYDRAULIC SCHEMATIC



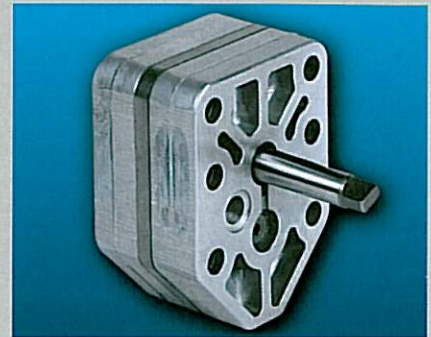
# OEM SPECIFIC UNITS

The hydraulic systems shown are intended to give you some idea of the flexibility we can offer. MTE draws upon unmatched modification experience and design maturity to continue to satisfy specific application needs. That's why MTE products are the choice of leading original equipment manufacturers throughout the world.

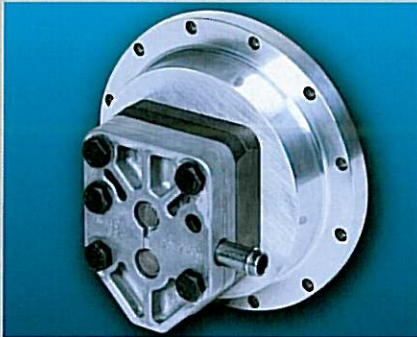
Need help designing special applications or developing an integrated system? Our skilled sales and engineering staff, combined with our production and purchasing resources, are available to help satisfy the requirements unique to your application.



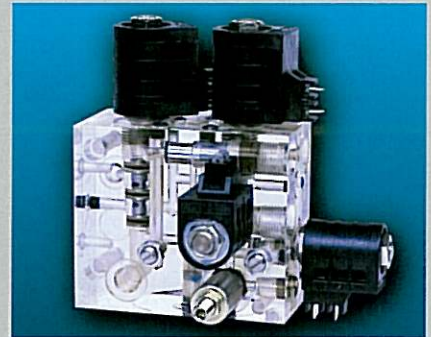
*12VDC tailgate power unit with multi-function manifold block.*



*Die cast aluminum pump utilized in AC and DC power units.*



*Special charge pump for higher pressure applications.*



*Duplicated product, made of acrylic, to show functionality.*



*115 volt AC power unit with hi-lo pump.*



*Compact hydraulic 12 volt DC system utilized on braking applications.*



*12 VDC snow plow power unit with multi-function manifold block.*



*115 volt AC dual pump/motor unit utilized in the medical industry.*



*100 series DC system with integrated hand pump.*