

POWER UNITS CATALOG



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APEX HYDRAULIC
Apex Hydraulic Co.,Ltd

INNOVATIVE MOBILE SOLUTIONS

Apex Hydraulic is a Chinese based manufacturer of custom and standard hydraulic solutions.

We manufacture hydraulic cylinders, hydraulic power units and pumps as well as engineer and integrate more than 100,000 units.

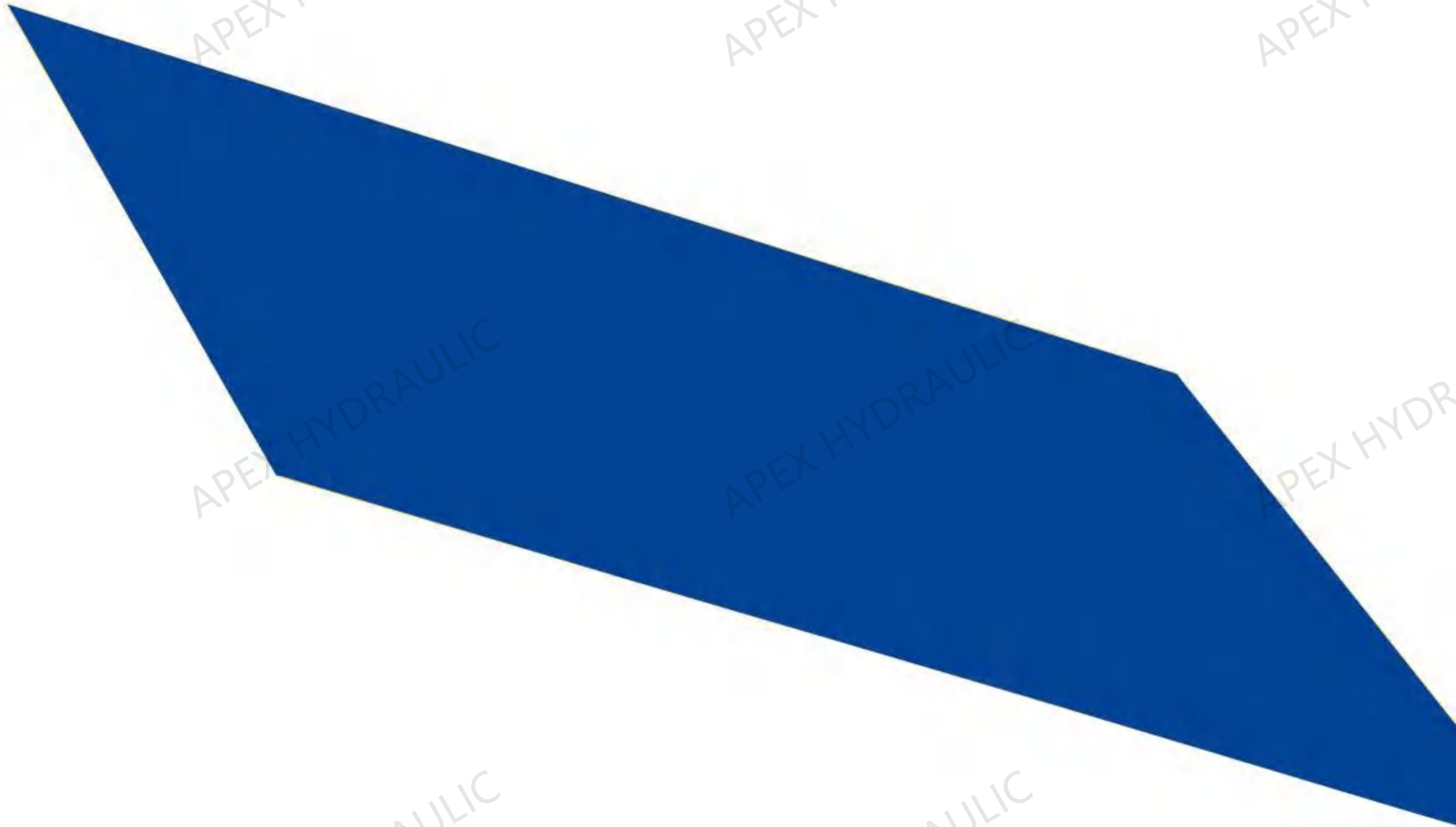
Serving the mobile equipment industry for decades, our products are designed and supported from our head office located in QingDao, ShanDong, China to exceed North American standards.

We are also a certified OEM production supplier to many large North American based corporations. Our services include custom components or system design, on-site visits, continuous support, flexible delivery and stocking programs, inventory updates, many warranty options, and responsive service.

We strive to provide you the best experience and deliver high-quality merchandise faster than expected.

At APEX HYDRAULIC, you can get the following one-stop services:

1. A more reasonable price than our peers.
2. We design product drawings for free, until you approve.
3. We provide advanced production equipment and professional quality inspectors, and every hydraulic cylinder will be tested before leaving the factory.
4. Perfect production management system, the high coordination of each production link greatly speeds up the production efficiency, you will have a shorter delivery time.
5. Professional after-sales service, we will be 24 hours online to answer any questions you have in the use of products.
6. Customized services, we according to your needs to design the structure, parameters, colors, packaging and so on.



OUR CAPABILITIES

1

OEM HYDRAULIC CYLINDERS

2

STANDARD HYDRAULIC CYLINDERS

3

HYDRAULIC POWER UNITS

- AC
- DC

4

HYDRAULIC COMPONENTS

- | | |
|-------------|------------------------|
| - Pumps | - Manifolds |
| - Motors | - Filters |
| - Valves | - Remotes |
| - Tanks | - Wireless controllers |
| - Toolboxes | - ... |

5

SYSTEM INTEGRATION

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APEX HYDRAULIC

INTEGRATED MOBILE SOLUTION

1

TOOLBOX

- Easily mounted on trailer A-frame
- Toolbox can be purchased separately

Different models available:

POLYMER TOOLBOX WITH
LOCKING HASP - 810100
36" W x 18.75" D x 17.72" H

AMERICAN CHECKERPLATE
ALUMINIUM TOOLBOX - 810200
36" W x 17.75" D x 16.375" H

AMERICAN CHECKERPLATE
ALUMINIUM HIGH TOOLBOX
810300
36" W x 17.75" D x 20.125" H

2

POWER UNIT

Model: 01, 02, 03, 06, 10,
11, 12, 13, 15, 24, 36, 48

Tank: From 1.7 liters to
23,5 liters - Plastic or steel

Pump: From 0.8 to 8.0 cc

Mounting: Horizontal

3



POWER UNIT REMOTE CONTROL

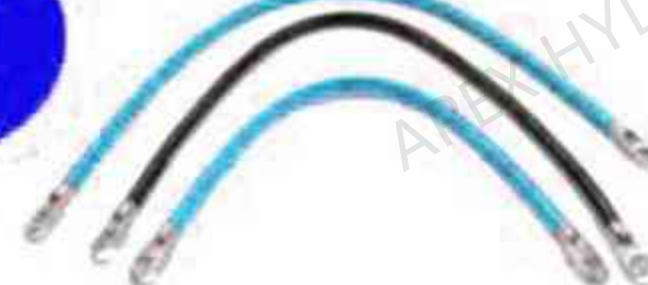
Including 20' of 16/3 cables

5



AUTO-RESET FUSE 618110

7



RED BATTERY CABLE, 18" LONG - 610240

BLACK BATTERY CABLE,
24" LONG - 610260

RED BATTERY CABLE,
24" LONG - 610270

9



HYDRAULIC HOSE 3/8" 320XXX

4



NOVAPEAK

Including battery tray and
no more downtime

6



MASTER SWITCH 640010

8



BLACK WIRELESS REMOTE CONTROL (BX-W003) 630020

10



BATTERY CHARGER 640120

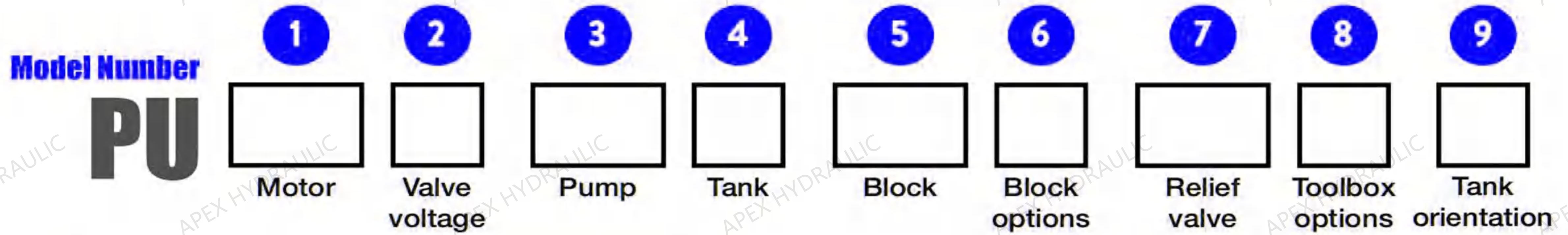
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POWER UNIT MODEL NUMBER BREAKDOWN



1

ELECTRICAL MOTOR

- 11** = 12v - 2.14 HP - Long Duty [600120]
12 = 12v - 2.14 HP [600110]
24 = 24v - 2.68 HP [600210]
110 = 115v - 1 HP, 3600 RPM, 1PH, 56C, S1 [600470]
114 = 115v - 2 HP, 3600 RPM, 1PH, 56C, S1 [600480]
115 = 115v - 2 HP, 3480 RPM, 1PH, S3 [600320]
116 = 115v - 3 HP, 3480 RPM, 1PH, S3 [600340]
117 = 115v - 3 HP, 3600 RPM, 1PH, 56HC, S1 [600490]
181 = 115v - 1 HP, 1800 RPM, 1PH, 56C, S1 [600475] - **NEW**
182 = 115v - 2 HP, 1800 RPM, 1PH, 56C, S1 [600485] - **NEW**
218 = 220v - 1 HP, 3600 RPM, 1PH, S1 [600470]
219 = 220v - 2 HP, 3600 RPM, 1PH, S1 [600480]
220 = 220v - 2 HP, 3480 RPM, 1PH, S3 [600320]
221 = 220v - 3 HP, 3480 RPM, 1PH, S3 [600340]
222 = 220v - 3 HP, 3600 RPM, 1PH, 56HC, S1 [600490]
281 = 220v - 1 HP, 1800 RPM, 1PH, 56C, S1 [600475] - **NEW**
282 = 220v - 2 HP, 1800 RPM, 1PH, 56C, S1 [600485] - **NEW**
600 = 575v - 3 HP, 3600 RPM, 3PH, 182T, S1 [600460]
605 = 575v - 5 HP, 1800 RPM, 3PH, 184T, S1 [600510]
683 = 575v - 3 HP, 1800 RPM, 3PH, 182T, S1 [600465] - **NEW**

NEW: GAS MOTOR

90 = 5.7 HP, Briggs & Stratton Gas Engine, Manual Starter, Horizontal Mount

2

VALVE VOLTAGE

- A** = 12v **B** = 24v
C = 110v **D** = 220v

4

PLASTIC TANK

- B** = Plastic 4 Liters - 1.06 Gal. [510020]
C = Plastic 5 Liters - 1.32 Gal. [510030]
D = Plastic 6 Liters - 1.59 Gal. [510050]
F = Plastic 8 Liters - 2.12 Gal. [510060]
G = Plastic 10 Liters - 2.65 Gal. [510070]
K = Plastic 15.1 Liters - 4.0 Gal. [510080]
H = Plastic 22.7 Liters - 6.0 Gal. [510090]

3

PUMP

- 08** = 0.8 cc [400010]
10 = 1.1 cc [400020]
16 = 1.6 cc [400040]
20 = 2.1 cc [400050]
25 = 2.5 cc [400060]
32 = 3.2 cc [400080]
42 = 4.2 cc [400090]
58 = 5.8 cc [400100]
80 = 8.0 cc [400110]

METAL ROUND TANK

- M** = Metal Round 1.7 Liters - 0.45 Gal. [500010]
N = Metal Round 2.8 Liters - 0.74 Gal. [500020]
O = Metal Round 3.9 Liters - 1.03 Gal. [500030]
P = Metal Round 5 Liters - 1.32 Gal. [500040]
Q = Metal Round 6 Liters - 1.58 Gal. [500060]
R = Metal Round 8 Liters - 2.11 Gal. [500070]
S = Metal Round 10 Liters - 2.64 Gal. [500080]
T = Metal Round 12 Liters - 3.17 Gal. [500090]
U = Metal Round 14 Liters - 3.7 Gal. [500100]

METAL SQUARE TANK

- V** = Metal Square 11.34 Liters - 3.0 Gal. [500110]
L = Metal Square 15.12 Liters - 4.0 Gal. [500120]
W = Metal Square 18.9 Liters - 5.0 Gal. [500130]
X = Metal Square 23.6 Liters - 6.24 Gal. [500140]
Z = Metal Square Flat 23.6 Liters - 6.25 Gal. [500150]
Y = Metal Square Double Motor 26.5 Liters - 7.0 Gal. [500160]
E = Metal Square 30.2 Liters - 8 Gal. [500180]
A = Metal Square 37.8 Liters - 10 Gal. [500190]
***** = No Tank

5

BLOCK MODELS

- 01** = Basic P & T Ports, No Valve (Model 01, page 8)
02 = Pressure Up, Gravity Down, Single Acting with Electrical Valve (Model 02, page 10)
03 = Pressure Up, Gravity Down, Single Acting with Manual Valve w/ Motor Start (Model 03, page 12)
05 = Pressure Up, Gravity Down, Single Acting with Manual Valve (Model 05, page 14)
06 = Pressure Up, Gravity Down, Double Acting from Side to Side w/ Relief Valves - Snow Plow (Model 06, page 16)
10 = Pressure Up and Down, Double Acting With External Check Valves and Relief on "B" Port (Model 10, page 18)
11 = Pressure Up and Down, Double Acting With Internal Check Valves and Relief on "B" Port (Model 11, page 20)
12 = Pressure Up and Down, Double Acting with D03 Solenoid Valve (Model 12, page 22)
14 = Pressure Up and Down, Double Acting with D02 Solenoid Valve (Model 14, page 24)
15 = Pressure Up and Down Double Acting, Manual Valve DO3 (Model 15, page 26)
16 = Pressure Up and Down Double Acting, Manual Valve DO2 (Model 16, page 28)
24 = Pressure Up and Down, Double Acting, 2 x D03 Solenoid Valve (Model 24, page 30)
28 = Pressure Up and Down, Double Acting, 2 x D02 Solenoid Valve (Model 28, page 30)
36 = Pressure Up and Down, Double Acting, 3 x D03 Solenoid Valve (Model 36, page 30)
42 = Pressure Up and Down, Double Acting, 3 x D02 Solenoid Valve (Model 42, page 32)
48 = Pressure Up and Down, Double Acting, 4 x D03 Solenoid Valve (Model 48, page 32)
56 = Pressure Up and Down, Double Acting, 4 x D02 Solenoid Valve (Model 56, page 32)

6

BLOCK OPTIONS

- D** = Piloted Check VV Bank 1, Port A & B - D03 [122520]
E = Piloted Check VV Bank 1 & 2, Port A & B - D03 [122520]
F = One Way Flow Control Bank 1, Port A & B - D03 [122550]
G = One Way Flow Control Bank 1 & 2, Port A & B - D03 [122550]
H = Pressure Relief VV on One Bank, A>T and B>T - D03 [122510]
L = Level Gauge [520080]
P = 10cc Manual Hand Pump - Avail. on models 02 and 03 [115100]
S = Single Acting on Bank 2 [315000]
V = Pressure Comp. Flow Control [100500]
W = Wireless Remote Control [630010 / 630030]
X = Without Remote Control

7

RELIEF VALVE

- Two Digits: 00 x 100 PSI
 Examples:
05 = 500 PSI
30 = 3000 PSI

8

TOOLBOX OPTIONS

- OMIT** = None
C = Plastic Tool Box Kit
CA = Aluminium Tool Box Kit
R = Auto Reset
G = Battery Charger
M = Master Switch
S = Battery Tray Group 27-31
T = Tool Trays (Pair)

* Battery Tray Group 24 is standard.

9

TANK ORIENTATION

- OMIT** = Horizontal
1 = Vertical

*Power units with AC motors are not provided with remote controls or methods to activate the motor or valves

All numbers given are nominal values and should be used for reference only.

NOTES



APEX HYDRAULIC

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APEX HYDRAULIC

MODEL01



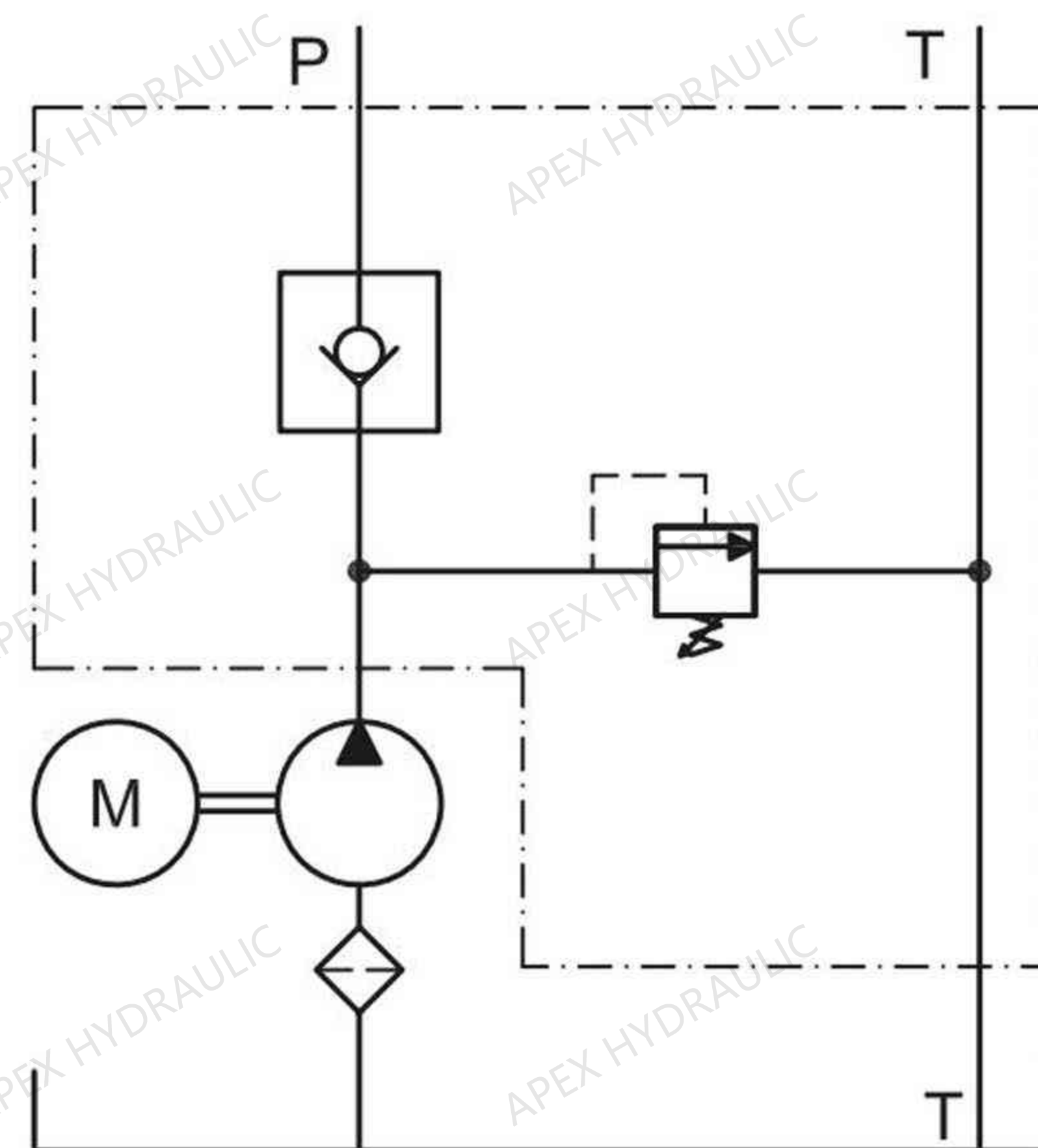
This power unit has a basic circuit with “P” and “T” SAE 6 (9/16-18) ports. This circuit has a cartridge check valve and adjustable relief valve. The gear pump is equipped with a suction screen attached to a 90° elbow inside the tank which comes with a 3/4” NPT breather/dipstick. Designed for external mobile valve, defined by the application.

OPTIONS:

- **Motor:** DC 12/24V, AC 115/230V Single Phase or AC 230/460/575V Three Phase
- **Tank:** From 1.7 liters to 23.5 liters, Plastic or Steel
- **Pump:** 0.8, 1.0, 1.3, 1.6, 2.1, 2.5, 3.2, 4.2, 5.8 and 8.0cc
- **Mounting:** Vertical or Horizontal

TYPICAL APPLICATION:

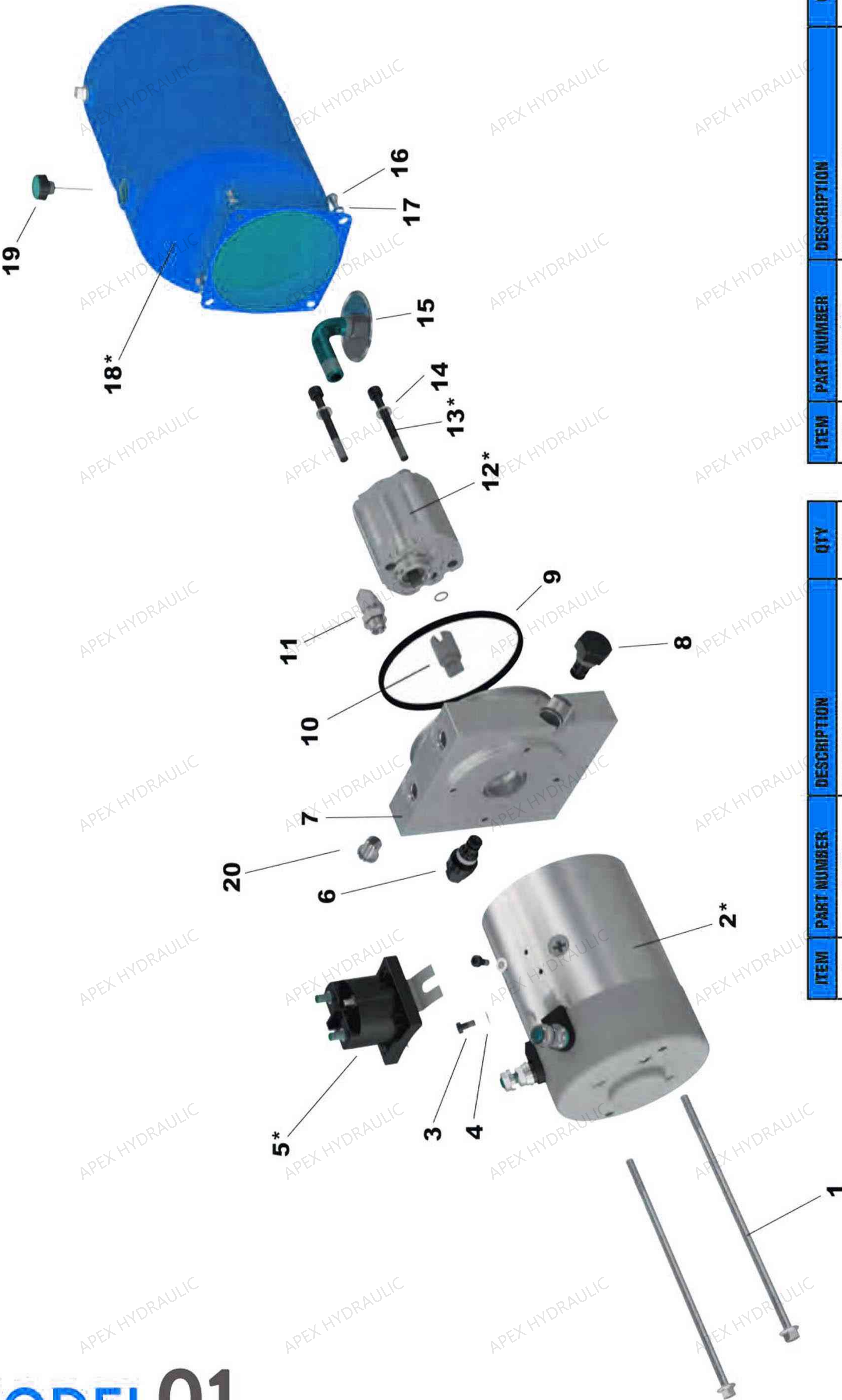
- **Mobile Lifts**
- **Presses**
- **Compactor**
- **Agricultural Equipment**



*Power units with AC motors are not provided with remote controls or methods to activate the motor or valves

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EXPLODED VIEW



ITEM	PART NUMBER	DESCRIPTION	QTY
1	300060	Motor Bolts	2
2	600xxx*	Motor*	1
3	300010	Solenoid Bolt	2
4	307000	Solenoid Washer	2
5	640xxx*	Solenoid*	1
6	111000	Relief Valve	1
7	210010	Block	1
8	110100	Checkvalve	1
9	330100	Tank O-Ring	1
10	421000	Motor/Pump Coupler	1

ITEM	PART NUMBER	DESCRIPTION	QTY
11	310067	Block Elbow 90°	1
12	400xxx*	Pump*	1
13	301xxx*	Pump Bolts*	2
14	307080	Lockwasher (Pump Bolts)	2
15	150012	Screen Filter Suction Elbow	1
16	300030	Tank Bolts	4
17	307050	Lockwasher (Tank Bolts)	4
18	500xxx*	Tank*	1
19	520030	Breather	1
20	315000	Block Plug	1

* Items such as motor, pump, pump bolts, coils, solenoid and tank have different ordering part numbers depending on the option purchased originally. Always specify the model number and serial number when ordering power unit parts.

MODEL01

SHOWN HERE WITH MANUAL HAND PUMP OPTION



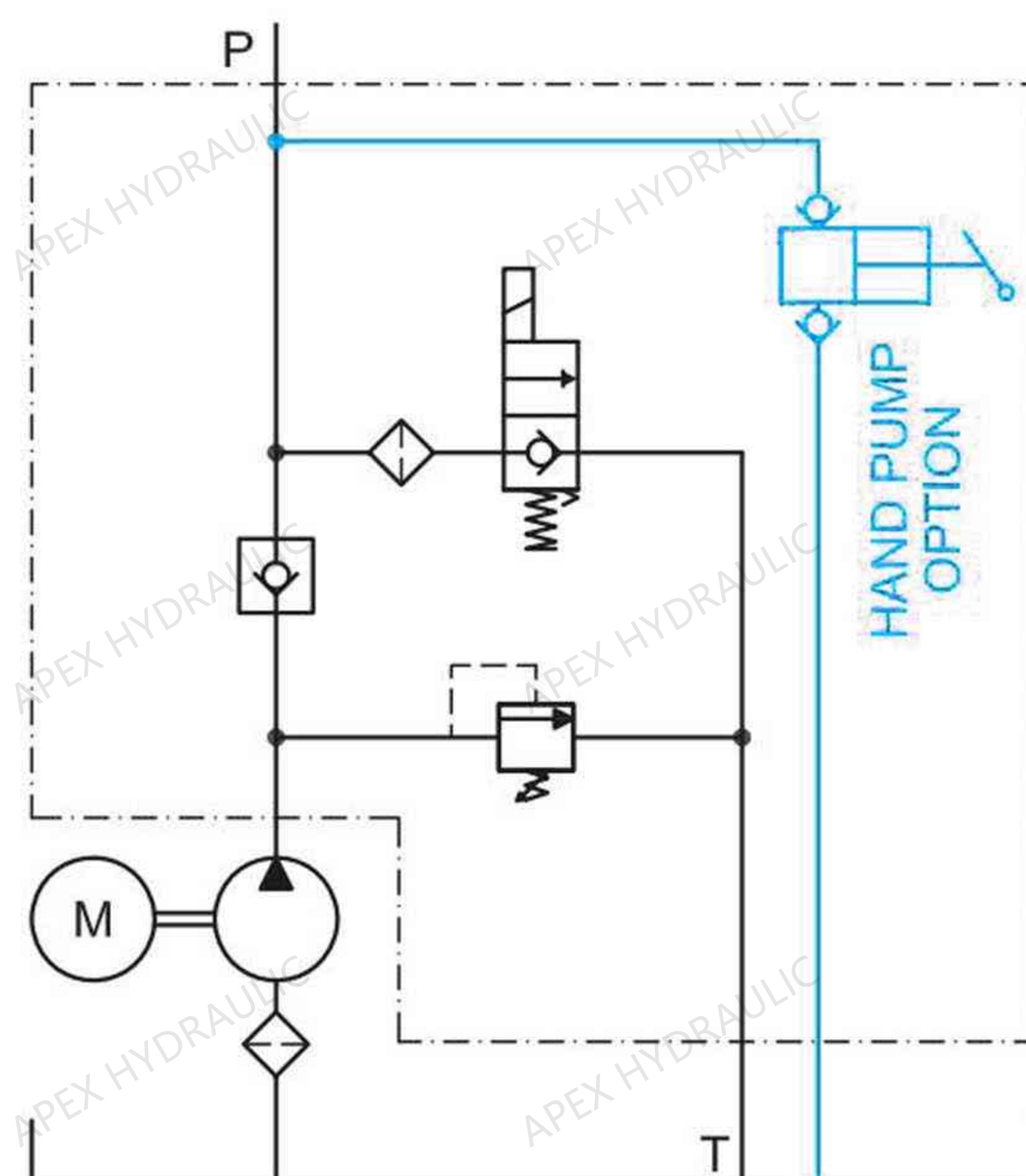
This power unit has a single acting circuit with two SAE 6 (9/16-18) ports for straight or 90° hose. The 2-way, 2-position cartridge valve has a manual override and an internal check valve. This circuit also has a cartridge check valve and adjustable relief valve. The magnetic two button remote control comes with holder and 6 meters of cable, which has a quick connect at the motor. The gear pump is equipped with a suction screen attached to a 90° elbow inside the tank which comes with a 3/4" NPT breather/dipstick.

OPTIONS:

- ▶ **Motor:** DC 12/24V, AC 115/230V Single Phase or AC 230/460/575V Three Phase
- ▶ **Tank:** From 1.7 liters to 23.5 liters, Plastic or Steel
- ▶ **Pump:** 0.8, 1.0, 1.3, 1.6, 2.1, 2.5, 3.2, 4.2, 5.8 and 8.0cc
- ▶ **Mounting:** Vertical or Horizontal
- ▶ 10' remote control cable extension
- ▶ 10cc Manual Hand Pump: Only 1 outlet port with this option
- ▶ With manual override

TYPICAL APPLICATION:

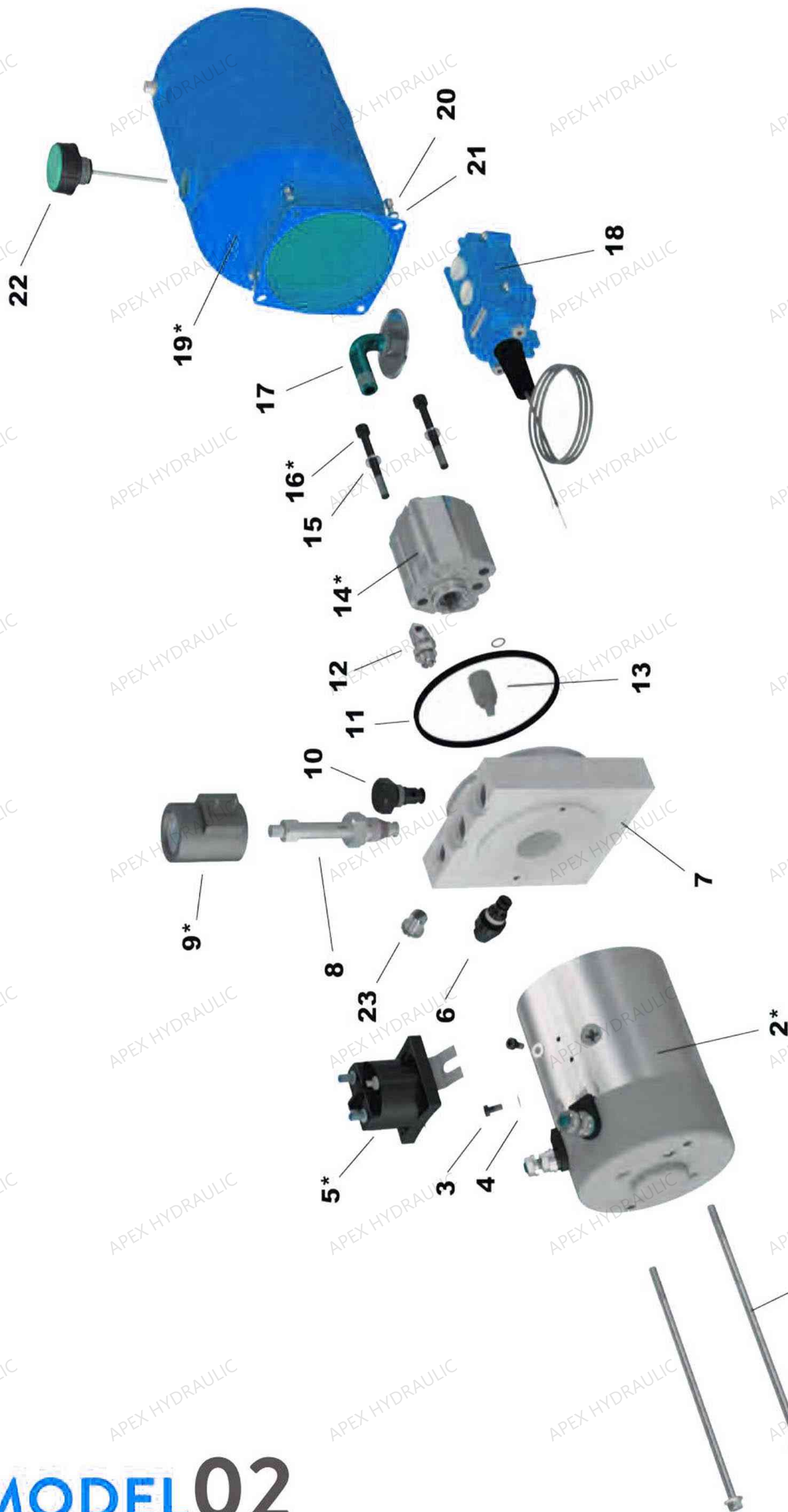
- ▶ Pressure Up / Gravity Down System
- ▶ Tailgate (with pressure comp. flow control)
- ▶ Dump Trailer
- ▶ Single Acting Telescopic Cylinders
- ▶ Scissor Lift
- ▶ Carlift



*Power units with AC motors are not provided with remote controls or methods to activate the motor or valves

All numbers given are nominal values and should be used for reference only.

EXPLODED VIEW



ITEM	PART NUMBER	DESCRIPTION	QTY
1	300060	Motor Bolts	2
2	600xxx*	Motor*	1
3	300010	Solenoid Bolt	2
4	307000	Solenoid Washer	2
5	640xxx*	Solenoid*	1
6	111000	Relief Valve	1
7	210025	Block	1
8	115200	Valve w/ manual override	1
9	641xxx*	Coil*	1
10	110100	Checkvalve	1
11	330100	Block O-Ring	1
12	310067	Block Elbow 90°	1

ITEM	PART NUMBER	DESCRIPTION	QTY
13	421000	Motor/Pump Coupler	1
14	400xxx*	Pump*	1
15	307080	Lockwasher (Pump Bolts)	2
16	301xxx*	Pump Bolts*	2
17	150012	Screen Filter Suction Elbow	1
18	630140	Remote Control	1
19	500xxx*	Tank*	1
20	300030	Tank Bolt	4
21	307050	Lockwasher (Tank Bolt)	4
22	520030	Breather	1
23	315000	Block Plug	1

* Items such as motor, pump, pump bolts, coils, solenoid and tank have different ordering part numbers depending on the option purchased originally. Always specify the model number and serial number when ordering power unit parts.

MODEL 02



APEX HYDRAULIC

MODEL03



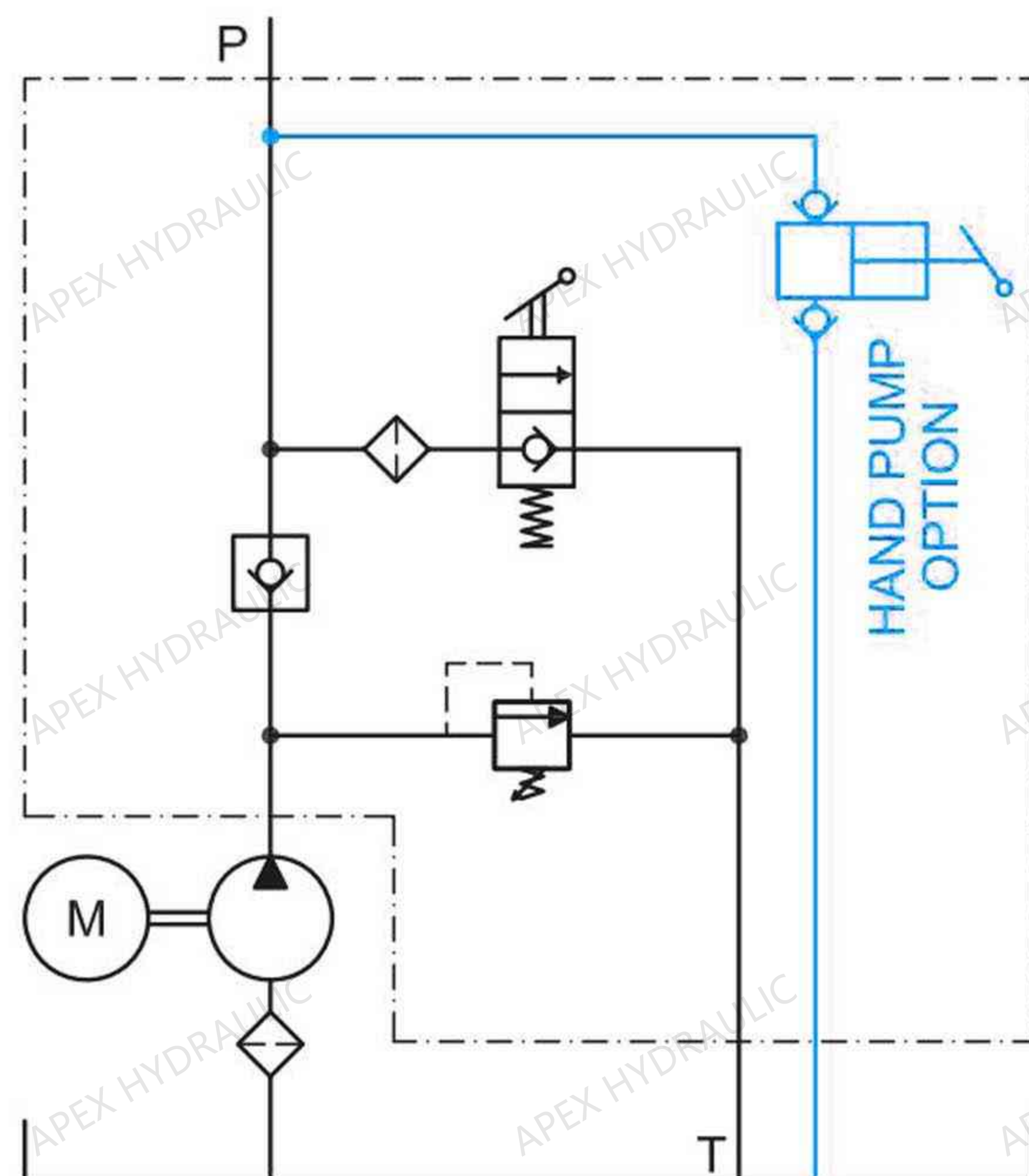
This power unit has a single acting circuit with two SAE 6 (9/16-18) ports for straight or 90° hose. The 2-way, 2-position manual valve has an internal check valve. This circuit also has a cartridge check valve and adjustable relief valve. The gear pump is equipped with a suction screen attached to a 90° elbow inside the tank which comes with a 3/4" NPT breather/dipstick.

OPTIONS:

- ▶ **Motor:** DC 12/24V, AC 115/230V Single Phase or AC 230/460/575V Three Phase
- ▶ **Tank:** From 1.7 liters to 23.5 liters, Plastic or Steel
- ▶ **Pump:** 0.8, 1.0, 1.3, 1.6, 2.1, 2.5, 3.2, 4.2, 5.8 and 8.0cc
- ▶ **Mounting:** Vertical or Horizontal
- ▶ **10cc Manual Hand Pump:** Only 1 Outlet Port with this Option

TYPICAL APPLICATION:

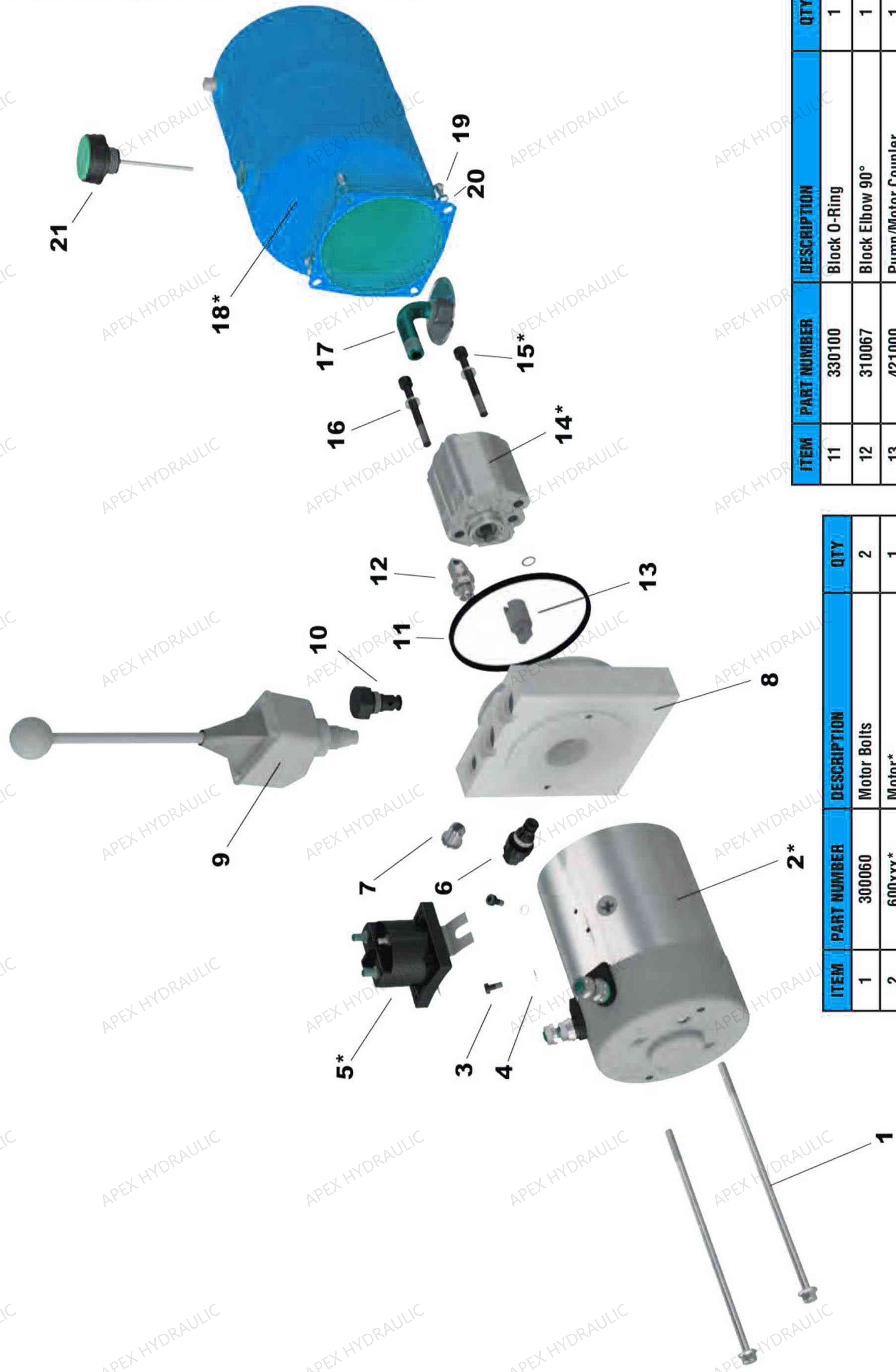
- ▶ **Pressure Up / Gravity Down System**
- ▶ **Dump Trailer**
- ▶ **Single Acting Telescopic Cylinders**
- ▶ **Scissor Lift**
- ▶ **Carlift**



*Power units with AC motors are not provided with remote controls or methods to activate the motor or valves

All numbers given are nominal values and should be used for reference only.

EXPLODED VIEW



ITEM	PART NUMBER	DESCRIPTION	QTY
11	330100	Block O-Ring	1
12	310067	Block Elbow 90°	1
13	421000	Pump/Motor Coupler	1
14	400xxx*	Pump*	1
15	301xxx*	Pump Bolts*	2
16	307080	Lockwasher (Pump Bolts)	2
17	150012	Screen Filter Suction Elbow	1
18	500xxx*	Tank*	1
19	300030	Tank Bolt	4
20	307050	Lockwasher (Tank Bolt)	4
21	520030	Breather	1

ITEM	PART NUMBER	DESCRIPTION	QTY
1	300060	Motor Bolts	2
2	600xxx*	Motor*	1
3	300010	Solenoid Bolt	2
4	307000	Solenoid Washer	2
5	640xxx*	Solenoid*	1
6	111000	Relief Valve	1
7	315000	Block Plug	1
8	210025	Block	1
9	115230	Manual Valve	1
10	110100	Checkvalve	1

* Items such as motor, pump, pump bolts, coils, solenoid and tank have different ordering part numbers depending on the option purchased originally. Always specify the model number and serial number when ordering power unit parts.

MODEL03



APEX HYDRAULIC

MODEL05



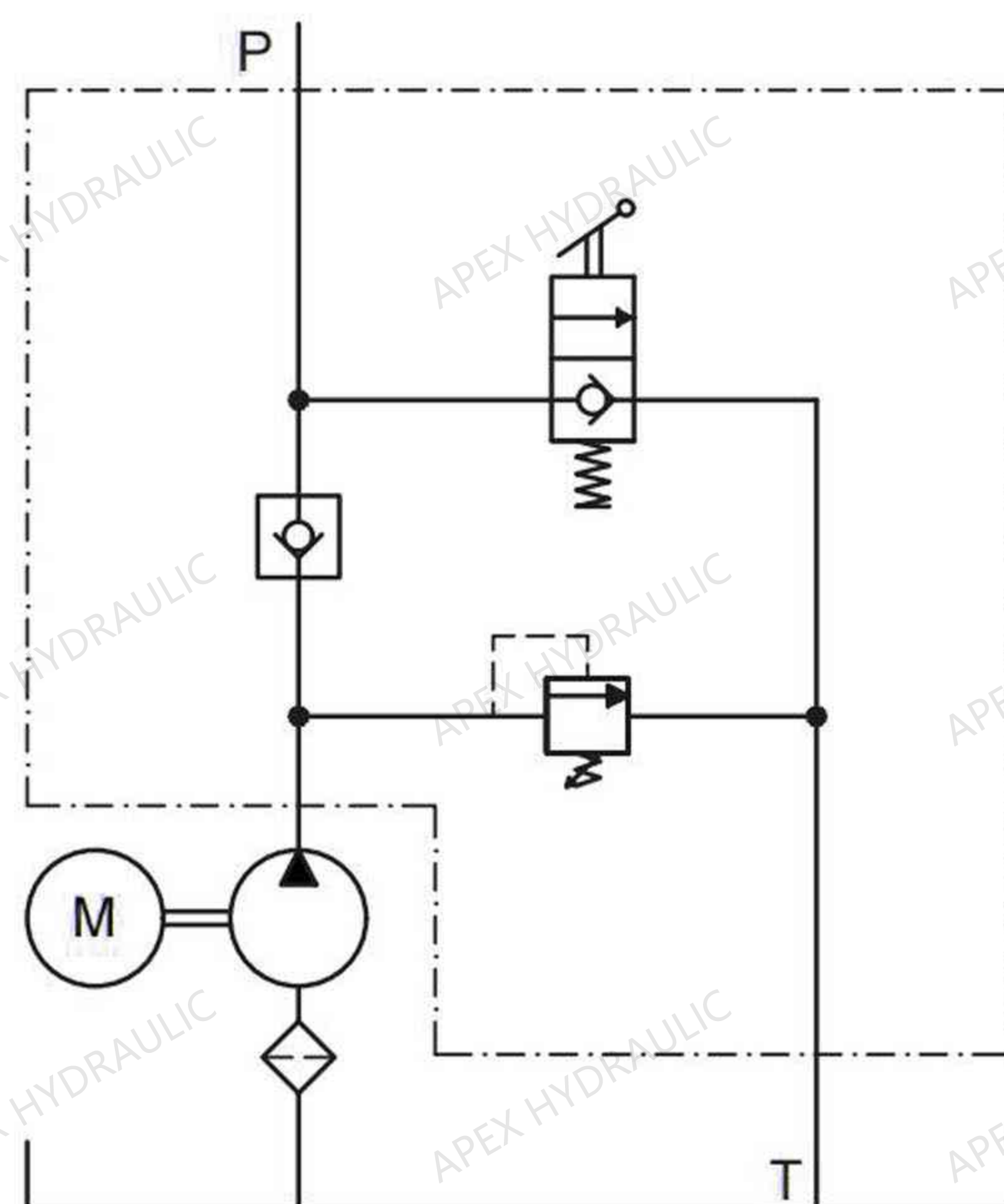
This power unit has a single acting circuit with two SAE 6 (9/16-18) ports for straight or 90° hose. The 2-way, 2-position manual valve has an internal check valve. This circuit also has a cartridge check valve and adjustable relief valve. The gear pump is equipped with a suction screen inside the tank which comes with a 3/4" NPT breather/dipstick.

OPTIONS:

- **Motor:** AC 115/230V Single Phase
AC 230/460/575V Three Phase
- **Tank:** From 1.7 liters to 23.5 liters, Plastic or Steel
- **Pump:** 0.8, 1.0, 1.3, 1.6, 2.1, 2.5, 3.2, 4.2, 5.8 and 8.0cc
- **Mounting:** Vertical

TYPICAL APPLICATION:

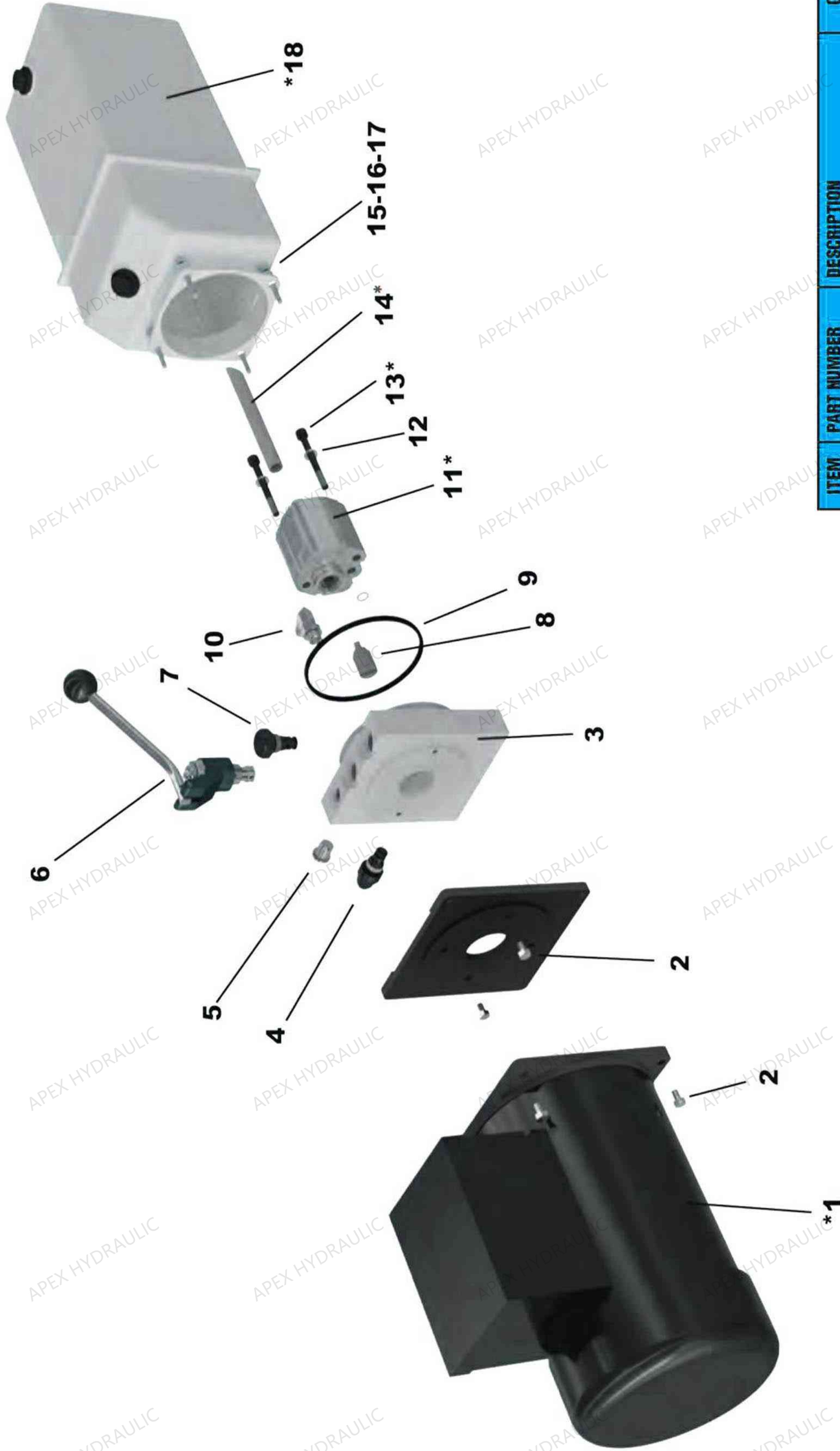
- **Pressure Up / Gravity Down System**
- **Single Acting Telescopic Cylinders**
- **Scissor Lift**
- **Carlift**



*Power units with AC motors are not provided with remote controls or methods to activate the motor or valves

All numbers given are nominal values and should be used for reference only.

EXPLODED VIEW



ITEM	PART NUMBER	DESCRIPTION	QTY
1	600xxx*	Motor*	2
2	300070	Motor Bolt	6
3	210025	Block	1
4	111000	Relief Valve	1
5	315000	Block Plug	1
6	115250	Manual Valve	1
7	110100	Checkvalve	1
8	421000	Pump/Motor Coupler	1

* Items such as motor, pump, pump bolts, coils, solenoid and tank have different ordering part numbers depending on the option purchased originally. Always specify the model number and serial number when ordering power unit parts.

ITEM	PART NUMBER	DESCRIPTION	QTY
9	330100	Block O-Ring	1
10	310067	Block Elbow 90°	1
11	400xxx*	Pump*	1
12	307080	Lockwasher (Pump Bolts)	2
13	301xxx*	Pump Bolts*	2
14	7100xx*	Suction Tube	1
15	300050	Tank Stud	4
16	307050	Lockwasher (Tank Bolts)	4
17	307100	Tank Stud Nut	4
18	500xxx*	Tank*	1

MODEL05



APEX HYDRAULIC

MODEL 06



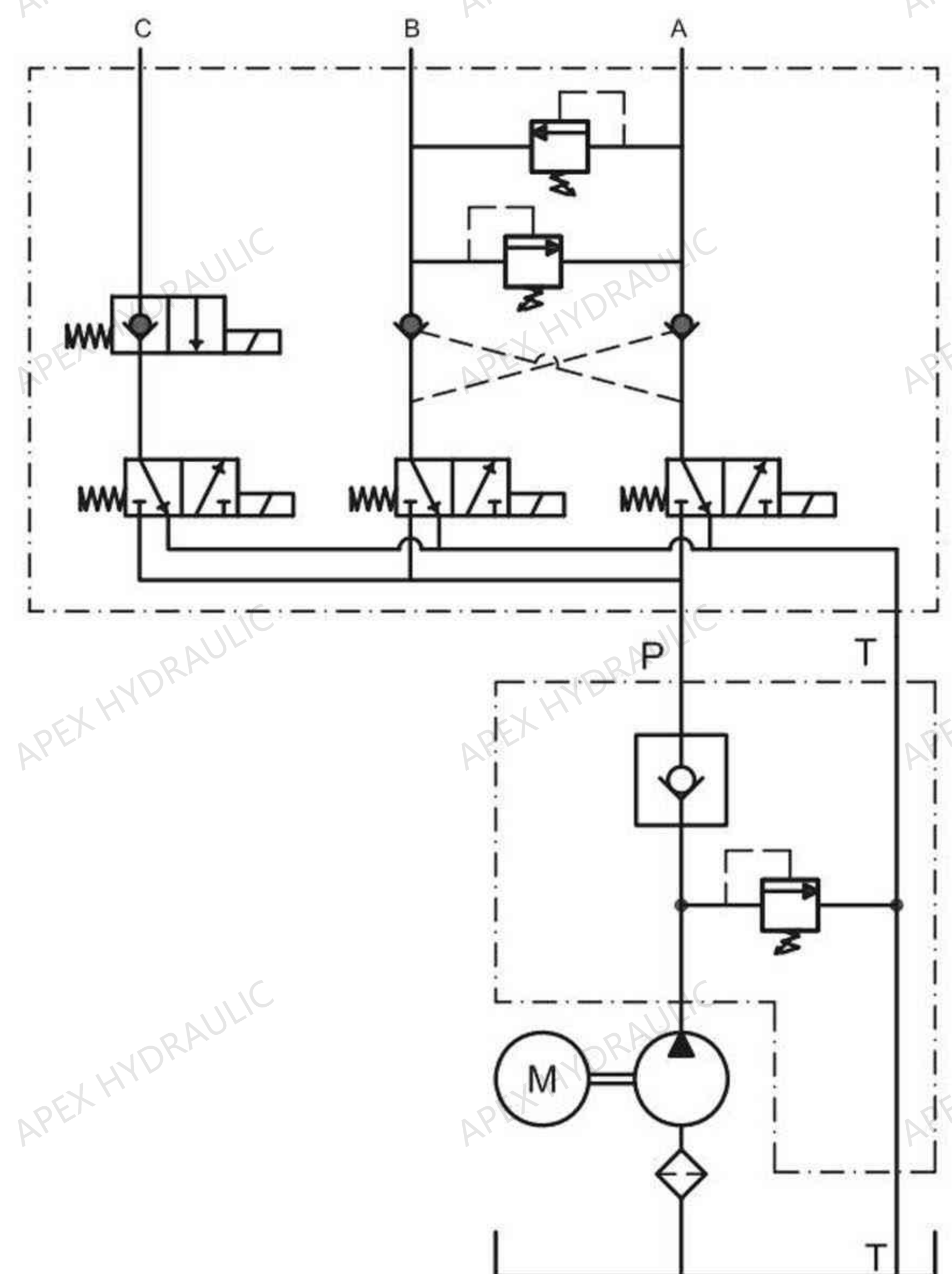
This power unit has a double acting circuit for left and right movement with cross-over relief system and pilot operated check valves. The power unit also has a single acting power up gravity down circuit with a cartridge valve with an internal check valve. The main housing encloses a check valve and adjustable relief valve as per our standard. The gear pump is equipped with a suction screen attached to a 90° elbow inside the tank which comes with a 3/4" NPT breather/dipstick. The unit comes standard with our 4 button remote control.

OPTIONS:

- **Motor:** DC 12/24V
- **Tank:** From 1.7 liters to 23.5 liters, Plastic or Steel
- **Pump:** 0.8, 1.0, 1.3, 1.6, 2.1, 2.5, 3.2, 4.2, 5.8 and 8.0cc
- **Mounting:** Vertical or Horizontal

TYPICAL APPLICATION:

- **Snow Plow**
- **System requiring Power Up with check, Gravity Down, Left, Right**

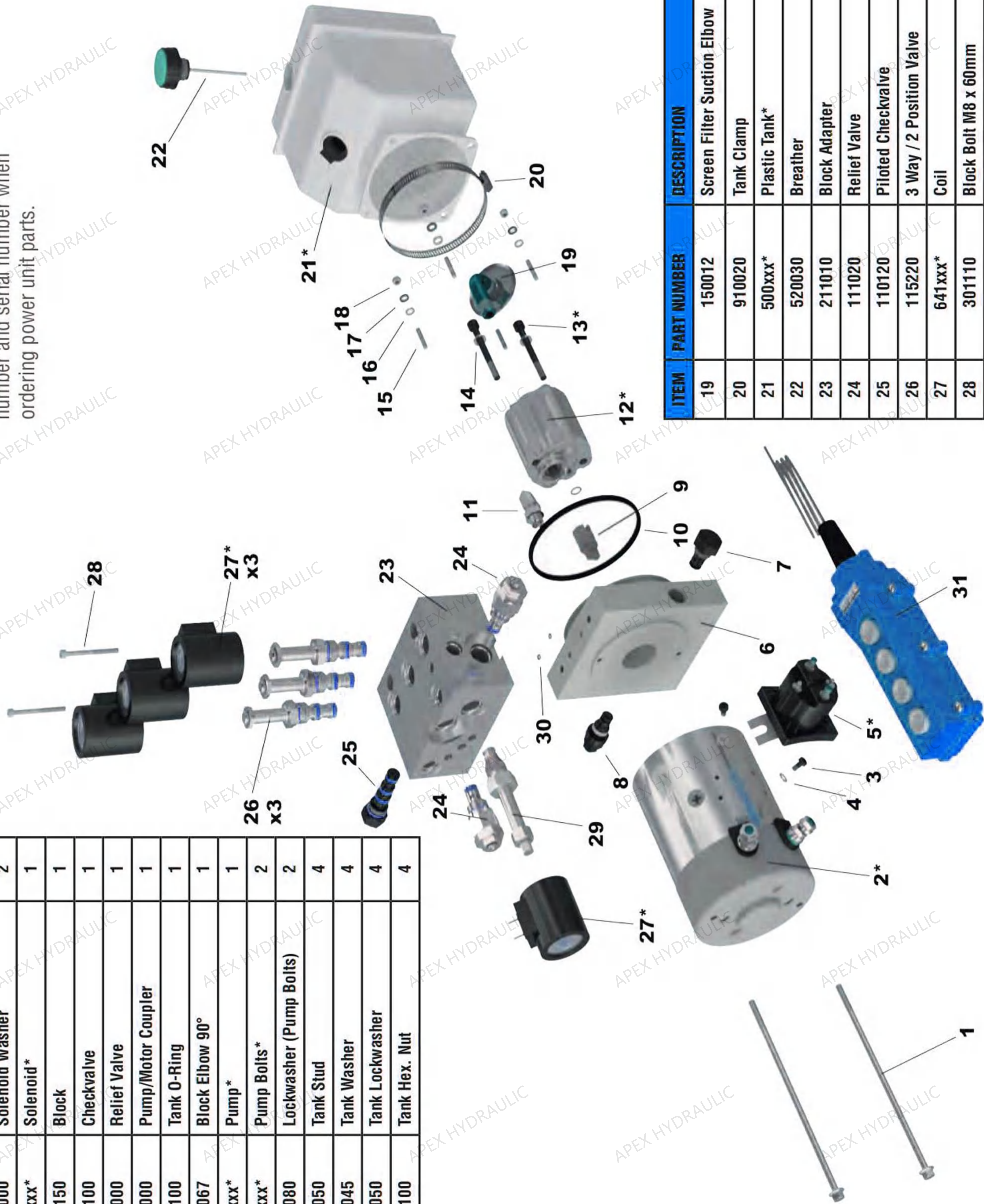


All numbers given are nominal values and should be used for reference only.

EXPLODED VIEW

* Items such as motor, pump, pump bolts, coils, solenoid and tank have different ordering part numbers depending on the option purchased originally. Always specify the model number and serial number when ordering power unit parts.

ITEM	PART NUMBER	DESCRIPTION	QTY
1	300060	Motor Bolts	2
2	600xxx*	Motor*	1
3	300010	Solenoid Bolt	2
4	307000	Solenoid Washer	2
5	640xxx*	Solenoid*	1
6	210150	Block	1
7	110100	Checkvalve	1
8	111000	Relief Valve	1
9	421000	Pump/Motor Coupler	1
10	330100	Tank O-Ring	1
11	310067	Block Elbow 90°	1
12	400xxx*	Pump*	1
13	301xxx*	Pump Bolts*	2
14	307080	Lockwasher (Pump Bolts)	2
15	300050	Tank Stud	4
16	300045	Tank Washer	4
17	307050	Tank Lockwasher	4
18	307100	Tank Hex. Nut	4



ITEM	PART NUMBER	DESCRIPTION	QTY
19	150012	Screen Filter Suction Elbow	1
20	910020	Tank Clamp	1
21	500xxx*	Plastic Tank*	1
22	520030	Breather	1
23	211010	Block Adapter	1
24	111020	Relief Valve	2
25	110120	Piloted Checkvalve	1
26	115220	3 Way / 2 Position Valve	3
27	641xxx*	Coil	4
28	301110	Block Bolt M8 x 60mm	2
29	115200	Valve w/ Manual Override	1
30	330110	Block O-Ring	2
31	630090	Remote Control	1

MODEL06



APEX HYDRAULIC

MODEL 10



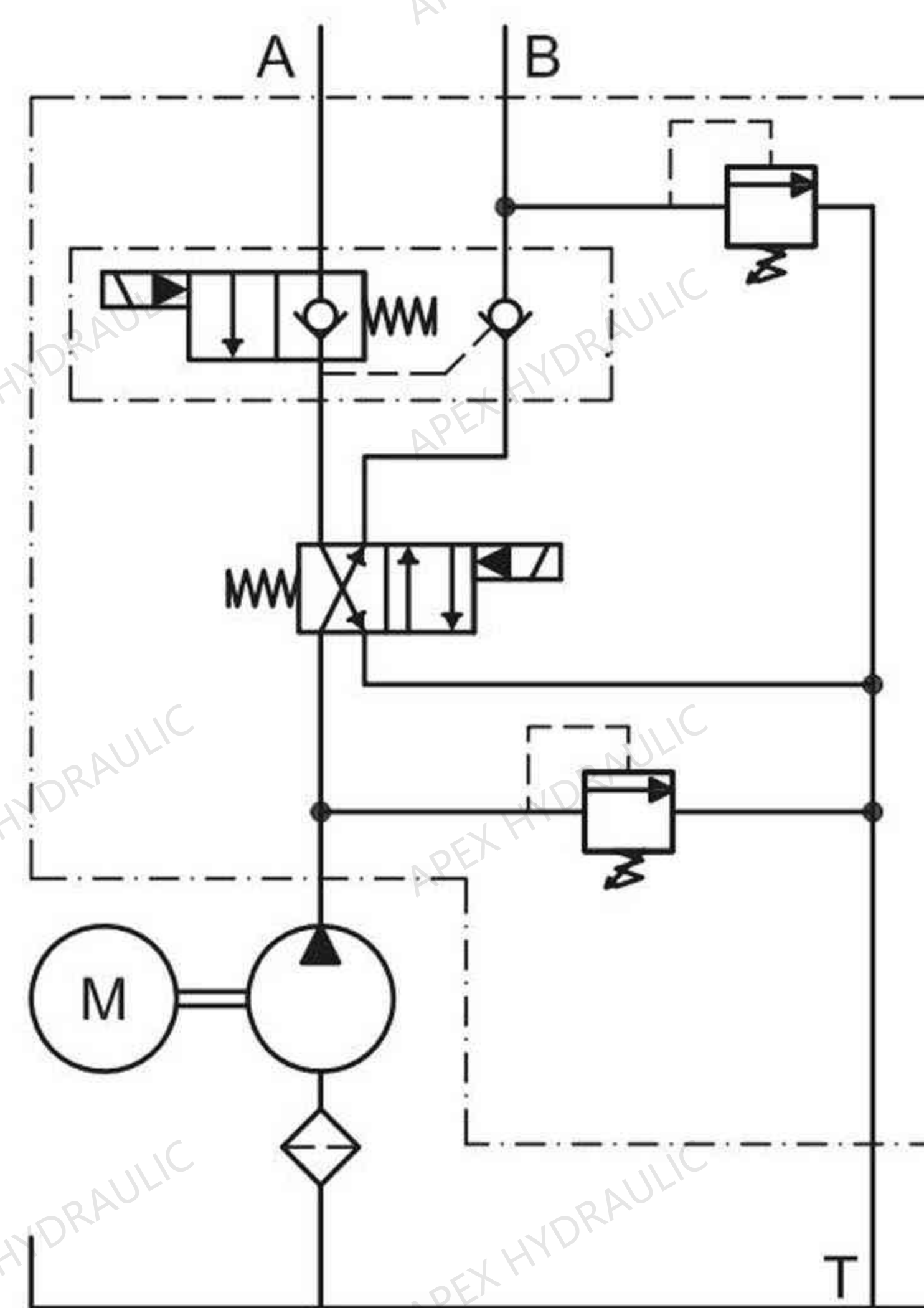
This power unit has a double acting circuit with SAE 6 (9/16-18) A & B ports. The 2-way, 2-position cartridge valve has an internal piloted check valve to prevent internal bypass and maintain constant pressure. This circuit also has a cartridge check valve and adjustable relief valve on the main and B port. The magnetic two button remote control comes with 6 meters of cable, which has a quick connect at the motor. The gear pump is equipped with a suction screen attached to a 90° elbow inside the tank which comes with a 3/4" NPT breather/dipstick.

OPTIONS:

- **Motor:** DC 12/24V, AC 115/230V Single Phase or AC 230/460/575V Three Phase
- **Tank:** From 1.7 liters to 23.5 liters, Plastic or Steel
- **Pump:** 0.8, 1.0, 1.3, 1.6, 2.1, 2.5, 3.2, 4.2, 5.8 and 8.0cc
- **10' Remote Control Cable Extension**
- **Mounting:** Vertical or Horizontal
- **Manual Override Available**

TYPICAL APPLICATION:

- **Power Up / Power Down System**
- **Tailgate (with pressure comp. flow control)**
- **Dump Trailer**
- **Compactor**
- **Presses**
- **Lift Equipment**



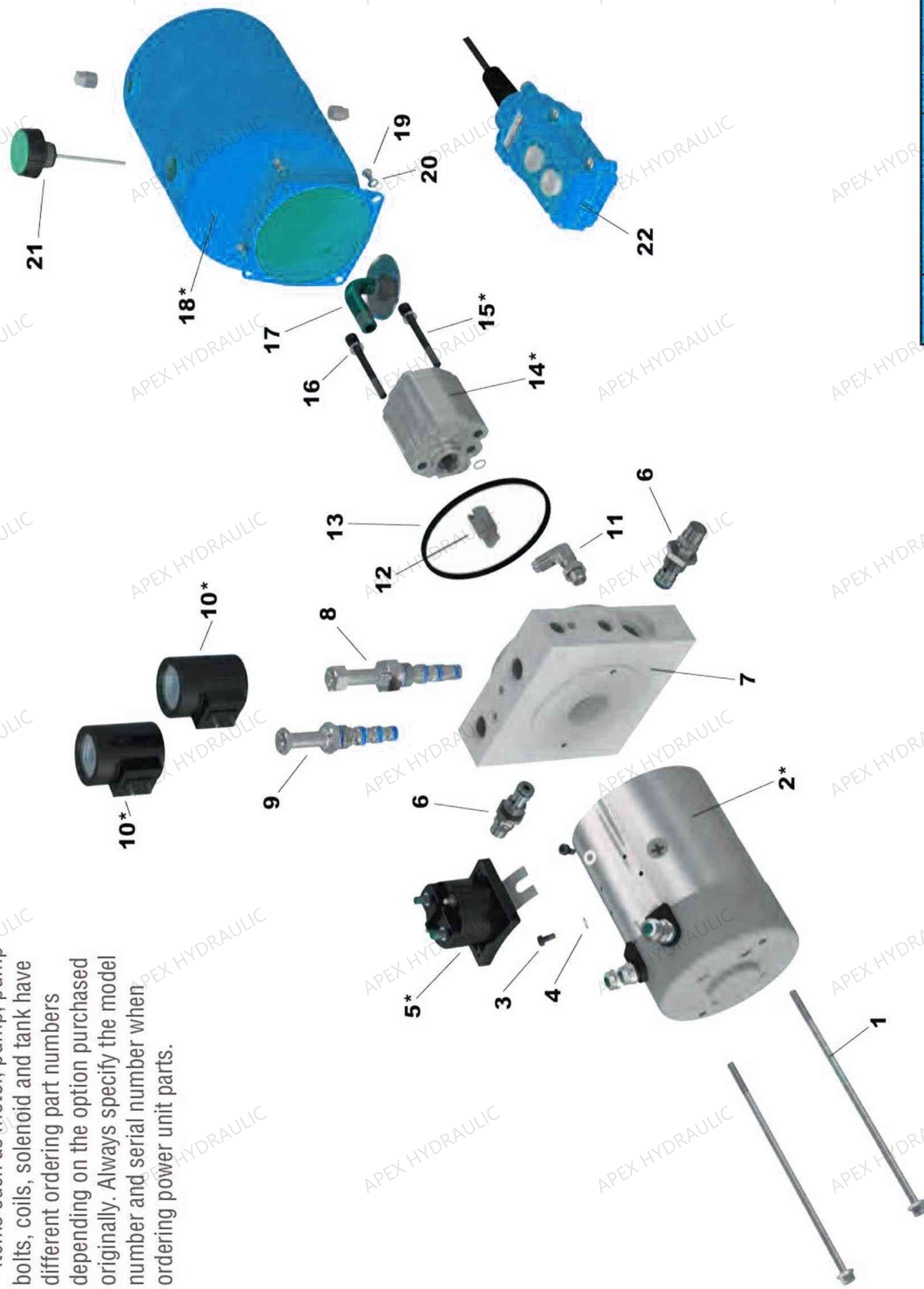
*Power units with AC motors are not provided with remote controls or methods to activate the motor or valves

All numbers given are nominal values and should be used for reference only.

EXPLODED VIEW

* Items such as motor, pump, tank bolts, coils, solenoid and tank have different ordering part numbers depending on the option purchased originally. Always specify the model number and serial number when ordering power unit parts.

MODEL10



ITEM	PART NUMBER	DESCRIPTION	QTY
11	310067	Block Elbow 90°	1
12	421730	Pump/Motor Coupler	1
13	330100	Tank O-Ring	1
14	400xxx*	Pump*	1
15	301xxx*	Pump Bolt*	2
16	307080	Lockwasher (Pump Bolt)	2
17	150012	Screen Filter Suction Elbow	1
18	500xxx*	Tank*	1
19	300030	Tank Bolt	4
20	307050	Lockwasher (Tank Bolt)	4
21	520030	Breather	1
22	630100	Remote Control	1

ITEM	PART NUMBER	DESCRIPTION	QTY
1	300060	Motor Bolts	2
2	600xxx*	Motor*	1
3	300010	Solenoid Bolt	2
4	307000	Solenoid Washer	2
5	640xxx*	Solenoid*	1
6	111000	Relief Valve	2
7	210090	Block	1
8	115310	2 Way / 2 Position Valve	1
9	115300	4 Way / 2 Position Valve	1
10	641xxx*	Coil	2



APEX HYDRAULIC

MODEL 11



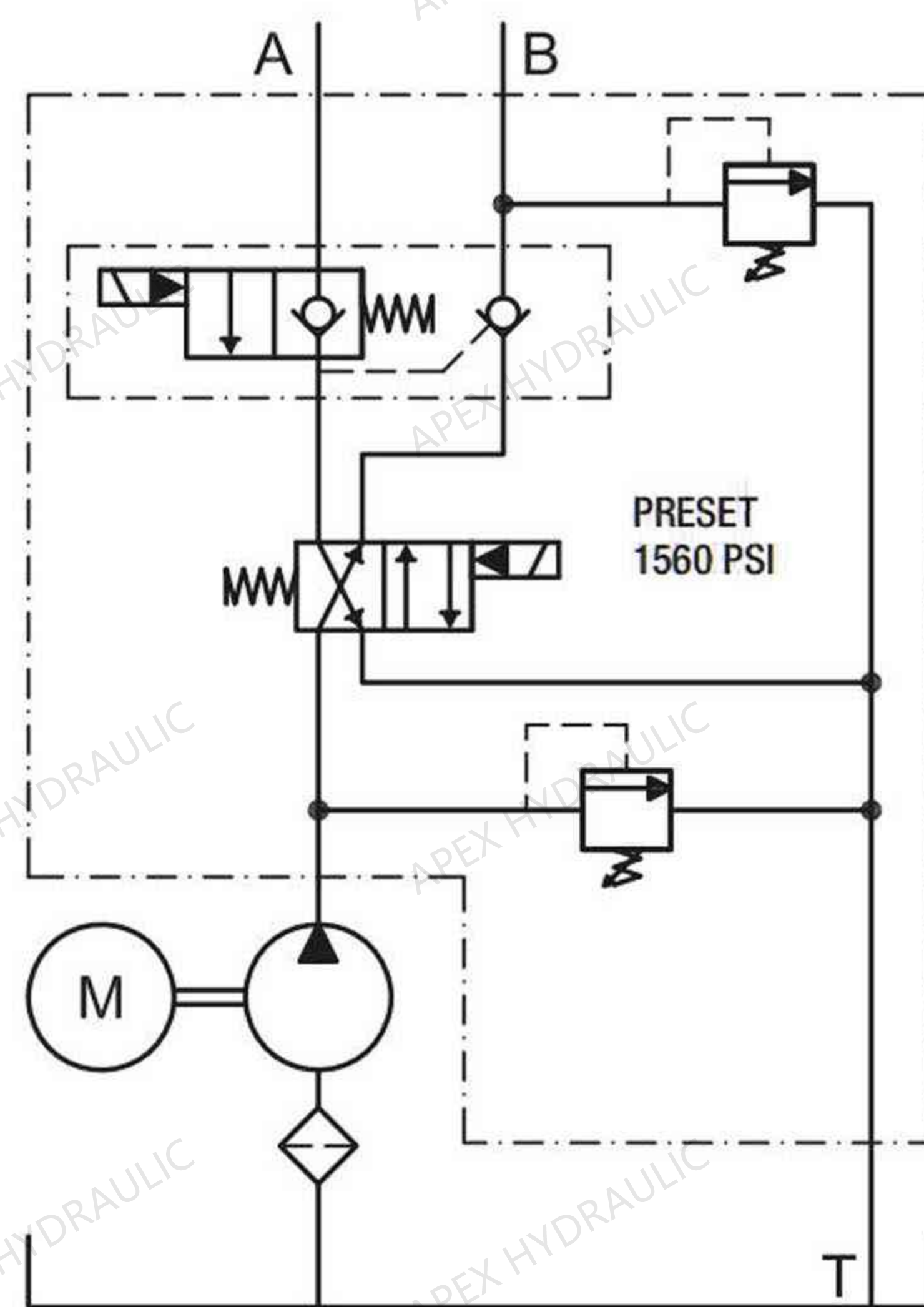
This power unit has a double acting circuit with SAE 6 (9/16-18) A & B ports. The 2-way, 2-position cartridge valve has an internal piloted check valve to prevent internal bypass and maintain constant pressure. This circuit also has a cartridge check valve and adjustable relief valve on the main and internal B port. The magnetic two button remote control comes with 6 meters of cable, which has a quick connect at the motor. The gear pump is equipped with a suction screen attached to a 90° elbow inside the tank which comes with a 3/4" NPT breather/dipstick.

OPTIONS:

- **Motor:** DC 12/24V, AC 115/230V Single Phase or AC 230/460/575V Three Phase
- **Tank:** From 1.7 liters to 23.5 liters, Plastic or Steel
- **Pump:** 0.8, 1.0, 1.3, 1.6, 2.1, 2.5, 3.2, 4.2, 5.8 and 8.0cc
- **10' Remote Control Cable Extension**
- **Mounting:** Vertical or Horizontal
- **Manual Override Available**

TYPICAL APPLICATION:

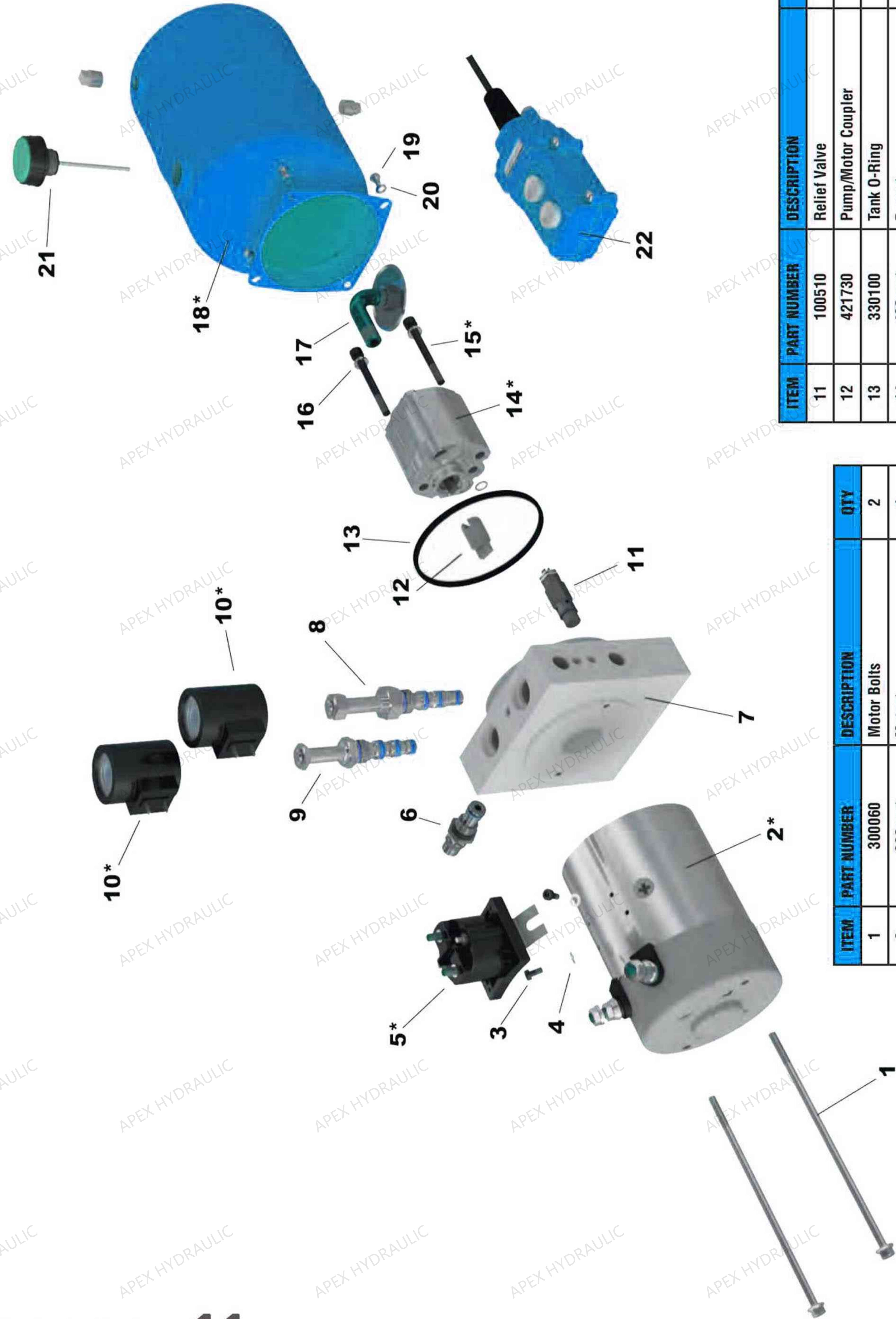
- **Power Up / Power Down System**
- **Tailgate (with pressure comp. flow control)**
- **Dump Trailer**
- **Compactor**
- **Presses**
- **Lift Equipment**



*Power units with AC motors are not provided with remote controls or methods to activate the motor or valves

All numbers given are nominal values and should be used for reference only.

EXPLODED VIEW



ITEM	PART NUMBER	DESCRIPTION	QTY
11	100510	Relief Valve	1
12	421730	Pump/Motor Coupler	1
13	330100	Tank O-Ring	1
14	400xxx*	Pump *	1
15	301xxx*	Pump Bolt*	2
16	307080	Lockwasher (Pump Bolt)	2
17	150012	Screen Filter Suction Elbow	1
18	500xxx*	Tank*	1
19	300030	Tank Bolt	4
20	307050	Lockwasher (Tank Bolt)	4
21	520030	Breather	1
22	630100	Remote Control	1

ITEM	PART NUMBER	DESCRIPTION	QTY
1	300060	Motor Bolts	2
2	600xxx*	Motor*	1
3	300010	Solenoid Bolt	2
4	307000	Solenoid Washer	2
5	640xxx*	Solenoid*	1
6	111000	Relief Valve	1
7	210080	Block	1
8	115310	2 Way / 2 Position Valve	1
9	115300	4 Way / 2 Position Valve	1
10	641xxx*	Coil	2

* Items such as motor, pump, pump bolts, coils, solenoid and tank have different ordering part numbers depending on the option purchased originally. Always specify the model number and serial number when ordering power unit parts.

MODEL11



APEX HYDRAULIC

MODEL12



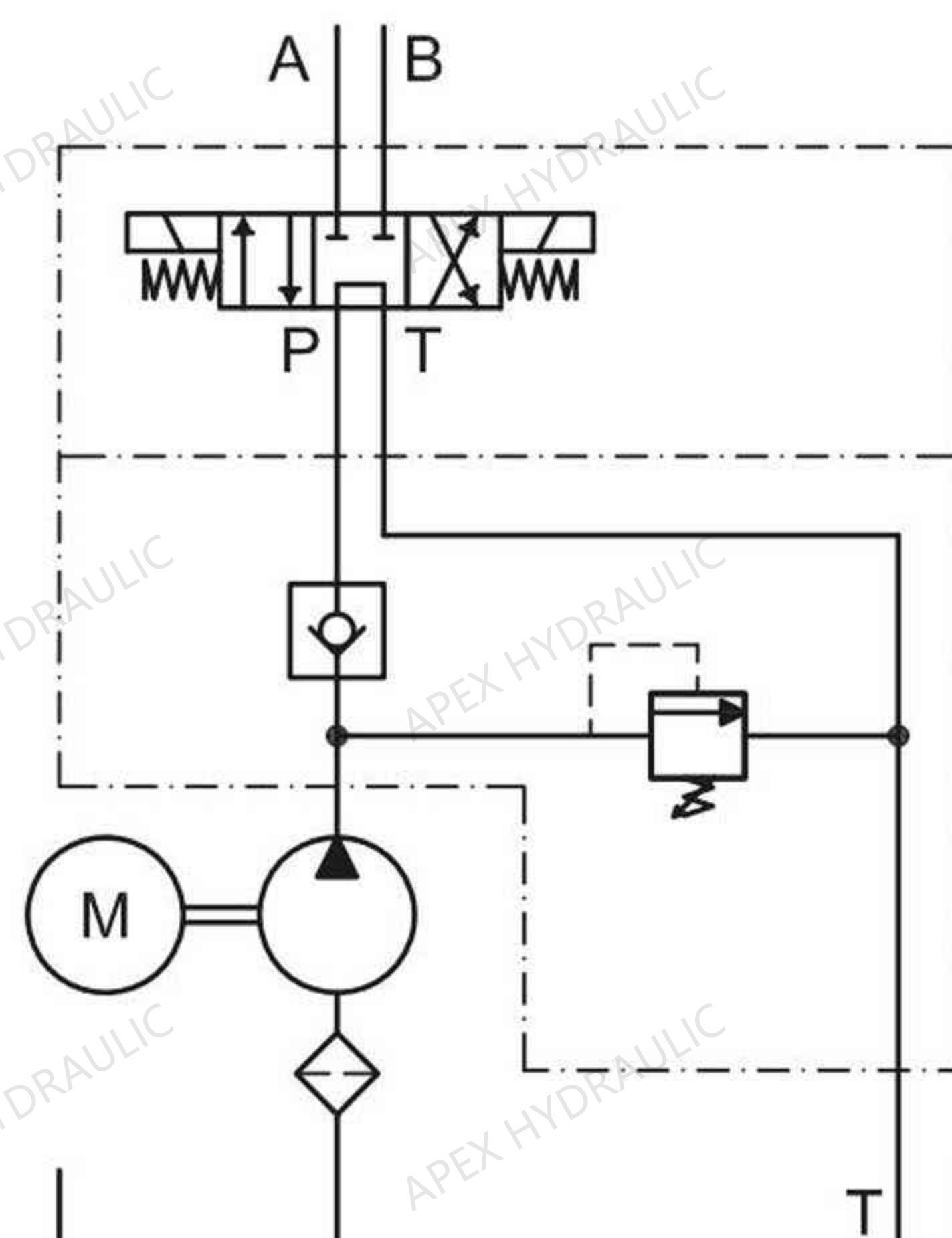
This power unit has a double acting circuit with SAE 6 (9/16-18) A & B ports. The 4-way, 3 position modular valve (D03) that can be combined with other modular options such as piloted check valves, flow control or even pressure relief valve (See p.42 for all of our components). This circuit also has a cartridge check valve and adjustable relief valve. The magnetic two button remote control comes with 6 meters of cable, which has a quick connect at the motor. The gear pump is equipped with a suction screen attached to a 90° elbow inside the tank which comes with a 3/4" NPT breather/dipstick.

OPTIONS:

- ▶ **Motor:** DC 12/24V, AC 115/230V Single Phase or AC 230/460/575V Three Phase
- ▶ **Tank:** From 1.7 liters to 23.5 liters, Plastic or Steel
- ▶ **Pump:** 0.8, 1.0, 1.3, 1.6, 2.1, 2.5, 3.2, 4.2, 5.8 and 8.0cc
- ▶ **10' Remote Control Cable Extension**
- ▶ **Mounting:** Vertical or Horizontal

TYPICAL APPLICATION:

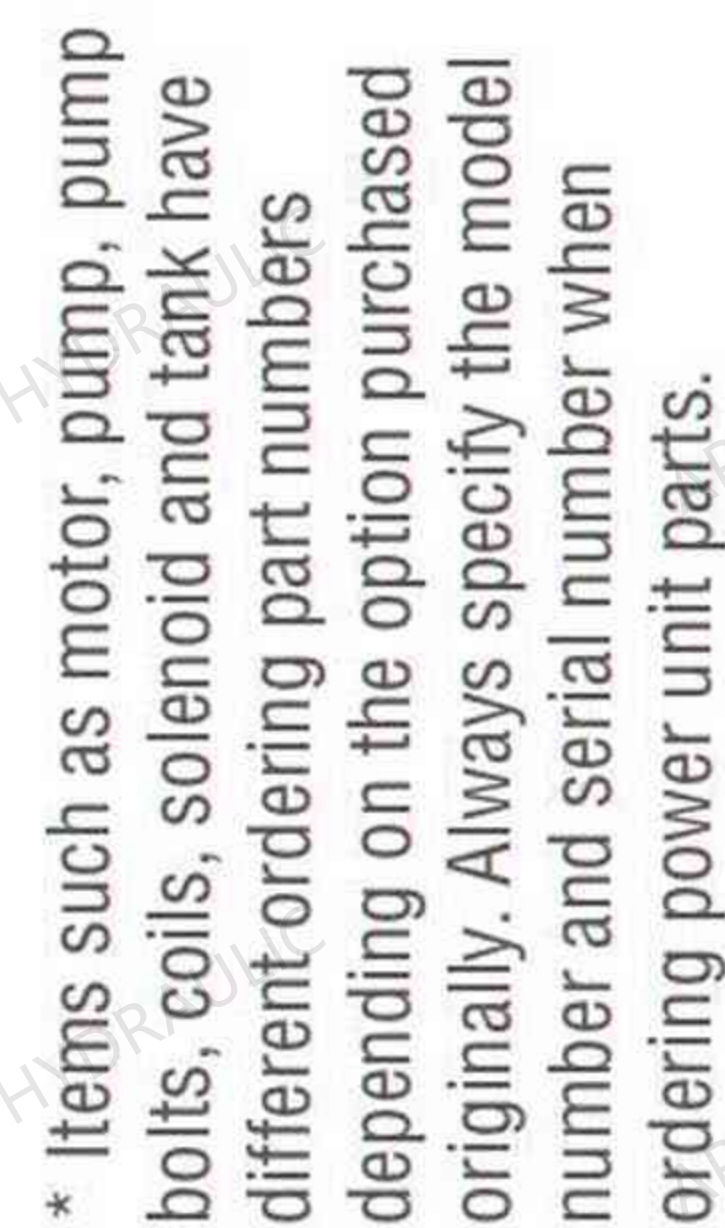
- ▶ **Power Up / Power Down System**
- ▶ **Dump Trailer**
- ▶ **Compactor**
- ▶ **Presses**



*Power units with AC motors are not provided with remote controls or methods to activate the motor or valves

All numbers given are nominal values and should be used for reference only.

MODEL12



ITEM	PART NUMBER	DESCRIPTION	QTY
1	300060	Motor Bolts	2
2	600xxx*	Motor*	1
3	300010	Solenoid Bolt	2
4	307000	Solenoid Washer	2
5	640xxx*	Solenoid*	1
6	210050	Block	1
7	122xxx*	Solenoid Valve D03*	1
8	300500	Valve Bolts	4
9	330110	Valve O-Ring	4
10	111000	Relief Valve	1

ITEM	PART NUMBER	DESCRIPTION	QTY
11	110100	Checkvalve	1
12	330100	Tank O-Ring	1
13	421730	Pump/Motor Coupler	1
14	400xxx*	Pump*	1
15	310067	Block Elbow 90°	1
16	301xxx*	Pump Bolt*	2
17	307080	Lockwasher (Pump Bolt)	2
18	150012	Screen Filter Suction Elbow	1
19	500xxx*	Tank*	1
20	300030	Tank Bolt	4
21	307050	Lockwasher (Tank Bolt)	4
22	520030	Breather	1
23	630060	Remote Control	1



APEX HYDRAULIC

MODEL 14



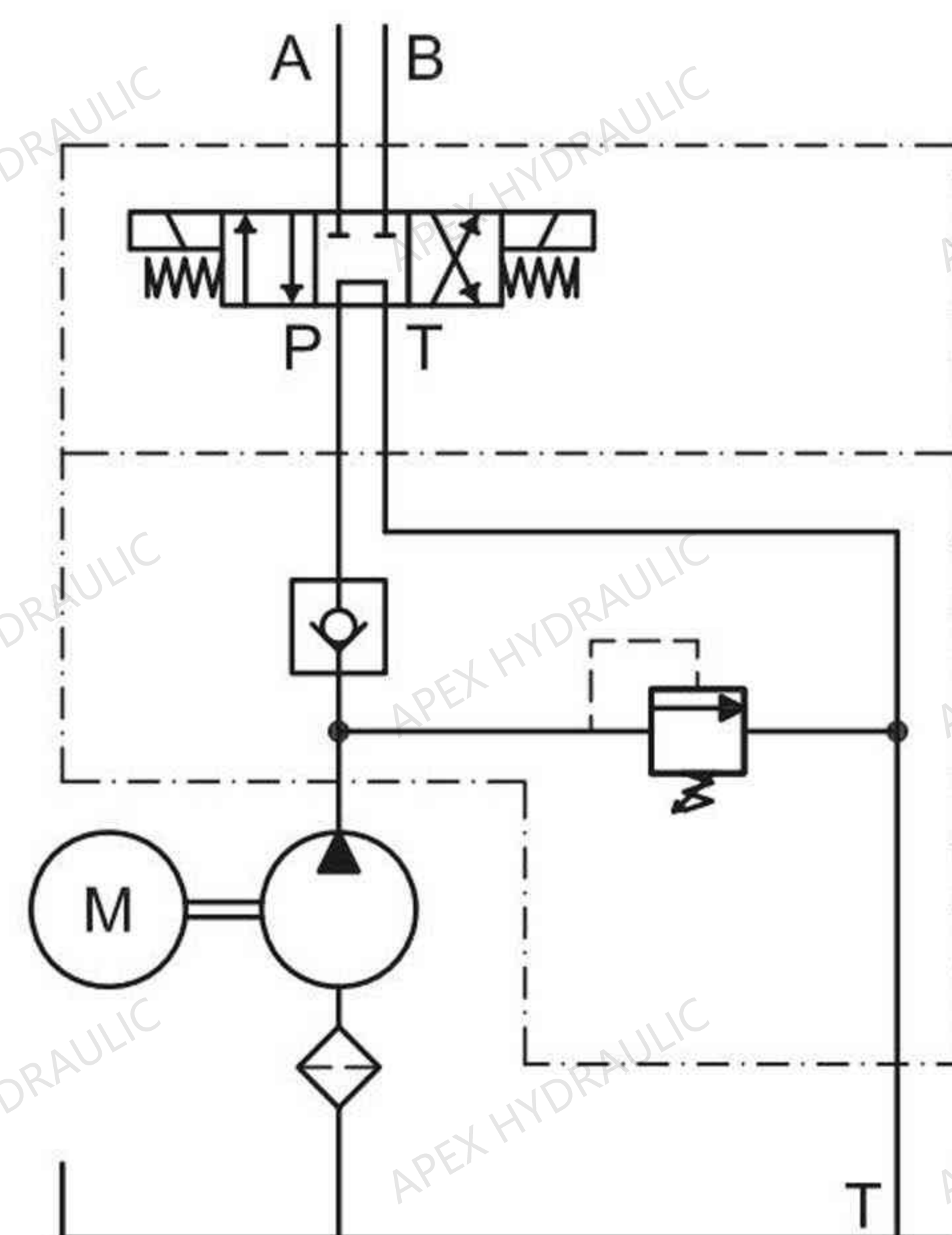
This power unit has a double acting circuit with SAE 6 (9/16-18) A & B ports. The 4-way, 3 position modular valve (D02) that can be combined with other modular options such as piloted check valves, flow control or even pressure relief valve (See p.42 for all of our components). This circuit also has a cartridge check valve and adjustable relief valve. The magnetic two button remote control comes with 6 meters of cable, which has a quick connect at the motor. The gear pump is equipped with a suction screen attached to a 90° elbow inside the tank which comes with a 3/4" NPT breather/dipstick.

OPTIONS:

- **Motor:** DC 12/24V, AC 115/230V Single Phase or AC 230/460/575V Three Phase
- **Tank:** From 1.7 liters to 23.5 liters, Plastic or Steel
- **Pump:** 0.8, 1.0, 1.3, 1.6, 2.1, 2.5, 3.2, 4.2, 5.8 and 8.0cc
- **10' Remote Control Cable Extension**
- **Mounting:** Vertical or Horizontal

TYPICAL APPLICATION:

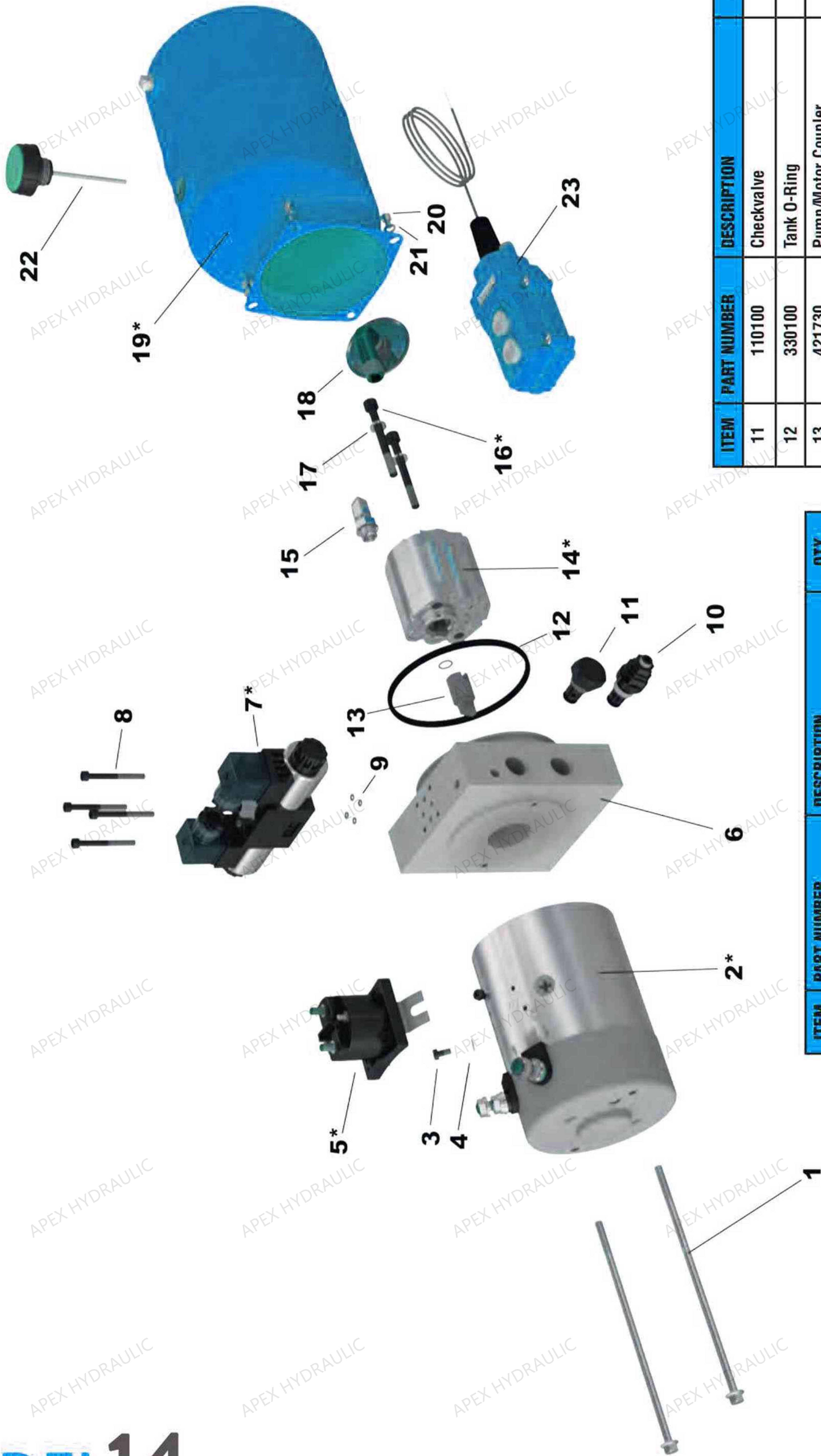
- **Power Up / Power Down System**
- **Dump Trailer**
- **Compactor**
- **Presses**



*Power units with AC motors are not provided with remote controls or methods to activate the motor or valves

All numbers given are nominal values and should be used for reference only.

EXPLODED VIEW



ITEM	PART NUMBER	DESCRIPTION	QTY
11	110100	Checkvalve	1
12	330100	Tank O-Ring	1
13	421730	Pump/Motor Coupler	1
14	400xxx*	Pump*	1
15	310067	Block Elbow 90°	1
16	301xxx*	Pump Bolt*	2
17	307080	Lockwasher (Pump Bolt)	2
18	150012	Screen Filter Suction Elbow	1
19	500xxx*	Tank*	1
20	300030	Tank Bolt	4
21	307050	Lockwasher (Tank Bolt)	4
22	520030	Breather	1
23	630060	Remote Control	1

ITEM	PART NUMBER	DESCRIPTION	QTY
1	300060	Motor Bolts	2
2	600xxx*	Motor*	1
3	300010	Solenoid Bolt	2
4	307000	Solenoid Washer	2
5	640xxx*	Solenoid*	1
6	210140	Block	1
7	121xxx*	Solenoid Valve D02*	1
8	300500	Valve Bolts	4
9	330130	Valve O-Ring	4
10	111000	Relief Valve	1

* Items such as motor, pump, pump bolts, coils, solenoid and tank have different-ordering part numbers depending on the option purchased originally. Always specify the model number and serial number when ordering power unit parts.

MODEL14



APEX HYDRAULIC

MODEL15



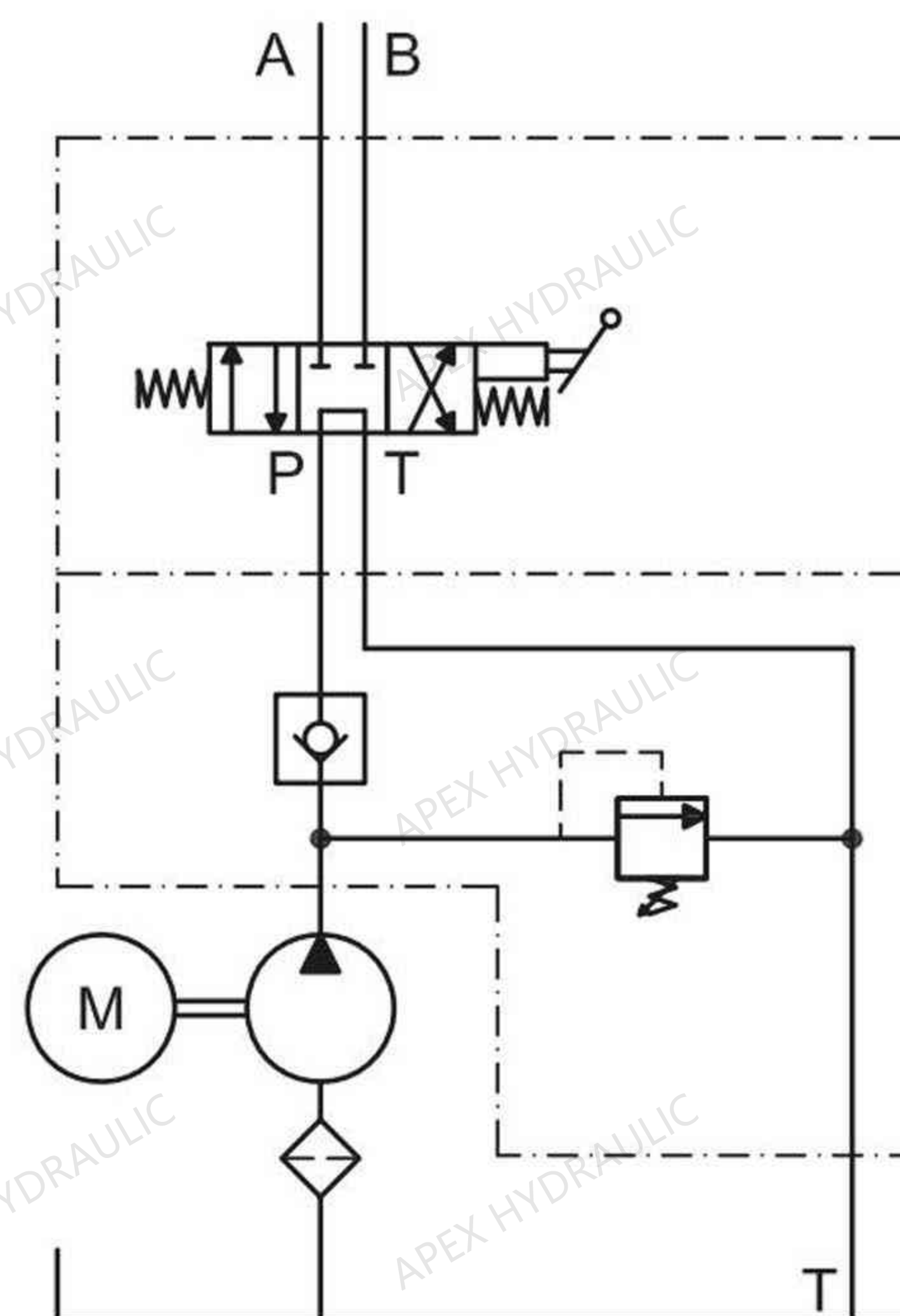
This power unit has a double acting circuit with SAE 6 (9/16-18) A & B ports. The 4-way, 3-position manual modular valve (D03) can be combined with other modular options such as piloted check valves, flow control or even port pressure relief (See p.42 for all of our components). This circuit has a cartridge check valve and adjustable relief valve. The gear pump is equipped with a suction screen attached to a 90° elbow inside the tank which comes with a 3/4" NPT breather/dipstick.

OPTIONS:

- **Motor:** DC 12/24V, AC 115/230V Single Phase or AC 230/460/575V Three Phase
- **Tank:** From 1.7 liters to 23.5 liters, Plastic or Steel
- **Pump:** 0.8, 1.0, 1.3, 1.6, 2.1, 2.5, 3.2, 4.2, 5.8 and 8.0cc
- **Mounting:** Vertical or Horizontal

TYPICAL APPLICATION:

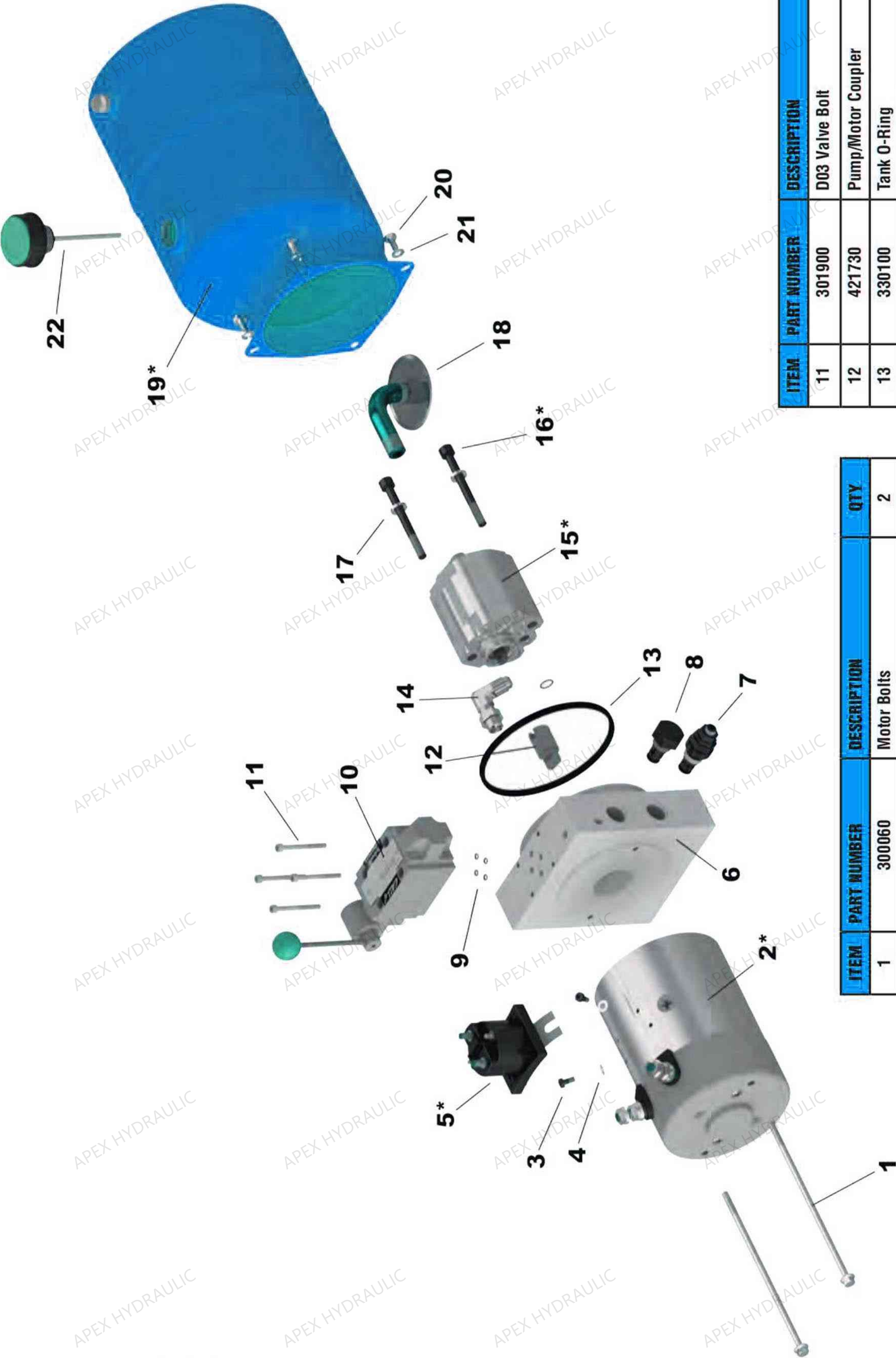
- **Power Up / Power Down System**
- **Compactor**
- **Presses**



*Power units with AC motors are not provided with remote controls or methods to activate the motor or valves

All numbers given are nominal values and should be used for reference only.

EXPLODED VIEW



ITEM	PART NUMBER	DESCRIPTION	QTY
11	301900	D03 Valve Bolt	4
12	421730	Pump/Motor Coupler	1
13	330100	Tank O-Ring	1
14	310067	Block Elbow 90°	1
15	400xxx*	Pump*	1
16	301xxx*	Pump Bolt*	2
17	307080	Lockwasher (Pump Bolt)	2
18	150012	Screen Filter Suction Elbow	1
19	500xxx*	Tank	1
20	300030	Tank Bolt	4
21	307050	Lockwasher (Tank Bolt)	4
22	520030	Breather	1

ITEM	PART NUMBER	DESCRIPTION	QTY
1	300060	Motor Bolts	2
2	600xxx*	Motor*	1
3	300010	Solenoid Bolt	2
4	307000	Solenoid Washer	2
5	640xxx*	Solenoid*	1
6	210050	Block	1
7	111000	Relief Valve	1
8	110100	Checkvalve	1
9	330110	Valve O-Ring	4
10	122010	D03 Manual Valve	1

* Items such as motor, pump, pump bolts, coils, solenoid and tank have different ordering part numbers depending on the option purchased originally. Always specify the model number and serial number when ordering power unit parts.

MODEL15



APEX HYDRAULIC

MODEL 16



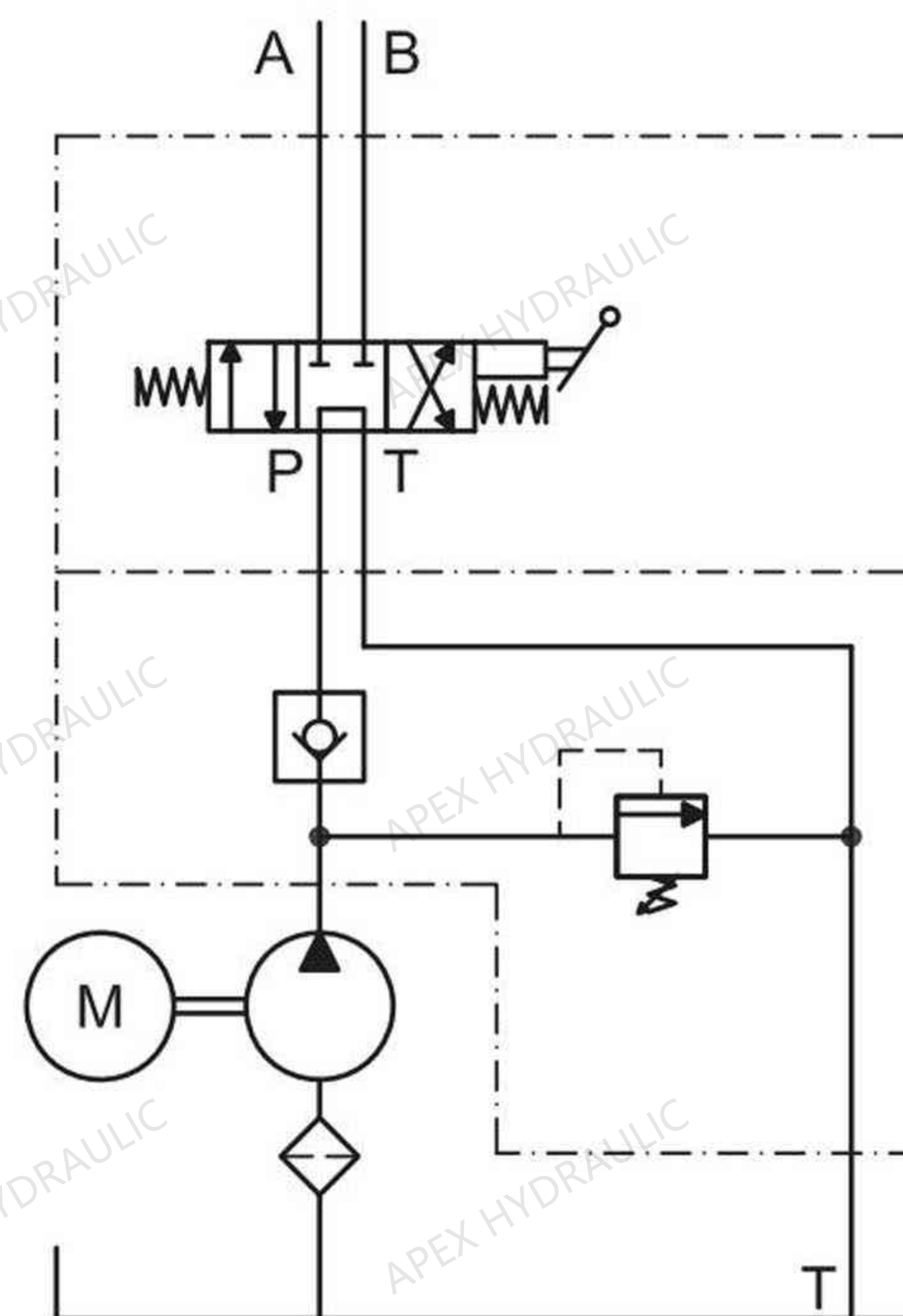
This power unit has a double acting circuit with SAE 6 (9/16-18) A & B ports. The 4-way, 3 position modular valve (D02), that can be combined with other modular options such as piloted check valves, flow control or even port pressure relief valve (See p.42 for all of our components). This circuit has a cartridge check valve and adjustable relief valve. The gear pump is equipped with a suction screen attached to a 90° elbow inside the tank which comes with a 3/4" NPT breather/dipstick.

OPTIONS:

- **Motor:** DC 12/24V, AC 115/230V Single Phase or AC 230/460/575V Three Phase
- **Tank:** From 1.7 liters to 23.5 liters, Plastic or Steel
- **Pump:** 0.8, 1.0, 1.3, 1.6, 2.1, 2.5, 3.2, 4.2, 5.8 and 8.0cc
- **Mounting:** Vertical or Horizontal

TYPICAL APPLICATION:

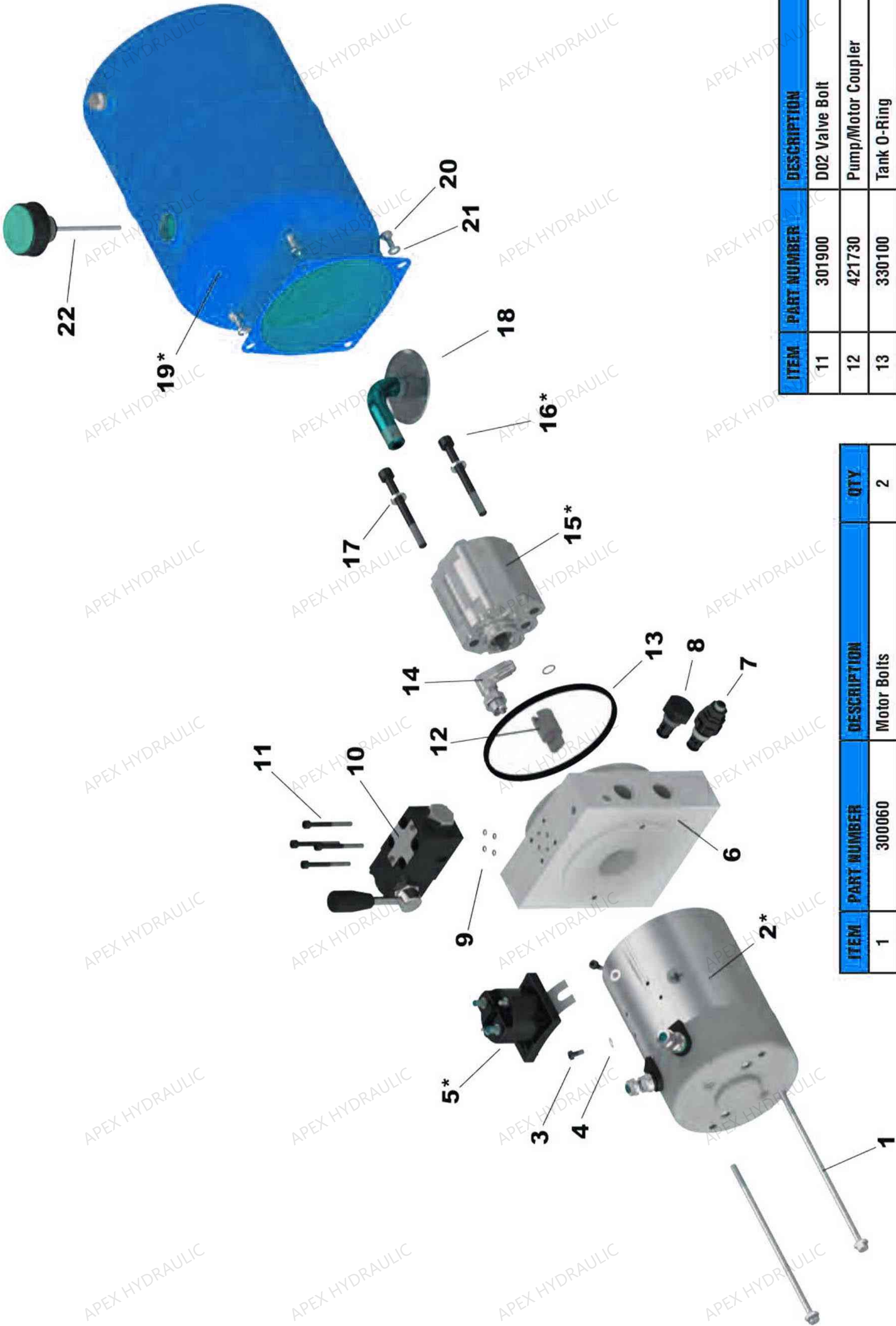
- **Power Up / Power Down System**
- **Compactor**
- **Presses**



*Power units with AC motors are not provided with remote controls or methods to activate the motor or valves

All numbers given are nominal values and should be used for reference only.

EXPLODED VIEW



ITEM	PART NUMBER	DESCRIPTION	QTY
11	301900	D02 Valve Bolt	4
12	421730	Pump/Motor Coupler	1
13	330100	Tank O-Ring	1
14	310067	Block Elbow 90°	1
15	400xxx*	Pump*	1
16	301xxx*	Pump Bolt*	2
17	307080	Lockwasher (Pump Bolt)	2
18	150012	Screen Filter Suction Elbow	1
19	500xxx*	Tank*	1
20	300030	Tank Bolt	4
21	307050	Lockwasher (Tank Bolt)	4
22	520030	Breather	1

ITEM	PART NUMBER	DESCRIPTION	QTY
1	300060	Motor Bolts	2
2	600xxx*	Motor*	1
3	300010	Solenoid Bolt	2
4	307000	Solenoid Washer	2
5	640xxx*	Solenoid*	1
6	210140	Block	1
7	111000	Relief Valve	1
8	110100	Checkvalve	1
9	330110	Valve O-Ring	4
10	122030	D02 Manual Valve	1

* Items such as motor, pump, pump bolts, coils, solenoid and tank have different ordering part numbers depending on the option purchased originally. Always specify the model number and serial number when ordering power unit parts.

MODEL16



APEX HYDRAULIC

MODEL 24,36,48

POWER UNIT SINGLE AND/OR DOUBLE ACTING CIRCUITS



MODEL 24 HORIZONTAL

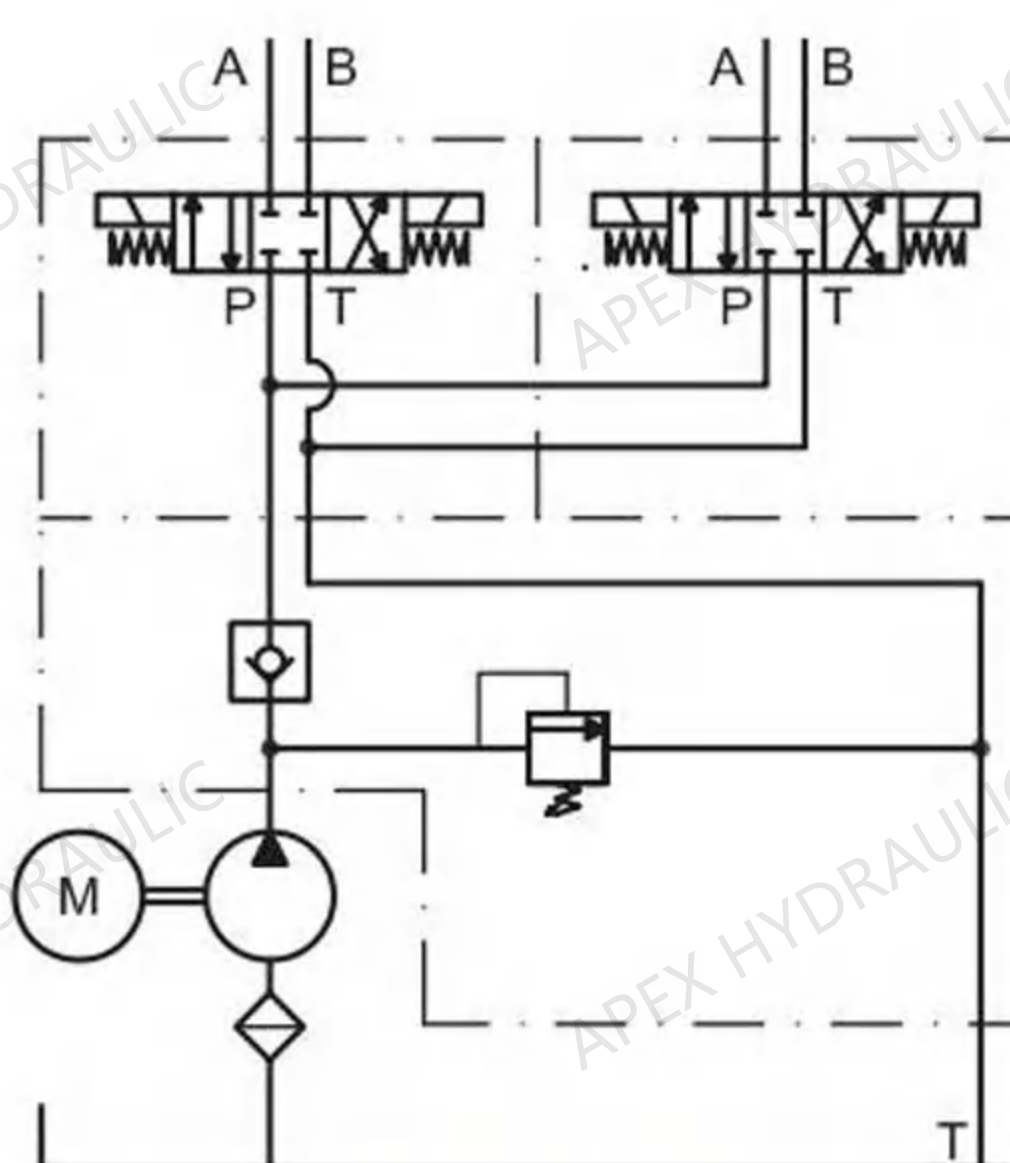


MODEL 48 VERTICAL

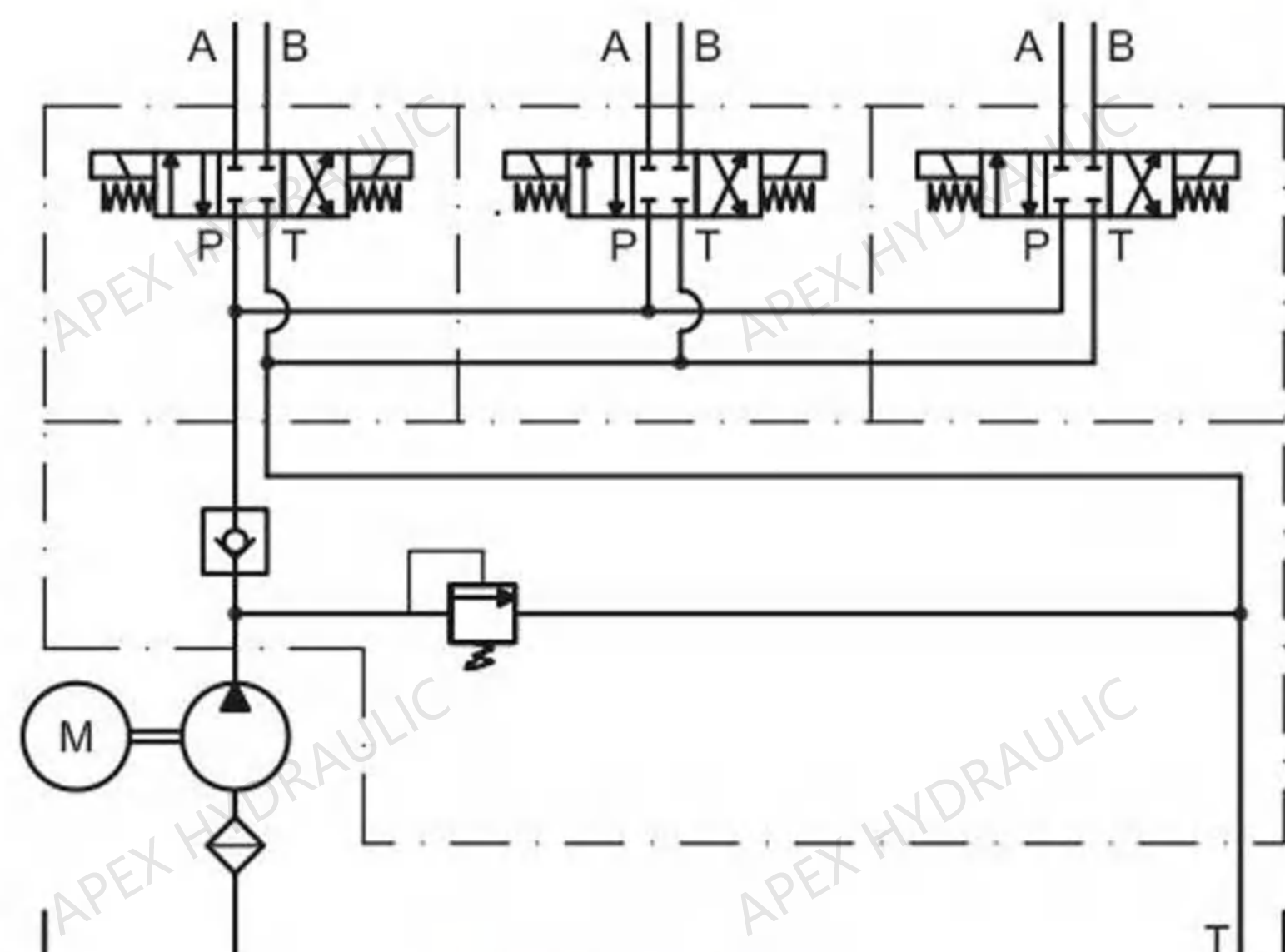
This power unit has a double acting circuit with SAE 6 (9/16-18) A & B ports. The 4-way, 3 position modular valve (D03) that can be stacked and combined with other modular options such as piloted check valves, flow control or even pressure relief valve (See p.42 for all of our components). This circuit also has a cartridge check valve and adjustable relief valve. The magnetic four button remote control comes with 6 meters of cable. The gear pump is equipped with a suction screen attached to a 90° elbow inside the tank which comes with a 3/4" NPT breather/dipstick. Valves can be stacked vertically as per above picture, or horizontally over the DC motor.

OPTIONS:

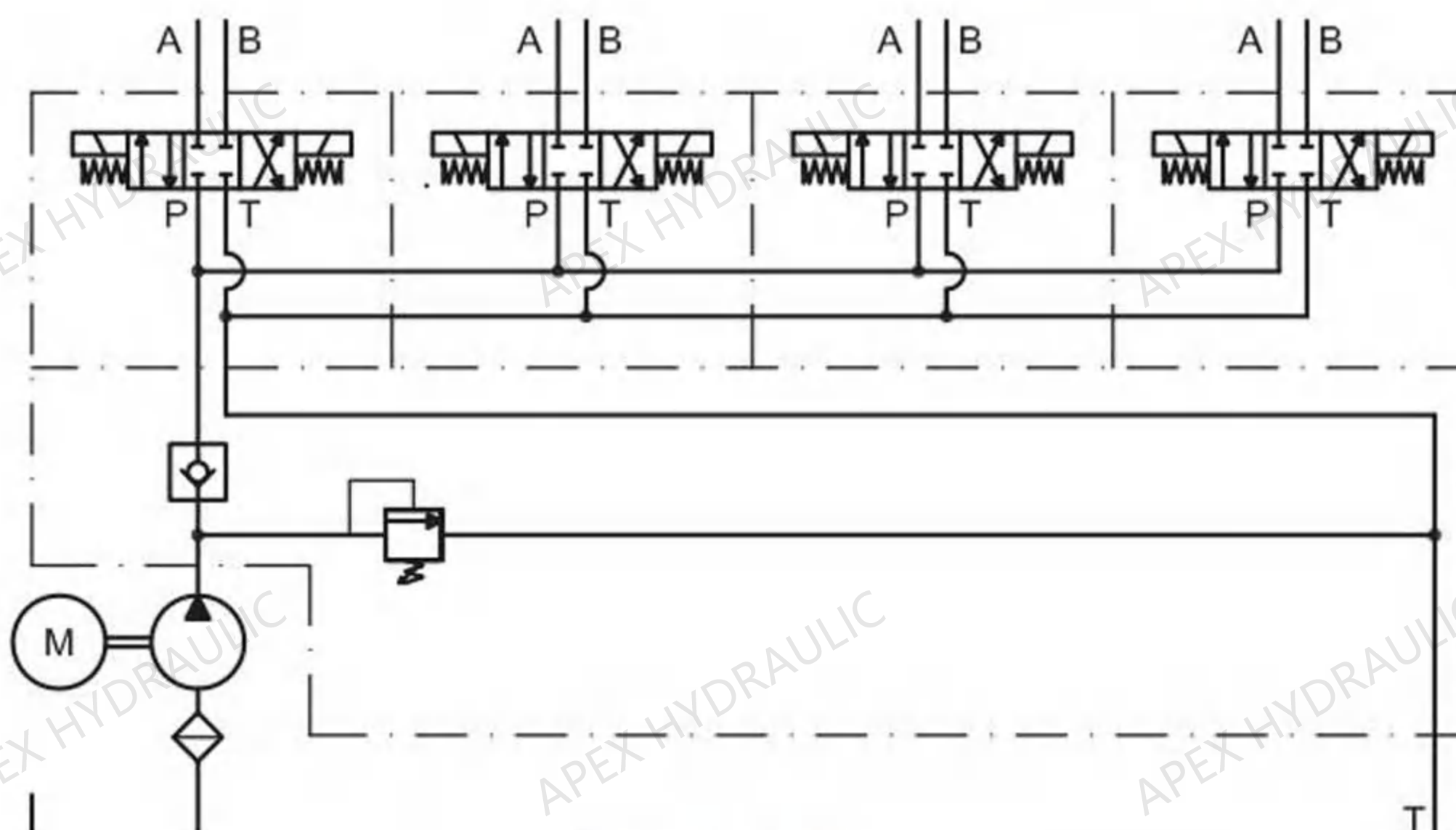
- **Motor:** DC 12/24V, AC 115/230V Single Phase or AC 230/460/575V Three Phase
- **Tank:** From 1.7 liters to 23.5 liters, Plastic or Steel
- **Pump:** 0.8, 1.0, 1.3, 1.6, 2.1, 2.5, 3.2, 4.2, 5.8 and 8.0cc
- **Mounting:** Vertical or Horizontal
- **Valve Mounting:** Vertical or Horizontal



MODEL 24



MODEL 36



MODEL 48

*Power units with AC motors are not provided with remote controls or methods to activate the motor or valves

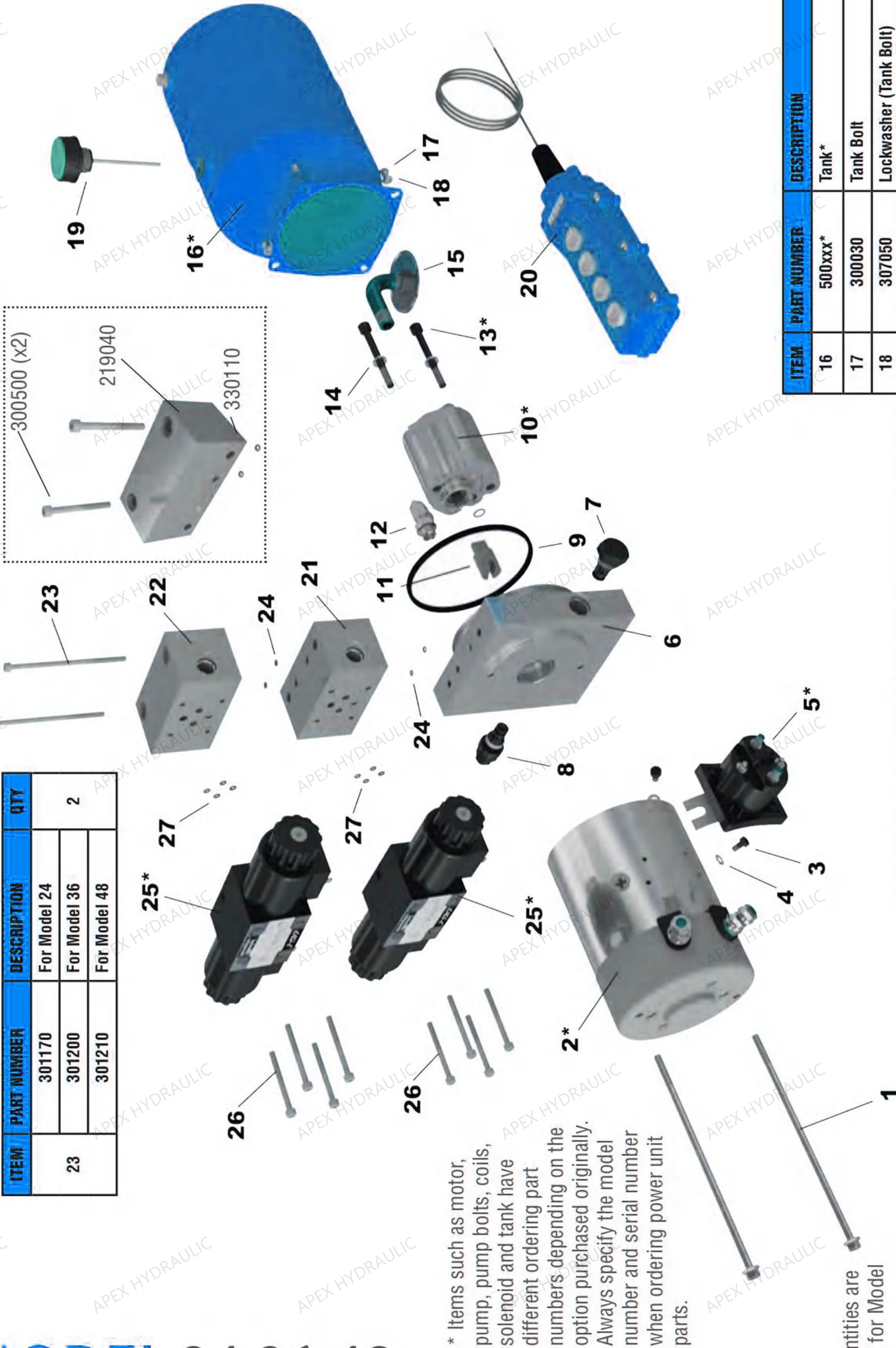
All numbers given are nominal values and should be used for reference only.

EXPLODED VIEW

FOR HORIZONTAL VALVE MOUNTING OPTION

BOLT CHART

ITEM	PART NUMBER	DESCRIPTION	QTY
23	301170	For Model 24	2
	301200	For Model 36	
	301210	For Model 48	



* Items such as motor, pump, pump bolts, coils, solenoid and tank have different ordering part numbers depending on the option purchased originally. Always specify the model number and serial number when ordering power unit parts.

Quantities are only for Model 24.

ITEM	PART NUMBER	DESCRIPTION	QTY
16	500xxx*	Tank*	1
17	300030	Tank Bolt	4
18	307050	Lockwasher (Tank Bolt)	4
19	520030	Breather	1
20	630170	Remote Control	1
21	219020	Block	1
22	219030	Block	1
23	*See Bolt Chart	Block Bolt	2
24	330110	Block O-Ring	4
25	122xxx*	Solenoid Valve D03*	2
26	300500	Valve Bolt	8
27	330110	Valve O-Ring	8

ITEM	PART NUMBER	DESCRIPTION	QTY
8	111000	Relief Valve	1
9	330100	Tank O-Ring	1
10	400xxx*	Pump*	1
11	421000	Motor Coupler	1
12	310067	Block Elbow 90°	1
13	301xxx*	Pump Bolt*	2
14	307080	Lockwasher (Pump Bolt)	2
15	150012	Screen Filter Suction Elbow	1

ITEM	PART NUMBER	DESCRIPTION	QTY
1	300060	Motor Bolts	2
2	600xxx*	Motor*	1
3	300010	Solenoid Bolt	2
4	307000	Solenoid Washer	2
5	640xxx*	Solenoid*	1
6	210150	Block	1
7	110100	Checkvalve	1

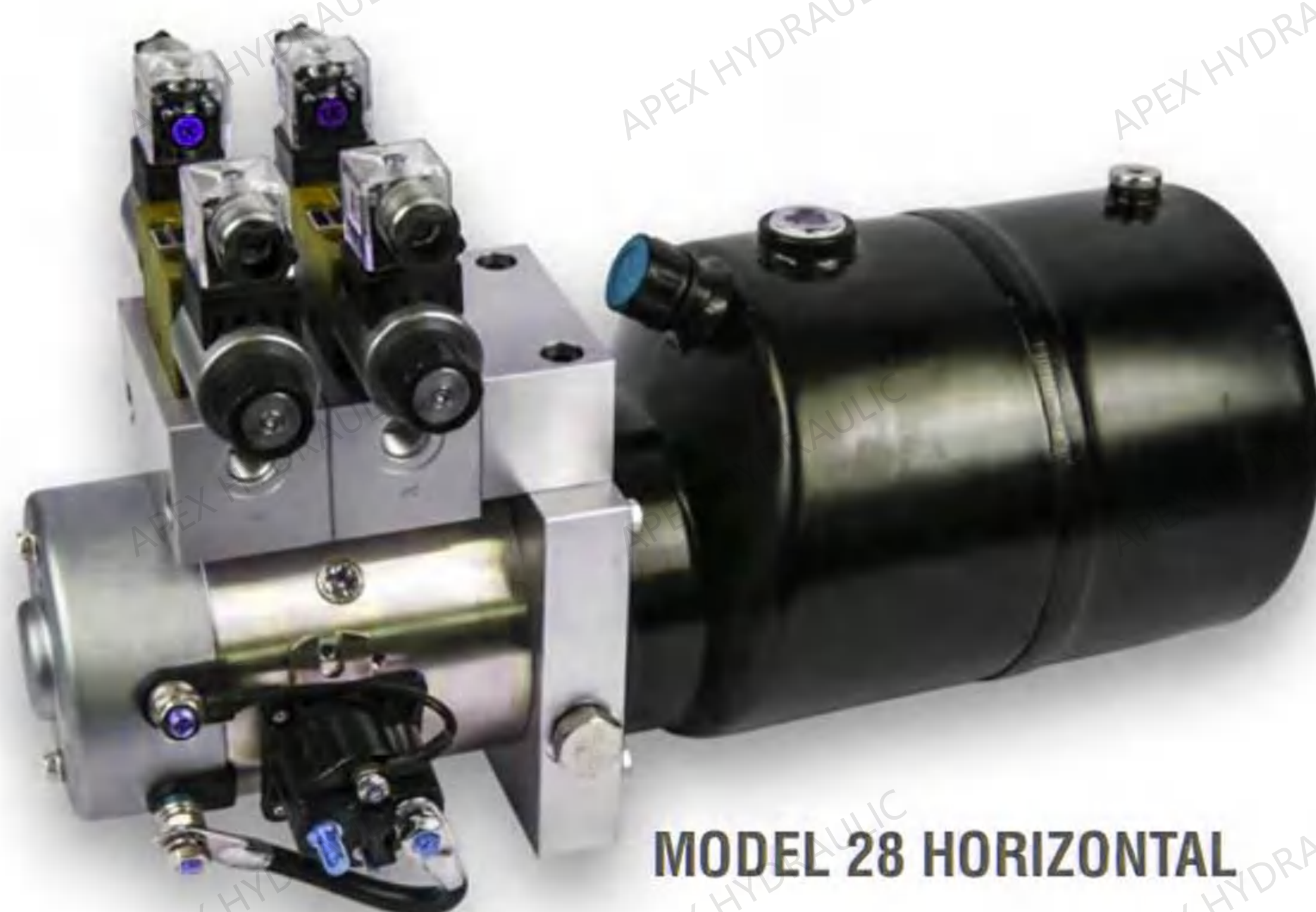
MODEL 24,36,48



APEX HYDRAULIC

MODEL 28,42,56

POWER UNIT SINGLE AND/OR DOUBLE ACTING CIRCUITS



MODEL 28 HORIZONTAL

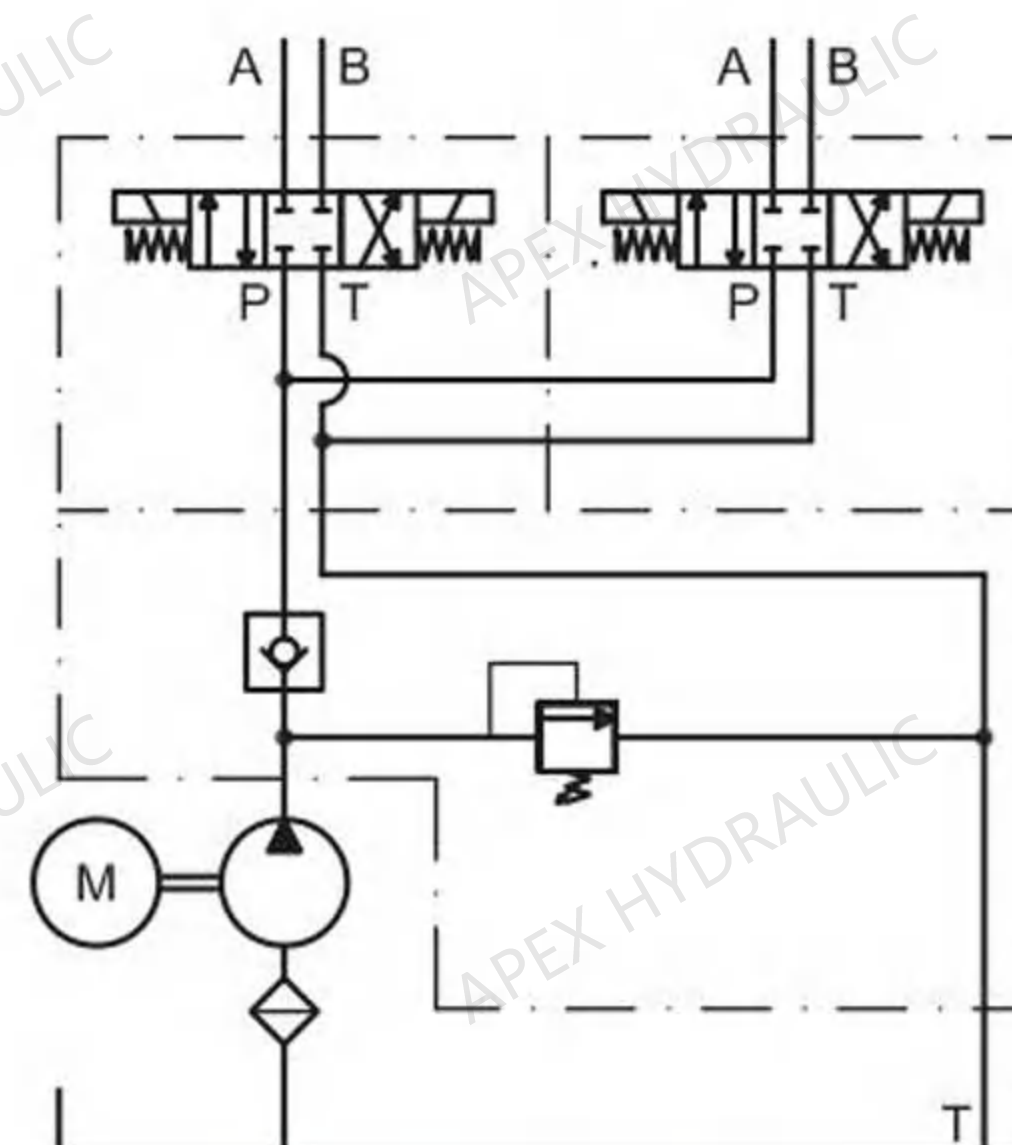


MODEL 42 VERTICAL

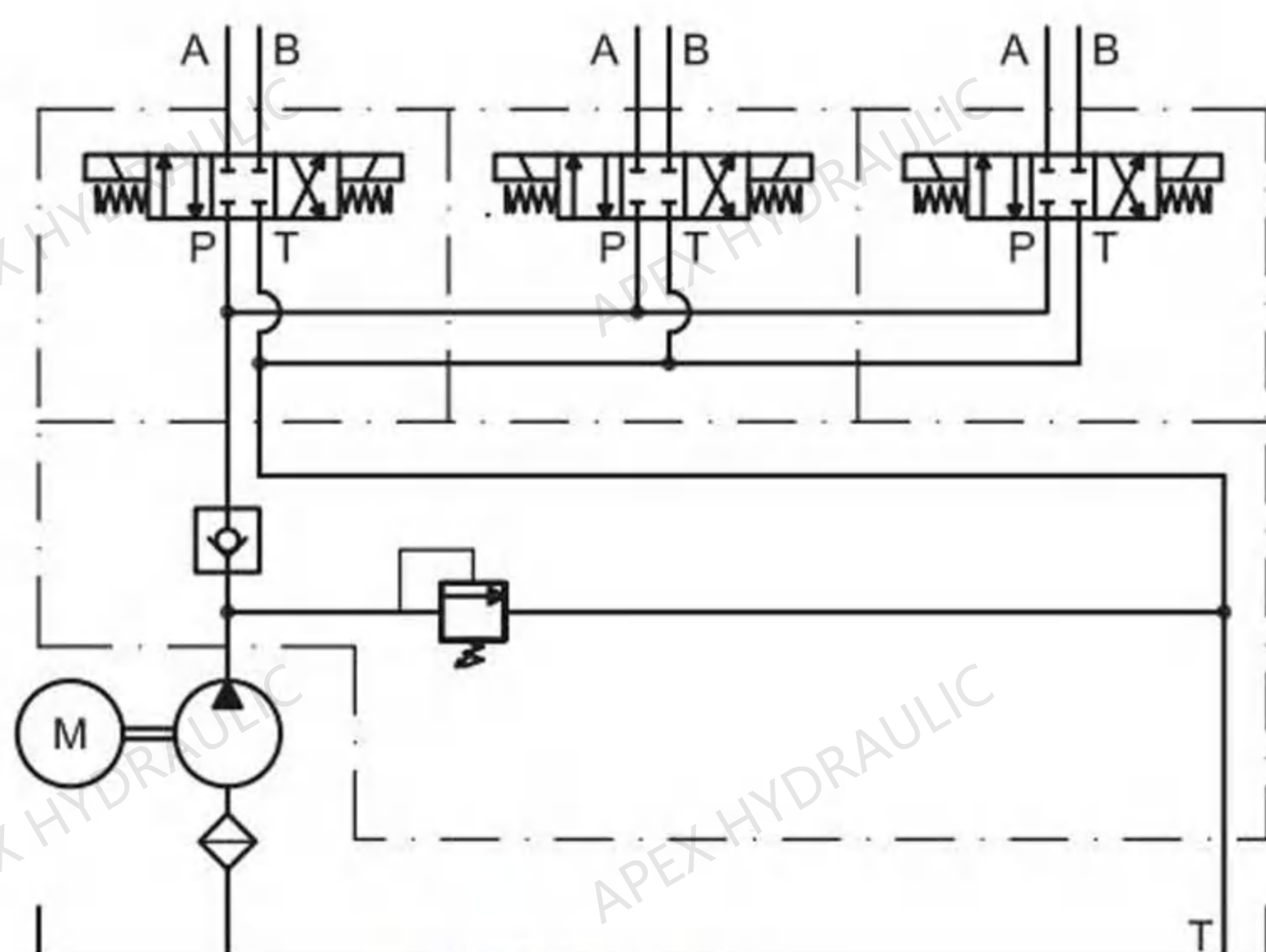
This power unit has a double acting circuit with SAE 6 (9/16-18) A & B ports. The 4-way, 3 position modular valve (D02) that can be stacked and combined with other modular options such as piloted check valves, flow control or even pressure relief valve (See p.42 for all of our components). This circuit also has a cartridge check valve and adjustable relief valve. The magnetic four button remote control comes with 6 meters of cable. The gear pump is equipped with a suction screen attached to a 90° elbow inside the tank which comes with a 3/4" NPT breather/dipstick. Valves can be stacked vertically as per above picture, or horizontally over the DC motor.

OPTIONS:

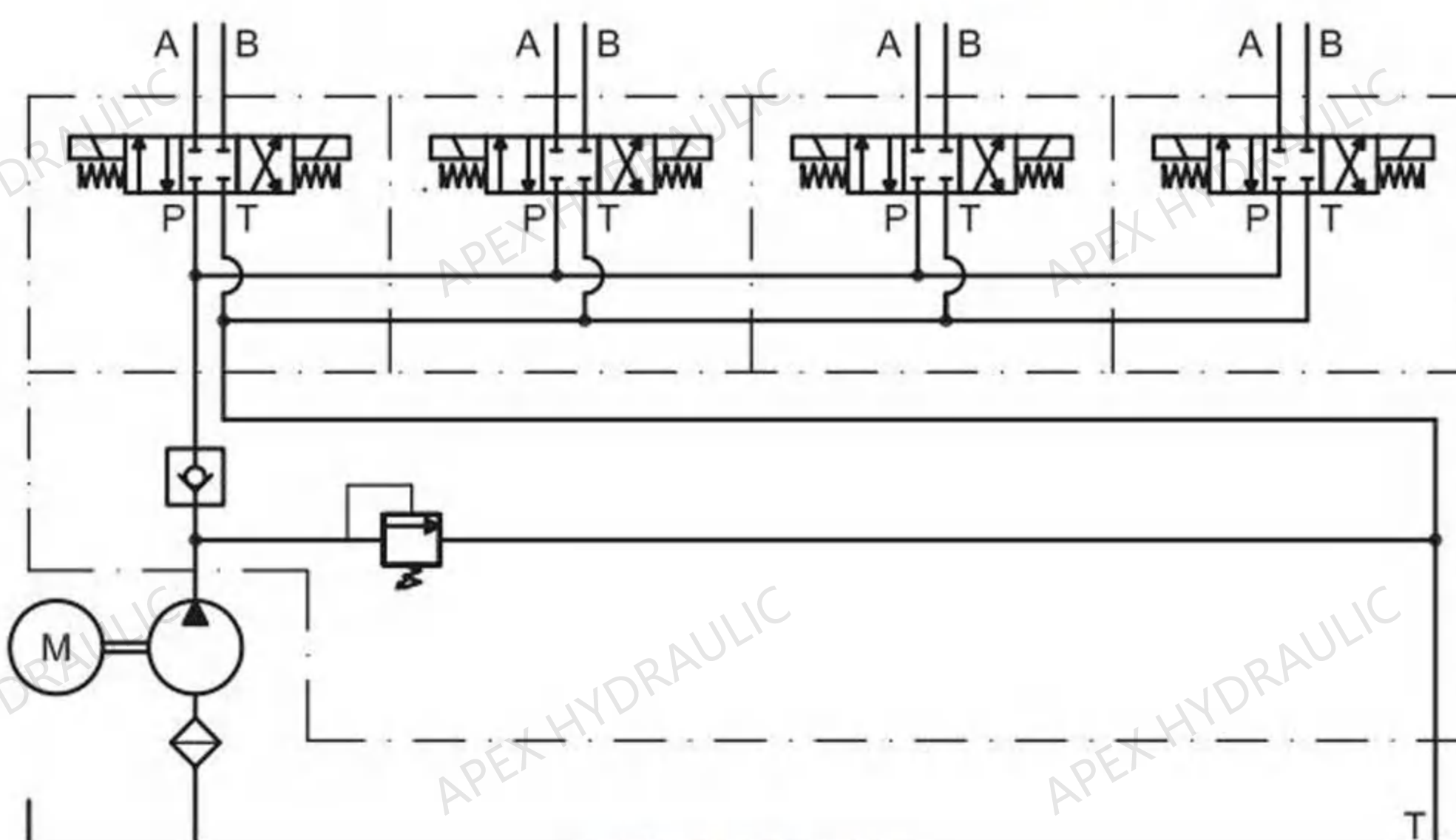
- **Motor:** DC 12/24V, AC 115/230V Single Phase or AC 230/460/575V Three Phase
- **Tank:** From 1.7 liters to 23.5 liters, Plastic or Steel
- **Pump:** 0.8, 1.0, 1.3, 1.6, 2.1, 2.5, 3.2, 4.2, 5.8 and 8.0cc
- **Mounting:** Vertical or Horizontal
- **Valve Mounting:** Vertical or Horizontal



MODEL 28



MODEL 42



MODEL 56

*Power units with AC motors are not provided with remote controls or methods to activate the motor or valves

All numbers given are nominal values and should be used for reference only.

MODEL 28,42,56

BOLT CHART

ITEM	PART NUMBER	DESCRIPTION	QTY
23	301170	For Model 28	2
	301200	For Model 42	
	301210	For Model 56	

ITEM	PART NUMBER	DESCRIPTION	QTY
1	300060	Motor Bolts	2
2	600xxx*	Motor*	1
3	300010	Solenoid Bolt	2
4	307000	Solenoid Washer	2
5	640xxx*	Solenoid*	1
6	210150	Block	1
7	110100	Checkvalve	1

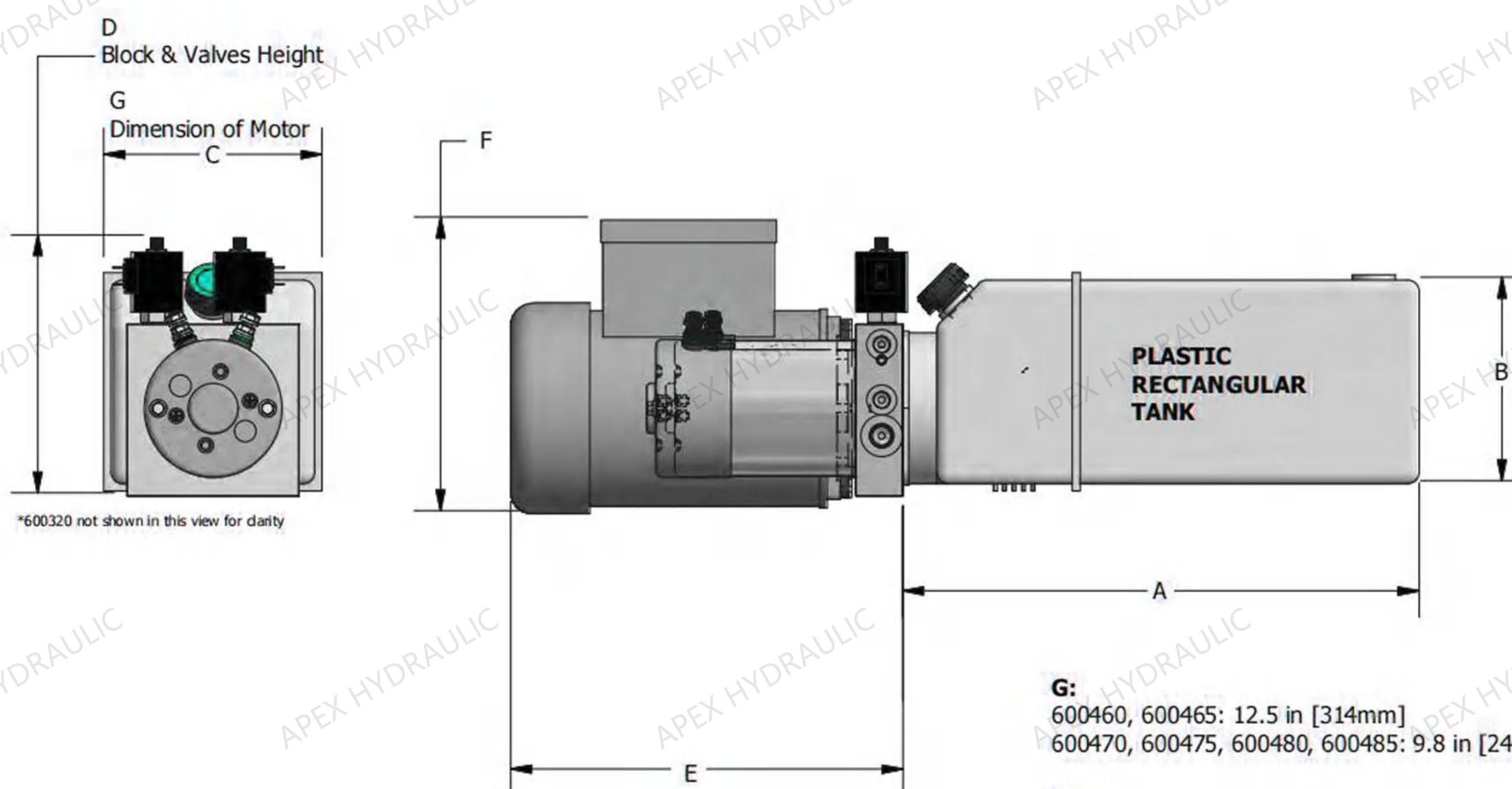
ITEM	PART NUMBER	DESCRIPTION	QTY
8	111000	Relief Valve	1
9	330100	Tank O-Ring	1
10	400xxx*	Pump*	1
11	421000	Motor Coupler	1
12	310067	Block Elbow 90°	1
13	301xxx*	Pump Bolt*	2
14	307050	Lockwasher (Pump Bolt)	2
15	150012	Screen Filter Suction Elbow	1

ITEM	PART NUMBER	DESCRIPTION	QTY
16	500xxx*	Tank*	1
17	300030	Tank Bolt	4
18	307050	Lockwasher (Tank Bolt)	4
19	520030	Breather	1
20	630170	Remote Control	1
21	219050	Block	1
22	219060	Block	1
23	*See Bolt Chart	Block Bolt	2
24	330130	Block O-Ring	4
25	121xxx*	Solenoid Valve D02*	2
26	300500	Valve Bolt	8
27	330130	Valve O-Ring	8

* Items such as motor, pump, pump bolts, coils, solenoid and tank have different ordering part numbers depending on the option purchased originally. Always specify the model number and serial number when ordering power unit parts.

Quantities are only for Model 28.

PLASTIC RECTANGULAR TANK DIMENSIONS



G:
600460, 600465: 12.5 in [314mm]
600470, 600475, 600480, 600485: 9.8 in [249mm]

F:
600320: 9.75 in [247.7mm]
600460, 600465: 11.3 in [285mm]
600470, 600475, 600480, 600485: 8.7 in [220mm]

E:
600110: 7.57 in [192.4mm]
600150: 8.20 in [208.3mm]
600320: 13.02 in [330.7mm]
600460: 18.7 in [473mm]
600465: 20 in [508mm]
600470, 600475: 13.8 in [350mm]
600480: 14.6 in [370mm]
600485: 15.4 in [390mm]

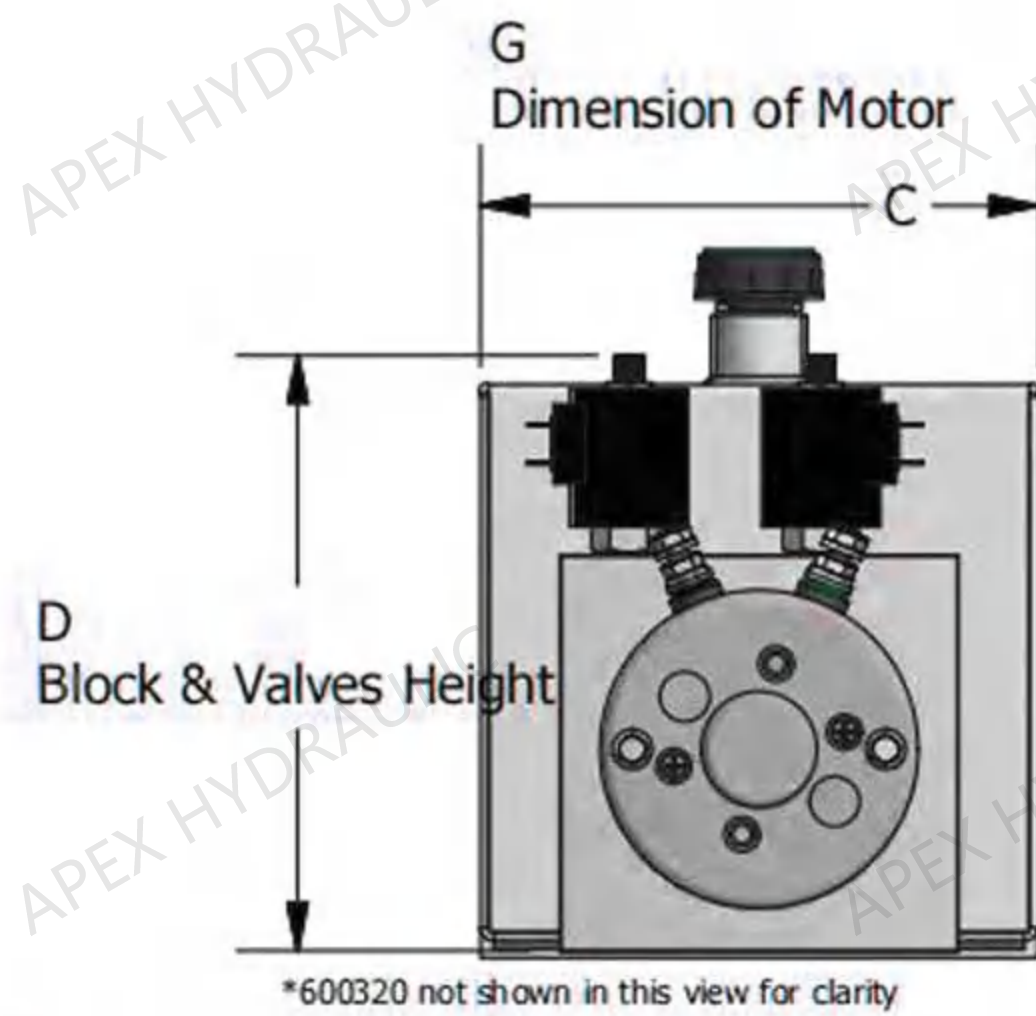
PART NUMBER	USABLE VOLUMES			DIMENSIONS		
	LITER	US GALLONS	QUARTS	A (LENGTH)	B (HEIGHT)	C (WIDTH)
510020 [B]	4.0	1.06	4.23	7.88" [200.0mm]	6.75" [171.5mm]	6.75" [171.5mm]
510030 [C]	5.0	1.32	5.28	11.42" [290.0mm]	7.10" [180.0mm]	7.10" [180.0mm]
510050 [D]	6.0	1.59	6.34	13.18" [335.0mm]	6.75" [171.5mm]	6.75" [171.5mm]
510060 [F]	8.0	2.12	8.45	17.32" [440.0mm]		
510070 [G]	10.0	2.65	10.57	20.75" [527.0mm]		
510080 [K]	15.1	4.00	16	13.64" [346.4mm]	9.00" [228.6mm]	9.44" [239.7mm]
510090 [H]	22.7	6.0	24	17.39" [441.6mm]	10.86" [275.8mm]	10.50" [266.7mm]

BLOCK AND VALVES HEIGHT

MODEL	BLOCK & VALVES HEIGHT "D"
01	5.500" [140 mm]
02	8.188" [208 mm]
03	14.750" [375 mm]
06	10.125" [257 mm]
10	8.125" [206 mm]
11	8.125" [206 mm]
12	7.500" [190 mm]
14	10.375" [264 mm]

MODEL	BLOCK & VALVES HEIGHT "D"
15	10.750" [273 mm]
16	9.625" [245 mm]
24	9.500" [241 mm]
36	11.500" [292 mm]
48	13.500" [343 mm]

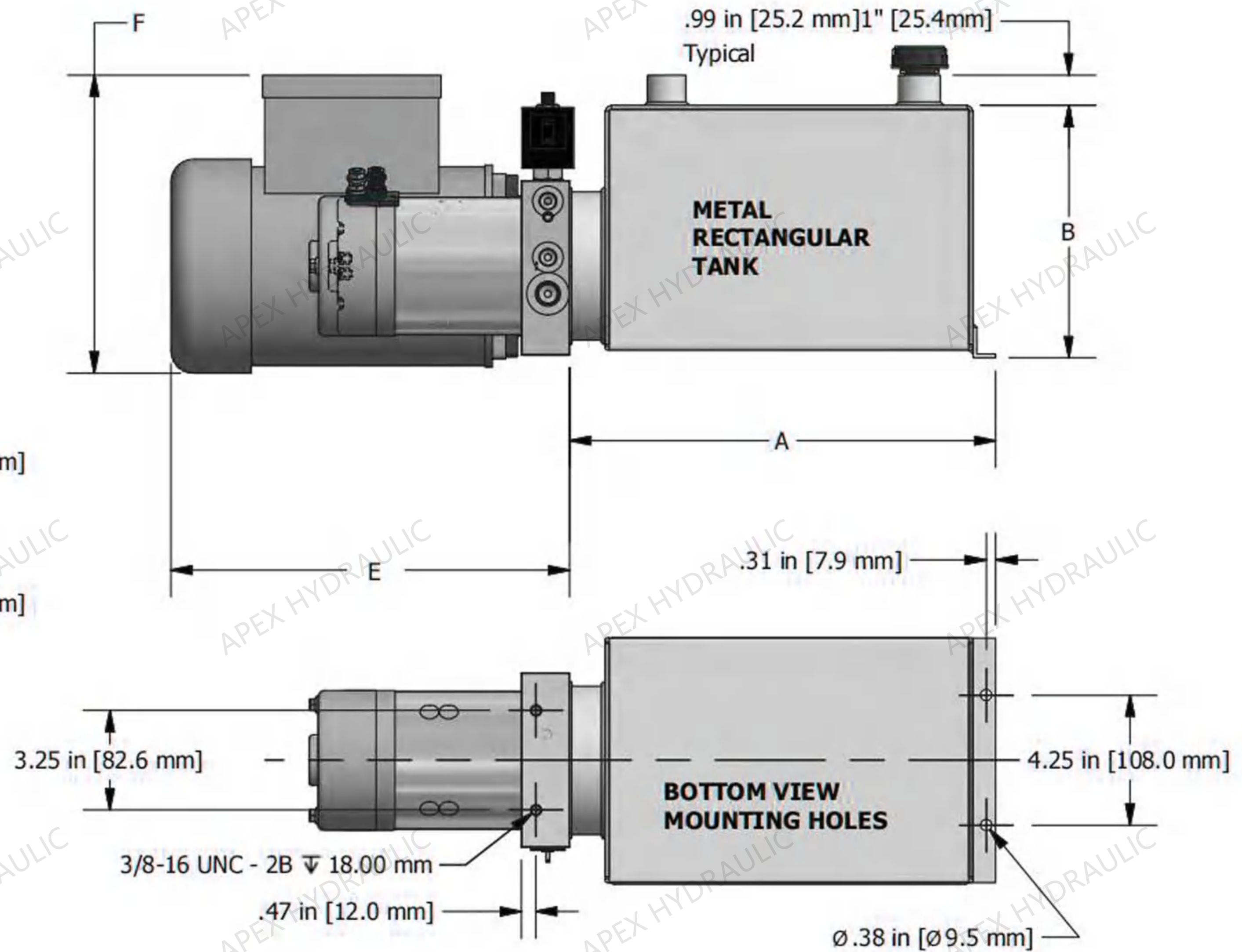
METAL RECTANGULAR TANK DIMENSIONS



G:
600460, 600465: 12.5 in [314mm]
600470, 600475, 600480, 600485: 9.8 in [249mm]

F:
600320: 9.75 in [247.7mm]
600460, 600465: 11.3 in [285mm]
600470, 600475, 600480, 600485: 8.7 in [220mm]

E:
600110: 7.57 in [192.4mm]
600150: 8.20 in [208.3mm]
600320: 13.02 in [330.7mm]
600460: 18.7 in [473mm]
600465: 20 in [508mm]
600470, 600475: 13.8 in [350mm]
600480: 14.6 in [370mm]
600485: 15.4 in [390mm]



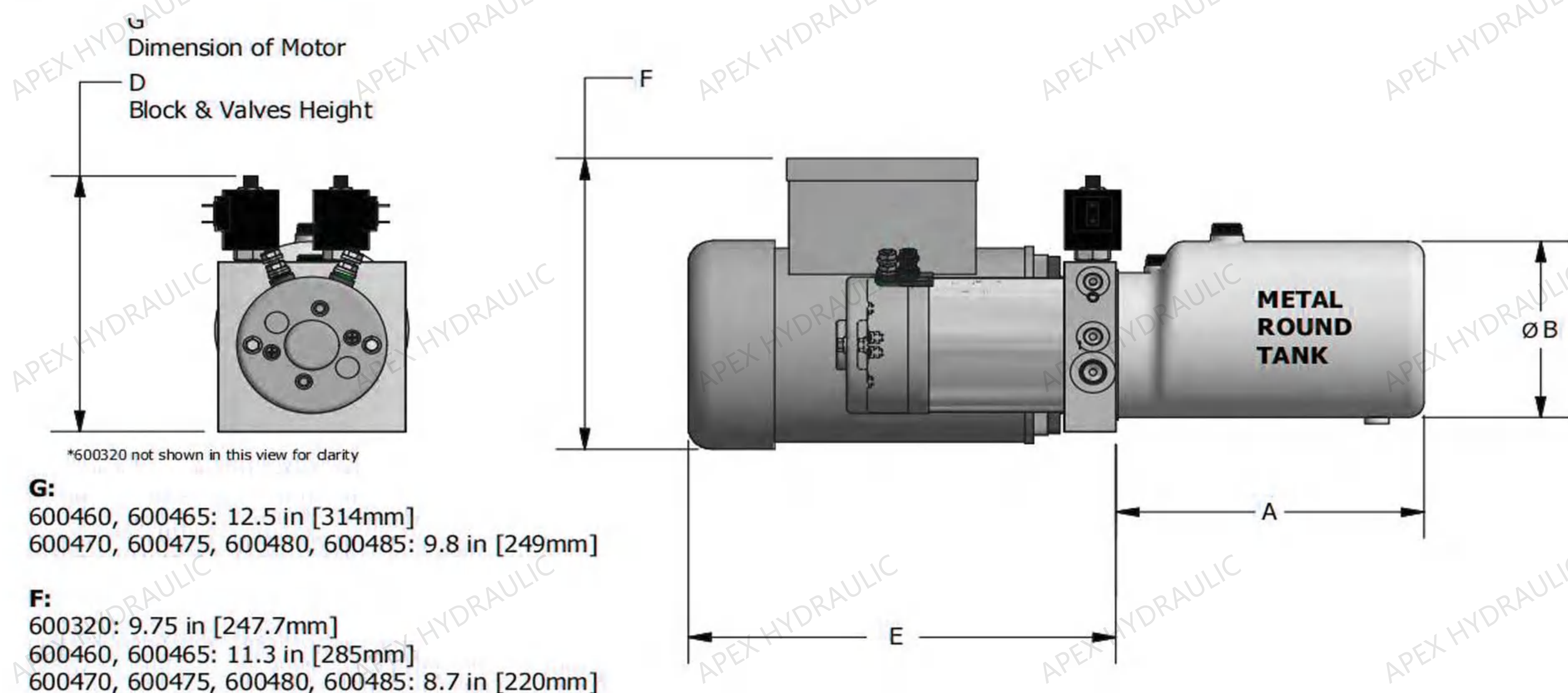
PART NUMBER	USABLE VOLUMES			DIMENSIONS		
	LITER	US GALLONS	QUARTS	A (LENGTH)	B (HEIGHT)	C (WIDTH)
500110 [V]	11.34	3.0	12.0	13.92" [353.6mm]	8.25" [209.6mm]	8.00" [203.2mm]
500120 [L]	15.12	4.0	16.0	13.92" [353.6mm]	10.25" [260.4mm]	8.00" [203.2mm]
500130 [W]	18.90	5.0	20.0	22.92" [582.2mm]	8.25" [209.6mm]	8.00" [203.2mm]
500140 [X]	23.60	6.24	25.0	13.92" [353.6mm]	13.75" [349.25mm]	10.5" [266.7mm]
500150 [Z]	23.60	6.25	25.0	20.92" [531.4mm]	5.625" [142.9mm]	16.00" [406.4mm]
500160 [Y]	26.50	7.0	28.0	13.92" [353.6mm]	12.75" [323.85mm]	13.00" [330.2mm]
500180 [E]	30.20	8.0	32.0	22.92" [582.2mm]	13.25" [336.6mm]	8.00" [203.2mm]
500190 [A]	37.80	10.0	40.0	13.50" [342.9 mm]	13.50" [342.9 mm]	-

BLOCK AND VALVES HEIGHT

MODEL	BLOCK & VALVES HEIGHT "D"
01	5.500" [140 mm]
02	8.188" [208 mm]
03	14.750" [375 mm]
06	10.125" [257 mm]
10	8.125" [206 mm]
11	8.125" [206 mm]
12	7.500" [190 mm]
14	10.375" [264 mm]

MODEL	BLOCK & VALVES HEIGHT "D"
15	10.750" [273 mm]
16	9.625" [245 mm]
24	9.500" [241 mm]
36	11.500" [292 mm]
48	13.500" [343 mm]

METAL ROUND TANK DIMENSIONS



G:
600460, 600465: 12.5 in [314mm]
600470, 600475, 600480, 600485: 9.8 in [249mm]

F:
600320: 9.75 in [247.7mm]
600460, 600465: 11.3 in [285mm]
600470, 600475, 600480, 600485: 8.7 in [220mm]

E:
600110: 7.57 in [192.4mm]
600150: 8.20 in [208.3mm]
600320: 13.02 in [330.7mm]
600460: 18.7 in [473mm]
600465: 20 in [508mm]
600470, 600475: 13.8 in [350mm]
600480: 14.6 in [370mm]
600485: 15.4 in [390mm]

PART NUMBER	USABLE VOLUMES			DIMENSIONS	
	LITER	US GALLONS	QUARTS	A (LENGTH)	B (HEIGHT)
500010 [M]	1.7	0.45	1.80	8.19" [208.0mm]	Ø4.85" [123.1mm]
500020 [N]	2.8	0.74	2.96	9.38" [238.1mm]	Ø5.90" [149.9mm]
500030 [O]	3.9	1.03	4.12	8.88" [225.4mm]	Ø6.96" [176.8mm]
500040 [P]	5.0	1.32	5.28	10.38" [263.5mm]	
500060 [Q]	6.0	1.58	6.32	11.38" [288.9mm]	
500070 [R]	8.0	2.11	8.44	14.50" [368.3mm]	
500080 [S]	10.0	2.64	10.56	16.99" [431.5mm]	
500090 [T]	12.0	3.17	12.68	21.24" [539.5mm]	
500100 [U]	14.0	3.70	14.8	23.75" [603.3mm]	

BLOCK AND VALVES HEIGHT

MODEL	BLOCK & VALVES HEIGHT "D"
01	5.500" [140 mm]
02	8.188" [208 mm]
03	14.750" [375 mm]
06	10.125" [257 mm]
10	8.125" [206 mm]
11	8.125" [206 mm]
12	7.500" [190 mm]
14	10.375" [264 mm]

MODEL	BLOCK & VALVES HEIGHT "D"
15	10.750" [273 mm]
16	9.625" [245 mm]
24	9.500" [241 mm]
36	11.500" [292 mm]
48	13.500" [343 mm]

MOTOR PERFORMANCE CHART



Exceeds Amperage Available for Testing
Non-Conducted Test
Exceeds Maximum Motor Amperage (Full Load AMPS including S.F.)

MOTOR 12V - 2.14HP, 1.6KW, 2500 RPM - COMPOUND WOUND (2.5MIN, 4 POLES [6001101]

	400010 Pump .8cc			400020 Pump 1.0cc			400040 Pump 1.6cc			400050 Pump 2.1cc			400060 Pump 2.5cc			400080 Pump 3.2cc			400090 Pump 4.2cc			400100 Pump 5.8cc			400110 Pump 8.0cc		
Pressure	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP
0	3.75	0.99	39	4.75	1.25	48	5.8	1.53	80	9.5	2.51	52	10.3	2.71	54	12.3	3.24	73	16.1	4.25	79	17.5	4.62	79.9	20	5.28	122
250	3.5	0.92	49	4.4	1.16	58	5.4	1.43	98	8.6	2.27	81	9	2.38	86	11	2.91	102	13.2	3.49	129	15	3.96	122	17	4.49	155
500	3.3	0.87	54	4.2	1.11	65	5.1	1.35	107	7.1	1.88	97	8.5	2.25	97	10.3	2.71	114	11	2.91	148	14.5	3.83	137	15.9	4.2	178
750	3.25	0.86	61	3.9	1.03	74	4.6	1.22	122	6.6	1.74	111	8	2.11	113	9.5	2.51	136	9.5	2.51	189	12.3	3.25	183	14	3.7	240
1000	3.2	0.85	68	3.7	0.98	80	4.25	1.12	133	6.25	1.65	133	7.5	1.98	132	8.75	2.31	158	8.1	2.14	229	11	2.91	222	12	3.17	279
1250	3	0.79	72	3.6	0.95	92	4	1.06	149	6.1	1.61	151	7	1.85	145	7.25	1.92	178	6.9	1.82	254	9.1	2.4	264	6.2	1.64	340
1500	2.9	0.77	80	3.5	0.93	99	4	1.06	158	5.6	1.48	166	6.5	1.72	169	6.75	1.78	200	6	1.59	289	8.3	2.19	302	4.2	1.11	386
1750	2.8	0.74	88	3.5	0.93	108	3.65	0.96	171	5.25	1.39	182	6.1	1.61	184	6.5	1.72	217	5.5	1.45	320	5.2	1.37	347			
2000	2.75	0.73	93	3.3	0.87	118	3.6	0.95	182	5.1	1.35	193	5.8	1.53	198	6.25	1.65	240	4.5	1.19	359	2.6	0.69	380			
2250	2.75	0.73	98	3.2	0.85	128	3.5	0.93	201	4.5	1.19	212	5.5	1.45	210	6	1.59	260	4.1	1.08	412						
2500	2.6	0.69	106	3	0.79	136	3.4	0.9	223	4.25	1.12	220	5.25	1.39	250	5.5	1.45	280	3.4	0.9	468						
2750	2.5	0.66	110	2.6	0.69	146	3.2	0.85	224	4.1	1.08	230	5	1.32	267	5.15	1.36	300	3.7	0.98	476						
3000	2.4	0.63	117	1.4	0.37	149	3	0.79	237	3.9	1.03	251	3.75	0.99	282	5	1.32	320									

MOTOR 12V LONG DUTY BLACK - 2.14HP, 1.6KW, 2500 RPM - SERIES WOUND (7 MIN, 4 POLES [6001201]

	400010 Pump .8cc			400020 Pump 1.0cc			400040 Pump 1.6cc			400050 Pump 2.1cc			400060 Pump 2.5cc			400080 Pump 3.2cc			400090 Pump 4.2cc			400100 Pump 5.8cc			400110 Pump 8.0cc		
Pressure	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP
0	5.8	1.53	78	7.6	2.01	85	11.2	2.96	94	13	3.43	101	13	3.43	107	14	3.7	115	15.1	3.99	117	21	5.55	128	22.5	5.94	158
250	5.1	1.35	89	6.5	1.72	96	9.5	2.51	108	11	2.91	118	11.3	2.97	126	12.2	3.21	142	14.6	3.86	160	17	4.49	158	19	5.02	192
500	4.75	1.25	94	6.15	1.62	101	9	2.38	115	10	2.64	127	10.5	2.77	139	11.8	3.1	150	14	3.7	174	15.2	4.02	176	18	4.76	203
750	4.5	1.19	100	5.8	1.53	108	7.6	2.01	125	9	2.38	141	9.75	2.58	171	11	2.91	168	12.5	3.3	196	13.5	3.57	206	16	4.23	239
1000	4.25	1.12	107	5.3	1.4	116	7	1.85	139	7.6	2.01	156	9	2.38	163	10	2.64	190	11	2.91	217	12.8	3.38	243	14	3.7	295
1250	4.15	1.1	113	5.1	1.35	126	6.3	1.66	154	7.1	1.88	167	7.6	2.01	183	9	2.38	205	10.3	2.71	244	10	2.64	280	11.8	3.12	346
1500	4	1.06	119	4.75	1.25	133	6.1	1.61	163	6.6	1.74	180	7.1	1.88	196	8.75	2.31	220	9.75	2.58	268	9	2.38	305	9.9	2.62	375
1750	3.85	1.02	125	4.6	1.22	140	5.9	1.56	172	6.3	1.66	191	6.5	1.72	213	8	2.11	236	9.25	2.44	290	6.8	1.8	336	7	1.85	433
2000	3.75	0.99	134	4.5	1.19	152	5.5	1.45	185	6	1.59	205	6.3	1.66	229	7.25	1.92	256	9	2.38	314	6.8	1.8	364	5.8	1.53	461
2250	3.75	0.99	137	4.1	1.08	156	5	1.32	188	5.75	1.52	217	6	1.59	244	6.7	1.77	273	8	2.11	334	5.2	1.37	396			
2500	3.6	0.95	142	3.75	0.99	161	4.75	1.25	202	5.3	1.4	230	5.75	1.52	253	6.25	1.65	292	7.25	1.92	356	5	1.32	437			
2750	3.4	0.9	147	3.5	0.92	165	4.5	1.19	207	5	1.32	244	5.3	1.4	271	6.1	1.61	305	6.85	1.81	373						
3000	3.15	0.83	155	3.25	0.86	176	4.25	1.12	227	4.75	1.25	257	5	1.32	287	5.6	1.48	327	6	1.59	400						

MOTOR 24V - 2.68HP, 2.0KW, 2500RPM (2.5 MIN) - [6002001]

	400010 Pump .8cc			400020 Pump 1.0cc			400040 Pump 1.6cc			400050 Pump 2.1cc			400060 Pump 2.5cc			400080 Pump 3.2cc			400090 Pump 4.2cc			400100 Pump 5.8cc			400110 Pump 8.0cc		
Pressure	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP
0	4.25	1.12	30	5.5	1.45	32	7.75	2.05	36	9	2.38	38	10.5	2.77	42	15	3.96	40	13	3.43	58	20	5.28	58.6	23.5	6.21	80.6
250	3.65	0.96	38	4.5	1.19	41	6.5	1.72	48	7	1.85	55	9	2.38	58	14	3.7	50	10.3	2.71	84	16.9	4.46	80.7	21	5.55	102
500	3.4	0.9	40	4.25	1.12	44	6.15	1.62	51	6.75	1.78	60	8	2.11	65	12.5	3.3	59	10	2.64	91	16.5	4.36	96.2	20	5.28	109
750	3.25	0.86	43	4	1.06	48	5.75	1.52	58	6.5	1.72	68	7	1.85	74	11	2.91	78	9.5	2.51	100	16	4.23	102	18	4.76	132
1000	3	0.79	47	3.75	0.99	52	5.35	1.41	63	6.15	1.62	74	6.5	1.72	82	9.5	2.51	96	8.25	2.18	119	14.2	3.75	102	16	4.23	162
1250	2.8	0.74	51	3.5	0.92	57	5	1.32	70	5.6	1.48	83	5.8	1.53	92	8.5	2.25	112	7.25	1.85	134	11.2	2.96	104	14	3.7	195
1500	2.75	0.73	53	3.3	0.87	60	4.6	1.21	75	5.2	1.37	92	5.3	1.4	104	8	2.11	130	6.75	1.78	144	11	2.91	126	13.5	3.57	218
1750	2.6	0.69	56	3.25	0.86	65	4.35	1.15	84	4.75	1.25	100	4.9	1.29	113	7	1.85	146	6.25	1.65	158	10	2.64	189	9	2.38	247
2000	2.5	0.66	61	3	0.79	68	4.25	1.12	88	4.5	1.19	108	4.6	1.22	121	7	1.85	166	6	1.59	171	9.8	2.59	205			
2250	2.45	0.65	64	3	0.79	73	4	1.06	95	4.25	1.12	113	4.5	1.19	127	6.5	1.72	168	5.5	1.45	184	7.2	1.9	246			
2500	2.4	0.63	66	2.8	0.74	75	3.75	0.99	100	4	1.06	122	4.4	1.16	136	6.5	1.72	187	5.25	1.39	190						
2750	2.25	0.59	71	2.6	0.69	81	3.7	0.98	105	3.75	0.99	133	4.3	1.14	140	4.9	1.29	207	5.1	1.35	210						
3000	2.25	0.59	75	2.5	0.66	86	3.55	0.94	112	3.5	0.92	139	4.2	1.11	153	4.5	1.19	220	5	1.32	219						

All numbers given are nominal values and should be used for reference only.



APEX HYDRAULIC

MOTOR PERFORMANCE CHART

Exceeds Amperage Available for Testing
Non-Conducted Test
Exceeds Maximum Motor Amperage (Full Load AMPS including S.F.)



MOTOR 115V - 1HP, 0.75KW, 1PH, 3600 RPM, S1 [600470]

	400010 Pump .8cc			400020 Pump 1.0cc			400040 Pump 1.6cc			400050 Pump 2.1cc			400060 Pump 2.5cc			400080 Pump 3.2cc			400090 Pump 4.2cc			400100 Pump 5.8cc			400110 Pump 8.0cc		
Pressure	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP
0	3.33	0.88	6.6	3.7	0.98	6.7	5.29	1.4	6.5	7.3	1.93	6.7	8.58	2.27	6.6	10.8	2.87	6.8	13.9	3.67	6.9						
250	3.33	0.88	6.8	3.63	0.96	6.9	5.1	1.35	7	7.07	1.87	7.3	8.43	2.23	7.7	10.7	2.84	8.9	13.5	3.57	11.2						
500	3.33	0.88	7	3.48	0.92	7.1	5.07	1.34	7.6	6.99	1.85	8.1	8.32	2.2	9.2	10.6	2.81	10.7	12.9	3.41	17.2						
750	3.33	0.88	7.4	3.4	0.9	7.6	4.99	1.32	8.5	6.92	1.83	9.4	8.2	2.17	10.9	10.4	2.74	13.5	12.2	3.23	22.3						
1000	3.33	0.88	7.9	3.33	0.88	8.4	4.91	1.3	9.4	6.8	1.8	11	8.09	2.14	13	10.2	2.7	16.6									
1250	3.33	0.88	8.7	3.18	0.84	9.2	4.84	1.28	10.6	6.69	1.77	13.1	7.75	2.05	18.2												
1500	3.33	0.88	9.4	3.1	0.82	10.3	4.76	1.26	12.2	6.54	1.73	15.7	7.18	1.9	22.8												
1750	3.33	0.88	10	3.02	0.8	11.2	4.69	1.24	13.8	6.43	1.7	18.4															
2000	3.33	0.88	10.9	3.02	0.8	12.7	4.57	1.21	15.8	6.12	1.62	22.6															
2250	3.33	0.88	12	2.84	0.75	13.5	4.42	1.17	17.9																		
2500	3.25	0.86	13	2.72	0.72	15.2	4.2	1.11	23.2																		
2750	3.1	0.82	14	2.72	0.72	16.8																					
3000	3.02	0.8	15.2	2.65	0.7	19.2																					

MOTOR 115V - 2HP, 1.5KW, 1PH, 3600 RPM, S1 [600480]

	400010 Pump .8cc			400020 Pump 1.0cc			400040 Pump 1.6cc			400050 Pump 2.1cc			400060 Pump 2.5cc			400080 Pump 3.2cc			400090 Pump 4.2cc			400100 Pump 5.8cc			400110 Pump 8.0cc		
Pressure	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP
0	3.25	0.86	7.1	3.7	0.98	7.1	5.03	1.33	6.8	7.18	1.9	6.6	8.58	2.27	7	10.9	2.88	7.2	14	3.7	7.5						
250	3.25	0.86	7.3	3.7	0.98	7.2	4.88	1.29	7.6	6.99	1.85	7.7	8.28	2.19	8.3	10.7	2.84	9.1	13.7	3.63	11.3						
500	3.25	0.86	7.4	3.7	0.98	7.5	4.83	1.28	8.3	6.96	1.84	8.7	8.2	2.17	9.9	10.7	2.84	11	13.6	3.6	14.8						
750	3.25	0.86	7.9	3.67	0.97	7.8	4.79	1.27	9.2	6.92	1.83	9.9	8.16	2.16	11.1	10.6	2.81	13.6	13.5	3.57	18.4						
1000	3.25	0.86	8.4	3.55	0.94	8.4	4.75	1.26	10.2	6.84	1.81	11.4	8.09	2.14	14	10.5	2.77	16.9	13.3	3.51	23.3						
1250	3.25	0.86	9	3.4	0.9	9.1	4.73	1.25	11.4	6.8	1.8	13.2	8.01	2.12	16.4	10.3	2.73	19.7	12.3	3.26	42.3						
1500	3.25	0.86	9.8	3.36	0.89	9.9	4.69	1.24	12.6	6.73	1.78	15.6	7.9	2.09	19.8	10.2	2.7	24.2									
1750	3.25	0.86	10.6	3.36	0.89	10.8	4.65	1.23	14	6.69	1.77	17.5	7.82	2.07	22.6	10	2.65	28.1									
2000	3.25	0.86	11.4	3.36	0.89	11.7	4.54	1.2	16.5	6.62	1.75	20.1	7.67	2.03	27.1	9.64	2.55	36.5									
2250	3.25	0.86	12.4	3.25	0.86	12.7	4.54	1.2	18.1	6.54	1.73	22.4	7.56	2	29.2												
2500	3.14	0.83	13.4	3.18	0.84	13.8	4.42	1.17	19.4	6.43	1.7	25.8	7.18	1.9	40.4												
2750	3.1	0.82	14.6	3.1	0.82	15	4.42	1.17	20.9	6.35	1.68	28.9															
3000	3.02	0.8	16.7	3.02	0.8	16.1	4.38	1.16	22.9	6.31	1.67	34.2															

MOTOR 115V - 3HP, 2.24KW, 1PH, 3600 RPM, S1 [600490]

	400010 Pump .8cc			400020 Pump 1.0cc			400040 Pump 1.6cc			400050 Pump 2.1cc			400060 Pump 2.5cc			400080 Pump 3.2cc			400090 Pump 4.2cc			400100 Pump 5.8cc			400110 Pump 8.0cc		
Pressure	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP
0	3.59	0.95	4.5	3.78	1	4.3	5.07	1.34	4.55	7.03	1.86	5.3	8.39	2.22	4.5	10.9	2.89	5.1	14.7	3.88	5.8						
250	3.55	0.94	5.4	3.78	1	5.1	4.88	1.29	6.48	6.8	1.8	8	8.24	2.18	7.3	10.7	2.82	8.5	14.4	3.81	10.9						
500	3.55	0.94	5.9	3.78	1	5.7	4.84	1.28	7.53	6.73	1.78	9.6	8.2	2.17	9.3	10.6	2.8	11.1	14.3	3.77	14.2						
750	3.55	0.94	7	3.78	1	6.8	4.8	1.27	8.58	6.69	1.77	11.2	8.16	2.16	11.2	10.5	2.78	13.3	14.1	3.72	18.9						
1000	3.55	0.94	7.7	3.78	1	7.8	4.73	1.25	10.1	6.62	1.75	13.4	8.13	2.15	12.9	10.4	2.76	16.2	13.9	3.67	22.1						
1250	3.55	0.94	8.7	3.78	1	8.9	4.73	1.25	10.8	6.46	1.71	15.2	8.05	2.13	15.4	10.4	2.74	19.2	13.6	3.61	28.7						
1500	3.44	0.91	9.5	3.7	0.98	10.4	4.69	1.24	12.1	6.46	1.71	17	7.98	2.11	18	10.2	2.71	21.4	13.4	3.54	35.5						
1750	3.44	0.91	10.3	3.7	0.98	11.2	4.65	1.23	13.4	6.43	1.7	19.5	7.94	2.1	20.7	10.1	2.67	26.8	13	3.45	43.2						
2000	3.4	0.9	10.9	3.7	0.98	12.4	4.61	1.22	14.6	6.39	1.69	21.8	7.82	2.07	24.3	9.87	2.61	33.9									
2250	3.36	0.89	11.2	3.63	0.96	14.4	4.57	1.21	15.6	6.31	1.67	23.9	7.79	2.06	26.7	9.71	2.57	39.2									
2500	3.33	0.88	12.9	3.48	0.92	16.4	4.54	1.2	16.8	6.24	1.65	27.5	7.67	2.03	31.4	9.37	2.48	49.4									
2750	3.18	0.84	13.7	3.4	0.9	17.8	4.5	1.19	18.1	6.16	1.63	28.9	7.56	2	34.9												
3000	3.18	0.84	14.9	3.4	0.9	19.8	4.35	1.15	19.5	6.05	1.6	33	7.45	1.97	40.8												

All numbers given are nominal values and should be used for reference only.

MOTOR PERFORMANCE CHART



	Exceeds Amperage Available for Testing
	Non-Conducted Test
	Exceeds Maximum Motor Amperage (Full Load AMPS including S.F.)

MOTOR 220V - 1HP, 0.75KW, 1PH, 3600 RPM, S1 [600470]

	400010 Pump .8cc			400020 Pump 1.0cc			400040 Pump 1.6cc			400050 Pump 2.1cc			400060 Pump 2.5cc			400080 Pump 3.2cc			400090 Pump 4.2cc			400100 Pump 5.8cc			400110 Pump 8.0cc		
Pressure	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP
0	3.4	0.9	1.8	3.7	0.98	1.8	4.16	1.1	1.8	7.22	1.91	1.9	8.58	2.27	1.9	10.8	2.87	2.1	14	3.7	2.6						
250	3.4	0.9	2.2	3.7	0.98	2.1	5.07	1.34	2.6	7.03	1.86	2.8	8.35	2.21	3.4	10.7	2.83	4.1	13.2	3.5	6.1						
500	3.4	0.9	2.5	3.7	0.98	2.5	5.03	1.33	3.2	6.92	1.83	3.7	8.24	2.18	4.5	10.5	2.78	5.4	12.1	3.2	10.9						
750	3.4	0.9	3	3.7	0.98	2.9	4.91	1.3	3.9	6.84	1.81	4.6	8.13	2.15	5.7	10.2	2.7	7.4									
1000	3.4	0.9	3.5	3.7	0.98	3.4	4.88	1.29	4.6	6.73	1.78	5.8	7.94	2.1	7.3	9.83	2.6	9.6									
1250	3.4	0.9	4	3.7	0.98	4	4.8	1.27	5.6	6.54	1.73	7.3	7.18	1.9	12.4												
1500	3.4	0.9	4.7	3.7	0.98	4.6	4.65	1.23	6.8	6.31	1.67	9.2															
1750	3.4	0.9	5.2	3.59	0.95	5.2	4.54	1.2	7.8	6.05	1.6	11.3															
2000	3.4	0.9	5.9	3.52	0.93	5.9	4.38	1.16	9.2																		
2250	3.36	0.89	6.6	3.4	0.9	6.7	4.16	1.1	11.5																		
2500	3.33	0.88	7.4	3.33	0.88	7.5																					
2750	3.18	0.84	8.3	3.21	0.85	8.7																					
3000	3.02	0.8	9.7	3.02	0.8	10.9																					

MOTOR 220V - 2HP, 1.5KW, 1PH, 3600 RPM, S1 [600480]

	400010 Pump .8cc			400020 Pump 1.0cc			400040 Pump 1.6cc			400050 Pump 2.1cc			400060 Pump 2.5cc			400080 Pump 3.2cc			400090 Pump 4.2cc			400100 Pump 5.8cc			400110 Pump 8.0cc		
Pressure	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP
0	3.4	0.9	1.7	3.7	0.98	1.8	5.18	1.37	1.8	7.22	1.91	2	8.51	2.25	2	11	2.9	2.4	14.6	3.85	2.9						
250	3.4	0.9	2.1	3.7	0.98	2.1	4.95	1.31	2.8	6.96	1.84	3.2	8.35	2.21	3.3	10.7	2.82	4.2	14	3.7	5.7						
500	3.4	0.9	2.4	3.7	0.98	2.5	4.91	1.3	3.3	6.88	1.82	4	8.32	2.2	4.3	10.7	2.82	5.7	13.6	3.6	8.4						
750	3.4	0.9	3	3.67	0.97	3	4.91	1.3	4	6.84	1.81	4.9	8.2	2.17	5.5	10.6	2.8	7.2	13.5	3.56	10.7						
1000	3.4	0.9	3.5	3.63	0.96	3.5	4.84	1.28	4.7	6.8	1.8	5.8	8.13	2.15	6.8	10.4	2.74	9.4	13.2	3.5	13.6						
1250	3.4	0.9	4.1	3.48	0.92	4.1	4.76	1.26	5.9	6.65	1.76	8.2	8.05	2.13	8.2	10.3	2.72	10.6	12.7	3.37	18.4						
1500	3.4	0.9	4.7	3.48	0.92	4.7	4.73	1.25	6.6	6.65	1.76	8.5	7.94	2.1	10.1	10	2.65	13.5									
1750	3.33	0.88	5.3	3.4	0.9	5.2	4.69	1.24	7.4	6.58	1.74	9.6	7.79	2.06	11.9	9.71	2.57	16.7									
2000	3.25	0.86	5.7	3.4	0.9	5.8	4.61	1.22	8.5	6.5	1.72	11.2	7.64	2.02	14.2	9.07	2.4	22.7									
2250	3.21	0.85	6.5	3.36	0.89	6.4	4.57	1.21	9.4	6.43	1.7	12.4	7.41	1.96	17												
2500	3.1	0.82	7.2	3.33	0.88	7.2	4.46	1.18	10.9	6.27	1.66	14.7	6.84	1.81	23.6												
2750	3.06	0.81	7.8	3.18	0.84	8.1	4.38	1.16	12.2	6.16	1.63	16.4															
3000	3.02	0.8	8.7	3.1	0.82	8.7	4.31	1.14	13.3	6.05	1.6	19.2															

MOTOR 220V - 3HP, 2.24KW, 1PH, 3600 RPM, S1 [600490]

	400010 Pump .8cc			400020 Pump 1.0cc			400040 Pump 1.6cc			400050 Pump 2.1cc			400060 Pump 2.5cc			400080 Pump 3.2cc			400090 Pump 4.2cc			400100 Pump 5.8cc			400110 Pump 8.0cc		
Pressure	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP
0	3.48	0.92	2.1	3.86	1.02	2	4.91	1.3	2.2	6.99	1.85	2.6	8.47	2.24	2.3	10.8	2.86	2.4	14.6	3.87	3.3						
250	3.48	0.92	2.6	3.86	1.02	2.7	4.76	1.26	3.42	6.8	1.8	4.2	8.2	2.17	4	10.8	2.85	4.5	14.3	3.78	6.2						
500	3.48	0.92	2.9	3.86	1.02	3.2	4.73	1.25	4.08	6.77	1.79	5.1	8.13	2.15	4.9	10.7	2.82	6	14.2	3.75	8.1						
750	3.48	0.92	3.4	3.86	1.02	4.1	4.65	1.23	4.78	6.69	1.77	5.9	8.09	2.14	6.1	10.6	2.8	7.3	13.9	3.68	10.4						
1000	3.48	0.92	4	3.86	1.02	4.9	4.61	1.22	5.66	6.62	1.75	7.4	8.01	2.12	7.3	10.4	2.76	9.1	13.7	3.63	12.7						
1250	3.48	0.92	4.4	3.86	1.02	5.6	4.57	1.21	6.08	6.58	1.74	8.1	7.94	2.1	8.4	10.4	2.74	10.6	13.5	3.57	15.7						
1500	3.48	0.92	4.9	3.86	1.02	6.2	4.54	1.2	6.62	6.5	1.72	9.1	7.94	2.1	9.8	10.2	2.69	12.7	13.1	3.47	19.7						
1750	3.36	0.89	5.4	3.78	1	6.9	4.5	1.19	7.31	6.43	1.7	10.3	7.86	2.08	11.3	10.1	2.67	14.5	12.7	3.36	23.9						
2000	3.33	0.88	6	3.7	0.98	7.5	4.46	1.18	7.91	6.35	1.68	11.8	7.75	2.05	13	9.9	2.62	17.5									
2250	3.33	0.88	6.5	3.63	0.96	8.3	4.42	1.17	8.55	6.24	1.65	12.9	7.67	2.03	14.6	9.71	2.57	20.2									
2500	3.18	0.84	6.8	3.55	0.94	9.7	4.38	1.16	9.29	6.12	1.62	14.9	7.56	2	17.1	9.34	2.47	25.4									
2750	3.1	0.82	7.5	3.33	0.88	9.9	4.35	1.15	9.97	6.05	1.6	16.1	7.48	1.98	19.2												
3000	3.1	0.82	8.1	3.33	0.88	10.9	4.31	1.14	10.7	5.9	1.56	18.7	7.37	1.95	21.6												

All numbers given are nominal values and should be used for reference only.

MOTOR PERFORMANCE CHART

	Exceeds Amperage Available for Testing
	Non-Conducted Test
	Exceeds Maximum Motor Amperage (Full Load AMPS including S.F.)

MOTOR 115V - 2HP, 1.5KW, 1PH, 3480 RPM, S3 [600320]

	400010 Pump .8cc			400020 Pump 1.0cc			400040 Pump 1.6cc			400050 Pump 2.1cc			400060 Pump 2.5cc			400080 Pump 3.2cc			400090 Pump 4.2cc			400100 Pump 5.8cc			400110 Pump 8.0cc		
Pressure	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP
0	3.2	0.85	4	3.9	1.03	4	6.05	1.6	4	8	2.11	5	9.25	2.44	5	12	3.17	6	15.2	4.02	10	18.9	4.99	9	24	6.34	16.4
250	2.9	0.77	4	3.9	1.03	4	5.8	1.53	6	8	2.11	7	9	2.38	8	12	3.17	9	15	3.96	12	16	4.23	13.4			
500	2.9	0.77	5	3.9	1.03	5	5.6	1.48	7	8	2.11	9	9	2.38	9	11.9	3.14	12	15	3.95	15	12.5	3.3	16.6			
750	2.85	0.75	5	3.8	1	6	5.5	1.45	9	8	2.11	11	9	2.38	13	11.9	3.14	15	14.5	3.8	20	8	2.11	20.6			
1000	2.8	0.74	7	3.75	0.99	8	5.25	1.39	10	8	2.11	13	9	2.38	15	11.5	3.04	19	14.3	3.76	26						
1250	2.75	0.73	7	3.6	0.95	8	5.25	1.39	12	8	2.11	15	9	2.38	17	11.5	3.04	23									
1500	2.7	0.71	9	3.55	0.94	10	5	1.32	14	8	2.11	18	9	2.38	21	11	2.91	25									
1750	2.5	0.66	9	3.5	0.92	10	5	1.32	15	8	2.11	20	9	2.38	23												
2000	2.4	0.63	10	3.45	0.91	12	5	1.32	17	8	2.11	23															
2250	2.4	0.63	10	3.35	0.88	12	5	1.32	19	7.75	2.05	25															
2500	2.3	0.61	12	3.25	0.86	14	4.95	1.31	21																		
2750	2.3	0.61	12	3.15	0.83	15	4.8	1.27	24																		
3000	2.15	0.57	13	3	0.79	17																					

MOTOR 115V - 3HP, 2.24KW, 1PH, 3480 RPM, S3 [600340]

	400010 Pump .8cc			400020 Pump 1.0cc			400040 Pump 1.6cc			400050 Pump 2.1cc			400060 Pump 2.5cc			400080 Pump 3.2cc			400090 Pump 4.2cc			400100 Pump 5.8cc			400110 Pump 8.0cc		
Pressure	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP
0							5.95	1.57	7	8.1	2.14	7	9.2	2.43	7	12	3.17	9	15	3.96	12	19	5.02	10.7	25.1	6.63	19.4
250							5.75	1.52	8	8	2.11	8	9.2	2.43	9	12	3.17	11	15	3.96	14	19	5.02	13.1	25	6.6	21.4
500							5.5	1.45	9	8	2.11	10	9.2	2.43	11	12	3.17	13	15	3.96	17	18.5	4.89	18.5	24.8	6.55	30
750							5.45	1.44	11	8	2.11	12	9.2	2.43	13	12	3.17	16	14.9	3.94	21	17.6	4.65	25.1			
1000							5.45	1.44	12	8	2.11	15	9.2	2.43	15	12	3.17	19	14.9	3.94	25	17.4	4.6	31.8			
1250							5.45	1.44	14	8	2.11	16	9	2.38	18	12	3.17	22									
1500							5.45	1.44	15	8	2.11	19	9	2.38	21	11.8	3.12	25									
1750							5.45	1.44	17	8	2.11	20	9	2.38	24												
2000							5.45	1.44	18	8	2.11	23	9	2.38	25												
2250							5.45	1.44	20	8	2.11	24															
2500							5.25	1.39	21																		
2750							5.15	1.36	22																		
3000							5.15	1.36	24																		

All numbers given are nominal values and should be used for reference only.

MOTOR PERFORMANCE CHART

	Exceeds Amperage Available for Testing
	Non-Conducted Test
	Exceeds Maximum Motor Amperage (Full Load AMPS including S.F.)

MOTOR 220V - 2HP, 1.5KW, 1PH, 3480 RPM, S3 [600320]

	400010 Pump .8cc			400020 Pump 1.0cc			400040 Pump 1.6cc			400050 Pump 2.1cc			400060 Pump 2.5cc			400080 Pump 3.2cc			400090 Pump 4.2cc			400100 Pump 5.8cc			400110 Pump 8.0cc		
Pressure	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP
0	3.2	0.85	2.5	3.75	0.99	2	6	1.59	3	7.75	2.05	2	9	2.38	3	12	3.17	3	14.5	3.8	4	18.9	4.99	4.6	24	6.34	8.9
250	3	0.79	4	3.6	0.95	3	6	1.59	4	7.75	2.05	4	9	2.38	5	11	2.91	5	14.3	3.76	7	16	4.23	6.7			
500	2.9	0.77	4	3.55	0.94	4	6	1.59	4	7.75	2.05	5	9	2.38	5.5	11	2.91	6	14	3.7	8	13	3.43	7.8			
750	2.9	0.77	4	3.5	0.92	4	5.9	1.56	5	7.75	2.05	6	8.9	2.35	7	11	2.91	8	13.5	3.57	10	6.5	1.72	9.8			
1000	2.8	0.74	5	3.4	0.9	5	5.8	1.53	6	7.5	1.98	7	8.75	2.31	8	11	2.91	11									
1250	2.8	0.74	6	3.3	0.87	6	5.75	1.52	7	7.5	1.98	8	8.5	2.25	9	10.5	2.77	11.5									
1500	2.75	0.73	6	3.25	0.86	6	5.5	1.45	8	7.5	1.98	9	8.5	2.25	11												
1750	2.75	0.73	7	3.2	0.85	7	5.4	1.43	8	7.25	1.92	10															
2000	2.75	0.73	8	3.15	0.83	8	5.3	1.4	9	6.75	1.78	12															
2250	2.75	0.73	8	3.1	0.82	9	5.25	1.39	10																		
2500	2.75	0.73	9	3.1	0.82	9	5.15	1.36	11																		
2750	2.75	0.73	9	3	0.79	10																					
3000	2.75	0.73	10	3	0.79	10																					

MOTOR 220V - 3HP, 2.24KW, 1PH, 3480 RPM, S3 [600340]

	400010 Pump .8cc			400020 Pump 1.0cc			400040 Pump 1.6cc			400050 Pump 2.1cc			400060 Pump 2.5cc			400080 Pump 3.2cc			400090 Pump 4.2cc			400100 Pump 5.8cc			400110 Pump 8.0cc		
Pressure	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP	L/MIN	G/MIN	AMP
0	3	0.79	2.9	3.5	0.92	2.8	5.4	1.4	2.7	7.1	1.88	2.9	8.5	2.25	3	11	2.91	3.3	15	3.96	3.7	19	5.02	5.7	25.3	6.88	9.9
250	3	0.79	3.6	3.4	0.9	4	5.2	1.37	4	7.1	1.88	4.4	8.5	2.25	4.5	10.5	2.77	5.6	14.8	3.91	6.4	18.9	4.99	7	25.3	6.88	10.8
500	3	0.79	4.3	3.3	0.87	4.6	5.2	1.37	4.3	7.1	1.88	5.1	8.5	2.25	5.4	10.5	2.77	6.4	14.7	3.88	7.9	18.5	4.89	9.4	25	6.6	14.7
750	2.9	0.77	4.7	3.2	0.85	5.2	5.2	1.37	5	7.1	1.88	5.7	8.5	2.25	6.6	10.5	2.77	8.1	14.6	3.86	9.5	18	4.76	12.4	19.5	5.15	20
1000	2.9	0.77	5.6	3.2	0.85	6	5.2	1.37	5.8	7	1.85	6.8	8.4	2.22	7.8	10.5	2.77	9.6	14.6	3.86	11.4	17.9	4.73	15.5			
1250	2.8	0.74	6	3.2	0.85	6.6	5.1	1.35	6.8	7	1.85	7.7	8.1	2.14	8.6	10.2	2.69	10.5	14.6	3.86	13.6	16.8	4.44	19.3			
1500	2.7	0.71	6.6	3.1	0.82	7.1	5.1	1.35	7.1	7	1.85	8.6	8.1	2.14	10	10.2	2.69	12.4	14.6	3.86	15.9						
1750	2.5	0.66	7.4	3.1	0.82	7.9	5.1	1.35	7.8	7	1.85	9.5	8	2.11	11.5	10.1	2.67	14.5	13	3.43	18.8						
2000	2.5	0.66	7.8	3	0.79	8.3	5.1	1.35	8.8	7	1.85	10.6	8	2.11	12.9	10	2.64	16.2	13	3.43	23						
2250	2.4	0.63	8.4	3	0.79	8.9	5.1	1.35	9.3	7	1.85	11.6	8	2.11	14.3	10	2.64	18.6									
2500	2.3	0.61	9.1	3	0.79	9.5	5.1	1.35	10	7	1.85	13	8	2.11	15.5	10	2.64	21									
2750	2.2	0.58	9.8	3	0.79	10.7	5.1	1.35	10.8	7	1.85	14	8	2.11	17.3												
3000	2	0.53	10.4	2.9	0.77	11.5	5.1	1.35	11.8	7	1.85	15.4	7.8	2.06	20												

All numbers given are nominal values and should be used for reference only.



Continuous
Intermittent
Overload

MOTOR

250	1.4
-----	-----

MOTOR

250	1.4
-----	-----

MOTOR

250	1.4
-----	-----

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COMPONENTS



DC ELECTRIC MOTOR FOR POWER UNITS

- ▶ 600110 [12] - 12v 1.6 Kw/2 HP Standard.
- ▶ 600120 [11] - 12v 1.6 Kw/2 HP Long Duty - Powder Coated Black.
- ▶ 600210 [24] - 24v 2 Kw/2.6 HP Heavy Duty.



AC ELECTRIC MOTOR (TEFC)

- ▶ 600320 [115/220] - 115/220v 2HP/1.5Kw/1PH (3480RPM) - Intermittent Periodic Duty (S3).
- ▶ 600340 [116/221] - 115/220v 3HP/2.24Kw/1PH (3480RPM) - Intermittent Periodic Duty (S3).
- ▶ 600460 [600] - 575V 3HP/2.24Kw/3PH (3600RPM) - NEMA 182T - Continuous duty (S1).
- ▶ 600465 [683] - 575V 3HP/2.24Kw/3PH (1800RPM) - NEMA 182T - Premium Eff. - Continuous duty (S1).
- ▶ 600470 [110/111] - 115/220V 1HP/0.75Kw/1PH (3600RPM) - NEMA 56C - Continuous duty (S1).
- ▶ 600475 [181/281] - 115/220V 1HP/0.75Kw/1PH (1800RPM) - NEMA 56C - Continuous duty (S1).
- ▶ 600480 [114/219] - 115/220V 2HP/1.5Kw/1PH (3600RPM) - NEMA 56C - Continuous duty (S1).
- ▶ 600485 [182/282] - 115/220V 2HP/1.5Kw/1PH (1800RPM) - NEMA 56C - Continuous duty (S1).
- ▶ 600490 [117/222] - 115/220/460V 3HP/2.24Kw/1PH (3600RPM) - NEMA 56HC - Continuous duty (S1).
- ▶ 600510 [605] - 575V 5HP/3.73Kw/3PH (1800RPM) - NEMA 184T - Continuous duty (S1).
- ▶ 600530 - 575V 10HP/3PH (1800RPM) - NEMA 215T - Continuous duty (S1).



POWER UNIT SOLENOID

- ▶ 640040 - 12v.
- ▶ 640055 - 24v.



POWER UNIT GEAR PUMP

- | | | |
|-------------------------|-------------------------|-------------------------|
| ▶ 400010 [08] - 0.8 cc. | ▶ 400060 [25] - 2.5 cc. | ▶ 400110 [80] - 8.0 cc. |
| ▶ 400020 [10] - 1.1 cc. | ▶ 400080 [32] - 3.2 cc. | |
| ▶ 400040 [16] - 1.6 cc. | ▶ 400090 [42] - 4.2 cc. | |
| ▶ 400050 [20] - 2.1 cc. | ▶ 400100 [58] - 5.8 cc. | |

* We also offer clockwise pumps. The ones listed here are counter-clockwise.



SUCTION STRAINER

- ▶ 150012 - Suction Strainer with 90° Elbow, 3/8" BSPP.

	STEEL ROUND RESERVOIR 1.5 MM THICK ▶ 500010 [M] - 1.70 L (0.45 Gal.). ▶ 500020 [N] - 2.80 L (0.74 Gal.). ▶ 500030 [O] - 3.90 L (1.03 Gal.). ▶ 500040 [P] - 5.00 L (1.32 Gal.). ▶ 500060 [Q] - 6.00 L (1.58 Gal.). ▶ 500070 [R] - 8.00 L (2.11 Gal.). ▶ 500080 [S] - 10.00 L (2.64 Gal.). ▶ 500090 [T] - 12.00 L (3.17 Gal.). ▶ 500100 [U] - 14.00 L (3.70 Gal.).
	SQUARE PLASTIC RESERVOIR 5MM THICK ▶ 510020 [B] - 4.00 L (1.06 Gal.). ▶ 510030 [C] - 5.00 L (1.32 Gal.). ▶ 510050 [D] - 6.00 L (1.59 Gal.). ▶ 510060 [F] - 8.00 L (2.12 Gal.). ▶ 510070 [G] - 10.00 L (2.65 Gal.). ▶ 510080 [K] - 15.10 L (4.00 Gal.). ▶ 510090 [H] - 22.70 L (6.00 Gal.).
	STEEL SQUARE RESERVOIR 3MM THICK ▶ 500110 [V] - 11.34 L (3.00 Gal.). ▶ 500120 [L] - 15.12 L (4.00 Gal.). ▶ 500130 [W] - 18.90 L (5.00 Gal.). ▶ 500140 [X] - 23.60 L (6.24 Gal.). ▶ 500150 [Z] - 23.60 L (6.25 Gal. Flat Tank). ▶ 500160 [Y] - 26.50 L (7.00 Gal.). ▶ 500180 [E] - 30.20 L (8.00 Gal.). ▶ 500190 [A] - 37.80 L (10.00 Gal.).
	BREATHER DIP STICK COMBINATION 3" LONG ▶ 520030 - 3/4" NPT. ▶ 520050 - 1/2" NPT. ▶ 520060 - 3/8" NPT, 3" Metal Stick. ▶ 520070 - 3/8" NPT, 4" Plastic Stick.
	RESERVOIR LEVEL GAUGE WITH THERMOMETER ▶ 520080 - 5" X 5" WITH 3/8" BOLTS MOUNTING HOLES 4" APART C. * For reservoir up to 1/2" thick.
	CARTRIDGE VALVE 2 WAYS, 2 POSITIONS WITH MANUAL OVERRIDE ▶ 115200 - Cartridge Valve. ▶ 641010 - Coil 12v. ▶ 641020 - Coil 24v. ▶ 641030 - Coil 110v. ▶ 641040 - Coil 220v.

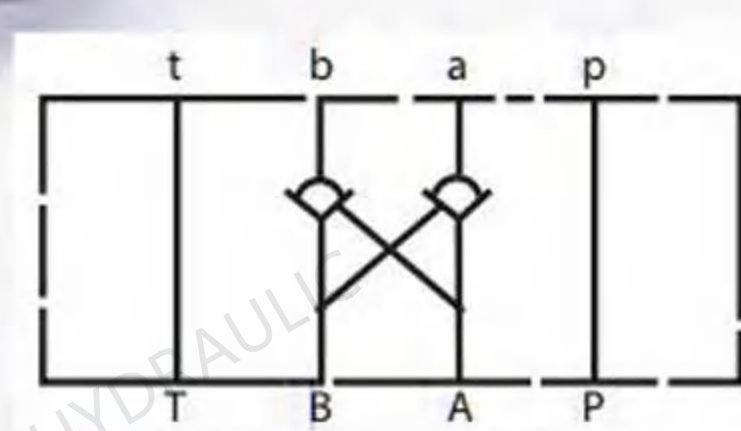
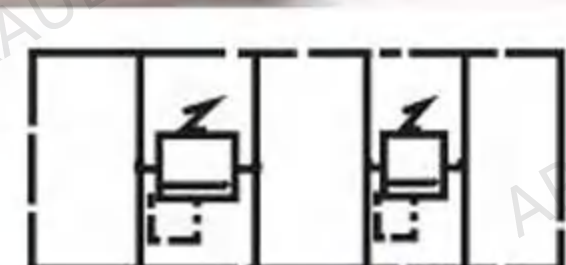
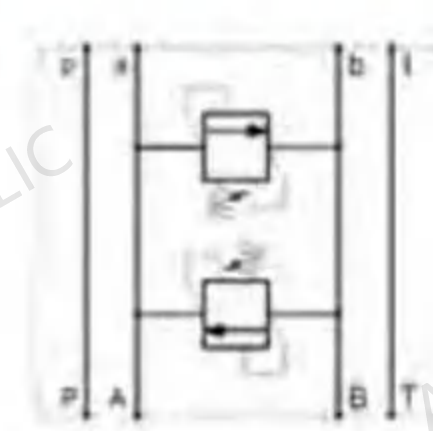
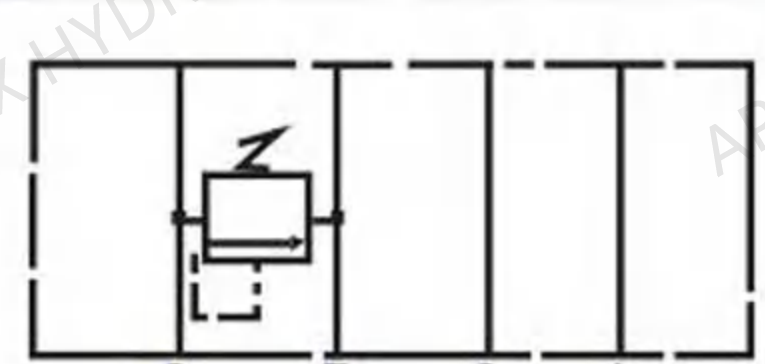
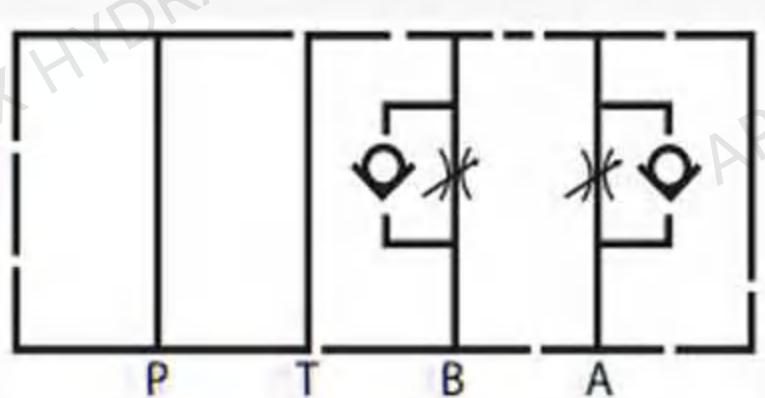
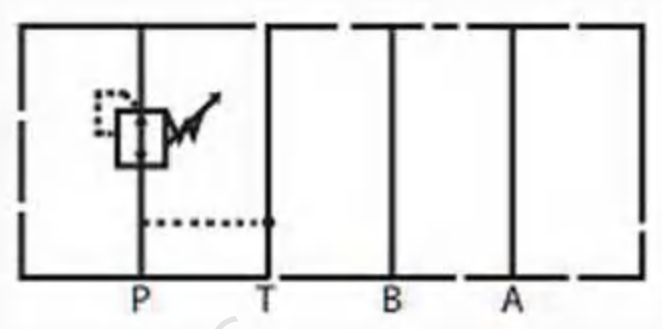
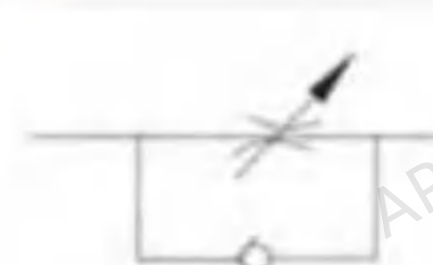
COMPONENTS

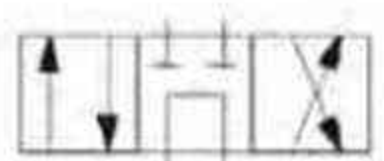
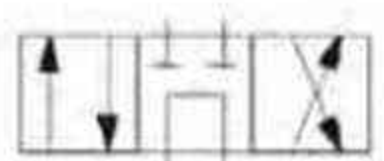
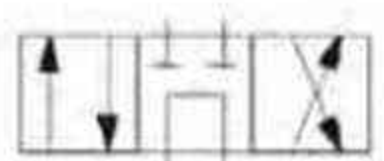
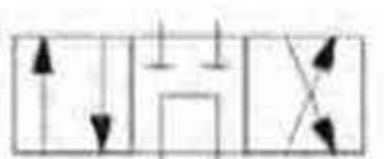
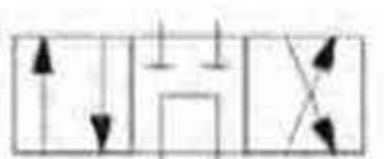
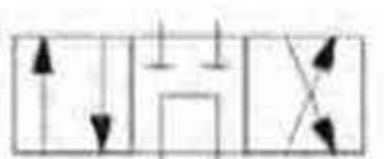
	POWER UNIT TOOLBOX ▶ 810200 - Aluminum Tool Box with Stainless Locking Handle and Gas Filled Cylinder for Lid. 36" W X 18.75" D X 16.35"H. ▶ 810300 - High Aluminum Tool Box with Stainless Locking Handle and Gas Filled Cylinder for Lid. 36" W X 18.75" D X 20.125"H. ▶ 810100 - Polymer Toolbox with Locking Hasp. 36" W X 18.75" D X 17.75" H.
	2 BUTTONS REMOTE CONTROL 16/3 (SINGLE ACTING) ▶ 630140 - Remote control with 2 buttons for single acting unit, magnetic back, plastic support and 20' of 16/3 cable with terminals. ▶ 610070 - 10' Extension for 2 Buttons Remote Control. * Remote control with 2 buttons for single acting unit, magnetic back and plastic support. Included: 20' of 16/3 cable with terminals.
	2 BUTTONS REMOTE CONTROL 16/4 (DOUBLE ACTING) ▶ 630060 - Remote control with 2 buttons for double acting unit, magnetic back, plastic support and 20' of 16/4 cable with terminals. ▶ 610070 - 10' Extension for 2 Buttons Remote Control.
	4 BUTTONS REMOTE CONTROL 16/6 (OPTION 24 UNIT) ▶ 630170 - Remote Control with 4 Buttons and 20' of 16/6 Cable with Terminals.
	2 BUTTONS WIRELESS REMOTE CONTROL ▶ 630010 - 2 Buttons Wireless Remote Control, 20 AMPS for Over 50M, Adaptable to 12v & 24v.
	4 BUTTONS WIRELESS REMOTE CONTROL ▶ 630030 - 4 Buttons Wireless Remote Control, 20 AMPS for Over 50M, Adaptable to 12v & 24v.

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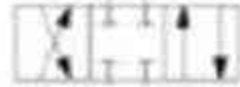
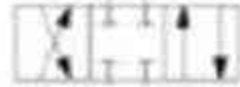
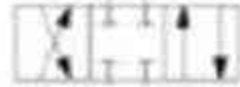
	BATTERY TRAY ▶ 810800 - Battery Tray and Holder with Strap 7" x 10.5" for GR. 24. ▶ 810810 - Standard Battery Tray for GR. 27-31 (Good for NovaPeak).
	BATTERY CHARGER ▶ 640120 - Low AMP Battery Charger 115VAC to 12VDC at 1.5 AMP. ▶ 640135 - Battery Charger 115VAC to 13.8VDC at 5 AMP.
	BATTERY CABLE #4 WITH 5/16" LUGS ▶ 610260 - BLACK, 24" Long. ▶ 610270 - RED, 24" Long. ▶ 630320 - BLACK, Y Splice Wireless Quick Connector, 13" Long. ▶ 610240 - RED, 18" Long.
	HYDRAULIC HOSE 3/8", 1 WIRE, ▶ 320011 - 17" Long. ▶ 320030 - 24" Long. ▶ 320050 - 36" Long. ▶ 320060 - 48" Long. ▶ 320070 - 60" Long. * Hydraulic hose are highly customizable. We offer both female and male fittings in JIC, ORB and NPT.
	2" BREATHER WELDED FILLER TUBE WITH 40 MICRONS SCREEN BASKET ▶ 520040
	PRESSURE COMPENSATED FLOW CONTROL FOR RETURN PORT TO TANK ▶ 100500 - 9/16-18 SAE. Max: 8.5 L/m.

COMPONENTS

 	MODULAR PILOTED CHECK VALVE ON "A" AND "B" ▶ 122520 for D03 Valve ▶ 123500 for D05 Valve <table><tr><th>Max. Pressure</th><th>Max. Flow</th></tr><tr><td>3555 PSI</td><td>10.5 GPM</td></tr><tr><td>3555 PSI</td><td>21.0 GPM</td></tr></table>	Max. Pressure	Max. Flow	3555 PSI	10.5 GPM	3555 PSI	21.0 GPM						
Max. Pressure	Max. Flow												
3555 PSI	10.5 GPM												
3555 PSI	21.0 GPM												
 	MODULAR CROSS-OVER RELIEF VALVE "A" AND "B", PRESET 96 BAR ▶ 122530 for D03 Valve  <table><tr><th>Max. Pressure</th><th>Max. Flow</th></tr><tr><td>Adjust. 200 - 3555 PSI</td><td>10.5 GPM</td></tr></table>	Max. Pressure	Max. Flow	Adjust. 200 - 3555 PSI	10.5 GPM								
Max. Pressure	Max. Flow												
Adjust. 200 - 3555 PSI	10.5 GPM												
 	MODULAR RELIEF VALVE FROM "P" TO "T" ▶ 122540 for D03 Valve <table><tr><th>Max. Pressure</th><th>Max. Flow</th></tr><tr><td>Adjust. 200 - 3555 PSI</td><td>10.5 GPM</td></tr></table>	Max. Pressure	Max. Flow	Adjust. 200 - 3555 PSI	10.5 GPM								
Max. Pressure	Max. Flow												
Adjust. 200 - 3555 PSI	10.5 GPM												
 	INDEPENDENT ADJUST. MODULAR FLOW "A" AND "B" UNIDIRECTIONAL ▶ 122550 for D03 Valve ▶ 123520 for D05 Valve <table><tr><th>Max. Pressure</th><th>Max. Flow</th></tr><tr><td>3555 PSI</td><td>10.5 GPM</td></tr><tr><td>3555 PSI</td><td>21.0 GPM</td></tr></table>	Max. Pressure	Max. Flow	3555 PSI	10.5 GPM	3555 PSI	21.0 GPM						
Max. Pressure	Max. Flow												
3555 PSI	10.5 GPM												
3555 PSI	21.0 GPM												
 	PRESSURE REDUCING VALVE FROM "P" TO "T" ▶ 122560 for D03 Valve <i>* Adjustable from 2275 to 500 PSI.</i> <table><tr><th>Max. Pressure</th><th>Max. Flow</th></tr><tr><td>3555 PSI</td><td>10.5 GPM</td></tr></table>	Max. Pressure	Max. Flow	3555 PSI	10.5 GPM								
Max. Pressure	Max. Flow												
3555 PSI	10.5 GPM												
 	DIRECTIONAL FLOW CONTROL VALVE <table><tr><th>Port</th><th>Max. Pressure</th><th>Max. Flow</th></tr><tr><td>▶ 100010 SAE06 9/16-18</td><td>5000 PSI</td><td>8.0 GPM</td></tr><tr><td>▶ 100020 SAE08 3/4-16</td><td>5000 PSI</td><td>10.5 GPM</td></tr><tr><td>▶ 100030 SAE10 7/8-14</td><td>5000 PSI</td><td>16.5 GPM</td></tr></table>	Port	Max. Pressure	Max. Flow	▶ 100010 SAE06 9/16-18	5000 PSI	8.0 GPM	▶ 100020 SAE08 3/4-16	5000 PSI	10.5 GPM	▶ 100030 SAE10 7/8-14	5000 PSI	16.5 GPM
Port	Max. Pressure	Max. Flow											
▶ 100010 SAE06 9/16-18	5000 PSI	8.0 GPM											
▶ 100020 SAE08 3/4-16	5000 PSI	10.5 GPM											
▶ 100030 SAE10 7/8-14	5000 PSI	16.5 GPM											

	DIRECTIONAL VALVE WITH SUBPLATE MOUNT D02 <table><tr><th></th><th></th><th>Max. Pressure</th><th>Max. Flow</th></tr><tr><td>Closed Center</td><td rowspan="2"></td><td rowspan="2">4500 PSI</td><td rowspan="2">5.2 GPM</td></tr><tr><td>▶ 121100 - 12v ▶ 121110 - 110v</td></tr><tr><td>Tandem Center</td><td rowspan="3"></td><td rowspan="3">4500 PSI</td><td rowspan="3">5.2 GPM</td></tr><tr><td>▶ 121120 - 12v ▶ 121125 - 24v ▶ 121130 - 110v</td></tr><tr><td>A & B > T</td></tr><tr><td>▶ 121140 - 12v ▶ 121150 - 110v</td><td></td><td>4500 PSI</td><td>5.2 GPM</td></tr></table>			Max. Pressure	Max. Flow	Closed Center		4500 PSI	5.2 GPM	▶ 121100 - 12v ▶ 121110 - 110v	Tandem Center		4500 PSI	5.2 GPM	▶ 121120 - 12v ▶ 121125 - 24v ▶ 121130 - 110v	A & B > T	▶ 121140 - 12v ▶ 121150 - 110v		4500 PSI	5.2 GPM
		Max. Pressure	Max. Flow																	
Closed Center		4500 PSI	5.2 GPM																	
▶ 121100 - 12v ▶ 121110 - 110v																				
Tandem Center		4500 PSI	5.2 GPM																	
▶ 121120 - 12v ▶ 121125 - 24v ▶ 121130 - 110v																				
A & B > T																				
▶ 121140 - 12v ▶ 121150 - 110v		4500 PSI	5.2 GPM																	
	DIRECTIONAL VALVE WITH SUBPLATE MOUNT D03 <i>* Come Standard with 304 Stainless Steel Push Pin Manual Override.</i> <table><tr><th></th><th></th><th>Max. Pressure</th><th>Max. Flow</th></tr><tr><td>Closed Center</td><td rowspan="4"></td><td rowspan="4">4500 PSI</td><td rowspan="4">18.5 GPM</td></tr><tr><td>▶ 122191 - 12v ▶ 122200 - 24v ▶ 122210 - 110v ▶ 122220 - 220v</td></tr><tr><td>Tandem Center</td><td rowspan="5"></td><td rowspan="5">4500 PSI</td><td rowspan="5">13.2 GPM</td></tr><tr><td>▶ 122240 - 12v ▶ 122250 - 24v ▶ 122260 - 110v ▶ 122270 - 220v</td></tr><tr><td>A & B > T</td></tr><tr><td>▶ 122280 - 12v ▶ 122290 - 24v ▶ 122300 - 110v ▶ 122310 - 220v</td><td rowspan="2"></td><td rowspan="2">4500 PSI</td><td rowspan="2">18.5 GPM</td></tr><tr></tr></table>			Max. Pressure	Max. Flow	Closed Center		4500 PSI	18.5 GPM	▶ 122191 - 12v ▶ 122200 - 24v ▶ 122210 - 110v ▶ 122220 - 220v	Tandem Center		4500 PSI	13.2 GPM	▶ 122240 - 12v ▶ 122250 - 24v ▶ 122260 - 110v ▶ 122270 - 220v	A & B > T	▶ 122280 - 12v ▶ 122290 - 24v ▶ 122300 - 110v ▶ 122310 - 220v		4500 PSI	18.5 GPM
		Max. Pressure	Max. Flow																	
Closed Center		4500 PSI	18.5 GPM																	
▶ 122191 - 12v ▶ 122200 - 24v ▶ 122210 - 110v ▶ 122220 - 220v																				
Tandem Center					4500 PSI	13.2 GPM														
▶ 122240 - 12v ▶ 122250 - 24v ▶ 122260 - 110v ▶ 122270 - 220v																				
A & B > T																				
▶ 122280 - 12v ▶ 122290 - 24v ▶ 122300 - 110v ▶ 122310 - 220v		4500 PSI	18.5 GPM																	
	DIRECTIONAL VALVE WITH SUBPLATE MOUNT D05 <table><tr><th></th><th></th><th>Max. Pressure</th><th>Max. Flow</th></tr><tr><td>Closed Center</td><td rowspan="3"></td><td rowspan="3">4500 PSI</td><td rowspan="3">31.0 GPM</td></tr><tr><td>▶ 123100 - 12v ▶ 123110 - 24v ▶ 123120 - 110v</td></tr><tr><td>Tandem Center</td><td rowspan="3"></td><td rowspan="3">4500 PSI</td><td rowspan="3">21.0 GPM</td></tr><tr><td>▶ 123130 - 12v ▶ 123140 - 24v ▶ 123150 - 110v</td></tr><tr><td>A & B > T</td></tr><tr><td>▶ 123160 - 12v</td><td></td><td>4500 PSI</td><td>31.0 GPM</td></tr></table>			Max. Pressure	Max. Flow	Closed Center		4500 PSI	31.0 GPM	▶ 123100 - 12v ▶ 123110 - 24v ▶ 123120 - 110v	Tandem Center		4500 PSI	21.0 GPM	▶ 123130 - 12v ▶ 123140 - 24v ▶ 123150 - 110v	A & B > T	▶ 123160 - 12v		4500 PSI	31.0 GPM
		Max. Pressure	Max. Flow																	
Closed Center		4500 PSI	31.0 GPM																	
▶ 123100 - 12v ▶ 123110 - 24v ▶ 123120 - 110v																				
Tandem Center					4500 PSI	21.0 GPM														
▶ 123130 - 12v ▶ 123140 - 24v ▶ 123150 - 110v																				
A & B > T																				
▶ 123160 - 12v		4500 PSI	31.0 GPM																	

COMPONENTS

	DIN CONNECTORS ▶ 618200 - DIN Connector 12/24v with LED Light. ▶ 618210 - DIN Connector 115/230v with LED Light.																
	MANUAL DIRECTIONAL VALVE D02 <table><thead><tr><th></th><th></th><th>Max. Pressure</th><th>Max. Flow</th></tr></thead><tbody><tr><td>▶ 122035 - Closed Center</td><td></td><td>4500 PSI</td><td>5.2 GPM</td></tr><tr><td>▶ 122030 - Tandem Center</td><td></td><td>4500 PSI</td><td>5.2 GPM</td></tr><tr><td>▶ 122040 - A & B > T</td><td></td><td>4500 PSI</td><td>5.2 GPM</td></tr></tbody></table>			Max. Pressure	Max. Flow	▶ 122035 - Closed Center		4500 PSI	5.2 GPM	▶ 122030 - Tandem Center		4500 PSI	5.2 GPM	▶ 122040 - A & B > T		4500 PSI	5.2 GPM
		Max. Pressure	Max. Flow														
▶ 122035 - Closed Center		4500 PSI	5.2 GPM														
▶ 122030 - Tandem Center		4500 PSI	5.2 GPM														
▶ 122040 - A & B > T		4500 PSI	5.2 GPM														
	MANUAL DIRECTIONAL VALVE D03 <table><thead><tr><th></th><th></th><th>Max. Pressure</th><th>Max. Flow</th></tr></thead><tbody><tr><td>▶ 122015 - Closed Center</td><td></td><td>4500 PSI</td><td>15.8 GPM</td></tr><tr><td>▶ 122000 - Tandem Center</td><td></td><td>4500 PSI</td><td>15.8 GPM</td></tr><tr><td>▶ 122020 - A & B > T</td><td></td><td>4500 PSI</td><td>15.8 GPM</td></tr></tbody></table>			Max. Pressure	Max. Flow	▶ 122015 - Closed Center		4500 PSI	15.8 GPM	▶ 122000 - Tandem Center		4500 PSI	15.8 GPM	▶ 122020 - A & B > T		4500 PSI	15.8 GPM
		Max. Pressure	Max. Flow														
▶ 122015 - Closed Center		4500 PSI	15.8 GPM														
▶ 122000 - Tandem Center		4500 PSI	15.8 GPM														
▶ 122020 - A & B > T		4500 PSI	15.8 GPM														
	ALUMINUM TOOLBOX TRAY ▶ 810400 - Aluminum Toolbox Tray - Left Side. ▶ 810500 - Aluminum Toolbox Tray - Right Side.																
	MASTER SWITCH ▶ 640010																
	AUTO-RESET FUSE ▶ 618110 - Automatic Reset Fuse, 12v & 30AMP																

COMPONENTS



MANIFOLDS

- ▶ 200025 - 1 x D02 (parallel).
- ▶ 200000 - 4 x D02 (parallel).
- ▶ 200020 - 1 x D03 (parallel).
- ▶ 200030 - 2 x D03 (parallel).
- ▶ 200040 - 3 x D03 (parallel).
- ▶ 200010 - 4 x D03 (parallel).
- ▶ 200019 - 1 x D05 (serie).
- ▶ 200110 - 2 x D05 (serie).
- ▶ 200111 - 2 x D05 with Relief (serie).
- ▶ 200112 - 2 x D05 AC High Flow with Relief (serie).
- ▶ 303100 - 5/16-18 x 1/2" Support Bracket Bolts (4 per Block).



RETURN FILTER HOUSING 3/4" NPT WITH 10 MICRON SPIN ON FILTER

- ▶ 150020 - Adaptor 3/4" NPT.
- ▶ 150021 - Spin On Filter.



PRESSURE GAUGE, GLYCERIN FILLED AND STAINLESS HOUSING 1/4" NPT

- ▶ 900100 - 0-3000 PSI.
- ▶ 900110 - 0-5000 PSI.

**Other models available upon request.*

FEATURES AND STORAGE

APEX HYDRAULIC POWER UNIT

Apex Hydraulic is a Chinese based manufacturer of custom and standard hydraulic solutions. We manufacture hydraulic cylinders, hydraulic power units and pumps as well as engineer and integrate more than 100,000 units.

Serving the mobile equipment industry for decades, our products are designed and supported from our head office located in QingDao, ShanDong, China to exceed North American standards.

We are also a certified OEM production supplier to many large North American based corporations. Our services include custom components or system design, on-site visits, continuous support, flexible delivery and stocking programs, inventory updates, many warranty options, and responsive service.

We strive to provide you the best experience and deliver high-quality merchandise faster than expected.

APEX HYDRAULIC POWER UNIT FEATURES

- ▶ Single or double acting configuration and more.
- ▶ 2 ranges of motors standard & long duty.
- ▶ 12, 24 volt DC.
- ▶ 115/230 volt AC - single phase.
- ▶ 230/460/575 volt AC - three phase.
- ▶ Multiple relief valves.
- ▶ Pump flow 0.8 cc to 8.0 cc.
- ▶ Shrink tube covered wires.
- ▶ Wireless remote - long range.
- ▶ 20' cable manual remote.
- ▶ Manual control, 2 or 4 buttons.
- ▶ Minimal rebound solenoid.
- ▶ Lower amperage draw.
- ▶ Isolated ground.
- ▶ Low noise.
- ▶ Tested at up to 3000PSI.



POWER UNIT STORAGE

- ▶ Steel power unit reservoir should be filled to prevent corrosion since ambient temperature change can result in moisture forming on the inside of the tank causing spot rusting and pitting of the tank surface.
- ▶ All power unit electrical connections (terminations) must be coated with corrosion inhibitors.
- ▶ Power Supply should be disconnected from the power unit.
- ▶ Single acting power unit should have the manual override valve open.

HYDRAULIC PRODUCT SAFETY

POWER UNITS



CYLINDERS



ACCESSORIES



WARNING

Hydraulic system parts and connections can contain high pressures which, if suddenly and unexpectedly released, can cause serious injury or death.



WARNING (AVISO) (AVERTISSEMENT)

TO PREVENT SERIOUS INJURY OR DEATH FROM MOVING PARTS:
 * KEEP HANDS, FEET AND CLOTHING AWAY FROM MOVING PARTS.
 * CLOSE ALL GUARDS AND SHIELDS BEFORE OPERATING MACHINERY.
 PARA EVITAR LA LESION O LA MUERTE:
 * MANTENGA SE A DISTANCIA LAS MANOS, LOS PIES Y LA ROPA DE LAS PARTES MOVIENTES DE LA MAQUINA.
 * CIERRE TODAS LAS PROTECTORAS QUE HAY ANTES QUE HEGAN FUNCIONAR.
 AFIN D'ÉVITER TOUTE BLESSURE GRAVE OU LA MORT:
 * NE PAS RAPPROCHER LES MAINS, LES PIEDS OU LES VÊTEMENTS DES PIÈCES MOBILES.
 * S'ASSURE QUE TOUTES LES PIÈCES DE PROTECTION SONT EN PLACE AVANT DE METTRE EN MARCHÉ LA MACHINERIE.



WARNING

HIGH PRESSURE OIL can cause severe injury.
 Disconnect power and drain accumulator before servicing hydraulic system.

- ▶ Always wear eye protection and protective clothing when working on and around hydraulic systems.
- ▶ Never exhaust hydraulic fluid under pressure to atmosphere.
- ▶ Hydraulic fluid can reach high temperatures under normal operating conditions and can burn exposed skin.
- ▶ Fluid pressure can penetrate skin and cause death or serious injury, wear proper protective clothing when working on hydraulics.
- ▶ Hydraulic devices should be properly “Locked-Out” or “Tagged-Out” before being worked on, including the release of any stored energy or pressure. Ensure a mechanical locking device is in place to prevent injury or death.
- ▶ APEX Hydraulic is not responsible for misuse or misapplication of product.
- ▶ Do not use any heat-producing equipment such as oxyacetylene/gas torches and angle grinders on sealed hydraulic cylinders.
- ▶ Remove hydraulic oil from the cylinder before heating the cylinder.
- ▶ Never operate a cylinder(or power unit) above recommended pressures.
- ▶ Always use properly rated hoses and fittings.
- ▶ Do not weld, add welded items, drill holes or otherwise modify the cylinder from its original design.
- ▶ The hydraulic power unit may heat up during operation. The solenoids in the hydraulic power unit become so hot during operation that you may sustain burns. You should wear heat-proof gloves or protective clothing.

FLUID POWER FORMULAS

PRESSURE

$$P = F / A \quad F = P \times A$$

P = Pressure (PSI) F = Force (Lb.)
A = Area (sq. in.)

CYLINDER VOLUME

$$V = A \times S$$

V = Volume (cu. in.) A = Area (sq. in.)
S = Stroke (in.)

CYLINDER PISTON AREA

$$A_p = 0.7854 (D_p)^2$$

A_p = Piston Area D_p = Piston Diameter

CYLINDER ROD AREA

$$A_r = 0.7854 (D_r)^2$$

A_r = Rod Area D_r = Rod Diameter

CYLINDER EFFECTIVE AREA

$$A_e = A_p - A_r$$

A_e = Effective Area A_p = Piston Area
A_r = Rod Area

CYLINDER PISTON SPEED

$$V = Q \times 231 / A$$

V = Piston Speed (min.) Q = Flow (GPM)
A = Cylinder Area (sq. in.)

CYLINDER FLOW @ X SPEED

$$Q = (V \times A) / 231$$

Q = Flow (GPM) V = Rod Speed (In./Min.)
A = Cylinder Area (sq. in.)

HYDRAULIC HORSEPOWER

$$HP = P \times Q \times 0.000583$$

HP = Hydraulic HP Q = Flow (GPM)
P = Pressure (PSI)

MOTOR HP REQUIRED TO DRIVE A PUMP

$$(GPM \times PSI) / (1714 \times \text{Eff})$$

Efficiency is in most cases not higher than 85%
1714 x 0.85 = 1457

HYDRAULIC MOTOR HORSEPOWER

$$HP = (S \times T) / 63.025$$

HP = Hydraulic Motor Horsepower
S = Speed (RPM) T = Torque (Lb/in.)

HYDRAULIC TANK COOLING

$$HP = 0.001 \times A_w \times \Delta T$$

HP = Horsepower A_w = Wetted Area (sq.ft)
Δ T = Oil Temp -
Amb. Air Temp

HYDRAULIC MOTOR SPEED

$$RPM = (Q \times 231) / \text{Disp.}$$

RPM = (Motor Shaft Speed) Q = Flow (GPM)
Disp = Motor Disp (Cu / In / Rev)

HYDRAULIC MOTOR TORQUE

$$T = (p \times \text{Disp.}) / 2 \pi$$

T = Motor Torque (Lb-in) p = Pressure (PSI)
Disp = Motor Disp (Cu / In / Rev)

TORQUE

$$T = F \times d$$

T = Torque (Lb-in) F = Force (Lb)
d = Distance (in.)



APEX HYDRAULIC