## **POWER** Electric, Hydraulic, Pneumatic





New more powerful straight shaft axially mounted air motor



Tool-Free 6B Spline Connection for All New DynaPrep MDSF



Electric Power Drive works on Split Frame & EP 424 Machines

# IDEAL POWER DELIVERY SOLUTIONS FOR PIPE CUTTING AND BEVELING

E.H. Wachs offers a wide variety of power drive options including electric, hydraulic and pneumatic. For all of our quality machine tools a smooth, controllable power source is essential for precise weld prep, which is essential to a quality finished weld. Many Wachs machines can be operated with multiple drive types; others are designed for a single or specialized drive type. Whichever machine you purchase or rent, O.D. or I.D. mounted, E.H. Wachs has the optimum power solution for your application.



## **POWER - HPU Hydraulic Power Units**

MODEL	HCM-1G	HCM-2G	HCM-3G	HCM-3E2	HCM-3E4	HCM-3E3	HCM-D23	HSM-5D	HTM-5D	HPU-15
ENGINE	9 H.P. GAS	11 H.P. GAS	18 H.P. GAS	15 H.P. Electric		23 H.P. DIESEL	30 H.P. DIESEL	30 H.P. DIESEL	15 H.P. Electric	
GPM/LPM	8 GPM (30.3 LPM)	10 GPM (37.9 LPM)	14 GPM (52.9 LPM)	8 GPM (30.3 LPM) 15 GPM (56.8 LPM)		PM)	14 GPM (52.9 LPM)		15 GPM (56.8 LPM)	
FRAME TYPE	CART MOUNT				SKID	TRAILER	CASTERS			
OIL COOLER	AIR TO OIL	NONE	AIR TO OIL	AIR TO OIL WITH FAN				AIR TO OIL		
FUEL CAPACITY	1.6 GAL (6.1 LTR) 4.0 GAL (15.4 N/A				5.0 GAL (18.9 LTR) N/A			N/A		
HYD. OIL (USABLE)	5.0 GAL (18.9 LTR) 4.0 GAL (15.4 LTR)				5.0 GAL (18.9 LTR)					
HYD. RELIEF PRESSURE	1500 PSI (103 BAR)				1800 PSI (124 BAR) 1500 PSI (103 BAR)			2000 PSI (138 BAR)		
FILTRATION		10 MICRON RETURN LINE CANISTER TYPE								
LENGTH	26.5" (67.3cm) 38" (96.5cm)		27.5" (69.85cm)		39" (99cm)	CONSULT FACTORY		41" (104cm)		
WIDTH	20" (50.8cm) 29" (73.7cm)		24.5" (62.23cm)		29" (73.7cm)	CONSULT FACTORY		21" (53.3cm)		
HEIGHT	27.5" (69.8cm) 32" (81.3cm		32" (81.3cm)	3	1.5" (80.01cm)		36.5" (93cm)	CONSULT	FACTORY	28" (71.1cm)
WEIGHT (DRY)	143 lb (64	4.9 kg)	318 lb (144.2 kg)	20	00 lb (90.72 kg)		520 lb (236 kg)	CONSULT	FACTORY	430 lb (195 kg)



### **CART MOUNT - DIESEL**

MODEL HCM-D23 (14-000-33)

23 H.P diesel engine driven hydraulic cart mounted power unit, with electric start, hour meter, fuel gauge, spark arrestor, low oil level shut down and oil cooler.

Rated for 15 GPM @ 1800 PSI (56.8 LPM @ 124 BAR)

### **CART MOUNT - GASOLINE**

MODEL HCM-1G (14-000-02)

9 H.P. Honda gasoline engine driven hydraulic cart mounted power unit, with electric start, hour meter, spark arrestor, low oil level shut down and oil cooler.

Rated for 8 GPM @ 1500 PSI (30.3 LPM @ 103 BAR)

#### MODEL HCM-2G (14-000-08)

11 H.P. Honda gasoline engine driven hydraulic cart mounted power unit, with electric start, hour meter, spark arrestor, low oil level shut down and oil cooler.

Rated for 10 GPM @ 1500 PSI (37.9 LPM @ 103 BAR)

#### MODEL HCM-3G (14-000-25)

18 H.P. gasoline engine driven hydraulic cart mounted power unit, with electric start, hour meter, fuel gauge, spark arrestor, low oil level shut down and oil cooler. Rated for 14 GPM @ 1500 PSI (52.9 LPM @ 103 BAR)



## **POWER** - HPU Hydraulic Power Units

### **CART MOUNT - ELECTRIC**

### MODEL HCM-3E2-60 (14-000-21)

15 H.P. 220-240V 60Hz (IP44 rated) 3 phase electric motor driven hydraulic cart mounted power unit, with electric motor switch and oil cooler.

Rated for 15 GPM @ 1500 PSI (56.8 LPM @ 103 BAR)

#### MODEL HCM-3E4-60 (14-000-22)

15 H.P. 440-480V 60Hz (IP44 rated) 3 phase electric motor driven hydraulic cart mounted power unit, with electric motor switch and oil cooler.

Rated for 15 GPM @ 1500 PSI (56.8 LPM @ 103 BAR)

#### MODEL HCM-3E2-50 (14-000-27)

15 H.P. 205-220V 50Hz (IP44 rated) 3 phase electric motor driven hydraulic cart mounted power unit, with electric motor switch and oil cooler.

Rated for 15 GPM @ 1500 PSI (56.8 LPM @ 103 BAR)

#### MODEL HCM-3E4-50 (14-000-28)

15 H.P. 415-440V 50Hz (IP44 rated) 3 phase electric motor driven hydraulic cart mounted power unit, with electric motor switch and oil cooler.

Rated for 15 GPM @ 1500 PSI (56.8 LPM @ 103 BAR)

#### MODEL HCM-3E3-50 (14-000-29)

15 H.P. 380V 50Hz (IP44 rated) 3 phase electric motor driven hydraulic cart mounted power unit, with electric motor switch and oil cooler.

Rated for 15 GPM @ 1500 PSI (56.8 LPM @ 103 BAR)

## SKID/TRAILER MOUNT - DIESEL

### MODEL HSM-5D (14-000-31)

30 H.P diesel engine driven skid mounted hydraulic power unit, with electric start, oil cooler and enclosed storage compartment.

Rated for 14 GPM @ 1500 PSI (52.9 LPM @ 103 BAR)

#### MODEL HTM-5D (14-000-32)

30 H.P diesel engine driven trailer mounted hydraulic power unit, with electric start, oil cooler and enclosed storage compartment.

Rated for 14 GPM @ 1500 PSI (52.9 LPM @ 103 BAR)

### **HEAVY DUTY - ELECTRIC**

### MODEL HPU-15 (14-000-20)

15 H.P. 440-480V 60Hz 3 phase electric motor driven heavy duty hydraulic power unit on separate, removable caster wheeled cart, with remote control pendant, flow control and oil cooler.

Rated for 15 GPM @ 2000 PSI (56.8 LPM @ 138 BAR)







## **POWER** - EPD Electric Power Drive



Power controller is compact and portable



EPM (Electric Power Motor) with quick clamping system and speed independent air cooling



Remote control with speed regulator and power LED

E.H. WACHS Electric Power Drive (EPD) is a self contained, compact electric drive system that's an alternative to traditional pneumatic and hydraulic drives for larger field portable machine tools. Lightweight and easily transportable the WACHS EPD is powerful enough for all but the most demanding applications. Developed in Germany to world class standards the EPD is ideal for the power generation, oil & gas and pipeline distribution industries. Highly efficient, it eliminates the energy loss inherent in converting electric power to pneumatic or hydraulic, requiring less hardware.

WACHS Electric Power Drive is a complete system that includes the electric drive motor, power supply/controller and remote control pendant. Weighing less than 16.5 kg (36 lbs), the electric power box (EPD) controller is housed in a small suitcase sized housing sealed to IP65 moisture and dust resistance standards. The high frequency electric power motor (EPM) is a lightweight (9 kg (19.8 lbs) yet powerful design also protected to IP65 that utilizes a quick, tool free mounting system.

SPECIFICATIONS				
System Function Electric Power Drive for E.H. WACHS LCSF Split Frame Models 206/3 and large EP 424 Form Tool and EP 424 Single Point models				
Hand Pendant Construction	Black aluminum housing with stop/start, e-stop, motor speed control and hold to run trigger, 16.4 foot (5M) cable.			
	EPM (Electric Power Motor)			

#### **ELECTRIC POWER MOTOR FEATURES:**

- Premium construction for durability
- · Maintenance free brushless design
- · Moisture and dust resistant to IP65
- · High torque output at low speed
- · High voltage and current spike protection
- · Rated for high continuous operating temperatures
- Over temperature protective thermal switch
- · Overload clutch on drive motor

#### **POWER CONTROLLER FEATURES:**

- · Small design size by high frequency technology
- Highly portable unit
- · Versatile tool-free quick connection for machine mounting
- Runs on 220V (Single Phase), 230V-380V (3-Phase) or 480V 3-Phase (4KW-8KW); optionally with 230V or 380 - 480V cable
- Moisture and dust resistant to IP65
- Error codes display
- · Service reminder for gear, oil, and seal changes
- · High torque at low speed
- Over temperature protection

#### **REMOTE CONTROL FEATURES:**

- Emergency Stop
- Speed control
- · Hold to run trigger
- Start and Stop control

#### **POWER CONTROLLER (POWERBOX):**

The EPD power controller drives the high frequency electric motor, and is available to cover the most popular voltages: a 220 V single phase, 230V - 380V 3 phase or 480V 3 phase.

## **POWER** - EPD Electric Power Drive

SPECIFICATIONS	ELECTRIC POWER DRIVE EPD				
	Powder coated AC high frequency inertia brushless motor with aluminum housing and gear box, high voltage, current spike and over temperature protected.  Output speed infinitely variable.				
Voltage	<ul> <li>220 V (1-phase)</li> <li>230 - 380 V (3-phase)</li> <li>480 V (3-phase)</li> </ul>				
Power	4 - 8 KW (4 kW at 230 V cables, 8 kW at 400 V cables) at 220 V approx. 40% lower speed				
Speed (RPM)	160/250 RPM				
EPM Part #	EPM8				
Frequency	50 - 60 Hz				
Amps	15 - 20 A				
Weight	9.0 kg / 19.8 lbs				
	EPB (Electric Power Box) Controller				
	16.4 foot (5 m) power cord and motor cables. Power cord ships without wall receptacle, user installation required.				
Voltage	<ul><li>230 V (1-phase)</li><li>400 V (3-phase)</li><li>480 V (3-phase)</li></ul>				
Power	8 - 12 KW				
EPM Part #	EPB 480				
Frequency	50 - 60 Hz				
Amps	15 - 20 A				
Weight	16.5 kg / 36.38 lbs				
Standard equipment	<ul> <li>1 Electric Power Motor EPM 8</li> <li>1 Electric Power Box EPB 480</li> <li>1 Remote Control</li> <li>1 Power supply cable (depending on version)</li> <li>1 Hard-shell carrying case</li> <li>1 Operating instructions</li> </ul>				

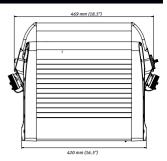
ITEM	VERSION	CODE	PART NUMBER
EPD for DynaPrep MDSF	400 - 480 V	969 435 700	60-1335-01
EPD for LCSF	400 - 480 V	900 007 001	60-452-01
EPD for LCSF	220 V Single Phase	900 007 002	60-452-02
EPD for EP 424 (Requires Adapter)	400 - 480 V	900 007 003	60-452-01
EPD for EP 424 (Requires Adapter)	220 V Single Phase	900 007 004	60-452-02
EP 424 adapter for pneumatic and hydraulic machines*		981 500 000	81-500-00

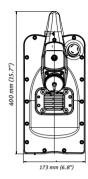
<sup>\*</sup> add EPD for EP424 separately.

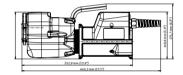
## **ELECTRIC DRIVE MOTORS**

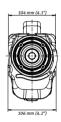
E.H. Wachs German manufactured Eibenstock electric drives represent the pinnacle of precision electric drive motors. They are used to power LCSF Low Clearance Split Frames 1824 and smaller, SDB 206 and 412 end preps plus FF 313 and 424 flange facers. Smooth, quiet and powerfully efficient they pack a large amount of power in a relatively compact package. Available with straight or right angle drive in 110V and 220V models.

PART NUMBER	DESCRIPTION
SPG-489-4110	HD Eibenstock Electric Drive Assembly-110V, LCSF
SPG-489-4220	HD Eibenstock Electric Drive Assembly-220V, LCSF
SPG-519-4110	Eibenstock HD Elect. Drive Assembly-110V, SDB 206/2-SDB412/2
SPG-519-4220	Eibenstock HD Elect. Drive Assembly-220V, SDB 206/2 - SDB 412/2











Provides electric power with right angle and straight drive

## **POWER** - Pneumatic



Air Control Module ACM for pneumatic motors



Ergonomic fingertip control with safety stop button



ACM controlling Low Clearance Split Frame

## ACM AIR CONTROL MODULE FOR LCSF, SDSF, EP 424 AND SDB/FF.

- · All air design, with no other power source required
- Compact and self contained, all controls and hoses fit in a strong, watertight case
- · Lockable, self contained case with wheels and telescoping handle for easy transport
- Lightweight, ergonomic remote for operator comfort
- 1.8 m (6 foot) remote umbilical provides the operator unencumbered movement and optimum positioning
- · Lockable shut-off for supply isolation
- Shut-off vents trapped system pressure
- Pressure regulator lockable at desired pressure, 116 psi (8 bar) maximum setting
- Dual unit pressure gauge for quick visual confirmation of supply pressure
- Emergency stop shuts off and dumps air motor supply
- Vented non-marring quick disconnect with easy push to connect and one handed disconnection
- Operator reset required following main pressure failure or emergency stop activation, preventing dangerous movement
- 6 m (20 foot) air line reaches air motor in any operating position for safety and durability

#### NEW ALL-IN-ONE AIR TREATMENT MODULE WITH REMOTE CONTROL.

The E.H. WACHS Air Control Module (ACM) provides remote operation capability for select models of WACHS pneumatic powered split frame and end prep machines. The ACM allows operators to cut and bevel pipe up to 7.9 m (26 feet) away. This feature can significantly reduce fatigue while moving the operator a safe distance from the workpiece, important in highly restricted or potentially hazardous environments. Housed in a strong, watertight wheeled case with a telescoping handle the ACM is extremely portable, simple to set up and easy to use at any job site.

#### **EASY OPERATION**

Everything needed to quickly set up and start operating remotely is contained inside the case. The ACM uses the large "Chicago" style air coupler for our LCSF and End Preps, and includes the required adapters to control the SDSF and other machines that use the smaller air connector. To enhance portability, the ACM operates solely on compressed air, requiring no external power. For fast removal and user safety the line quick disconnects have a self-venting feature that automatically vents line pressure on shut-off.

#### **ALL-IN-ONE**

The ACM is two products in one, an air treatment module that regulates and conditions the incoming air supply to protect valuable air motors, and a remote control device that allows the operator the freedom to move away from the machine. This all in one capability makes the WACHS ACM a cost effective investment that will pay big dividends in drive motor longevity, operator comfort and versatility.

#### **SAFETY FEATURES**

- Air supply isolation
- · Pressure relief system
- · Venting trapped pressure
- Emergency Stop
- · Hands free operation

## POWER - Pneumatic

#### **ACM AIR CONTROL MODULE - CONTINUED**

	SPECIFICATIONS
SYSTEM FUNCTION	Provides remote operation capability for select WACHS pneumatic split frame and end prep machines to cut and bevel pipe
SYSTEM CAPACITY	Operates pneumatically powered E.H. WACHS machine as indicated
AIR POWER REQUIREMENTS	ACM - 1.84 m³/min at 6.3 bar (65 cfm; 90 - 232 psi) compressed air supply
PACKAGING	Heavy duty storage case, transport with handle and wheels
DIMENSIONS	457 mm x 500 mm x 305 mm (18.0" X 19.7" X 12.0")
MATERIALS	Rugged ultra high-impact copolymer resin case and steel control panel
WEIGHT	15.4 kg (34 lbs)
STANDARD EQUIPMENT	Integrated control module  1.8 m (6') remote cord  6 m (20') air hose  Remote hand controller  Heavy Duty Transport/Storage Case  Operating Instructions

ITEM	CODE	PART NUMBER
Air Control Module ACM for pneumatic motors	960 420 000	60-420-00
LCSF Air Throttle	960 376 000	60-376-00
SDSF Air Throttle	980 376 000	80-376-00

### AIR TREATMENT MODULE ATM

Extend the life of your pneumatic drive motors with our Air Treatment Modules that condition and regulate the incoming air.

ITEM	CODE	PART NUMBER
Air Treatment Module ATM	926 407 000	26-407-00

## DYNAPREP AIR TREATMENT MODULE

Pneumatic power is the first choice of most field machinists, but untreated air can be rough on even the toughest air motors. Wachs ATM Air Treatment Modules condition and regulate the incoming air to extend motor life.

DESCRIPTION	CODE	PART#	
AIR TREATMENT MODULE	969 410 000	69-4100-00	
AIR TREATMENT MODULE REMOTE	969 410 100	69-4101-00	

## PNEUMATIC DRIVE MOTORS

Wachs offers a newly expanded range of pneumatic, hydraulic and electric drive motor options, up to a full10 hp (8 kW), offering the power and durability for form tooling, single pointing and other cutting uses.

	IMPERIAL	METRIC	CODE	PART#
2.5HP LCSF Pneumatic Reversible	2.5 hp	1.9 kW	960 401 001	60-4010-01
3HP Pneumatic Motor Right Angle with Handle	3 hp	2.2 kW	969 435 100	69-4351-00
3HP Pneumatic Motor Right Angle	3 hp	2.2 kW	969 435 300	69-4353-00
4HP Pneumatic Motor	4 hp	3.0 kW	969 435 500	69-4355-00
4HP Pneumatic Motor with Handle	4 hp	3.0 kW	969 435 600	69-4356-00
EPD Electric Power Drive	10 hp	8.0 kW	969 435 700	69-4357-00
Hydraulic Drive Motor	7.8 hp	5.8 kW	969 435 800	69-4358-00
Adapter Head Right Angle			969 435 900	69-4359-00



Air control module and remote control in a rugged light portable package



Air Treatment Module ATM



Pneumatic drive motors are available with straight & right angle drives

## **POWER** Applications

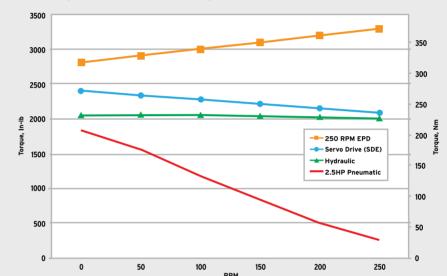


**NEW: Electric Power Drive** (EPD), see page 74

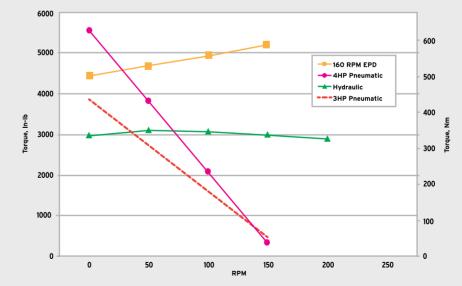
**CHOOSING THE BEST DRIVE OPTION** 

E.H. Wachs offers a wide variety of power drive options, including pneumatic, hydraulic and electric. Pneumatic is the most popular choice due to the wide availability of compressed air, and offers good power characteristics and controllability. Hydraulic power is the most uniform across a given power range, regardless of the rpm the machine tool is operated at. It is a clean, sealed power source ideal for use in hostile environments including airborne salt spray, sand and partial or full immersion in mud or water. Electric power is the best choice where airborne or fluid contamination is highly undesirable, such as in high purity and power generation applications.

### LCSF DRIVE MOTOR TORQUE COMPARISON **ELECTRIC, PNEUMATIC DRIVE, & HYDRAULIC DRIVE**



### DYNAPREP MDSF DRIVE MOTOR TORQUE COMPARISON **ELECTRIC, PNEUMATIC DRIVE, & HYDRAULIC DRIVE**



Although initially providing more torque below 50 RPM, as the speed of operation increases the torque is drastically reduced for the pneumatic drive.



Pneumatic drive motor



Hydraulic drive motor